

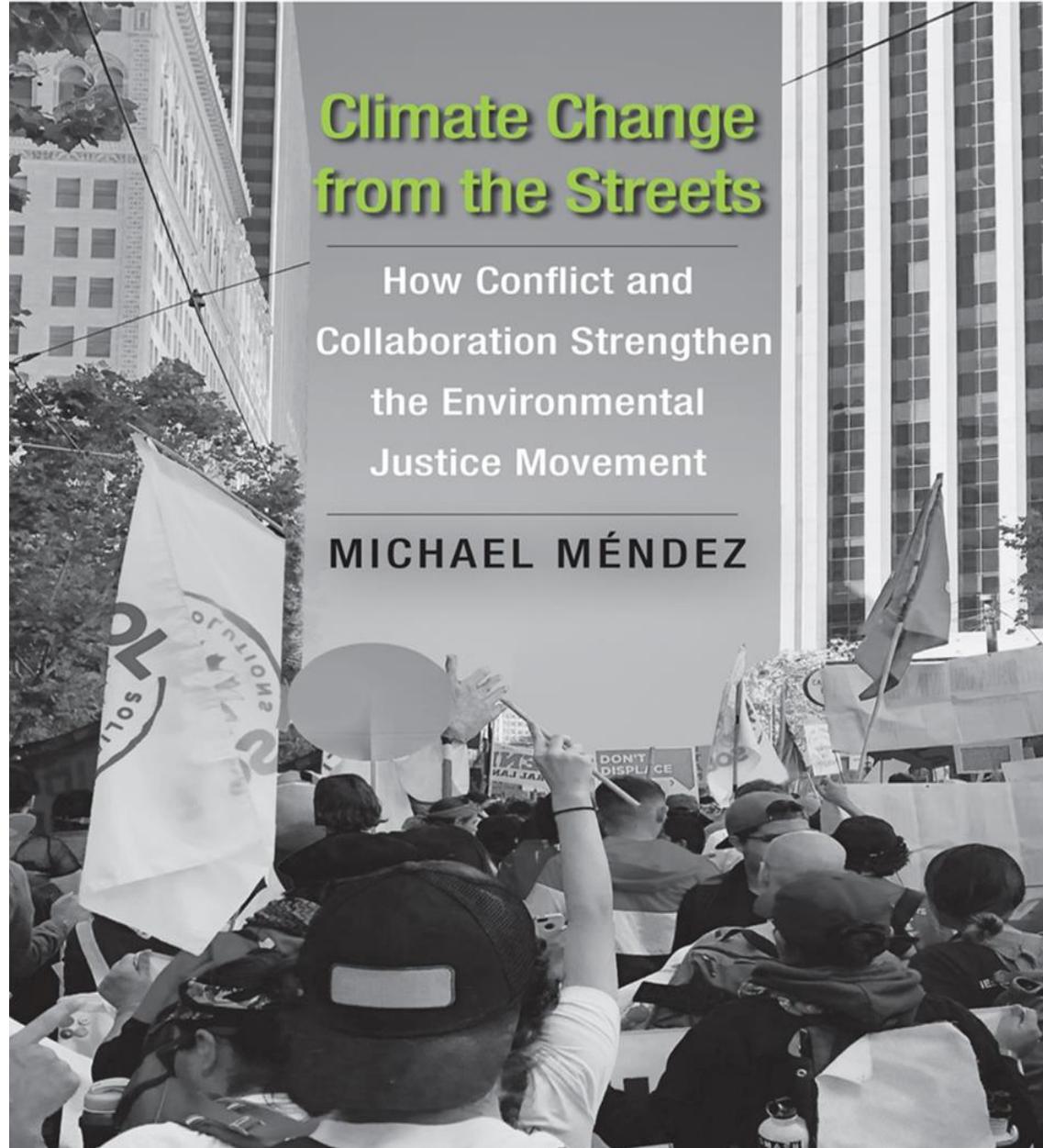
A Social Science Perspective of Disaster Impacts on Latino and Indigenous Migrant Communities

Dr. Michael Méndez

University of California, Irvine

Department of Urban Planning & Public Policy

Yale University Press
(2020)



"[This book] should be required reading for the most committed Green New Dealers and their opponents alike."

-- Liam Denning,
[Bloomberg Opinion](#)

NEDTalks



Image courtesy: Stephanie Rodriguez/CAUSE



ELSEVIER

Contents lists available at ScienceDirect

Geoforum

journal homepage: www.elsevier.com/locate/geoforum

The (in)visible victims of disaster: Understanding the vulnerability of undocumented Latino/a and indigenous immigrants



Michael Méndez^{a,*}, Genevieve Flores-Haro^b, Lucas Zucker^c

^a School of Social Ecology, Department of Urban Planning and Public Policy, University of California, Irvine, 300 Social Ecology I, Irvine, CA 92697-7075, United States

^b Mixteca/Indígena Community Organizing Project, 520 W. 5th St., Suite G Oxnard, CA 93030, United States

^c Central Coast Alliance United for a Sustainable Economy (CAUSE), 2021 Sperry Ave. #9, Ventura, CA 93003, United States

ARTICLE INFO

Keywords:

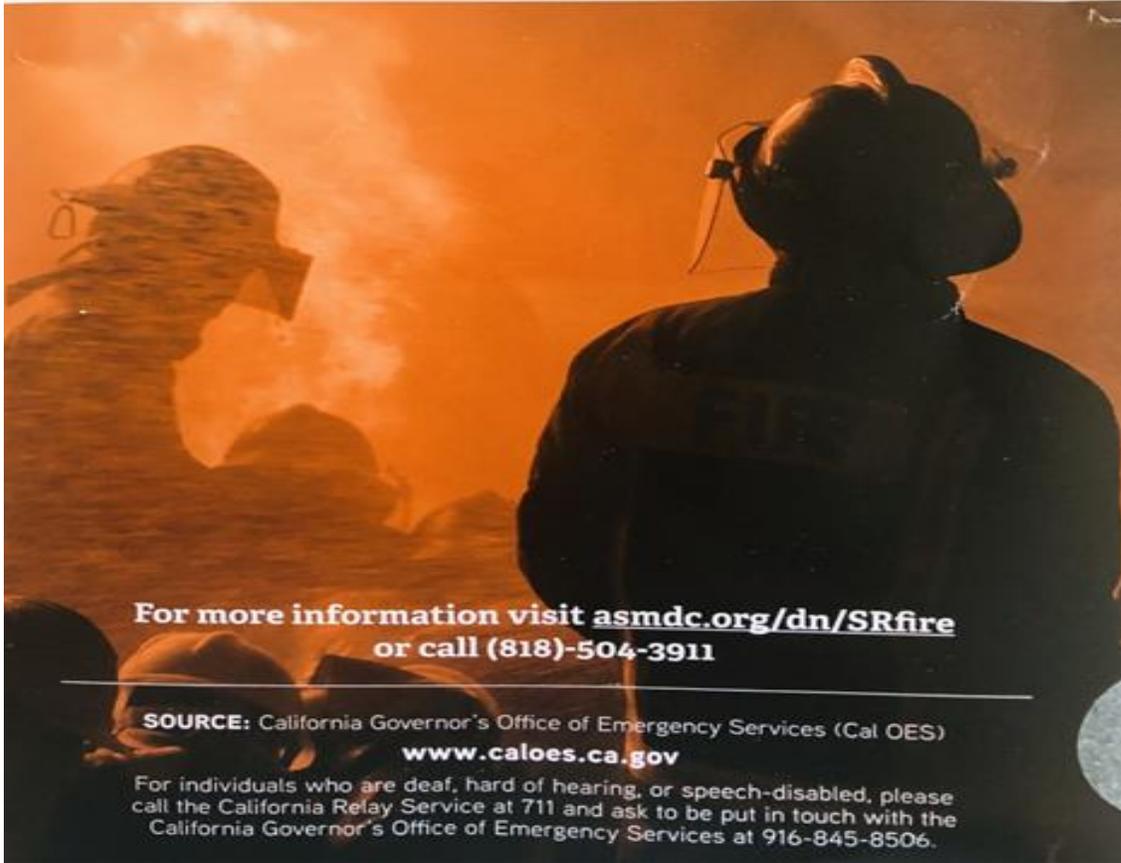
California wildfire
Undocumented immigrants
Climate change
Environmental justice
COVID-19 pandemic
Slow violence

ABSTRACT

As climate change advances, communities across the United States are adapting to the increased threat of wildfires, drought, heatwaves, and infectious diseases. Such disasters are expected to become more frequent and severe. Now more than ever, it is crucial to understand how these events amplify existing inequalities, and how to lessen the resulting harms. Differences in human vulnerability to disaster stem from a range of social, economic, historical, and political factors. We argue that given their social status, undocumented Latino/a and Indigenous immigrants are particularly vulnerable to disasters and require special consideration in disaster planning. They are disproportionately affected by racial discrimination, exploitation, economic hardships, less English and Spanish proficiency, and fear of deportation in their everyday lives— their pre-disaster marginalized status. In the case of the Thomas Fire in California's Ventura and Santa Barbara counties, we show that emergency response and recovery efforts ignored their needs. Resources were directed toward privileged individuals, leaving local immigrant rights and environmental justice groups to provide essential services such as language access to emergency information in Spanish and Indigenous tongues; labor protections for farmworkers endangered in the fields; and a private disaster relief fund for undocumented immigrants ineligible for federal aid. The article concludes with preliminary participant observations from the COVID-19 pandemic response in the region, indicating how lessons from the fire have informed official actions. As governments grapple with the increasing severity of disasters, understanding the differential impacts on undocumented immigrants can help improve disaster planning to protect the most vulnerable and stigmatized populations.

FIRE DISASTER RECOVERY RESOURCES

FOR VICTIMS OF THE SADDLERIDGE FIRE



For more information visit asmdc.org/dn/SRfire
or call (818)-504-3911

SOURCE: California Governor's Office of Emergency Services (Cal OES)
www.caloes.ca.gov

For individuals who are deaf, hard of hearing, or speech-disabled, please call the California Relay Service at 711 and ask to be put in touch with the California Governor's Office of Emergency Services at 916-845-8506.

FEMA: REGISTERING FOR DISASTER ASSISTANCE

Have the information below ready when you apply:

- Social Security number (one per household) ★
- Address of the damaged home or apartment
- Description of the damage
- Information about insurance coverage
- Telephone number
- Mailing address
- Bank account and routing numbers for direct deposit of funds ★

1-800-621-FEMA (3362) TTY: 1-800-462-7585

www.DisasterAssistance.gov

FEMA: REGISTRACIÓN PARA ASISTENCIA EN CASO DE UN DESASTRE

Información que debe tener a mano cuando esté listo para solicitar:

- Número de Seguro Social (uno por hogar)
- Dirección del apartamento o casa afectada
- Descripción del daño
- Información sobre el seguro de cobertura
- Número de teléfono
- Dirección de correo
- Número de cuenta bancaria y código de identificación bancaria (routing) para el depósito directo de los fondos

1-800-621-FEMA (3362) TTY: 1-800-462-7585

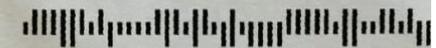
www.DisasterAssistance.gov



LUZ RIVAS

ASSEMBLYWOMAN, 39th DISTRICT

9300 Laurel Canyon Blvd. First Floor
Arleta, CA 91331



5 *****AUTO**5-

The Mendez Family

Sylmar CA 91342-1871

Kincade Fire: Farmworkers flee without gas or cash and are stranded at makeshift shelter

Cloverdale rallied with food and support for workers



As the Kincade fire raged on, a Cesar Chavez-inspired public affairs radio station kept farmworkers informed



Los Angeles Times

Subscribe

A powerful image of dedicated domestic workers in the Getty fire



Carmen Solano gets in the back of an Uber car after finding out the neighborhood where she works had been evacuated because of the Getty fire. (Los Angeles Times)



Ana Martinez walks through a neighborhood that was evacuated in the Getty fire on Monday. (Brittney Mejia)

Roadmap:

- Understanding Wildfire and Inequality
- Overview of Thomas Wildfire and Undocumented Immigrants
- Disaster Impacts
- Broader Policy Implications
- Recommendations
- Update: Summer 2020 California Wildfires

ADAPTING TO WILDFIRE

Wildfire costs and risks in the West are ever increasing with climate change: **How do we cope?**



Climate change has led to more wildfires in the U.S. West.



Pre-fire suppression

Today

Build-up of fuels makes fire severity higher in dry forests.



The wildland-urban interface (WUI) is more at risk.



Costs and risks of a new era of western wildfires continue to rise.

15 of 20 Largest Wildfires recorded in California (since 1932) have been in the last 20 years

Top 20 Largest California Wildfires

| | FIRE NAME (CAUSE) | DATE | COUNTY | ACRES | STRUCTURES | DEATHS |
|----|--|----------------|---|-----------------------------------|-------------------|---------------|
| 1 | MENDOCINO COMPLEX <i>(Under Investigation)</i> | July 2018 | Colusa County, Lake County, Mendocino County & Glenn County (July 2020) | 459,123 | 280 | 1 |
| 2 | THOMAS <i>(Under Investigation)</i> | December 2017 | Ventura & Santa Barbara | 281,893 | 1,063 | 2 |
| 3 | CEDAR <i>(Human Related)</i> | October 2003 | San Diego | 273,246 | 2,820 | 15 |
| 4 | RUSH <i>(Lightning)</i> | August 2012 | Lassen | 271,911 CA / 43,666 NV | 0 | 0 |
| 5 | RIM <i>(Human Related)</i> | August 2013 | Tuolumne | 257,314 | 112 | 0 |
| 6 | ZACA <i>(Human Related)</i> | July 2007 | Santa Barbara | 240,207 | 1 | 0 |
| 7 | CARR <i>(Human Related)</i> | July 2018 | Shasta County, Trinity County | 229,651 | 1,604 | 7 |
| 8 | MATILJA <i>(Undetermined)</i> | September 1932 | Ventura | 220,000 | 0 | 0 |
| 9 | WITCH <i>(Powerlines)</i> | October 2007 | San Diego | 197,990 | 1,650 | 2 |
| 10 | KLAMATH THEATER COMPLEX <i>(Lightning)</i> | June 2008 | Siskiyou | 192,038 | 0 | 2 |
| 11 | MARBLE CONE <i>(Lightning)</i> | July 1977 | Monterey | 177,866 | 0 | 0 |
| 12 | LAGUNA (POWERLINES) | September 1970 | San Diego | 175,425 | 382 | 5 |
| 13 | BASIN COMPLEX <i>(Lightning)</i> | June 2008 | Monterey | 162,818 | 58 | 0 |
| 14 | DAY FIRE <i>(Human Related)</i> | September 2006 | Ventura | 162,702 | 11 | 0 |
| 15 | STATION <i>(Human Related)</i> | August 2009 | Los Angeles | 160,557 | 209 | 2 |
| 16 | CAMP FIRE <i>(Under Investigation)</i> | November 2018 | Butte | 153,336 | 18,804 | 86 |
| 17 | ROUGH <i>(Lightning)</i> | July 2015 | Fresno | 151,623 | 4 | 0 |
| 18 | McNALLY <i>(Human Related)</i> | July 2002 | Tulare | 150,696 | 17 | 0 |
| 19 | STANISLAUS COMPLEX <i>(Lightning)</i> | August 1987 | Tuolumne | 145,980 | 28 | 1 |
| 20 | BIG BAR COMPLEX <i>(Lightning)</i> | August 1999 | Trinity | 140,948 | 0 | 0 |



*There is no doubt that there were fires with significant acreage burned in years prior to 1932, but those records are less reliable, and this list is meant to give an overview of the large fires in more recent times.



17 of 20 Largest Wildfires recorded in California (since 1932) have been in the last 20 years

Top 20 Largest California Wildfires

| | <i>FIRE NAME (CAUSE)</i> | <i>DATE</i> | <i>COUNTY</i> | <i>ACRES</i> | <i>STRUCTURES</i> | <i>DEATHS</i> |
|----|--|----------------|---|------------------------|-------------------|---------------|
| 1 | AUGUST COMPLEX (<i>Under Investigation</i>)* | August 2020 | Tehama | 836,871 | 86 | 1 |
| 2 | MENDOCINO COMPLEX (<i>Under Investigation</i>) | July 2018 | Colusa, Lake, Mendocino & Glenn | 459,123 | 280 | 1 |
| 3 | SCU LIGHTNING COMPLEX (<i>Under Investigation</i>)* | August 2020 | Stanislaus, Santa Clara, Alameda, Contra Costa, & San Joaquin | 396,624 | 222 | 0 |
| 4 | LNU LIGHTNING COMPLEX (<i>Under Investigation</i>)* | August 2020 | Sonoma, Lake, Napa, Yolo & Solano | 363,220 | 1,491 | 5 |
| 5 | NORTH COMPLEX (<i>Under Investigation</i>)* | August 2020 | Butte, Plumas & Yuba | 291,200 | 1,561 | 15 |
| 6 | THOMAS (<i>Powerlines</i>) | December 2017 | Ventura & Santa Barbara | 281,893 | 1,063 | 2 |
| 7 | CREEK FIRE (<i>Under Investigation</i>)* | September 2020 | Fresno & Madera | 278,368 | 846 | 0 |
| 8 | CEDAR (<i>Human Related</i>) | October 2003 | San Diego | 273,246 | 2,820 | 15 |
| 9 | RUSH (<i>Lightning</i>) | August 2012 | Lassen | 271,911 CA / 43,666 NV | 0 | 0 |
| 10 | RIM (<i>Human Related</i>) | August 2013 | Tuolumne | 257,314 | 112 | 0 |
| 11 | ZACA (<i>Human Related</i>) | July 2007 | Santa Barbara | 240,207 | 1 | 0 |
| 12 | CARR (<i>Human Related</i>) | July 2018 | Shasta County & Trinity | 229,651 | 1,614 | 8 |
| 13 | MATILIJA (<i>Undetermined</i>) | September 1932 | Ventura | 220,000 | 0 | 0 |
| 14 | WITCH (<i>Powerlines</i>) | October 2007 | San Diego | 197,990 | 1,650 | 2 |
| 15 | KLAMATH THEATER COMPLEX (<i>Lightning</i>) | June 2008 | Siskiyou | 192,038 | 0 | 2 |
| 16 | MARBLE CONE (<i>Lightning</i>) | July 1977 | Monterey | 177,866 | 0 | 0 |
| 17 | LAGUNA (<i>Powerlines</i>) | September 1970 | San Diego | 175,425 | 382 | 5 |
| 18 | BASIN COMPLEX (<i>Lightning</i>) | June 2008 | Monterey | 162,818 | 58 | 0 |
| 19 | DAY FIRE (<i>Human Related</i>) | September 2006 | Ventura | 162,702 | 11 | 0 |
| 20 | STATION (<i>Human Related</i>) | August 2009 | Los Angeles | 160,557 | 209 | 2 |

There is no doubt that there were fires with significant acreage burned in years prior to 1932, but those records are less reliable, and this list is meant to give an overview of the large fires in more recent times.
 This list does not include fire jurisdiction. These are the Top 20 regardless of whether they were state, federal, or local responsibility.
 *Numbers not final.



9/20/2020



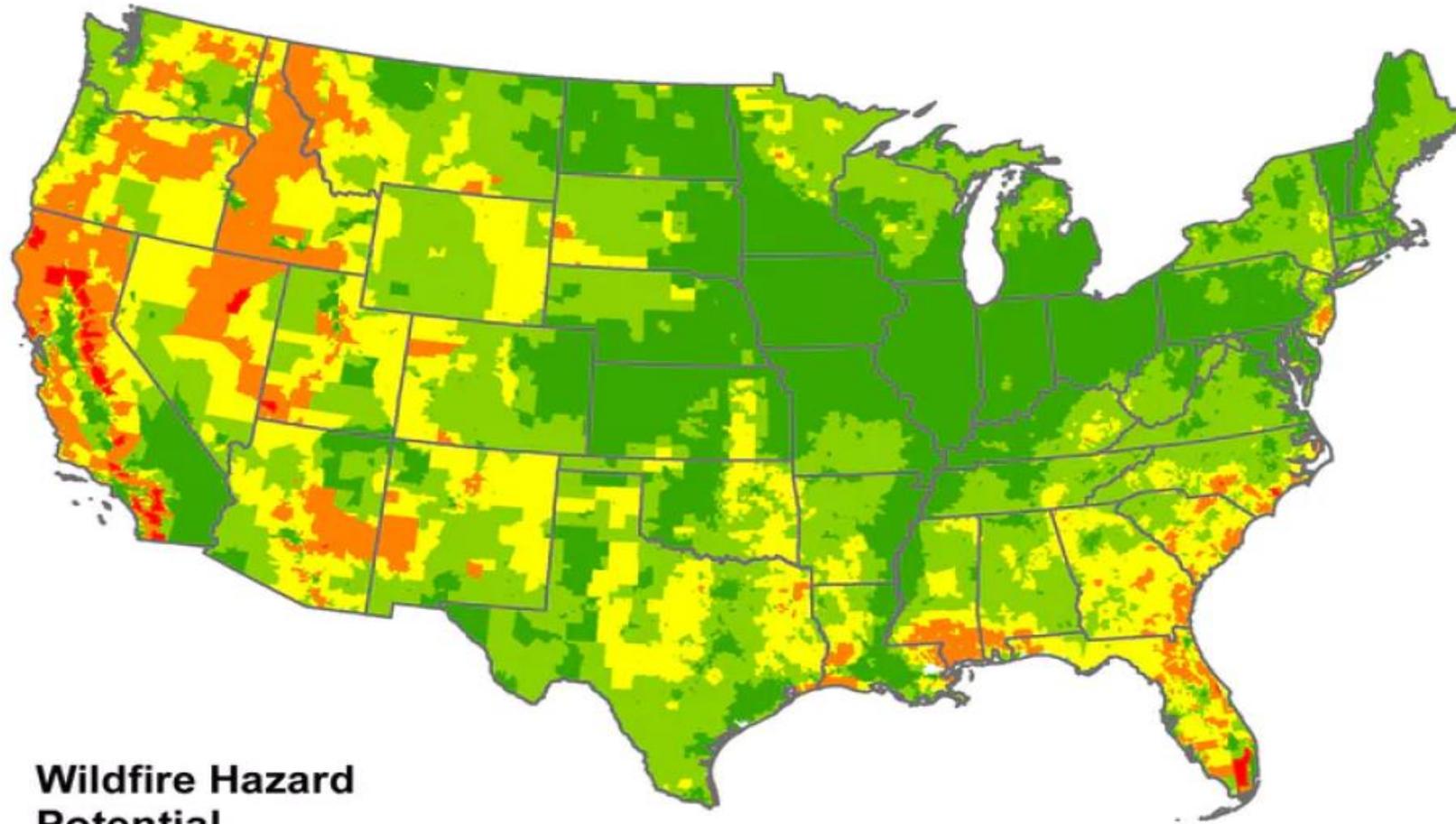
(Sept. 2020)

Human vulnerability to wildfire stem from a range of social, economic, historical and political factors:

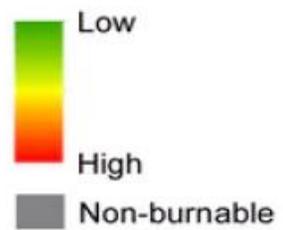
- **Unequal access to disaster preparedness knowledge and resources**
- **Contrasting legacies of forest management practices**
- **Expansion of residential development into the wildland.**



NEDTalks

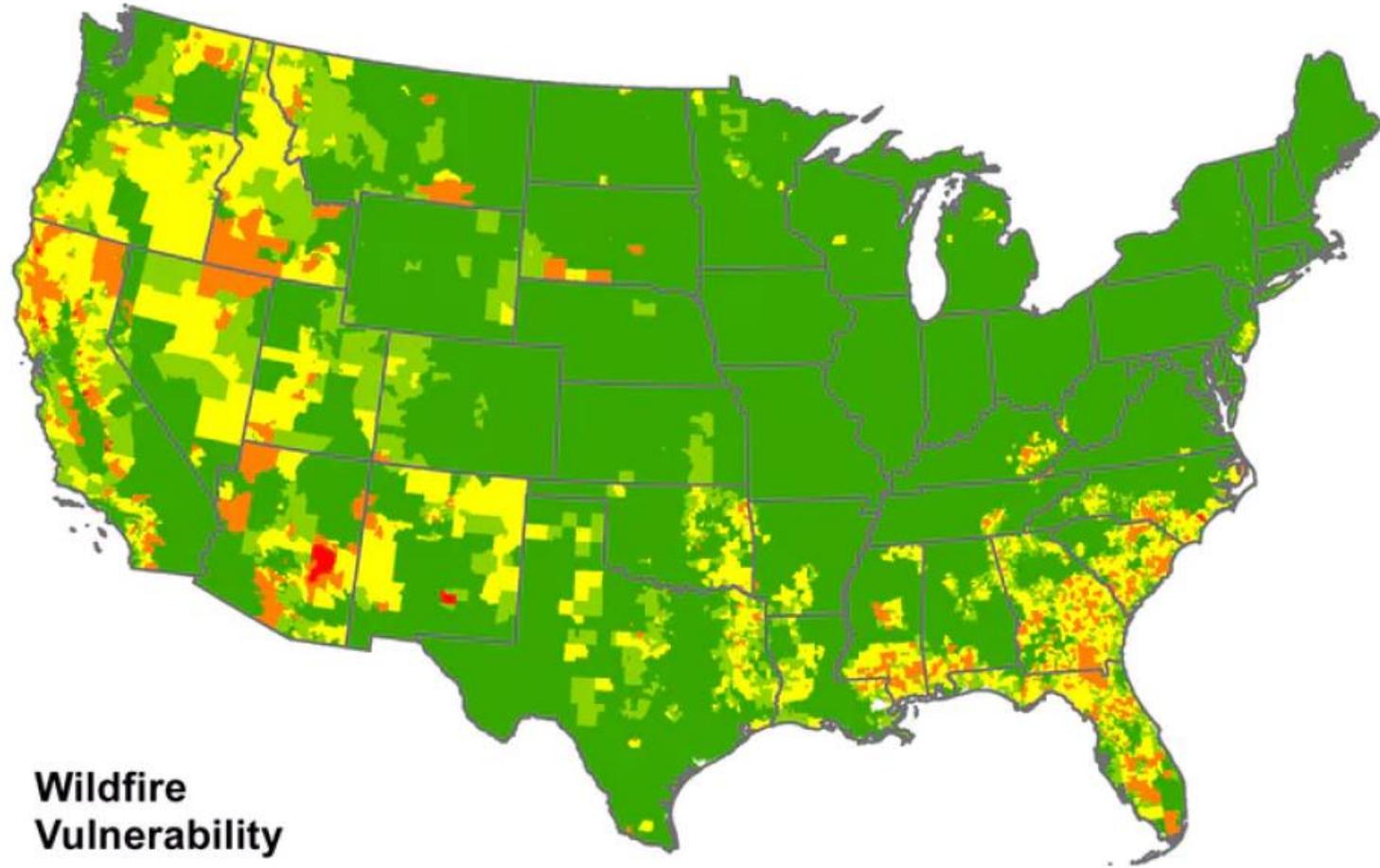


Wildfire Hazard Potential

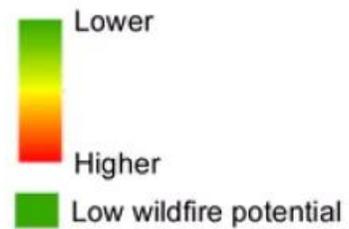


Map A

NEDTalks



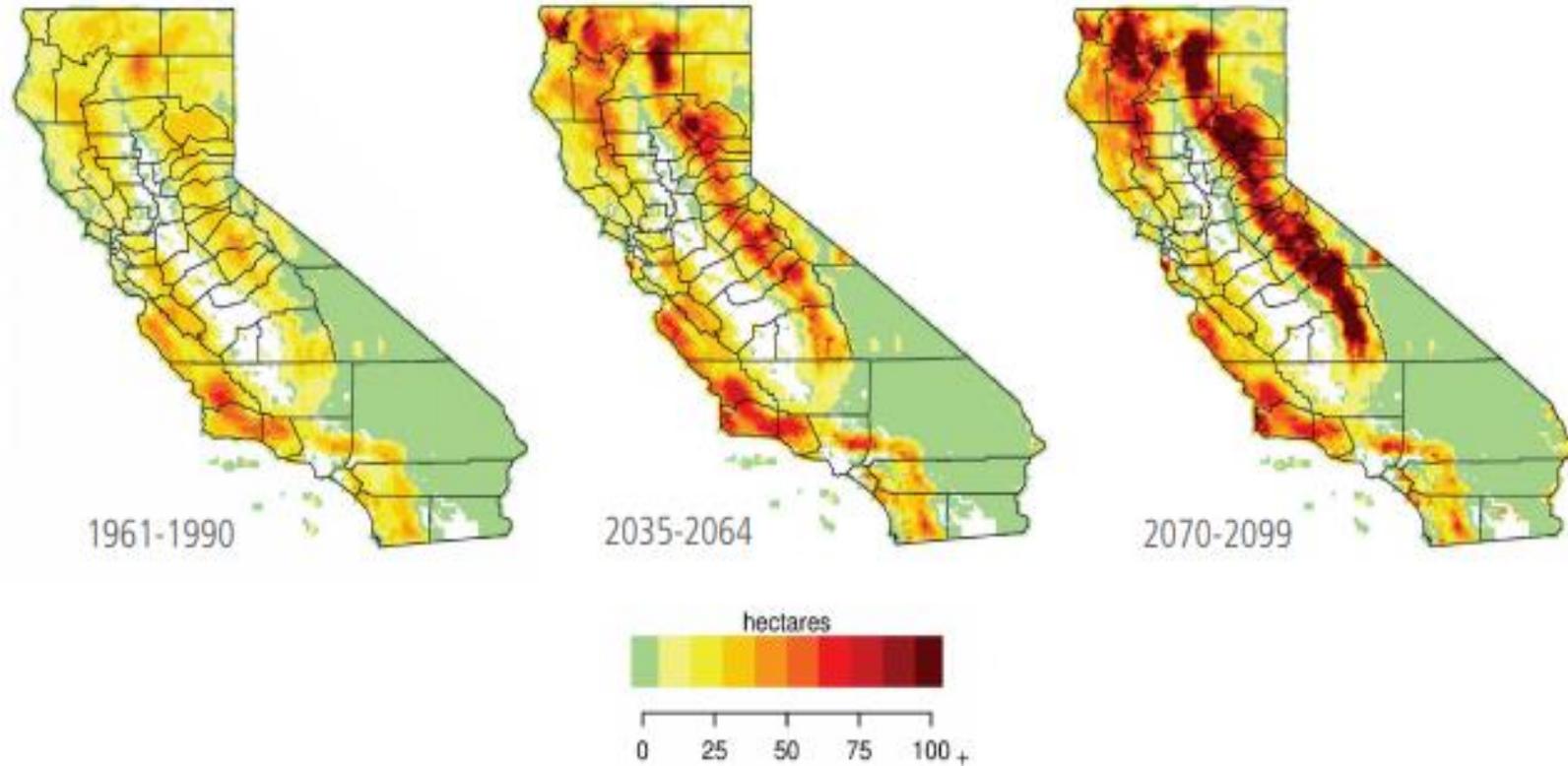
Wildfire Vulnerability



Credit: Davies 2018

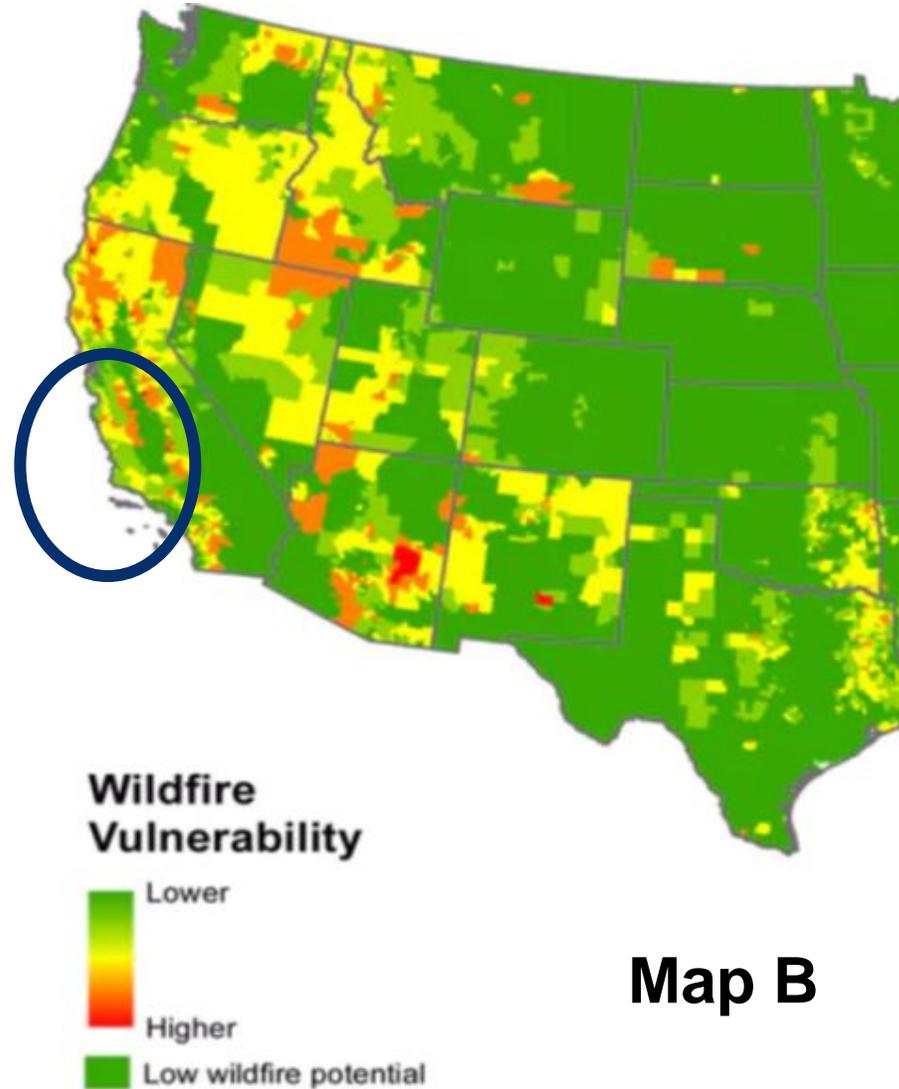
Map B

California's 4th Climate Change Assessment projects 77% increase in Wildfire acreage Burned by 2100



This image shows the modeled area burned by wildfires from current time (modeled as 1961-1990), for mid-century (2035-2064), and for late century (2070-2099). By the end of the century, California could experience wildfires that burn up to a maximum of 178% more acres per year than current averages.

Undocumented Immigrant Communities undercounted in U.S. Census



Credit: Davies 2018

Wildfires and Environmental Justice

- ✓ **Socioeconomic status and disproportionate share of environmental impacts**
- ✓ **Suffer related public health and quality of life burdens.**



Context of Thomas Wildfire (2017-2018)



The 2nd Largest Wildfire recorded in California History



Ventura and Santa Barbara Counties

- ✓ Heavily fire-prone and drought-impacted area
- ✓ Landscape between mountains and ocean creates vulnerabilities in housing, transportation, infrastructure
- ✓ Major agriculture and tourism industries with low-wage immigrant workforce
- ✓ High level of racial and economic inequality and lack of political and economic inclusion

| | Population | Latino | White | Non-English | Immigrant | Noncitizen |
|-----------------------------|------------|--------|-------|-------------|-----------|------------|
| Santa Barbara County | 442,996 | 45% | 45% | 40% | 23% | 15% |
| Ventura County | 847,834 | 42% | 46% | 39% | 23% | 12% |
| Oxnard | 206,732 | 74% | 14% | 68% | 36% | 22% |
| Ventura (city) | 110,153 | 35% | 56% | 27% | 15% | 8% |
| Santa Barbara (city) | 91,443 | 37% | 56% | 35% | 23% | 15% |

American Community Survey (2017)

NEDTalks



Indigenous Oaxacan People from Southern Mexico

Ventura County 25,000

Santa Barbara 29,000

Concentrated in labor-intensive sectors

Mixtecs:

- ✓ Culturally and linguistically isolated
- ✓ Many are illiterate
- ✓ Most speak neither Spanish nor English, but only their native language, *Mixteco* (oral).

Intersectionality and Extreme Wildfires

Our research adapts the work in the field of public health that examines issues of intersectionality.

That is — how social categories of identity and culture intersect to reveal new patterns of environmental risk and injustice.

For this wildfire case study we analyze the intersection of:

- **Race and Indigeneity**
- **Gender**
- **Immigration Status and class**



Social Vulnerability to Extreme Wildfires

- comprised of the risk of exposure (*the likelihood that people will be affected*);
- sensitivity (*the degree to which people will be affected*), and;
- **adaptive capacity** (*the ability of people to prepare for and/or recover from a wildfire based on available resources*).



What does Adaptive Capacity to Wildfire mean for Migrant Communities?

- Language Access
- Workers Health and Safety/Rights
- Immigration Status and Disaster Aid
- Housing/Transportation

Promoting Adaptive Capacity

Protecting vulnerable communities is costly and dangerous.



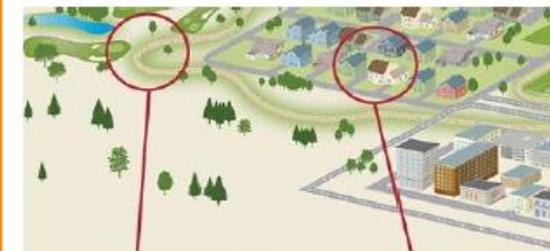
Following wildfires, communities often rebuild in ways that don't significantly reduce future vulnerability.

Some forested areas will not persist with changing wildfire and climate.



Infographic by PNAS/Schoennagel (2017)

New Approach: Promote fire-adapted planning and land-use.



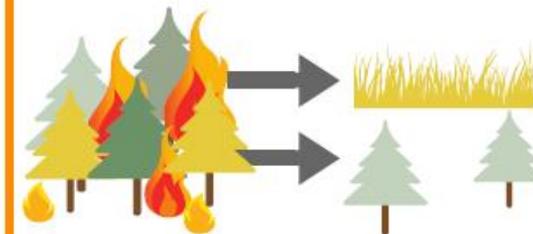
Land Use and Development Codes incentivize developers to plan open space and recreational trails, creating fuel breaks.

Subdivision Design Standards require risk reduction features, such as minimum road widths, secondary access, and adequate water supply.

Headwaters Economics

Penalize decisions that increase wildfire risk, reward decisions that reduce risk to communities.

New Approach: Foster post-fire transitions to ecosystems more adapted to new climate.



The Impacts



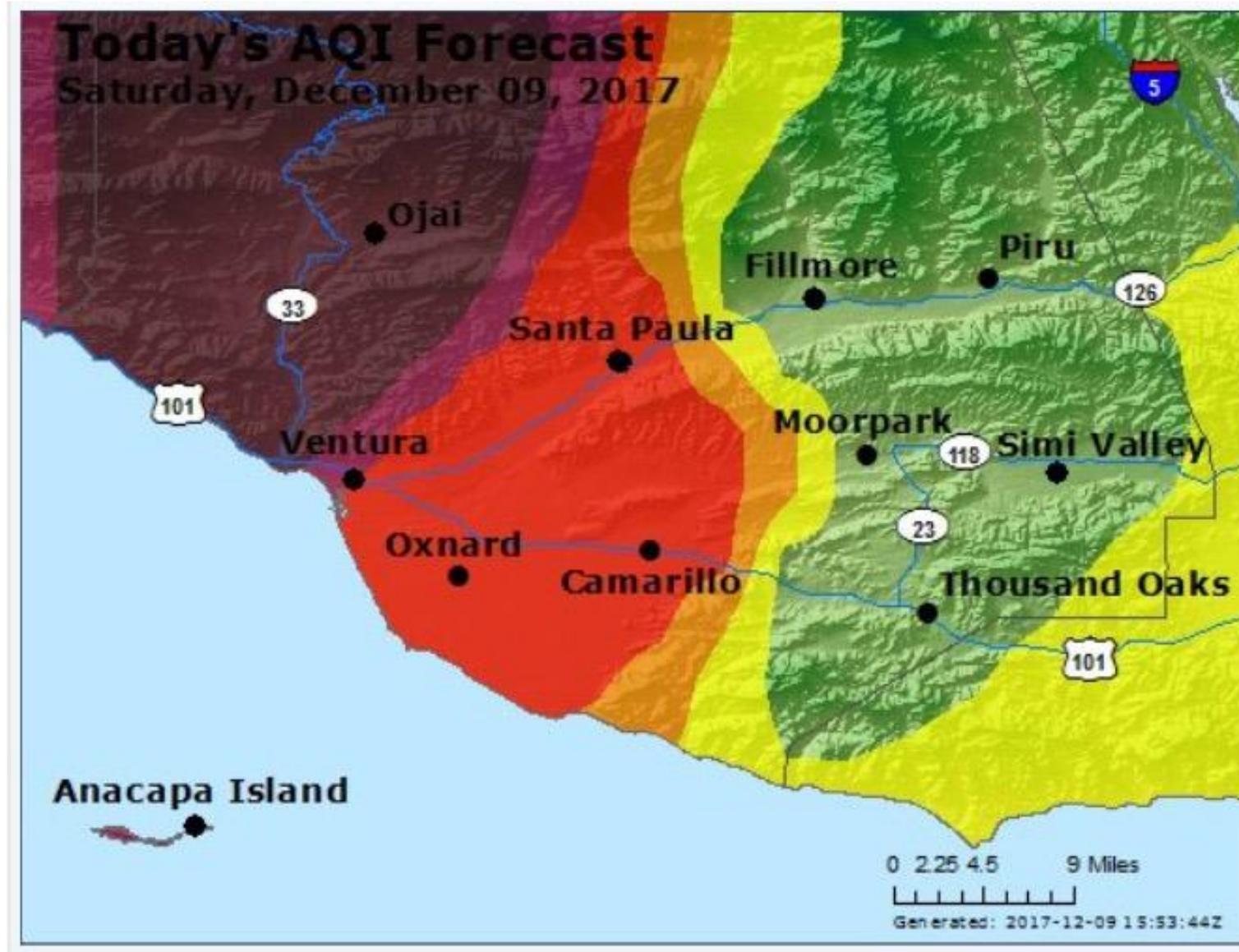
Language Access to Emergency Information



Language Access to Emergency Information



Air Quality during Wildfire



Safe Drinking Water Access



Community Steps Up: No Official Government Response



Worker Health and Safety Impacts: Farmworkers



“During the fire, I worked 3 days without a mask. It caused me headaches and watery eyes, as well as a cough. We were scared because we were very near where the fire was occurring. The masks were not handed out until the City came to regulate.”

-D.P., Farmworker, Oxnard

“We all got sick. Our throats closed in from breathing too much smoke and our kids couldn't go to school. We had to buy masks and medicine for our throats and some goggles because my eyes were irritated when I worked.”

-F.C.P., Farmworker Oxnard

Economic and Health Impacts on Workers



Worker Impacts: Domestic and Service Workers



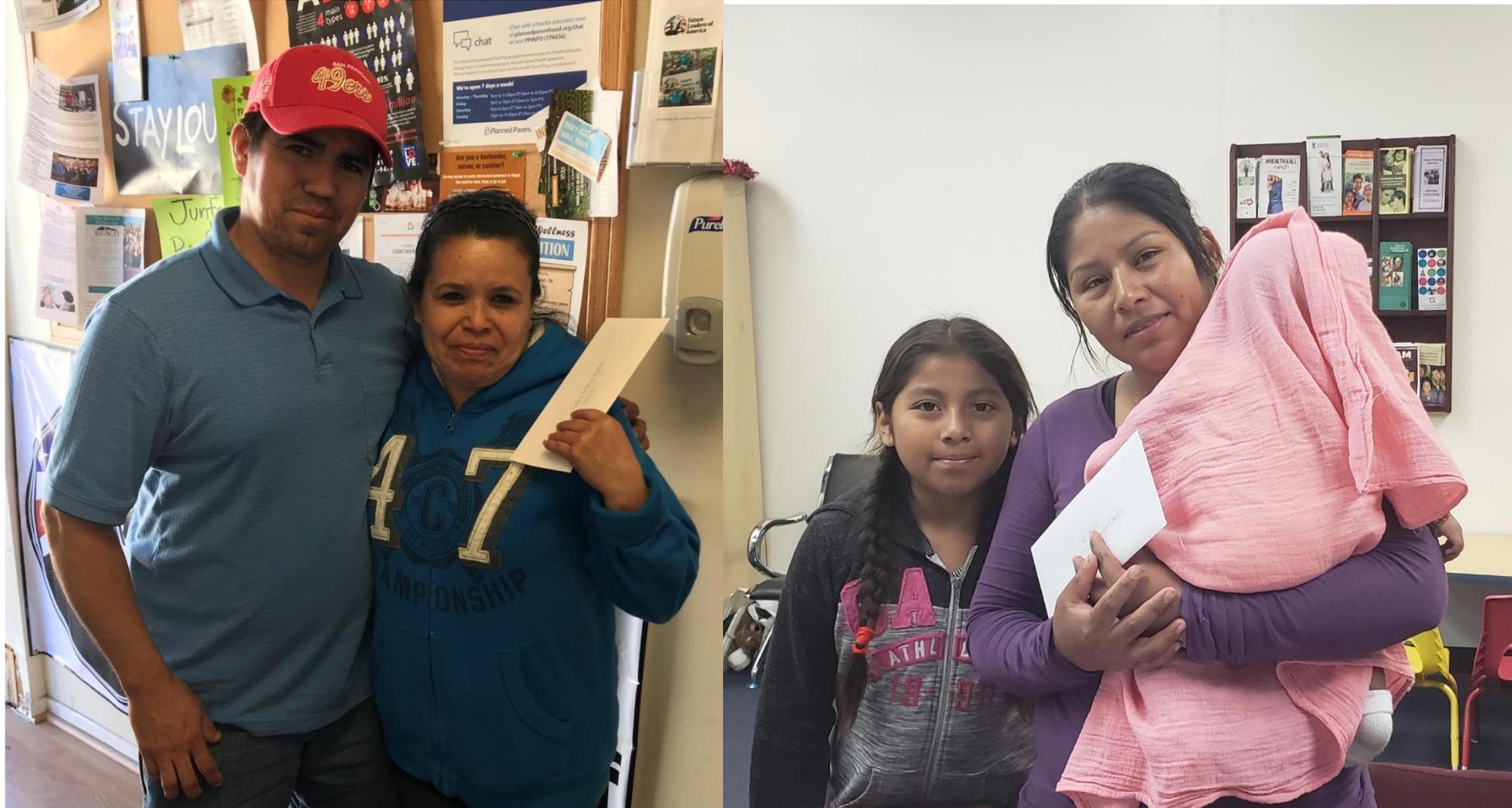
“I could not get to the homes where I worked because the streets were closed. Two of the homes I worked at were destroyed. One of my good friends was lost during the mud flow [following the fires heavy rains caused mudslides from the fire debris]. He had only been living in Montecito for 3 weeks before he died. I myself am a cancer survivor and am the only one who provides for the family.”

-SZ, Landscaper, Santa Barbara

“The day the fire started, the sky was covered with smoke and we were sent home. The next day we didn't work because it was dangerous due to the fire. We lost power because it was cut off by the fire and we lost food and milk for the kids. During the mudslides, we couldn't get to work and were told to stay home for 2 days.”

-R.M. Mixteca Farmworker, Oxnard

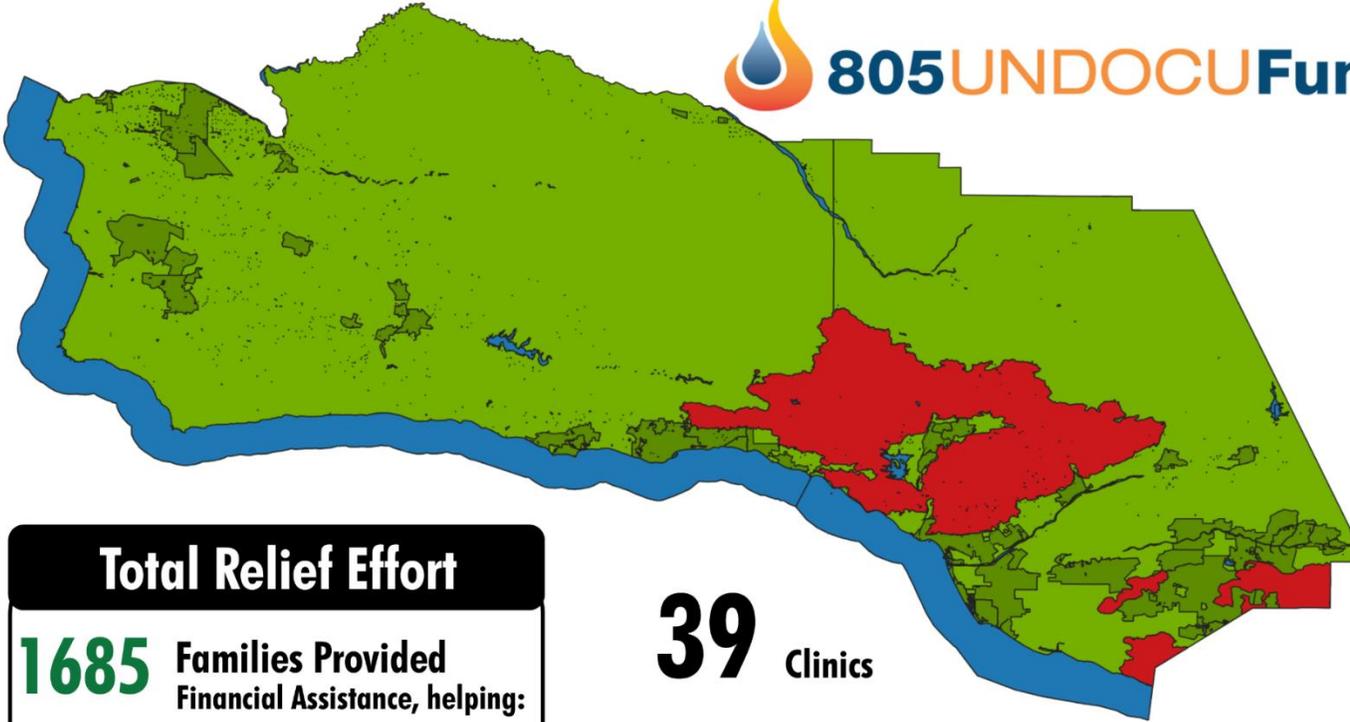
Immigration Status and Disaster Aid



“My husband was deported just before the fire. I was really struggling to find work in the fields. I finally got hired the first week in December 2017, but was let go once the fire and smoke grew too big and the fruit spoiled. As the only breadwinner, I had to borrow money from friends and family to feed my kids. Our food went bad due to the power outage, adding to our expenses. I am grateful for the UndocuFund assistance. I am still in need of help and continue coming to MICOP for other services.”

-Lorena, Domestic Worker, Santa Barbara

**Public Charge Rule*



Total Relief Effort

1685 Families Provided
Financial Assistance, helping:

3349 Undocumented People

7041 Total Mixed Status
Family Members

39 Clinics

425 Volunteers

671 Mixteco
Speakers
Assisted

**Total Amount
Distributed**

\$2,198,550

Loss of Regional Housing Stock



Loss of Transportation Infrastructure



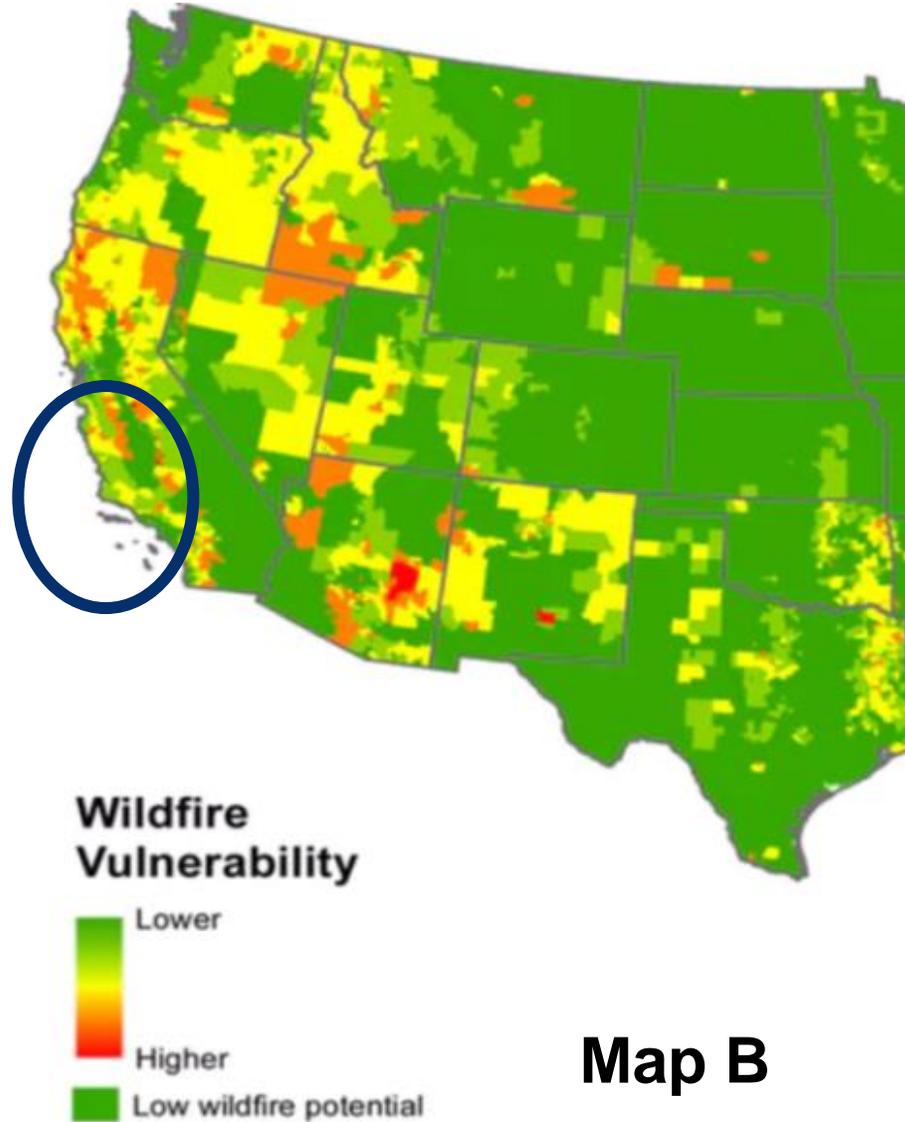
Policy Implication: Limits of Vulnerability Mapping



Policy Implication: Thinking Beyond Property Values



Undocumented Immigrant Communities undercounted in U.S. Census



Map B



Policy Implication: Existing Inequities Are Exacerbated During Disaster

No Social Safety Net



Broader Policy Implications



Photo Source: Anderson (2017)



DataFest

Ensure Inclusive Disaster Planning

- ✓ **Draw on Immigrant Community Knowledge**
- ✓ **Embrace Immigrant Communities in Disaster Planning, Response, and Recovery**
- ✓ **Bolster Latinx/Indigenous Civil Society Organization's capacity in Disaster Relief and Planning Efforts.**



NEDTalks

Equitable Disaster Laws and Policies (adopted):

- AB 1877(Limon): Language access for emergency information
- SB 160(Jackson): Cultural Competency in disaster planning and climate resilience planning

Recommendations

- State Disaster Relief Fund for all regardless of immigration status
- Emergency Funding for CBOs on the ground
- Develop new methods to map socially vulnerable communities
- Codify into law CalOSHA Regulation § 5141.1 “*Protection from Wildfire Smoke*” (July 2019) – and **Extend protections to Domestic Workers**

NEDTalks

Update: **Sonoma and Central Coast Wildfires** (August and September 2020)

Preliminary Findings:

- Uneven N95 Mask implementation throughout the state
- Improper monitoring of air quality index
- No statewide guidance for implementation of worker health and safety
- Access Verification Permits – allows farmworkers in mandatory evacuation zones
 - Farmers have no emergency plans
 - No health tests for workers
- Cal/OSHA has limited staff and only 26 Spanish speaking field investigators

NEDTalks



Source: Mendez (2018)