Social Vulnerability to Wildfires Among Hispanic and Latino Populations in the Texas Wildland-Urban Interface

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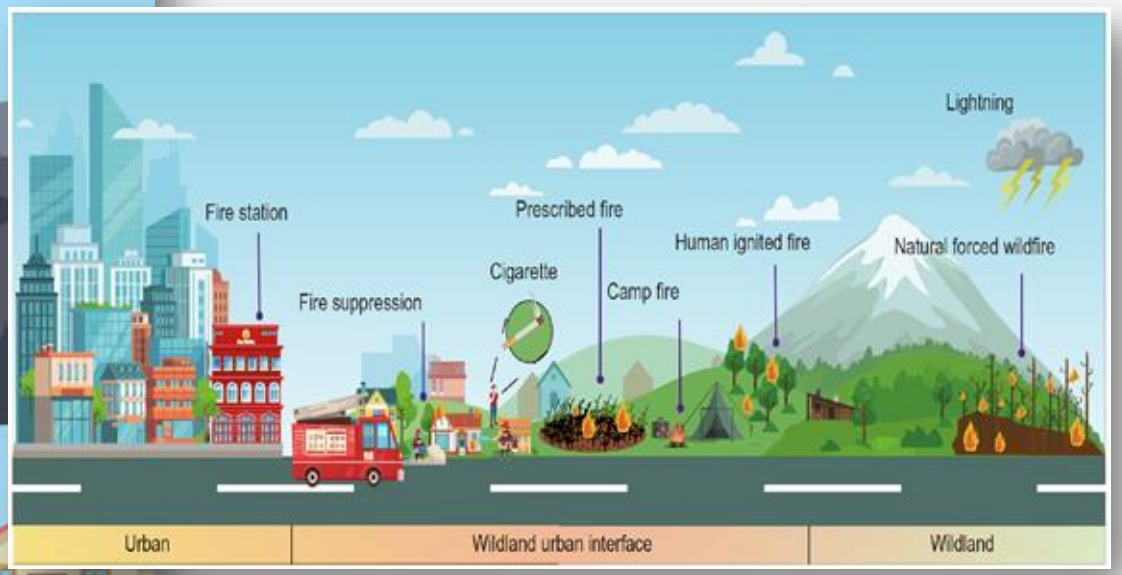
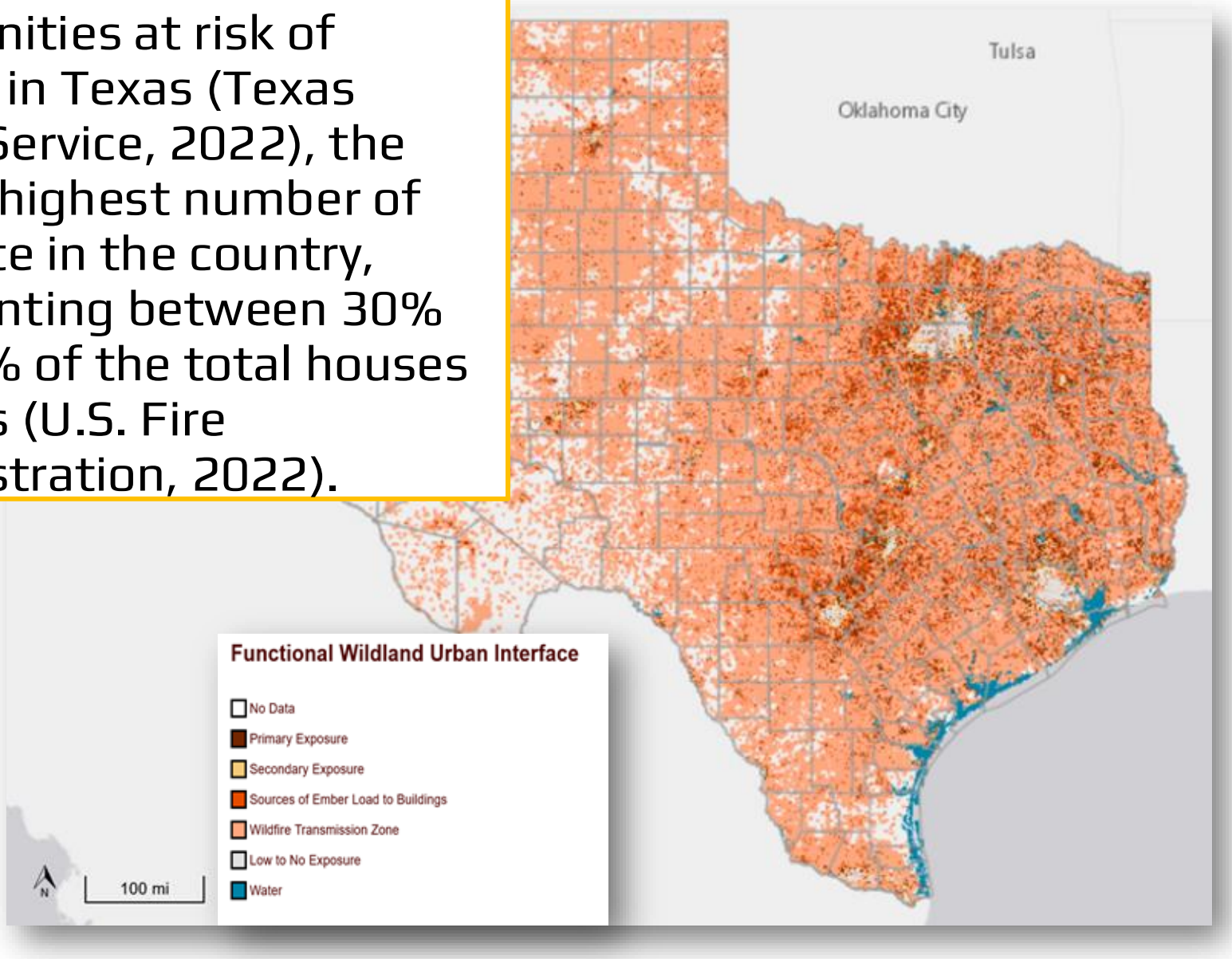
ENVIRONMENTAL STUDIES

Global expansion of wildland-urban interface intensifies human exposure to wildfire risk in the 21st century

Yongxuan Guo[1,2]†, Jianghao Wang[1,2]*†, Yong Ge[3,4], Chenghu Zhou[1,2]



There are over 14,500 communities at risk of wildfire in Texas (Texas Forest Service, 2022), the second highest number of any state in the country, representing between 30% and 45% of the total houses in Texas (U.S. Fire Administration, 2022).



Hispanics officially make up the biggest share of Texas' population, new census numbers show

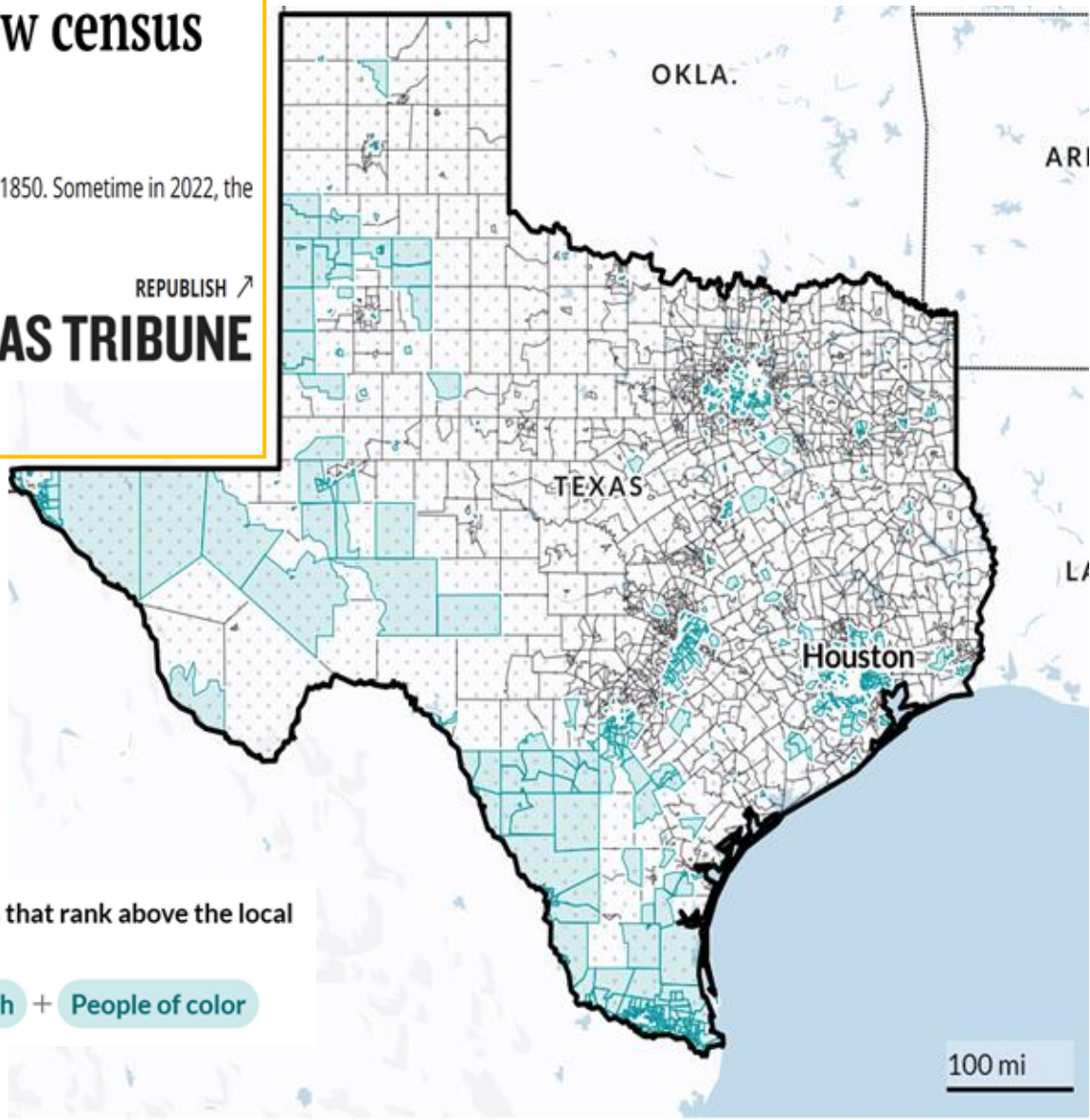
White people had been the state's largest population group since at least 1850. Sometime in 2022, the Hispanic population surpassed them, new data shows.

BY ALEXA URA

JUNE 21, 2023, 11:01 P.M. CENTRAL

REPUBLISH ↗

THE TEXAS TRIBUNE



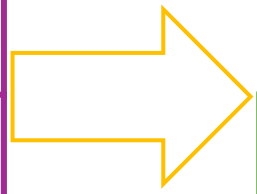
USDA WILDFIRE RISK TO COMMUNITIES

Selected place | County line | State line | Area with vulnerable populations | Census tract

Quick Response Research Award Program: Wildfire Vulnerability of Hispanic & Latino Communities in Texas: A Bilingual Survey Instrument

Award 1: Design a bilingual (Spanish-English) survey on linguistic-cultural, socioeconomic challenges of Hispanic and Latino communities living in WUIs.

Award 2: Deploy the survey at the end of the 2024 wildfire season.



Weather Ready Research into Operations: Culturally Responsive Communication to Wildland Urban Interface Communities in Texas

Objective 1: Design culturally relevant, bilingual (English/Spanish) communication and educational products promoting wildfire preparedness for Hispanic/Latino communities in Texas WUIs.

- How do linguistic-cultural, and socioeconomic factors of Hispanic/Latino communities in Texas influence their preparation and readiness capacity for wildfires in WUIs?
- Relatedly, how do these dimensions affect the social and wildfire vulnerability experienced by the targeted community in 2024?

Survey Summary:

Online-based
Distributed by Qualtrics
Texas zip codes associated to WUIs
Self-identified Hispanic-Latinx, adults residing in Texas

OVERALL TOTAL COMPLETES	202
INCIDENCE RATE (IR)	12%
MALE	89
FEMALE	113
AGE	
18-34	62
35-54	69
55+	71

Download the survey

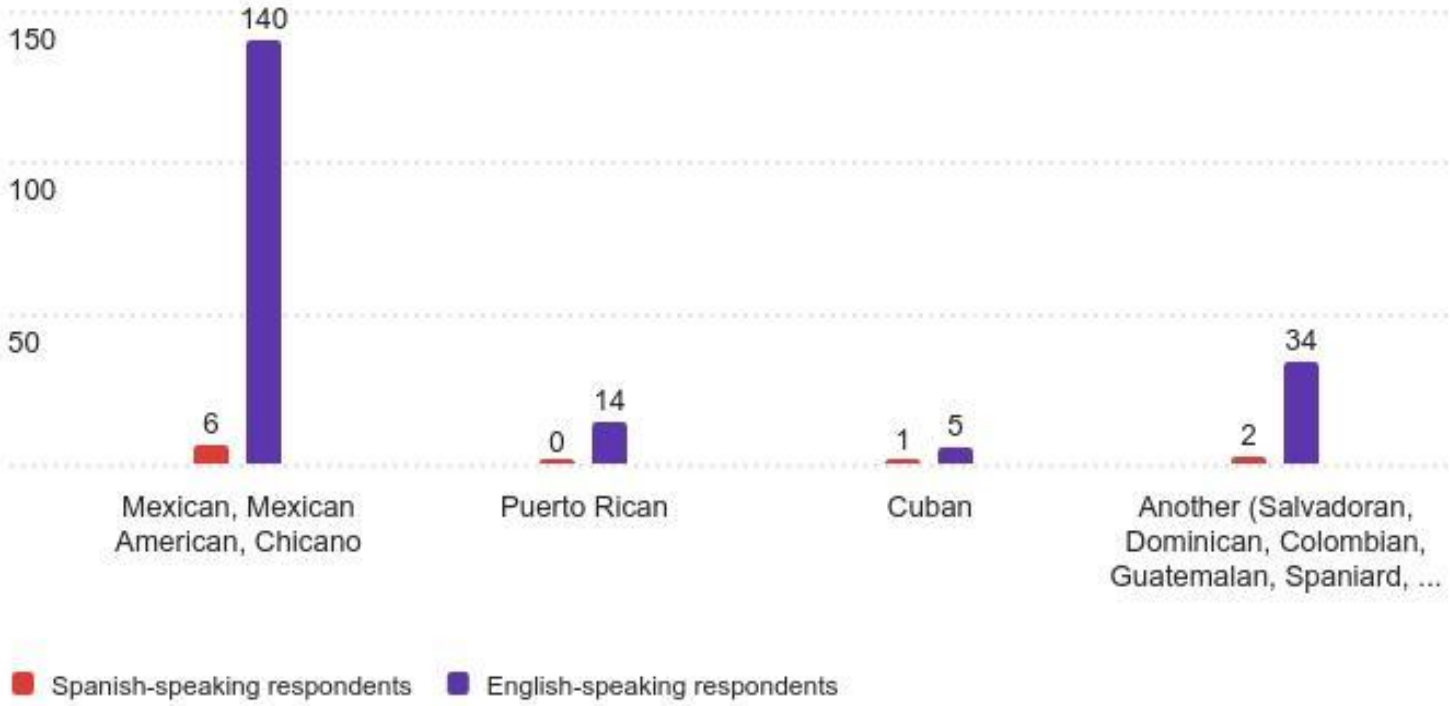
Would you like to answer this survey in English or Spanish? ¿Quisiera responder esta encuesta en español o en inglés?	Percentage	Count
English / inglés	96%	193
Spanish / español	4%	9

NSF NHERI DESIGNSAFE

What is your Hispanic, Latino, or Latinx origin?

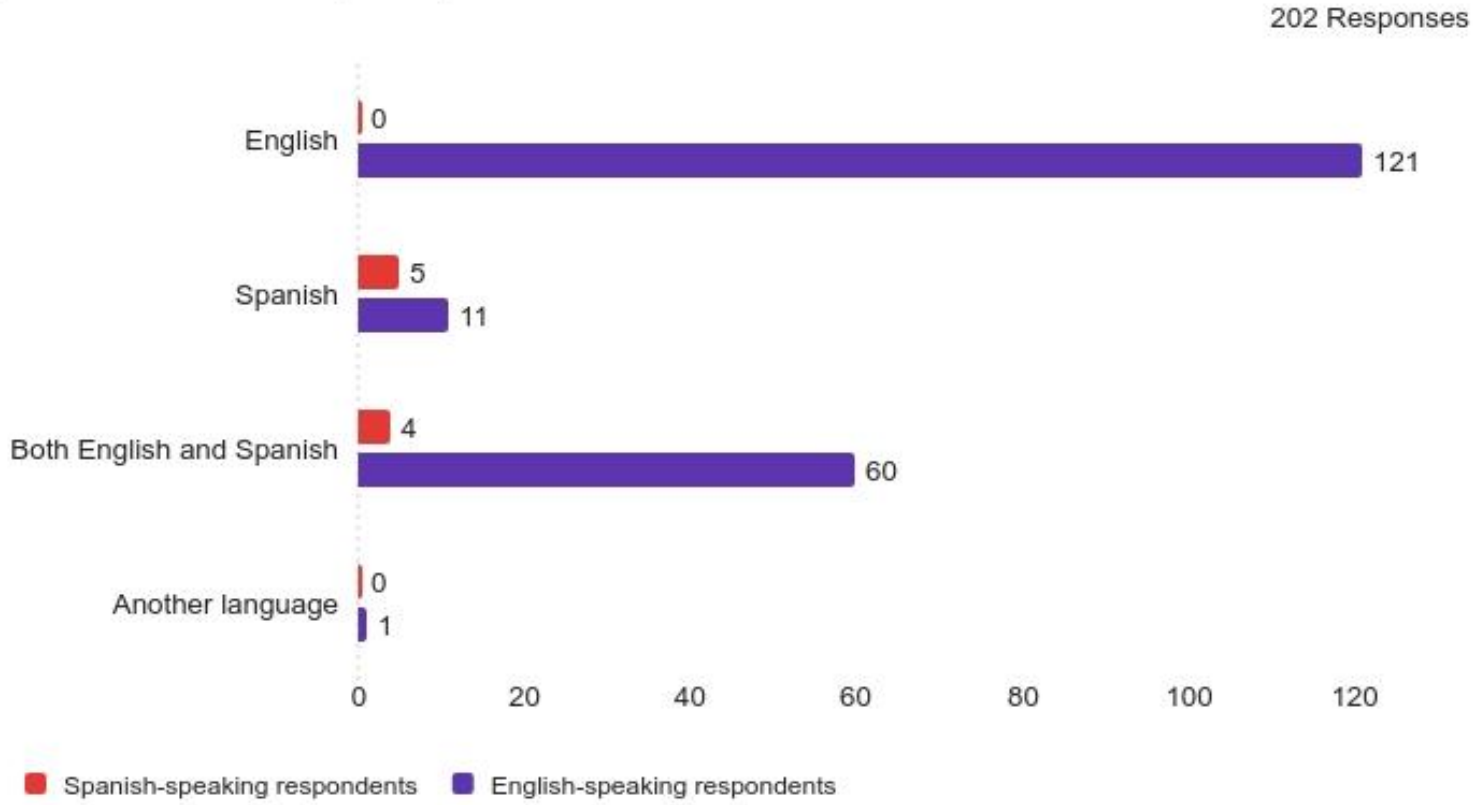
¿Cuál es su origen hispano, latino o latinx?

202 Responses



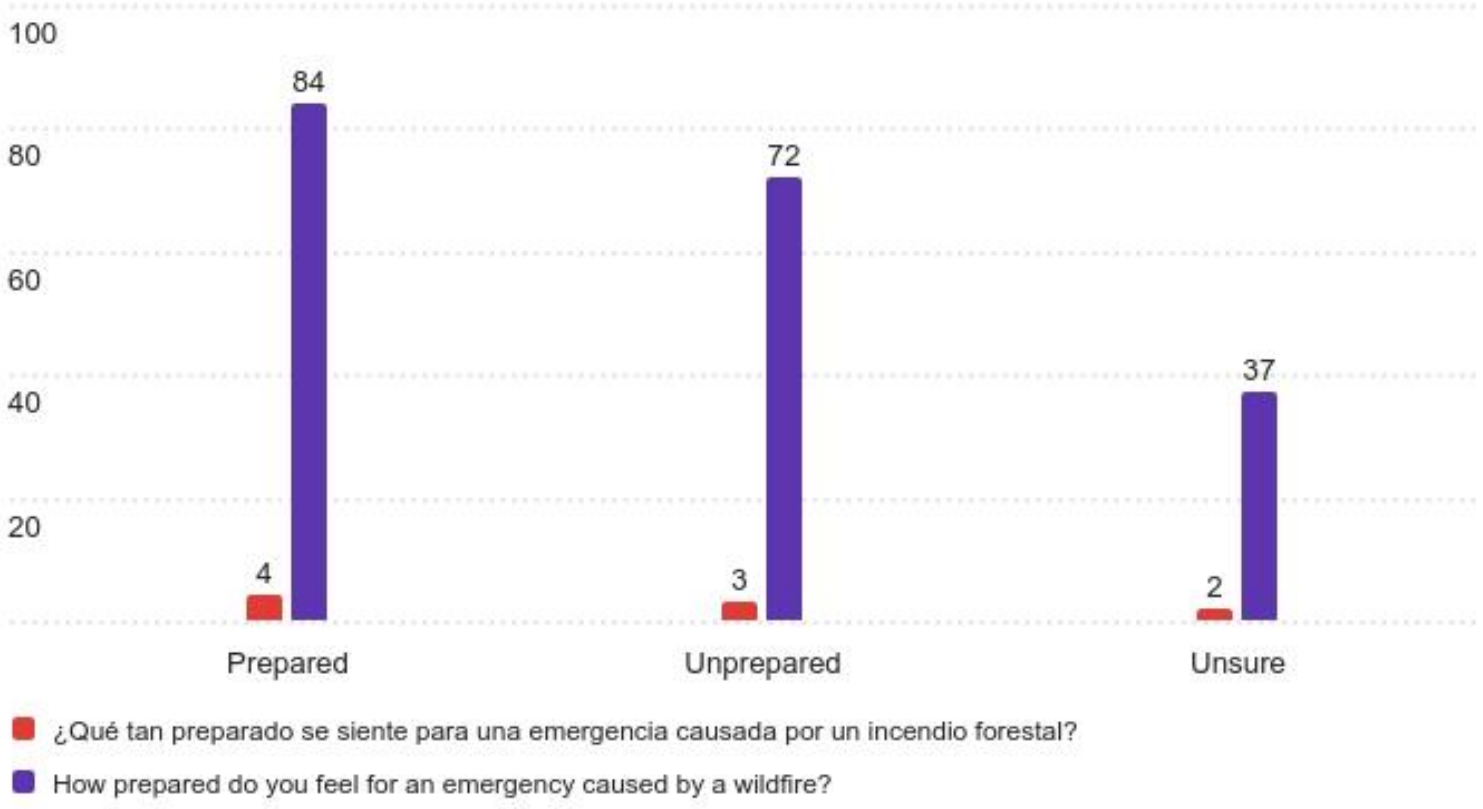
Which language do you primarily speak at home?

¿Qué idioma habla principalmente en casa?



How prepared do you feel for an emergency caused by a wildfire?

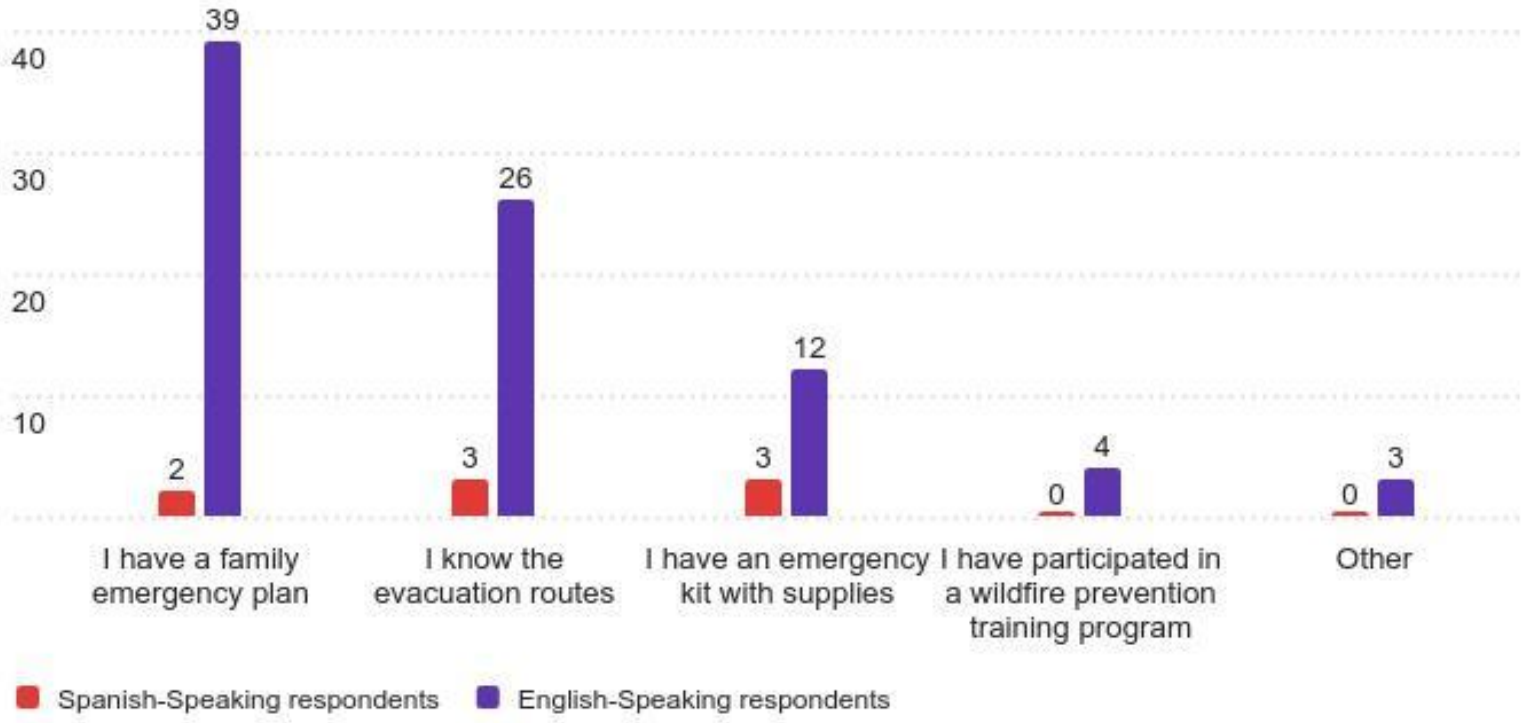
202 Responses



What measures have you taken to prepare for wildfire?

¿Qué medida(s) ha tomado para prepararse ante un incendio forestal?

88 Responses



Are you familiar with the local wildfire evacuation plan?

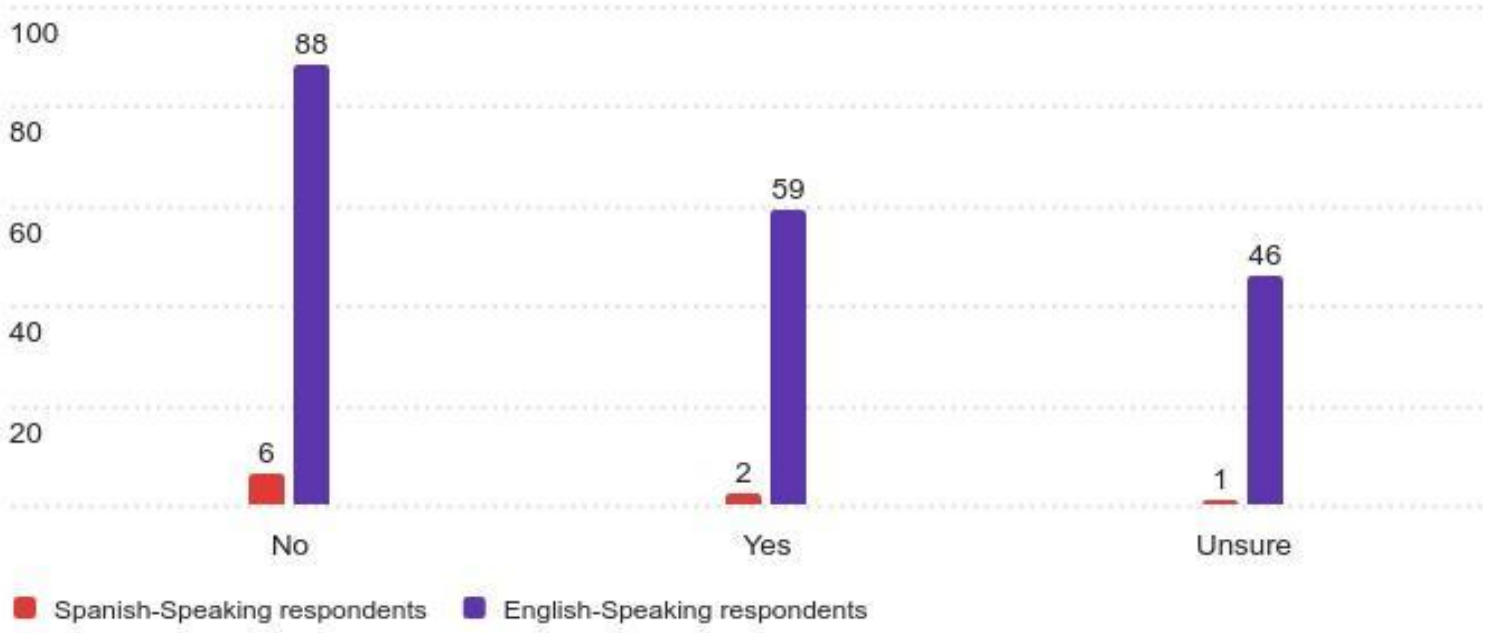
¿Está familiarizado con el plan local de evacuación para incendios forestales?

202 Responses

Do you think fire brings any benefit(s) to forests and other ecosystems?

¿Cree que el fuego aporta algún beneficio a los bosques u otros ecosistemas?

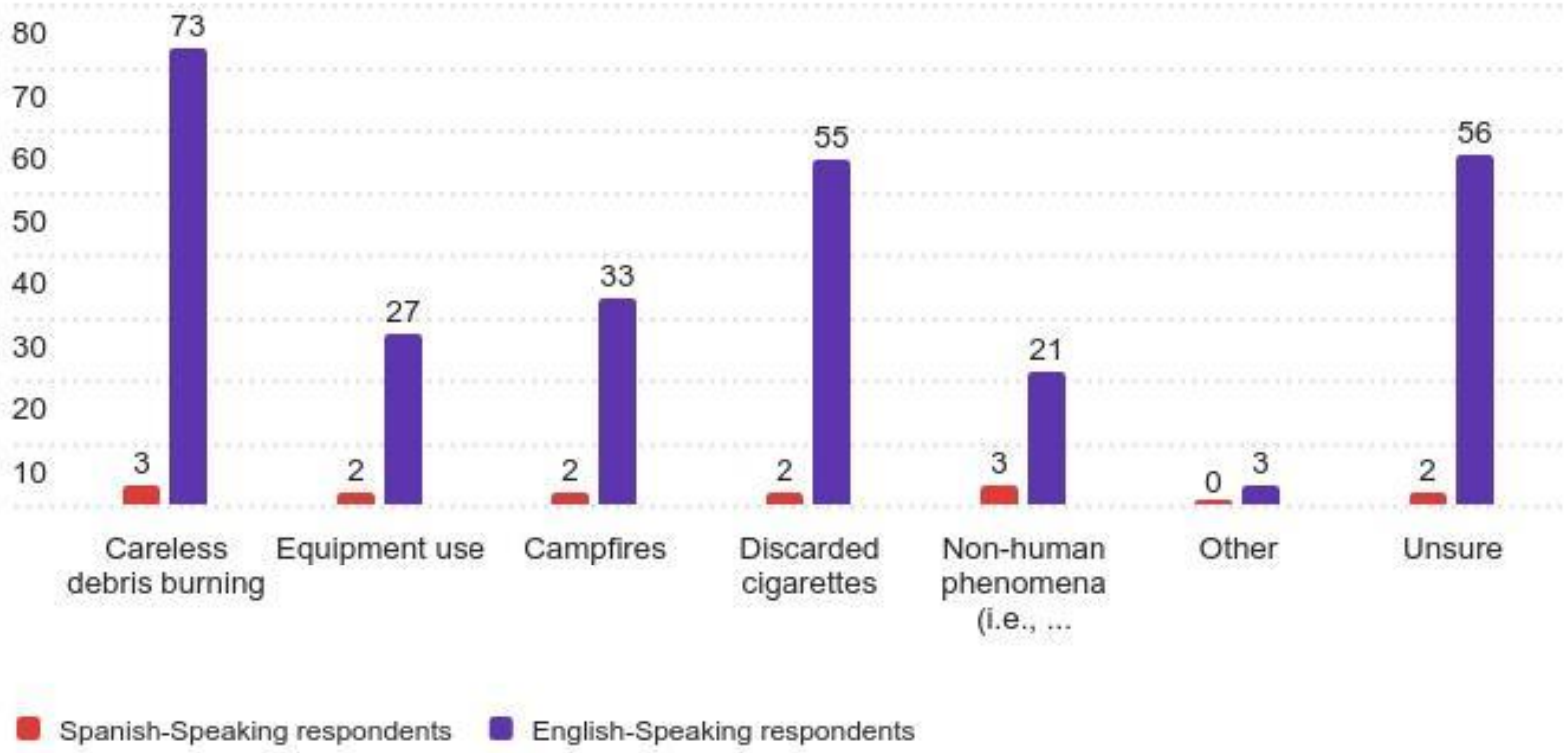
202 Responses



What are the main causes of wildfires in your neighborhood?

¿Cuáles son las principales causas de incendios forestales en su vecindario?

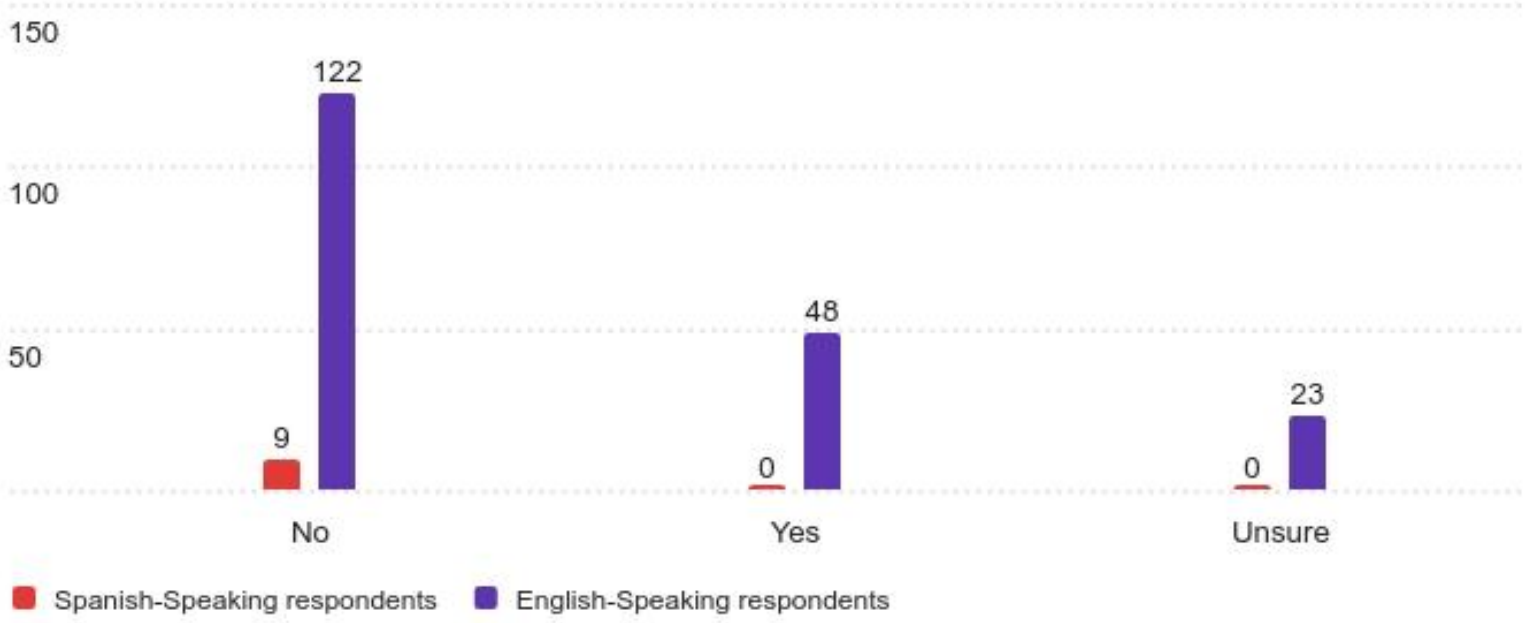
202 Responses



Is your home located near natural areas prone to wildfires?

¿Está su casa cerca de áreas naturales propensas a incendios?

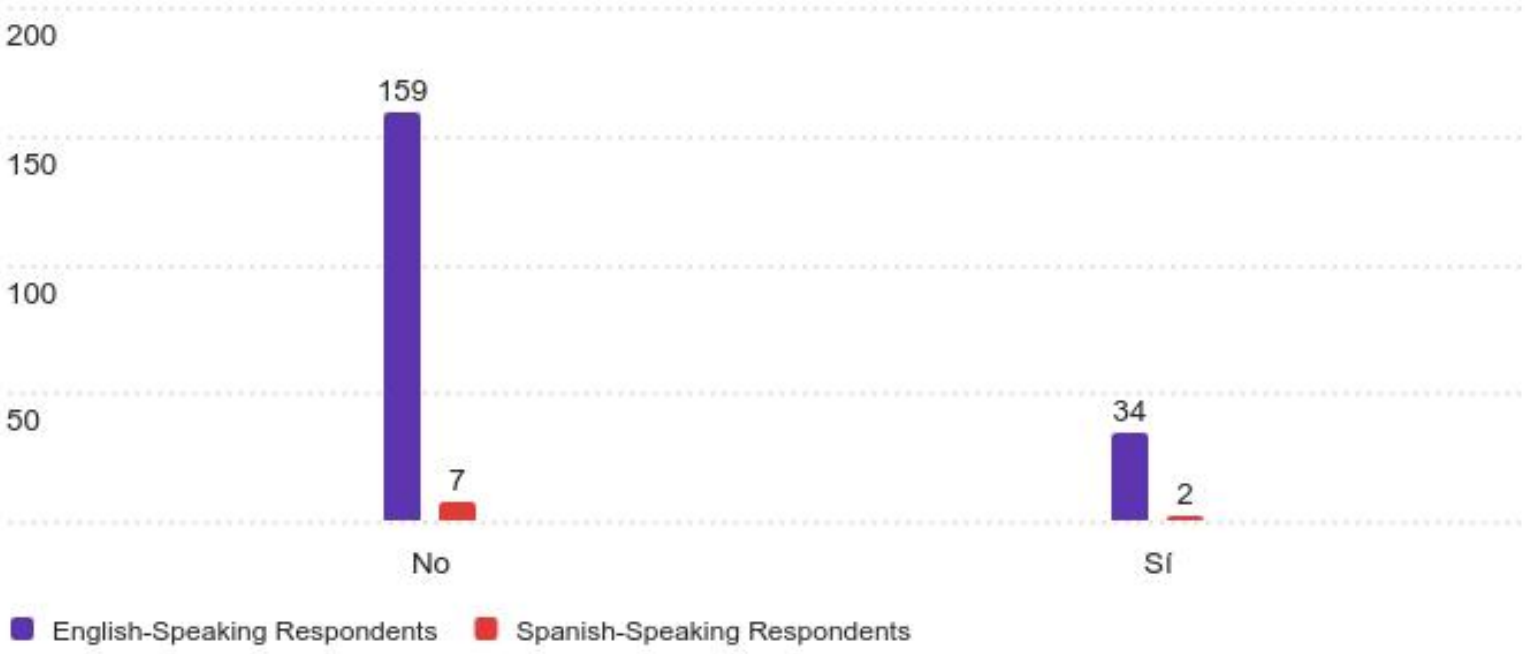
202 Responses



Do you know what a Wildland Urban Interface (WUI) is?

¿Sabe qué es la Interfaz Urbano-Forestal?

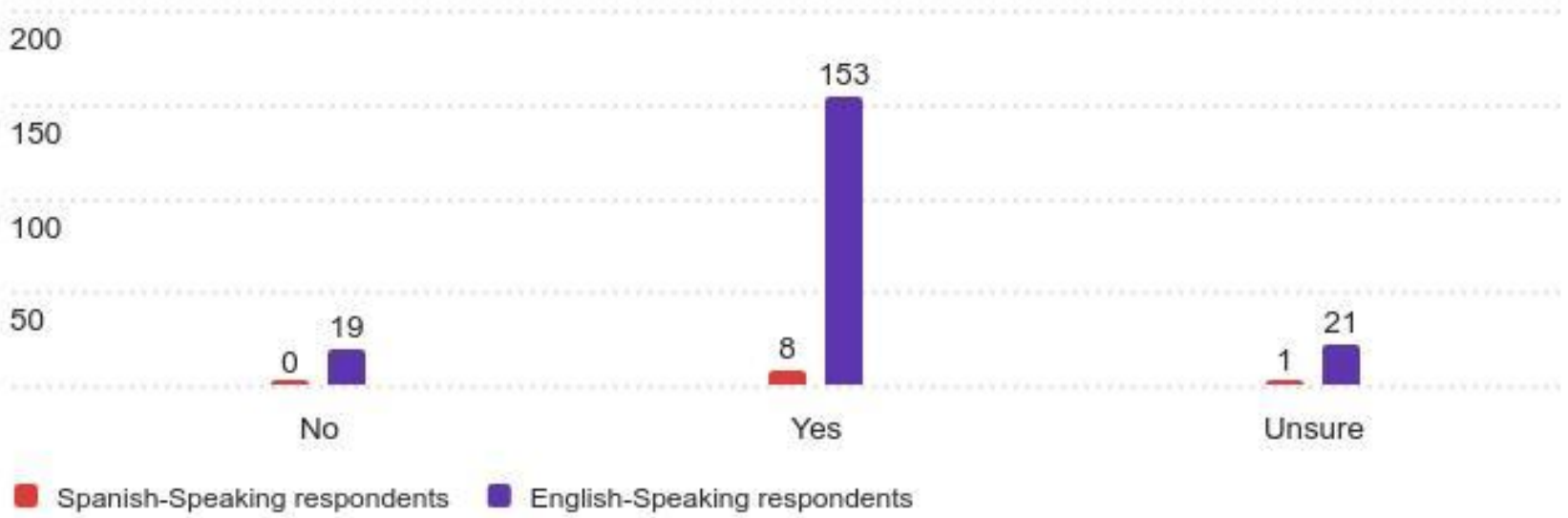
202 Responses



Would it be beneficial to have information about the Wildland-Urban Interface (WUI) available in English and Spanish?

¿Sería beneficioso tener información sobre la Interfaz Urbano-Forestal (IUF) disponible en inglés y español?

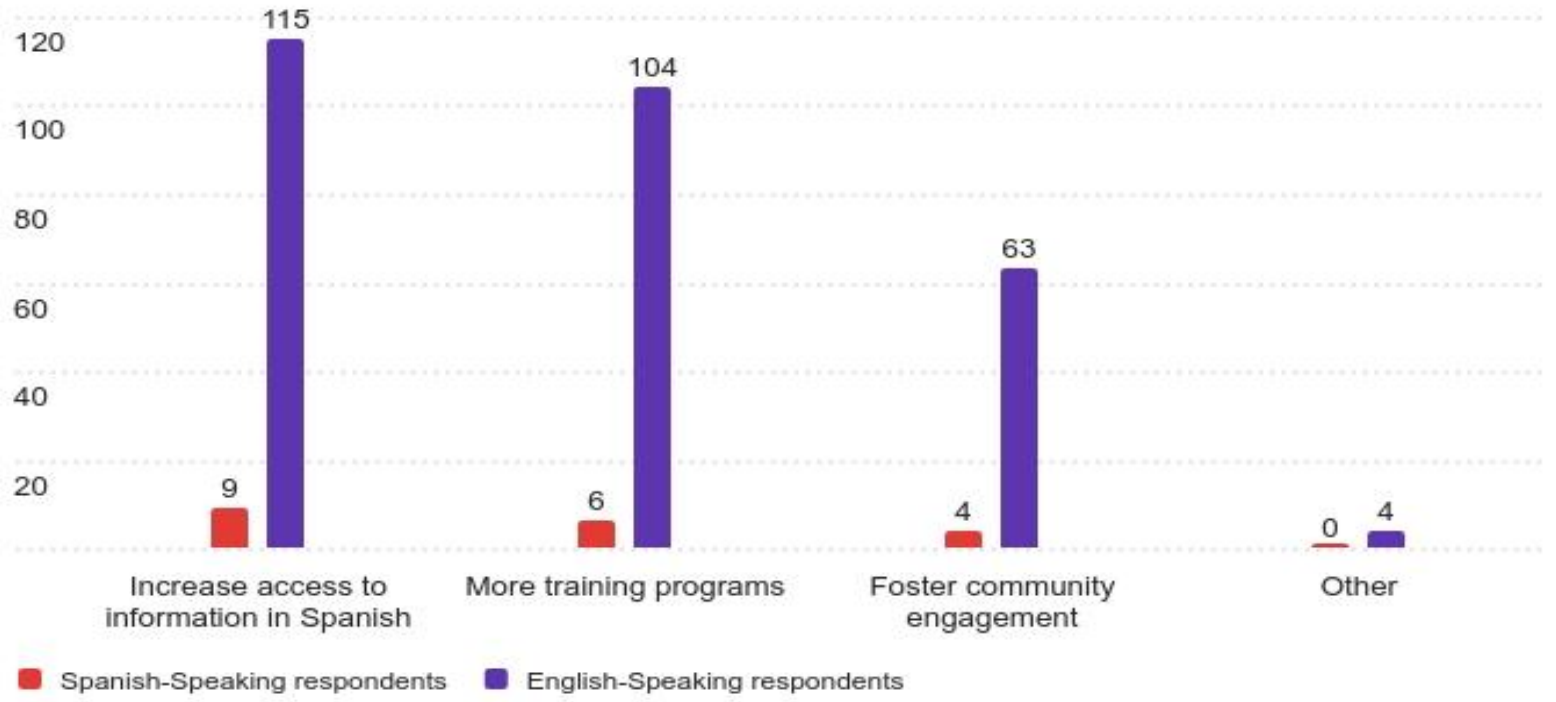
202 Responses



How can wildfire preparedness be improved for Hispanic/Latino communities living in the Wildland-Urban Interface (WUI)?

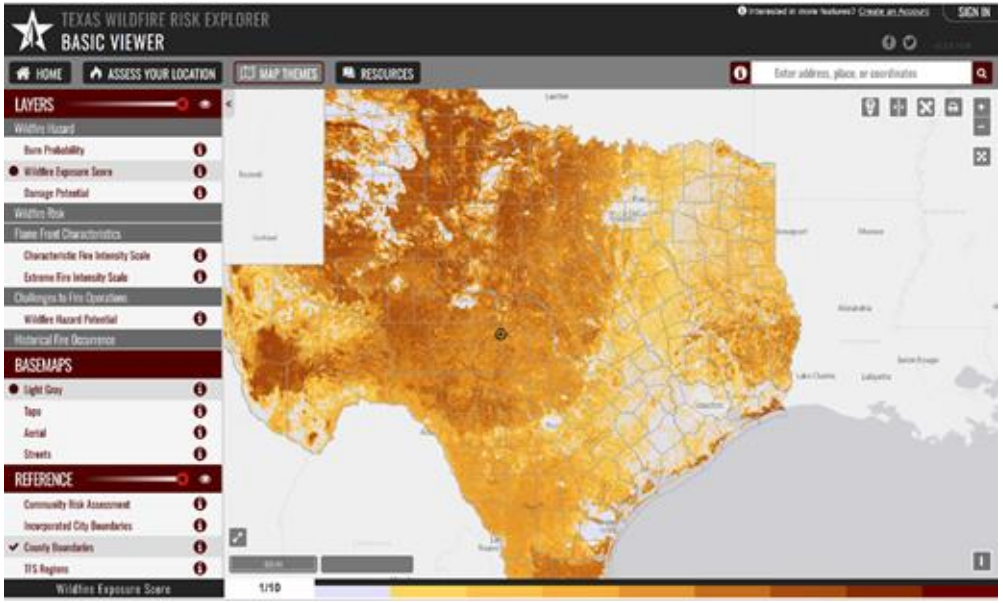
¿Cómo se podría mejorar la preparación para incendios forestales en comunidades hispanas / latinas que viven en la Interfaz Urbano-Forestal (IUF)?

202 Responses



Communication products

Preparedness videos – Edited and translated



Instructional videos in Spanish

Instagram and Facebook stories

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