

Research Overview

Project	Title	Project Lead
Housing Security		
1a	Closing the Homeownership Gap	Cook-Davis
1a.1	Closing the Homeownership Gap: National Best Practices that Support Hispanic Homeownership	Pfeiffer
1a.2	Closing the Homeownership Gap: Cohort Study of New and Aspiring Hispanic Homeowners	Winson-Geideman and Cook-Davis
1a.3	Closing the Homeownership Gap: Culturally Relevant Design and Policy for Sustaining Hispanic Homeownership	Wong
1b	Assessing Housing Affordability in Hispanic Communities in Arizona	Winson-Geideman
1c	Advancing Fair Housing for Arizona's Hispanic and Other Underserved Communities: Examining Housing Discrimination Pathways and Solutions	Pfeiffer
1e	Assessing the Housing Needs of Native Americans Working Off the Reservation in Northern Arizona	Baca
1f	Housing and Transportation Affordability, Socio-Spatial Mobility, and Intergenerational Inequality	Connor
1g	Increasing Support for Affordable Housing	Cook-Davis
1h	Scaling Shared Equity Homeownership Models to Grow Affordable Housing Supplies	Ehlenz
1i	Impacts of Home-Based Entrepreneur Activities on Housing and Food Security and Hispanic Households' Wellbeing	Rosales Chavez
1j	Local Government Requirements for Housing Affordability and Equity	Leon Moreta
1k	Expanding Housing Supply through Single-Family Home Garages and Driveways in the Phoenix Metro Area	Pfeiffer
Climate		
2a	Housing Quality, Building Codes, and Climate Resilience: A Pilot Study in Arid and Water-Scarce Communities	Bean
2c	Financing Resilient Housing	Kear
2d	Housing and Sustainability	Roseland
2e	Housing and Energy Security Dashboard	Solis
Health		
3a	Housing Arizona's Aging Population	Cook-Davis
3b	An Implementation Evaluation of Arizona's Housing and Health Opportunities (H2O) Program	Jaramillo
3c	Impacts of Indoor Heat on Low-Income and Minority Households	Cook-Davis
3d	Housing and Mobility: An Analysis of Housing Locations Based on Mobility Options	Ryan

PROJECT DESCRIPTIONS

Project 1a: Closing the Homeownership Gap

Project Leads: Co-PI Alison Cook-Davis, PI Deirdre Pfeiffer, Co-PI Kimberly Winson-Geideman, and Co-PI Kenny Wong (Analyst Ashlee Tziganuk)

Project Summary:

Pfeiffer, 1a.1: National Best Practices that Support Hispanic Homeownership. Pfeiffer will advise an urban planning master's student in using literature and key informant interviews to identify notable practices from across the U.S. for overcoming barriers to homeownership for Hispanic households. Example practices that will be explored include social lending and housing counseling. The extent to which these practices or programs are available in Arizona will also be documented. [Deliverables: policy brief & white paper]

Winson-Geideman and Cook-Davis, 1a.2: Cohort Study of New and Aspiring Hispanic Homeowners. Researchers will uncover the factors impacting Hispanic households' housing security and homeownership in AZ through the analysis of an annual survey and ethnographic interviews. We will interview key informants to help shape the development of a survey to look at homeownership and housing experiences over time. The survey will track households' tenure changes and housing experiences using a non-random purposive and stratified sampling approach (e.g., urban/rural, 1st/2nd gen) developed collaboratively with Chicanos Por La Causa (CPLC) and other community stakeholder groups working with homeownership programs. We will interview participants representing relevant subgroups (e.g., 1st/2nd gen) to learn how culturally relevant policies can increase Hispanic homeownership. Findings will inform actionable policy solutions to increase Hispanic homeownership.

Wong, 1a.3: Culturally Relevant Design and Policy for Sustaining Hispanic Homeownership. Additional research will uncover and document ways that culturally relevant design and policies can sustain and create access to homeownership for Hispanic households and communities. We will first conduct a review of recent literature on design and housing conditions for Hispanic households, along with existing and promising housing design and site planning strategies approaches to affordable, high-quality, low- and moderate-income homeownership. Then community-based participatory research will be used to bridge the gap between individual household responses and contextual, community-level barriers and constraints with ethnographic field research. Local community-based partners will assist in recruiting households experiencing housing cost burdens—and particularly those related currently in homes requiring repairs and rehabilitation to maintain secure ownership—for semi-structured interviews, home audits, and neighborhood walkalongs. Qualitative documentation will be co-produced with participants and community partners, such as include plan and photographic documents, to the extent possible. While using grounded, convenience sampling to uncover specific adaptations and barriers for achieving affordability, households and housing unit characteristics will be triangulated with the survey data and publicly available data from the Census and American Housing Survey (AHS).

Project 1b: Assessing Housing Affordability in Hispanic Communities in Arizona

Project Lead: Co-PI Kimberly Winson-Geideman

Project Summary: This research aims to provide data-driven insights to affordability challenges in Hispanic communities across Arizona using CoreLogic market, mortgage, and transactional data and related sources. A thorough review of recent literature associated with housing affordability including demographic, economic, and social factors will be conducted along with a review of the mortgage delinquency, default, and foreclosure literature. The data will be used to analyze property values, rental rates, and mortgage delinquency rates to identify hotspots of affordability challenges and will be further analyzed to identify trends in housing market dynamics, including price appreciation, rental rate increases, and foreclosure rates. Quantitative methods will be applied to identify the correlation between housing affordability and various factors, such as income, education, employment, and homeownership rates.

Project 1c: Advancing Fair Housing for Arizona's Hispanic and Other Underserved Communities: Examining Housing Discrimination Pathways and Solutions

Project Leads: PI Deirdre Pfeiffer, Jay Young (Executive Director of the Southwest Fair Housing Council (SWFHC)), and Staff TBH (SWFHC)

Project Summary: Understanding and responding to fair housing issues facing Arizona Hispanic and other underserved households may help to improve their housing security, particularly through access to affordable homeownership and rentals. This research will examine two pathways of discrimination in Arizona housing markets. Subproject 1c.1 will examine the pathway of coded language for Fair Housing Act (FHA) protected groups in grounds for opposition in public decisions about proposed housing projects and policies diversifying types and costs. Subproject 1c.2 will examine the pathway of home sale transactions. The research questions for the subprojects are as follows: 1c.1) How does coded language for FHA-protected groups shape public decisions about proposed housing projects and policies diversifying types and costs in Arizona? 1c.2) Where do fair housing concerns arise in home sale transactions involving Hispanic and other underserved households in Arizona? How do they shape their homeownership outcomes? This research will contribute to scholarly conversations about the drivers of housing discrimination and inform new strategic initiatives to dismantle pathways to discrimination in Arizona (e.g., stakeholder convenings to discuss policy changes and SWFHC grant writing and strategic planning).

Project 1e: Assessing the Housing Needs of Native Americans Working Off the Reservation in Northern Arizona

Project Lead: Co-PI Nancy Baca

Project Summary: Tribal members who work in cities such as Flagstaff and Page, Arizona have access to more opportunities and higher wages. However, housing affordability issues in those cities mean that they either live in substandard housing or commute long distances. The project will undertake an assessment of housing needs among Native Americans employed outside of their reservations in Northern Arizona, focusing on the unique housing issues of tribal members working in border towns,

answering the foundational learning question of how HUD can better respond to housing and development challenges unique to Native American communities.

Project 1f: Housing and transportation affordability, socio-spatial mobility, and intergenerational inequality

Project Leads: Co-I Dylan Connor & Co-I Hue-Tam Jamme

Project Summary: There is now an emerging crisis in housing, homeownership, and intergenerational inequality across sprawled Sunbelt cities. This analysis will rely on qualitative and quantitative analysis to examine how changing family- and neighborhood-scale housing conditions have affected intergenerational mobility rates across Arizona over the past three decades. We will draw on interviews with members of the Hispanic community in low-income neighborhoods to examine the causal pathways that may explain the observed relationships between housing conditions, residential location, spatial mobility and accessibility, neighborhood context, and intergenerational mobility. The first phase of this project will construct a database that links the household conditions and intergenerational mobility rates of Hispanic men and women to the housing conditions that prevailed in those neighborhoods when these individuals were in childhood. In addition, we will conduct semi-structured interviews with approximately 20-30 heads of Hispanic households living in low-income neighborhoods of the Phoenix metropolitan area. In the second phase, we will assess the contribution of neighborhood differences in homeownership structure (e.g., family owners, investors, rental properties) and transportation conditions to household and intergenerational mobility outcomes. We will benchmark our estimates relative to other known determinants of intergenerational mobility (e.g., school quality, racial composition, family structure). We will corroborate and substantiate our findings with the qualitative data collected through interviews. Dr. Connor will provide expertise on demography and inequality. Dr. Jamme will provide expertise on the housing and transportation nexus in low-income neighborhoods. Dr. Pfeiffer will provide expertise on the changing ownership and rental structure of neighborhoods in Arizona.

Project 1g: Increasing Support for Affordable Housing

Project Lead: Co-PI Alison Cook-Davis

Project Summary: The aim of this project is to measure the impact of a public campaign, “Home is where it all starts” which was officially launched in February 2023. This movement was spearheaded by Home Matters to Arizona in collaboration with 18 organizations statewide and marshaled feedback from 80 organizations statewide related to housing, education, health, economic development, and community outreach. Home Matters to Arizona is implementing a strategic plan for outreach statewide through community organizations.

Based on the strategic plan, we will measure the uptake of the campaign among community partners through defined metrics (e.g., toolkit downloads, partners confirmed commitments). Researchers will interview partners across different sectors (e.g., education, health, housing development, advocacy) about the implementation and use of the toolkits, strategies, and outcomes. Thematic analysis will identify how the materials are being used in the work of various community partners,

and whether these materials and technical assistance have provided benefits to the organizations. In addition, we will conduct a statewide poll of Arizona (by region) to assess the impact of this campaign on attitudes toward supporting low and moderate-income development.

Project 1h: Scaling Shared Equity Homeownership Models to Grow Affordable Housing Supplies

Project Lead: Co-I Meagan Ehlenz

Project Summary: This research will examine the opportunities for and barriers to scaling up shared equity homeownership (SEH) models as an affordable housing production tool. The research will evaluate the scalability of the SEH model with respect to housing production (e.g., acquisition of existing units versus new construction), financing, household eligibility and supports, and organizational mission. The scope of the project will include both urban and rural contexts across Arizona, as a model of a Sun Belt state facing substantial affordability constraints. The outcomes of the project will include identifying clear barriers to SEH model scalability, opportunities for growth, and potential solutions to increase permanently affordable housing production.

For this project, we will partner with established Arizona SEH programs (e.g., Newtown Community Development Corporation, Pima County Community Land Trust, and Townsite Community Land Trust), resident-owned manufactured housing communities (MHCs) in collaboration with ROC USA, and the Grounded Solutions Network (national CLT organization). The project will consist of two phases. In Phase I, we will: (1) inventory existing SEH housing units and (2) explore ongoing barriers to the creation of additional housing supplies. We will administer surveys of existing SEH portfolios to understand current supplies and access. In Phase II, we will complement survey findings with interviews of two key groups: (1) expert interviews with SEH organizations, affordable housing agencies, and allied developers and investors/finance agencies to develop a detailed understanding of financial and production opportunities and barriers; and (2) interviews with current, wait listed, and former SEH homeowners to understand the consumer process and barriers to permanently affordable housing access.

Project 1i: Impacts of Home-Based Entrepreneur Activities on Housing, Food Security and Hispanic Household's Wellbeing

Project Lead: Co-I Jose Rosales Chavez

Project Summary: Selling food is an activity that local entrepreneurs engage in to thrive in a changing society. While previous studies have shown that street food businesses are a common type of activity that Latinx community members engage in, other popular yet less understood activities include Home-Based Food Entrepreneur activities. This project will examine the intersection between households and entrepreneurial activities. We are interested in the types of income-generating activities happening at home and the role that such activities play in income, housing, food security, and the overall well-being of household members. Additionally, we are interested in assessing factors that promote or hinder these types of activities. Given that cooking at home as an economic activity has only been formalized for some types of foods (e.g., Cottage Food Program) in the city of Phoenix, it is unclear how many people sell other types of foods that may be more

culturally representative for community members (e.g., perishable homemade food like tamales). We will use a mixed methods approach for data collection and analysis. Methods include surveys, interviews, ethnography, and GIS spatial analyses with a sample of 30 to 60 food sellers and 120 food consumers. We will partner with local community organizations such as Chispa AZ, Chicanos Por La Causa, and the Orchard Learning Center to identify local entrepreneurs and co-develop deliverables. We will also conduct ethnographic work to identify additional businesses that may not be part of any local community organizations. We expect home-based entrepreneurial activities to be a mechanism that supplements household income, promotes community well-being, and reduces both food and income insecurity for vendors and their clients.

Project 1j: Local Government Requirements for Land Use and Housing Development

Project Lead: Co-PI Agustin Leon Moreta

Project Summary: Co-PI Leon-Moreta will investigate state and local regulations affecting housing supply as well as possible regulatory reforms for enabling housing production while promoting inclusive communities and sustainable development in New Mexico.

Land use regulations are a critical mechanism that cities have for extending access to housing at various income levels. We link access to housing with state and local actions that enable or restrict residential development. Land use regulations are the focus due to their role in enabling or restricting housing development. A social-institutional analysis guides the research to investigate how local government capacities and community conditions explain land use regulations such as zoning regimes at the state and local government levels. Land use regulations vary sharply across urban areas. We connect research on developing cities with social science literature on demographic characteristics influencing land use decisions.

Focusing on demographic and governmental factors of influence, we analyze land use and housing regulations in cities. The primary unit of analysis is a city or a municipality as defined by the Census Bureau. Cities are also connected with their relevant urban areas. This focus, as conceptually outlined, is critical to analyzing land use regulations across urban areas. Land use regulations will be derived using data from national, state and local sources. Statewide regulations for land use and housing development will additionally be coded and analyzed for the State of New Mexico.

Project 1k: Expanding Housing Supply through Single-Family Home Garages and Driveways in the Phoenix Metro Area

Project Lead: PI Deirdre Pfeiffer

Project Summary: Land availability presents a major challenge to solving interrelated crises of housing availability, affordability and security in Arizona's increasingly land locked and built out urban areas. This research will draw on data from local regulations and stakeholder interviews (goal: 30 housing subject matter experts and 100 neighborhood residents) and use content and thematic analysis to explore the potential for adapting garages and driveways to support new housing in socioeconomically diverse single-family home communities in the Phoenix metro area. The research

questions are: 1) How have single-family home garages and driveways been used to house residents of the Phoenix metro area? How could they be used in the future? What are the possibilities for temporary and permanent shelter? 2) What are the real and perceived barriers to adapting single-family home garages and driveways to support housing? How could they be overcome? 3) How does the potential for adapting single-family home garages and driveways to expand housing options vary across demographically and socioeconomically divergent communities in the Phoenix metro area?

Project 2a: Housing and Energy Analysis

Project Lead: Co-I Jonathan Bean

Project Summary: The Institute for Energy Solutions will coordinate with ARCHES to conduct analyses of building energy use and thermal conditions. These analyses will help inform other projects within ARCHES to identify opportunities to align improvements in housing condition with energy-related goals, such as energy conservation, beneficial electrification, increased resilience in heat and outage events, and grid/utility-scale benefits. Paper topics will be determined in consultation with other ARCHES researchers.

Project 2c: Financing Resilient Housing

Project Lead: Co-I Mark Kear

Project Summary: Hispanic home borrowers are more than 1.6 times as likely to use alternative financing (e.g. land contracts, and forms of seller-financing) than US households on average (Pew 2021). Borrowers often turn to such predatory alternatives because their applications for conventional home loans are denied. Loan application denial rates are higher for manufactured housing than for any other housing type, especially applications for manufactured housing personal property loans, which are denied 64% of the time. Support from Federal programs, through the FHA or VA, reduce denial rates remarkably (Pew 2022); however, the Title I Manufactured Housing Program, which provides insurance for personal property loans, has declined from a high of 26,000 originations in 1991 (Park 2022) to only 3 in 2021 (Ginnie Mae 2022).

This lack of government support for the 76% of manufactured housing buyers who purchase their homes as personal property is both a barrier to the expansion of the manufactured housing supply - an objective of HUD's 2022-2026 Strategic Plan - and a driver of wealth eroding predatory lending, particularly in the Hispanic communities of the Southwest Border region where manufactured housing is prevalent (e.g., colonias).

This project seeks to better understand the relationship between high-risk home financing among Hispanic households, credit scarcity in manufactured housing markets, and how HUD programs can help reduce denial rates and demand for risky home financing products. Our research will also assess the likelihood of such policy improvements yielding a "resilience dividend" for climate vulnerable communities who are underserved in housing finance markets.

Project 2d: Housing and Sustainability

Project Lead: Co-I Mark Roseland

Project Summary: This project will examine housing in the context of sustainability and climate resilience for Hispanic communities in the Southwest. Year 1 will focus on a comprehensive literature review of what housing and sustainability assessment tools are available in the US, their accessibility, their suitability, and the extent to which they have been used with Hispanic communities in the Southwest. We will also determine a short-list of communities to partner with for a pilot study and work with their leadership to ensure that if selected that they have the willingness and capacity to engage in the subsequent pilot study. Year 2 will be primarily focused on a process with one partner community, city, or neighborhood from the short-list identified in Year 1 to design and test a bilingual or Spanish-language housing and sustainability assessment tool. This process will require coordination and commitment from municipal elected officials, staff, and citizens, likely through a resident advisory committee or commission. Year 3 will analyze the survey data, prepare a draft article and/or research brief/background paper, then conduct a seminar/webinar/workshop to share insights on the strengths and weaknesses of the tool and ideas for refining it. We will also invite people from elsewhere to see how our approach and tool might be applied in their communities. We will then finalize and submit the research for publication and, if warranted, provide a scope of work for a subsequent implementation project with the partner community.

Project 2e: Housing and Energy Security Dashboard

Project Lead: Co-I Patricia Solis

Project Summary: We will create an Arizona dashboard on housing and energy security by integrating data on monthly foreclosures and risk of heat exposure into an existing Phoenix dashboard on monthly evictions and use data visualization, descriptive statistics, and econometric analysis to identify links between Hispanic populations' housing and energy security. We will also incorporate project data layers and AI prediction tools to identify vulnerability hotspots, enabling housing advocates and decision-makers to help households in real time.

Project 3a: Housing Arizona's Aging Population

Project Lead: Co-PI Alison Cook-Davis

Project Summary: While Arizona attracts seniors as a retirement destination, most of the state's housing stock is single-family homes, which are not always the most conducive to aging in place. Special considerations for seniors include retrofitting homes (i.e. handrails in bathrooms), mobility outside of the home (not dependent on driving a car), and proximity to family and friends. To ensure existing and future homes for rent and sale meet the needs of seniors, we will partner with community organizations (e.g., Foundation for Senior Living, CPLC, SWFHC) to understand what specific issues seniors face with housing in Arizona and how policies and best practices from elsewhere can help to address these issues unique to senior housing in Arizona.

Project 3b: An Implementation Evaluation of Arizona’s Housing and Health Opportunities (H2O) Program

Project Lead: Co-I Atticus Jaramillo

Project Summary: This research will evaluate the implementation of the Arizona Health Care Cost Containment Systems (AHCCCS) H2O supportive housing program, which blends state housing funding with Medicaid funding to provide wraparound housing and health services for adults at risk for or experiencing homelessness. The H2O demonstration fills key gaps in AHCCS’s existing permanent supportive housing program by enhancing:

- Homeless outreach and engagement services through Regional Behavioral Health Authorities, which are also all Medicaid Managed Care Organizations (MCOs).
- Transitional housing services, including the direct subsidization of transitional housing for clients.
- Pre-tenancy and community integration services for people with serious mental illness (SMI) that are exiting jail, prison, or other institutional settings.

Unlike other supportive housing programs, H2O is not led by a state or local housing authority but rather by AHCCCS, Arizona’s Medicaid affiliate. Thus, this research aims to answer two questions: (a) what opportunities and challenges are associated with having a health organization lead the delivery of supportive housing; and (b) what internal and external contextual factors impeded AHCCCS’ ability to effectively implement H2O? To answer these questions, we will interview H2O program officials and Section 811 program officials, with the latter being a conventional supportive housing program that the Arizona Department of Housing (DOH) began to implement in 2021. Our interviews will focus on how the unique administrative structure, resources, priorities, and culture of AHCCS vs. DOH affect implementation, for better and worse. Further, they will focus on how “external contextual factors” (e.g., client demographics, regional housing affordability) influence implementation.

Project 3c: Impacts of Indoor Heat on Low-Income and Minority Households

Project Lead: Co-PI Alison Cook-Davis

Project Summary): There have been over three hundred heat-related deaths in indoor environments in Maricopa County since 2018. Despite indoor residential environments being a site of heat-related death, little existing research has been conducted on the factors influencing household temperatures and their impacts beyond the binary presence of central air conditioning. This research will use interviews with stakeholder groups and key community informants as well as focus groups with low-income and/or minority households to investigate impacts of indoor heat, including effects such as chronic health issues and financial precarity, document barriers to and opportunities for increasing minority households’ resilience to extreme heat, and provide recommendations and best practices for policy-makers when deploying heat assistance programs.

Project 3d: Housing and Mobility: An Analysis of Housing Locations Based on Mobility Options

Project Lead: Co-I Alyssa Ryan

Project Summary: This project seeks to explore the intricate interplay between mobility infrastructure in Southern Arizona and the spatial distribution of low-income residential neighborhoods and public housing complexes. Furthermore, we plan to study the socio-demographic profiles of inhabitants and transportation users within these regions, with a keen eye on uncovering disparities that may persist. To achieve this, our collaboration with the City of Tucson and Pima County, facilitated by our well-established connections through the Center for Applied Transportation Sciences (CATS), will enable us to strategically select focal areas for a comprehensive analysis that blends both qualitative and quantitative methodologies. Subsequently, we will harness a diverse array of mobility-related data sources, including transit records, sidewalk infrastructure data, and bicycle route information, to elucidate the accessibility levels for crucial daily amenities such as groceries, education, and employment opportunities within these communities. To contextualize our findings, we will conduct an in-depth examination of the National Travel Household Survey data and Census data, affording us the ability to draw meaningful comparisons across a wide spectrum of demographic groups. Ultimately, the culmination of this endeavor will materialize through a scholarly journal article, where we will present our findings and insights, bolstered by a commitment to share these valuable outcomes with the wider public through a dedicated webinar presentation.