

Does Contracting for Labor-Intensive Forestry Work Advance Economic Equity in the Pacific West, USA?

A Presentation for Western Forest Economists
Meeting
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Oregon State
University

Background

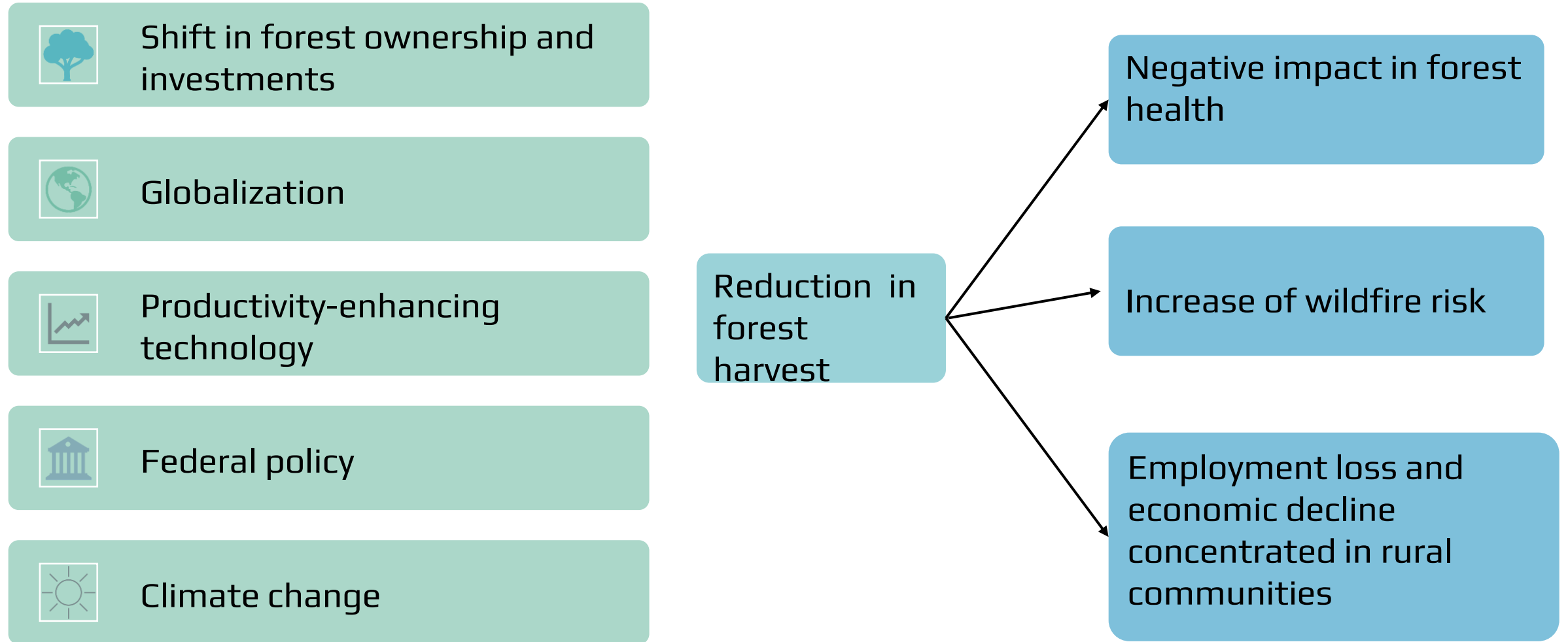
Research Question

Methodology

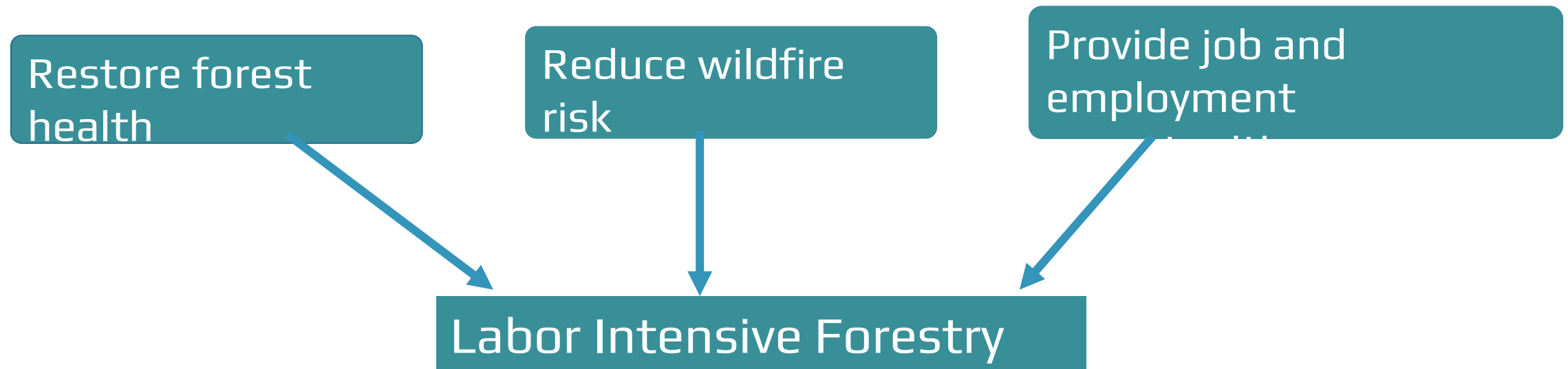
Results and implications

Study Limitations and Way Forward

Evolving Problems:



Evolving Problems: Evolving Approaches



Labor Intensive Forestry Work

Physically Demanding and Manual Tasks:

- Brush Removal
- Pre-commercial Thinning
- Prescribed Burning



(Charnley et al., 2018; Deak et al., 2023; Hibbard & Lurie, 2013; Kooistra & Moseley, 2019)

Picture: Lomakatsi.org

Contracting as a Tool for Local Economic Development

US Forest Service
contracts private
businesses to conduct
LIF work

USFS plays a role in how
dollars flow into places
and people

Important to
understand where
economic impacts are
most significant

Oregon captured 30% of the nationwide total of LIF contracts

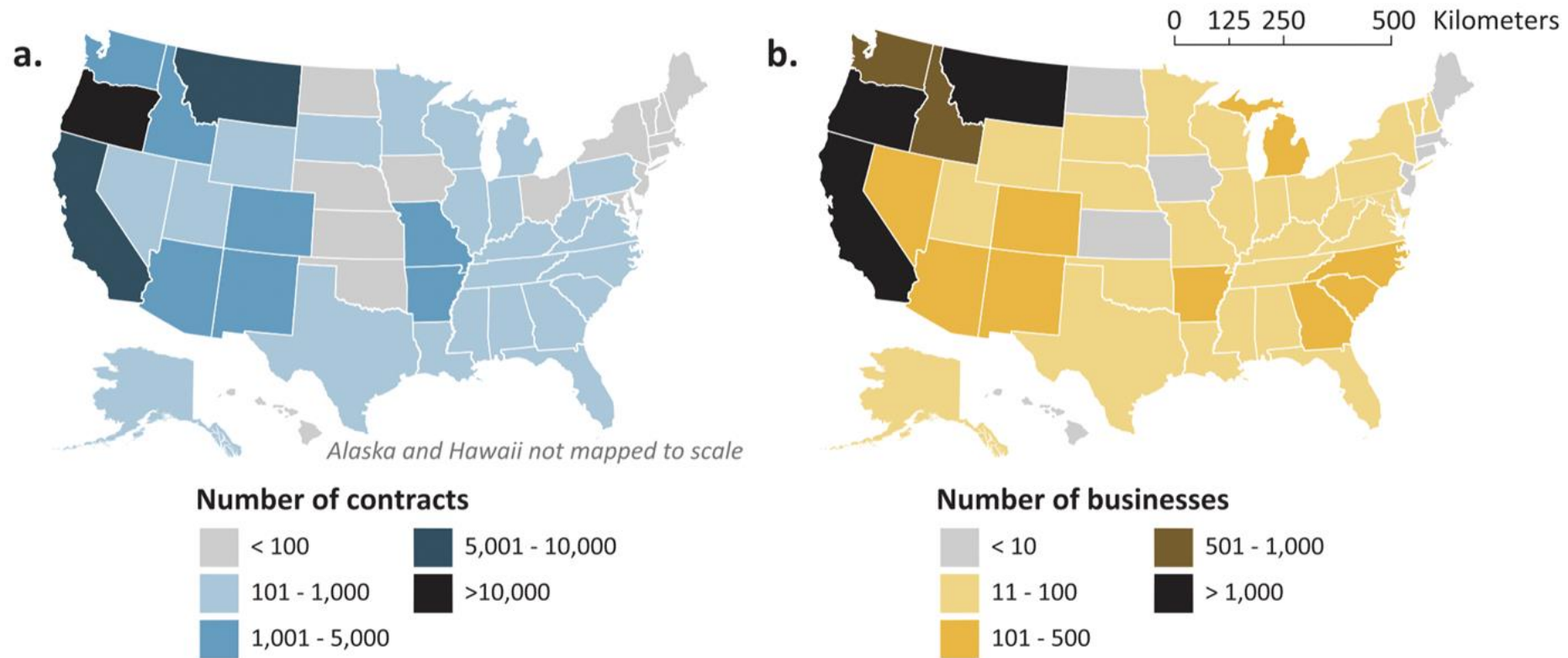


Figure 3. (a) Number of labor-intensive forestry contracts awarded by businesses' registered state of address (b) number of businesses performing labor-intensive forestry work by businesses' registered state of address.

Deak, A., Huber-Stearns, H., Crandall, M., Poudel, K., Davis, E. J., Coughlan, M. R., & Wilmsen, C. (2023). Documenting Twenty Years of the Contracted Labor-Intensive Forestry Workforce on National Forest System Lands in the United States. *Journal of Forestry*.

<https://doi.org/10.1093/jofore/fvad026>

Overarching question: Is federal contracting of LIF activities advancing economic equity in the Pacific West, particularly for small and minority-owned businesses?



How are contracting dollars distributed across counties of Oregon, Washington, and California?



Is there evidence that the USDA Forest Service advanced distributional equity through its contracting activities in the region?

Small Businesses Set-Aside and Minority-Owned (SBSAMO):
Businesses that are identified as:
Historically Underutilized Businesses
Zone (economic development) Firms,
women-owned small businesses,
service-disabled veteran-owned, 8(a)
program participants, or Minority-
Owned (MO).

Minority-Owned (MO): Businesses
that are identified and owned (at
least half) by Hispanic Americans,
Native American or American Indians,
Black Americans, Asian Pacific or
Subcontinent Asian (Asian Indian)
Americans.

Data

- USFS labor-intensive forestry contracting data
- 2001-2020
- System for Award Management (SAM.gov)
- Includes:
 - Location of each vendor
 - Dollar amount
 - Year awarded
 - Place of performance
 - Business ownership details

<h3>Local Indicator of Spatial Autocorrelation (LISA)</h3> <ul style="list-style-type: none"> Identifies the presence of clusters in the spatial arrangement of data using Local Moran's I Moran's I is calculated based on the value of neighboring counties 	<h3>Exploratory Analysis</h3> <ul style="list-style-type: none"> Minority Population (2016-2020 ACS 5-year estimates) Business owned by Latine and business owned by minority populations (Annual Business survey, 2018) Percentage federal forestland (FIA, 2019) 	<h3>Distributive Equity</h3> <ul style="list-style-type: none"> Proportion of contracting dollars captured by minority and small businesses to the proportion of minority and small businesses in each county <div> $\frac{\frac{\\$BSAMO}{\\$LIF}}{\frac{\#Businessownedbyminoritypopulatio}{\#TotalBusinesses}}$ ≥ 1 </div>
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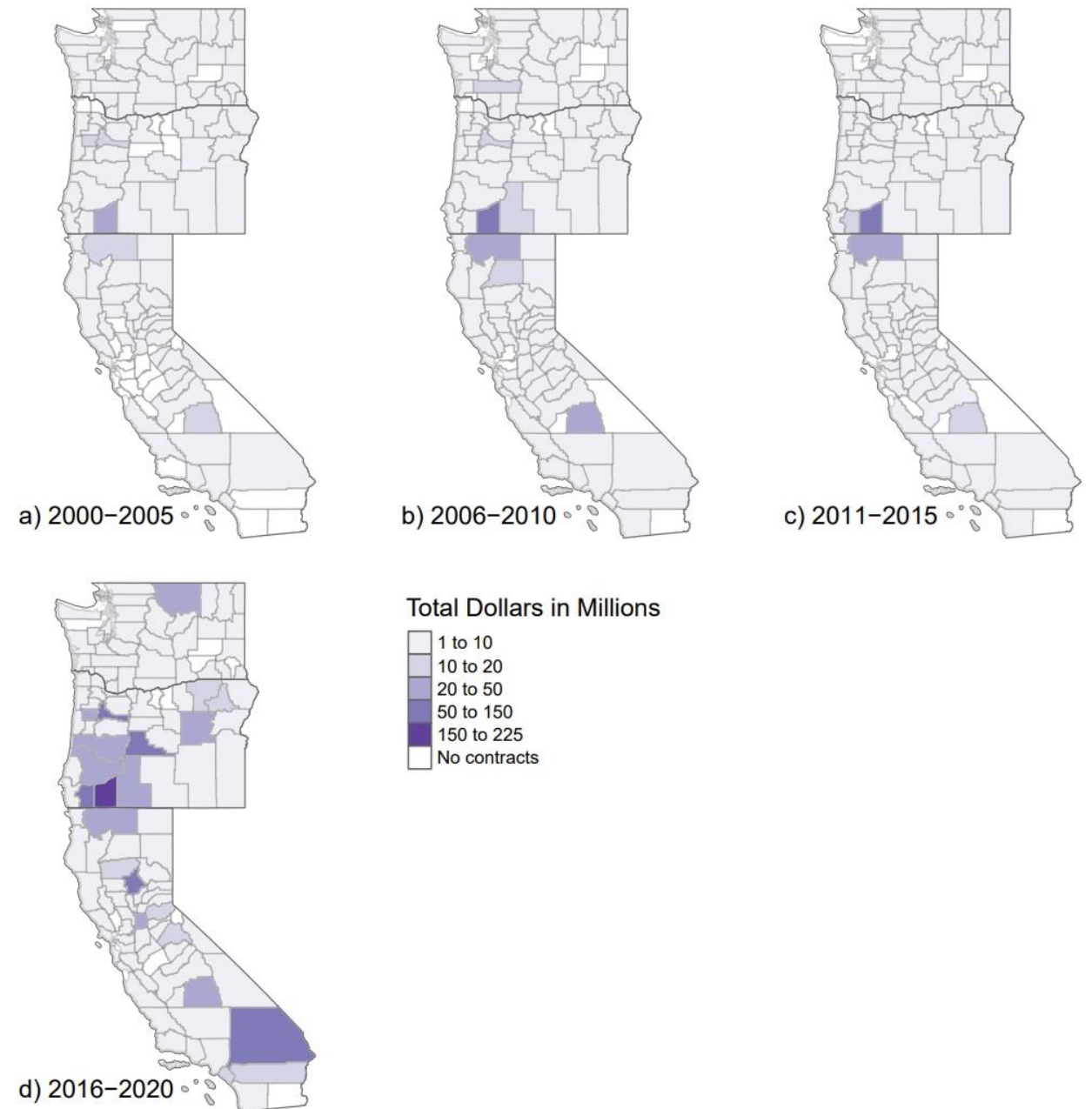
(Anselin, 1995)

Distributive equity of USDA Forest Service contracts

How are contracting dollars distributed across counties of Oregon, Washington, and California?

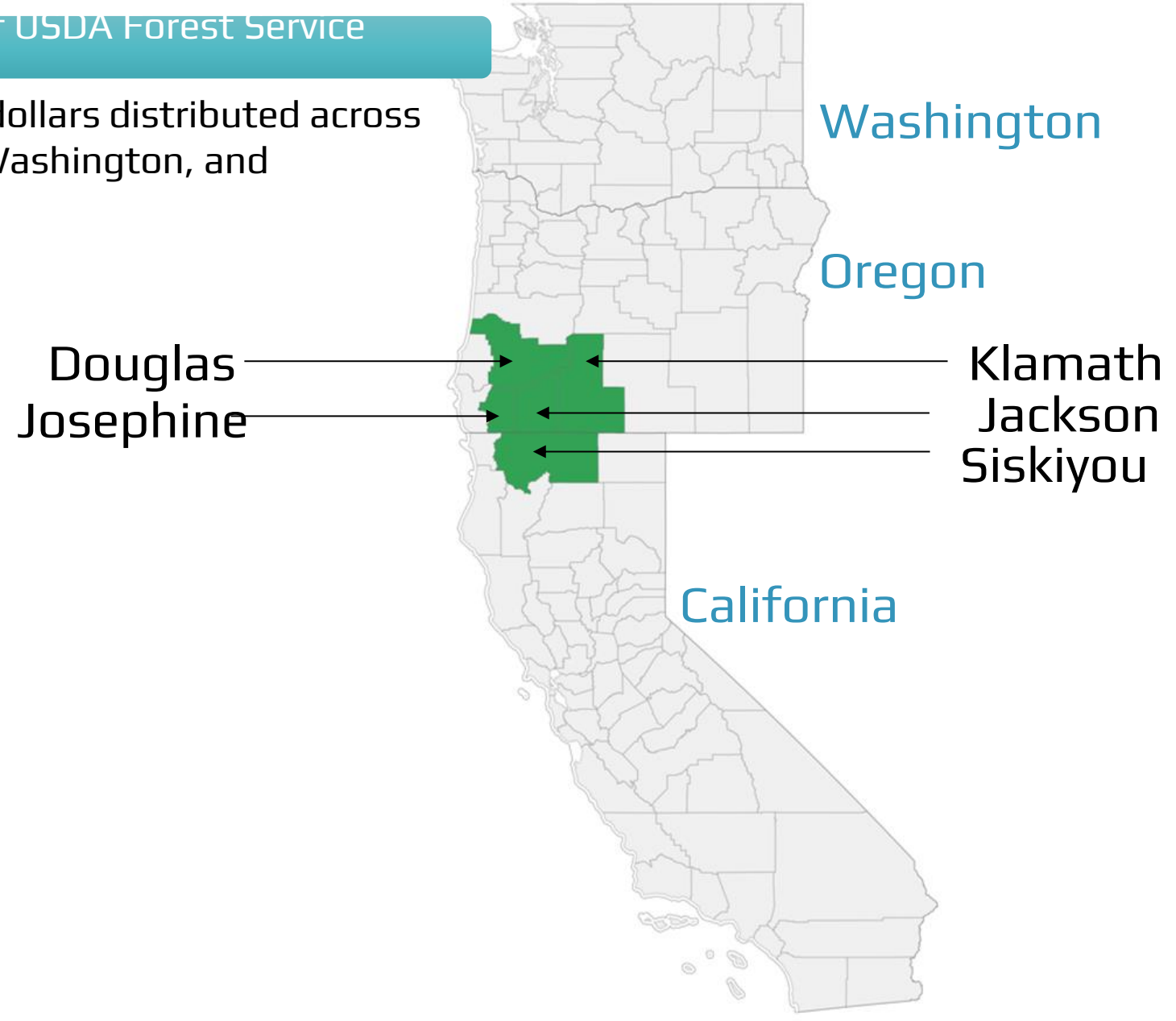
USDA Forest Service awarded

- 31,642 contracts
- to 3,104 businesses
- with total contract value of \$2.15 billion



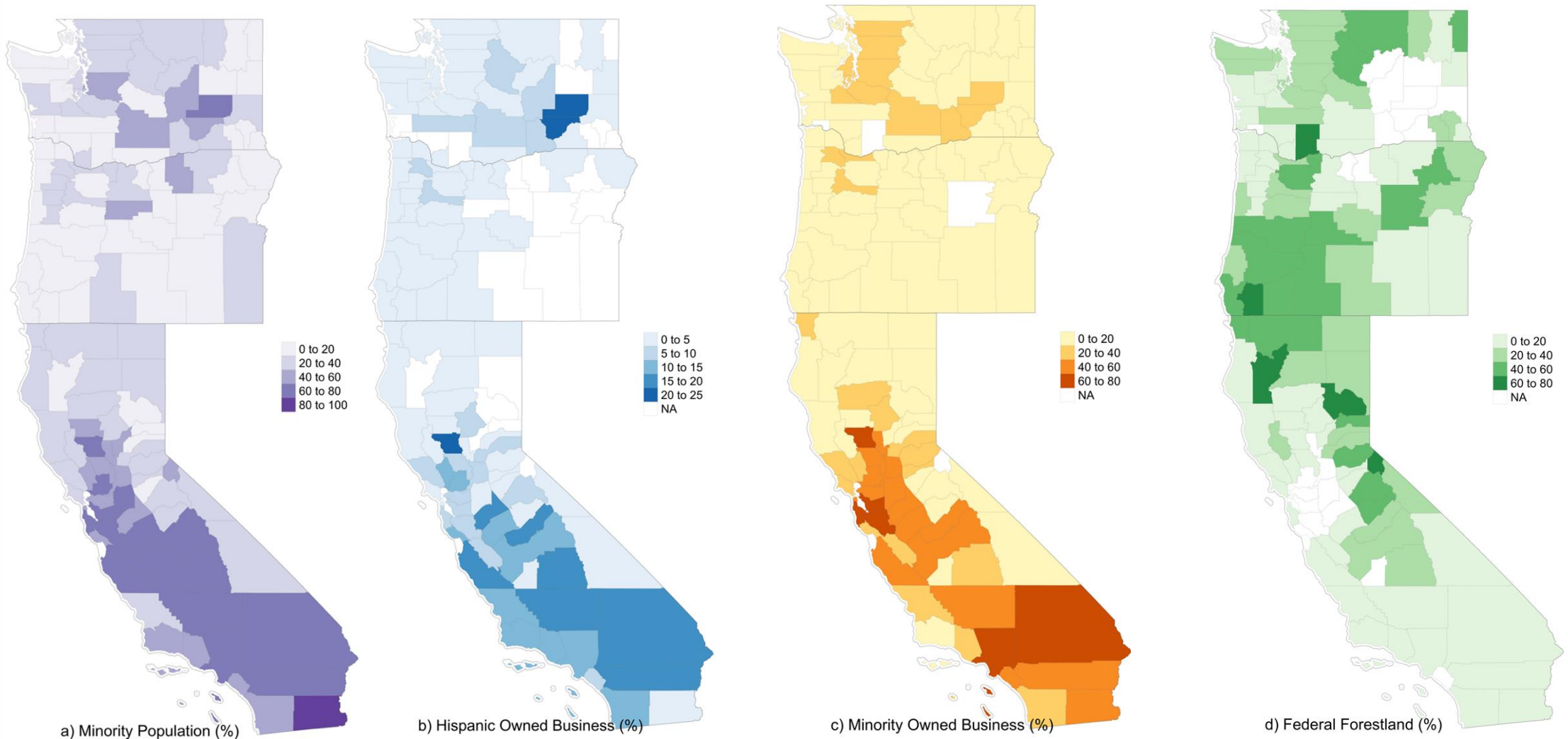
Distributive equity of USDA Forest Service contracts

How are contracting dollars distributed across counties of Oregon, Washington, and California?



How are contracting dollars distributed across counties of Oregon, Washington, and California?

Socio-economic variables

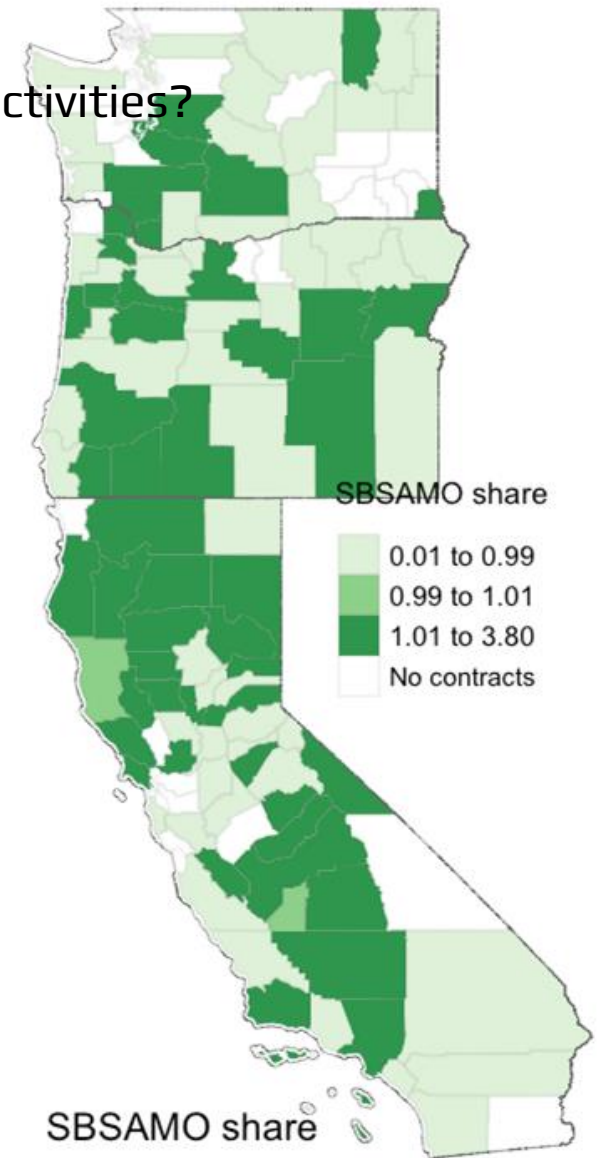


Does the USDA Forest Service impact distributional equity through its contracting activities?

SBSAMO businesses in only 27% of the counties were as successful in capturing contract dollars proportionate to the role of SBSAMO businesses in that county

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$$\frac{\frac{\$SBSAMO}{\$LIF}}{\frac{\#Businessownedbyminoritypopulation}{\#TotalBusinesses}} \geq 1$$



How to make it accessible for SBSAMO?

Need based assessment of the
counties that are below
distributive equity threshold

Agencies and educational or
outreach programs could play
important role in capacity
development and
entrepreneurship of SBSAMO
businesses.

Public institutions such as
extension programs can
encourage and support
entrepreneurship development
for marginalized workers and
entrepreneurs, particularly
Latine populations.

Limitations



Business success



In-depth site visit, case study, and interviews in this clustered counties



Location of business receiving contracts



Location of work



Labor-and machinery-intensive work



Forest service contracting data

Way-Forward

Funding Source: USDA -Agriculture and Food Research Initiative

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Thank you for your attention.



I'm happy to answer any questions you may have.

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Local Indicator of Spatial Autocorrelation (LISA)

Identifies the presence of clusters in the spatial arrangement of data using Local Moran's I

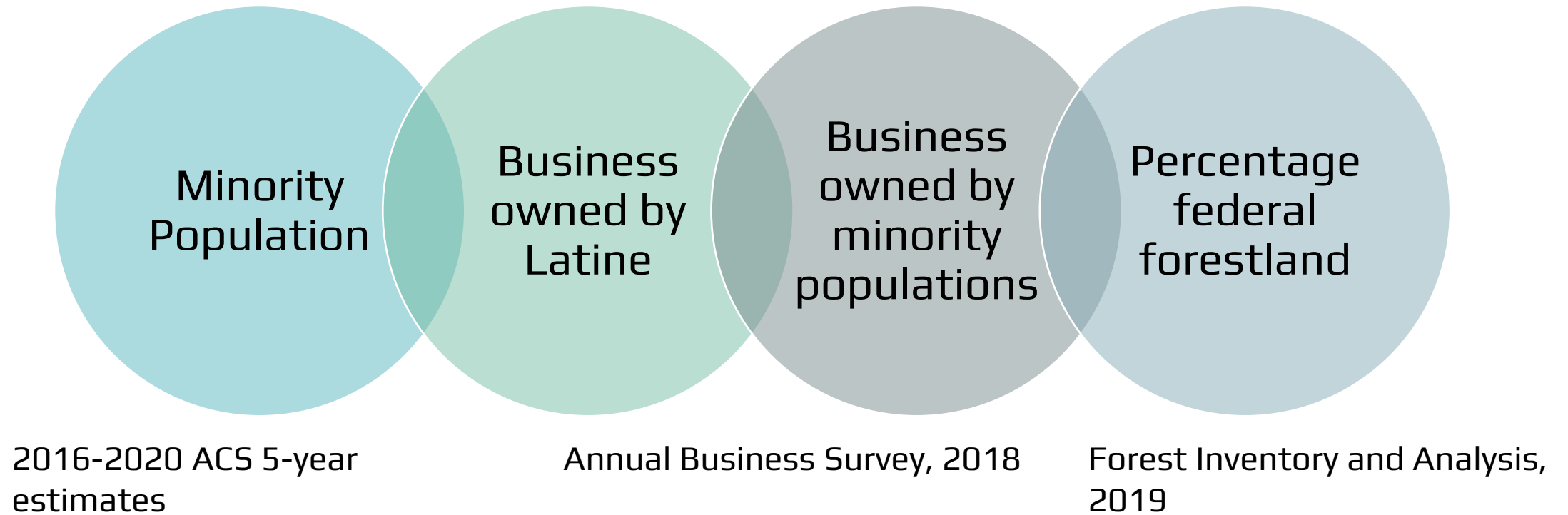
Moran's I : based on the values for neighboring polygons (counties)

Positive Moran's I indicates that the county has neighbors with similarly high values of the data of interest

(Anselin, 1995)

Background	Research Question	Methodology	Results and Discussion	Conclusion
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Exploratory Analysis



Distributive Equity

Proportion of contracting dollars captured by minority and small businesses to the proportion of minority and small businesses in each county

Proportion of contracting dollars captured by minority and small businesses

Proportion of minority and small businesses

$$\frac{\frac{\$SBSAMO}{\$LIF}}{\frac{\#Businessownedbyminoritypopulation}{\#TotalBusinesses}} \geq 1$$

USFS plays a role in how dollars flow into places and people

Presidential Executive Order 13985 signed in 2021

Target: increase the proportion of federal contracting dollars going to small, disadvantaged businesses (SDBs) by 50% by 2025.

Justice40 initiative

Government initiative to deliver at least 40% of the overall benefits from certain federal investments to disadvantaged communities.

Leveraging Contracts for National Forest Restoration and Rural Development

