

# US Health Workforce Commuting Patterns

## Where Allied Health Care Workers Live and Work

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2023 IHWC Mini Hybrid Conference  
December 7, 2023

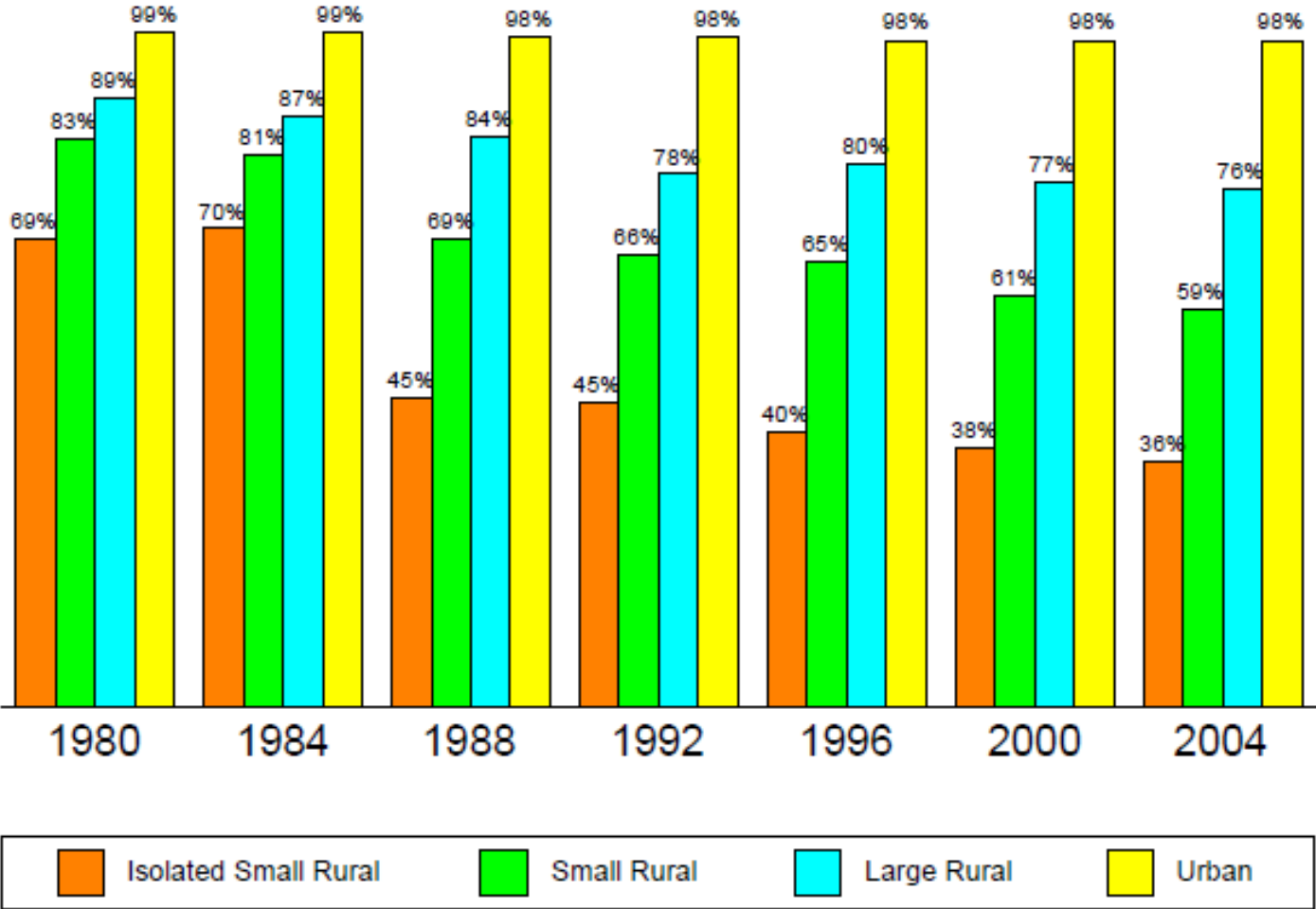
Ben Stubbs  
University of Washington  
Center for Health Workforce Studies



# Background

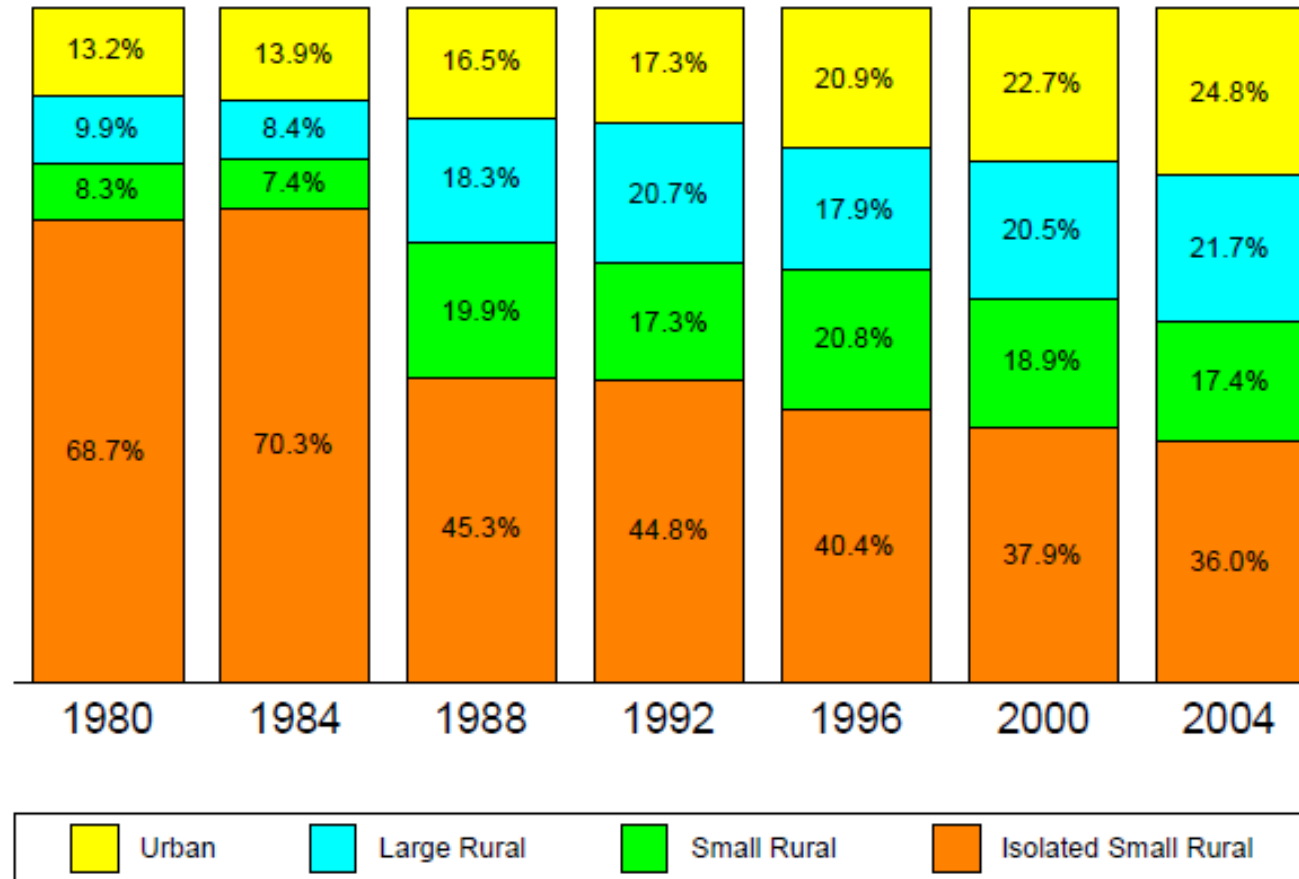
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# Working RNs who live and work in the same area type: US 1980-2004



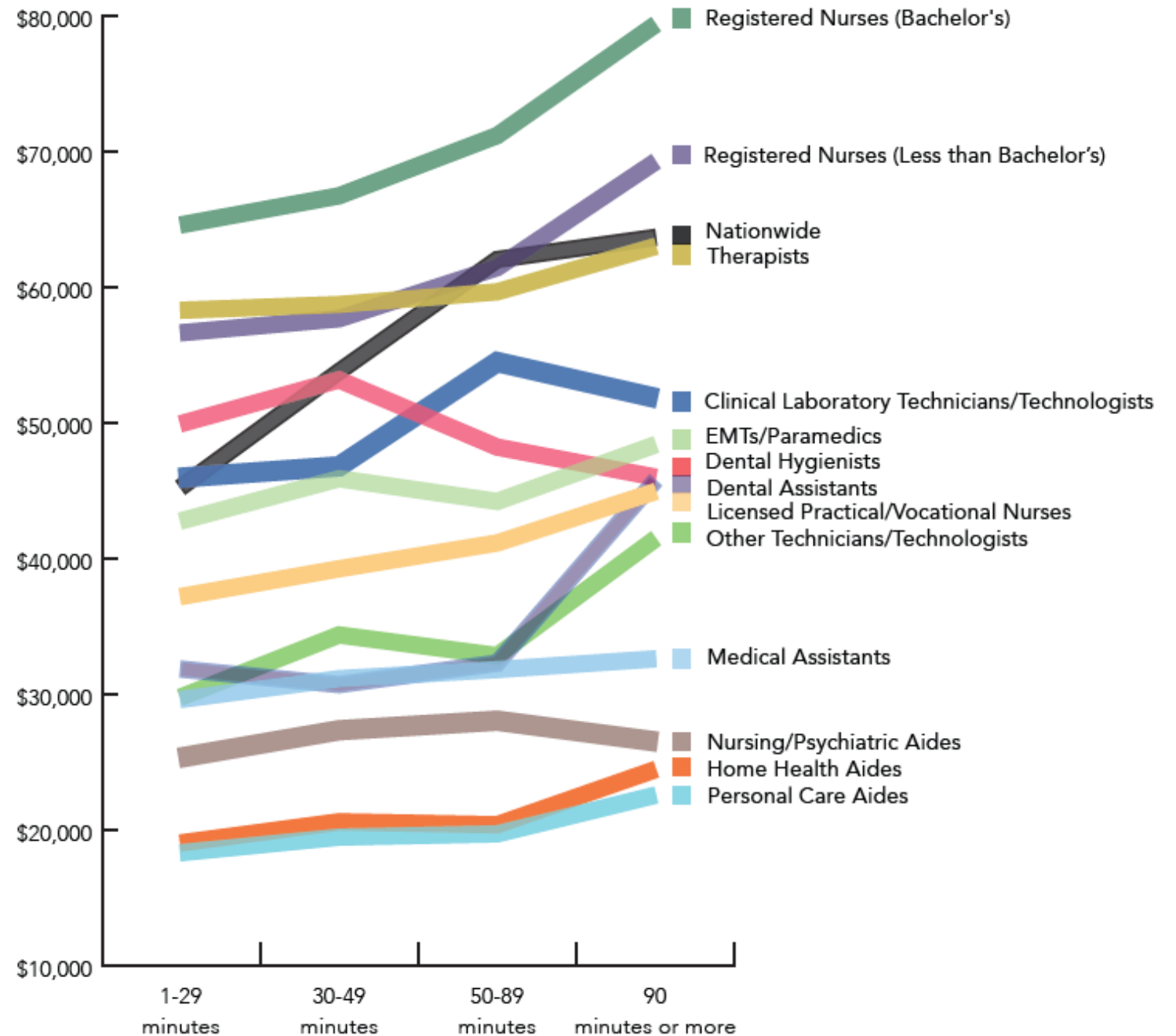
Source: Skillman SM, Palazzo L, Hart LG, Butterfield P. Changes in the rural registered nurse workforce from 1980 to 2004. Final Report #115. Seattle, WA: WWAMI Rural Health Research Center, University of Washington, Oct 2007. <https://familymedicine.uw.edu/rhrc/wp-content/uploads/sites/4/2015/09/RHRC-FR-OCT2007-Skillman.pdf>

# Work area type of RNs who live in isolated small rural areas: US 1980-2004



Source: Skillman SM, Palazzo L, Hart LG, Butterfield P. Changes in the rural registered nurse workforce from 1980 to 2004. Final Report #115. Seattle, WA: WWAMI Rural Health Research Center, University of Washington, Oct 2007. <https://familymedicine.uw.edu/rhrc/wp-content/uploads/sites/4/2015/09/RHRC-FR-OCT2007-Skillman.pdf>

# Average Individual Wage Earnings by Commute Time Intervals of Allied Health Workers and Registered Nurses, 2017



Source: Dahal A, Skillman SM, Patterson DG, Frogner BK. What Commute Patterns Can Tell Us About the Supply of Allied Health Workers and Registered Nurses. Center for Health Workforce Studies, University of Washington, May 2020.  
<https://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2020/05/Commute-Patterns-FR-2020.pdf>

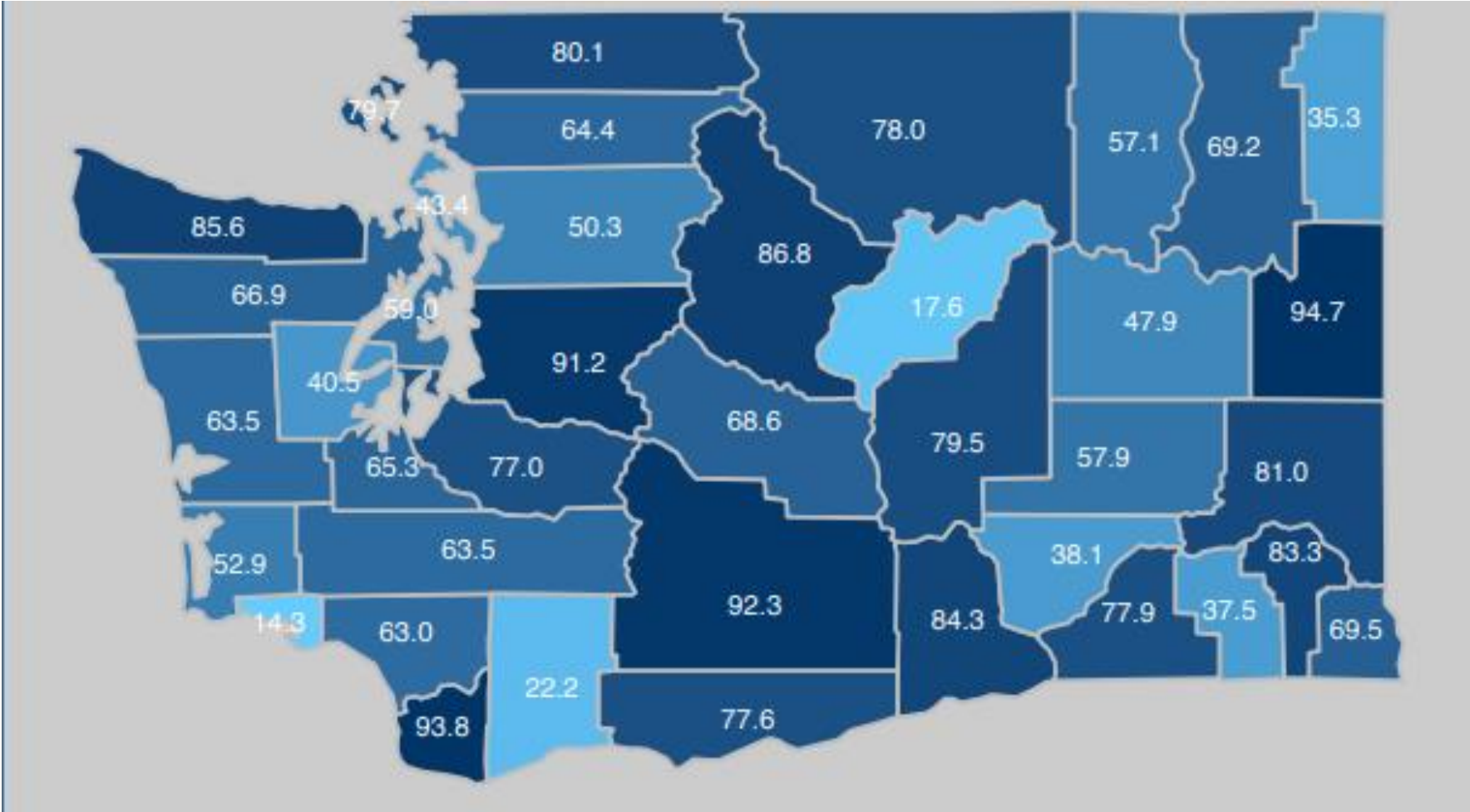
# Medical Assistants' Primary Work Location Compared with their Residence Location (2017): Washington State Accountable Community of Health (ACH)

ACH of Primary Work Location									
ACH of residence	Healthier-Here	North Sound	Cascade Pacific Action Alliance	Pierce County ACH	Southwest WA Regional Health Alliance	Olympic Community of Health	Better Health Together	North Central	Greater Columbia
HealthierHere	<b>94.2%</b>	2.2%	<1.0%	2.2%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%
North Sound	24.6%	<b>74.4%</b>	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%
Cascade Pacific Action Alliance	1.7%	1.1%	<b>88.9%</b>	4.4%	2.8%	1.1%	<1.0%	<1.0%	<1.0%
Pierce County ACH	28.2%	<1.0%	5.6%	<b>63.9%</b>	<1.0%	1.6%	<1.0%	<1.0%	<1.0%
Southwest WA Regional Health Alliance	<1.0%	<1.0%	1.4%	<1.0%	<b>97.3%</b>	<1.0%	<1.0%	<1.0%	<1.0%
Olympic Community of Health	4.2%	<1.0%	<1.0%	4.9%	<1.0%	<b>89.6%</b>	<1.0%	<1.0%	<1.0%
Better Health Together	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<b>97.4%</b>	<1.0%	<1.0%
North Central	1.3%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	1.3%	<b>93.8%</b>	3.8%
Greater Columbia	1.2%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<1.0%	<b>96.0%</b>

Source: Skillman SM, Dahal A, Frogner BK, Andrilla CHA. Medical Assistants in Washington State: Demographic, Education, and Work Characteristics of the State's Medical Assistant-Certified Workforce. Center for Health Workforce Studies, University of Washington, Jan 2019.

[http://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2019/02/WA\\_MA\\_SURVEY\\_2019.pdf](http://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2019/02/WA_MA_SURVEY_2019.pdf)

# Percentage of registered nurses (RNs) from each county in Washington state who work in that same county: 2019



Source: Stubbs BA, Skillman SM. Washington State's 2019 Registered Nurse Workforce. Center for Health Workforce Studies, University of Washington, Mar 2020. [https://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2020/03/WA\\_RN\\_Survey\\_2019.pdf](https://familymedicine.uw.edu/chws/wp-content/uploads/sites/5/2020/03/WA_RN_Survey_2019.pdf)

# The American Community Survey

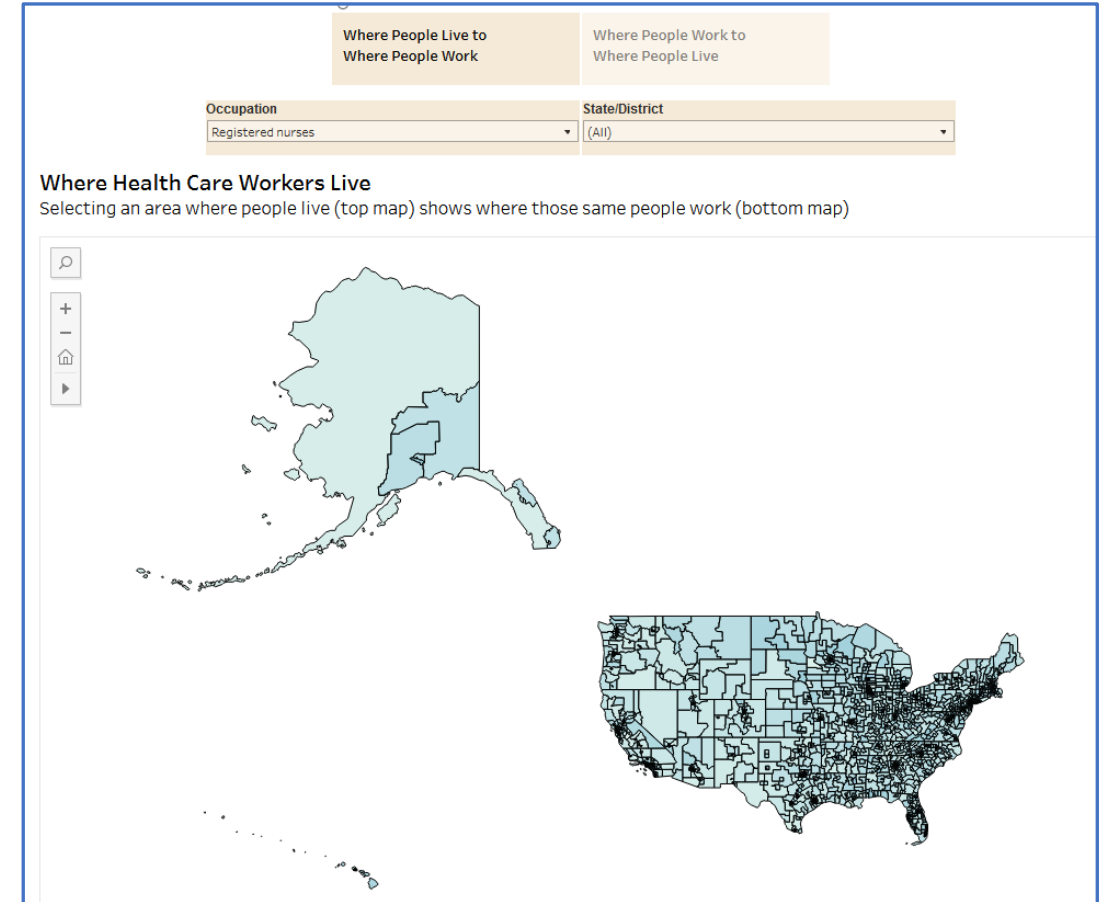
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- Conducted every year by the US Census Bureau
- Sent to a sample of addresses (about 3.5 million) in the 50 states, District of Columbia, and Puerto Rico
- Asks about topics not on the decennial Census, such as education, employment, internet access, and transportation
  - Occupation: Standard Occupational Classification (SOC) Codes
  - Geography: Public Use Microdata Areas (PUMAs)



# Commuting Patterns Dashboard

- 50 states and District of Columbia
- 15 occupations
- Compare where people live to where they work (or vice versa)
- Uses a 5-year (2013-2017) pooled sample of the American Community Survey
- Excludes unemployed, working from home and living in an institution



This study was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$543,300 with zero percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government. For more information, please visit HRSA.gov <https://www.hrsa.gov/grants/manage/acknowledge-hrsa-funding>

<https://familymedicine.uw.edu/chws/resources/leveraging-data/commuting-patterns>

# Question 1

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Are US health care workers crossing state lines for work?

# The Pacific Northwest

Some metro areas cross state lines

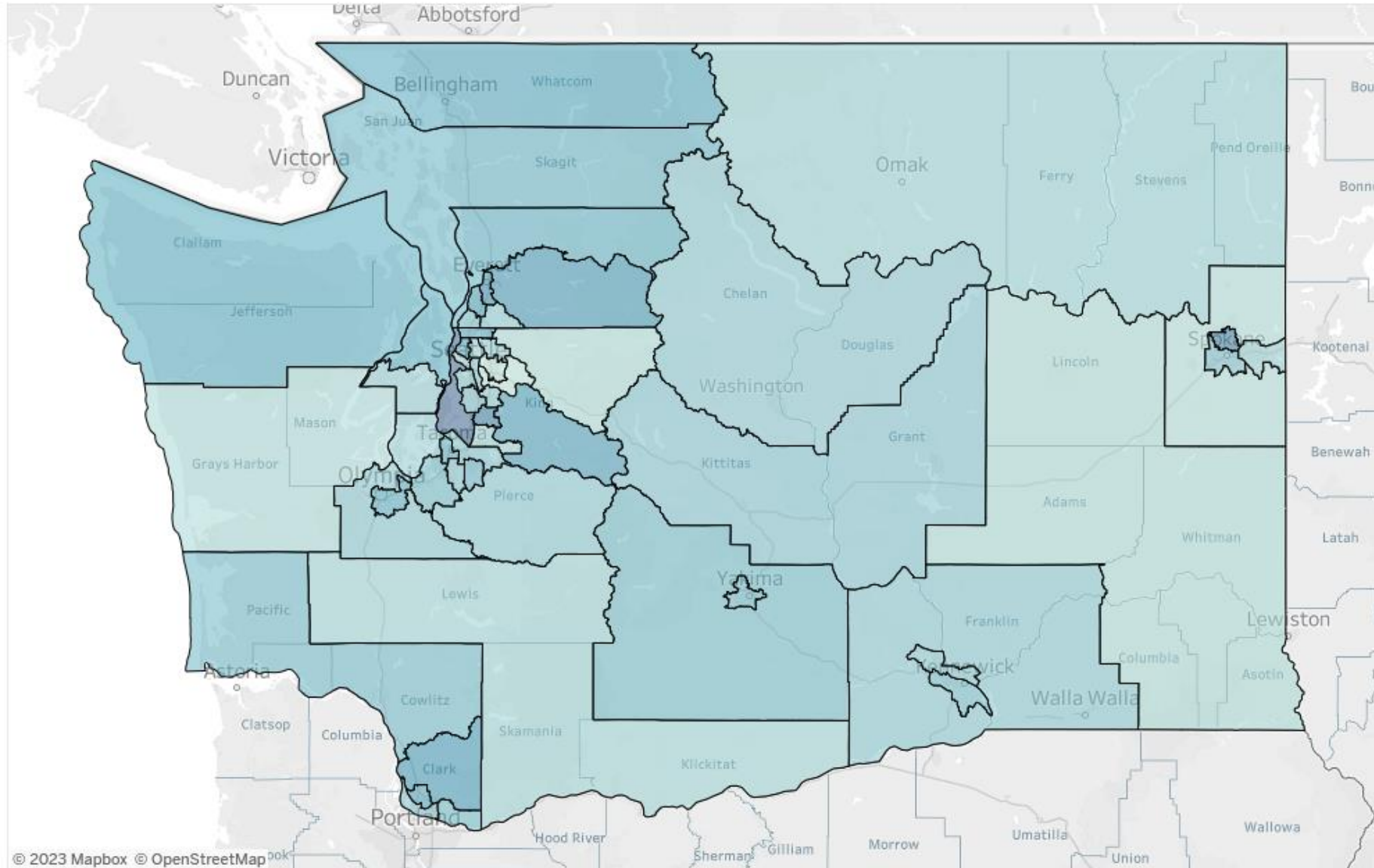


Source: Modified from - <https://www.drought.gov/dews/pacific-northwest>

# Medical Assistants – Washington State

## Where Health Care Workers Live

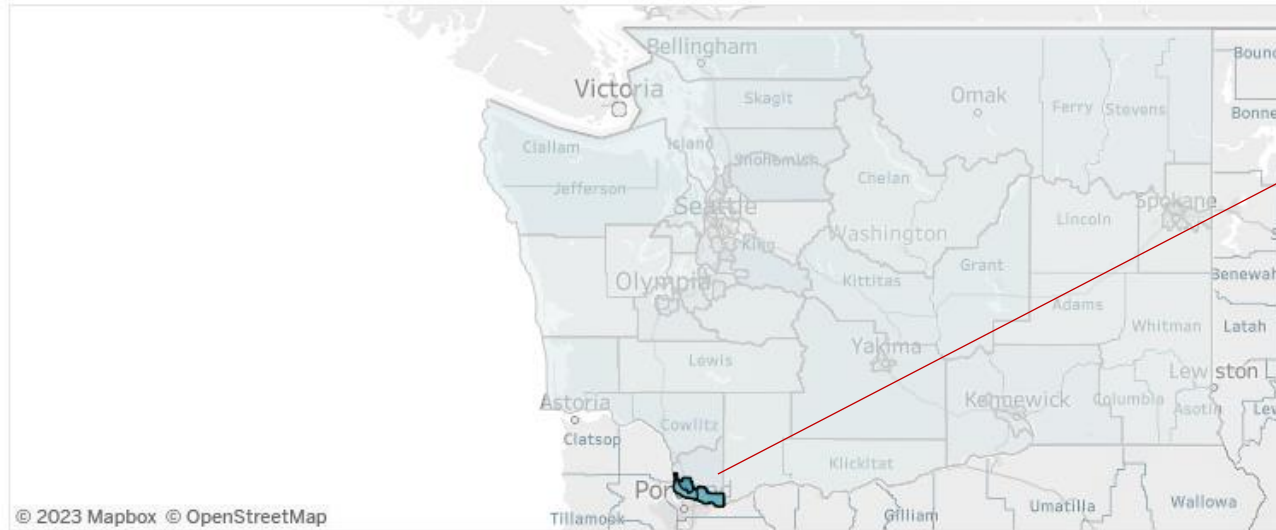
Selecting an area where people live (top map) shows where those same people work (bottom map)



# Medical Assistants – Living in Vancouver, WA

## Where Health Care Workers Live

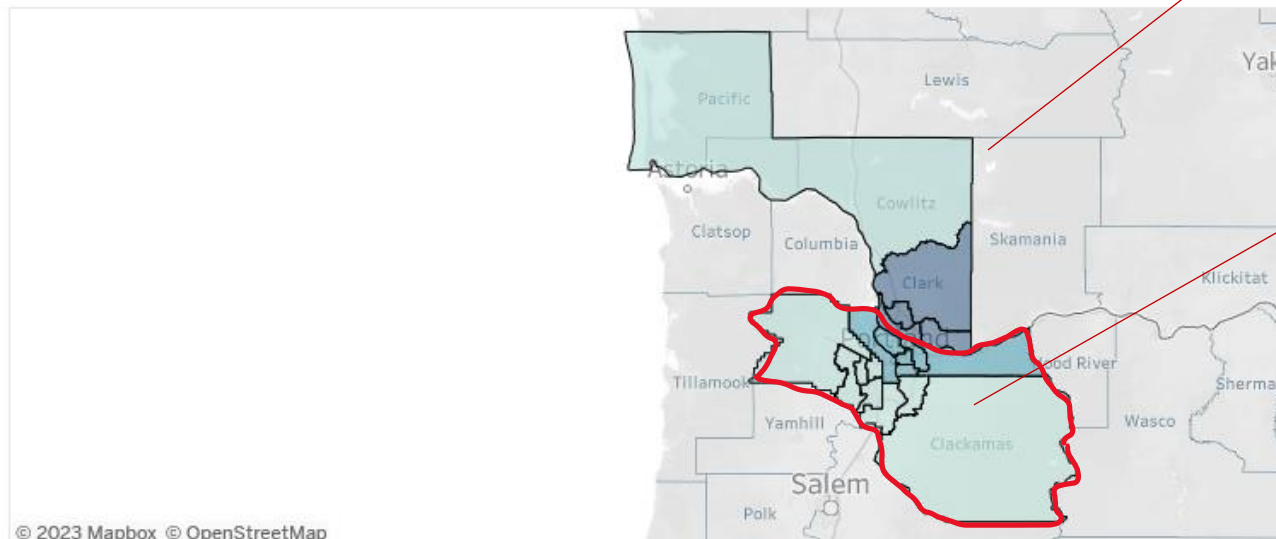
Selecting an area where people live (top map) shows where those same people work (bottom map)



Approximately 740 MAs live in south Vancouver, along the border with Oregon

The lower map shows where these MAs work. The “Place of Work PUMA” provided by ACS is generally larger than the residential PUMA

## Where Health Care Workers Work



Approximately 270 of 740 (36%) who live in south Vancouver work in Oregon

# Medical Assistants – Living in 6 counties near Idaho border

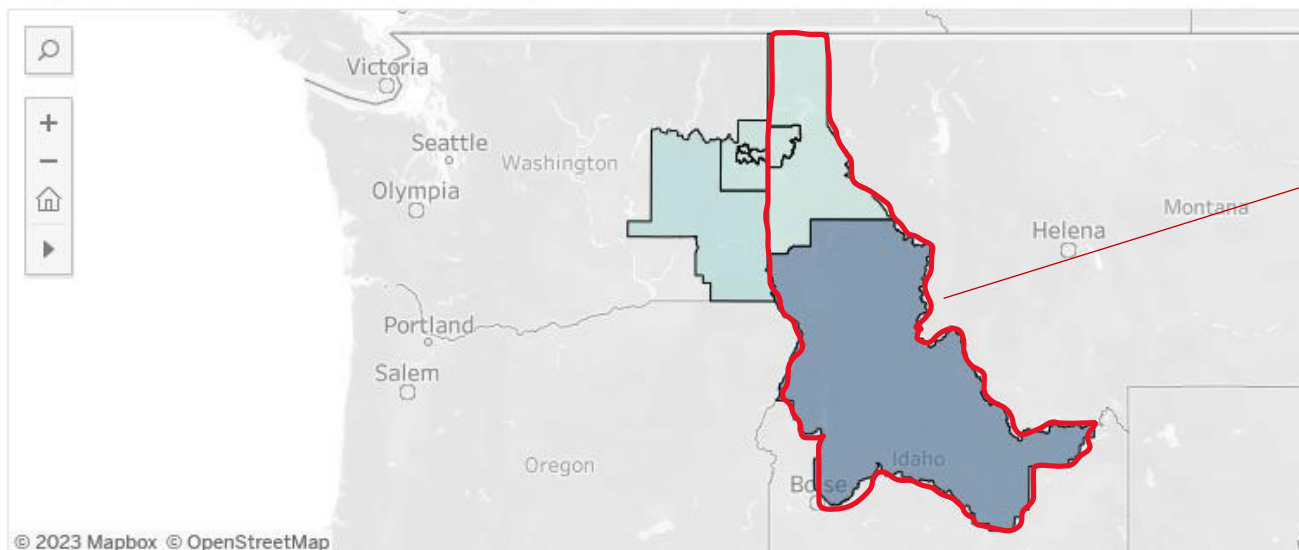
## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



In more sparsely populated areas, PUMA regions are bigger (in this case 6 entire counties in southeastern Washington)

## Where Health Care Workers Work



The majority of MAs living in southeastern Washington (80 of 103 – 78%) work in Idaho

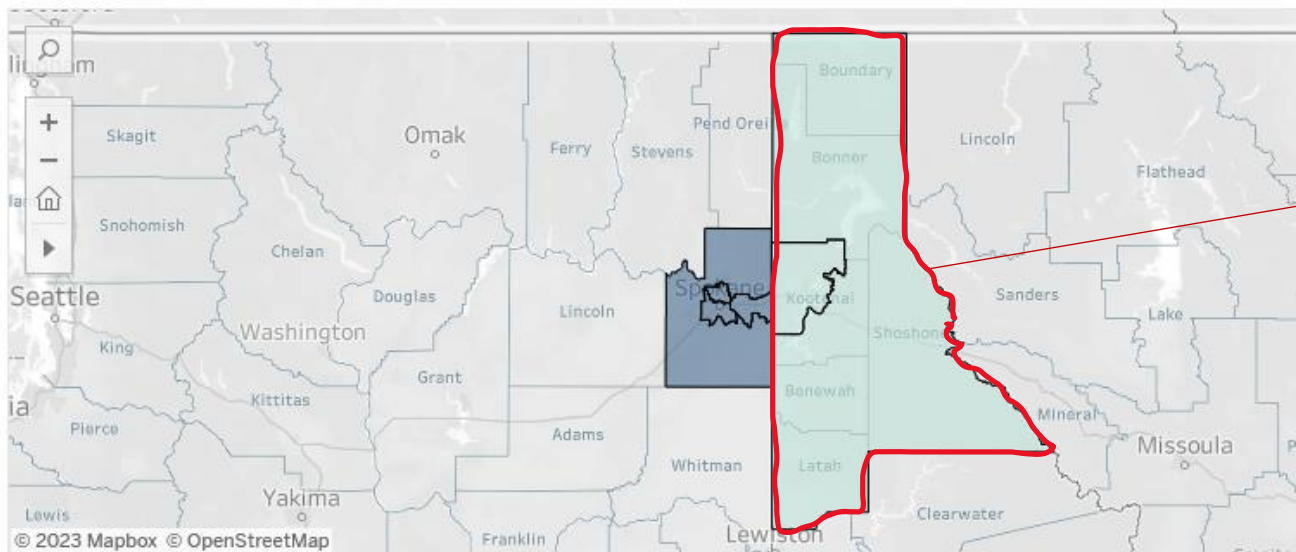
# Medical Assistants – Living in Spokane, WA

## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



## Where Health Care Workers Work



An estimated 58 of 794 (7%) live in Spokane (central) and work in Idaho





# Registered Nurses – Living in Vancouver, WA

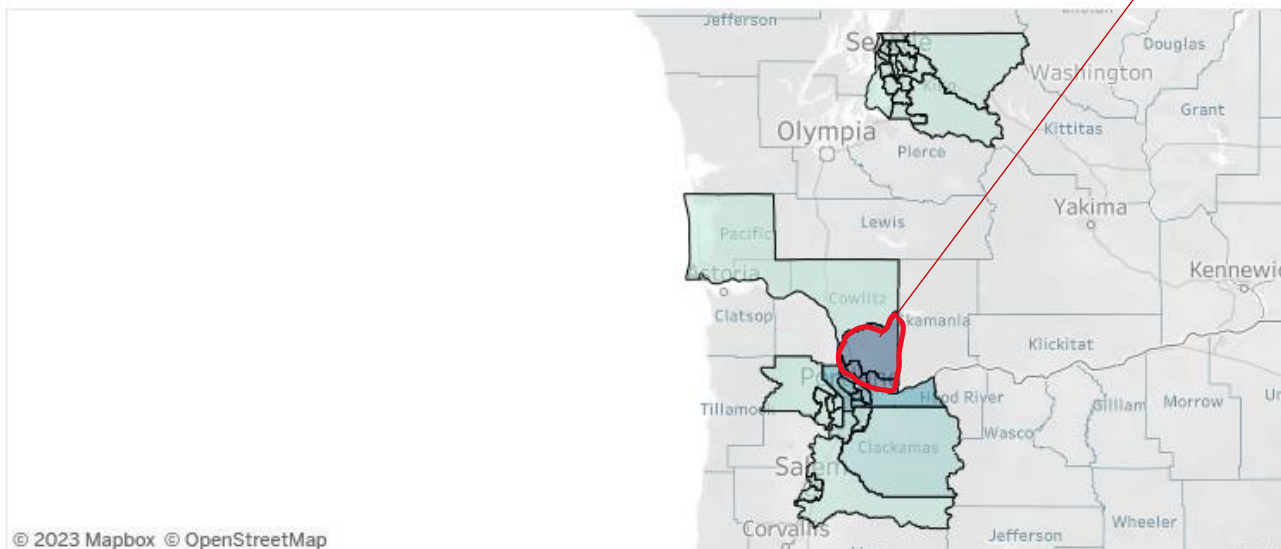
## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



Similar to MAs, most RNs living in south Vancouver, WA work in Clark County (60%)

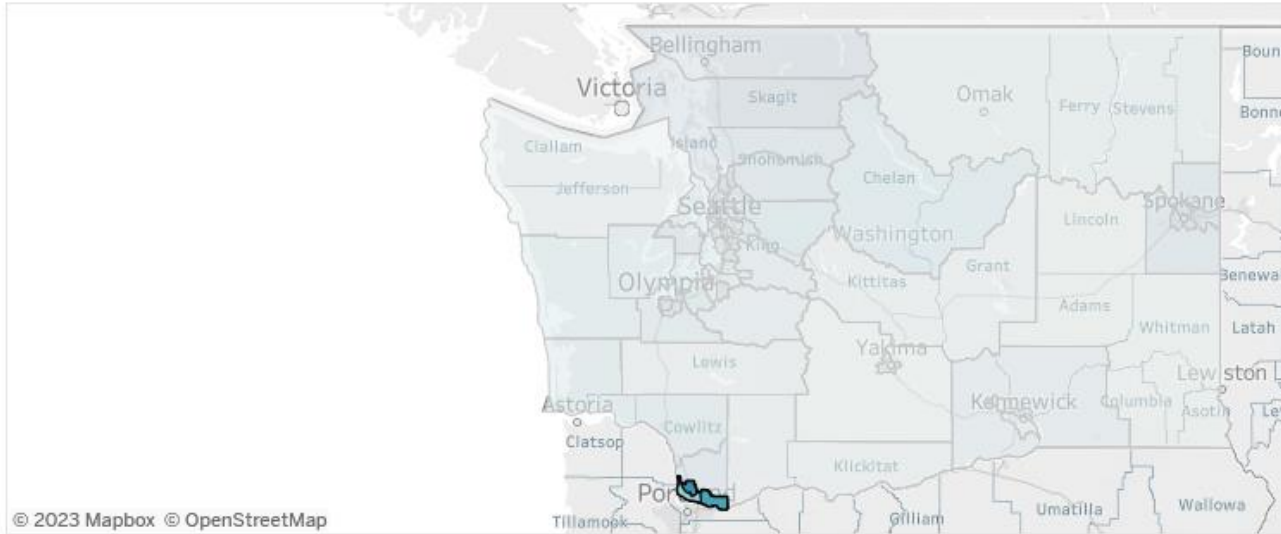
## Where Health Care Workers Work



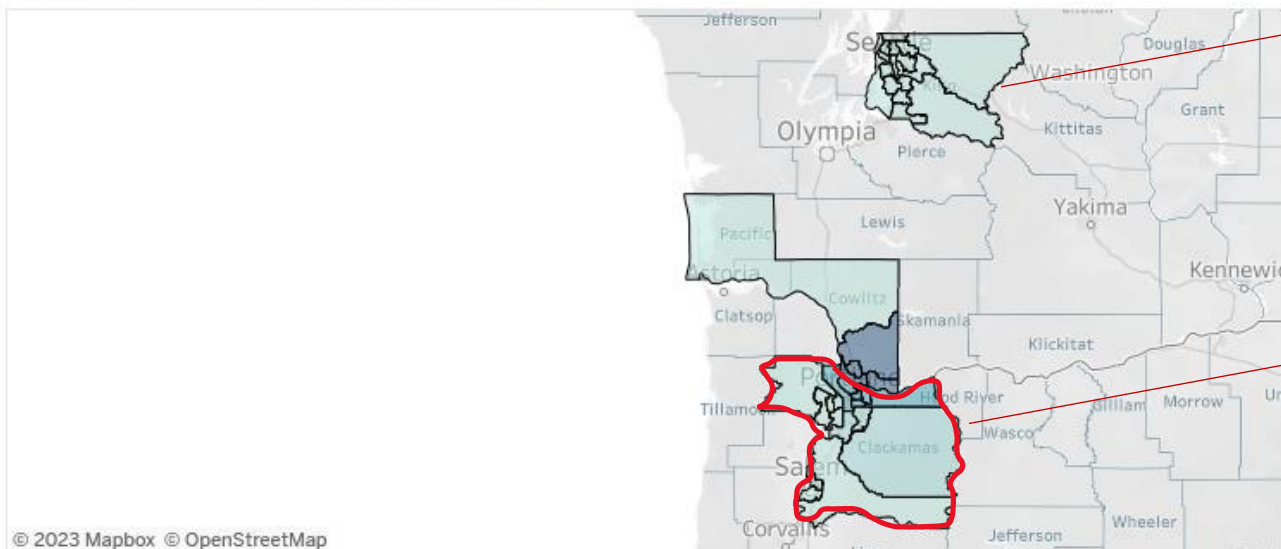
# Registered Nurses – Living in Vancouver, WA

## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



## Where Health Care Workers Work



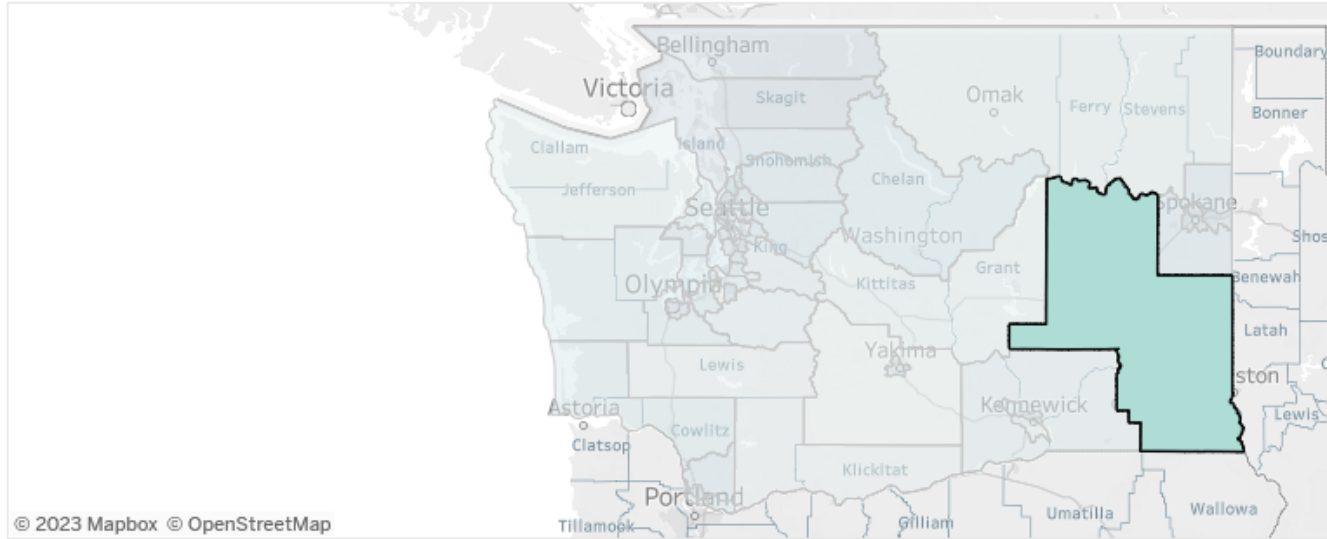
Unlike MAs, some RNs travel north toward Seattle for work (1%)

Approximately 39% of RNs who live in south Vancouver travel to Oregon for work, including some who travel as far as the Salem area

# Registered Nurses – Living in 6 counties near Idaho border

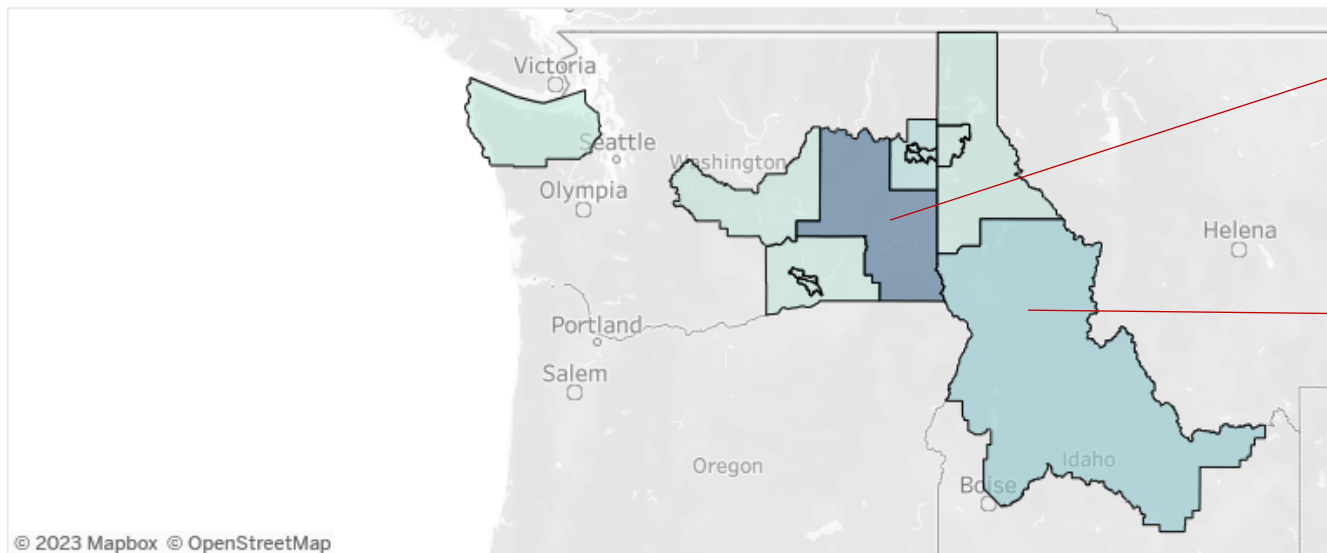
## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



The “work footprint” of RNs living in southeastern Washington is relatively large...

## Where Health Care Workers Work



...although 64% work in the same region as they live...

...and about 20% work in Idaho (a lower rate of cross-border commuting than MAs)

# Registered Nurses – Living in Spokane, WA

## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



## Where Health Care Workers Work

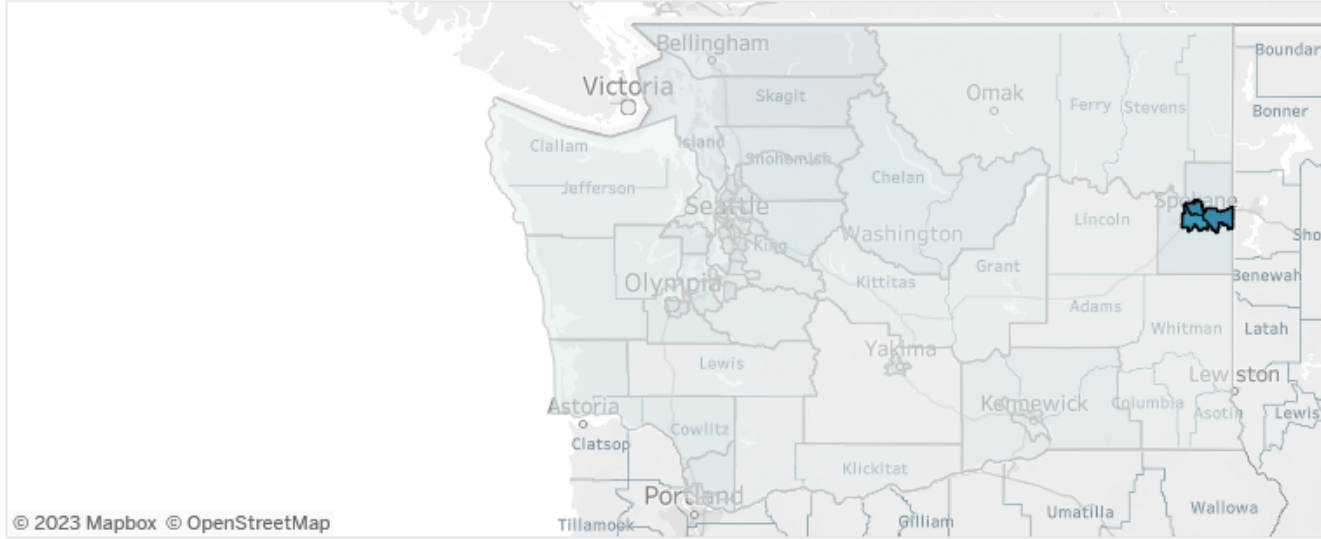


The “work footprint” of the 4,050 RNs living in Spokane is very large, including Western Washington (1.2%), Idaho (1.2%), and Alaska (<1%).

# Registered Nurses – Living in Spokane, WA

## Where Health Care Workers Live

Selecting an area where people live (top map) shows where those same people work (bottom map)



## Where Health Care Workers Work



Zooming in to Washington, it becomes even more clear that the vast majority (94%) work in Spokane County, the same county in which they live.

# Question 1 – Conclusions

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- In certain areas of Washington, cross-border commuting for work is relatively common for some health care occupations
  - The degree to which workers from different occupations commute across state borders varies
- Commuting patterns in Washington metro areas that cross state borders varies
  - Cross-state commuting is relatively common in Vancouver - Portland and Southeast Washington.
  - Not as common in Spokane - Coeur d'Alene

# Question 2

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Are there differences in commuting patterns for different health care occupations?

# North Carolina

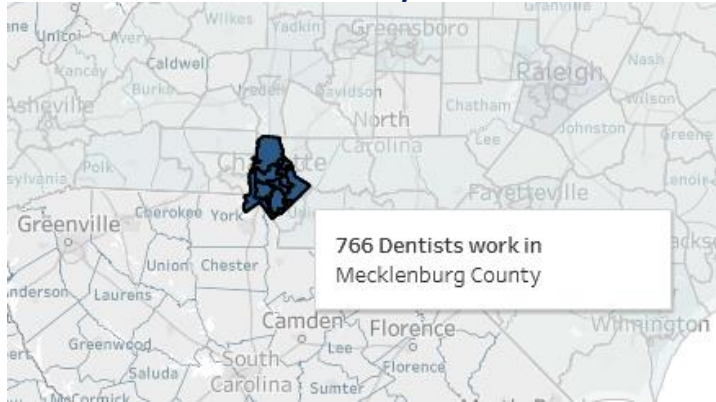




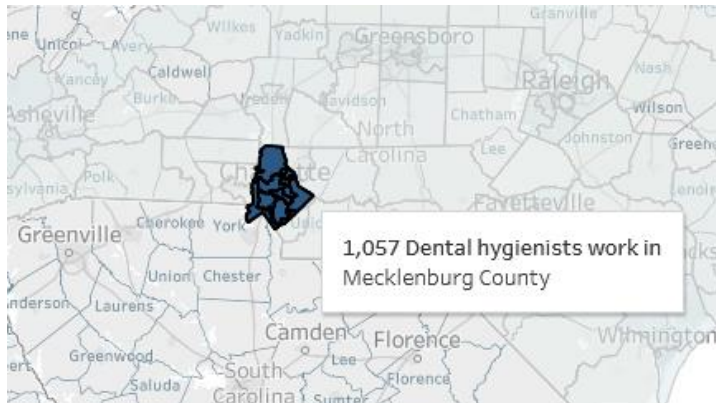
# Oral Health Occupations – Working in Mecklenburg County, NC

## Where they work

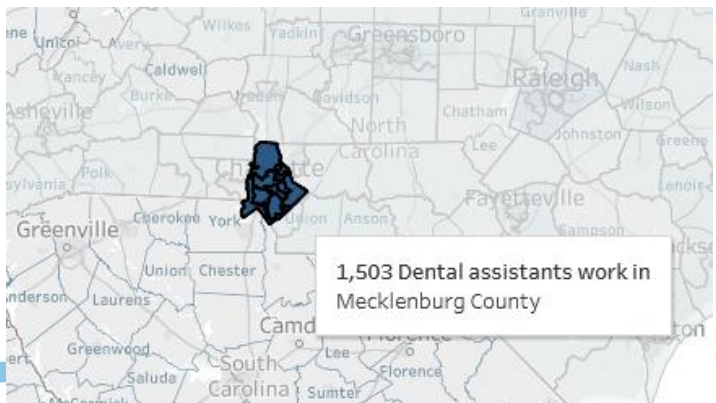
Dentists



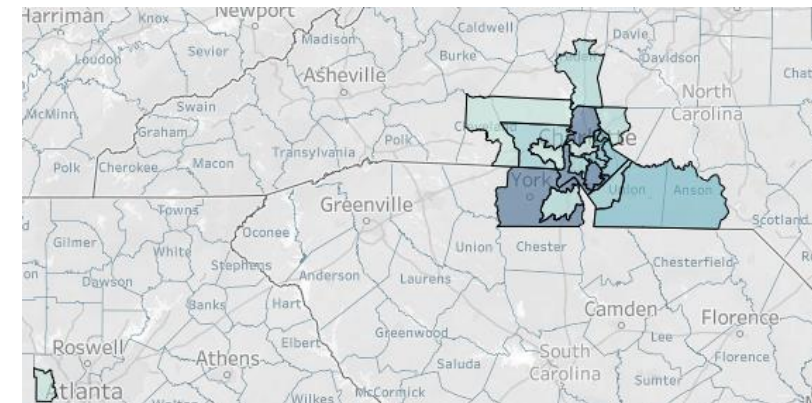
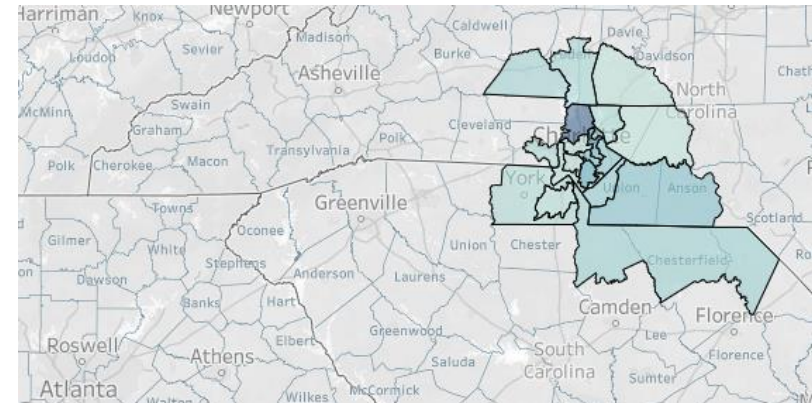
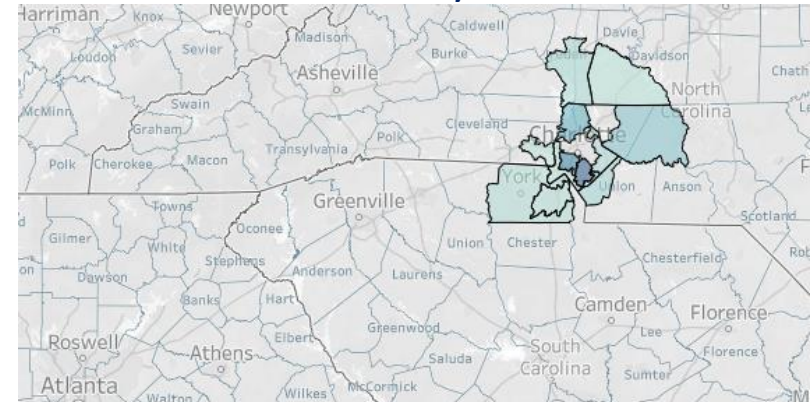
Dental Hygienists



Dental Assistants



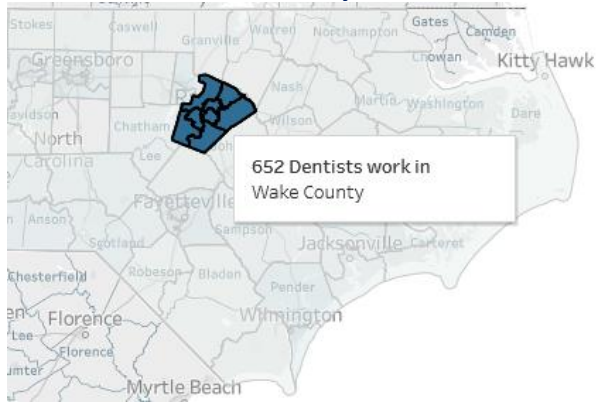
## Where they live



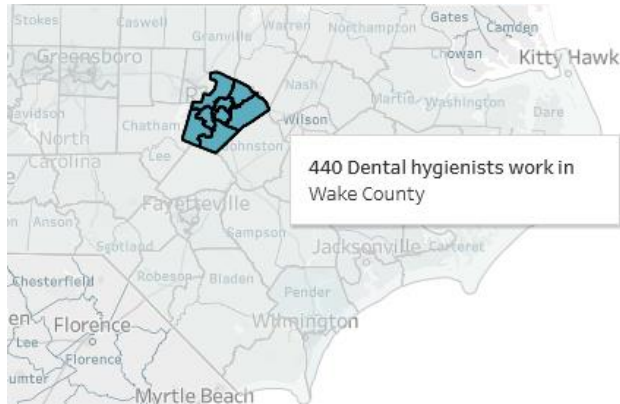
# Oral Health Occupations – Working in Wake County, NC

Dentists

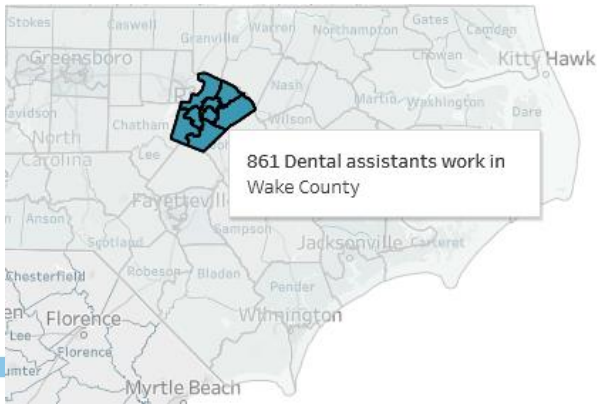
Where they work



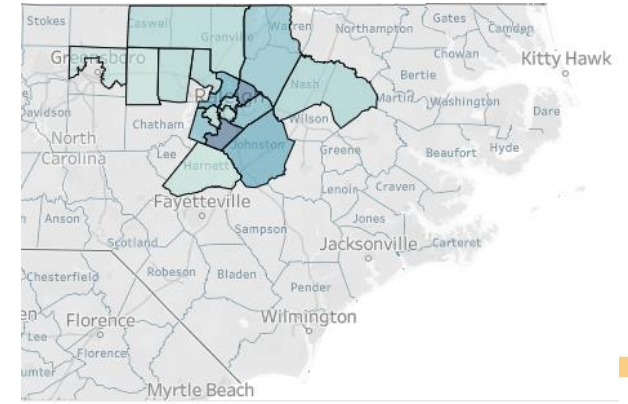
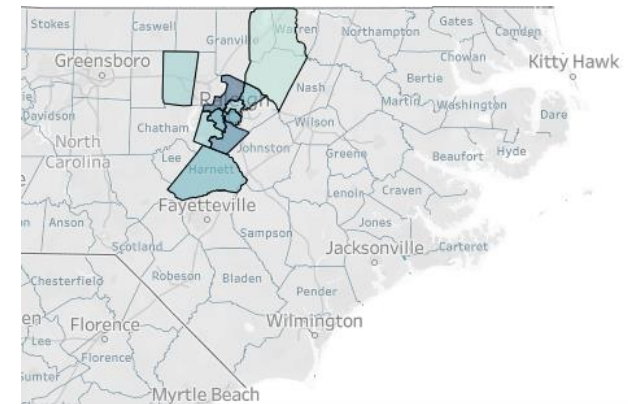
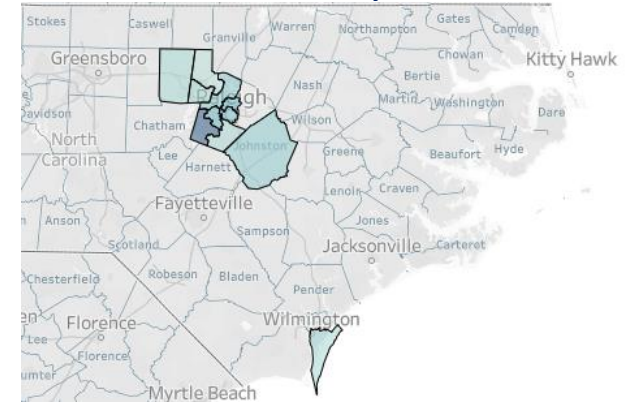
Dental Hygienists



Dental Assistants



Where they live



## Question 2: Conclusions

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Among oral health occupations working in two areas of North Carolina:

- The areas where dentists, dental hygienists and dental assistants are most likely to live varies
- Dental hygienists and dental assistants appear to commute from a larger surrounding area than dentists

# Future Plans: Update dashboard with 2022 data

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How have commuting patterns changed post-pandemic?

- How does the percentage of workers living and working in the same area compare to pre-pandemic rates?
- Are there more health care workers working from home?

*\* Can we show additional factors, such as length of commute, percent in-flow and out-flow and demographics that may affect commuting patterns?*

# Thank you!

Visit the dashboard:

<https://familymedicine.uw.edu/chws/resources/leveraging-data/commuting-patterns>

## Contact Information

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