

Cycling through age

Exploring the changing experiences and preferences of older adult cyclists in the U.S.



Cycling through age

Theme: Fast and slow social and cultural cycling changes: disaster, crisis, trauma, “disruptions”; and barriers, blocks, stagnancy and obstacles.

Research questions

— Many who cycled in college during the 1970s are today's older cyclists.



Research questions

- (1) What do we know about these folks? What keeps them cycling and what is the likelihood that they'll continue to do so into their 70s, 80s, and 90s?
- (2) What can help adults continue to cycle as they age?



Backdrop

- Bruno and Nikolaeva (2020, p. 10): rather than just mode shift from unsustainable to sustainable, include “a focus on the *maintenance of existing sustainable transportation practices* over the whole life cycle.”
- *Inclusive cycling future*: need to consider deeply the needs and characteristics of diverse groups of users. Here we explore the case of older adults.
 - We want to move past assumptions, and take the first step to actually ask them about their experiences.



50+ Cycling Survey - Summer 2021 to Spring 2022

Cycling Past 50 Survey

Researchers at the Mineta Transportation Institute, San Jose State University, are conducting a survey to gather your thoughts and preferences about cycling among older adults. Your opinions are very important, no matter how much or little you cycle, or whether you cycle at all.

The survey takes about 10-12 minutes and is anonymous. Your participation is completely voluntary. You can refuse to participate or stop the survey at any time without any negative effect on your relations with

Backdrop: Research project

Presentation: Keeping people cycling as they age.

Drawn from Research project: 50+ Cycling Survey (2020)



Project 2112 | April 2021

SJSU SAN JOSÉ STATE UNIVERSITY

MTI MINETA TRANSPORTATION INSTITUTE

Cycling Past 50: A Closer Look into the World of Older Cyclists
Carol Kachadoorian



dbiTilde collaborative
Mobility planners and practitioners

transweb.sjsu.edu
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Research - 50+ Cycling Survey

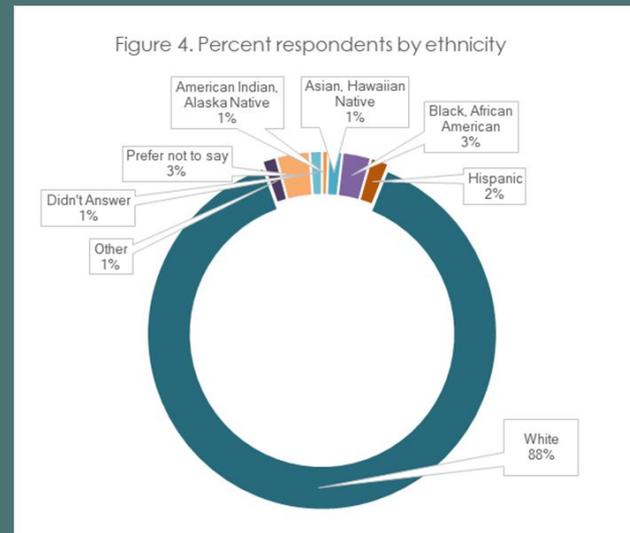
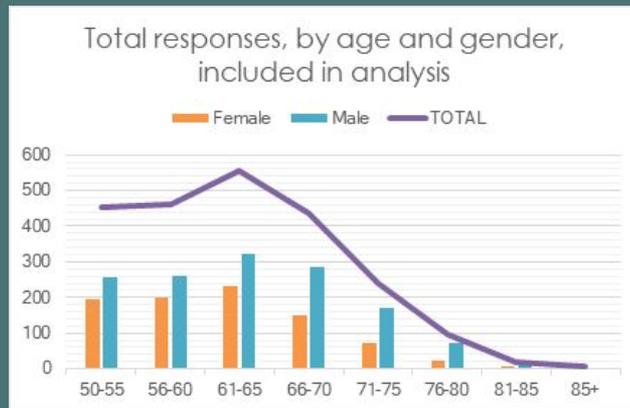
Survey of current cyclists

2020 survey: 2300 respondents for the 3-part survey:

1. History, experience, and preferences
2. Optional: Visual preference
3. Optional: Online Journals (844 journals)

Limitations: Uneven distribution by geography, age, race and income; weather impacts on different places

Opportunity: COVID



Thanks for asking



Sensed an appreciation for being asked, as much cycling advertising, planning, design, etc., features younger riders.

“I take the same 5-mile route on every ride, for exercise and health. The route is excellent for bikes. Dare I tell you most of best markings for bikes are in Berkeley?”

I hope more communities will create safe ways for bike riders of all ages.

Thanks for doing this research.”

-a 70-year-old woman

Why is this important?

Understanding
what motivates
cycling.

1

Address changing
needs and
characteristics.

2

Identify barriers,
obstacles.

3

Results



**RQ 1: What do we know about
older adults who cycle?**

Understanding what motivates cycling.

1

- Socialization – cycle more when there is someone to cycle with
- Exercise & Health – staying fit, slowing aging process
- Environmental stewardship – fewer car trips
- Transport – work, shopping
- Love of the sport



What motivates cycling

Everything went well during the ride. No physical or mechanical issues.

What went well?

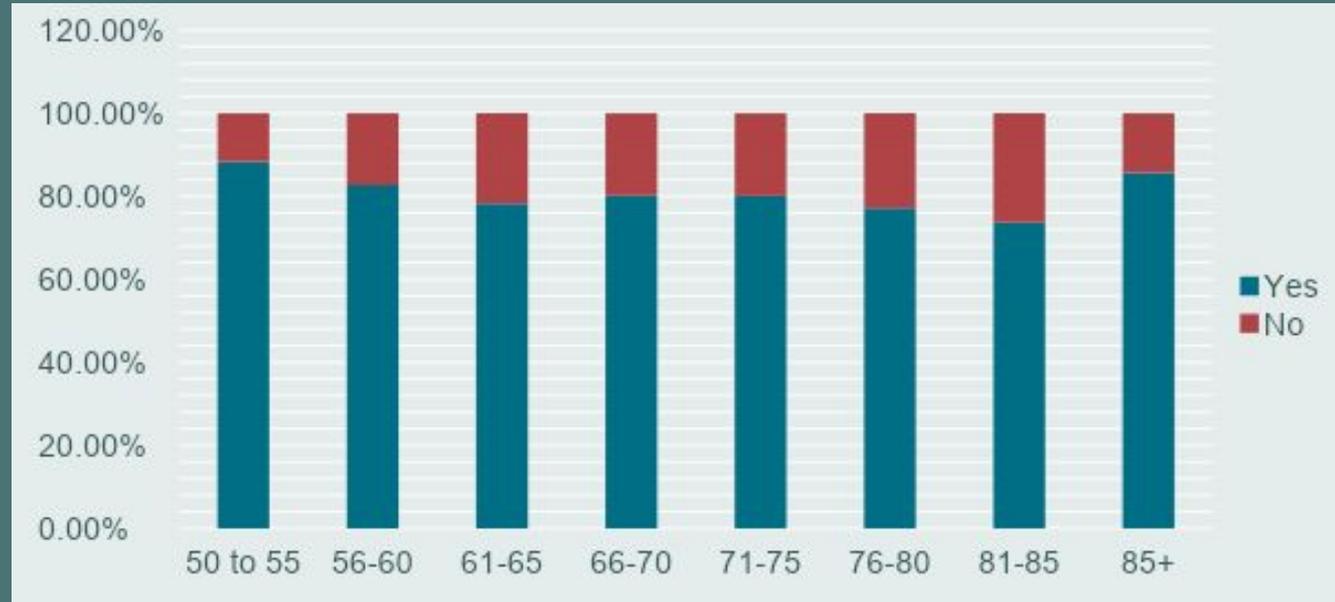
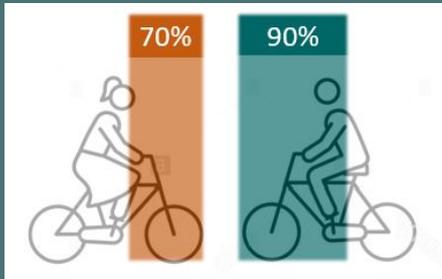
Positive Mental Attitude

I used to cycle regularly (2 or 3 times a week) but my 'riding buddy' moved away & my motivation left with her!"

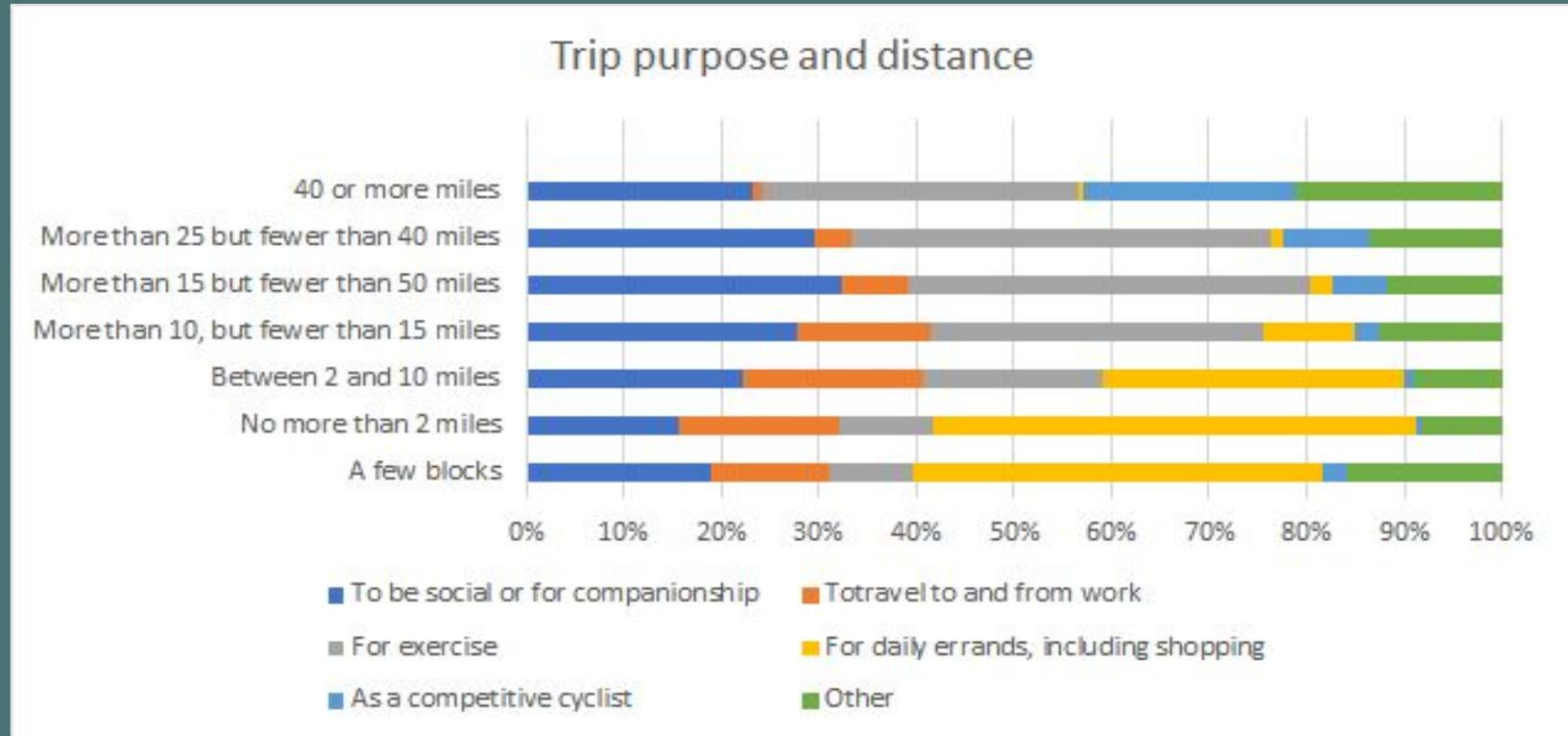
I used to ride a bike when I was teenager now that I am old and alone, I wish to ride again

Why do you ride

Do you cycle regularly?

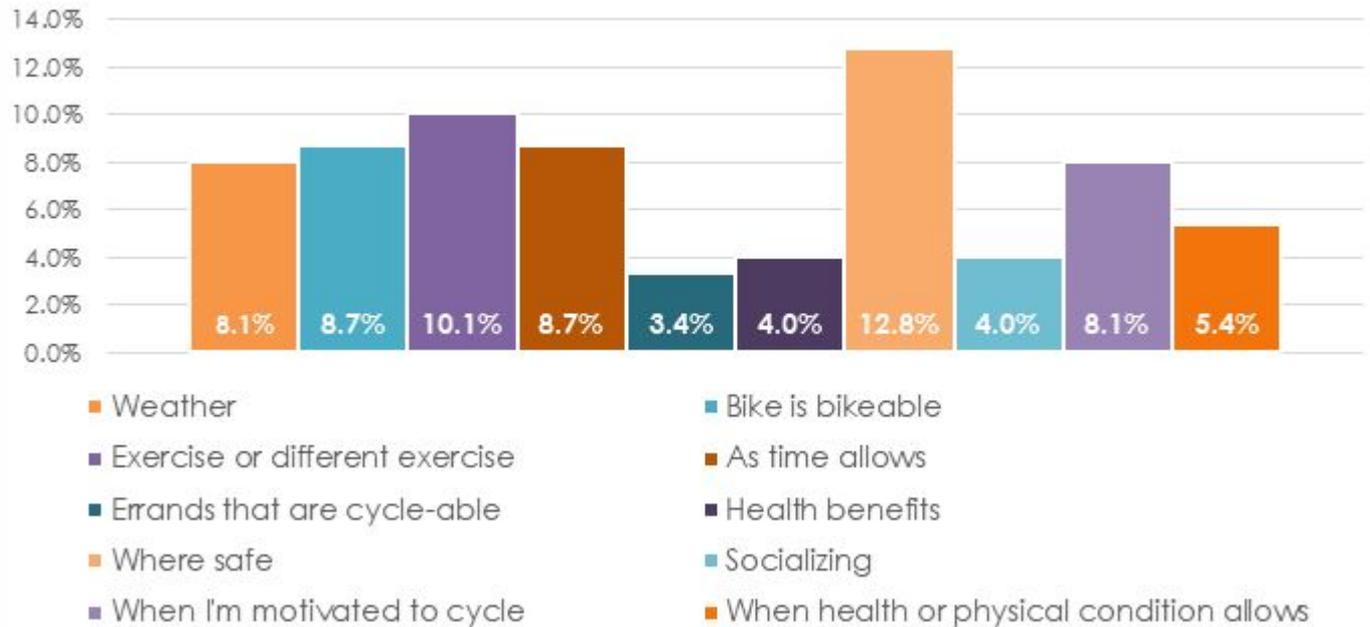


Understand what motivates cycling



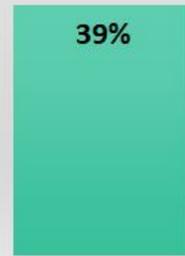
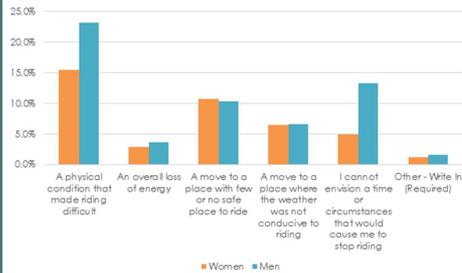
Non-regular cyclists motivations to cycle

Figure 13. Sampling of reasons to cycle, Non-regular cyclists, N=149



Why would you stop cycling?

Figure 24. Reasons would stop cycling.
Women, Men
N = 3857 (multiple answers allowed)



A physical condition that made riding difficult



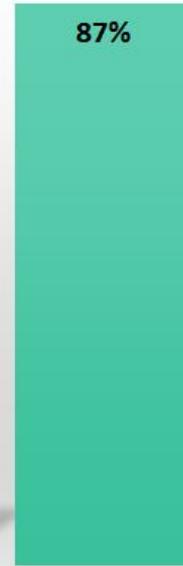
An overall loss of energy



A move to a place with few or no safe place to ride



A move to a place where the weather was not conducive to riding



I cannot envision a time or circumstances that would cause me to stop riding



Address changing needs and characteristics.

2

- Understanding the reasons for near misses and crashes
- Adapting expectations from cycling experiences
- Making cycle-able more and more places where older adults live especially those with



Addressing changing needs and characteristics

Still riding a male bike - Lachlan's of flexibility as far as getting on and off the bike. Hill on the route.

I changed to a recumbent trike with independent front wheel braking and didn't synchronize an emergency stop and spun over.

Keeping my gears low so it's easy to spin, so my arthritic knee didn't hurt. Also walking my bike up the one steep hill on the route.

What's different?

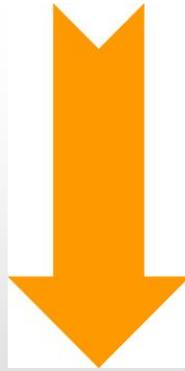
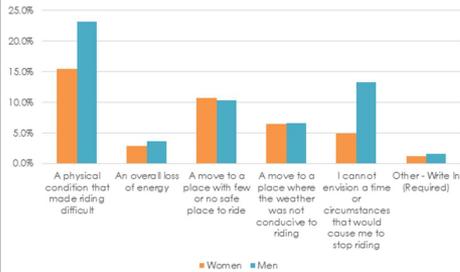
Majority of the trip was on bike paths that are adjacent to major streets; avoided most traffic signals by using this trail.

What went well?

New route I had not ridden so fun. Great scenery. Very slow traffic in wide open rural area.

Why would you stop cycling?

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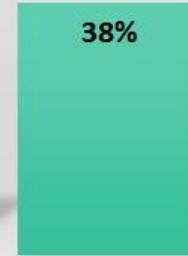
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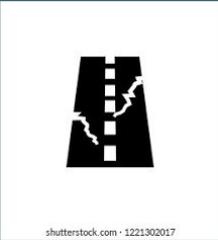
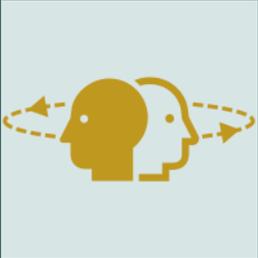
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I cannot envision a time or circumstances that would cause me to stop riding

Analysis of 538 Fall Descriptions

- Coded descriptions into 27 factors grouped into 6 categories
- Some specifically age-related; others could be

Weather	Surface Condition and Construction	Operator Error	Action of Others	Bike Issues	Age- or Skill-related
<p>Wind and Rain</p> 	<p>Cracks, gravel, mud, puddles</p>  <small>shutterstock.com · 1221302017</small>	<p>Too fast, too slow, hills, inattention</p> 	<p>Situational awareness</p> 	<p>Wrong bike, mechanical, clips, weird factors</p> 	<p>Health, balance</p> 

More on couldn't unclip

Figure 51. Unable to unclip factor by age group

Factor	Highest age group/s	Lowest age group/s
Unable to unclip	56 - 60 66 - 70	76 through 85+ Begins to decline at 71-75

**RQ 2: What can help adults
continue to cycle as they age?**

Identify barriers,
obstacles.

3

- Lack of good infrastructure in good condition
- Changing bikes as aging changes cycling
- Having affordable bicycles of many types
- Better sharing the road and culture



Five years ago, we moved to a large city from a small city where I regularly cycled to work and to do errands. Daily cycling does not feel safe in my current city though I live close enough to work to cycle easily.

Just got a new old bike so am cautiously sticking a toe back into cycling but will probably only be on our city's protected bikeways or around my neighborhood.

Large cracks in pavement on Washington DC trail on west side of the Anacostia River.

What's wrong?

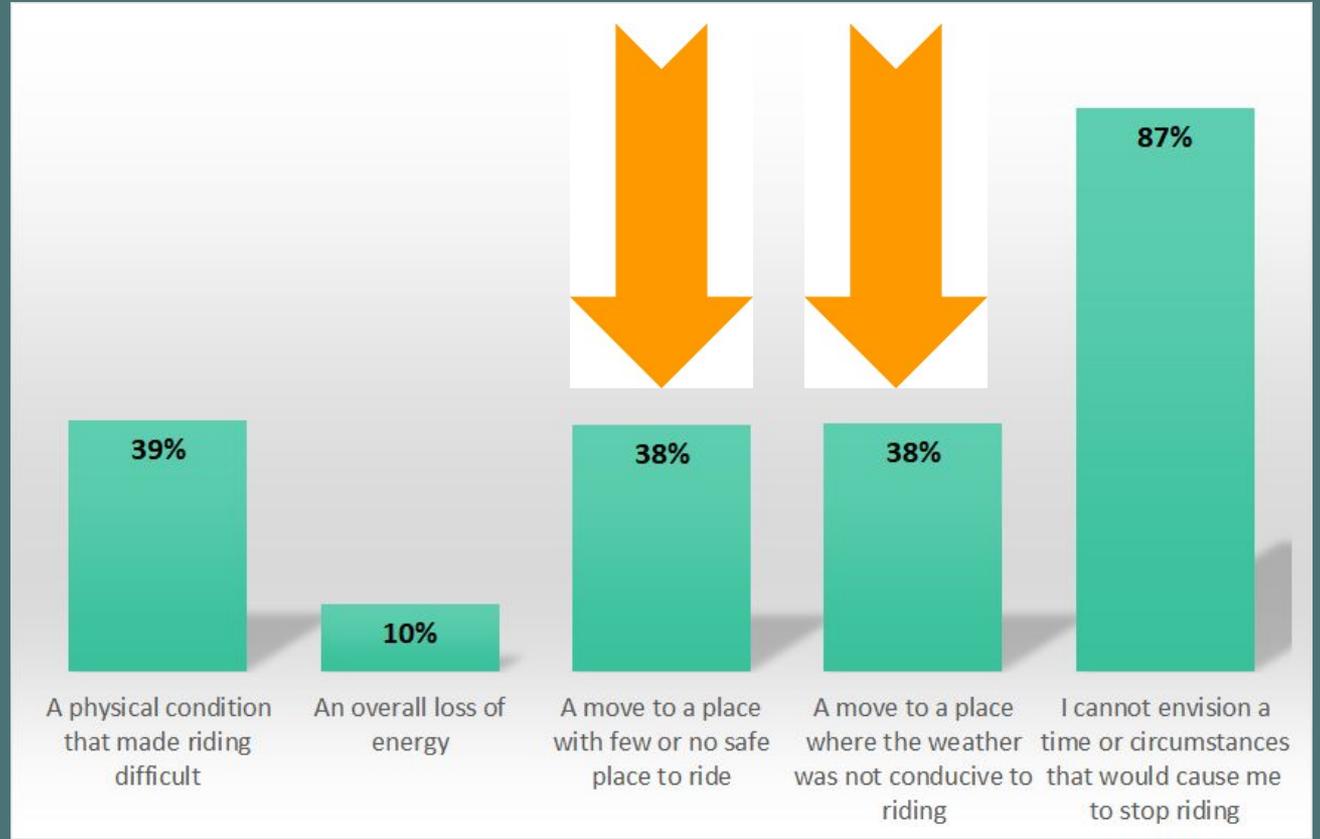
There was a surprise hole in the bikeway and I had to stop quickly and fell over on the bike.

Lost balance at slow speed:
couldn't unclip

It being early Sunday, so the Ravenswood Corridor, normally full of industrial business (fine, they are careful) and gym members of CrossFit (not fine, they are morons and drive like it)

Why would you stop cycling?

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Changes in desired cycling experience

Cycling rates remain fairly constant as people age

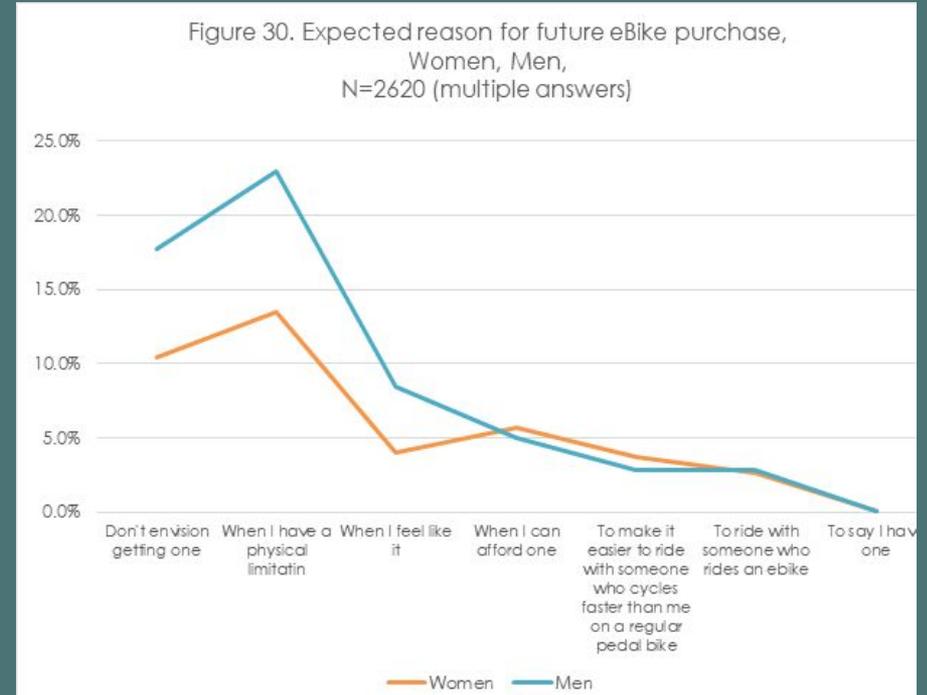
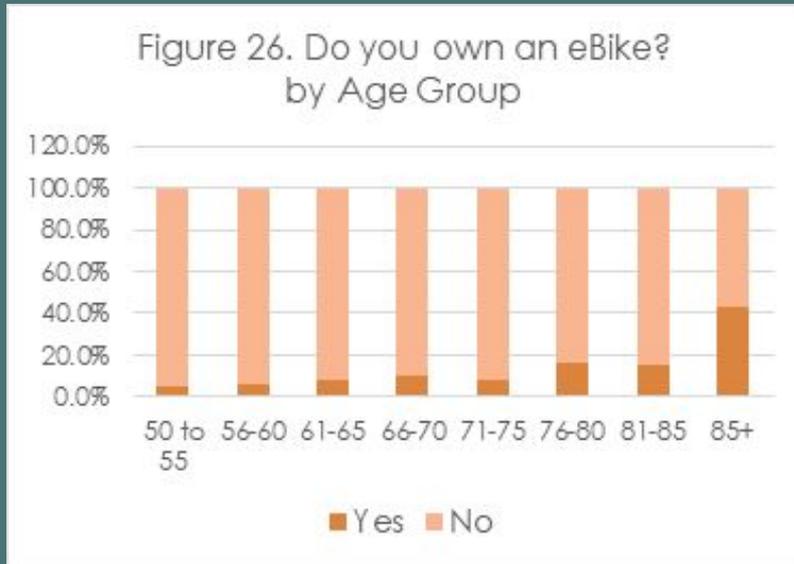
BUT

Expectations about what the rider gets from cycling changes

An older cyclist's **desired cycling experience** can change as they age. For example, 12 responses conveyed the sentiment, "I'm not in a hurry and having this bike helps me be more leisurely."

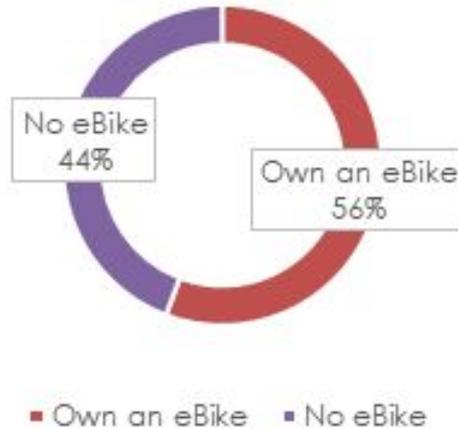
Conversely, some cyclists may ride with others to help maintain their cycling fitness. One group of 70+ cyclists asked how they compared with others taking the survey. "You should know **the 4 of us argue about this frequently which is excellent fodder/discussion for our longer rides and a source of great amusement.**"

eBikes are not a silver bullet; trikes are less popular



Fall rates for eBike owners

Figure 60. Comparison of Fall Rates and eBike Ownership
N = 2251



**RQ 2: What can help adults
continue to cycle as they age?**

Context

- People age differently and therefore have different response to cycling as they age
- What they have in common is the desire to continue cycling and the desire for high quality cycling facilities for safety and enjoyment.



Factors affecting continuous cycling

- Health
- Facilities - presence and quality
- Destinations
- Companionship
- Bicycle
- Desire or motivation
- Triggers
- Age-based evolution of expectations

Why is this important?

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Future questions

- What about continuing to cycle moving from child to young adult, and young to middle aged?
- How do the survey results help us advance cycling for older adults in the U.S. and elsewhere?
- What did we miss asking that could be asked in future years?

Contribution

1. **Moving past stereotypes and assumptions:** “A Closer Look into the World of Older Cyclists”
2. **First US national case study of older cyclists:** A sizable case on older adult cyclists of different ages; not part of all ages survey

Continue cycling into age factors

- Opportunity to consider bicycle design tailored for older adults
- Study life-space mobility, person-environment fit, etc.

Add to discussions:

- There is no silver bullet (e.g. e-bikes) for older adults and cycling; a more granular view
- Intersectional look at why people cycle and what can keep them cycling

See also...

- C&S video by Carol: *Cycling uphill in the headwind of ageism*

Look through the C&S videos, and we will try to link at tinyurl.com/cycling-ageism-cs

- Databook of 2020 Carol's 2020 survey:



References

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