Iowa's Living Roadways

community visioning

designing livable communities, 2020 adult random-sample survey & high school student study

Madrid, Iowa

"It would be great if Madrid would invest in spur trails leading into the community from the [High] Trestle Trail. It would get visitors to the trail into the community and [get the] community on to the trail."

"Safe routes to school are very important in Madrid. New development is across Highway 17 and kids need [a] safer route. [We] also need to better connect the High Trestle Trail and walking routes to [the] senior home and local businesses."

"Putting a stoplight or having someone to direct traffic after school outside the school exit is a GREAT idea!"

Introduction

The Iowa's Living Roadways Community Visioning Program is a collaboration involving the Iowa Department of Transportation, the Living Roadway Trust Fund, Iowa State University and Trees Forever. One of the primary objectives of the Community Visioning Program is to assist participants in the process of building livable communities—that is, creating an environment that not only meets residents' basic needs but is also aesthetically appealing.

With assistance from Iowa State University's Center for Survey Statistics and Methodology, ISU visioning program staff conducted a survey to better understand the transportation patterns and behaviors, needs and desires of Madrid residents. To supplement the data collected from adult residents, program staff also conducted focus groups and a survey at Madrid Junior/ High School.

Why Do A Survey?

The survey gives the visioning steering committee objective, representative information for the goal-setting phase of community visioning. The quantitative data collected from survey responses complements the qualitative information gathered from the focus groups at the transportation assets and barriers workshop.

The modes of transportation that residents use and the routes they take suggest suitable types of transportation enhancements in these areas. Having a sense for people's willingness to help either financially or with their time is important because many transportation enhancements are funded from multiple sources, including grants, private donations, in-kind contributions, and volunteers. Understanding what types of improvements are important to residents gives the committee insight into how to prioritize projects.

What We Did

RANDOM-SAMPLE SURVEY OF ADULTS

Surveys were mailed to 300 randomly selected residents living in Madrid and the surrounding area. To increase the response rate, the study was publicized through the local media and follow-up packets were mailed to nonrespondents.

With adjustments for ineligible respondents (e.g., incorrect addresses, no longer living in the community), the final sample size was 279. A total of 102 people returned surveys, for a response rate of 36.6%. (A response rate of 20% is considered valid.)

We asked survey recipients what routes they used most often for going to work, walking, and biking. We also asked whether or not residents would like a recreation trail and where they think it should be. We also discovered what residents think is most important in terms of transportation enhancements that address issues such as accessibility, mobility, and safety. Finally, we learned whether or not residents are willing to contribute their time or their financial resources to making enhancements to Madrid. The results of the survey are summarized as follows:

- Willingness to Help
- Enhancement Priorities
- Commuting Routes
- Walking Routes
- Desired Qualities

HIGH SCHOOL STUDY

ISU design interns held focus groups with five 9th graders and seven upperclassmen to understand the factors and conditions that affect transportation use among these unique users. The high school focus groups employed small-group conversations, mapping, and photos of the best and worst to understand local transportation.

The survey addressed high school students' experiences and needs as drivers, pedestrians, and cyclists. The questionnaire was similar to that used in the random-sample survey mailed to adult Madrid-area residents. Respondents were asked to identify routes to school, walking routes, and biking routes. In addition, we asked what qualities and features are important to youth when they engage in these activities. Survey respondents

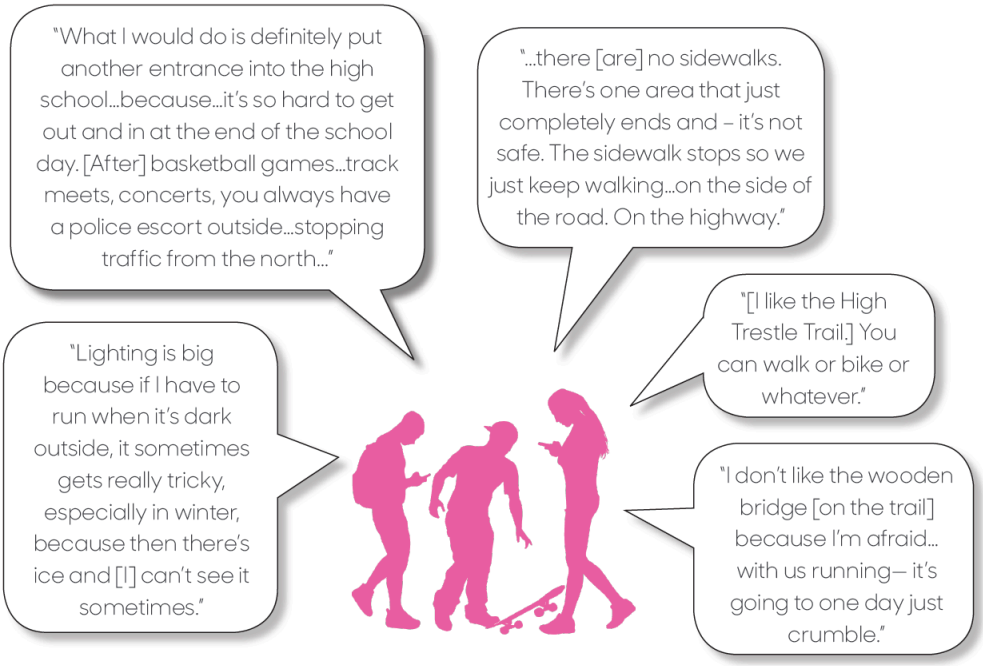
were self-selected; 12 students completed the questionnaire. The results of the high school study are presented as follows:

- Focus groups: what they said
- How students travel and why they go that way
- Priorities and desired features
- Biking routes

Routes to school and walking routes are combined with the commuting and walking routes identified by adult respondents.

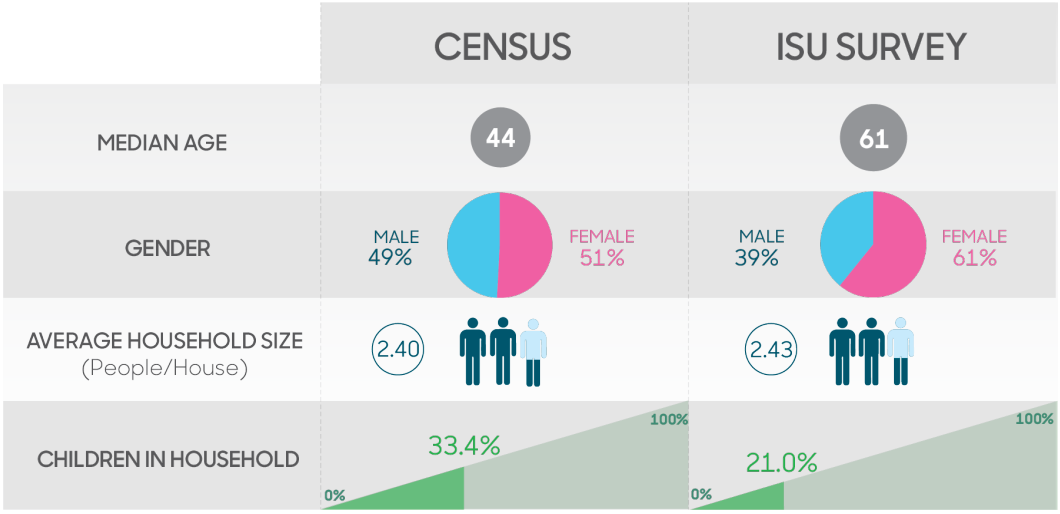
High School Focus Groups: What They Said

High school focus-group participants drive, walk, and bike to local destinations in town. They also skateboard and run. Students frequently walk, bike, and run on the High Trestle Trail, and Grant's Woods is a popular destination. Their concerns include the conditions of the sidewalks, rough streets, lighting and visibility, and flooding. Traffic flow into and out of the high school is a significant barrier to students, as well as congestion on Highway 17 at the trail crossing. Participants would like to have a second entrance to the high school to relieve congestion.



RANDOM SAMPLE SURVEY:
How Did We Do?

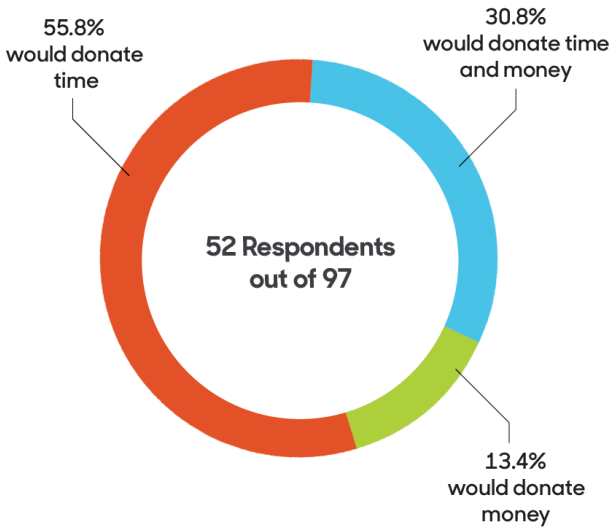
The demographics of the respondents are somewhat different from those obtained from the 2019 American Community Survey Five-Year Estimate. For example, the survey respondents median age of 61 is significantly older than the 2019 estimated average age for Madrid residents of 44. In terms of gender, the percentage of female survey respondents is 10% higher than that of the census. Average household size of survey respondents is slightly higher than the 2019 estimate. The percentage of households with children among survey respondents is significantly lower than that of the 2019 estimated percentage.



Source: US Census Bureau, 2019 American Community Survey Five-Year Estimates.

ARE PEOPLE WILLING TO HELP?

More than 53% said YES!



Willingness to implement change

Most survey participants who answered this question are willing to contribute their time to community improvements (55.8%), while 30.8% would contribute their time and talent. More than 13% of respondents indicated that they would be willing to contribute financially.

Compared to other small towns in Iowa, Madrid residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.[1] Madrid exceeds this average by more than 10%.

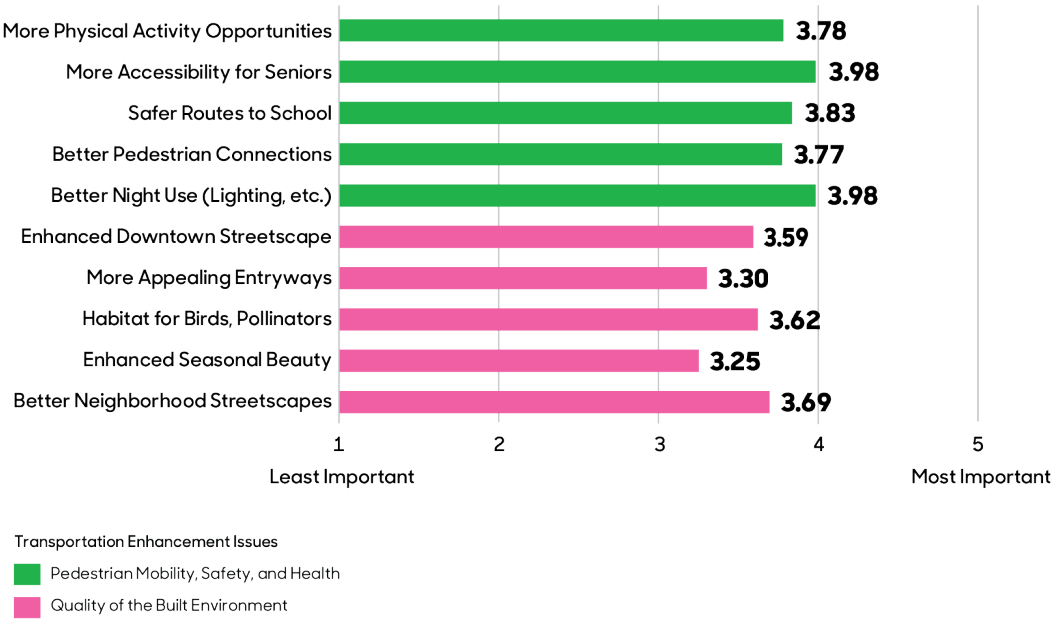
How Do You Get People to Help?

In 2014, the most common reason residents in small-town Iowa said they didn't become involved in community projects is that no one asked them (34%). Twenty-eight percent on average said that they don't have time, which is significantly lower than the 2004 average of 59%. Sixteen percent indicated that they didn't know how to become involved, and 7% said that no community project needed volunteers.[1] These results indicate that the best ways to get people involved in community projects is to simply ask, along with advertising opportunities through traditional and social media outlets.

1 *Sigma: A Profile of Iowa Small Towns 1994 to 2014* (Ames, IA: Iowa State University College of Agriculture and Life Sciences, 2015).

IMPORTANT ENHANCEMENTS AMONG ADULTS

Mobility, Safety, and Health!

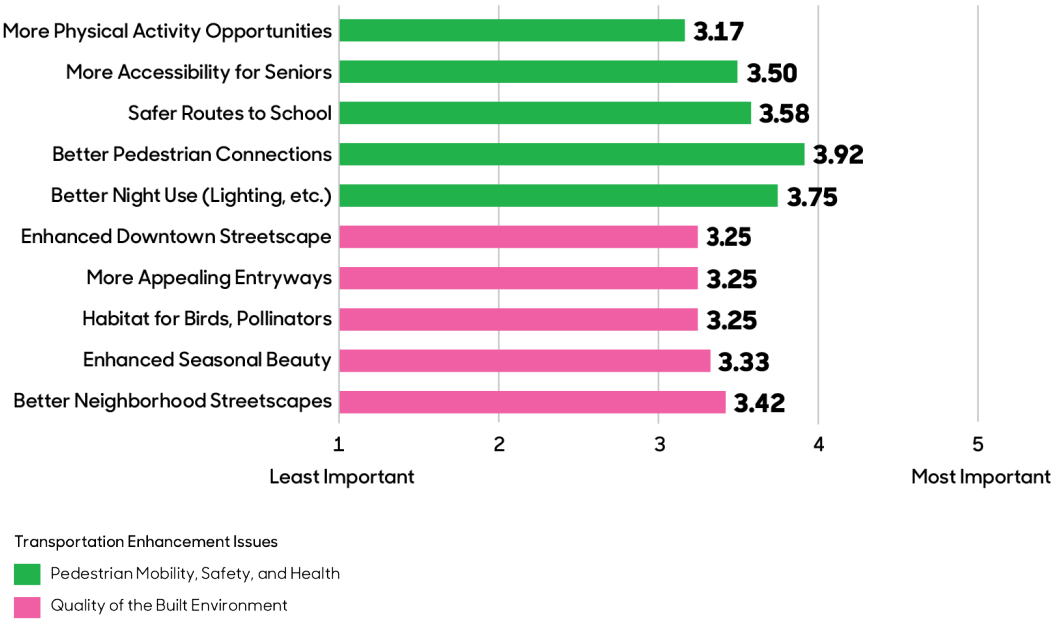


Importance of transportation enhancement by type (94 responses)

On a scale of 1 to 5, with 5 being the most important, participants in Madrid ranked both more accessibility for seniors and better night use (lighting, etc.) as most important, with a mean value of 3.98 each. Other types of transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as creating safer routes to school (3.83), providing more opportunities for physical activity (3.78), and creating better pedestrian connections (3.77). In terms of quality of the built environment, survey respondents consider better neighborhood streetscapes as most important (3.69), followed by habitat for birds and pollinators (3.62), and enhanced downtown streetscapes (3.59).

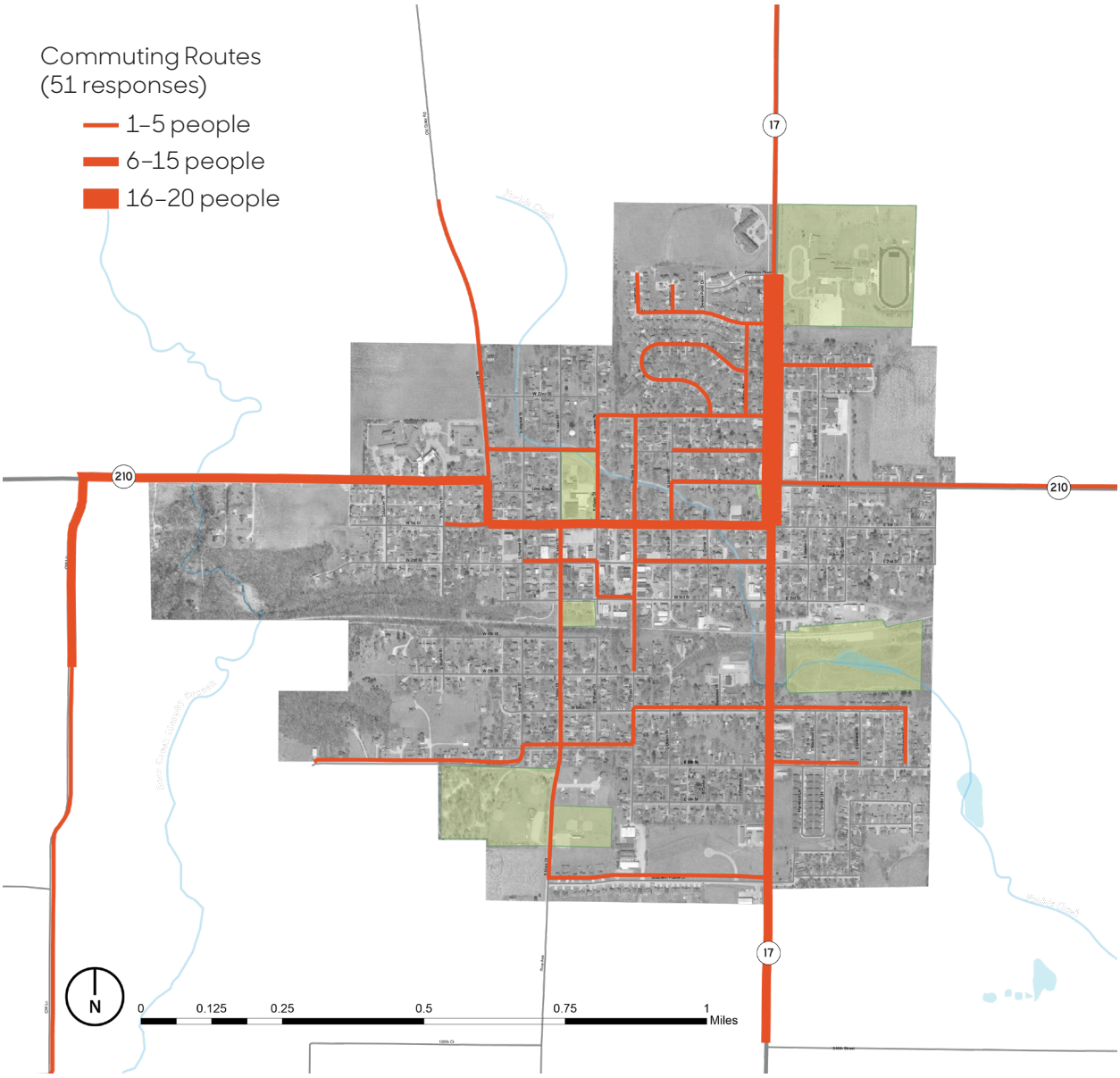
IMPORTANT ENHANCEMENTS AMONG STUDENTS

Mobility, Safety, and Health!



Importance of transportation enhancement by type (12 responses)

On a scale of 1 to 5, with 5 being the most important, high school survey participants ranked creating better pedestrian connections as most important, with a mean value of 3.92. Other types of transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as providing better lighting for night use (3.75), creating safer routes to school (3.58), and creating more accessibility for seniors (3.50). In terms of quality of the built environment, survey respondents consider better neighborhood streetscapes as most important (3.42). These results are similar to those of adult survey respondents and consistent with themes that emerged during the focus groups.



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," http://www.igsb.uiowa.edu/nrgislibx/.

Routes to Work and School

This map shows the commuting routes identified by 51 survey respondents, 12 of whom were self-selected high school students who identified the routes they take to school. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The primary commuting corridors in Madrid are Highway 17 north-south and Highway 210 east-west. Highway 17 is most heavily traveled between East First Street and the high school. Other streets used by commuters include South Main Street, Southern Prairie Drive, East 6th Street, West 8th Street, and Locust Street.

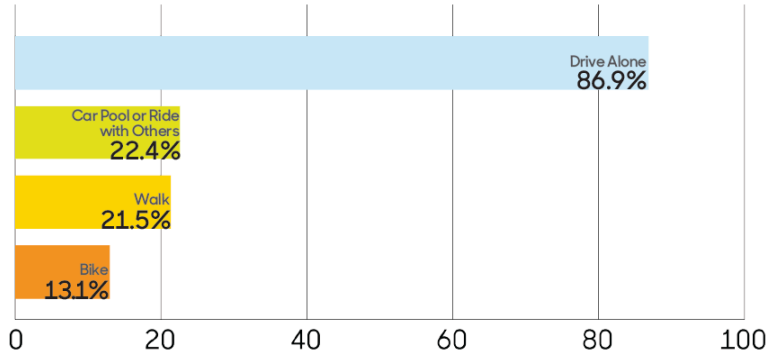
The circulation patterns that emerge when routes for biking, walking, and commuting are overlaid suggest suitable types of transportation enhancements. For example, where pedestrian and vehicular traffic intersect, such improvements could include creating better visibility, defining crossing points, or improving signage.

"We need to exit/enter the high school in a different way to reduce traffic."

"Widening Highway 17 for left-turn lanes at intersections would be safer for commuters and allow a quicker, smoother flow of traffic through town."

How Adults Travel

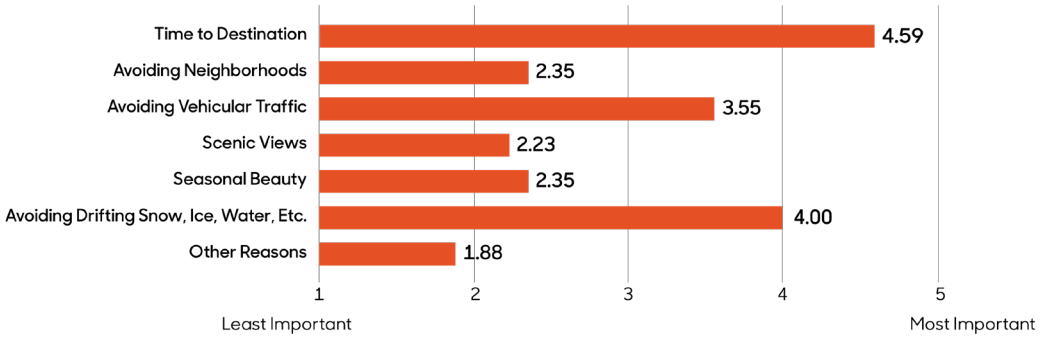
Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (86.9%). More than 22% car pool or ride with someone else. More than 21% of participants indicated that they walk, and 13.1% bike to destinations.



*Please note that some respondents indicated that they use more than one mode of transportation to get to work; therefore, percentages add up to more than 100%.

(107 responses)

Why They Go That Way

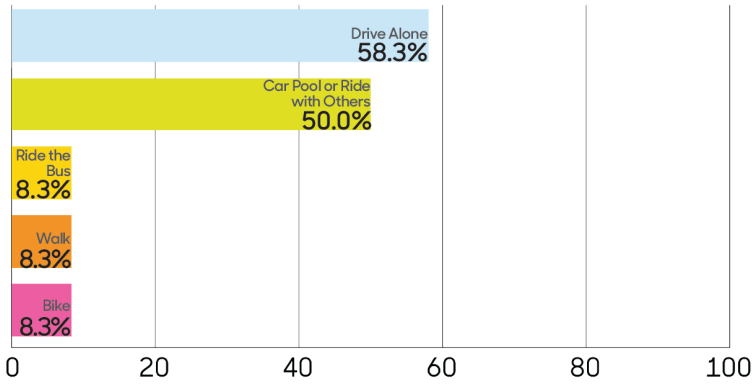


(49 responses)

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that factored into their choice of commuting route. Among Madrid participants, time to destinations is the most important factor, with a mean value of 4.59. Avoiding weather-related issues such as snow and ice (4.00) is the second most important factor determining commuting routes. Avoiding vehicular traffic is also considered somewhat important, with a mean value of 3.55. Scenic views, seasonal beauty, and avoiding neighborhoods are not critical factors in determining commuting routes.

How Students Travel

Most high school survey participants drive alone to local destinations (58.3%). Fifty percent car pool, and 8.3% ride the bus, walk, and bike.



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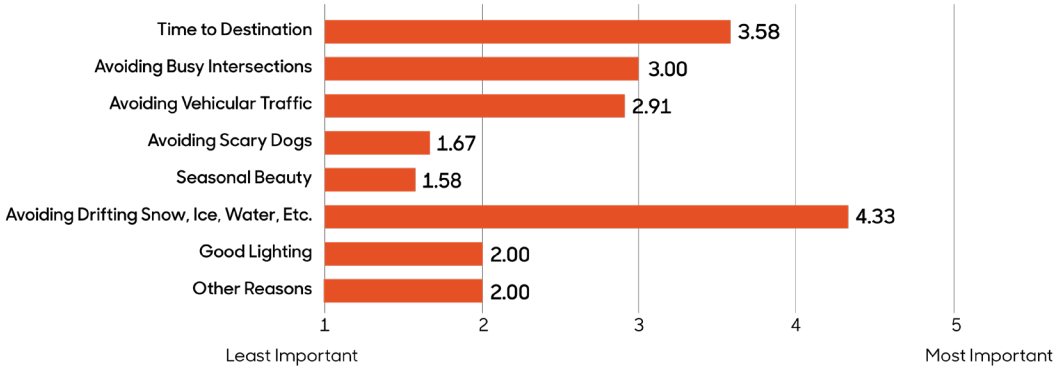
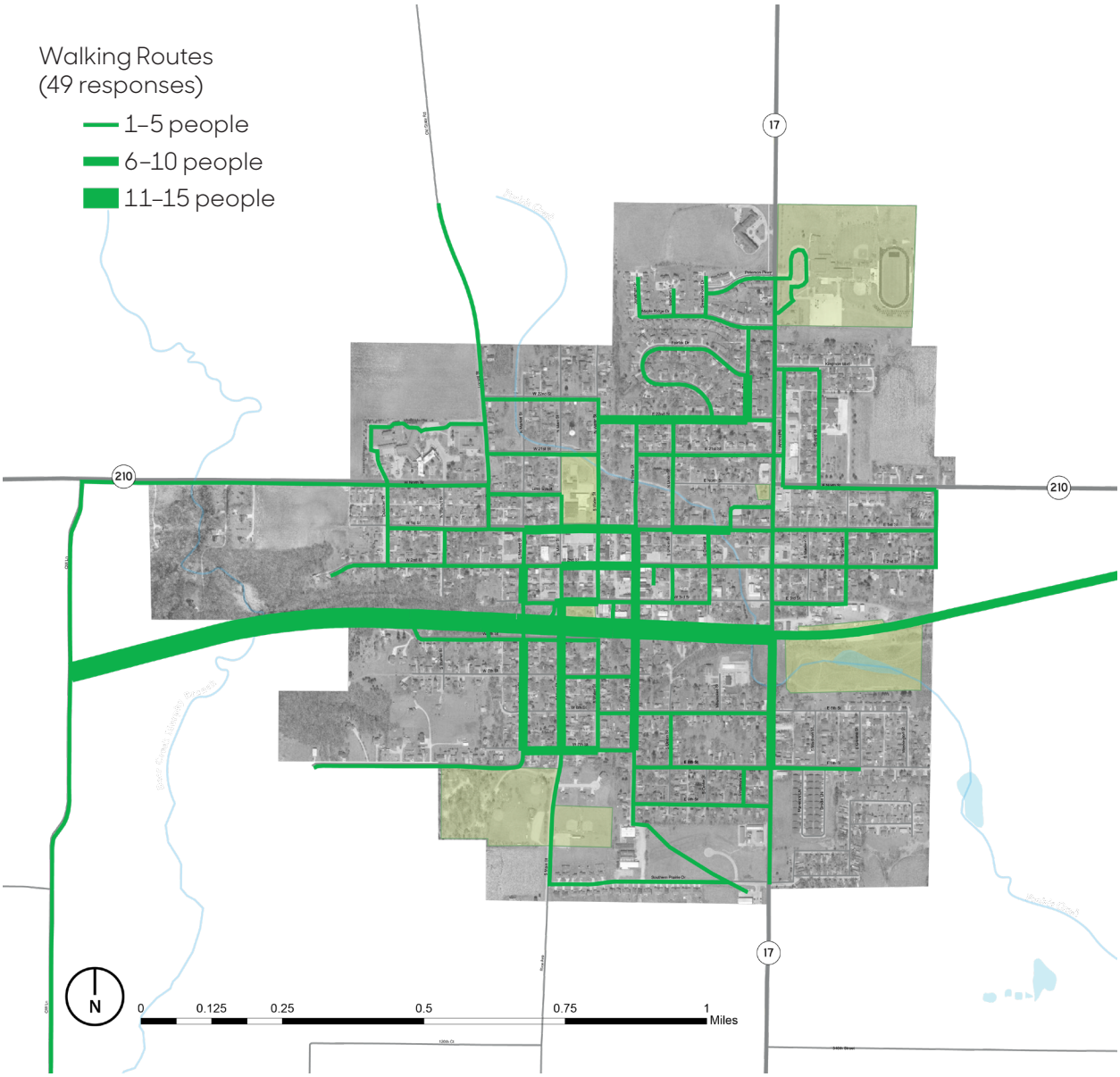
(12 responses)

Why They Go That Way



(12 responses)

High school survey respondents were asked to draw the routes that they take to school on a map. These routes are included with the commuting routes identified by Madrid residents. They were also asked to rank characteristics and features that factored into their choice of route to school on a scale of 1 to 5, with 5 being the most important. Among high school survey participants, avoiding weather-related issues such as snow and ice is the most important factor, with a mean value of 4.33. Time to destination (3.58) is the second most important factor determining routes to school. Avoiding busy intersections (3.00) and vehicular traffic (2.91) are somewhat important, and avoiding scary dogs, seasonal beauty, and lighting are not considered important.



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," http://www.igsb.uiowa.edu/nrgislibx/.

Where People Walk

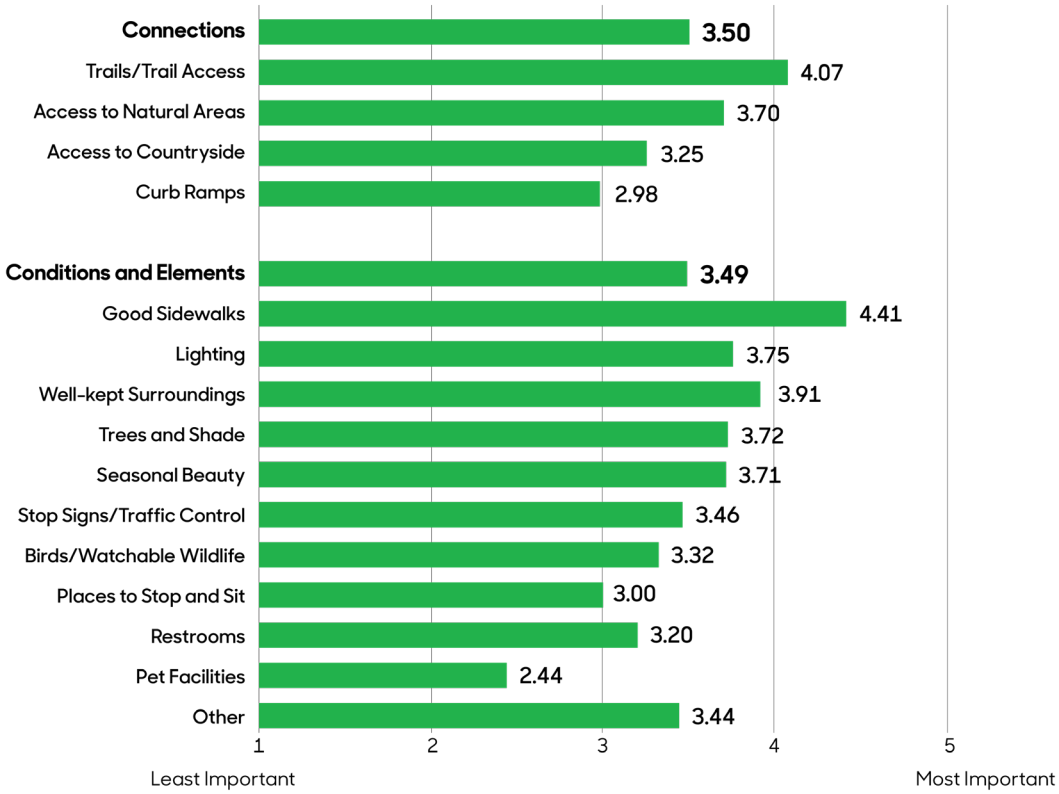
This map shows the walking routes identified by 49 survey respondents, eight of whom were self-selected high school students. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. Survey respondents indicated that they walk primarily on the High Trestle Trail, particularly the section west of Highway 17. Streets in town popular among walkers include South Market Street, South Main Street, West 7th Street, East 22nd Street, West 1st Street, and West 2nd Street..

"Lighting [in] residential areas should be increased."

"When I walk on the trail with my family or friends it is always pretty safe and there are not many places where cars cross the trail."

Adults' Desired Walking Route Features

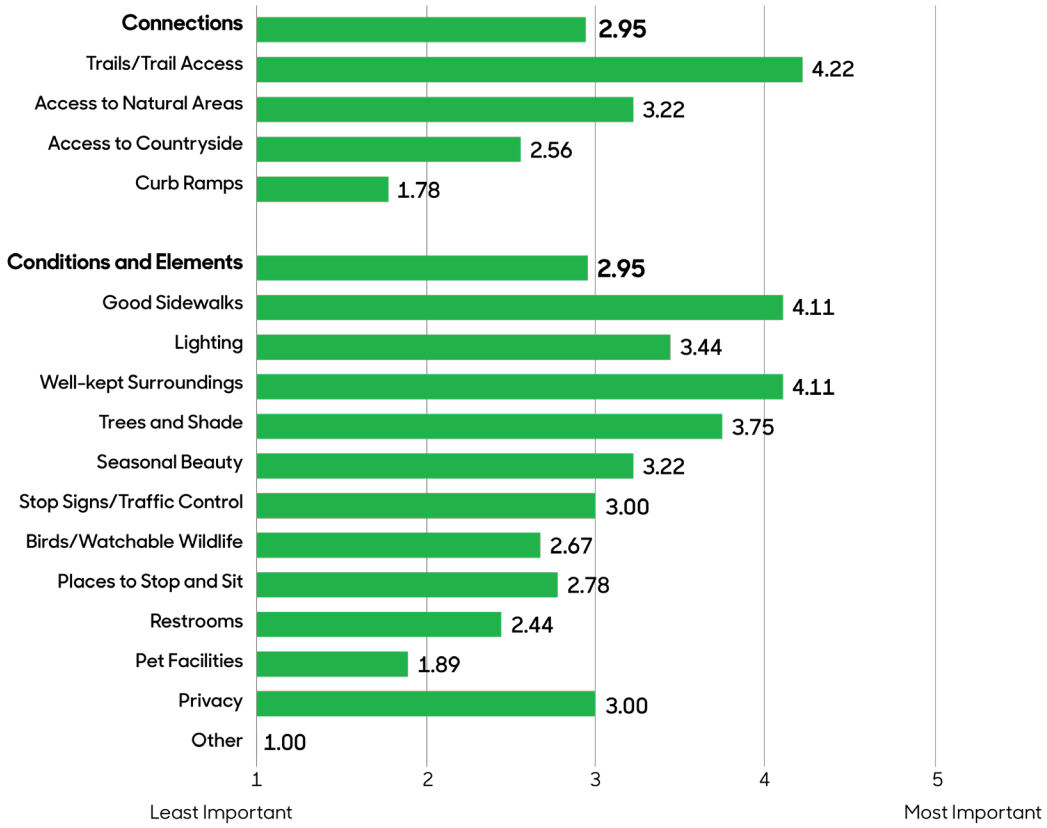
On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Among Madrid participants, connections and conditions/elements are considered nearly the same in importance, with mean values of 3.50 and 3.49, respectively. In terms of connections, access to trails is most important with a mean value of 4.07. Good sidewalks (4.41) are the most important element to walkers, followed by well-kept surroundings (4.00). Other significant factors include seasonal beauty (3.84), trees and shade (3.91) and lighting (3.75).



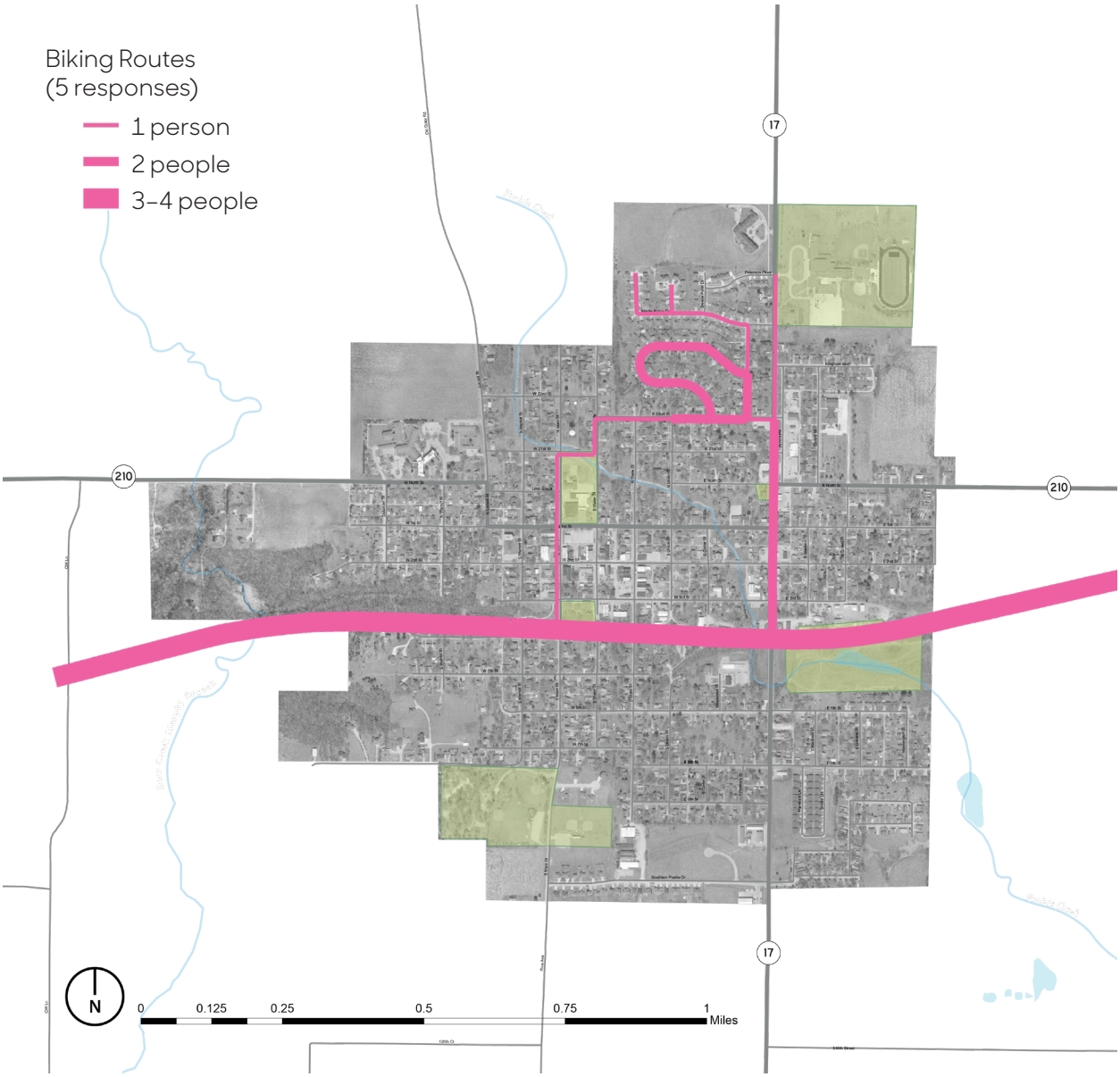
(59 responses)

Students' Desired Walking Route Features

High school survey respondents were asked to draw the routes that they take when walking on a map. These routes are included with the walking routes identified by Madrid residents. They were also asked to rank characteristics and features that factored into their choice of walking routes on a scale of 1 to 5, with 5 being the most important. These features are categorized as either "connections" or "conditions and elements." Among participants, connections and conditions/elements are equally important, both with a mean value of 2.95. In terms of connections, access to trails is most important with a mean value of 4.22. Good sidewalks and well-kept surroundings (4.11 each) are the most important elements to walkers, followed by trees and shade (4.00). Lighting and privacy are somewhat important, with a mean values of 3.44 and 3.00, respectively.



(9 responses)



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," http://www.igsb.uiowa.edu/nrgislibx/.

Where Students Bike

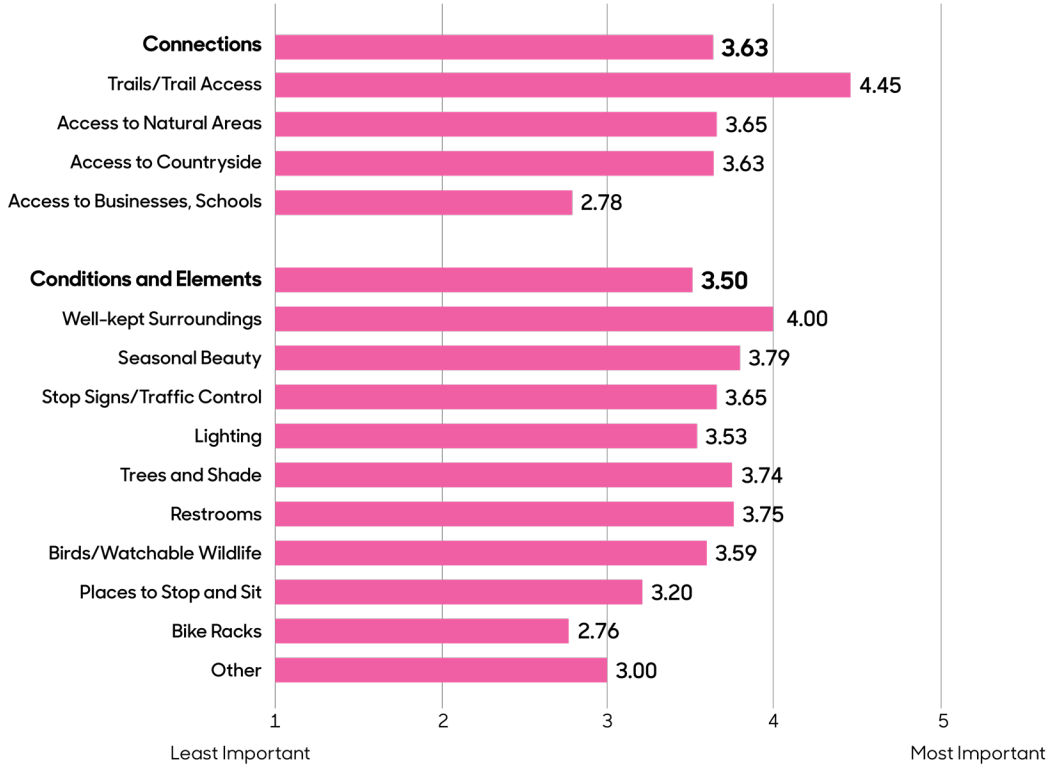
This map shows the biking routes identified by five high school students who completed the survey. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The primary biking route in Madrid is the High Trestle Trail. High school students also bike on S Avenue (Highway 17) north of the trail, as well as on East 22nd Street and Fairview Drive..

"There are no biking lanes on streets and streets are not wide enough."

"I'm a good biker. I can stay away from the sketchy areas."

Adults' Desired Bike Route Features

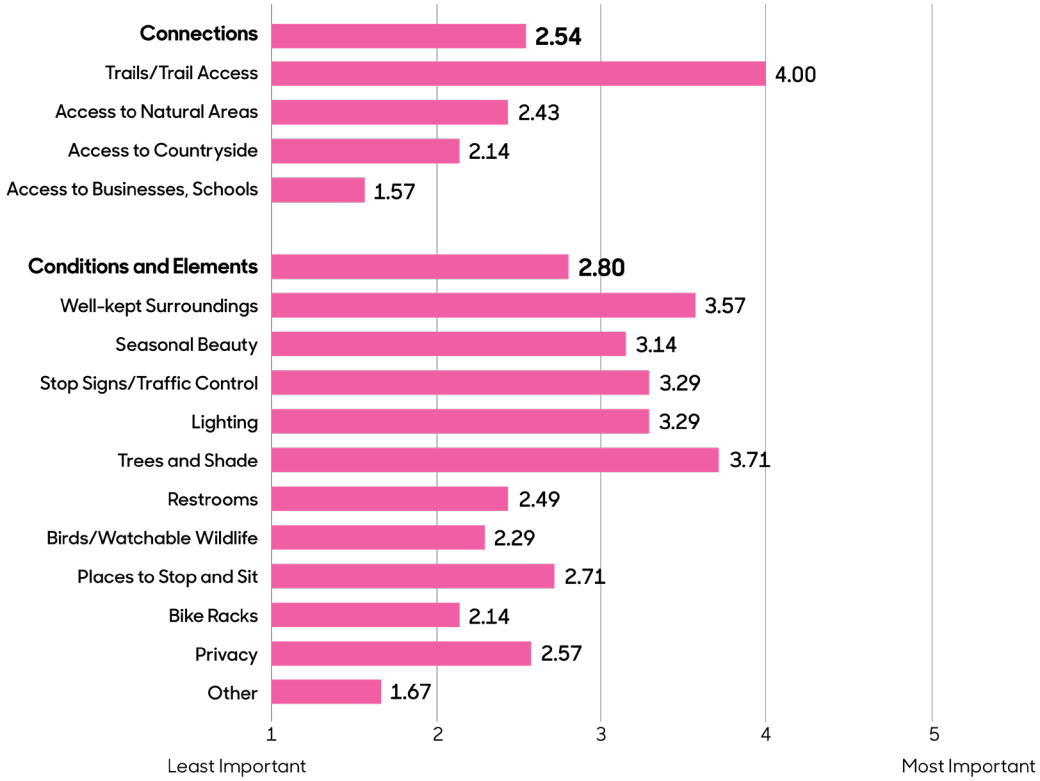
On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their biking experience better. These features are categorized as either "connections" or "conditions and elements." Among Madrid participants, connections are more important than conditions/elements, with mean values of 3.63 and 3.50, respectively. In terms of connections, access to trails is most important with a mean value of 4.45. Well-kept surroundings are the most important elements to cyclists, with a mean value of 4.00. Seasonal beauty (3.79), restrooms (3.75), and trees and shade (3.74) are also important features.



(53 responses)

Students' Desired Bike Route Features

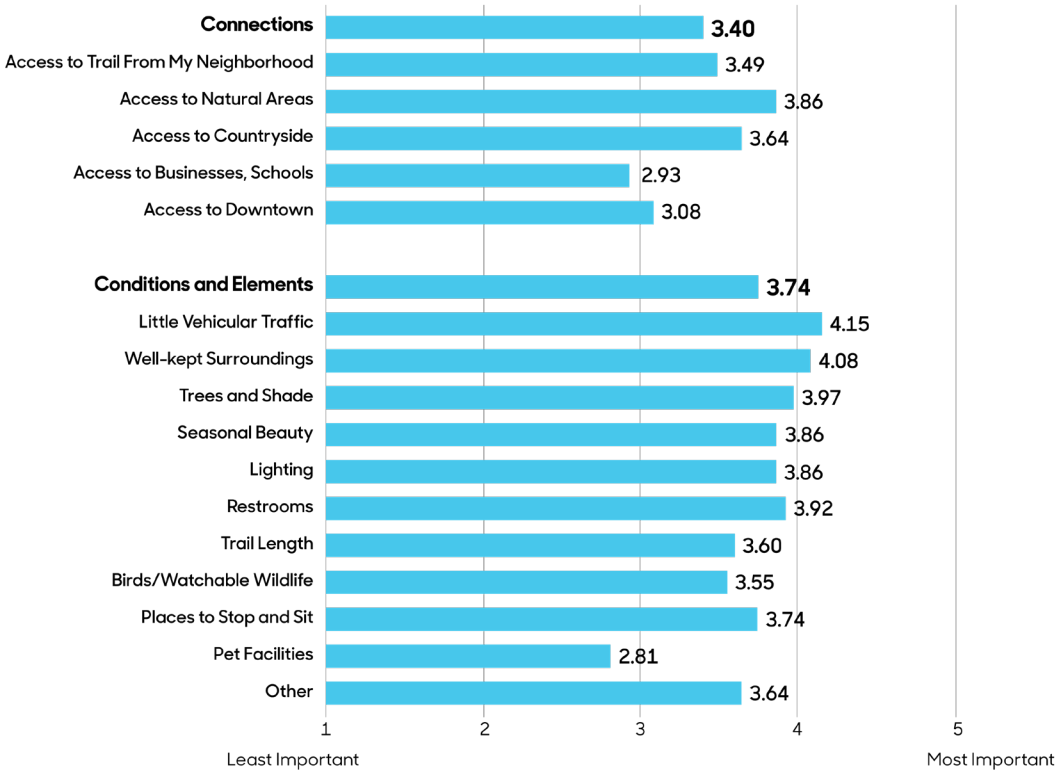
On a scale of 1 to 5, with 5 being the most important, high school survey participants ranked the characteristics and features that factored into their choice of biking route. These features are categorized as either "connections" or "conditions and elements." Among participants, conditions/elements are relatively more important than connections, with mean values of 2.80 and 2.54, respectively. In terms of conditions/elements, trees and shade are most important with a mean value of 3.71, followed by well-kept surroundings (3.57). In terms of connections, trails/trail access is most important, with a mean value of 4.00. High school students do not consider the other factors as important when selecting biking routes.



(7 responses)

Desired Trail Features

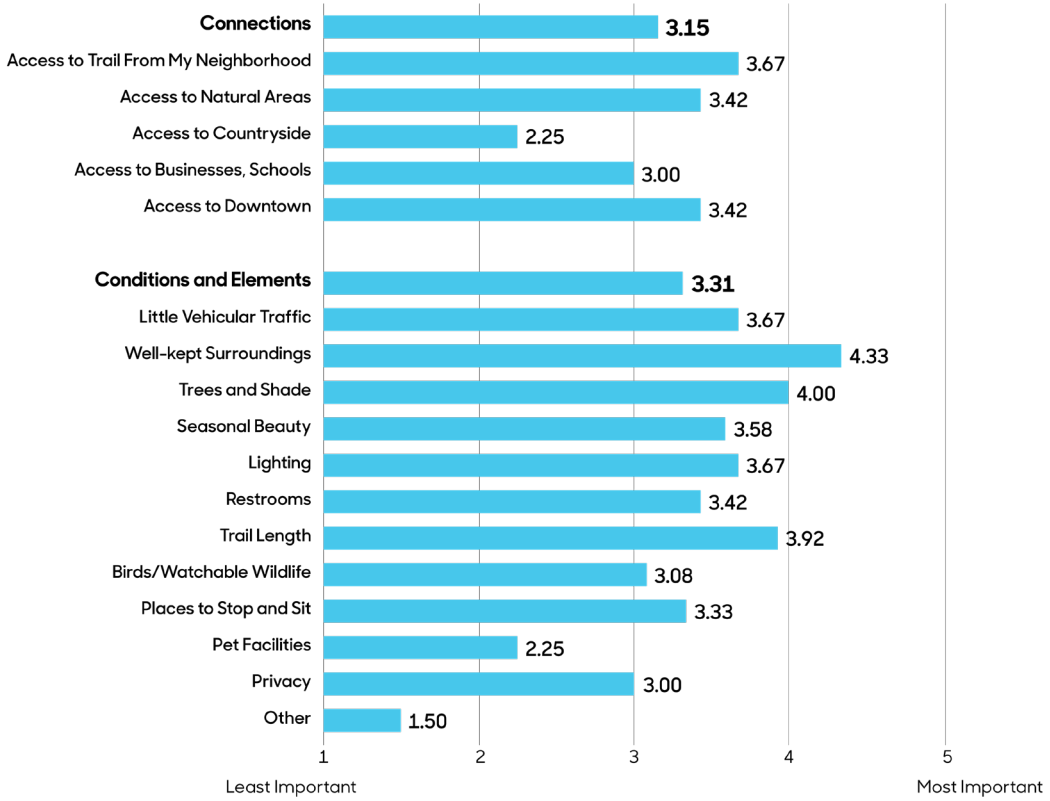
On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. Like the bike route features, they are categorized as either "connections" or "conditions and elements." Conditions and elements are more important to Madrid trail users than conditions/elements, with mean values of 3.74 and 3.40, respectively. In terms of connections, access to natural areas is considered most important, with a mean value of 3.86. In terms of conditions/elements, little vehicular traffic (4.15) is the most important element, followed by well-kept surroundings (4.08), and restrooms (3.92).



(91 responses)

Students' Desired Trail Features

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. Like the walking route features, they are categorized as either "connections" or "conditions and elements." Conditions/elements are more important than connections, with mean values of 3.31 and 3.15, respectively. In terms of connections, access to the trail from neighborhoods is considered most important, with a mean value of 3.67. In terms of conditions/elements, well-kept surroundings (4.33) is the most important element, followed by trees and shade (4.00).



12 responses)