

Walking, Biking, and Running in Charlottesville and Urban Albemarle

A Survey of Barriers and Opportunities



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Abstract

This survey sought input from residents of the City of Charlottesville and Albemarle County (Virginia) about limitations to walking, biking, and running in the area. It also asked for their ideas for better connectivity. Of 857 responses, the majority indicated that concerns about automobile-related injury limit their ability to walk and bike for both transportation and exercise. Both men and women prefer to walk, bike, and run in nature-rich environments but many women have additional concerns about personal safety and prefer to be in spaces with other people around.

Acknowledgements

This survey would not have been possible without the assistance of the Thomas Jefferson Planning District Commission (TJPDC) and numerous community partners. The Move2Health Coalition, Jackie Martin (Sentara Starr Hill Health Center) and Gregory Gelburd (Downtown Family Health) provided distribution assistance that was transformational. Andrew Evans, Ning Han, Jiangxue Han, Murugesan Ramakrishnan, Charishma Ravoori, Saurav Sengupta, Sameer Singh, Boda Ye (plus Melissa Moody), of the UVa Institute for Data Sciences, assisted with quantitative analysis. Jeff Pacelli and Chris Schlopper read through hundreds of responses for the qualitative questions. Tony Alimenti and Erin Kennedy helped with data entry.

Greenways Advisory Group

This group provides guidance to PEC and TJPDC for work on bicycle-and-pedestrian infrastructure in the Charlottesville / Albemarle urban area. Members are: Liz Palmer, Albemarle County Board of Supervisors | Emily Kilroy, Albemarle County Community Engagement | Dan Mahon, Albemarle County Parks and Recreation | Dan Butch and Kevin McDermott, Albemarle County Transportation | Caroline Stout, Boys and Girls Club of Central Virginia | Eboni Bugg and Sara Sweeney, Charlottesville Area Community Foundation | Frank Deviney, Charlottesville Bicycle and Pedestrian Advisory Committee | Amanda Poncy, Charlottesville Bicycle and Pedestrian Coordinator | Kathy Galvin, Charlottesville City Council | Chris Gensic, Charlottesville Parks & Recreation | Dave Stackhouse, Charlottesville Area Mountain Bike Club | Brantley Ussery, Charlottesville Convention and Visitors Bureau | Rush Otis, Habitat for Humanity | Carleigh Showalter, Jefferson Area Board for Aging | Peter Krebs and Rex Linville, Piedmont Environmental Council | Sunshine Mathon, Piedmont Housing Alliance | Rip Verkerke, Rivanna Trails Foundation | Jackie Martin, Sentara Martha Jefferson Health Systems | Liz Russell, Thomas Jefferson Foundation | Rebecca Schmidt, Thomas Jefferson Health District | Chip Boyles, Billie Campbell, Wood Hudson, and Jakob zumFelde, TJPDC | Elise Cruz, University of Virginia Foundation | Sarah Littlefield, University of Virginia Parking & Transportation, Bill Palmer, University of Virginia Office of the Architect | Diane Waley | University of Virginia School of Education | Shane Sawyer, Virginia Department of Transportation Multimodal Programs | Peter Ohlms, Virginia Department of Transportation Research Council.

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I. Introduction

The Piedmont Environmental Council (PEC) is working with the Thomas Jefferson Planning District Commission (TJPDC), the City of Charlottesville, and Albemarle County to envision and implement a comprehensive network of bicycle and pedestrian trails and greenways in the combined urban core. In support of TJPDC's Jefferson Area Bicycle and Pedestrian Plan, PEC conducted this survey to better understand active transportation usership and needs in the community. The survey is part of a larger campaign of enhanced community engagement to identify needs and build support for improved connectivity.

The survey seeks to identify and quantify some qualitative themes we heard in focus groups and community meetings.

Specifically, the survey asks the following:

- Does the current environment limit walking and biking for basic transportation?
- Does it limit recreation and fitness options?
- How do men and women differ when it comes to perception of safety?
- How would residents describe a quality environment in which to walk, bike, or run?
- What connections or corridors need the most improvement?

The survey also solicits general ideas and suggestions.

After describing methodology and limitations in section II, this document describes top-line findings in section III and in-depth discussion of each question in section IV. The raw quantitative data is available [here](#), with free responses included in Appendices B and C. These findings inform the Jefferson Area Bike / Pedestrian Plan by identifying service gaps and opportunities, in order to create a better-informed regional plan. More significantly, the data helps us better understand the community needs, which will be essential for effective implementation and will guide further public outreach.

II. Methodology

Survey Development

PEC staff worked with the Greenways Advisory Group to distill the inquiry to 13 questions (including demographics) all of which could be completed in about a minute. Many of the issues raised by these questions are highly experiential, qualitative and best suited to open-ended discussion. Yet, it was important to have quantifiable data that respondents would be able to supply without too much commitment. We began to incorporate these questions in different ways during our community interactions and created a pilot survey with open-ended responses.

We were able to identify recurrent themes that suggested multiple-choice options. We also retained the option for respondents to use their own words, and included two entirely open-ended questions as well. So the survey provides both measurable and subjective data.

Distribution

The survey was distributed both in electronic (a Google form) and paper (single-sheet mailer) versions. It was active from May 10 - September 11, 2018 and received 857 valid responses (60 paper, 597 electronic).

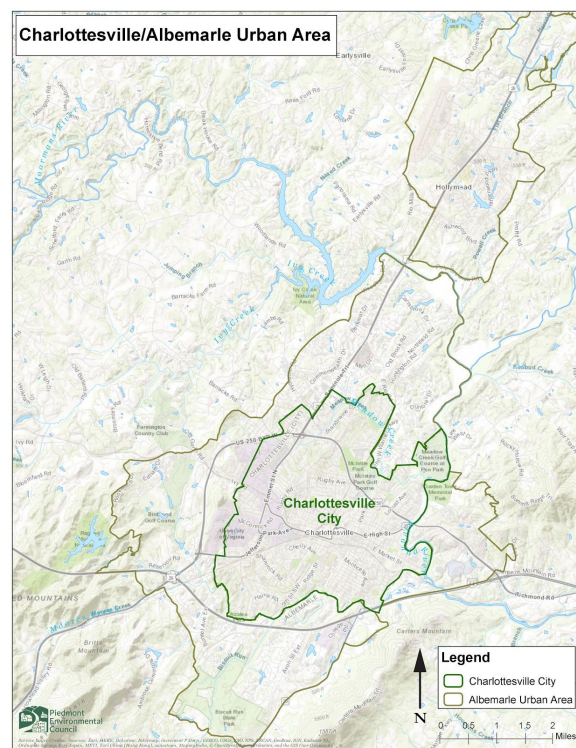
The electronic version was distributed through social media and email campaigns by PEC and TJPDC, and forwarded by partner organizations, such as the Move2Health Coalition. The paper version was distributed at eight community events that PEC attended during that period, which included Fridays After 5, a presentation to a technology firm, Land Trust Day, an adult Basketball tournament, a presentation to PEC Sustainability Fellows, Westhaven Community Day, the Back to School Bash, and a UVa Career Day. Paper copies were also distributed in the waiting rooms of two Charlottesville health clinics that serve diverse populations (Sentara Starr Hill Health Center and Downtown Family Health).



Service Area

Although the Jefferson Area Plan covers a five-county (plus Charlottesville) area, the study (and the funded community engagement process) focuses on the urban core, which is defined as Charlottesville and the adjoining Development Area of Albemarle County.

The service area does not include Crozet or Rivanna Village. Many responses came from people who reside or work in those outlying areas, especially Crozet (because it spread virally among a Crozet trail group). Since we are interested in the needs of residents of the wider Charlottesville region and they define themselves as stakeholders, we included their responses in most of the general discussions.



Qualitative Analysis

The data from the check-box questions are presented in a very straightforward manner in Section IV. The open-ended questions also contain valuable insights and they contain themes that can be aggregated. There is some debate as to the best way to quantify own-word responses without losing important nuance. For example, this survey recognizes the necessity to unpack the highly-loaded term “safe,” so something like a word cloud or automated text analysis will not be sufficient.

Two volunteers read the long-form responses and grouped them into thematic categories that use different words to talk about the same thing. For example, one person’s “protected bike lane” might be someone else’s “separated bike lane” or “cycle track.” This allows for the aggregation of ideas while also distilling nuance that might be overlooked by the smartest algorithm. Ultimately, it is best to review both the consolidated data (Section IV) and full responses (Appendices B and C).

III. Principal Findings

Respondents were **primarily concerned about being injured by a car**: 72% said that concern prevents them from biking or walking for transportation and 64% said it interferes with their exercise, whereas insufficient time, for example, ranked fourth at 27%. This indicates that preventing injury through well-protected facilities should be a top priority.

There were noticeable differences between women and men when it comes to safety. Both genders like “near-street” facilities (65% total) much better than on-street bike lanes (40%) but women also like sidewalks (60% compared to 44% of men). Men feel safer on on-street infrastructure than women do (48% to 33%).

The real difference between women and men is that **women were far more concerned about personal security than men** (16% vs 3%). This difference was consistently expressed across multiple other cues as well. Women were twice as likely as men (19% vs 10%) to report that darkness is a barrier to exercise; they prefer not to be alone (11% vs 2%); and prioritize security-related design attributes such as visibility (55% vs 44%), multiple exits (32% vs 24%), many people around (23% vs 13%), and being able to bring their dog (36% vs 24%).

Men on the other hand expressed interest in logistical concerns to transportation and were more interested in variety when it comes to recreation. The idea of active transportation seems to be more viable to men than to women. **Women face more barriers to entry** (such as personal safety or not having a good bike) and while men also face barriers, more of them have second-order concerns about limitations.

Intriguingly, while **both women and men highly value trees**, women like them even more than men (67% vs 57%). It is fascinating that women want **spaces that are nature-rich and social**. That means that facilities that are built away from high-traffic areas must employ Crime Prevention Through Environmental Design (CPTED) principles, while also being green and accommodating a full spectrum of usership.

The free responses underlined the needs for **protected infrastructure**, with 28% of respondents reiterating that point without solicitation. Preferred destinations tended to be **popular commercial and arterial corridors** (29-North, Downtown, Pantops, Avon and Fifth Streets) plus linking with **existing and likely greenways** including the Saunders-Monticello Trail, Riverview and Biscuit Run parks. Crozet was a popular destination, even when we eliminated residents of that area from the dataset.

Limitations

We had hoped for a larger sample size and especially more people of color. The number of participants identifying as a race other than “White or Caucasian or European American” (82) was too small to make valid conclusions about the intersectionality of race and perception of safety, which is something we had hoped to study. Furthermore the corresponding percentage of 10%, is about half that of Albemarle County (18%) and a third of the City of Charlottesville (30%), which calls for some caution about interpreting any of the results.¹

Our partnership with the two health clinics was quite effective, generating more responses than we expected. This might have been because people there already had time to kill while waiting for their appointments or because the clinics’ endorsement of the survey instilled trust. Whatever the reason, the offices were not restocked with forms frequently enough. It was a much better return-on-labor than other methods, such as holding clipboards at events. Of course a mix of venues is desirable but we now know that if we do another survey we should work even more closely with these and more clinics.

Moreover, a survey is itself a culturally-specific instrument that appeals more to some than to others. It provides a window--but only one--on a broad landscape of public sentiment. It must be paired with many other ways of reaching out and listening to the community.

Conclusions

There is clear desire for safe, nature-rich connections that allow people to walk, bike, and run in zones that are fully protected from cars. Women have an additional safety concern related to crime and aggression that needs to be addressed through site selection and landscape design. There are intertwined desires to connect neighborhoods to jobs, shopping, and recreation, which makes it difficult to separate these goals. It might be better to prioritize connections that

¹ Albemarle and Charlottesville population figures from [American Community Survey](#) (2018).

best serve all of these goals--and all users. This requires the localities to collaborate, Parks and Transportation departments to break down barriers and effectively work together. Area residents are motivated and ready with ideas and energy to do their part.

IV. Questions & Full Discussion

Here follows question-by-question discussion. [Full data is available](#) for download and review.

Question 1: Where do you live?

<i>Response</i>	Count	%
Charlottesville City	418	48.77%
Albemarle (Urban Area)	194	22.64%
Albemarle (Crozet or Rivanna Village)	109	12.72%
Rural Albemarle	91	10.62%
Fluvanna, Greene, Louisa or Nelson County	19	2.22%
Albemarle (not sure which area)	15	1.75%
Other	11	1.28%
Grand Total	857	100.00%

Here are the actual ratios of where people live in Charlottesville / Albemarle.² Note that Charlottesville and Crozet residents are over-represented in the survey and other Albemarle (especially rural) residents are notably underrepresented.

<i>Actual Populations / Ratio</i>	Count	%
Charlottesville City (1)	48,019	31.42%
Albemarle (Contiguous Urban Areas) (2)	54,255	35.51%
Albemarle (Crozet or Rivanna Village) (2)	9,846	6.44%
Rural Albemarle (2)	40,687	26.63%
Total Charlottesville / Albemarle	152,807	100.00%
Fluvanna, Greene, Louisa or Nelson County	N/A	
Albemarle (not sure which area)	N/A	
Other	N/A	

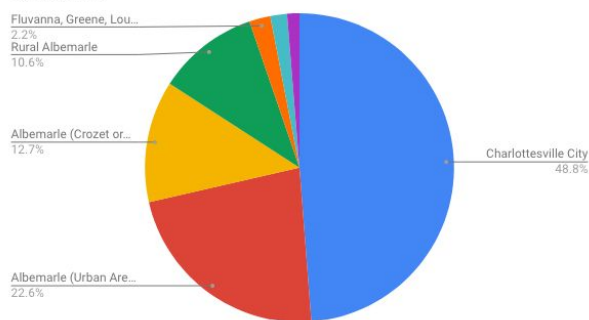
Although it is not what we were studying, it is also interesting to note that almost all Albemarle residents seemed to know which area (rural or urban) they live in. That speaks to the clarity of the County's rural conservation efforts.

² 2017 data. Sources: (1) [ibid](#). (2) Albemarle area breakdown from County Community Development Department, Division of Information Services, May 2017.

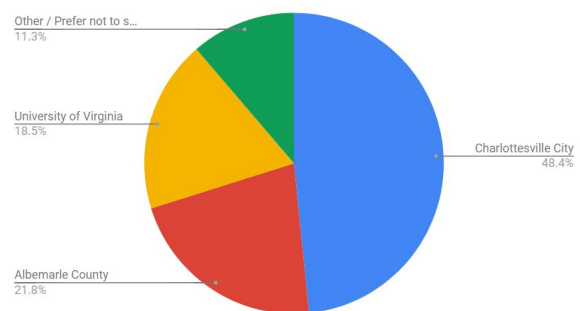
Question 2: Where do you work or go to school?

Response	Count	%
Charlottesville City	407	48.39%
Albemarle County	183	21.76%
University of Virginia	156	18.55%
Other / Prefer not to say	95	11.30%
Grand Total	841	100.00%

Residence



Work / School Location

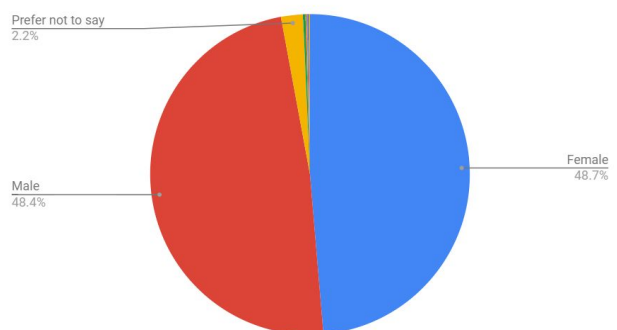


It was beyond the scope of this survey to research actual employment data. Based on the disparities between survey respondents and actual residential data, it is practical to consider that employment data also differs from actual conditions..

Question 3: What gender do you identify with?

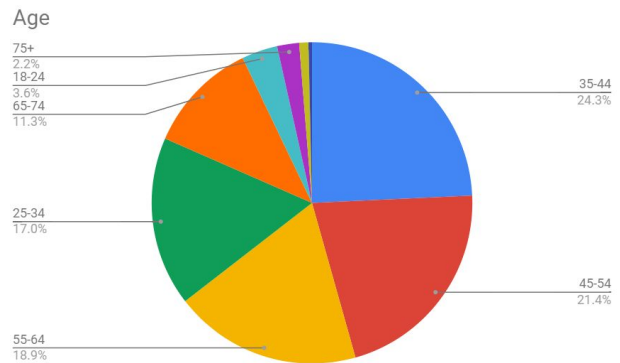
Response	Count	%
Female	417	48.66%
Male	415	48.42%
Prefer not to say	19	2.22%
Other	2	0.23%
Non-binary	1	0.12%
no response	1	0.12%
Martian	1	0.12%
human	1	0.12%
Grand Total	857	100.00%

Gender Identification



Question 4: What is your age?

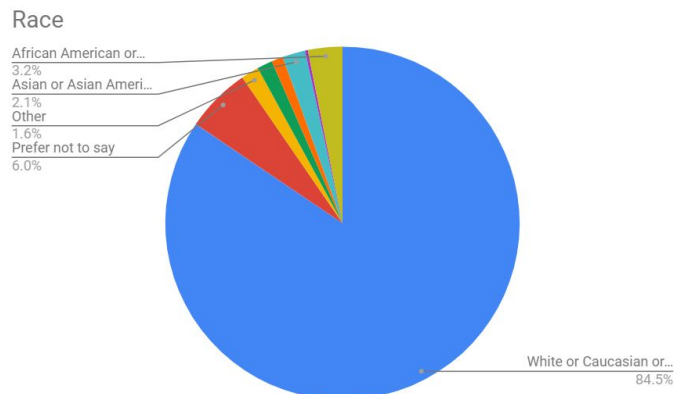
Response	Count	%
35-44	208	24.27%
45-54	183	21.35%
55-64	162	18.90%
25-34	146	17.04%
65-74	97	11.32%
18-24	31	3.62%
75+	19	2.22%
Prefer not to say	8	0.93%
Under 18	3	0.35%
Grand Total	857	100.00%



The relative dearth of under-24 respondents is surprising, and a bit disappointing in any case, but especially so given that this is a college town.

Question 5: What race do you most identify with?

Response	Count	%
White or Caucasian or European American	724	84.48%
Prefer not to say	51	5.95%
Other	14	1.63%
Multiracial or Biracial	12	1.40%
Hispanic or Latina or Latino	9	1.05%
Asian or Asian American	18	2.10%
Arab or Middle Eastern	2	0.23%
African American or Black	27	3.15%
Grand Total	857	100.00%



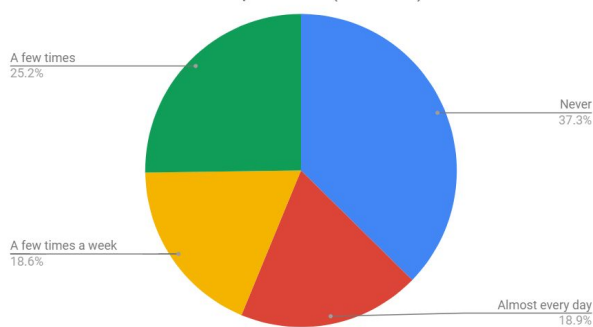
As discussed in the Limitations section, the number of non-white participants (82 / 9.6%) was not sufficient to be statistically valid, nor to present a fully accurate view of the region.

Question 6: In the last month, how often have you walked or ridden your bike for basic transportation?

(e.g. to get to work, school, shopping, or entertainment)

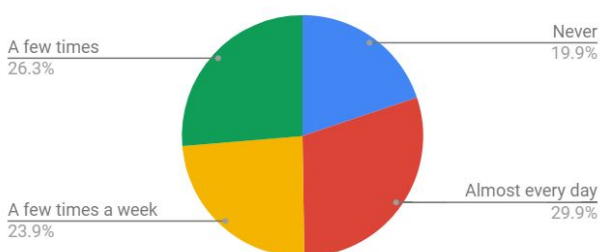
Response	Count	Overall %	% City Residents	% Urban Albemarle	% Crozet / Rivanna	% Rural Albemarle
Never	320	37.34%	19.86%	55.67%	41.28%	62.64%
Almost every day	162	18.90%	29.90%	8.76%	8.26%	9.89%
A few times a week	159	18.55%	23.92%	9.28%	25.69%	8.79%
A few times	216	25.20%	26.32%	26.29%	24.77%	18.68%
Grand Total	857	100.00%	100.00%	100.00%	100.00%	100.00%

Walk or Bike for Transportation (All users)

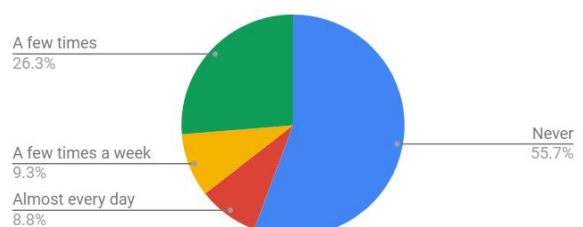


The major finding here is that City residents are far more likely than their counterparts in the County to walk or bike to work. That is not a surprise. What *is* surprising is that Crozet/Rivanna residents do so more often than their inner-suburb counterparts. That could be attributable to sample bias because we heard from Crozet residents primarily via active-transportation networks, and many urban residents via events and walk-ups.

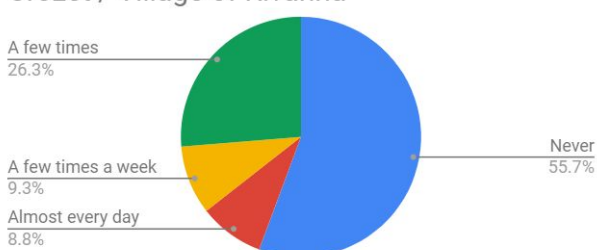
Charlottesville Residents



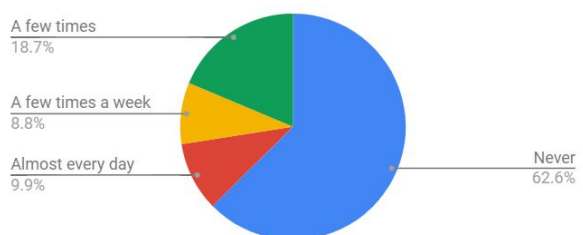
Urban Albemarle



Crozet / Village of Rivanna



Rural Albemarle



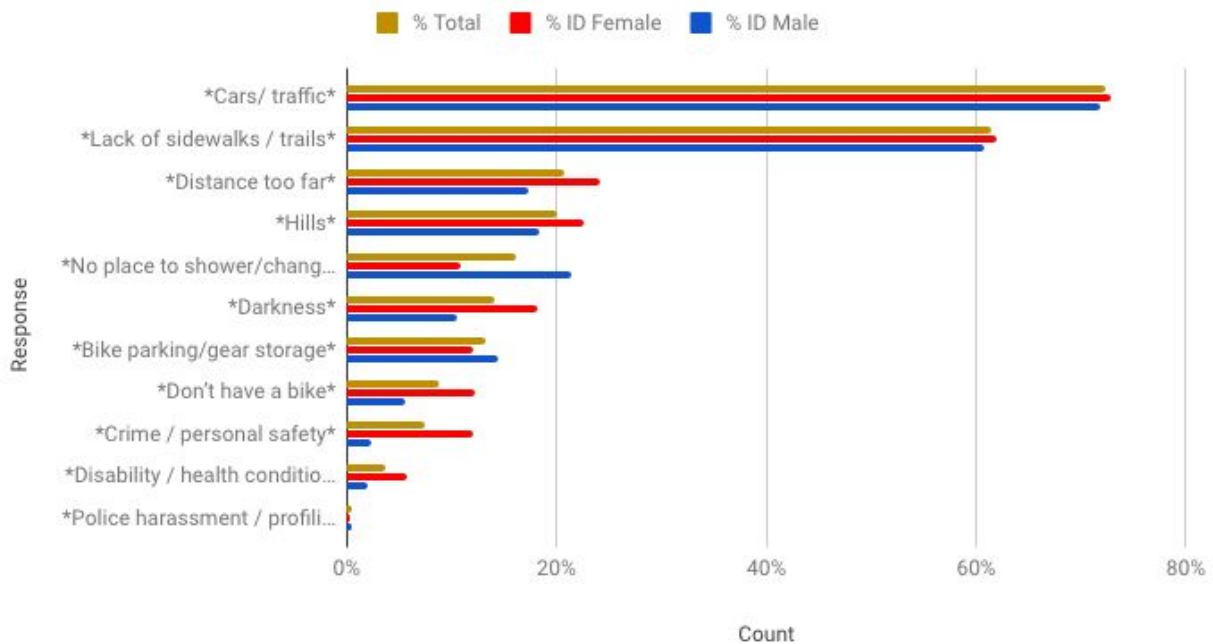
Question 7: What challenges make it harder for you to walk or bike for basic transportation? (Check all that apply.)

<i>Response</i>	Total Count	% Total	% ID Female	% ID Male
Cars/ traffic	620	72%	73%	72%
Lack of sidewalks / trails	526	61%	62%	61%
Distance too far	178	21%	24%	17%
Hills	172	20%	23%	18%
No place to shower/change clothes	138	16%	11%	21%
Darkness	121	14%	18%	11%
Bike parking/gear storage	114	13%	12%	14%
Don't have a bike	76	9%	12%	6%
Crime / personal safety	64	7%	12%	2%
Disability / health condition	32	4%	6%	2%
Police harassment / profiling	4	0%	0%	0%

Respondents were most daunted by cars and traffic and, as a corollary, the lack of infrastructure for walking and biking. Women were also concerned about physical safety and were more likely to lack bicycles. It is also notable, but again not surprising (given the Piedmont region's large hills), that terrain bothers women as much as distance does. Men appear more ready and able to try active commuting but lack supportive facilities or culture at their workplaces.

On first reading, the fact that four people reported police harassment seemed unacceptable--no one should be excluded from anything as basic as walking, biking and running. In reading through the raw data, only two of the six people who indicated this concern (two others cited it for question 9) identified as other than Caucasian (and only one was black), and just two were female. Their open-ended comments do not provide any further information.

Challenges to Walking / Biking for Transportation



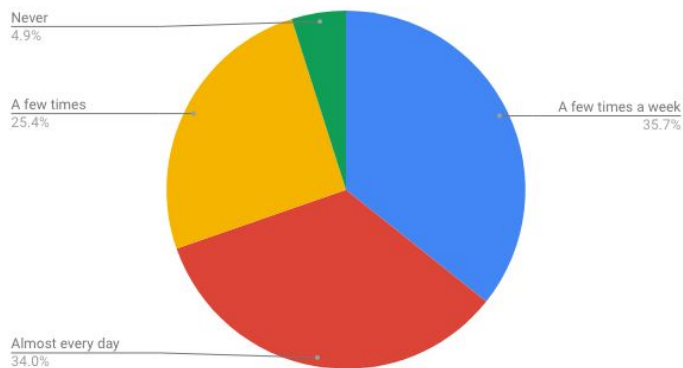
Question 8: In the last month, how often have you walked, run or biked outdoors for relaxation or exercise?

Response	Total Count	% of Total	% City Residents	% Urban Albemarle	% Crozet / Rivanna	% Rural Albemarle
A few times a week	306	35.71%	39.95%	33.51%	27.52%	29.67%
Almost every day	291	33.96%	31.82%	31.96%	42.20%	43.96%
A few times	218	25.44%	24.40%	28.35%	27.52%	18.68%
Never	42	4.90%	3.83%	6.19%	2.75%	7.69%
Grand Total	857	100.00%	100.00%	100.00%	100.00%	100.00%

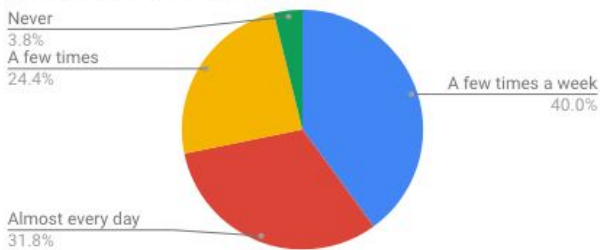
The surprising number here is that rural and Crozet residents are more likely to walk / bike daily than their urban counterparts. Here, I wish that we had separated biking and walking, but we can speculate along two paths. First, it is likely that, as described above, the survey probably was biased toward more-active-than-typical rural/Crozet residents.

It could also be that Crozet and the rural area are more conducive to walking than the suburban zone (it is highly doubtful that the same could be said about biking). We do know that Albemarle planners have historically prized open space in the rural area and have facilitated the creation of walking trails during the development of Crozet.

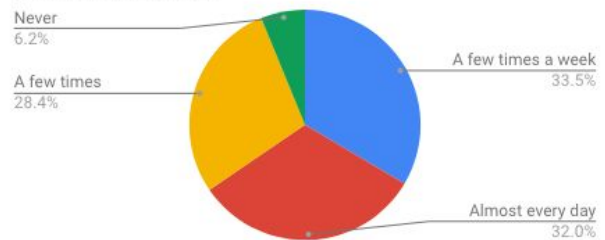
Walk or Bike for Exercise or Recreation (All users)



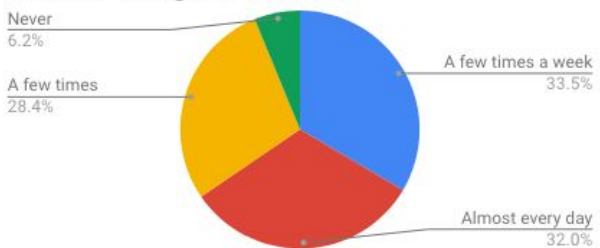
Charlottesville Residents



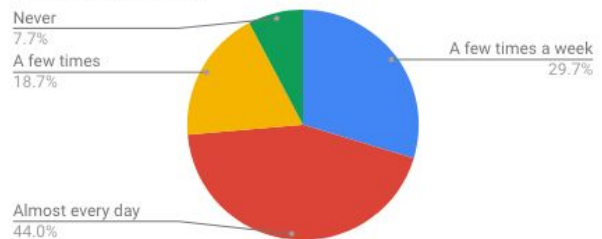
Urban Albemarle



Crozet / Village of Rivanna



Rural Albemarle



Question 9: What challenges make it harder for you to walk, run or bike outdoors for relaxation or exercise?

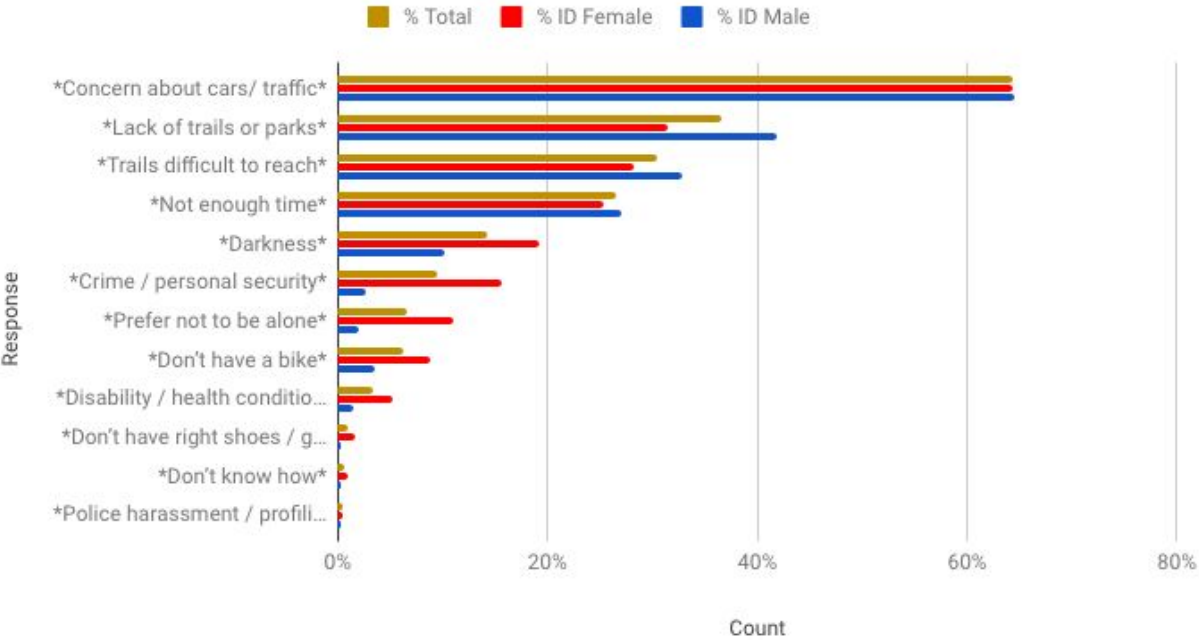
<i>Response</i>	Total Count	% Total	% ID Female	% ID Male
Concern about cars/ traffic	552	64%	64%	65%
Lack of trails or parks	314	37%	31%	42%
Trails difficult to reach	261	30%	28%	33%
Not enough time	227	26%	25%	27%
Darkness	123	14%	19%	10%
Crime / personal security	82	10%	16%	3%
Prefer not to be alone	56	7%	11%	2%
Don't have a bike	53	6%	9%	4%
Disability / health condition	29	3%	5%	1%
Don't have right shoes / gear	9	1%	2%	0%
Don't know how	5	1%	1%	0%
Police harassment / profiling	4	0%	0%	0%

As with transportation, a large majority of respondents stated that concern about cars hinders their ability to walk, run, or bike. Men tend to find the overall inventory of options insufficient, even more than women do, but both find it frustrating.

Women are again concerned about personal safety and more limited by darkness and solitude which are corollary. Interestingly, in focus groups, some women spoke about camaraderie as a *reason* to go exercise instead of merely a *condition*. Either way, this means that for trails and greenways to be appealing to women, they should be built in such a way that social interaction is possible or even facilitated.

We do not discount the disparity in the number citing disability but we also note that the sample size is pretty small and that the survey was distributed at health clinics. The fact that disability limits anyone from exercising underlines the importance of inclusive design of recreational space; people who need it the most should have access to the resource.

Challenges to Walking / Biking for Transportation

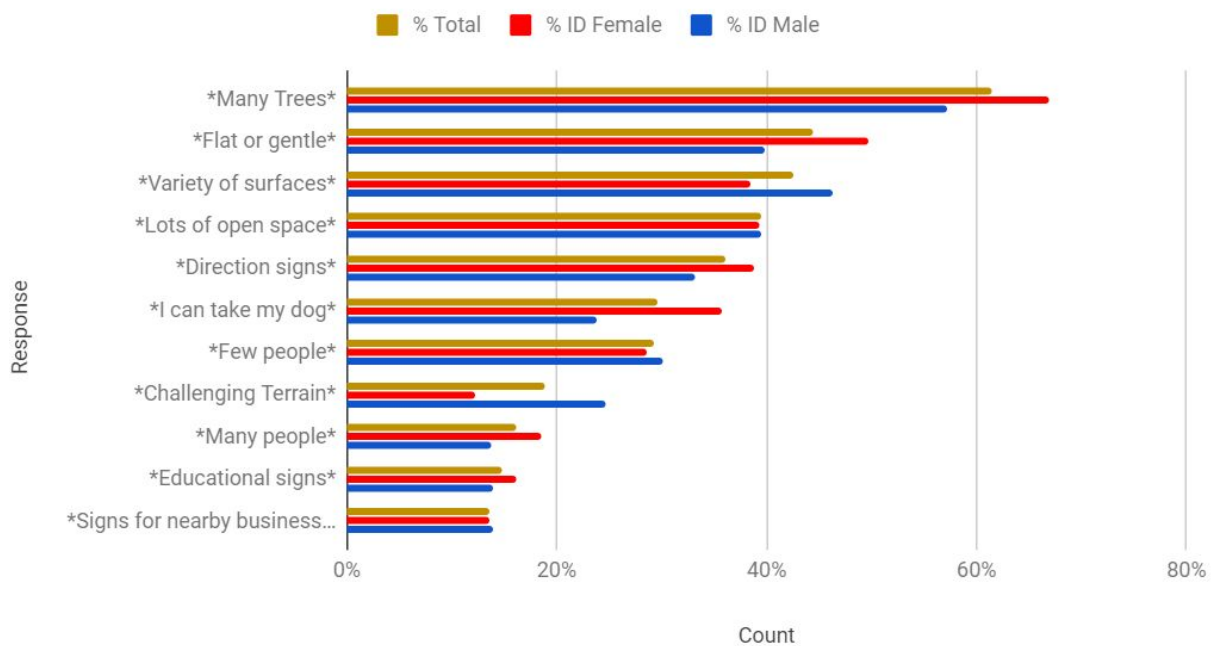


Question 10: When you think of a high-quality place to walk/bike/run, what attributes do you imagine?

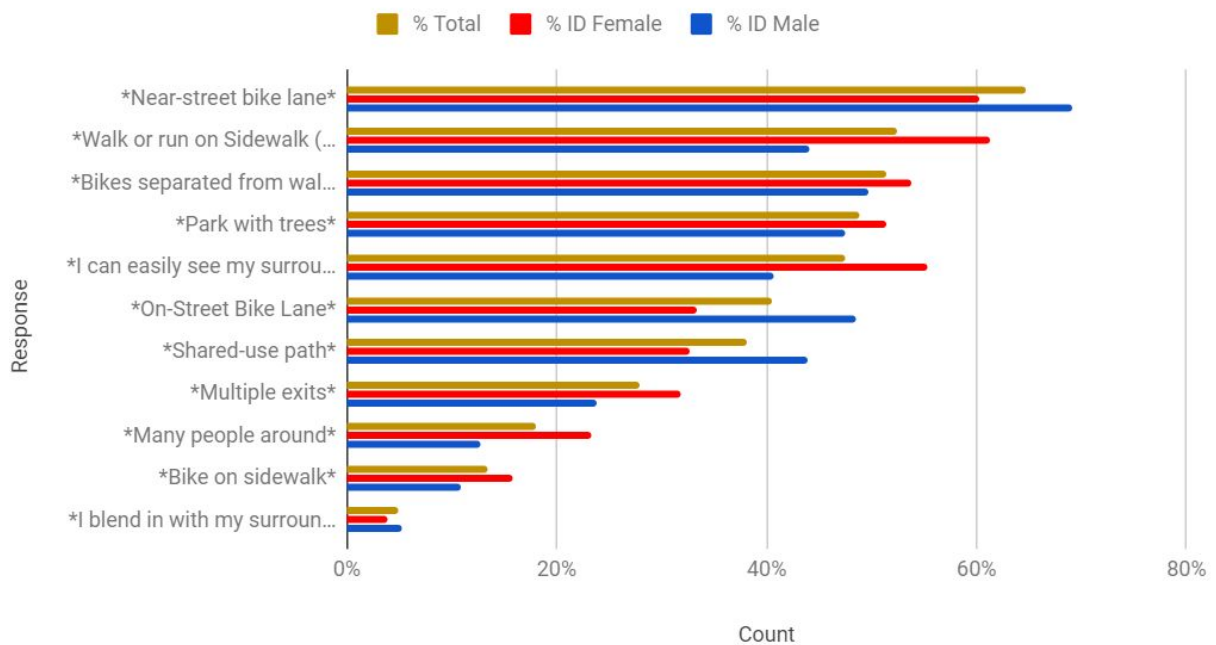
<i>Response</i>	Total Count	% Total	% ID Female	% ID Male
Many Trees	526	61%	67%	57%
Flat or gentle	380	44%	50%	40%
Variety of surfaces	365	43%	38%	46%
Lots of open space	338	39%	39%	40%
Direction signs	309	36%	39%	33%
I can take my dog	253	30%	36%	24%
Few people	250	29%	29%	30%
Challenging Terrain	161	19%	12%	25%
Many people	139	16%	18%	14%
Educational signs	127	15%	16%	14%
Signs for nearby businesses or attractions	117	14%	14%	14%

Both men and women want to walk, bike, and run in park-like settings but it is interesting, given the above discussion about safety, that women desire this even more than men do. Women value accessibility, and sociability more than men do. Dogs contribute to both safety and sociability. Men are more interested in challenge and variety. Well-designed greenways should be both pro-social but also provide a sense of solitude and escape to those who seek it.

Attributes of a High-Quality Place to Walk/Bike/Run



Attributes of a Safe Place to Walk/Bike/Run



Question 11: What would be the attributes of a safe place to walk/bike/run?

<i>Response</i>	Total Count	% Total	% ID Female	% ID Male
Near-street bike lane	554	65%	60%	69%
Walk or run on Sidewalk (not bikes)	449	52%	61%	44%
Bikes separated from walkers	441	51%	54%	50%
Park with trees	419	49%	51%	47%
I can easily see my surroundings	407	47%	55%	41%
On-Street Bike Lane	347	40%	33%	48%
Shared-use path	327	38%	33%	44%
Multiple exits	239	28%	32%	24%
Many people around	155	18%	23%	13%
Bike on sidewalk	115	13%	16%	11%
I blend in with my surroundings	42	5%	4%	5%

The same safety issues that we've seen throughout are reflected here, as well as importance of including elements that prevent crime: sight-lines sociability, and no dead ends, plus defined spaces for different trail users to prevent conflict among them.

Prior to the survey, I had theorized that shared-use paths might appeal to men more than to women, and that women might actually prefer sidewalks, where there are cars (with people in them) nearby but at a safe distance. This data provides some confirmation for that notion but we should also note that women expressed even more interest in gentle, nature-rich spaces than men did in the previous question, which is how a planner envisions a well-built shared-use path. So it could simply be a question of definition. The next iteration of the survey could use images instead of words.

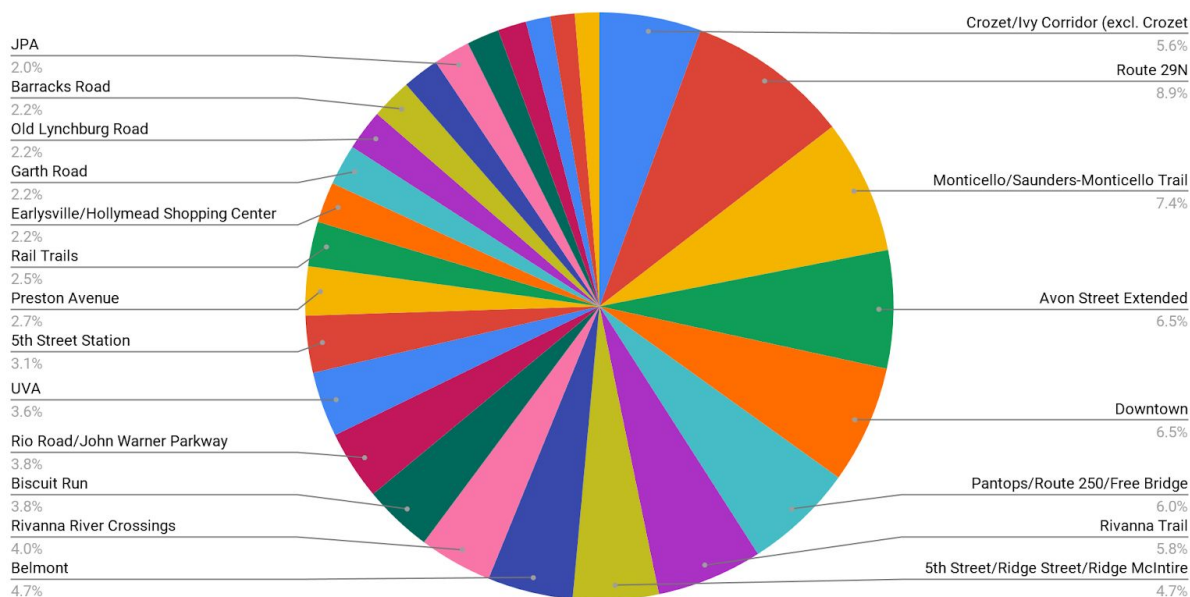
Whatever term we use, we can see that design matters and that we are talking about social spaces. Escape to nature might actually include having other people around in well-designed spaces.

Question 12: Please suggest any specific connections between places or neighborhoods that could make it easier and better to walk, bike, or run.

526 respondents suggested connections that would improve their lives and PEC volunteer Jeff Pacelli distilled them into thematic buckets. Most suggestions invoked arterial corridors (such as 29-North), neighborhood connections, and popular existing or potential recreation destinations (such as the Saunders-Monticello Trail or Biscuit Run).

A large number of respondents requested a link to Crozet, including many from Crozet residents who asked *only* for that. The total count was 89 (17%). Even when I eliminated Crozet residents from the data set, there were still 25 mentions of Crozet and/or the Ivy/VA250 West corridor, so it's not just Crozet residents who want to go there. At 5%, it is still a popular destination but not the overwhelming favorite it might appear in the raw data. Here is what that modified tally looks like:

Suggested Connections (excl. Crozet residents; mentions >=1%)



Although the Strengthening Systems project was not conceived to serve Crozet residents, it *is* about providing urban residents with access to nature-rich experiences, and it is an important community objective to knit together the county's most settled areas. It is also important for decision-makers to appreciate that their constituents want for them to think big. In fact, it could be argued that a vision is the only thing that can inspire change. Full responses [here](#).

Question 13: Please share any other ideas you have for a better-connected Charlottesville / Albemarle, or examples of successes you've seen in other places.

423 respondents offered free-response ideas. PEC volunteer Chris Schopper distilled them into the following thematic categories:

<i>Suggestion</i>	<i>Mentions</i>	<i>%</i>	<i>Suggestion</i>	<i>Mentions</i>	<i>%</i>
Protected / Separated Bike Lanes	119	28.13%	Community Events / Education	11	2.60%
More Paths Between Communities	64	15.13%	Lower Speed Limits	11	2.60%
More Connected Parks / Trails Network	50	11.82%	Scootershare/Bikeshare	9	2.13%
Rail-to-Trail Conversions	42	9.93%	Higher Density Zoning	7	1.65%
Multi-Use Trails	42	9.93%	Additional Ped Crossings on Rt 29	6	1.42%
Make Longer Trails	38	8.98%	Bike Parking / Storage	5	1.18%
Improved Sidewalks / Widen Paths	36	8.51%	Sensors for Cars to Recognize Bikes	4	0.95%
Better Bus Network	26	6.15%	Narrow Street Widths / Crossings	3	0.71%
Trail to Crozet	25	5.91%	Alleys to Trails	3	0.71%
Better Signage	25	5.91%	Commuter Lots	3	0.71%
Improve Crosswalks	21	4.96%	Traffic Circles	3	0.71%
More Vegetation	13	3.07%	Better Security	3	0.71%
Better Lighting	12	2.84%	More Parking for Trails	2	0.47%

As throughout, the overwhelming concern is safety from automobiles. Chris also noted that connectivity is a primary concern, but he detected two intertwined threads: some people seem to want basic transportation and others (sometimes, but not always, the same people) wanted access to recreation. In my own research, I have found these threads difficult to pull apart and therefore planners would do well to stop distinguishing between the two (recreation v active transportation).

Again we see the Crozet interest (still 11 requests when Crozet residents were omitted).

Other suggestions offered specific ways to make greenways more appealing and quite a few ways that they could contribute to a better-functioning transportation network. [Full responses here](#).

Appendices

Appendix A: Survey Instrument

Survey: Walking, Biking and Running in Charlottesville & Albemarle

1. Where do you live?

- ☐ Charlottesville City
☐ Suburban Albemarle
☐ Rural Albemarle
☐ Crozet or Rivanna Village
☐ Albemarle (not sure which area)
☐ Fluvanna, Greene, Louisa or Nelson
☐ Other

2. Where do you work or go to school?

- ☐ Charlottesville City ☐ Albemarle County
☐ University of Virginia ☐ Other / Prefer not to say

3. What is your age?

- ☐ Under 18 ☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54
☐ 55-64 ☐ 65-74 ☐ 75+ ☐ Prefer not to say

4. What gender do you identify with?

- ☐ Female ☐ Male ☐ Other ☐ Prefer not to say

5. What race do you most identify with?

- ☐ American Indian or Alaska Native
☐ African American or Black
☐ Arab or Middle Eastern
☐ Asian or Asian American
☐ Hispanic or Latina or Latino
☐ Multiracial or Biracial
☐ Native Hawaiian or Pacific Islander
☐ White or Caucasian or European American
☐ Other ☐ Prefer not to say

6. In the last month, how often have you walked or ridden your bike for basic transportation? (Select one.)

- ☐ Never ☐ A few times
☐ A few times a week ☐ Almost every day

7. What challenges make it harder for you to walk, bike, or run for basic transportation? (Check all that apply)

- ☐ Bike parking / gear storage ☐ Cars / traffic
☐ Crime / personal safety ☐ Darkness
☐ Disability / health condition ☐ Distance too far
☐ Don't have a bike ☐ Hills
☐ Lack of sidewalks / trails ☐ No place to shower
☐ Police harassment / profiling or change clothes
☐ Others:

8. In the last month, how often have you walked, biked, or run outdoors for relaxation or exercise? (Select one.)

- ☐ Never ☐ A few times
☐ A few times a week ☐ Almost every day

9. What challenges make it harder for you to walk/bike/run outdoors for relaxation or exercise? (Check all that apply)

- ☐ Cars / traffic ☐ Crime / personal security
☐ Darkness ☐ Disability / health
☐ Don't have a bike ☐ Don't have right shoes / gear
☐ Don't know how ☐ Lack of trails or parks
☐ Not enough time ☐ Police harassment / profiling
☐ Prefer not to be alone ☐ Trails difficult to reach
☐ Others:

10. When you think of a high-quality place to walk/bike/run what attributes do you imagine? (Check all that apply)

- ☐ Few people ☐ Many people
☐ Lots of open space ☐ Many Trees
☐ Challenging terrain ☐ Flat or gentle
☐ Variety of surfaces ☐ I can take my dog
☐ Direction signs ☐ Educational signs
☐ Signs for nearby businesses or attractions
☐ Others:

11. What would be the attributes of a safe place to walk/bike/run? (Check all that apply)

- ☐ On-street bike lane ☐ Near-street bike lane
☐ Walk/run on Sidewalk ☐ Bike on sidewalk
☐ Parks with trees ☐ Many people around
☐ Bikes separate from walkers ☐ Everyone together
☐ I can easily see my surroundings ☐ I blend in with my surroundings
☐ Multiple exits ☐ Others:

12. Can you suggest any specific connections between places or neighborhoods that could make it easier and better to walk, run or bike?

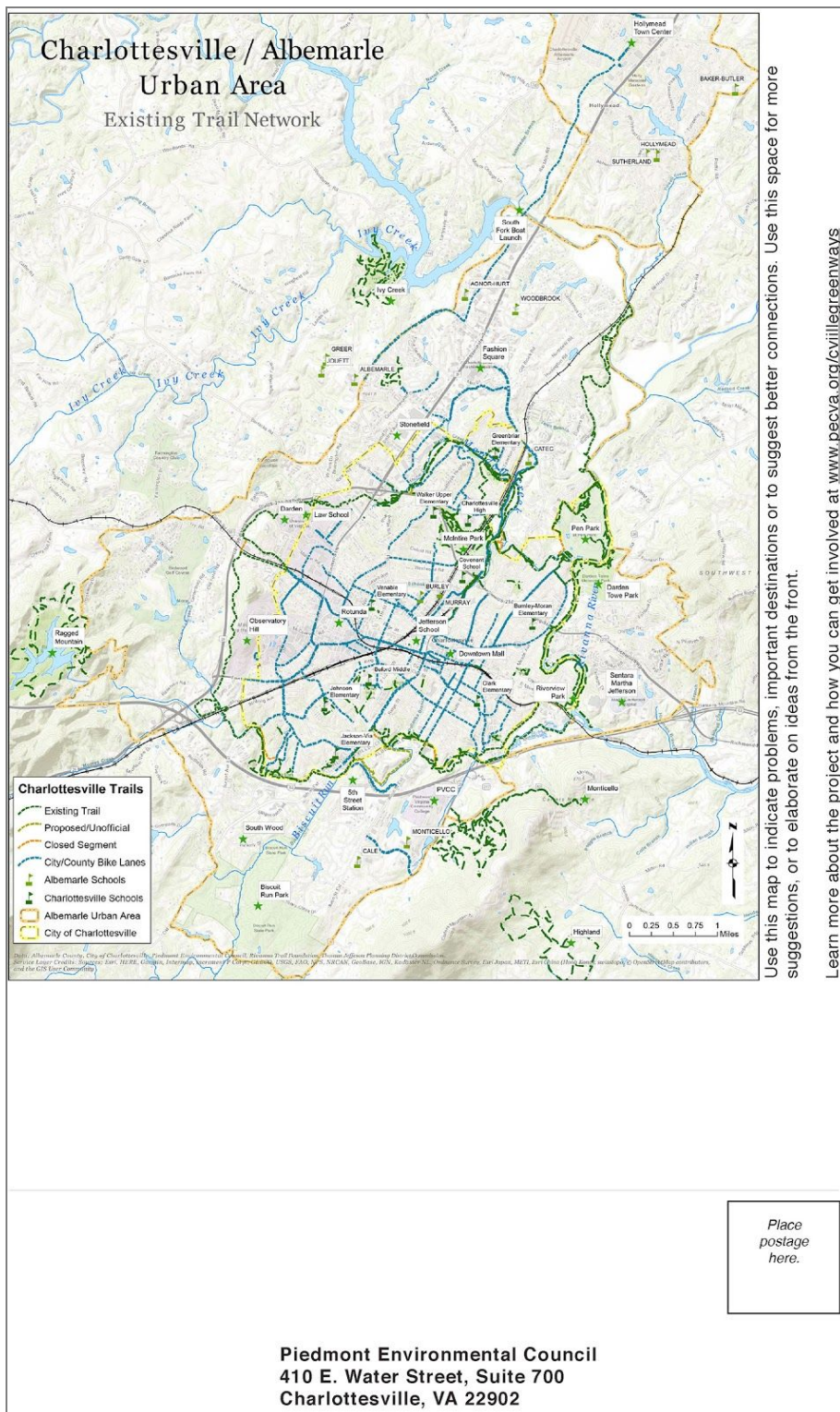
13. Please share any other ideas you have for a better-connected Charlottesville / Albemarle, or examples of successes you've seen in other places.

Please use the back to provide more details or draw new routes on the map.



The Piedmont Environmental Council and the Thomas Jefferson Planning District Commission are working with communities in Charlottesville and Albemarle to envision and implement connections that provide healthy and safe transportation options for pedestrians and cyclists. To learn more about the project and how you can get involved, please visit www.pecva.org/cvillegreenways





Appendix B: Long-Form Connection Ideas

[Click here](#) for full-text responses to Question 12: *Please suggest any specific connections between places or neighborhoods that could make it easier and better to walk, bike, or run.*

Appendix C: Long Form Suggestions

[Click here](#) for full-text responses to Question 13: *Please share any other ideas you have for a better-connected Charlottesville / Albemarle, or examples of successes you've seen in other places.*