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Data Analytics & Survey Solutions



2023 Transportation Equity Needs Assessment Survey Summary Report

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For Cornell Cooperative
Extension Tompkins
County and the
Transportation Equity
Coalition

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Introduction

Study Motivation

Transportation allows people to access necessary activities of daily living such as medical appointments, school, and work, and is therefore a vital component of a community's function and accessibility. To keep track of service usage and issues, cities, towns, and transportation companies periodically collect their own data. In Tompkins County, many organizations that provide transportation support such as CCE-Tompkins Way2Go, Golthaca, TCAT, and Tompkins 211 also regularly collect their own internal data to illuminate community needs and areas for improvement. From this data we can establish a baseline of unmet needs and gaps in the current Tompkins County transportation system. In 2019, before the onset of the COVID-19 Pandemic, TCAT (the Tompkins County bus system) reported 4.2 million uninterrupted passenger trips. In 2020 (during the peak of closures and lockdowns) there were only 1.5 million trips- a little over one-third of the previous year. In 2022, the number of trips grew to over half the 2019 levels at 2.5 million.

Though the number of trips reportedly went down during the pandemic, this does not mean that the need for transportation decreased. According to data from Tompkins 211, which helps refer people to transportation resources and services, there were slightly more calls in 2020 (1,873) than there were in 2019 (1,589). In 2021 and 2022 the number of calls dropped to 1,345 and 1,264, respectively. Of the 6,071 calls made to 211 from 2019-2022, approximately 65% (3,915) were referred to paratransit services such as Gadabout and Friends in Service Helping (FISH). About 22% (1,327) of callers during this period were referred to services for transportation cost assistance (e.g. TCAT passes, Gas Cards, Vouchers) and 12% (709) were referred to long distance bus services (e.g. OurBus, Coach, Flix). Other needs included local auto (5%) and bus services (3%). About 3% of calls (212) had needs that could not be met by Tompkins 211.

Other supporting services that help to reduce transportation gaps include the Center for Community Transportation (CCT) which ran the Backup Ride Home (BRH) Program from 2018 to 2023 in collaboration with TCAT and the Downtown Ithaca Alliance (BRH ended in summer of 2023, replaced by services at Golthaca). This program was established so commuters traveling without a personal car (e.g. bus, bike, or carpool users) had a backup method to get home in case something went wrong with their travel plans (up to four times per year). Of the 87 calls to BRH during this period, over half (56%) cited gaps in the TCAT schedule, and 14% called after a missed bus. Though service provider data is important to collect and monitor to gauge needs and effectiveness, this data only covers those who use (or attempt to use) these services, and not the entire community. While the opportunity for coverage is wider with a service like TCAT, specific or support services may not reach everyone that needs them.

Administrative data on accidents and fatalities, reported by TCAT and the NYS Department of Transportation Accident Location Information System (ALIS) and CLEAR (crash data viewer), also provide information on safety issues in the Tompkins County transportation system. From 2019 to 2022 there were 10,586 transportation accidents (auto, bicycle, or pedestrian) reported in Tompkins County. During this period, 305 automobile crashes and 36 bicycle or pedestrian accidents resulted in serious injury. The vast majority of accidents were automobile crashes (98%, or 10,407), but bicycle and pedestrian fatalities, though small in number, still made up 12% of transportation fatalities. There were 36 car accident fatalities and 5 bicycle or pedestrian fatalities from 2019-2022.

This secondary data provides examples of community transportation issues, such as safety (car, bike, and pedestrian), access to paratransit information, help with transportation costs, and gaps in the TCAT bus schedule. However, these sources are not necessarily representative of the county population (with the exception of administrative sources such as NYSDOT) and are unable to provide deeper understanding of disparities or gaps. Therefore, the Tompkins County Transportation Equity Coalition developed the Transportation Equity Needs Assessment (TENA) survey to collect input more widely from the community. Since those who are systematically underserved (such as people of color or those with a disability) are more likely to be living in poverty than those who are not, and since you need to have contact with or access to a service to provide feedback, those most underserved may not regularly be heard by planning organizations. Therefore, the aim of this study was to identify countywide transportation strengths and weaknesses based on community feedback, identify countywide priorities, provide underserved residents the opportunity to contribute to transportation research and decision making, and create a framework for developing transportation services and solutions to further support the Tompkins County community.

The Transportation Equity Needs Assessment (TENA)

The Transportation Equity Needs Assessment (TENA) study is designed to understand the strengths and weaknesses of the transportation system of Tompkins County; provide underserved residents the opportunity to contribute to transportation research and decision making; and provide a framework for developing and identifying transportation services and solutions.

The overall study objectives are to understand:

1. How well-connected do members of underserved communities in Tompkins County feel to key services, opportunities, and amenities through transportation systems?
2. What are the strengths of the Tompkins County transportation system in supporting people in underserved communities to access key services, opportunities, and amenities?
3. What are the barriers to transportation that people in underserved communities face in accessing key services, opportunities, and amenities?
4. What are some potential solutions to these barriers?

For purposes of this needs assessment, underserved communities within Tompkins County was defined as including: < 17 years old, age 55 or older, physical or mental disability or impairment, LGBTQI+, Black, indigenous, person of color (BIPOC), Hispanic/Latino/Latina/Latinx, limited English proficiency, having a fixed/low/no income, without a car/restricted license, or living in a rural area We focused on underserved communities because Structural inequities in Tompkins County disproportionately affect BIPOC and other underserved communities, particularly at the intersection of household income.

Many people will have multiple of these identities that overlap, resulting in even more undue transportation inequities for that person (e.g. a BIPOC young person with a disability). We also acknowledge that even if someone identifies with one or several of these identities, it doesn't necessarily mean they don't have access to good transportation options. The Coalition hypothesized that people with these identities are more likely to face transportation inequities/inaccessibility. The data suggest that those identities solely on their own didn't support the hypothesis, but once the income breakdown was added, it was more likely that the income status was the driving force in determining the disparities and challenges.

To understand the strengths and weaknesses of our transportation system more deeply and thoroughly we wanted to provide underserved residents the opportunity to contribute to transportation research and decision making and produce an assessment more reflective of their communities. Ultimately our goal was to provide a framework for developing and identifying transportation services and solutions that will support and nurture the Tompkins County community.

Tompkins County Transportation Equity Coalition

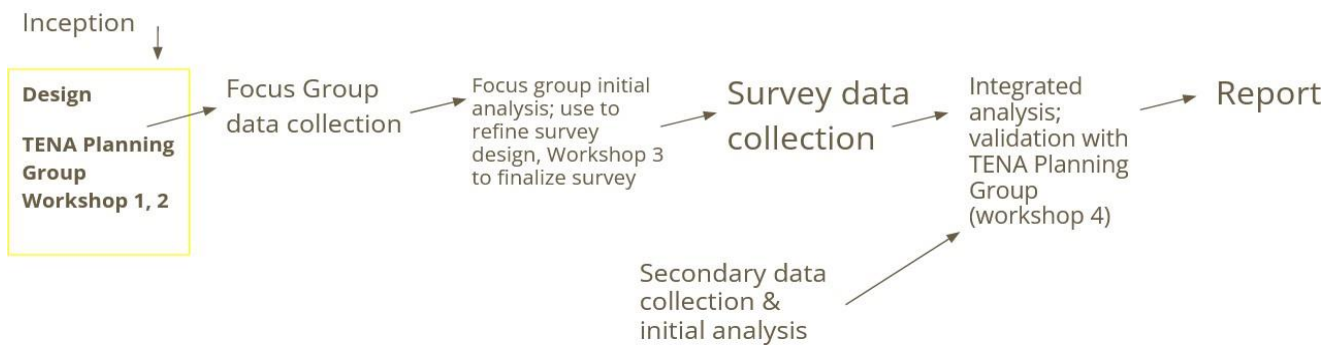
The Transportation Equity Coalition formed in 2020 to better understand and address the systemic inequities that affect access to safe and efficient transportation for residents of Tompkins County. The Coalition is currently made up of representatives from TCAT, Gadabout, the Center for Community Transportation (including Ithaca Bikeshare, Ithaca Carshare and Bike Walk Tompkins), Cornell Cooperative Extension of Tompkins County’s Way2Go program, GO ITHACA, Tompkins County Planning Department and the Ithaca-Tompkins County Transportation Council (ITCTC).

The Coalition envisions an equitable transportation sector that advances the quality of life for historically excluded people in Tompkins County and surrounding areas.

TENA Process

Since early 2022, the coalition was focused on better understanding the barriers that Tompkins County residents faced accessing transportation, particularly underserved communities. Together with consultants and a community representative planning group, we conducted county-wide focus groups in September 2022 and a survey during the spring of 2023.

The TENA Process



Methods

Overall Participatory Design

In May 2022, an invitation to participate in the TENA planning group was sent widely through the Coalitions' individual and organizational contacts. The commitment was to attend 3 design sessions to provide input on focus group and survey questions and ways to engage the community and 1 meaning making session post-survey. Community member participation was intended to create a meaningful way to engage and hear from unheard voices throughout our community about the needs and challenges with transportation. The opportunity was open to all people of all backgrounds and abilities. A stipend of \$320 was provided to honor the time of applicants who identified as and had connections with underserved communities.

A county-wide call for planning group members resulted in 20 applications. 15 people ultimately participated in the planning group. As the assessment process unfolded and was intended to reach communities on their terms, in their language, we had planning group members drop off and new ones join part of the way through.

A copy of the planning group invitation can be found in **Appendix A**

Focus Groups

A call for focus group members went out in late August for planning groups scheduled in September. The purpose of holding focus groups was to hear the needs and experiences of those who faced obstacles in accessing transportation, as well as their ideas for solutions to help improve access to transportation and thus quality of life. The information derived from these small discussion groups was used to inform the survey questions and in the development of recommendations.

Potential participants were asked "Do you face obstacles in accessing transportation, or does the lack of transportation or safety limit where you can go? Would you like to share your experiences or ideas for solutions to help improve access to transportation and thus your quality of life?" We offered a \$50 stipend for participation in one hour and a half meeting and received 991 responses representing diversity in geography and identity. 35 people were selected.

Participants were selected for each focus group through a clustered random selection methodology based on primary identify, geography and secondary/intersecting identity (limited, fixed, low, or no income; without a car or who cannot drive or who has a restricted license; living in a rural area; identifies as LGBTQ+). Each focus group took place online in order to have county-wide participation and had a limit of 6-8 participants. The focus groups were organized around identify to encourage people to feel comfortable speaking up, and were defined as:

- People with physical and mental disabilities or limitations
- People with limited English
- BIPOC
- Seniors/Retirees
- Youth
- General-anyone with transportation challenges

Each group was asked the same questions which included participants' main mode of transportation, barriers experienced, why people thought barriers existed and potential solutions. Insights for survey

questions were identified by the session facilitators and moderators based upon what stood out and recurring themes.

A copy of the focus group invitation can be found in **Appendix B**.

Survey Instrument:

A survey questionnaire was developed by Golden Aspen Consulting to understand the needs of residents and ways to increase access to transportation in Tompkins County. Survey questions were based upon Focus Groups' responses.

A pilot test of the survey was conducted with five testers representing BIPOC, BIPOC/LGBTQIA/ENL, Youth/BIPOC/Rural/Low income, ENL/Low income, Rural/White/Works with Youth from the TENA planning group during the week of February 13, 2023. Spanish and Chinese speakers reviewed translated versions of the surveys for accuracy in translation and clarity. We asked reviewers to respond to the following questions for each survey question: Is the question understandable to a broad audience using plain language? Does the question answer the Key Sub Question or measure the baseline indicator adequately? Reviewers were given a \$20 gift card.

<https://docs.google.com/document/d/1kwA5b4UZKXE1-x3aDziDzaaBORBh43xEVGPU96bWyqQ/edit>

<https://docs.google.com/document/d/1jCIBf6GnJGOi2VAvRNBHJxmkZTC-IMT4/edit>

The survey was offered via Qualtrics (web platform) in English, Spanish and simplified Chinese. The Spanish and Chinese versions of the survey were also offered in paper format. Study participants were offered entry into a raffle. A total of 28 items were offered including three \$100 Wegman gift cards, one \$450 TCAT year pass, one \$45 TCAT month pass, three \$20 "15" TCAT ride pass, 10 Ithaca Bike Share 20-minute ride credit, 10 \$100 Amazon e-gift cards.

The survey was disseminated through partner human service organizations, direct email to those that responded with interest in participating in the Focus Groups. A press release and poster set were distributed throughout the county with a QR code to access the survey.

A copy of the survey questionnaire can be found in **Appendix C**.

Study Population:

The target population for this study are people who live, work, go to school, and/or otherwise travel around Tompkins County, New York with an intentional oversample of those who are defined in this study to be people who are "underserved." See the "Data Analysis" section for the full definition of underserved.

The Population of Tompkins County

The total population of Tompkins County was 104,777 in 2022 (2022 Vintage Population Estimates), up modestly from the 2010 Census count of 101,564. The median age in Tompkins County was about 32 (2022 1-year ACS), with approximately 16.4% of the population aged 65 and older and 13.7% under 18 (2022 Vintage Population Estimates). Excluding those aged 65 and older, about 8.5% of the population has a disability (2022 5-year ACS). According to the 2022 Census Bureau Population Estimates, 80.9% of the population estimated as "White alone". The second largest racial group in the county was Asian alone (10.2%), followed by Black or African American Alone (4.6%). Approximately 5.5% of the

population is Hispanic/Latino/Latinx (2022 Vintage Population Estimates), and 16% of the county speaks another language other than English at home (2022 5-year ACS).

Most Tompkins County residents (95.7%) over age 25 have a high school diploma/GED or higher educational attainment, and 57.5% hold a bachelor's degree or higher. A slight majority of the housing units in Tompkins County are owner-occupied (54.3%), below the homeownership rate for the U.S. overall of 60.4% (2022 5-year ACS). The median household income between 2018 and 2022 in Tompkins County was \$69,995 and 16% of the county population was considered living in poverty during this period (2022 5-year ACS). For residents of Tompkins County, the average travel time to work each day was estimated at about 20 minutes, including waiting for public transportation, picking up passengers in carpools, and other transport related steps (2022 5-year ACS).

Note that the survey captures people living outside of the county who work or travel around Tompkins, but that the above population description is of residents within Tompkins County only. Because of sampling methods, sample bias, and the survey criteria, the demographic description of the survey sample is not expected to exactly match the official demographics of the county population.

Brief overview of TC transportation system

The Tompkins County Transportation System consists of a variety of transportation options, including walking, biking, rolling, taking a bus with Tompkins Consolidated Area Transit (TCAT) or their paratransit service provider Gadabout, hailing a ride with Taxi, Lyft, or Uber, carpooling with 511NY Rideshare, sharing a bike with Ithaca Bikeshare, and sharing a car with Ithaca Carshare. Specialized transportation services target users such as seniors, medical appointment individuals, ICSD students and families, and non-emergency medical transportation options. Transportation information providers include 211 Tompkins, Way2Go, and other transportation service providers.

While the current transportation system serves as an essential pillar for the vibrancy of the county, structural inequities in the Tompkins County transportation system and related systems disproportionately affect certain communities which face transportation inequities and larger barriers within Tompkins County.

Survey Data Collection:

Data collection began April 4 and ended May 7, 2023. The survey was administered via email to a list of 941 residents of Tompkins County. The list was made up of those that had applied to be part of one of the focus groups. In addition, the survey was distributed widely county-wide to human service organizations to share with clients, town and city governments to share with their constituents, posted at food banks and community centers. Separate survey links were sent to the two populations for tracking purposes.

For those who were part of the email list, they were sent one invitation email April 6, and the reminder emails were sent to non-respondents on April 13, April 20, and April 27. See **Appendix D** for the emails and poster.

Response Rate:

Email List:

Initial Sample	941
Duplicates	18
Email blocked/bounced	26
Survey Completed	280
Eligible Sample*	897
Response Rate	31.2%

*Eligible is the number of surveys left after removing duplicates and blocked/bounced emails

General Distribution:

In total, 2,146 surveys were submitted. A total of 1,862 surveys were completed from the targeted underserved populations of the area, representing nearly 87% of the survey respondents who identified in at least one of the underrepresented categories as defined by this assessment.

Data Analysis:

By design, “underserved” individuals were over-sampled. In addition, within the underserved and not underserved respondents, it was important to identify those who were also in low-income households. However, being socially underserved is not necessarily an indicator of access to transportation. Preliminary analysis reflected this with few noticeable and even fewer statistically significant differences between the two groups. However, what transportation options are available generally depends on income. Analysis from the US Department of Transportation and the Bureau of Labor Statistics (BLS) found that about 30% of U.S. households in the lowest income quintile (lowest 20%) (annual household income of \$25,806 or less) do not own a car, compared to 3% for each of the top two income quintiles (U.S. Department of Transportation, 2022). In addition, people with historically underserved identities such as having a disability, being BIPOC, Hispanic/Latino, or LGBTQ+ tend to have lower incomes and are more likely to be in poverty than their counterparts without these identities (Badgett et al. 2022; Cheeseman Day & Taylor 2019; KFF 2022; USDA ERS 2023; Walton 2019).

Therefore, the intersection between identity and income may better describe transportation equity than either characteristic alone. Thus, the underserved and not underserved groups were further segmented by income in this analysis. This resulted in a better comparison across and within groups, and clearer differences and similarities. When appropriate, results are reported overall, by underserved or not underserved, or broken down further into four groups, defined as:

1. Underserved Low Income
2. Underserved Not Low Income
3. Not Underserved Low Income
4. Not Underserve Not Low Income

The definitions of “underserved” and “low-income” are below:

Underserved: someone who identifies and selects *any* of the following responses: < 17 years old, age 55 or older, physical or mental disability or impairment, LGBTQI+, Black, indigenous, person of color

(BIPOC), Hispanic/Latino/Latina/Latinx, limited English proficiency, having a fixed/low/no income, without a car/restricted license, or living in a rural area (from survey question 4). Those who selected none of these options and also did not select “none of the above” were also defined as underserved because of their use of the link designated for underserved groups.

Low-Income: someone who reported annual household income in 2022 before taxes of less than \$50,000*. Conversely, those of not low income reported an annual income of \$50,000 or more (from survey question 27) Note, approximately 26% of the survey respondents did not provide an answer to the household income question, so the distribution of income and underserved status is based on the total number of valid responses on income: 1,587 (See Table 2).

Results are reported when statistically significant differences across the four groups were found, or when the trend of responses across groups differed. A chi-square test of independence- a statistical tool used to help determine whether differences observed across categories are significant or could have been produced by chance- was used to gauge whether there was a difference in survey responses across the four groups. A p-value (the probability output by this test) of 0.05 or less was the threshold to determine if there was a statistically significant difference. Frequency distributions of the survey results overall are found in **Appendix E**.

Qualitative Coding

Written responses were considered “valid” if they were not blank and contained at least one complete word (symbols for example were not considered a valid response). If there were exact duplicate responses, only one was kept. Many survey questions in the TENA survey included write-in spaces that accompanied a certain response category (usually “Other”). Two questions within the scope of the research objectives covered in this report were fully open ended: question 13 and question 22. To better understand and organize the feedback given, written responses for survey questions 2, 6, 7, 8, 10, 11, 12, 13, and 22 were analyzed using thematic and descriptive methods.

A hierarchical coding tree was built for use on questions 13 and 22 which were applied to responses with Dedoose. Using Excel, additional relevant code lists were created for each of the other questions. During the coding process, a code was attached to an excerpt (response) whenever the theme, or any of its logical synonyms, applied. For example, if the code was “personal vehicle” and the respondent wrote something like “driving my car” or “using my motorcycle”, both would receive the code for personal vehicle. The code lists used are available in **Appendix F**.

*The Federal Poverty Level for a family of 4 is \$31,942. However, “living wage” in Tompkins County is \$46,550 for a single worker in rental housing with no children, based on the wage needed in order to spend less than 30% of one’s income on rent (for a one-bedroom unit). Since the questionnaire offered set categories, we could either define low income as less than \$35,000 or less than \$50,000, but due to the potential range in unit and family size it made more sense to choose the latter.

Results

Section 1: General Background

By design, the survey was targeted toward Tompkins County residents and transportation users identified as “underserved”. Table 1 is a breakdown of how respondents self-identified; “underserved” was defined as anyone who did not answer “None of the above” on question 4 of the survey. Those age 17 or younger and those with limited English proficiency were few in number and therefore, summaries addressing needs for these two groups should be taken with caution. One out of six respondents (16.7%) were defined as “not underserved” in this study. The remaining groups each applied to 10% or more of respondents, giving a good breadth of representation across the various groups. Note that the total number of responses shown in Table 1 is larger than the number of respondents (n=2,146) because the question asked for all that apply.

Table 1 (Question 4) Which of the following describes you and your situation? (Choose all that apply)

Response	Count	%
Age 17 or younger	76	3.5%
Age 55 or older	551	25.7%
Person with a physical or mental disability, limitation, impairment	262	12.2%
Person who identifies as LGBTQI+	356	16.6%
Person who identifies as Black, Indigenous, or as a Person of Color (BIPOC)	314	14.6%
Person who identifies as Latino/Latina/Latinx/Hispanic/Spanish	213	9.9%
Person with limited English proficiency	78	3.6%
Person with limited, fixed, low, or no income	406	18.9%
Person without a car or who cannot drive or who has a restricted license	340	15.8%
Person living in a rural area	499	23.3%
None of the above	359	16.7%
Total	3,454*	N/A

As noted, not all respondents answered the household income question. Hence, in Table 2 below which reports the number of individuals in the four combinations of underserved and income status, two totals are shown: one with the overall number of respondents, and the second that only includes those with responses on income. The Percent valid row displays the percentage of individuals who responded on household income that belonging to each of the categories.

Table 2 Breakout of Respondents by Underserved/Not Underserved and Income Status n=2,146

	Not Underserved		Underserved		No response on Income	Total	
	Not Low-Income	Low-Income	Not Low-Income	Low-Income		Overall	With Valid Income Response
Number (n)	209	83	668	627	559	2146	1587
% Overall	9.7%	3.9%	31.3%	29.2%	26.1%		
% valid	13.2%	5.2%	42.1%	39.5%	NA		

Age Distribution:

Figure 1 shows the age distribution of the respondents overall- a fairly even distribution across age groups. The 2022 County Population Estimates estimated that 16.4% of the population in Tompkins County was aged 65 and older and 13.7% was under 18. This survey had a much smaller proportion of youth than the county as a whole (1.3%) and a slightly smaller share of those over 65 (12.4%). Table 3 breaks down the age distribution of respondents by the four groups of interest.

- Those belonging to the low-income groups are both significantly younger than their counterparts who are not of low income.
- Those who are in the underserved group are also significantly older than those defined as not underserved.

Figure 1: Age Distribution, $n=2,146$

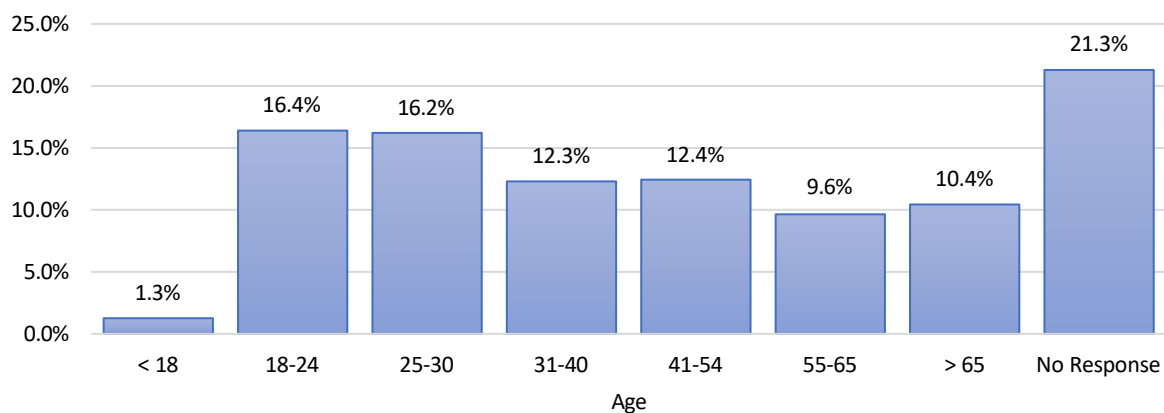


Table 3: Age Distribution by Underserved/Not Underserved and Income Status

Age		Not Underserved		Underserved		Total
		Not low-income	Low-income	Not low-income	Low-income	
< 18	n	0	0	6	15	21
	%	0	0	0.9%	2.4%	1.3%
18-24	n	29	34	75	195	333
	%	13.9%	41.0%	11.2%	31.2%	21.0%
25-30	n	60	28	105	148	341
	%	28.7%	33.7%	15.7%	23.6%	21.5%
31-40	n	51	9	106	91	257
	%	24.4%	10.8%	15.9%	14.5%	16.2%
41-54	n	67	12	114	64	257
	%	32.1%	14.5%	17.1%	10.2%	16.2%
55-65	n	2	0	137	41	180
	%	1.0%	0	20.5%	6.6%	11.4%
> 65	n	0	0	124	72	196
	%	0	0	18.6%	11.5%	12.4%
Total	n	209	83	667	626	1585
	%	100%	100%	100%	100%	100%

*** $p=0.000$

Gender Distribution:

Table 4 breaks down the gender distribution by the four groups.

- There are slightly more males in the not underserved group compared to the underserved group (regardless of income status).

Table 4: Gender Distribution by Underserved/Not Underserved and Income Status

		Not Underserved		Underserved		Total
		Not Low-Income	Low-Income	Not Low-Income	Low-Income	
Female	n	104	44	351	312	811
	%	50.0%	53.0%	53.0%	50.5%	51.6%
Male	n	101	38	282	268	689
	%	48.6%	45.8%	42.6%	43.4%	43.9%
Non-binary	n	0	0	26	32	58
	%	0	0	3.9%	5.2%	3.7%
Other	n	3	1	3	6	13
	%	1.4%	1.2%	0.5%	1.0%	0.8%
Total	n	208	83	662	618	1,571
	%	100%	100%	100%	100%	100%

*p=0.027

Household Income:

Participants were asked for their household income in 2022 before taxes (See Table 5). The median household income in Tompkins County is \$69,995 (2022 ACS 5-year estimates), and most survey respondents fell within the same category as this number (\$50,000-74,999).

- One out of four (26% or 559) respondents did not answer this question.
- Of those who did not provide an answer, the majority (492 out of the 559) were underserved.
- Slightly less than half (44.73%) of respondents who provided a response had a household income of less than \$50,000/year.
- Almost twice as many underserved respondents (48%) fell into the low-income category compared to the not underserved (28%).
 - More underserved respondents fell into the lowest income category (33.2%) than those not underserved (7.2%).
- Almost one out of six (17.58%) respondents had a household income greater than \$100,000/year.

Table 5: Household Income Distribution by Underserved/Not Underserved and Income Status

Income		Not Underserved		Underserved		Total
		Not Low-Income	Low Income	Not Low-Income	Low Income	
< 20,000	N	0	6	0	208	214
	%	0	7.2%	0	33.2%	13.5%
20,000-34,999	N	0	51	0	242	293
	%	0	61.5%	0	38.6%	18.5%
35,000-49,999	N	0	26	0	177	203
	%	0	31.3%	0	28.2%	12.8%
50,000-74,999	N	85	0	280	0	365
	%	40.7%	0	41.9%	0	23.0%
75,000-99,999	N	49	0	184	0	233
	%	23.4%	0	27.5%	0	14.7%
>100,000	N	75	0	204	0	279
	%	35.9%	0	30.5%	0	17.6%
Total	N	209	83	668	627	1,587
	%	100%	100%	100%	100%	100%

***p = 0.000

Race:

- Participants were asked their racial identity, see Table 6. The distribution of racial identity is slightly different in the survey than the county overall. The share of respondents in the survey identifying as white was 53.6%, compared with the 80.9% estimated as “White alone” by the Population Estimates in 2022. The next two largest racial groups were slightly different from the county distribution. In the survey, 10.3% of respondents identified as Black or African American, and 5.0% identified as Asian. Conversely, the Census Bureau estimated the share of Tompkins County residents who are Black/African American at 4.6%, and Asian at 10.2%. One out of five (22.9% or 491) respondents did not provide an answer to this question.
 - Of these almost all, 490, were underserved respondents.
- The overwhelming majority (slightly more than 90%) of the not underserved group identified as white, while the underserved group were less so with slightly more than half (55.84%) of the low-income underserved identifying as white.
- One out of five low-income underserved identified as Black or African American.

Table 6: Race Distribution by Underserved/Not Underserved and Income Status

Race		Not Underserved		Underserved		No response on Income	Total
		Not Low-Income	Low-Income	Not Low-Income	Low-Income		
	N	6	3	33	57	8	107
	%	2.9%	3.6%	4.9%	9.1%	1.4%	5.0%
Black/African American	N	3	1	87	127	4	222
	%	1.4%	1.2%	13.0%	20.3%	0.7%	10.3%
Indigenous/Alaskan Native	N	2	0	8	24	2	36
	%	1.0%	0	1.2%	3.8%	0.4%	1.7%
Native Hawaiian/Pacific Islander	N	0	0	1	9	0	10
	%	0	0	0.2%	1.4%	0	0.5%
	N	190	78	479	344	60	1,151
	%	90.9%	94.0%	71.7%	54.9%	10.7%	53.6%
	N	2	0	45	37	5	89
	%	1.0%	0	6.7%	5.9%	0.9%	4.2%
	N	5	1	9	18	7	40
	%	2.4%	1.2%	1.4%	2.9%	1.3%	1.9%
	N	1	0	6	11	473	491
	%	0.5%	0	0.9%	1.8%	84.6%	22.9%
	N	209	83	668	627	559	2,146
	%	100%	100%	100%	100%	100%	100%

*** p=0.000

Section 2: How Well Connected are Underserved Communities to Transportation System Services

Mode of Transportation:

Participants were asked how they get around Tompkins County most of the time. If they use two or more modes, they were asked to select “other” and describe. See Table 7.

- Personal vehicle was the most common mode of transportation for the not low-income respondents (with half using this mode).
- Only one out of four of the low-income respondents use a personal vehicle.
- Low-income respondents were more likely to use the bus (TCAT), a taxi/Uber/Lyft, or walk compared to non-low-income respondents.
- Low-income underserved respondents also were more likely to select “other” means of transportation.

Of the 281 respondents that selected “Other”, 277 wrote in a response. The most common number of transportation methods mentioned in responses was 2, with 48% (133 responses) naming exactly two modes. About 40% (111 responses) reported using more than two modes. Twelve percent (n=33) of respondents only named one mode of transportation in their response. Overall, personal vehicle appeared most often (65.3%) followed by walking (57.4%) and TCAT (55.6%). The most frequent combinations of transportation modes reported were: **personal vehicle and walking** (14% or 39 responses), **personal vehicle and TCAT** (13% or 35 responses), and **personal vehicle, walking,**

and TCAT (10.5% or 29 responses). Figure 2 displays a word cloud of all occurring themes by frequency.

Table 7: (Question 2) Ways of Getting Around Tompkins County by Underserved/Not Underserved and Income Status

Get around TC most of the time n=1,587	Not Underserved		Underserved	
	Not low-income (n=209)	Low-income (n=83)	Not low-income (n=668)	Low-income (n=627)
Personal vehicle	49.76	24.1	54.79	25.68
Taxi, Uber, Lyft	7.18	13.25	4.04	8.13
Walk	5.26	7.23	6.74	10.85
Bike or roll	3.83	0	3.89	5.42
Wheelchair/mobility	0.48	1.2	0.15	0.32
Carpool	0	0	1.2	1.91
Bus(TCAT)	15.31	34.94	12.43	22.49
Gadabout/paratransit	1.91	2.41	1.95	3.35
Carshare	1.91	4.82	2.4	2.55
Bikeshare	0	2.41	1.65	1.91
Other	14.35	9.64	10.78	17.38

***p=0.000

Figure 2: (Question 2) How do you get around Tompkins County Most of the Time, **Other**. N=277

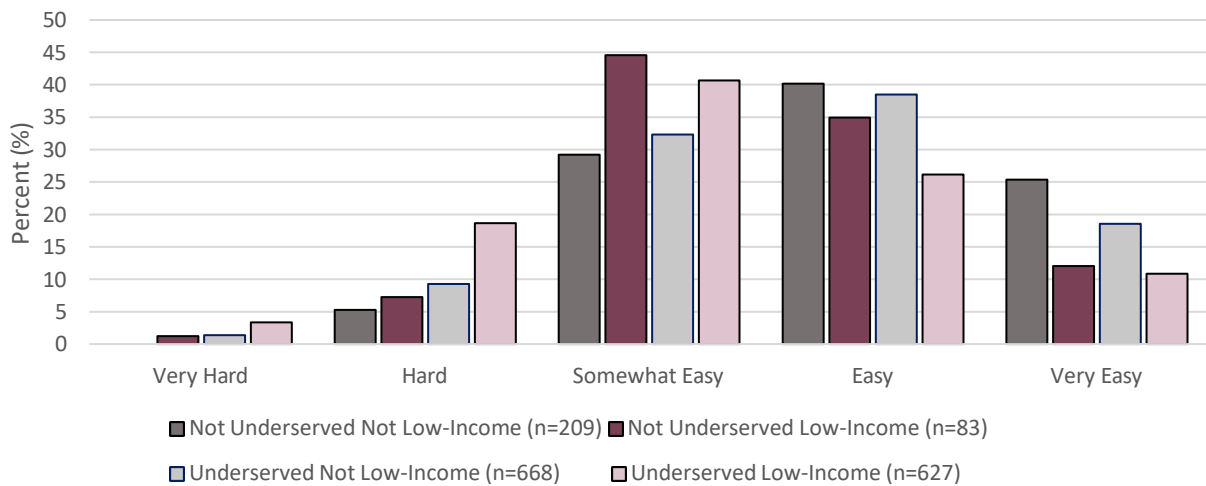


Ease of Getting Around Tompkins County:

Participants were asked how easy or difficult it is for them to get around Tompkins County (on a scale of very hard, hard, somewhat easy, easy, to very easy), see Figure 3.

- The most common response for low-income respondents (regardless of underserved status) was that getting around Tompkins County was “somewhat easy”.
- For not low-income respondents (regardless of underserved status), the most selected response was “easy”.
- The low-income underserved respondents were more likely to note that getting around Tompkins County is “hard” or “very hard” for them compared to the other groups (although it was still the least selected response).

Figure 3: (Question 5) Ease of Getting Around Tompkins County by Underserved/Not Underserved and Income n=1,585



***p=0.000

Section 3: What Are Strengths of the Transportation System

What Mode of Transportation Works Well

Participants were asked to indicate what transportation options currently work well for them from the provided list and prompted to select as many as applied (see Table 9). The selection of “Other” was accompanied by a write in line for respondents to specify.

- Overall, the majority (59.4%) reported that a personal vehicle works well for them as a transportation option, followed by walking (38.9%) and the TCAT bus (37.3%).

Table 10 breaks out the responses by the four groupings:

- Those who were in the low-income groups were more likely to report the Bus (TCAT) as a mode of transportation that works well for them compared to the not low-income groups.
- The not low-income groups were more likely to select personal vehicle as working well for them.

- Those who are underserved (regardless of income status) were more likely than those not underserved to report that using a rideshare service (taxi/Uber/Lyft) works well for them.

Out of the fifty-five respondents who selected other in question 12, forty-nine included a valid write-in response. Only three modes not included in the multiple-choice question appeared in the written responses to “Other”, and each only appeared once: Car rental, assistants/caregivers, and volunteer services. While the goal of the question was to assess what works well, half of the written responses (51%, 25 responses) included discussion of why the indicated mode did not work well for them. Of these responses (see Figure 4), eleven addressed drawbacks of a personal car and six addressed issues with TCAT.

Table 8: (Question 12) Transportation Mode that Works Well; n=1,852

Response	%	Count
Personal vehicle (car, truck, etc)	59.4%	1,100
Bus (TCAT)	37.3%	691
Gadabout or other paratransit	9.5%	176
Walking	38.9%	720
Biking or rolling (roller skate, skateboard, scooter)	15.2%	282
Wheelchair or motorized mobility device	2.0%	37
Ithaca Carshare	11.9%	221
Ithaca Bikeshare	12.6%	234
Taxi, Uber or Lyft	18.6%	345
Carpool	9.2%	171
Other (please specify)	3.0%	55
No transportation options work well for me	3.4%	63
Total	NA	4,095

Table 9: (Question 12) Transportation Mode that Works Well by Underserved/Not Underserved and Income Status

What modes work well	Not Underserved		Underserved	
	Not Low-Income (n=209)	Low-Income (n=83)	Not Low-Income (n=663)	Low-Income (n=623)
Personal vehicle	72.3	55.4	69.7	41.3
Walking	40.2	32.5	39.1	39.3
Bus(TCAT)	38.8	47.0	32.4	44.0
Rideshare (Taxi/Uber/Lyft)	14.8	12.1	16.7	23.9
Biking/rolling	19.6	13.3	15.2	15.6
Bikeshare	12.4	10.8	11.6	15.6
Carshare	12.4	14.5	10.9	13.8
Gadabout/paratransit	7.2	12.1	7.7	12.7
Carpool	5.3	9.6	9.1	10.6
No transportation options work well for me	1.9	2.4	2.9	4.8
Other	1.0	0.0	2.6	4.0
Wheelchair/mobility device	1.9	2.4	0.9	2.9

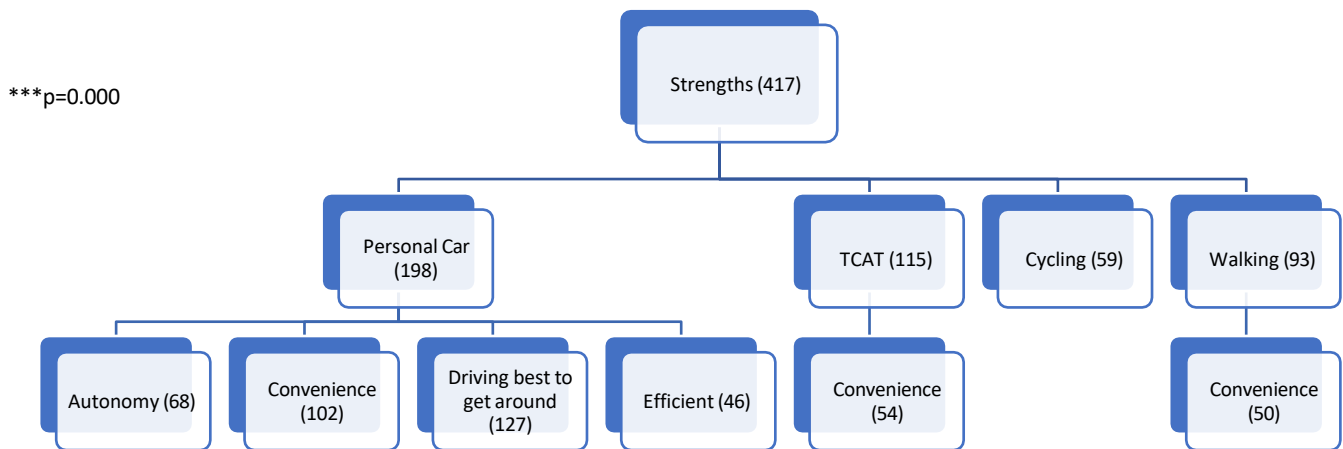
***p=0.000

Why Transportation Methods Work Well

Question 13 followed the thread of question 12 by asking why transportation methods work well, if any do. There were 478 valid responses to this question. About 87% of responses discussed strengths of transportation modes. The most common strengths mentioned were personal car (198 responses), driving as the best/only way to get around (127 responses), and TCAT (115 responses). Figure 4 displays the frequency and organization of codes applied for the top four strengths and their sub-categories.

Though the language of the question asked why transportation worked well, 195 responses (36%) also discussed barriers associated with their chosen method. Almost half (43%, 83 responses) of those that mentioned barriers discussed barriers within TCAT.

Figure 4: (Question 13) What works well: Frequently Discussed Strengths*



*Count of responses shown in parentheses

Figure 5: (Question 13) Top strengths of the three most prevalent modes

Personal Car Coded as a strength in 198 responses.

- Driving is the best way to get around (127 responses)
- Convenience (102 responses)
- **Autonomy** (68 responses)
- Efficient (46 responses)

“Having access to a car works because you're **on your own time schedule**. The bus works but is time-limited. Uber is not available unless I am coming from downtown and not available in Dryden.”

TCAT Coded as a strength in 115 responses.

- **Proximity/convenience** (54 responses)
- **Affordable** (13 responses)

“...There are many people on the bus and I feel safe and the daily riders form a community within the bus. The bus route extends to Newfield and it **is very affordable for me**. It **drops me off right in front of my home**.”

Walking Coded as a strength in 93 responses.

- **Proximity/convenience** (50 responses)
- Health benefits (14 responses)

“I chose to live downtown and work downtown so that I **could walk to work most of the time**, and so that I would have some **businesses and eateries in walking distance**.”

Section 4: Barriers to Transportation for Underserved Individuals

Difficulties Getting Around Tompkins County

Respondents were asked to identify their top three difficulties to getting around in Tompkins County (not including cost).

- Overall (see Appendix C), the top three responses provided were that buses don't run when needed (38%), parking is hard to find (29.7%) and there is too much traffic (26.7%).

Examining these responses by the four groups, it was found (see Table 10):

- Underserved low-income respondents were significantly more likely to report that the buses do not run when they need them.
- Not low-income respondents were more likely to report parking difficulties regardless of underserved status.
- Not underserved respondents were more likely to report that there is too much traffic.
- The low-income respondents were also more likely to report that information about the transportation services is hard to find or understand than their counterparts not of low-income.

- Underserved low-income respondents were more than twice as likely to report that they have had a bad experience with discrimination based on race, color, or creed. In addition, at least 4% of all respondents reported they had experienced discrimination.
- Those who are underserved, as well as the not underserved low-income respondents, were more likely to report that it was not easy for those with disabilities or limitations to get around Tompkins County.
- The underserved low-income respondents were almost twice as likely as their not low-income counterparts to report that using shared transportation is not easy for people who speak languages other than English or have limited reading ability.
- Approximately one out of ten respondents reported they had had a bad experience with drivers or buses or other ride services.
- Approximately one out of four of all respondents- EXCEPT those not underserved and of low-income- reported they do not feel safe when not in a car.

All but one respondent who selected “Other” on question 6 had valid write-in responses (236). The most common theme mentioned was inadequate bus routes (53 responses) followed by car infrastructure (47 responses). Figure 6 displays the code themes found in the written responses as a word cloud, with size and color differences by frequency. Figure 7 shows the frequency and coding schema for the top eight most common responses with corresponding excerpts.

Table 10 (Question 6) Top 3 Difficulties Getting Around by Underserved/Not Underserved and Income Status; n=1,933

Top 3 difficulties in getting around Tompkins County	Not Underserved		Underserved	
	Not Low-Income (n=207)	Low-Income (n=82)	Not Low-Income (n=661)	Low-Income (n=621)
No buses when needed	34.3	35.4	34.5	46.4
Parking difficult	33.3	28.1	34.2	21.7
Too much traffic	34.8	35.4	27.2	22.7
Do not feel safe (non-car)	23.7	9.8	19.8	25.8
No car/can't drive	2.4	8.5	12.3	33.3
Transportation info	13.0	17.1	15.6	19.7
No difficulties	21.3	23.2	17.1	6.1
Other	9.7	12.2	12.9	11.8
Bad bus/ride experiences	10.6	12.2	10.6	13.0
COVID concerns	7.7	8.5	12.0	13.0
Experienced Discrimination	4.4	3.7	7.4	13.2
Difficult for the disabled/impaired	4.8	7.3	7.4	10.0
Language issues	5.8	6.1	5.1	11.8
Companion/service animal issues	7.7	6.1	5.5	9.7

*p=0.027

Figure 6: (Question 6) Top 3 Difficulties Getting Around, **Other**- Themes by Frequency of Appearance (n=236)

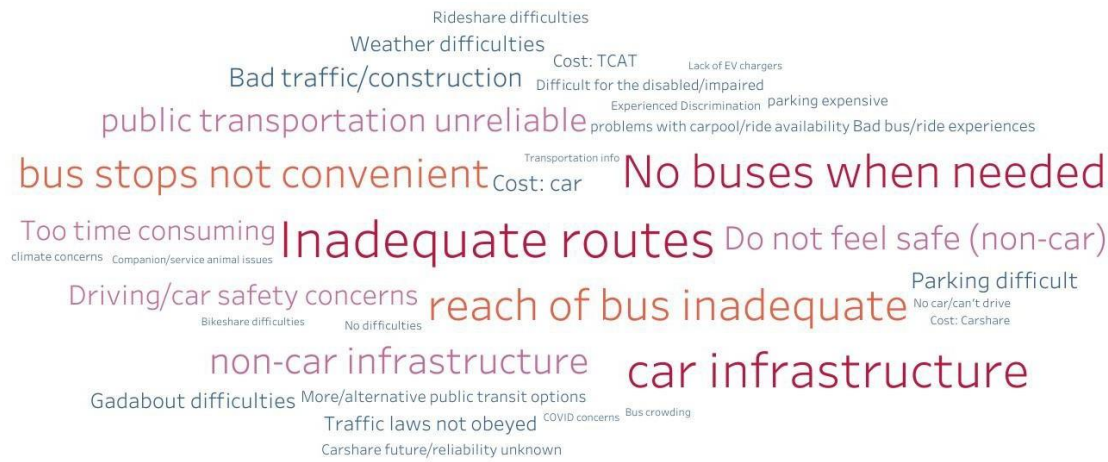
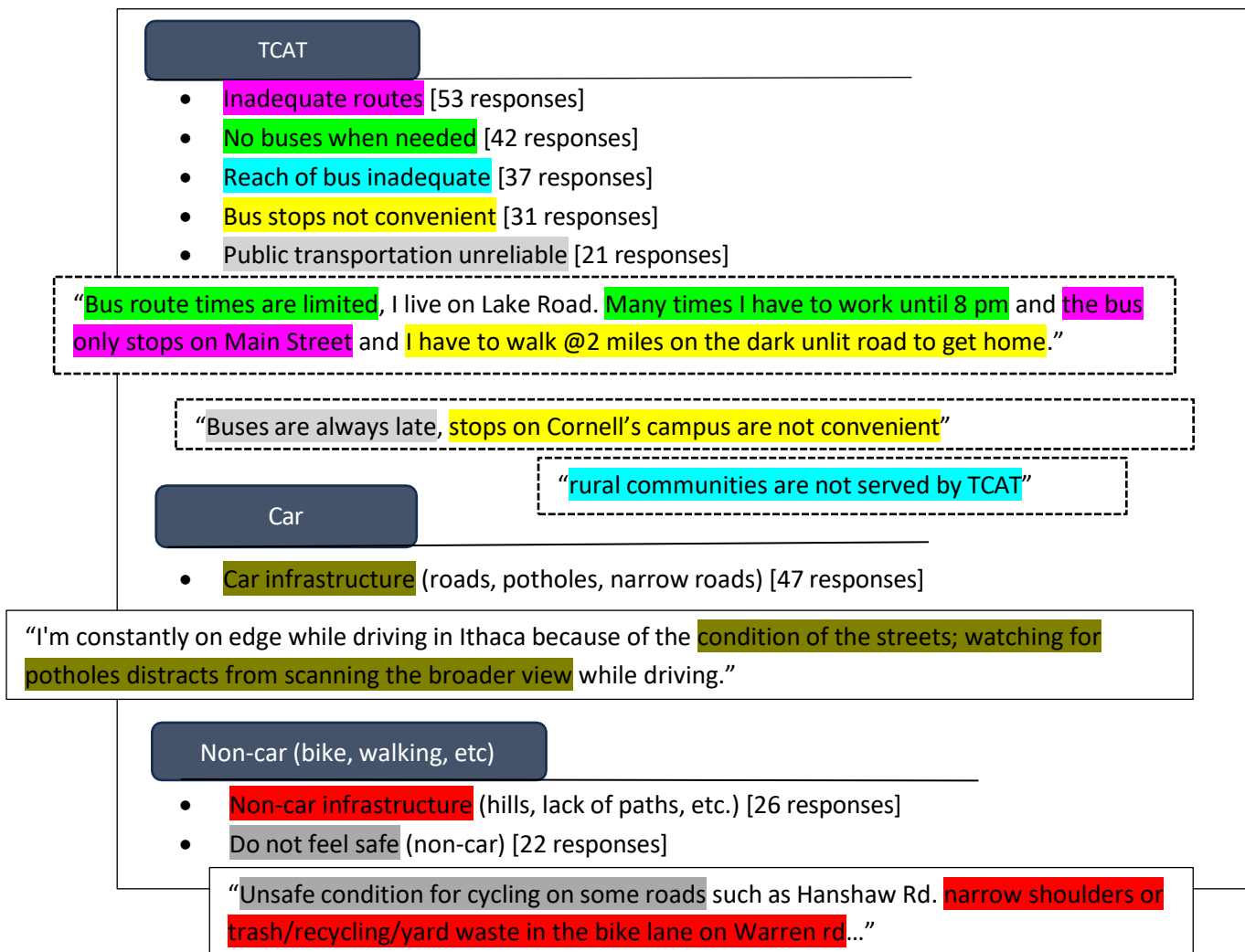


Figure 7: (Question 6) Top 3 Difficulties Getting Around, **Other**- Top 8 codes n=236

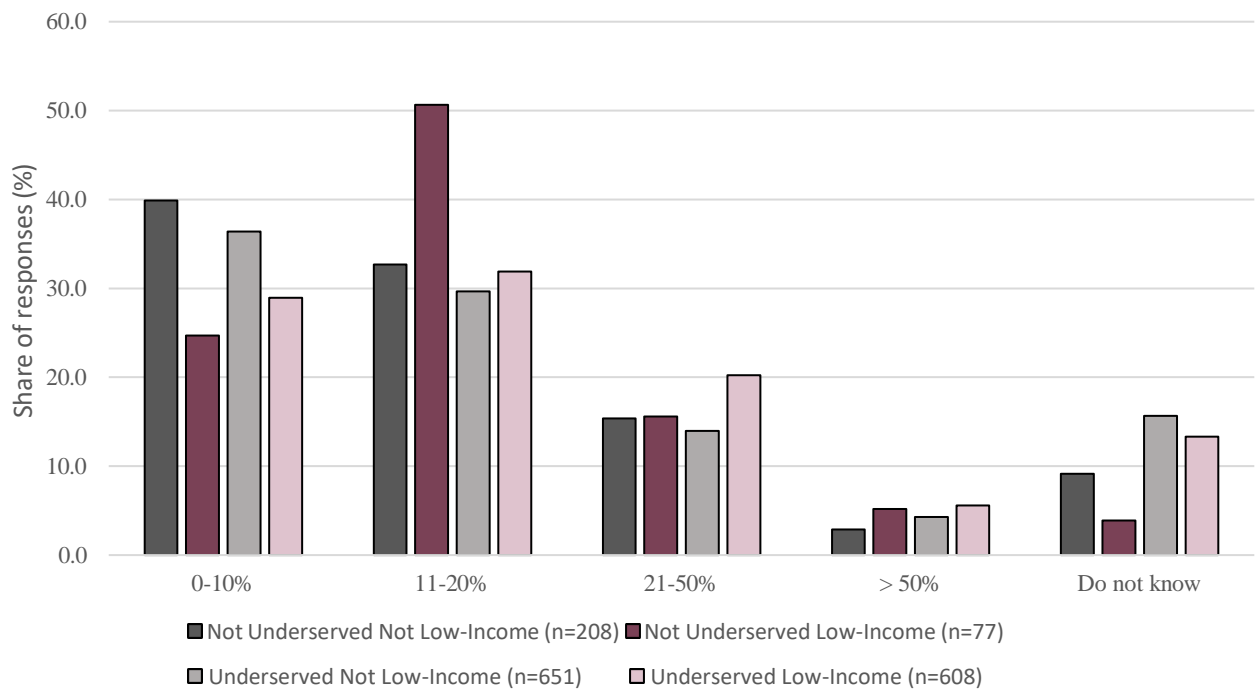


Percent of Annual Income Spent on Transportation

Participants were asked how much of their annual income they spend on transportation. (See Figure 8).

- Low-income people, regardless of underserved status, most often reported spending 11-20% of their income on transportation.
- For not low-income respondents the most frequent response was 0-10%.
- More underserved respondents (more than 10%) reported not knowing what they spend on transportation compared to the not underserved respondents (less than 10%).

Figure 8: (Question 15) Percentage of Annual Income Spent on Transportation by Underserved/Not Underserved and Income Status $n=1,544$



*** $p=0.000$

Section 5: Potential Solutions to Barriers

Top 3 Things to Make it Easier to Travel Around Tompkins County

Participants were asked to select from a list of options, the top three things that would make it easier for them to travel around Tompkins County (Question 8). Note that the difference across all groups is not statistically significantly different, although relevant outcomes are outlined below.

See Table for the percentages selecting each response across the four groups by income and underserved status (column cells are colored from light to dark in order of frequency with the darkest being most common).

- Better bus service was the most common response across all groups.
- Not low-income respondents were more likely to select:
 - managing vehicles to reduce traffic
 - safe/dedicated space for bikes
 - safe/dedicated space for walking
- Underserved low-income respondents were more likely to select:
 - 24-hour transportation services
 - make transportation services cheaper or free
 - financial help with car/bike
- Underserved respondents were more likely to select:
 - more transportation services near housing
 - make it easier/safer/more welcoming to use shared transportation for people of all sexualities/gender identifies
- Not underserved more likely to select:
 - Limit parking to reduce traffic

All but one respondent who selected “Other” on question 8 had valid write-in responses (155). The most prevalent theme was more and/or cheaper parking (appeared 27 times), followed by safety/crime prevention improvements (appeared 26 times) and road quality improvements (21 times). See Figure 9. The write-in responses for this question varied in theme more than other questions, with a total of thirty themes found.

Table 11 (Question 8) Top 3 Things to Make it Easier to Travel Around Tompkins County by Underserved/Not Underserved and Income Status n=1,362

Top 3 things that would make it easier for you to travel around Tompkins County?	Not Underserved		Underserved	
	Not Low-Income (n=164)	Low-Income (n=64)	Not Low-Income (n=548)	Low-Income (n=586)
Better bus service	41.5	50.0	40.0	37.2
Manage vehicles to reduce traffic	31.1	23.4	30.7	17.8
Dedicated/safe space for bikes	36.6	21.9	26.3	20.1
24-hour services	15.9	15.6	19.7	31.7
Transportation cheaper/free	21.3	25.0	16.2	31.6
Safe/dedicated space for walking	28.7	23.4	26.5	18.8
More transportation near housing	14.6	17.2	22.3	24.9
Better transportation information	8.5	15.6	16.2	12.6
Financial help with car/bike	7.9	12.5	7.9	19.1
Better for People With Difficulties	12.2	9.4	9.9	15.5
Shuttle reservation when needed	7.3	9.4	12.6	13.0
More housing near work	14.6	14.1	9.1	11.3
Better lighting	14.0	10.9	9.3	10.2
Better for people of different racial backgrounds	8.5	6.3	8.9	11.1
Limit parking to reduce traffic	14.0	15.6	8.0	7.5
Quality enforcement for rideshare (Uber, Lyft, Taxi)	11.0	7.8	6.8	9.9
Other	6.7	4.7	10.6	7.3
Better for people of different sexualities/gender identities	1.8	1.6	4.9	9.9
Info in other languages	3.1	12.5	4.9	7.2

p=.162

Figure 9: (Question 8) What Would Make Travel Easier, **Other-** Themes by Frequency of Appearance (n=155)



Top 3 Things to Use TCAT More

Participants were asked to select, from a list of options, the top three things that would make them use TCAT more if resources were available. Note that, again, differences across the four groups were not statistically significant, implying the responses chosen did not vary significantly by group. See Table 12 for the percentages selecting each response overall.

The top three things that would make TCAT more usable across all respondents were:

- more frequent buses
- stops closer to their location/destination
- later buses

The next most frequently selected option overall was:

- more weekend services

Though the differences across income and underserved status were not statistically notable, patterns within the responses to this question did vary by group (see Table 13). Underserved respondents wanted stops closer to their location/destinations and later buses. Among not underserved respondents, those of low income requested faster trips and more weekend services, while the not underserved not low income wanted stops closer to their locations/destinations and more weekend services.

Those who responded “More local service in a certain area” were prompted to provide a written response of a community area, which resulted in a total of 196 valid entries. Lansing (including North Lansing, Lansing Village and Town) was the most frequently mentioned area (20 responses), followed by Newfield (16), Trumansburg (15), and Enfield (14). The frequency of named communities found within responses are displayed as a word cloud in Figure 10. Among the 145 respondents who selected “Other”, 141 had valid write-in responses. More reliable buses appeared as the most common theme (16.3% of responses) followed by service expansions, especially to rural areas (14.9%), and more frequent buses (13.5%). All themes are displayed in Figure 11 by frequency in a word cloud. Figure 12 shows the top five themes along with sample excerpts and their codes.

Table 12 (Question 10) Top 3 Things to Use TCAT More

Response	Count	%
More frequent buses	781	41.9
Stops closer to my location/destinations	559	30.0
Later buses	469	25.2
More weekend services	438	23.5
Faster trips	340	18.3
More comfortable	307	16.5
Earlier buses	297	16.0
Cross-county connections	294	15.8
Better paths/sidewalks/crossing	277	14.9
More trip planning information	269	14.5
More local service in a certain area	242	13.0
Better website	204	11.0
More customer service training for drivers	149	8.0
Nothing	171	9.2
Other	144	7.7
Staff on bus to help riders	111	6.0
Bus info in other languages	102	5.48
Total	NA	5,154

Table 13 (Question 10) Top 3 Things to Use TCAT More by Underserved/Not Underserved and Income Status n=1,572

Top 3 things that would make you use TCAT more if resources were available:	Not Underserved		Underserved	
	Not Low-Income (n=206)	Low-Income (n=83)	Not Low-Income (n=661)	Low-Income (n=622)
More frequent buses	44.7	38.6	43.3	41.3
Stops closer to my location/destinations	24.8	14.5	33.6	30.7
Later buses	20.9	24.1	21.6	31.2
More weekend services	23.3	26.5	20.3	28.8
Faster trips	22.8	30.1	16.8	17.0
More comfortable	19.9	25.3	14.1	18.2
Earlier buses	20.4	20.5	13.0	18.8
Cross-county connections	12.6	15.7	16.8	16.6
Better paths/sidewalks/crossing	18.5	12.1	13.9	16.6
More trip planning information	13.6	9.6	14.8	16.4
More local service in a certain area	3.4	4.8	16.8	14.2
Better website	9.7	15.7	9.7	13.2
More customer service training for drivers	8.7	8.4	6.7	10.0
Nothing	10.2	3.6	12.4	4.0
Other	6.8	4.8	9.1	5.6
Staff on bus to help riders	4.4	8.4	4.7	7.7
Bus info in other languages	2.4	4.8	4.7	7.9

p=.215

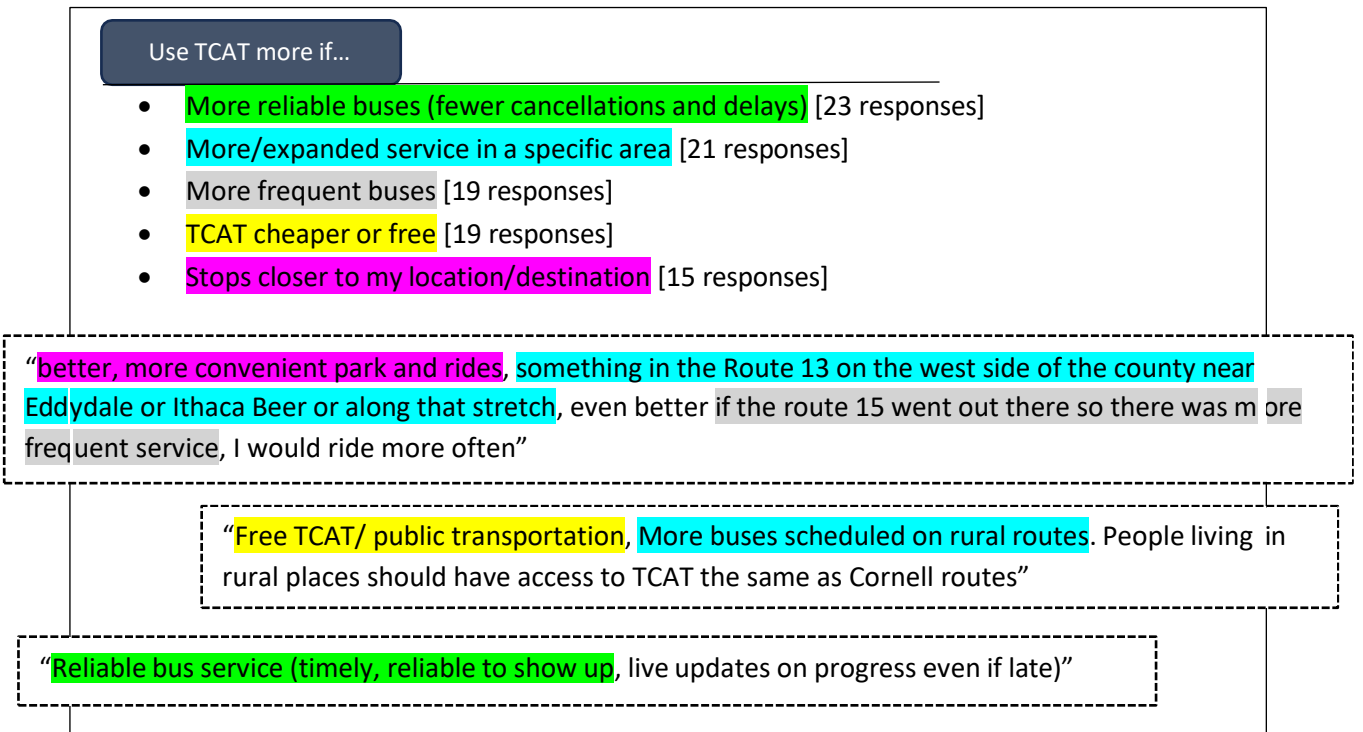
Figure 10: (Question 10) More local service in a specific area- name community (n=196)



Figure 11: (Question 10) Things to Use TCAT More, **Other** [write-in] (n=141)



Figure 12: (Question 10) Things to Use TCAT More, **Other**- Top 5 codes (n=141)



Section 6: Effects of Transportation Barriers on Community Member's Lives

Biggest Effect These Transportation Difficulties Have on Life

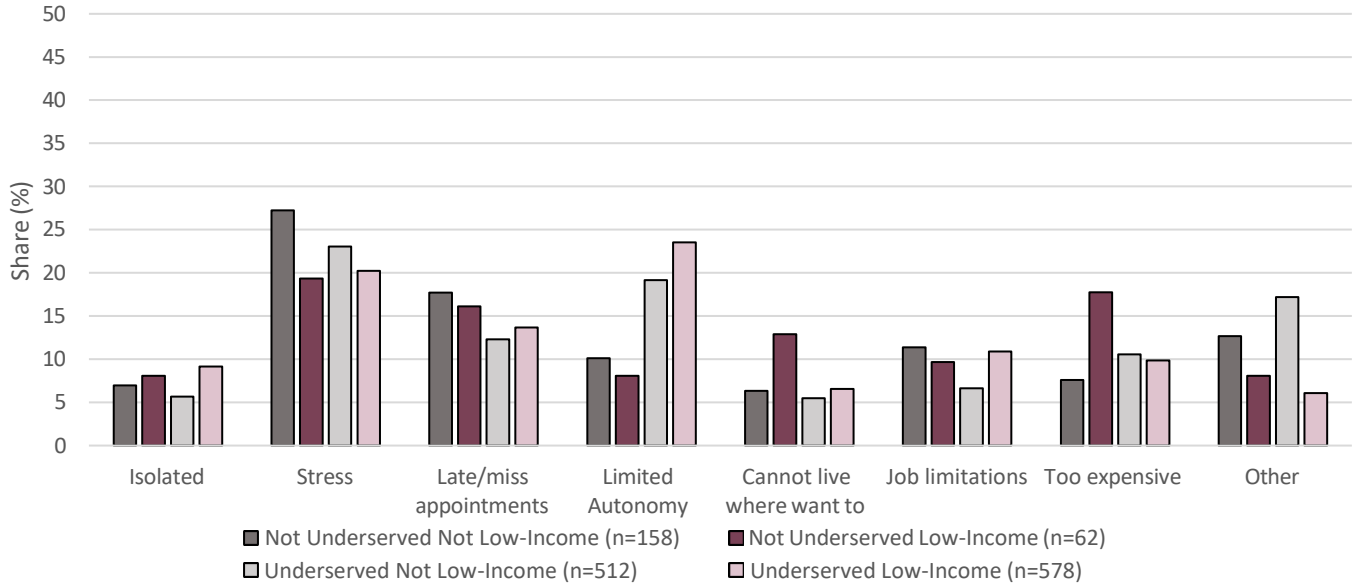
To better understand the impact of barriers on the lives of respondents they were asked to choose the largest effect of these difficulties from a given list, with an option for Other (see Figure 13).

- For the underserved group, the top difficulties (in order of frequencies reported) that they face due to the transportation barriers are:
 - limited autonomy, cannot go everywhere they want to go
 - feeling stress
 - being late or missing appointments
- For the not underserved group, the top difficulties they face (again, in order of frequencies reported) are:
 - feeling stress
 - being late or missing appointments
 - being limited in what jobs they can take

There were 182 write-in responses for the selection of “Other” (out of 185 selected). Responses were coded using 17 themes that appeared throughout, with the most common being limited autonomy (not being able to go where and when you want) (41 responses), followed by reliance on cars (40) and

difficulties navigating traffic/roads/parking (32). The frequency of themes among responses are displayed in Figure 14, and the top 7 themes with their accompanying codes and excerpts are shown in Figure 15.

Figure 13 (Question 7) Biggest Effect These Transportation Difficulties Have on Your Life by Underserved/Not Underserved and Income Status n=1,310



***p=0.000

Figure 14: (Question 7) Biggest Effect of Barriers on Life, Other. Top7 (n=182)



Figure 15: (Question 7) Biggest Effect of Barriers on Life, **Other**- Top 7 (n=182)



Top 3 Benefits/Impact if Transportation Needs Were Met

Participants were provided a list of possible “benefits” or impact of having one’s transportation needs met and asked to select their top three. The impact on having transportation needs met varied by respondent group. See Table 14 for the percentage of responses for each benefit offered in order of most frequently selected to least overall.

The top three benefits for all respondents if their transportation needs were met are:

- Easier to get services
- Less environmental pollution
- Saving money

When examining the benefits selected by the four groups, there were slightly different responses (see Table 15).

- Underserved low-income respondents were more likely to select:
 - easier to get to services, appointments, run errands
 - saving money
 - happier/less stress

- more autonomy (less need to depend on others)
- Underserved not low-income respondents were more likely to select:
 - less environmental pollution
 - saving money
 - easier to get to services, appointments, run errands
 - happier/less stress
- Not Underserved low-income respondents were more likely to select:
 - saving money & less environmental pollution (tied)
 - be on time
 - easier to get to services, appointments, run errands
- Not underserved not low-income respondents were more likely to select:
 - less environmental pollution
 - saving money & easier to get to services, appointments, run errands (tied)
 - be on time

Overall, 81 respondents selected “Other” when describing what the top 3 benefits would be if transportation needs were met. Of these, 75 included valid write-in responses. The most common theme found among these responses was the expression of no impact/needs are met (23 responses). For all but one of these respondents, this was the sole theme that appeared. The other two most prevalent themes were having to drive less (16 responses) or having more autonomy (10 responses). A word cloud displaying coding themes by frequency is displayed in Figure 16. “None/needs are met” was excluded from this visualization because of our desire to focus on the benefits respondents wrote-in in addition to the options in Q11, but note that it was the most common write-in for this question.

Table 14 (Question 11): Top 3 Benefits if Transportation Needs were Met; n=1,814

Response	Frequency	%
Easier to get services	601	33.13
Less environmental pollution	594	32.75
Saving money	549	30.26
Happier/less stress	478	26.35
Be on time	422	23.26
More socializing/sense of belonging/get to events	386	21.28
Easier to get/maintain job	349	19.24
More autonomy	346	19.07
Easier for non-drivers	340	18.74
Feel safe	325	17.92
Enjoy nature	265	14.61
Better health	227	12.51
Easier healthcare	223	12.29
Other	81	4.47
Total	5186	NA

Table 15 (Question 11) Top 3 Benefits if Transportation Needs Were Met by Underserved/Not Underserved and Income Status n=1,543

What are top 3 things it would do for you if your transportation needs were met?	Not Underserved		Underserved	
	Not Low-Income (n=205)	Low-Income (n=82)	Not Low-Income (n=633)	Low-Income (n=623)
Less environmental pollution	43.4	41.5	39.8	21.7
Easier to Get Services	28.8	23.2	29.7	38.7
Saving money	28.3	41.5	32.4	29.2
Happier/less stress	23.9	18.3	25.9	29.1
Be on time	25.4	29.3	21.3	23.1
More socializing/sense of belonging/get to	17.1	19.5	19.3	24.6
More autonomy	12.2	14.6	15.5	27.0
Easier to get/maintain job	21.5	12.2	16.4	22.2
Feel Safe	24.9	22.0	18.0	18.1
Easier for non-drivers	13.2	7.3	21.5	18.9
Enjoy nature	16.1	17.1	13.9	16.7
Better health	16.6	12.2	12.3	12.7
Easier healthcare	4.4	3.7	11.1	17.3
Other	3.4	1.2	5.7	2.6

P=0.374

Figure 16: (Question 11) Benefits if Transportation Needs Were Met, **Other.** n=75



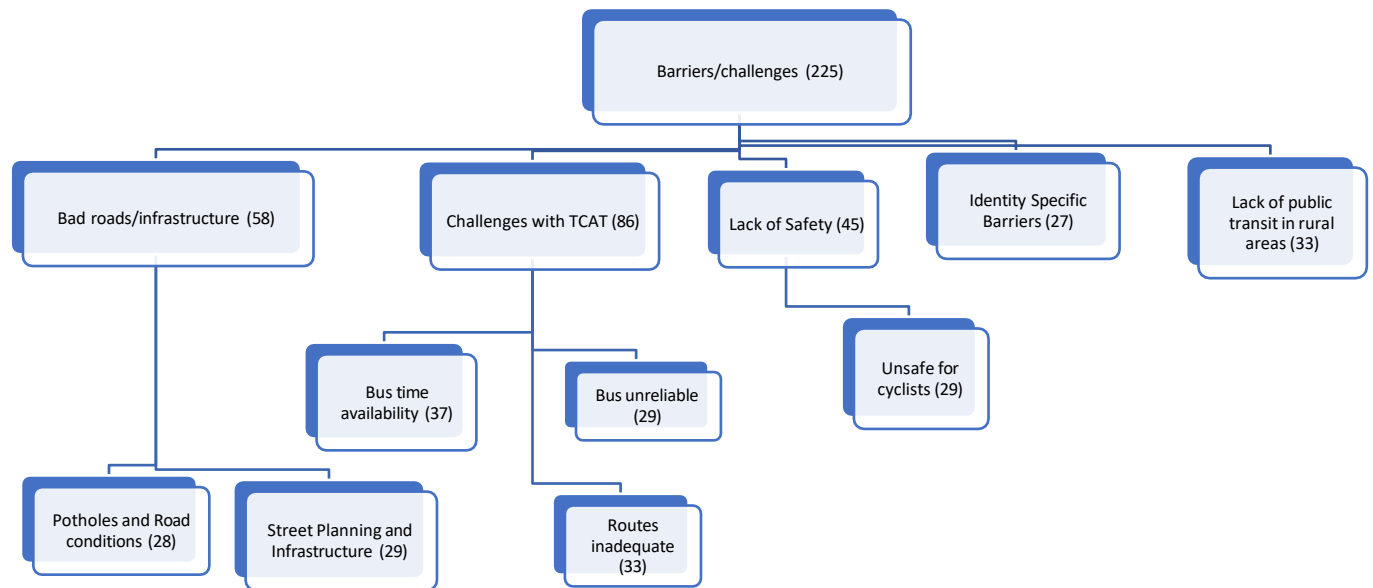
Section 7: Additional Thoughts on Tompkins County Transportation

What Else Did Respondents Want Us to Know?

When prompted with question 22 (“If you have additional thoughts about transportation in Tompkins County you would like to share, please do so here”), 412 respondents provided valid responses. In their responses, 225 respondents (55%) discussed transportation barriers, 38 (9%) mentioned strengths, 53 (13%) identified consequences of barriers, 282 (68%) discussed solutions to barriers, and 35 (8%) stated what life could be like without barriers. The most-used themes among responses discussing barriers

(Figure 17) and solutions (Figure 18) are visualized below. “Identity Specific Barriers” refers to responses indicated that personal experiences with barriers were due to any specifically named identity such as Non-native English speaker, mobility issues, Disability, age (teen or senior).

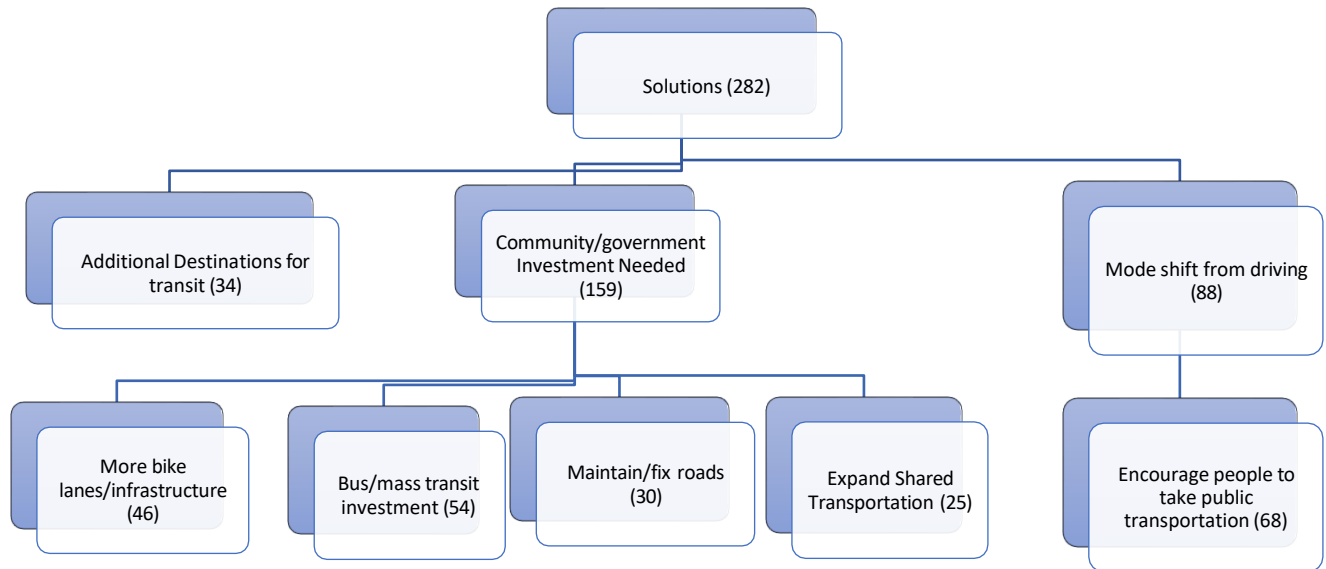
Figure 17: (Question 22) Additional Thoughts on Transportation in Tompkins County- Barriers and Challenges*



*Number of excerpts coded with this theme are shown in parentheses

Excerpts: Additional Thoughts on Barriers/Challenges
<p>“Biking is extremely difficult not only due to vehicle speeds and congestion, but due to enormous potholes that make biking especially from dusk on or during gray/wet days difficult since these holes are large enough they have thrown me and others I've witnessed completely off their bikes.”</p>
<p>“Anybody who can get to a major arterial road should be able to commute to work on a bus. We need more buses on more routes that run frequently enough to use for everyday travel.”</p>
<p>“Main problem, for those of us without a car, is bus service. It has become infrequent, sometimes unreliable (I had to cancel a trip from Fall Creek to the Mall area because the one remaining bus didn't show up), and time-consuming because of the need to get downtown before getting a bus anywhere else.”</p>
<p>“it is concerning to me that we do not have the infrastructure to add all these apartments we already have very congested traffic and issues with parking without more and more people moving here”</p>

Figure 18: (Question 22) Additional Thoughts on Transportation in Tompkins County- Solutions



Excerpts: Additional Thoughts on Solutions

“Free and accessible buses (and more frequent) and transportation would help the greater community, especially those in low-income situations, which are often neglected as more luxury apartments are built - pushing people out of the cities where transportation options are limited and more expensive.”

“TC3 students and students at other schools need reliable access to public transport to employers across the county for internships and other applied learning opportunities. They also need access on weekends to go have fun in the community. Supporting these needs will support not only the students but also the regional economies by retaining more young talent and getting more business for orgs.”

“More bike/walking paths! CWT, Black Diamond, South Hill Rec Way, Dryden Trail are all great! Open the trail from Buttermilk up to S. Aurora Street, and connect it to the Rec Way. Establish a bike lane on University Ave.”

“Reducing the number of cars downtown should be our first priority. The next priority should be slowing them down. This will increase ridership for TCAT, and lead to more folks biking and walking.”

Summary

Transportation is an essential mechanism for social and economic opportunity. Defined by the Executive Order 13958 (2021), an equitable transportation plan considers the mobility and connectivity needs of individuals within the community, and the local circumstances. As stated by the U.S. Department of Transportation under their planning topic of Transportation Equity, “A central goal of transportation is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved.” Therefore, prioritizing equitable public transportation services is a key step toward more favorable life outcomes- such as health, wellbeing, and economic stability- for those traditionally underserved in society (Heaps et. al, 2021).

With the goal of fostering a more equitable transportation network in Tompkins County, this study endeavored to understand how connected residents felt to opportunities and daily activities through the transportation system, the existing strengths and weaknesses of the Tompkins County transportation system, and potential solutions to barriers identified by the community, especially among traditionally underserved groups. Although this study focused on underserved communities, the survey was also distributed to those not considered part of an underserved group in order to fully evaluate disparities and make fair comparisons, as some needs span across the community regardless of underserved status.

Key Findings:

Sense of Connection to Community:

- Personal vehicle was the most common mode of transportation.
- Underserved and low-income individuals were more likely to use the bus (TCAT) and walk.
- Generally not hard to get around Tompkins County for all.

Transportation Strengths:

- Not low-income, personal vehicle and walking work best.
- Low-income, Personal vehicle and Bus (TCAT) work well.
- Underserved low-income, Bus/TCAT works best.

Transportation Barriers:

- No buses when needed is most common barrier by all, but more so for the underserved low-income.
- Parking difficulties, too much traffic more likely reported by all groups except not underserved low-income.
- Information about transportation services is hard to find more so for the low-income
- About 4% of respondents indicated experiencing discrimination in the transportation system, and more than twice as likely to be reported by those who are underserved low-income.
- Difficult for people with disabilities to get around Tompkins County and more likely reported by underserved and not underserved low-income.

- Shared transportation not easy for those with limited English/reading and more likely reported by underserved low-income.
- Approximately one out of ten respondents reported they had had a bad experience with drivers or buses or other ride services.
- Approximately one out of four of all respondents, except for those not underserved of low-income, reported they do not feel safe when not in a car.
- Low-income people spend 11-20% of their income on transportation, compared to 0-10% for the not low-income.
- More underserved respondents (more than 10%) reported not knowing what they spend on transportation.

Potential Solutions to Transportation Barriers:

Ways to make it easier to travel around Tompkins County overall: **Better bus service**

Ways to increase TCAT use:

- more frequent buses
- stops closer to their location/destination
- later buses

To help the underserved:

- 24-hour transportation services
- make transportation services cheaper or free
- financial help with car/bike
- more transportation services near housing

Effects of Transportation Barriers on:

Underserved (regardless of income):

- limited autonomy, cannot go everywhere they want to go
- feeling stress
- being late or missing appointments

Not underserved (regardless of income):

- feeling stress
- being late or missing appointments
- being limited in what jobs they can take

Overall, Benefit/Impact if Transportation Needs Were Met:

- easier to get to services, appointments, run errands
- less environmental pollution
- saving money

- happier/less stress
- more autonomy (less need to depend on others)
- be on time

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Transportation Equity Needs Assessment (TENA) Planning Group Application

Thank you for your interest in helping to roll out a county-wide transportation needs assessment over the next few months. Your participation will create a meaningful way to engage and hear from unheard voices throughout our community about the needs and challenges with transportation. A stipend of \$320 is available to honor the time of applicants who identify as and have connections with marginalized communities, and communities of color.

The planning group will work together with the Transportation Equity Coalition and the evaluator Claire Stoscheck of Golden Aspen Consulting (Ithaca, NY) to create and give input on survey questions, ways to engage the community, and help make meaning of the findings. The results of the transportation needs assessment will provide information for developing and identifying transportation services and solutions that will support and nurture the Tompkins County community.

What are the strengths and weaknesses of our transportation system in serving people in underserved communities?

What are the barriers to transportation that people in underserved communities face in accessing key services, opportunities, and amenities, and why do these barriers exist?

There are currently 10 spots available in the planning group open to all people of all backgrounds and abilities. A stipend is available for applicants who identify as and have connections with marginalized communities, and communities of color.

We encourage you to apply if you:

-Drive, take a taxi, carpool, ride a bike, bus, walk, use carshare, a wheelchair, or para-transit services.

-Work or volunteer with marginalized communities, communities of color that have limited access to transportation.

Please complete this application form in full and submit it no later than May 27th. Resumes are not necessary. We would be honored to have your participation. We will notify applicants on a rolling basis.

* Indicates required question

1. Email *
2. Name (& Pronouns) *
3. Phone *
4. Are you 16 or over? *

Mark only one oval.

Yes

No

5. Who do you think has difficulty finding or accessing transportation in and around
* Tompkins County, and why? What are your connections to this group of
people? (Please answers both questions in your response)
6. What interests you about participating in the TENA planning group? *
7. How long have you lived or worked in Tompkins County? (Specify if lived, *
worked, or both)
8. Your city, town and county (ex. Newfield, Tompkins County).
9. What is your primary form of transportation to get around Tompkins County? *
(Check one)

Mark only one oval.

walk

bike

scoote

r skate

wheelchair

paratransit (ie Gadabout for seniors and people with disabilities)

- Wheelchair accessible taxi
- local bus (TCAT)
- bus and bike (multimode)
- intercity bus (C Tran)
- taxi or
- cab
- carpool
- carpool and bike
- (multimode) carshare
- (Ithaca Carshare)
- drive my own car (can include family or friend's car)
- Other: _____

10. TENA 2022 Design Session: Please confirm that you can attend 3 design

* sessions to provide input on survey questions and ways to engage the community. Specific dates will be set based on the availability of participants.

Check all that apply.

- Virtual Design Session #1 (First week of July)
- Virtual Design Session #2 (Second week of July)
- Virtual Design Session #3 (First week of August)

11. TNA 2022 Review and Meaning Making Session: Please confirm that you can

* attend 1 of these sessions to help review and understand the results. Specific dates will be set based on the availability of participants.

Check all that apply.

- Virtual Review and Meaning Making Session #1 (mid October)
- Virtual Review and Meaning Making Session #2 (late October)

12. How would you like to be involved with the needs assessment? (Check all that ^{*}

apply)

Check all that apply.

- Take a survey
- Give input on survey questions
- Share information with your networks
- Share and distribute a survey
- Recruit focus group participants
- Participate in focus groups
- Co-facilitate focus groups
- Give input on data and information gathered
- Join the Transportation Equity Coalition and continue the work to advance equity in transportation.

13. Are you applying for the 2022 TENA stipend? \$320 TENA stipend opportunity:

* Open to applicants who represent and have connections to people primarily in low-income communities, communities of color, or other marginalized or underserved communities in Tompkins County.

Mark only one oval.

Yes

Yes, but I can still participate on an all-volunteer basis if I do not receive a stipend.

No. I will participate on a all-volunteer basis or as part of my role with an organization.

14. We are committed to creating an inclusive process. Do you request any special accommodations for participating in online or potential in-person or hybrid sessions? (ie, computer access, closed-captioning, digital reader, transportation, child care,...). Your information will be kept confidential.

15. Is there anything else you'd like us to know about you?

Appendix B: Application for Focus Group Participation

Focus Group: Your Transportation Experiences

Do you face obstacles in accessing transportation, or does the lack of transportation or safety limit where you can go? Would you like to share your experiences or ideas for solutions to help improve access to transportation and thus your quality of life?

Sign up to be selected to participate in one of six (6) online focus groups to share your transportation needs and experiences in Tompkins County. Focus groups will take place between Sept. 19th and Sept. 30th. Sign up by Tuesday, Sept.13th to your focus group listed in the form.

We encourage you to sign up to focus groups even if the time doesn't work for you so that we may follow up with another time or way to be engaged in the needs assessment.

Each focus group is limited to six to eight (6-8) people to give time and attention to those participating. A stipend of \$50 is available to all who participate in the focus group discussions. We can assist you with resources to help you participate online if needed.

The focus groups discussions are part one of a community-wide transportation needs assessment. Part two includes a survey that will be disseminated in the months after.

Coordinated by the Transportation Equity Needs Assessment Planning group in collaboration with the Transportation Equity Coalition and Golden Aspen Consulting.

* Indicates required question

1. Your Name (First, Last) *
2. Your email address *
3. Your phone number *
4. What is the best way to contact you?

Mark only one oval.

- Phone
- call Email
- Text
- Other: _____

5. Where in the county do you live?

Mark only one oval.

- Brooktondale
- Caroline
- Danby
- Dryden
- Enfield
- Freeville
- Ithaca (City)
- Ithaca (Town)
- Lansing
- Newfield
- Trumansburg
- Varna
- Other: _____

6. Please indicate any groups you identify with. *

Check all that apply.

- Youth (18 and under) and their parents/caregivers/guardians
- People with a physical or mental disability, limitation, impairment and their caregivers
- Seniors (55+) or aging adults, retired, elder and their caregivers
- People with Limited English Proficiency and their translators/interpreters

- People identifying as Black, Indigenous, People of Color, Asian
- People with limited access to transportation
- People identifying as LGBTQ+
- People without access to a personal vehicle (no vehicle, cannot drive, no or restricted license)
- People with no, low, limited or fixed income
- People who live in a rural geographic location
- Other: _____

7. Please select the focus group you'd like to join: *

Mark only one oval.

pm)

pm)

pm)

Youth (18 and under) and their parents/caregivers/guardians (9/21 from 7-8:30 People with a

physical or mental disability, limitation/caregivers (9/27 from 7-8:30

Seniors (55+), retired, elder/caregivers (9/22 from 2-3:30pm)

People with Limited English Proficiency/interpreter (9/27 from 9:15-10:45 am) People identifying as Black, Indigenous, People of Color, Asian (9/27 from 6-7:30

People with limited access to transportation (9/29 from 12:15-1:45)

Other: _____

8. Does any of the following apply to you?

Check all that apply.

I'd like to participate in the focus group I selected above, however the date and time does not work for me.

I would like to share my needs and experiences, however I am not comfortable sharing in a group setting.

Thank you for signing up!

We will contact you if you have been selected.

Appendix C: Survey Questionnaire

Tompkins County Transportation Needs Survey

Intro The Tompkins County Transportation Equity Coalition (The Coalition) is conducting a Transportation Needs Survey. The goal of this survey is to understand your needs and how to increase your access to transportation in Tompkins County. None of the information you give will ever be used to identify you. You may skip any question you like. The survey should take about 15-20 minutes of your time. Please take the survey only once. The final day to submit a response is Sunday April 30, 2023.

If you have any questions or concerns, please feel free to contact Norma Gutierrez at ng32@cornell.edu or (607) 272-2292 ext 162.

At the end of the survey, we will ask you for an email if you wish to be entered into a raffle for a variety of prizes including: TCAT passes, Ithaca Bikeshare credits, Ithaca Carshare membership and credits, \$100 Wegman's gift card, or \$100 Amazon gift card. Your participation in this survey is voluntary and all the information you provide will be kept strictly confidential and will never be used in any way to identify you.

If you would like to request a paper copy of the translated transportation survey to complete in Chinese or Spanish, email Norma Gutierrez at ng32@cornell.edu (limited to those who are not fluent in English).
如果您想索取翻译成中文的交通调查的纸质副本 · 请发送电子邮件至 ng32@cornell.edu 向 Norma Gutierrez 发送电子邮件 (仅限英语不流利的人士)

Si desea solicitar una copia impresa de la encuesta de transporte traducida para completar en español, envíe un correo electrónico a Norma Gutiérrez a ng32@cornell.edu (limitado a aquellos que no dominan el inglés).

The Coalition is grateful for your time and effort!

[Click here to continue](#) (1)

Q1 Do you live, work, go to school, and/or otherwise travel around Tompkins County?

Yes (1)

No (2)

Q2 How do you get around Tompkins County most of the time? (Choose one. If you use 2 or more modes most of the time, please select "other" and describe.)

Personal vehicle (car, truck, etc) (1)

Taxi, Uber or Lyft (2)

Walk (3)

Bike or roll (roller skate, skateboard, scooter) (4)

Wheelchair or motorized mobility device (5)

Carpool (6)

Bus (TCAT) (7)

Gadabout or other paratransit (8)

Ithaca Carshare (9)

Ithaca Bikeshare (10)

Other (please describe:) (11)

Q3 What are the most common reasons you travel around Tompkins County? (Choose all that apply)

- Work (1)
 - School/Training (2)
 - Healthcare appointments (3)
 - Shopping (4)
 - Transporting children or others (5)
 - Volunteer activities (6)
 - Recreation, visiting friends and family, attending events (7)
 - Religious services (8)
 - Others (please describe:) (9)
-

Q4 Which of the following describe you and your situation. (Choose all that apply)

- Age 17 or younger (1)
- Age 55 or older (2)
- Person with a physical or mental disability, limitation, impairment (3)
- Person who identifies as LGBTQI+ (4)
- Person who identifies as Black, Indigenous, or as a Person of Color (BIPOC) (5)
- Person who identifies as Latino/Latina/Latinx/Hispanic/Spanish (6)
- Person with limited English proficiency (7)
- Person with limited, fixed, low, or no income (8)
- Person without a car or who cannot drive or who has a restricted license (9)
- Person living in a rural area (10)
- None of the above (11)

Q5 In general, getting around Tompkins County for me is:

- Very easy (5)
- Easy (4)
- Somewhat easy (3)
- Hard (2)
- Very hard (1)

Q6 Not including cost, what are the **top 3 difficulties** to getting around in Tompkins County for you?

CHOOSE ONLY THREE

- I do not have difficulties (1)
- I do not feel safe walking, biking, using scooter, skateboard, wheelchair or other mobility device (2)
- Parking is hard to find (3)
- Buses don't run when I need them (4)
- Information about transportation services is hard to find or understand (5)
- Too much traffic (6)
- Bad experience with drivers or busses or other ride services (7)
- Bad experience with discrimination based upon race, color, creed (8)
- Shared transportation is not easy to use for people who speak languages other than English or have limited reading ability (9)
- Not easy to use for people with disabilities or limitations (10)

- Not easy to bring a companion/caregiver/service dog on shared transportation (11)
 - No car or cannot drive or have a restricted license (12)
 - Worried for my health because of Covid (13)
 - Other (please describe) (14)
-

End of Block: Block 3

Start of Block: Block 4

Display This Question:

If Not including cost, what are the top 3 difficulties to getting around in Tompkins County for you?... != I do not have difficulties

Q7 What is the biggest effect these transportation difficulties have on your life? (Choose one)

- I feel separated from people and lonely (1)
 - I feel stressed (2)
 - I am late or miss appointments (3)
 - I cannot go everywhere I want to go (4)
 - I cannot live anywhere I want to live (5)
 - I am limited in what job I can take (6)
 - Transportation is too expensive (7)
 - Other (please describe:) (8)
-

Display This Question:

If Not including cost, what are the top 3 difficulties to getting around in Tompkins County for you?... != I do not have difficulties



Q8 What are the **top 3 things** that would make it easier for you to travel around Tompkins County?

CHOOSE ONLY THREE

- 24-hour transportation service (1)
- Make it easier/safer/more welcoming to use shared transportation for people who cannot get around easily (2)
- Make it easier/safer/more welcoming to use shared transportation for people of all racial backgrounds (3)
- Make it easier/safer/more welcoming to use shared transportation for people of all genders and sexual identities (4)
- Better lighting (5)
- Make transportation services cheaper or free (6)
- Reserve a shuttle when needed (7)
- Better, safer dedicated spaces for bicycle travel (8)
- Better bus services (9)
- Better, safer dedicated spaces for walking (13)
- Information translated into other languages (14)
- More housing near work (15)
- More transportation services near housing (16)
- Limit parking to reduce traffic congestion (17)
- Financial help with buying a car or bicycle (18)

- Manage the flow of vehicles to reduce traffic congestion (19)
 - More enforcement of quality standards for rideshare companies like taxis, Uber/Lyft (20)
 - Better information on how to use transportation services (21)
 - Other (please describe) (22)
-

Q9 How do you get most of your information about transportation related services most of the time?
(Choose all that apply)

- Web-sites/llistservs (1)
 - Apps (i.e. computer or phone) (2)
 - Friends, co-workers or family (3)
 - Newspaper (4)
 - Printed material (5)
 - Social media (6)
 - Social service providers (7)
 - Transportation provider (8)
 - 211 or other call center (9)
 - Other (please describe) (10)
-
- I do not get information about transportation services (11)

Q10 Choose the **top 3 things** that would make you use TCAT more if resources were available. TCAT is the public bus for the county. **CHOOSE ONLY THREE**

- More frequent bus service (1)
 - Buses running earlier in the morning (2)
 - Buses running later at night (3)
 - Faster trip (4)
 - More weekend service (5)
 - Bus stops closer to where I am, and need to go (6)
 - More comfortable bus stops (7)
 - More across county connections (8)
 - More information to help me plan trips (9)
 - Better paths, sidewalks, crosswalks to the bus stop (10)
 - Better website (11)
 - Bus information in languages other than English (12)
 - More customer service training for drivers (13)
 - Staff on bus to help riders (14)
 - More local service in a specific area (name community) (15)
-
- Other (please describe) (16)
-



Nothing would make me use TCAT more (17)

Q11 What are **top 3 things** it would do for you if your transportation needs were met? **CHOOSE ONLY THREE**

- Easier to get to a job or get a job (1)
 - Easier to get to the doctor (2)
 - Easier to get to services, appointments, run errands (18)
 - Less need to depend on others (19)
 - Being on time (20)
 - Having better health (21)
 - Enjoying nature more (22)
 - Feeling safe (23)
 - Feeling happier and more stress-free (24)
 - Easier for non-drivers in the household to get somewhere independently (25)
 - Less environmental pollution (26)
 - More socializing, a sense of belonging and better access to events, activities (27)
 - Saving money (28)
 - Other (please describe) (29)
-

Q12 Do any of these transportation options currently work well for you? (Choose all that apply)

- Personal vehicle (car, truck, etc) (1)
 - Bus (TCAT) (2)
 - Gadabout or other paratransit (3)
 - Walking (4)
 - Biking or rolling (roller skate, skateboard, scooter) (5)
 - Wheelchair or motorized mobility device (6)
 - Ithaca Carshare (7)
 - Ithaca Bikeshare (8)
 - Taxi, Uber or Lyft (9)
 - Carpool (10)
 - Other (please specify) (11)
-
- No transportation options work well for me (12)

End of Block: Block 5

Start of Block: Block 6

Display This Question:

If Do any of these transportation options currently work well for you? (Choose all that apply) != No transportation options work well for me

Q13 If some options do work well for you, is there anything you want to tell us about why they do? Please describe:

Q14 From your personal experience, what Tompkins County community or communities are currently most in need of more transportation resources? Please list the municipality, neighborhood and/or intersection name and the biggest transportation needs for that area.

	Municipality, neighborhood, intersection: (1)	Biggest transportation need: (2)
1 (2)		
2 (5)		
3 (6)		

Q15 Approximately, what percentage of your annual income do you spend on transportation in Tompkins County?

- 0-10% (1)
 - 11-20% (2)
 - 21-50% (3)
 - Over 50% (4)
 - Do not know (5)
-

Q16 For each of these statements about shared transportation, generally (such as bus, carshare, bikeshare, rideshare, paratransit) in Tompkins County, would you agree or disagree:

	Strongly agree (4)	Agree (3)	Disagree (2)	Strongly disagree (1)	Do not know (5)
It is affordable (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Easy to get to and use (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a language barrier for me (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It takes too long to get to where I need to go (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's not frequent enough (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is accessible for people with disabilities (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 Do you experience significant delays in getting where you want to go in Tompkins County due to traffic congestion?

- Almost always (4)
 - Most of the time (3)
 - Some of the time (2)
 - Almost never (1)
-

Q18 Understanding that safety can mean different things to different people, for each of the following in Tompkins County, please indicate how safe you feel using:

	Safe (3)	Somewhat safe (2)	Not safe (1)	Do not use (4)	Do not know (5)
Shared transportation such as bus, carshare, bikeshare, rideshare, paratransit (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roadways (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sidewalks, crosswalks, or dedicated bike lanes (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 In your opinion, would you say that **TCAT** services are:

	Very (3)	Somewhat (2)	Not at all (1)	Do not know (4)
Dependable (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convenient (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 In your opinion, would you say that Ithaca **Carshare** services are:

	Very (1)	Somewhat (2)	Not at all (3)	Do not know (4)
Dependable (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convenient (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q21 In your opinion, would you say that Ithaca **Bikeshare** services are:

	Very (1)	Somewhat (2)	Not at all (3)	Do not know (4)
Dependable (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convenient (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q22 If you have additional thoughts about transportation in Tompkins County you would like to share, please do so here:

End of Block: Block 6

Start of Block: Block 7

Q23 Please tell us a bit about yourself so that we may better understand who we are reaching with the survey. All information provided will be kept confidential and all questions are optional.

What is your age?

- Under 18 years old (1)
- 18-24 (2)
- 25-30 (3)
- 31-40 (4)
- 41-54 (5)
- 55-65 (6)
- Over 65 years old (7)

Q24 What is your race? (Choose one)

- Asian (1)
 - Black or African-American (2)
 - Indigenous or Alaskan Native (3)
 - Native Hawaiian or other Pacific Islander (4)
 - White (5)
 - Multi-racial (6)
 - Other (please describe) (7)
-

Q25 What is your gender?

- Female (1)
 - Male (2)
 - Non-binary (3)
 - Other (4)
-

Q26 Where do you live?

- Brooktondale (1)
 - Caroline (2)
 - Danby (3)
 - Dryden (4)
 - Enfield (5)
 - Freeville (6)
 - Ithaca (City) (7)
 - Ithaca (Town) (8)
 - Lansing (9)
 - Newfield (10)
 - Trumansburg (11)
 - Varna (12)
 - Other: (13) _____
-

Q27 What is your household income in 2022 before taxes?

- Less than \$20,000 (1)
 - \$20,000 to \$34,999 (2)
 - \$35,000 to \$49,999 (3)
 - \$50,000 to \$74,999 (4)
 - \$75,000 to \$99,999 (5)
 - \$100,000 or over (6)
-

Q29 Would you like to enter a raffle by providing us with your email (your email will not be linked to your survey answers)?

- Yes, I'd like to enter the raffle (1)
 - No, I do not want to enter the raffle (2)
-

Q30 Please provide your email to enter the raffle (your email will not be linked to your survey answers). Results of the survey will be presented and made available to the public with the goal of increasing access to transportation in Tompkins County. Raffle winners will be notified within a month after the survey closes

- Email: (4) _____

End of Block: Block 7

Appendix D: Email Communications

SURVEY INVITATION EMAIL:

FROM: The Transportation Equity Coalition and Needs Assessment Planning Group
SUBJECT: Tompkins Co. Transportation Needs Survey - raffle prize entry for participating

Dear [[name]],

What are your needs and experience with transportation in Tompkins County?

The Tompkins County Transportation Equity Coalition is conducting a survey to understand your transportation needs and experiences and learn what changes might help you. Results of the survey will be presented and made available to the public by the end of the summer.

Those completing the survey can choose to be entered into a raffle for prizes including one of the following: TCAT pass, Ithaca Bikeshare credits, Ithaca Carshare membership and credits, \$100 Wegman's gift card, or \$100 Amazon gift card.

Your participation in this survey is voluntary. All the information you provide will be kept strictly confidential and will never be used in any way to personally identify you.

The survey will be open until April 30th and should take 15-20 minutes. To access the survey, please click the following link: tinyurl.com/transpotompkins

If you have any questions about the survey, please contact staff at the YMG Survey Group at 607-592-1067 or Yasamin.Miller@outlook.com. For questions about the needs assessment in general, please contact Norma Gutierrez at Cornell Cooperative Extension ng32@cornell.edu or 607-272-2292 ext 162.

If you would like to request a paper copy of the translated transportation survey to complete in Chinese or Spanish, email ng32@cornell.edu (limited to those who are not fluent in English).

果您想索取翻译成中文的交通调查的纸质副本，请发送电子邮件至ng32@cornell.edu 向 Norma Gutierrez 发送电子邮件（仅限英语不流利的人士）。

Si desea solicitar una copia impresa de la encuesta de transporte traducida al chino o al español, envíe un correo electrónico a Norma Gutierrez en ng32@cornell.edu (limitado a quienes no dominen el inglés).

Thank you very much,
The Transportation Equity Coalition and the Needs Assessment Planning Group

The Coalition is made up of representatives from TCAT, Gadabout, the Center for Community Transportation (including Carshare and Bike Walk Tompkins), Cornell Cooperative Extension of Tompkins County's Way2Go program (lead agency), GO ITHACA, Tompkins County Department of Social Services, and the Ithaca-Tompkins County Transportation Council (ITCTC). The Needs Assessment Planning Group includes local community members who have expressed particular interest in supporting transportation access and equity. A local women-owned business, Golden Aspen Consulting, LLC, is coordinating the overall needs assessment.

Invitation email that the Coalition and planning group sent out to contacts and networks:

FROM: The Transportation Equity Coalition and Needs Assessment Planning Group
SUBJECT: Tompkins Co. Transportation Needs Survey - raffle prize entry for participating

Suggested intro to partners:

Hello Colleagues, or Dear [Name of person at organization]

Do you or someone you work with face difficulties in accessing transportation, and would like to take a transportation survey to share experiences? Please take the survey from your perspective and share the following information with your networks and anyone you know who may be interested in taking the survey by April 30th. In the coming week, the survey will be shared more widely.

Thank you,
[Name of the sender]

Link to survey: tinyurl.com/transpotompkins

Poster: Also printed in simplified Chinese and Spanish

TAKE THE TRANSPORTATION SURVEY

The Tompkins County Transportation Equity Coalition is conducting a survey to understand your transportation needs and experiences and learn what changes might help you. Results of the survey will be presented and made available to the public by the end of the summer. Go to Way2Go.org

ENTER THE RAFFLE FOR A CHANCE TO WIN ONE OF THE FOLLOWING:

- ▶ TCAT PASS (MULTIRIDE)
- ▶ ITHACA CARSHARE CREDITS
- ▶ ITHACA BIKESHARE CREDITS
- ▶ \$100 WEGMANS GIFT CARD
- ▶ \$100 AMAZON GIFT CARD

SCAN QR CODE

TAKE THE SURVEY BY APRIL 30TH AT:
tinyurl.com/transpotompkins

Request a paper version in English, Spanish, or Chinese at ng32@cornell.edu or (607) 272-2292 ext 162

15-20 MINUTES

Appendix E: Frequency Distributions

Q2: How do you get around Tompkins County most of the time? (Choose one. If you use 2 or more modes most of the time, please select “other” and describe.)

How do you get around (Other if 2+ modes)	Count	Percent of cases
Personal vehicle	864	40.26%
Taxi, Uber, Lyft	121	5.64%
Walk	166	7.74%
Bike or roll	81	3.77%
Wheelchair/mobility device	9	0.42%
Carpool	27	1.26%
Bus (TCAT)	334	15.56%
Gadabout/paratransit	48	2.24%
Carshare	45	2.10%
Bikeshare	28	1.30%
Other	281	13.09%
Missing (No response)	142	6.62%
Total	2,146	100%

Q3: What are the most common reasons you travel around Tompkins County? (Choose all that apply)

Reasons to travel around the county	Count	Percent of cases
Work	1,229	61.88%
School/training	516	25.98%
Transporting children/others	888	44.71%
Healthcare/appointments	1,261	63.49%
Shopping	334	16.82%
Volunteering	439	22.1%
Recreation/ friends or family/ events	1,186	59.72%
Religious services	273	13.75%
Other	41	2.06%
Missing (none selected)	160	NA
Total	6167	NA

Q4: Which of the following describe you and your situation. (Choose all that apply)

Response	Count	Percent of cases
Age 17 or younger	76	3.50%
Age 55 or older	551	25.70%
Person with a physical or mental disability, limitation, impairment	262	12.20%
Person who identifies as LGBTQI+	356	16.60%
Person who identifies as Black, Indigenous, or as a Person of Color (BIPOC)	314	14.60%
Person who identifies as Latino/Latina/Latinx/Hispanic/Spanish	213	9.90%
Person with limited English proficiency	78	3.60%
Person with limited, fixed, low, or no income	406	18.90%
Person without a car or who cannot drive or who has a restricted license	340	15.80%
Person living in a rural area	499	23.30%
None of the above	359	16.70%
Missing (none selected)	178	NA
Total	3,454*	NA

Q5: In general, getting around Tompkins County for me is...

How is Getting Around	Count	Percent of cases
Very Hard	39	1.82%
Hard	226	10.53%
Somewhat easy	707	32.95%
Easy	674	31.41%
Very easy	332	15.47%
Missing (no response)	168	7.83%
Total	2,146	100%

Q6: Not including cost, what are the top 3 difficulties to getting around in Tompkins County for you? (Choose three)

Difficulties Getting Around	Count	Percent of Cases
No buses when needed	283	14.64%
Parking difficult	407	21.06%
Too much traffic	574	29.69%
Do not feel safe (non-car)	734	37.97%
No car/can't drive	325	16.81%
Transportation info	516	26.69%
No difficulties	217	11.23%
Other	161	8.33%
Bad bus/ride experiences	143	7.40%
COVID concerns	156	8.07%
Experienced Discrimination	138	7.14%
Difficult for the disabled/impaired	357	18.47%
Language issues	211	10.92%
Companion/service animal issues	237	12.26%
Missing (none selected)	213	NA
Total	4,459	NA

Q7: What is the biggest effect these transportation difficulties have on your life? (Choose one)

Effect of Difficulties	Count	Percent of cases
Isolated	112	5.22%
Stress	333	15.52%
Late/miss appointments	215	10.02%
Limited autonomy	309	14.4%
Cannot Live where I want	98	4.57%
Job limitations	140	6.52%
Too expensive	149	6.94%
Other	185	8.62%
Missing (no response)	605	28.19%
Total	2,146	100%

Q8: What are the top 3 things that would make it easier for you to travel around Tompkins County?
(Choose three)

Easier to Get Around	Count	Percent of cases
Better bus service	627	39.02%
Manage vehicles to reduce traffic	396	24.64%
Dedicated/safe space for bikes	388	24.14%
24-hour services	386	24.02%
Transportation cheaper/free	380	23.65%
Safe/dedicated space for walking	367	22.84%
More transportation near housing	362	22.53%
Better transportation information	212	13.19%
Financial help with car/bike	211	13.13%
Better for People With Difficulties	199	12.38%
Shuttle reservation when needed	193	12.01%
More housing near work	172	10.7%
Better lighting	169	10.52%
Better for people of different racial backgrounds	156	9.71%
Limit parking to reduce traffic	148	9.21%
Quality enforcement for rideshare (Uber, Lyft, Taxi)	147	9.15%
Other	138	8.59%
Better for people of different sexualities/gender identities	107	6.66%
Info in other languages	91	5.66%
Missing (none selected)	539	NA
	4,849	NA

Q9: How do you get most of your information about transportation related services most of the time?
(Choose all that apply)

Get Transportation Information	Count	Percent of Cases
Websites/listserv	953	50.5%
Apps	818	43.35%
Friends/family/co-workers	553	29.31%
Newspaper	228	12.08%
Printed material	165	8.74%
Social media	376	19.93%
Social service providers	265	14.04%
Transportation provider	442	23.42%
211 or other call center	139	7.37%
Other	68	3.6%
Does not get transportation information	190	10.07%
Missing (none selected)	259	NA

Total	4,197	NA
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Q10: Choose the top 3 things that would make you use TCAT more if resources were available. TCAT is the public bus for the county.

Use TCAT more	Count	Percent of cases
More frequent buses	781	41.94%
Earlier buses	297	15.95%
Later buses	469	25.19%
Faster trips	340	18.26%
More weekend services	438	23.52%
Stops closer to my location/destinations	559	30.02%
More comfortable	307	16.49%
Cross-county connections	294	15.79%
More trip planning information	269	14.45%
Better paths/sidewalks/crossing	277	14.88%
Better website	204	10.96%
Bus info in other languages	102	5.48%
More customer service training for drivers	149	8.0%
Staff on bus to help riders	111	5.96%
More local service in a certain area	242	13.0%
Other	144	7.73%
Nothing	171	9.18%
Missing (none selected)	284	NA
Total	5,154	NA

Q11: What are top 3 things it would do for you if your transportation needs were met? (choose three)

If Transportation needs were met	Frequency	Percent of cases
Easier to get/maintain job	349	19.24%
Easier healthcare	223	12.29%
Easier to get services	601	33.13%
More autonomy	346	19.07%
Be on time	422	23.26%
Better health	227	12.51%
Enjoy nature	265	14.61%
Feel safe	325	17.92%
Happier/less stress	478	26.35%
Easier for non-drivers	340	18.74%
Less environmental pollution	594	32.75%
More socializing/sense of belonging/get to events	386	21.28%
Saving money	549	30.26%

Other	81	4.47%
Missing (none selected)	332	NA
Total	5186	NA

Q12: Do any of these transportation options currently work well for you? (Choose all that apply)

Options that Work Well	Count	Percent of Cases
Personal vehicle (car, truck, etc)	1100	59.4%
Bus (TCAT)	691	37.31%
Gadabout or other paratransit	176	9.5%
Walking	720	38.88%
Biking or rolling (roller skate, skateboard, scooter)	282	15.23%
Wheelchair or motorized mobility device	37	2.0%
Ithaca Carshare	221	11.93%
Ithaca Bikeshare	234	12.63%
Taxi, Uber or Lyft	345	18.63%
Carpool	171	9.23%
Other (please specify)	55	2.97%
No transportation options work well for me	63	3.4%
Missing (none selected)	294	NA
Total	4,095	NA

Q15: Approximately, what percentage of your annual income do you spend on transportation in Tompkins County?

Percent of Annual Income on Transportation	Count	Percent of cases
0-10%	577	26.89%
11-20%	522	24.32%
21-50%	278	12.95%
> 50%	75	3.49%
Do not know	260	12.12%
Missing (no response)	434	20.22%
Total	2,146	100

Q16: For each of these statements about shared transportation, generally (such as bus, carshare, bikeshare, rideshare, paratransit) in Tompkins County, would you agree or disagree:

Shared Transportation	Strongly disagree		Disagree		Agree		Strongly agree		Do not know		Total
	%	N	%	n	%	n	%	n	%	n	n
It is affordable	3.39%	57	15.76%	265	52.23%	878	15.05%	253	13.56%	228	1,681
Easy to get to and use	9.71%	162	28.22%	471	42.42%	708	9.89%	165	9.77%	163	1,669
There is a language barrier for me	44.30%	734	28.42%	471	12.73%	211	5.31%	88	9.23%	153	1,657
It takes too long to get to where I need to go	5.02%	84	22.55%	377	44.62%	746	17.64%	295	10.17%	170	1,672
It's not frequent enough	3.47%	58	14.49%	242	46.71%	780	23.35%	390	11.98%	200	1,670
It is accessible for people with disabilities	5.93%	98	19.67%	325	31.42%	519	8.29%	137	34.69%	573	1,652
Other (please describe)	5.95%	34	10.86%	62	27.85%	159	13.31%	76	42.03%	240	571

Q17: Do you experience significant delays in getting where you want to go in Tompkins County due to traffic congestion?

Experience Delays	Count	Percent of Cases
Almost never	302	14.07%
Some of the time	932	43.43%
Most of the time	349	16.26%
Almost always	113	5.27%
Missing (no response)	450	20.97%
Total	2,146	100%

How safe using...	Not safe		Somewhat safe		Safe		Do not use		Do not know		Total
	%	n	%	n	%	n	%	n	%	n	
Shared transportation such as bus, carshare, bikeshare, rideshare, paratransit	9.92%	168	40.20%	681	35.54%	602	8.26%	140	6.08%	103	1694
Roadways	17.84%	301	50.39%	850	27.39%	462	2.61%	44	1.78%	30	1687
Sidewalks, crosswalks, or dedicated bike lanes	21.21%	358	50.95%	860	22.16%	374	3.55%	60	2.13%	36	1688

Q18: Understanding that safety can mean different things to different people, for each of the following in Tompkins County, please indicate how safe you feel using:

Q19: In your opinion, would you say that TCAT services are:

TCAT Services	Not at all		Somewhat		Very		Do not know		Total
	%	n	%	n	%	n	%	n	
Dependable	9.71%	165	54.24%	922	21.12%	359	14.94%	254	1700
Convenient	16.41%	278	55.79%	945	17.47%	296	10.33%	175	1694

Q20: In your opinion, would you say that Ithaca Carshare is:

Ithaca Carshare	Very		Somewhat		Not at all		Do not know		Total
	%	n	%	n	%	n	%	n	
Dependable	17.70%	288	26.12%	425	6.52%	106	49.66%	808	1627
Convenient	17.35%	281	27.04%	438	7.41%	120	48.21%	781	1620

Q21: In your opinion, would you say that Ithaca Bikeshare is:

Ithaca Bikeshare is	Very		Somewhat		Not at all		Do not know		Total
	%	n	%	n	%	n	%	n	
Dependable	16.81%	284	22.97%	388	6.51%	110	53.70%	907	1689
Convenient	15.68%	263	24.81%	416	7.10%	119	52.42%	879	1677

Q23: What is your age?

Age	Count	Percent of Cases
< 18	27	1.3%
18-24	352	16.4%
25-30	348	16.2%
31-40	264	12.3%
41-54	267	12.4%
55-65	207	9.6%
> 65	224	10.4%
Missing (no response)	457	21.3%
Total	2146	100.0%

Q24: What is your race? (Choose one)

Race	Count	Percent of Cases
Asian	107	5.0%
Black/African-America	222	10.3%
Indigenous/Alaskan Native	36	1.7%
Native Hawaiian/ Other	10	0.5%
White	1,151	53.6%
Multiracial	89	4.1%
Other	40	1.9%
Missing (no response)	491	22.9%
Total	2,146	100.0%

Q25: What is your gender?

Gender	Count	Percent of Cases
Female	864	40.3%
Male	728	33.9%
Non-binary	58	2.7%
Other	15	0.7%
Missing (no response)	481	22.4%
Total	2146	100.0%

Q26: Where do you live?

Where do you live	Count	Percent of Cases
Brooktondale	69	3.2%
Caroline	106	4.9%
Danby	103	4.8%
Dryden	121	5.6%
Enfield	56	2.6%
Freeville	53	2.5%
Ithaca (city)	367	17.1%
Ithaca (Town)	305	14.2%
Lansing	131	6.1%
Newfield	94	4.4%
Trumansburg	82	3.8%
Varna	23	1.1%
Other	168	7.8%
Missing (no response)	468	21.8%
Total	2146	100.0%

Q27: What is your household income in 2022 before taxes?

Income	Count	Percent of Cases
< 20,000	214	10.0%
20,000-34,999	293	13.7%
35,000-49,999	203	9.5%
50,000-74,999	365	17.0%
75,000-99,999	233	10.9%
>100,000	279	13.0%
Missing (no response)	559	26.0%
Total	2146	100.0%

Appendix F: Qualitative Code Lists

Q2: How do you get around Tompkins County most of the time?
 (Choose one. If you use 2 or more modes most of the time, please select other and describe.) - Other
 (please describe:)

Code	Frequency Applied
Personal Vehicle	181
Walk	159
Bus (TCAT)	154
Bike/Roll	71
Carpool	34
Rideshare (Taxi, Uber, Lyft)	25
Ithaca Carshare	23
Other (school bus, LLH volunteers, rental cars)	6
Ithaca Bikeshare	3
Wheelchair/mobility device	1
Gadabout/Paratransit	1

Q6: Not including cost, what are the top 3 difficulties to getting around in Tompkins County for you?
Other (please describe)

Codes	Frequency Applied
Inadequate routes	53
car infrastructure (roads, potholes, narrow roads)	47
No buses when needed	42
reach of bus inadequate	37
bus stops not convenient	31
non-car infrastructure (hills, lack of paths, etc.)	26
Do not feel safe (non-car)	22
public transportation unreliable	21
Driving/car safety concerns	15
Getting where need to go is time consuming	14
Bad traffic/construction	13
Parking difficult	10
cost: car	10
Weather difficulties	8
Gadabout difficulties (scheduling, cancellation, same-day appointments)	8
Traffic laws not obeyed	7
cost: tcat	5
Bad bus/ride experiences	4
More/alternative public transit options	4
Rideshare difficulties	4
Difficult for the disabled/impaired	3
Carshare future/reliability unknown due to insurance concerns	3
parking expensive	3
problems with carpool/ride availability	3
No car/can't drive	2
No difficulties	2
Experienced Discrimination	2
climate concerns	2
cost: carshare	2
Transportation info	1
COVID concerns	1
Companion/service animal issues	1
bus crowding	1
Lack of EV chargers	1
Bikeshare difficulties	1

Q7: What is the biggest effect these transportation difficulties have on your life? (Choose one).

Codes	Frequency Applied
Limited autonomy	41
Drive more than desired/reliance on car	40
Difficulties navigating traffic/road conditions/parking	33
Scheduling concerns/risk late or missed appointments/excess coordination	28
Excess time spent on travel	21
Safety fears (including COVID)	19
Avoid certain areas	19
Too expensive	13
Stress	10
Impact on car/damage	9
Isolated	8
Environmental impact	8
Walk more than desired	8
Job limitations	7
Cannot Live where I want	6
Impact on bike/damage	6
Paratransit/Gadabout issues	3

Q8: What are the top 3 things that would make it easier for you to travel around Tompkins County?

Codes	Frequency Applied
More/cheaper parking	27
Safety/crime prevention improvements (policing, COVID regulations, traffic cams)	26
Road quality improvements	21
More bus routes (increased reach)	16
Manage vehicles to reduce traffic	15
Additional public transit	14
More frequent buses	12
Closer parking to destination	12
Transportation cheaper/free	10
Safe/dedicated space for walking	10
Dedicated/safe space for bikes	9
Increase Rideshare service	7
Increased bus hours	6
More reliable buses/ bus schedule	6
Better for People With Difficulties	6
Support/expand Ithaca Carshare	5
Bus quality improvements	4
Better/more accurate online transportation information	3
Shuttle reservation when needed	3
Sidewalk maintenance	3
Bike lane/bike road space maintenance	3
More transportation near housing	2
Quality enforcement for rideshare (Uber, Lyft, Taxi)	2
Credit/benefit for reducing emissions	2
Increased options for internet non-users and/or the elderly	2
More EV chargers	2
Increased/better gadabout service	2
Financial help with car/bike	1
More bike support (bike racks on bus, bike trails)	1
More bikeshare bikes	1

Q10: Choose the top 3 things that would make you use TCAT more if resources were available. More local service in a specific area: (name community)

Codes	Frequency Applied
Lansing	20
Newfield	16
Trumansburg	15
Enfield	14
Ithaca (Town)	13
Danby	12
Dryden	11
Ithaca (city)	10
Brooktondale	8
Caroline	8
Freeville	8
West Hill	8
Fall Creek	6
Ulysses	6
Cornell outskirts	5
Groton	5
Downtown Ithaca	5
County outskirts	4
South Hill	4
Cortland	4
Other counties	4
Cornell Central	3
East Hill	3
West Danby	3
Etna	3
TC3	3
Cayuga Heights	3
Mclean	3
Slaterville	2
Triphammer Mall	2
Hasbrouk	2
Enfield	2
Airports (unspecified)	2
Ecoville/village	2
Coddington	1
Glenwood Heights	1
Tompkins Airport	1
Van Etten	1
Jacksonville	1
Cornell Heights	1
Mecklenburg	1
Moravia	1

Q10: Choose the top 3 things that would make you use TCAT more if resources were available. Other: please describe

Codes	Frequency Applied
More reliable buses/fewer cancellations and delays	23
More/expanded service in a specific area (rural, certain towns, intersections)	21
More frequent buses	19
TCAT free/cheaper	19
Stops closer to my location/destinations	15
Do not use	12
Routes to services (food, shopping, healthcare) and key destinations (ice rink, airport)	11
Additional safety measures (COVID, officers, cameras etc)	10
Additional bus/bus stop amenities	10
More accurate trip planning information	9
More comfortable/safer	6
More direct bus routes	6
Better or additional paths/sidewalks/crossing	5
Nothing	5
If without car/other options	5
Faster trips	4
Fix accessibility issues	4
Earlier or Later buses	3
Alternative/eco-friendly transport	3
Clearer/more bus information/instructions	3
Better/more support for drivers	3
More weekend services	2
Staff on bus equipped to assist/help riders	2
Less crowding	2
Cross-county connections	1
Better website	1
Friendlier drivers	1

Q11: What are top 3 things it would do for you if your transportation needs were met? Other: please describe

Codes	Frequency Applied
None/needs are met	23
Less driving	16
More autonomy	10
Happier/less stress/better mental health	9
Easier to access Services	8
Saving money	7
More free time	7
Use bus more	7
More socializing/sense of belonging/get to events	6
Easier for non-drivers	5
Feel/be Safe	4
Less environmental pollution	3
Less wear and tear on car	3
Easier payment methods for transit	1

Q12: Do any of these transportation options currently work well for you? (Choose all that apply) Other: please describe.

Codes	Frequency Applied
Preferred/desired mode has limitations	25
Personal vehicle	13
Carpool (rides from family/friends)	12
Walking/Running	7
Bus (TCAT)	6
Biking/rolling	6
Carshare	3
Gadabout/paratransit	2
Wheelchair/walker/mobility device	1
Assistants/caregivers/support staff	1
Volunteer services	1
Car rental	1

Q13: If some options do work well for you, is there anything you want to tell us about why they do?
Please describe:

Codes	Frequency Applied
Code: Barriers/challenges\Bad roads/infrastructure Applied	171
Code: Barriers/challenges\Bad roads/infrastructure\Bicycle infrastructure (see also "unsafe for cyclists") Applied	27
Code: Barriers/challenges\Bad roads/infrastructure\Construction Applied	18
Code: Barriers/challenges\Bad roads/infrastructure\Geographic barriers Applied	0
Code: Barriers/challenges\Bad roads/infrastructure\Potholes and road conditions Applied	4
Code: Barriers/challenges\Bad roads/infrastructure\Street Planning & Infrastructure Applied	5
Code: Barriers/challenges\Bad roads/infrastructure\Street Planning & Infrastructure\lack of crosswalks Applied	10
Code: Barriers/challenges\Bad roads/infrastructure\Street Planning & Infrastructure\Lack/ poor condition of sidewalks Applied	1
Code: Barriers/challenges\Car repair too slow Applied	2
Code: Barriers/challenges\Challenges with bus (TCAT) Applied	11
Code: Barriers/challenges\Challenges with bus (TCAT)\bus driver etiquette Applied	69
Code: Barriers/challenges\Challenges with bus (TCAT)\bus rider etiquette Applied	1
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable Applied	25
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable\Buses leave early Applied	16
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable\Routes change without being updated in Applemaps and Google maps Applied	6
Code: Barriers/challenges\Challenges with bus (TCAT)\COVID-19 (effects on transportation especially busses)\Buses unsafe due to covid exposure Applied	3
Code: Barriers/challenges\Challenges with bus (TCAT)\COVID-19 (effects on transportation especially busses)\Route changes Applied	2
Code: Barriers/challenges\Challenges with bus (TCAT)\Lack of bus shelters Applied	20
Code: Barriers/challenges\Challenges with bus (TCAT)\Lack of funding (for public transportation) Applied	2
Code: Barriers/challenges\Challenges with bus (TCAT)\No change for cash payment Applied	12
Code: Barriers/challenges\Challenges with bus (TCAT)\Space for bikes on busses Applied	2
Code: Barriers/challenges\Challenges with bus (TCAT)\Unsafe driving Applied	6
Code: Barriers/challenges\Electric vehicle equipments Applied	1

Code: Barriers/challenges\Lack of knowledge on transportation services (e.g. how to use, if they are eligible etc) Applied	1
Code: Barriers/challenges\Lack of parking\Parking at Cornell Applied	14
Code: Barriers/challenges\Lack of parking\Parking downtown Applied	4
Code: Barriers/challenges\Lack of parking\Parking meters hard to use Applied	4
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe at night Applied	21
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe at night\Lack of lighting Applied	2
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe because of crime Applied	1
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe for cyclists\Lack of bike lanes Applied	15
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe for drivers Applied	4
Code: Barriers/challenges\Lack of staff in transportation jobs Applied	4
Code: Barriers/challenges\Lack of transportation at night Applied	1
Code: Barriers/challenges\NAMED identity specific barriers Applied	5
Code: Barriers/challenges\NAMED identity specific barriers\Autism Applied	12
Code: Barriers/challenges\NAMED identity specific barriers\BIPOC\BIPOC have fewer personal vehicles Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\LGBTQ+ Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Limited English Proficiency Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\People with disabilities Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\People with disabilities\Bus system not designed for people with disabilities Applied	4
Code: Barriers/challenges\NAMED identity specific barriers\People with disabilities\Bus system not designed for people with disabilities\Ableism from bus drivers Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Sex/Gender Applied	7
Code: Barriers/challenges\NAMED identity specific barriers\youth/teenagers Applied	1
Code: Barriers/challenges\No/Lack of public transit in RURAL areas Applied	1
Code: Barriers/challenges\Not affordable/high cost Applied	18
Code: Barriers/challenges\Not affordable/high cost\Bikes too expensive Applied	29
Code: Barriers/challenges\Not affordable/high cost\Bus fare too high Applied	1
Code: Barriers/challenges\Not affordable/high cost\Carshare not affordable Applied	4

Code: Barriers/challenges\Not affordable/high cost\No/less access to personal vehicle/costs too much Applied	3
Code: Barriers/challenges\Not affordable/high cost\No/less access to personal vehicle/costs too much\Gas expensive Applied	13
Code: Barriers/challenges\Not affordable/high cost\Parking expensive Applied	6
Code: Barriers/challenges\Not affordable/high cost\Taxis/Ubbers expensive Applied	6
Code: Barriers/challenges\Not walkable Applied	3
Code: Barriers/challenges\Not walkable\Have to walk long distances Applied	7
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges Applied	5
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Bikeshare challenges Applied	7
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Car share challenges Applied	2
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Carpool challenges Applied	2
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges\Lack of night/weekend service Applied	3
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges\Pick up/drop off (timing, service, access etc.) Applied	2
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges\Reservation system Applied	1
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Medicaid transport system traumatic Applied	1
Code: Barriers/challenges\Taxis/Ubbers/Car shares not reliable/no accountability, other issues\Taxis not accessible (for people with disabilities) Applied	2
Code: Barriers/challenges\Traffic/congestion Applied	2
Code: Barriers/challenges\Vehicles pollute the environment Applied	3
Code: Barriers/challenges\Weather conditions Applied	3
Code: Consequences of barriers (NEW topical area) Applied	5
Code: Consequences of barriers (NEW topical area)\Car-dependent Applied	64
Code: Consequences of barriers (NEW topical area)\Difficult to drive Applied	28
Code: Consequences of barriers (NEW topical area)\Environmental cost Applied	2
Code: Consequences of barriers (NEW topical area)\High cost Applied	5
Code: Consequences of barriers (NEW topical area)\High cost\Parking cost Applied	6
Code: Consequences of barriers (NEW topical area)\Inconveniences (smaller issues) Applied	4
Code: Consequences of barriers (NEW topical area)\Increased risk of COVID Applied	1

Code: Consequences of barriers (NEW topical area)\Lateness/miss appointments Applied	4
Code: Consequences of barriers (NEW topical area)\Less exercise Applied	2
Code: Consequences of barriers (NEW topical area)\Limited mobility/limits where you can go Applied	4
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation Applied	8
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not carpool Applied	15
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not use bikeshare Applied	3
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not use carshare Applied	9
Code: Consequences of barriers (NEW topical area)\Physical pain Applied	1
Code: Consequences of barriers (NEW topical area)\Stress (see code What would life be like on no stress)\Burden of stress/ time management Applied	13
Code: Consequences of barriers (NEW topical area)\Stress (see code What would life be like on no stress)\Burden of stress/ time management\Late to appointments Applied	10
Code: Consequences of barriers (NEW topical area)\Stress (see code What would life be like on no stress)\Social isolation Applied	3
Code: Consequences of barriers (NEW topical area)\Time wasted Applied	1
Code: Consequences of barriers (NEW topical area)\Transportation barriers cause employment barriers Applied	1
Code: Consequences of barriers (NEW topical area)\Worried about future Applied	4
Code: How people get around Applied	1
Code: How well connected people feel (this will come from survey) Applied	2
Code: No need for public transportation Applied	1
Code: Solutions\Accommodations for special needs Applied	56
Code: Solutions\Destinations for public transportation\Airport Applied	11
Code: Solutions\Destinations for public transportation\Binghampton Applied	1
Code: Solutions\Destinations for public transportation\Brooktondale Applied	1
Code: Solutions\Destinations for public transportation\Dryden Applied	1
Code: Solutions\Destinations for public transportation\Enfield Applied	2
Code: Solutions\Destinations for public transportation\Inter-county Applied	1
Code: Solutions\Destinations for public transportation\Ithaca Mall Applied	3
Code: Solutions\Destinations for public transportation\Schuyler Applied	1
Code: Solutions\Destinations for public transportation\Tburg Applied	3
Code: Solutions\Easier parking\Cheaper parking Applied	2
Code: Solutions\Easier parking\Parking information communication Applied	1
Code: Solutions\Enforcement/improvement of traffic rules\Improve tranffic rules Applied	1

Code: Solutions\Expand service hours\Increased service hours for bus Applied	3
Code: Solutions\Expand service hours\more service hours for students Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Bike lanes/infrastructure Applied	31
Code: Solutions\Investment needed (Previously Govt. investment)\Bike lanes/infrastructure\Dedicated bike lanes Applied	8
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\bus route improvement Applied	8
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\bus route improvement\dedicated bus routes Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\More reliable public transportation Applied	5
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\More reliable public transportation\Predictable availability of shared services Applied	4
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs\Bikeshare/E-bikes Applied	8
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs\Expand car share programs Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs\Ithaca Carshare Insurance Applied	2
Code: Solutions\Investment needed (Previously Govt. investment)\Improve road planning>Loading zones and times Applied	4
Code: Solutions\Investment needed (Previously Govt. investment)\Maintain/Fix Roads Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Pedestrian infrastructure Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Pedestrian infrastructure\Snow cleaning Applied	2
Code: Solutions\Investment needed (Previously Govt. investment)\Route 13 Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Traffic management to reduce congestion Applied	1
Code: Solutions\Mode shift from driving Applied	2
Code: Solutions\Mode shift from driving\Encourage active transportation (walking, biking etc) Applied	5
Code: Solutions\Mode shift from driving\Encourage coordination of multimodal transportation Applied	3
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Better ventilation on buses Applied	2

Code: Solutions\Mode shift from driving\More transportation services near housing complexes Applied	2
Code: Solutions\Mode shift from driving\Work-from-home to reduce car use Applied	1
Code: Solutions\More rules/regulations for Ubers/taxis Applied	1
Code: Solutions\More transportation for rural areas\TCAT expand rural service Applied	3
Code: Solutions\More transportation for rural areas\Uber/Lyft/Taxi Applied	1
Code: Solutions\Personal vehicle related Applied	1
Code: Solutions\Personal vehicle related\Driving lesson help Applied	5
Code: Solutions\Reduce sketchy activities - safer Applied	1
Code: Solutions\Subsidized personal vehicle ownership\Help with vehicle repairs Applied	1
Code: Solutions\Subsidized personal vehicle ownership\subsidized gasoline Applied	1
Code: Strengths Applied	1
Code: Strengths\Bikeshare Applied	417
Code: Strengths\Bikeshare\Affordable Applied	21
Code: Strengths\Bikeshare\Autonomy Applied	4
Code: Strengths\Bikeshare\Efficient Applied	2
Code: Strengths\Bikeshare\Good for the environment Applied	3
Code: Strengths\Bikeshare\Safe Applied	11
Code: Strengths\Car share\Affordable Applied	20
Code: Strengths\Car share\Autonomy Applied	2
Code: Strengths\Car share\Easy to use Applied	4
Code: Strengths\Car share\Efficient Applied	1
Code: Strengths\Car share\Good for the environment Applied	4
Code: Strengths\Car share\Proximity/convenience Applied	1
Code: Strengths\Car share\Safe Applied	15
Code: Strengths\Carpool\Affordable Applied	15
Code: Strengths\Carpool\Easy to do Applied	1
Code: Strengths\Carpool\Proximity/convenience Applied	2
Code: Strengths\Carpool\Safe Applied	9
Code: Strengths\Changes due to covid Applied	1
Code: Strengths\Cycling (in some areas)\Affordable Applied	59
Code: Strengths\Cycling (in some areas)\autonomy Applied	4
Code: Strengths\Cycling (in some areas)\Black Diamond Trail (BDT) Applied	2
Code: Strengths\Cycling (in some areas)\ebike Applied	5
Code: Strengths\Cycling (in some areas)\Efficient Applied	2
Code: Strengths\Cycling (in some areas)\Good for the environment Applied	3
Code: Strengths\Cycling (in some areas)\Healthy Applied	1
Code: Strengths\Cycling (in some areas)\Proximity/convenience Applied	3
Code: Strengths\Cycling (in some areas)\Safe Applied	21
Code: Strengths\Gadabout/paratransit Applied	4

Code: Strengths\Gadabout/paratransit\Affordable Applied	23
Code: Strengths\Gadabout/paratransit\Autonomy Applied	2
Code: Strengths\Gadabout/paratransit\Easy to use Applied	8
Code: Strengths\Gadabout/paratransit\Efficient Applied	3
Code: Strengths\Gadabout/paratransit\Proximity/convenience Applied	4
Code: Strengths\Gadabout/paratransit\Safe Applied	16
Code: Strengths\Gadabout/paratransit\Volunteer transportation Applied	1
Code: Strengths\Go Ithaca Program Applied	2
Code: Strengths\Love Living at Home Program Applied	1
Code: Strengths\Multiple/flexible options Applied	2
Code: Strengths\Needs are met Applied	22
Code: Strengths\Needs are met\Public transportation Not needed Applied	17
Code: Strengths\No consequences of barriers Applied	1
Code: Strengths\Personal Car Applied	3
Code: Strengths\Personal Car\Affordable Applied	198
Code: Strengths\Personal Car\Autonomy Applied	4
Code: Strengths\Personal Car\Convenience Applied	68
Code: Strengths\Personal Car\Driving (is best way to get around) Applied	102
Code: Strengths\Personal Car\Driving (is best way to get around)\Ride from family members Applied	127
Code: Strengths\Personal Car\Efficient Applied	4
Code: Strengths\Personal Car\Electric/Hybrid Vehicle Applied	46
Code: Strengths\Personal Car\Safe Applied	1
Code: Strengths\Rideshare (Taxi, Uber, Lyft) Applied	7
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Affordable Applied	23
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Easy to use Applied	2
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Proximity/convenience Applied	4
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Safe Applied	17
Code: Strengths\Rolling (skateboard, scooter etc.) Applied	1
Code: Strengths\Rolling (skateboard, scooter etc.)\Efficient Applied	13
Code: Strengths\Rolling (skateboard, scooter etc.)\Proximity/convenience Applied	11
Code: Strengths\TCAT Applied	2
Code: Strengths\TCAT\Affordable Applied	115
Code: Strengths\TCAT\Bus drivers are friendly/helpful Applied	13
Code: Strengths\TCAT\Easy to use Applied	6
Code: Strengths\TCAT\Proximity/convenience Applied	12
Code: Strengths\TCAT\Safe Applied	54
Code: Strengths\Unspecified mode strengths Applied	11
Code: Strengths\Walking Applied	2
Code: Strengths\Walking\Affordable Applied	93
Code: Strengths\Walking\Autonomy Applied	6
Code: Strengths\Walking\Efficient Applied	12

Code: Strengths\Walking\Good for the environment Applied	10
Code: Strengths\Walking\Healthy Applied	2
Code: Strengths\Walking\Proximity/convenience Applied	14
Code: Strengths\Walking\Safe Applied	50
Code: What lives could be like if barriers removed Applied	7
Code: What lives could be like if barriers removed\Access to job/employment Applied	27
Code: What lives could be like if barriers removed\Access to job/employment\Easier/have money to do job Applied	2
Code: What lives could be like if barriers removed\Autonomy/freedom/self determination\Less dependent on others Applied	8
Code: What lives could be like if barriers removed\Autonomy/freedom/self determination\Mobility for teens (who can't drive) Applied	3
Code: What lives could be like if barriers removed\Be on time!\Access to services/make medical etc appointments on time Applied	5
Code: What lives could be like if barriers removed\Be on time!\Access to services/make medical etc appointments on time\Access health care Applied	1
Code: What lives could be like if barriers removed\Better experience on bus\Enjoyable activities Applied	1
Code: What lives could be like if barriers removed\Cycle more/enjoy cycling Applied	2
Code: What lives could be like if barriers removed\Enjoy parks/nature more Applied	2
Code: What lives could be like if barriers removed\Feel safe /be safe Applied	2
Code: What lives could be like if barriers removed\Less environmental pollution Applied	1
Code: What lives could be like if barriers removed\Less time-consuming Applied	1
Code: What lives could be like if barriers removed\Less time-consuming\More time for other activities Applied	4
Code: What lives could be like if barriers removed\Less weather-dependent Applied	3
Code: What lives could be like if barriers removed\Mobility after dark Applied	1
Code: What lives could be like if barriers removed\More equity Applied	1
Code: What lives could be like if barriers removed\Wouldn't have to drive (learn to drive) a car (b/c other options)\when personal vehicle is not available Applied	4
Code: Why barriers exist (root causes) Applied	1
Code: Why barriers exist (root causes)\Ableism (see also code on Barriers specific to people with disabilities & Ableism leads to low employment) Applied	7
Code: Why barriers exist (root causes)\Racism/white supremacy (see also racial discrimination code in barriers) Applied	3

Code: Why barriers exist (root causes)\Why bad infrastructure maintenance?\High infrastructure costs Applied	1
Code: Why barriers exist (root causes)\Why no parking? Applied	1
Code: Why barriers exist (root causes)\Why transportation not affordable?\Ableism (leads to low employment/income for disabled people) Applied	1
Code: Why barriers exist (root causes)\Why unsafe? Applied	1
Code: Why barriers exist (root causes)\Why unsafe?\Roads designed (exclusively) for cars Applied	3
Code: Why barriers exist (root causes)\Why unsafe?\Why unsafe at night? Applied	3
Code: Why barriers exist (root causes)\Why unsafe?\Why unsafe for pedestrians?\Because of traffic Applied	1
Code: Why barriers exist (root causes)\Why unsafe?\Why unsafe for pedestrians?\Sidewalk obstacles (including bikes) Applied	1

Q22: If you have additional thoughts about transportation in Tompkins County you would like to share, please do so here:

Codes	Frequency Applied
Code: Barriers/challenges Applied	225
Code: Barriers/challenges\Bad roads/infrastructure Applied	58
Code: Barriers/challenges\Bad roads/infrastructure\Bicycle infrastructure (see also "unsafe for cyclists") Applied	18
Code: Barriers/challenges\Bad roads/infrastructure\Construction Applied	4
Code: Barriers/challenges\Bad roads/infrastructure\Geographic barriers Applied	1
Code: Barriers/challenges\Bad roads/infrastructure\Potholes and road conditions Applied	28
Code: Barriers/challenges\Bad roads/infrastructure\Street Planning & Infrastructure Applied	29
Code: Barriers/challenges\Bad roads/infrastructure\Street Planning & Infrastructure\lack of crosswalks Applied	7
Code: Barriers/challenges\Bad roads/infrastructure\Street Planning & Infrastructure\Lack/ poor condition of sidewalks Applied	11
Code: Barriers/challenges\Challenges with bus (TCAT) Applied	86
Code: Barriers/challenges\Challenges with bus (TCAT)\bus driver etiquette Applied	6
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus packed Applied	3
Code: Barriers/challenges\Challenges with bus (TCAT)\bus rider etiquette Applied	1

Code: Barriers/challenges\Challenges with bus (TCAT)\Bus time availability (see also too lack of transportation at night) Applied	37
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable Applied	29
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable\Buses leave early Applied	2
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable\Late buses Applied	11
Code: Barriers/challenges\Challenges with bus (TCAT)\Bus unreliable\Routes change without being updated in Applemaps and Google maps Applied	7
Code: Barriers/challenges\Challenges with bus (TCAT)\COVID-19 (effects on transportation especially busses) Applied	3
Code: Barriers/challenges\Challenges with bus (TCAT)\COVID-19 (effects on transportation especially busses)\Buses unsafe due to covid exposure Applied	1
Code: Barriers/challenges\Challenges with bus (TCAT)\COVID-19 (effects on transportation especially busses)\Route changes Applied	2
Code: Barriers/challenges\Challenges with bus (TCAT)\Inadequate routes Applied	33
Code: Barriers/challenges\Challenges with bus (TCAT)\Lack of bus shelters Applied	3
Code: Barriers/challenges\Challenges with bus (TCAT)\Lack of funding (for public transportation) Applied	6
Code: Barriers/challenges\Challenges with bus (TCAT)\No access to public transportation Applied	18
Code: Barriers/challenges\Challenges with bus (TCAT)\No change for cash payment Applied	1
Code: Barriers/challenges\Challenges with bus (TCAT)\Routing UI hard to navigate Applied	3
Code: Barriers/challenges\Challenges with bus (TCAT)\Time-consuming (with transfers) Applied	18
Code: Barriers/challenges\Lack of knowledge on transportation services (e.g. how to use, if they are eligible etc) Applied	1
Code: Barriers/challenges\Lack of parking Applied	8
Code: Barriers/challenges\Lack of parking\Parking at Cornell Applied	3
Code: Barriers/challenges\Lack of parking\Parking downtown Applied	6
Code: Barriers/challenges\Lack of parking\Parking meters hard to use Applied	1
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code) Applied	45

Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe at night Applied	4
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe at night\Lack of lighting Applied	1
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe because of crime Applied	4
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe for cyclists Applied	29
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe for cyclists\Lack of bike lanes Applied	17
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe for drivers Applied	9
Code: Barriers/challenges\Lack of safety (also see COVID-19 effects on buses code)\Unsafe for pedestrians Applied	16
Code: Barriers/challenges\Lack of staff in transportation jobs Applied	2
Code: Barriers/challenges\Lack of transportation at night Applied	5
Code: Barriers/challenges\NAMED identity specific barriers Applied	27
Code: Barriers/challenges\NAMED identity specific barriers\Autism Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Limited English Proficiency Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Limited English Proficiency\Communication barriers with drivers (e.g. bus, taxi etc) Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Limited English Proficiency\Difficulty reading schedule Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Limited English Proficiency\Lack of signage in other languages Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Parent with children Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\People with disabilities Applied	17
Code: Barriers/challenges\NAMED identity specific barriers\People with disabilities\Bus system not designed for people with disabilities Applied	8
Code: Barriers/challenges\NAMED identity specific barriers\Reformed citizen Applied	1
Code: Barriers/challenges\NAMED identity specific barriers\Seniors Applied	7

Code: Barriers/challenges\NAMED identity specific barriers\youth/teenagers Applied	1
Code: Barriers/challenges\No/Lack of public transit in RURAL areas Applied	33
Code: Barriers/challenges\Not affordable/high cost Applied	19
Code: Barriers/challenges\Not affordable/high cost\Bikes too expensive Applied	5
Code: Barriers/challenges\Not affordable/high cost\Bus fare too high Applied	2
Code: Barriers/challenges\Not affordable/high cost\Carshare not affordable Applied	5
Code: Barriers/challenges\Not affordable/high cost\No/less access to personal vehicle/costs too much Applied	2
Code: Barriers/challenges\Not affordable/high cost\Parking expensive Applied	3
Code: Barriers/challenges\Not affordable/high cost\Taxis/Ubers expensive Applied	3
Code: Barriers/challenges\Not walkable Applied	11
Code: Barriers/challenges\Not walkable\Have to walk long distances Applied	8
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges Applied	19
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Bikeshare challenges Applied	8
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Car share challenges Applied	8
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Carpool challenges Applied	1
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges Applied	4
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges\Lack of night/weekend service Applied	2
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges\Pick up/drop off (timing, service, access etc.) Applied	3
Code: Barriers/challenges\Shared-transportation (e.g. car/bike share) challenges\Gadabout challenges\Reservation system Applied	1
Code: Barriers/challenges\Taxis/Ubers/Car shares not reliable/no accountability, other issues Applied	4
Code: Barriers/challenges\Traffic regulation issues Applied	9
Code: Barriers/challenges\Traffic/congestion Applied	21
Code: Barriers/challenges\Vehicles pollute the environment Applied	3

Code: Barriers/challenges\Weather conditions Applied	6
Code: Consequences of barriers (NEW topical area) Applied	53
Code: Consequences of barriers (NEW topical area)\Car-dependent Applied	14
Code: Consequences of barriers (NEW topical area)\Difficult to drive Applied	7
Code: Consequences of barriers (NEW topical area)\Environmental cost Applied	3
Code: Consequences of barriers (NEW topical area)\High cost Applied	2
Code: Consequences of barriers (NEW topical area)\High cost\Parking cost Applied	1
Code: Consequences of barriers (NEW topical area)\Inconveniences (smaller issues) Applied	1
Code: Consequences of barriers (NEW topical area)\Lack of independence Applied	5
Code: Consequences of barriers (NEW topical area)\Lateness/miss appointments Applied	2
Code: Consequences of barriers (NEW topical area)\Limited activities Applied	4
Code: Consequences of barriers (NEW topical area)\Limited mobility/limits where you can go Applied	12
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation Applied	18
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not use bike Applied	3
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not use bikeshare Applied	3
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not use bus Applied	11
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not use carshare Applied	2
Code: Consequences of barriers (NEW topical area)\Not use certain form of transportation\Not walk Applied	1
Code: Consequences of barriers (NEW topical area)\Property damage Applied	4
Code: Consequences of barriers (NEW topical area)\Property damage\Bike damage Applied	2
Code: Consequences of barriers (NEW topical area)\Property damage\Car damage Applied	3
Code: Consequences of barriers (NEW topical area)\quality of life Applied	3
Code: Consequences of barriers (NEW topical area)\Stress (see code What would life be like on no stress) Applied	1

Code: Consequences of barriers (NEW topical area)\Stress (see code What would life be like on no stress)\More trip planning effort Applied	5
Code: Consequences of barriers (NEW topical area)\Taking alternative routes Applied	1
Code: Consequences of barriers (NEW topical area)\Time wasted Applied	4
Code: Consequences of barriers (NEW topical area)\Transportation barriers cause employment barriers Applied	8
Code: Consequences of barriers (NEW topical area)\Unable to live where I want to live Applied	4
Code: Consequences of barriers (NEW topical area)\Worried about future Applied	4
Code: Process (TENA) Applied	1
Code: Process (TENA)\Appreciate conversation/FG Applied	9
Code: Process (TENA)\Be Open/transparent with TENA results Applied	1
Code: Process (TENA)\Want action/positive results Applied	2
Code: Solutions Applied	282
Code: Solutions\Accommodations for special needs Applied	3
Code: Solutions\Accommodations for special needs\Language support Applied	1
Code: Solutions\Better wages/treatment/recruitment transportation staff Applied	6
Code: Solutions\Confront ableism Applied	1
Code: Solutions\Destinations for public transportation Applied	34
Code: Solutions\Destinations for public transportation\Airport Applied	2
Code: Solutions\Destinations for public transportation\Binghamton Applied	2
Code: Solutions\Destinations for public transportation\Cornell Applied	6
Code: Solutions\Destinations for public transportation\Cortland Applied	6
Code: Solutions\Destinations for public transportation\Dryden Applied	2
Code: Solutions\Destinations for public transportation\Enfield Applied	1
Code: Solutions\Destinations for public transportation\Groton Applied	1
Code: Solutions\Destinations for public transportation\Inter-county Applied	12
Code: Solutions\Destinations for public transportation\Ithaca Mall Applied	2
Code: Solutions\Destinations for public transportation\Newfield Applied	2

Code: Solutions\Destinations for public transportation\North Lansing Applied	5
Code: Solutions\Destinations for public transportation\Schuyler Applied	1
Code: Solutions\Destinations for public transportation\Syracuse Applied	1
Code: Solutions\Destinations for public transportation\Tburg Applied	3
Code: Solutions\Easier parking Applied	11
Code: Solutions\Easier parking\Cheaper parking Applied	5
Code: Solutions\Easier parking\Cheaper parking\More and cheaper parking at Cornell Applied	2
Code: Solutions\Easier parking\Improve accessible parking Applied	1
Code: Solutions\Easier parking\More, better parking downtown Applied	7
Code: Solutions\Enforcement/improvement of traffic rules Applied	11
Code: Solutions\Enforcement/improvement of traffic rules\Improve traffic rules Applied	5
Code: Solutions\Expand service hours Applied	21
Code: Solutions\Expand service hours\Increased service hours for bus Applied	16
Code: Solutions\Expand service hours\Increased service hours for Uber/Lyft Applied	1
Code: Solutions\Expand service hours\more service hours for students Applied	3
Code: Solutions\Gadabout/paratransit suggestions Applied	2
Code: Solutions\Investment needed (Previously Govt. investment) Applied	159
Code: Solutions\Investment needed (Previously Govt. investment)\Bike lanes/infrastructure Applied	46
Code: Solutions\Investment needed (Previously Govt. investment)\Bike lanes/infrastructure\Dedicated bike lanes Applied	14
Code: Solutions\Investment needed (Previously Govt. investment)\Bike lanes/infrastructure\Snow cleaning (for bike lanes) Applied	2
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit Applied	54
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\bus route improvement Applied	7
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\bus route improvement\dedicated bus routes Applied	1

Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\Increased service Applied	24
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\More reliable public transportation Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\Bus/mass transit\More reliable public transportation\Predictable availability of shared services Applied	1
Code: Solutions\Investment needed (Previously Govt. investment)\EV charging stations Applied	5
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs Applied	25
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs\Bikeshare/E-bikes Applied	5
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs\Expand car share programs Applied	4
Code: Solutions\Investment needed (Previously Govt. investment)\Expand shared transportation programs\Ithaca Carshare Insurance Applied	4
Code: Solutions\Investment needed (Previously Govt. investment)\Improve road planning Applied	13
Code: Solutions\Investment needed (Previously Govt. investment)\Lighting Applied	6
Code: Solutions\Investment needed (Previously Govt. investment)\Maintain/Fix Roads Applied	3
Code: Solutions\Investment needed (Previously Govt. investment)\Pedestrian infrastructure Applied	14
Code: Solutions\Investment needed (Previously Govt. investment)\Pedestrian infrastructure\Snow cleaning Applied	2
Code: Solutions\Investment needed (Previously Govt. investment)\Route 13 Applied	9
Code: Solutions\Investment needed (Previously Govt. investment)\Traffic management to reduce congestion Applied	1
Code: Solutions\Mode shift from driving Applied	88
Code: Solutions\Mode shift from driving\Encourage active transportation (walking, biking etc) Applied	9
Code: Solutions\Mode shift from driving\Encourage coordination of multimodal transportation Applied	7
Code: Solutions\Mode shift from driving\Encourage coordination of multimodal transportation\Park-n-Ride Applied	5
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service) Applied	68

Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Bus amenities Applied	3
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Bus only lanes (so bus faster) Applied	1
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Bus tracking information communication Applied	1
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Clear rules about services Applied	1
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Extend bus routes (more routes) Applied	24
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Extend bus routes (more routes)\more frequent stops Applied	5
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Inclusive services for different identities Applied	4
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Inclusive services for different identities\Make buses comfortable/respectful of people with disabilities Applied	2
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Make fare cheaper (or free) Applied	13
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\More friendly drivers Applied	1
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\More regular schedule Applied	4
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\More reliability in bus system Applied	5
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Run more frequent busses Applied	18
Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Safety and security at bus stops Applied	2

Code: Solutions\Mode shift from driving\Encourage people to take public transportation (see also TCAT expand rural service)\Support TCAT drivers Applied	7
Code: Solutions\Mode shift from driving\More housing near employment Applied	3
Code: Solutions\Mode shift from driving\More transportation services near housing complexes Applied	4
Code: Solutions\Mode shift from driving\Reduce cars Applied	11
Code: Solutions\More affordability Applied	6
Code: Solutions\More rules/regulations for Ubers/taxis Applied	1
Code: Solutions\More transportation for rural areas Applied	16
Code: Solutions\More transportation for rural areas\TCAT expand rural service Applied	15
Code: Solutions\Parking restrictions Applied	4
Code: Solutions\Passenger trains Applied	5
Code: Solutions\Personal vehicle related Applied	2
Code: Solutions\Personal vehicle related\Driving lesson help Applied	1
Code: Solutions\Reduce emissions Applied	7
Code: Solutions\Reduce sketchy activities - safer Applied	4
Code: Solutions\Reduce sketchy activities - safer\Ensure safety on public transport Applied	3
Code: Solutions\Transportation policies favorable to low income people Applied	9
Code: Solutions\Use water as part of transportation system Applied	2
Code: Strengths Applied	38
Code: Strengths\Bikeshare Applied	1
Code: Strengths\Car share Applied	7
Code: Strengths\Car share\Autonomy Applied	2
Code: Strengths\Car share\Efficient Applied	1
Code: Strengths\Car share\Good for the environment Applied	1
Code: Strengths\Car share\Proximity/convenience Applied	3
Code: Strengths\Cycling (in some areas) Applied	4
Code: Strengths\Cycling (in some areas)\Black Diamond Trail (BDT) Applied	1
Code: Strengths\Cycling (in some areas)\ebike Applied	1
Code: Strengths\Cycling (in some areas)\Efficient Applied	1
Code: Strengths\Gadabout/paratransit Applied	4
Code: Strengths\Gadabout/paratransit\Autonomy Applied	2
Code: Strengths\Gadabout/paratransit\Efficient Applied	2
Code: Strengths\Gadabout/paratransit\Proximity/convenience Applied	2

Code: Strengths\Gadabout/paratransit\Volunteer transportation Applied	1
Code: Strengths\Multiple/flexible options Applied	1
Code: Strengths\Needs are met Applied	4
Code: Strengths\No consequences of barriers Applied	1
Code: Strengths\Personal Car Applied	6
Code: Strengths\Personal Car\Autonomy Applied	3
Code: Strengths\Personal Car\Driving (is best way to get around) Applied	5
Code: Strengths\Rideshare (Taxi, Uber, Lyft) Applied	1
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Easy to use Applied	1
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Efficient Applied	1
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Proximity/convenience Applied	1
Code: Strengths\Rideshare (Taxi, Uber, Lyft)\Safe Applied	1
Code: Strengths\Rolling (skateboard, scooter etc.) Applied	1
Code: Strengths\Rolling (skateboard, scooter etc.)\Efficient Applied	1
Code: Strengths\TCAT Applied	12
Code: Strengths\TCAT\Affordable Applied	2
Code: Strengths\TCAT\Bus drivers are friendly/helpful Applied	3
Code: Strengths\TCAT\Easy to use Applied	1
Code: Strengths\TCAT\Proximity/convenience Applied	2
Code: Strengths\Walking Applied	2
Code: Strengths\Walking\Autonomy Applied	1
Code: Strengths\Walking\Healthy Applied	1
Code: Strengths\Walking\Proximity/convenience Applied	1
Code: What lives could be like if barriers removed Applied	35
Code: What lives could be like if barriers removed\Access to job/employment Applied	1
Code: What lives could be like if barriers removed\Autonomy/freedom/self determination Applied	12
Code: What lives could be like if barriers removed\Autonomy/freedom/self determination\Less dependent on others Applied	4
Code: What lives could be like if barriers removed\Autonomy/freedom/self determination\Mobility for teens (who can't drive) Applied	2
Code: What lives could be like if barriers removed\Be on time! Applied	7
Code: What lives could be like if barriers removed\Be on time!\Access to services/make medical etc appointments on time Applied	7

Code: What lives could be like if barriers removed\Be on time!\Access to services/make medical etc appointments on time\Access health care Applied	2
Code: What lives could be like if barriers removed\Be on time!\Access to services/make medical etc appointments on time\Shopping Applied	4
Code: What lives could be like if barriers removed\Better experience on bus Applied	3
Code: What lives could be like if barriers removed\Better experience on bus\Enjoyable activities Applied	1
Code: What lives could be like if barriers removed\Better health Applied	1
Code: What lives could be like if barriers removed\Cycle more/enjoy cycling Applied	3
Code: What lives could be like if barriers removed\Enjoy parks/nature more Applied	3
Code: What lives could be like if barriers removed\Feel more comfortable/relaxed/happy/stress-free Applied	6
Code: What lives could be like if barriers removed\Feel safe /be safe Applied	3
Code: What lives could be like if barriers removed\Less environmental pollution Applied	5
Code: What lives could be like if barriers removed\Less weather-dependent Applied	1
Code: What lives could be like if barriers removed\More equity Applied	3
Code: What lives could be like if barriers removed\More socializing/sense of belonging Applied	2
Code: What lives could be like if barriers removed\More socializing/sense of belonging\More self worth/self-esteem Applied	1
Code: What lives could be like if barriers removed\More socializing/sense of belonging\Road trips with family Applied	1
Code: What lives could be like if barriers removed\Wouldn't have to drive (learn to drive) a car (b/c other options) Applied	9
Code: What lives could be like if barriers removed\Wouldn't have to drive (learn to drive) a car (b/c other options)\when personal vehicle is not available Applied	1