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America at a Glance: Transportation Use During the Covid-19 Pandemic

University of Montana Rural Institute
RTC:Rural, scholarworks-reports@mso.umt.edu

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AMERICA AT A GLANCE: TRANSPORTATION USE DURING THE COVID-19 PANDEMIC AMONG DISABLED ADULTS IN RURAL AND URBAN AREAS



FACT SHEET

JANUARY 2023

Andrew Myers



KEY POINTS

- Transportation use declined significantly during the COVID-19 pandemic compared to pre-pandemic years.
- Transportation use disparities between disabled and non-disabled people persisted across time.
- While disabled adults in urban areas reported some rebounds in transportation use in 2021, disabled adults in rural areas continue to report decreases.



rtcrural@mso.umt.edu
umt.edu/rural-disability-research/



(800) 732-0323

Rural Institute
UNIVERSITY OF
MONTANA

BACKGROUND



Transportation is an important part of community living. For example, most people use transportation to go to work, pick up groceries, access healthcare, attend church, meet with friends or family, and participate in many other social and economic activities. However, disabled people experience more limited access to transportation compared to their non-disabled peers,¹ which can limit opportunities for community engagement and lead to social isolation.^{2,3} For example, more than 3.6 million Americans with travel-limiting disabilities don't leave their homes.⁴

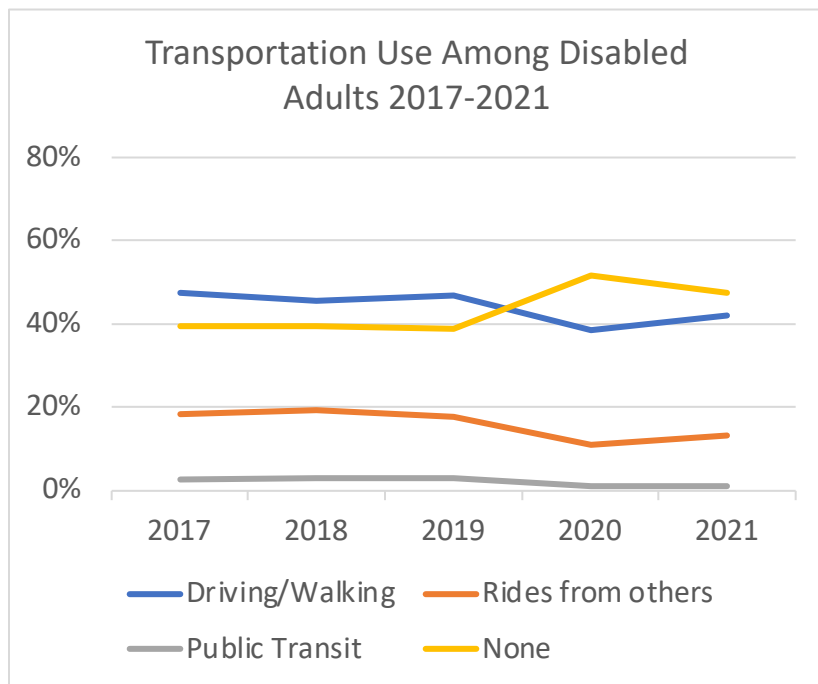
The COVID-19 pandemic fundamentally changed how people engaged in their communities and impacted how people used transportation. While it is clear that people with disabilities significantly reduced their transportation use during this time,^{5,6} there is scant evidence about how this varied in rural and urban areas. We used 2017-2021 data from the American Time Use Survey (ATUS) to explore transportation use among disabled adults (aged 18+) in rural and urban areas across the United States. Specifically, we used un-weighted data to explore how use of various transportation modes differed across years from 2017 through 2021. The ATUS includes data about what people did, where they were, and who they were with. Respondents could report using multiple types of transportation throughout the day. Individuals who did not use any transportation were classified as "no transportation." Disability status was measured using the ACS-6 question set,⁷ where anyone who responded "yes" to at least one item was classified as disabled. All data were downloaded using IPUMS American Time Use Survey Data Extract Builder.⁸

DISABLED AND NON-DISABLED PEOPLE REPORTED LESS TRANSPORTATION USE DURING THE PANDEMIC



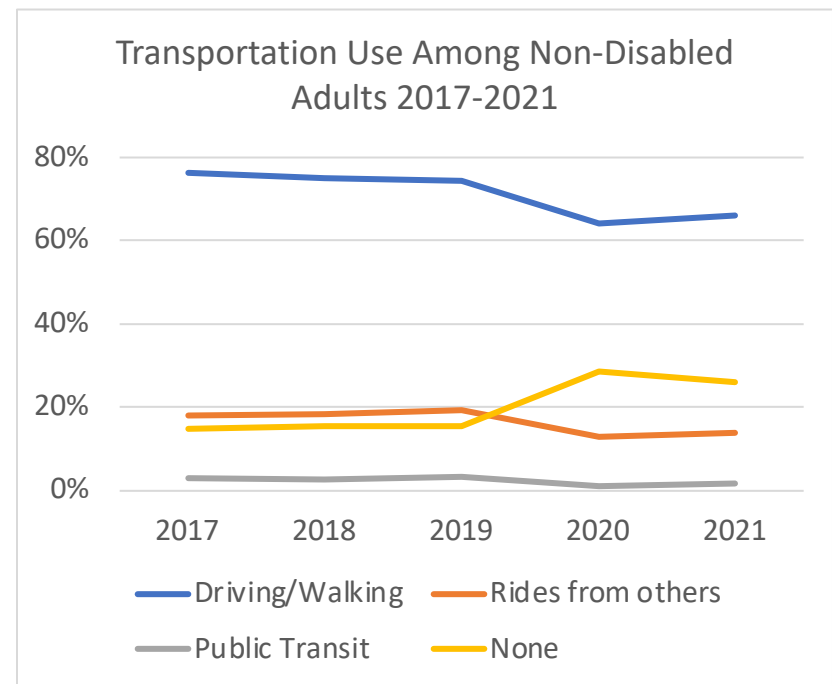
In general, disabled adults reported significant decreases in transportation use (driving/walking, rides from others, public transit) and significant increases in "no transportation" between 2019 and 2020. Disabled adults reported a slight increase in transportation use between 2020 and 2021; however, it remained lower than pre-pandemic levels. Overall, approximately half of people with disabilities reported no transportation use in 2020 and 2021 compared to 40% in prior years (Figure 1). This year-to-year trend is similar among non-disabled adults, albeit with greater differences in prevalence (Figure 2). For example, "no transportation" among adults without disabilities peaked in 2020 at approximately 29%, up from about 18% in prior years. Interestingly, the proportion and variance of people getting rides from others is very similar among disabled and non-disabled adults across all years.

Figure 1. Transportation use among disabled adults, 2017-2021



Note: Year-to-year differences in 2019, 2020, and 2021 are statistically significant ($p \leq .001$).

Figure 2. Transportation use among non-disabled adults, 2017-2021

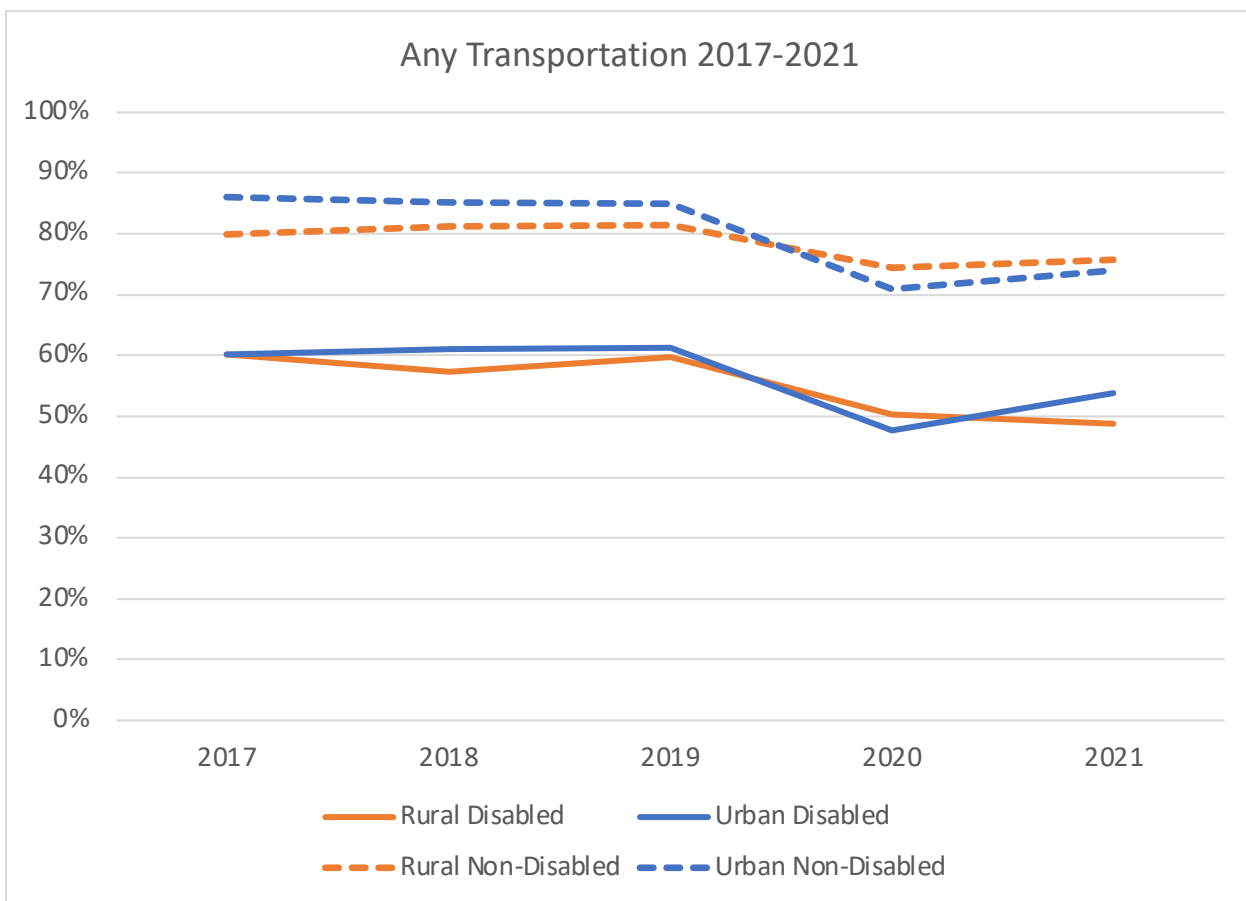


Note: Year-to-year differences in 2019, 2020, and 2021 are statistically significant ($p \leq .001$).

DISPARITIES BETWEEN DISABLED AND NON-DISABLED PEOPLE PERSISTED

While both disabled and non-disabled adults reported reduced use of transportation from 2019 through 2020, people with disabilities continued to report less transportation use compared to people without disabilities. Figure 3 shows this trend in both urban and rural areas. Overall, there is an approximate 20 percentage-point difference in transportation use between disabled and non-disabled adults, which continued to persist throughout the pandemic.

Figure 3. Any transportation use among rural and urban respondents by disability status, 2017-2021



TRANSPORTATION USE IN RURAL AREAS CONTINUES TO DECLINE

Table 1 reports transportation use among rural and urban disabled adults by mode from 2017 to 2021. While transportation use was relatively stable between 2017 and 2019, there were obvious declines during 2020 followed by some rebounds in 2021, particularly for urban disabled adults. In urban areas, transportation use significantly differed across all transportation types while in rural areas, only rides from others and no transportation were significantly different. Further differences show transportation use in rural areas lagged behind urban areas. For example, urban residents reported decreased rides from others in 2020 (10.5%) and then an increase in 2021 (14.1%), while rural residents continue to report decreasing rides in 2020 (14%) and into 2021 (10.2%). Additionally, the proportion of respondents who didn't use any transportation increased dramatically in 2020 in urban areas (52.3%), but then declined in 2021 (46.3%), while in rural areas this number continued to increase in 2020 (49.6%) and into 2021 (51.3%).

Table 1. Transportation use among disabled adults in rural areas by mode, 2017-2021

Disabled (Urban)

Transportation Mode	2017 (978)	2018 (1024)	2019 (933)	2020 (891)	2021 (913)
Driving/Walking***	46.8%	45.9%	47.5%	38.4%	42.3%
Rides from others***	18.6%	19.5%	16.8%	10.5%	14.1%
Public Transit***	3.1%	3.4%	3.6%	1.3%	1.2%
None***	39.8%	39.0%	38.7%	52.3%	46.3%

Table 1.1 Transportation use among disabled adults in urban areas by mode, 2017-2021

Disabled (Rural)

Transportation Mode	2017 (274)	2018 (257)	2019 (236)	2020 (228)	2021 (226)
Driving/Walking	48.9%	44.0%	43.6%	39.0%	42.0%
Rides from others*	16.8%	17.5%	20.3%	14.0%	10.2%
Public	1.8%	0.8%	0.8%	0.0%	0.9%
None*	39.8%	42.8%	40.3%	49.6%	51.3%

Note: Asterisks denote statistically significant differences across years.

*** indicates $p \leq .001$;

* indicates $p \leq .05$.

LIMITATIONS



There are several limitations to these findings, and they should be interpreted with caution.

First, these data do not include any information about transportation availability, only transportation use. This means that we cannot determine the reasons for lack of transportation. For example, perhaps transportation was available, but they chose not to leave home due to bad weather or a family event at home.

Second, many businesses and organizations were closed or had reduced hours to limit COVID-19 community infections. These analyses did not account for contextual factors such as these at the local level, which would likely impact transportation use.

Third, we used unweighted data, which may be imprecise. Data collection during the pandemic was significantly disrupted. For example, the American Time Use Survey was not conducted between March 18 and May 9, 2020. This means that the 2020 ATUS data represent only 10 months rather than the typical 12 months. This also means that the weighted 2020 data are not compatible with prior years of weighted data.⁹ For these reasons, we chose to use unweighted data.

CONCLUSION



These findings describe how transportation use among disabled adults in rural and urban areas differed before and during the COVID-19 pandemic. Specifically, we found that about half of disabled adults reported no transportation use during the pandemic compared to about 40% in pre-pandemic years, representing a 10 percentage-point decrease in transportation use. In rural areas, transportation use changed slower than in rural areas, but continues to decline into 2021.

The lagged trends in rural transportation use, relative to urban, could be partially explained by COVID-19 infections. Early in the pandemic, COVID-19 infections were primarily centered in urban areas.¹⁰ However, by the end of 2020, the worst outbreaks (measured as infections per capita) were located in some of the most rural counties in America,¹¹ indicating the epicenter had shifted from urban areas to rural.¹² This may be one explanation for why rural people with disabilities continue to report lower transportation use relative to urban people with disabilities.

Future studies should continue tracking how transportation use changes year-to-year to better understand how global phenomena, such as a health crisis, impacts transportation use in rural and urban areas for people with disabilities.

CITATION



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FOR ADDITIONAL INFORMATION

Research and Training Center on Disability in Rural Communities

The University of Montana Rural Institute for Inclusive Communities
Rm 253 Corbin Hall, Missoula, MT 59812-7056

(800) 732-0323

rtcrural@mso.umt.edu

www.umt.edu/rural-disability-research/

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