

Impact of Racial Disparities in Transportation Access on Older Adults in Chatham County

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Abstract

Access to convenient and reliable transportation is a vital concern for many older adults as they age. This concern does not, however, impact older adults evenly across racial and ethnic lines. Older adults of color have more limitations on access to transportation as they age than their white counterparts. Though senior centers and agencies on aging may help facilitate transit and paratransit options to help older adults access services and supports (including senior center activities), these programs can have limitations in accessibility, spontaneity and client agency, which may contribute to segregation in accessibility to and participation in programs and services along racial lines. A look at the impact of transportation access disparities among participants in one local senior center reflects disparities in on-site and off-site enrichment and wellness program accessibility. These differences in enrichment and wellness program accessibility could have potentially negative impacts and outcomes on physical and mental health, which could deepen existing disparities in aging outcomes. While there are certainly a number of factors at play in creating better integrated, inclusive and equitable services for seniors, identifying disparities in the need for and provision of transportation services could help in addressing these demographic gaps. Research and data were collected from scholarly journals, organizational reports, the Chatham County (NC) Aging Plan, and first-hand accounts of client participation and transportation impacts from relevant members of the Chatham County Council on Aging (NC) staff.

Keywords: older adults, transportation access, racial disparities, minority seniors

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While the ability to drive safely is a key component to independence as an adult, there are a number of age- and economic-related changes that can lead to driving cessation. Every “year hundreds of thousands of older drivers across the country [cease] driving...and...becom[e] transportation dependent” (Foley et al., 2002). As adults age, factors such as “the onset and progression of medical conditions that affect visual, physical, and cognitive functioning” have an impact on “driving skill” (Foley et al., 2002). Additionally, an increase in “driving errors” connected with even non-disordered aging—including changes in reaction time, dexterity, eye sight and range of motion—can create a need for older drivers to hand the keys over for good out of concern for their safety and the safety of other drivers and pedestrians on the road (Ang et al., 2019, Vichitvanichphong et al., 2015).

In addition to the impact of aging on safe driving, economic status has an impact on access to a reliable vehicle to drive while still able to drive safely, as well as an impact on access to transportation alternatives after age-related driving cessation. “For [older adults] living on fixed incomes, the costs of owning, maintaining, and operating a motor vehicle can be prohibitive.... Furthermore, low-income elderly have less means available to pay for alternative transportation” (Carp as cited in Adler & Rotunda, 2006). While an individual may be able to rely on “informal” transportation support, such as rides from “family and friends who live nearby and can drive,” or more formal, but still low-cost or free options such as “community-sponsored or church-sponsored van services,” other options such as “public transportation... [and] taxis” or rideshare apps such as UBER and Lyft have fees associated with their use (Foley et al., 2002). Given that once older adults cease driving independently, “men will have about 6 years of dependency on alternative sources of transportation... and [women will have] 10 years of

[transportation] dependency,” these costs, both financial and personal, have long term implications (Foley et al., 2002). Sadly, “many [older adults who have friends or family could drive them] were fearful of becoming a burden” to their loved ones, which reduced the frequency of asking for help with transportation needs. (Adler & Rottunda, 2006).

Race-based factors are also important to take into account when identifying and addressing transportation needs of older adults. In a 2020 study on older adults, driving restriction and driving cessation, “nonwhite respondents had almost 29% higher odds of [driving restriction] versus full driving, and 144% higher odds of [driving cessation] versus full driving, compared to white respondents” (Vivoda...2020). When comparing older white adults and older Black adults more specifically, “older Blacks are less likely than older Whites to be current drivers” (Choi et al., 2012). Additionally, “racial disparities in likelihood of driving cessation widen with increasing age” (Choi et al., 2012).

In the report “Everybody Rides: Transportation Access for Culturally and Ethnically Diverse Elders,” it is noted that “close to 40% of each group [of non-white elders]—African-American, Hispanic, and Asian—do not drive, whereas only about 16% of Caucasian older adults do not” (National Center on Senior Transportation, 2011).

These disparities in rates and the likelihood of driving cessation by race suggest that non-white older adults will require additional transportation supports beyond the needs of older white adults, especially in the coming years.

Even in areas with broad public transportation availability, vehicles that are not equipped for older riders with mobility issues and other “physical impairments” can make that transportation inaccessible (Adler & Rottunda, 2006). “Furthermore, the fixed schedules of public transportation do not offer the convenience of a private automobile. As noted by Mrs. R, a

suburban participant [in Adler and Rottunda's study], 'I don't take public transportation because I can't get to it and don't do it alone because I am not stable enough'" (2006).

While a number of aging services programs across the country offer accessible transportation options—including paratransit programs—that address passenger accessibility for those with mobility issues and assistive equipment, while also providing assistance with funding to offset financial need, scheduling limitations of those programs can reduce autonomy and access to supports, both social and otherwise (Adorno et al. 2016).

A look at one local program's work and limitations on this front can be instructive. The Chatham County Council on Aging in Chatham County, North Carolina provides transportation services to its clients for medical appointments and treatments, as well as for access to congregate meals and activities. This paper will focus on the congregate meal transportation program specific to the Eastern Chatham Senior Center (one of the agency's two senior centers) during pre-COVID-19 times to provide a closer look at racial disparities in transportation accessibility for older adults and to provide a jumping off point for identifying and addressing the long-term implications of those gaps in equity.

Methods

In order to locate background information on transportation access after driving cessation for older adults, as well as information related to outcomes of cessations and racial disparities both before and after cessation, I engaged in a literature search using the EBSCO Academic Search Complete set of databases via the UNCG Library website. I used a combination of Boolean keywords related to older adults, seniors, transportation, racial disparities, senior centers, etc. to narrow my search to relevant literature.

For a case example of local senior center demographics and program usage by racial

breakdown, I accessed demographic information on file at the Chatham County Council on Aging through my role as an employee at the agency. I also engaged in a phone interview with the current Activities and Fitness Coordinator at the Council on Aging's Eastern Chatham Senior Center in order to learn about program participation and access at that center, specifically, and the Council as a whole, based on race and transportation availability. As the Council was currently undergoing a software export to a new system, information had to be collected from the interview process rather than from raw data, as well as from my own hands-on experience at the agency, including participating in grant reporting for transportation-related funding and services.

Additional searches were conducted via the Google search engine for additional facts and figures from state and local government sources, as well as from organizations that serve and advocate for older adults in the United States, including the Chatham County North Carolina 2018-2023 Aging Plan and other relevant documents.

Findings

The Chatham County Council on Aging is a nonprofit agency in Chatham County, North Carolina serving residents age 60 and older, as well as their families and informal caregivers across a county that stretches over 700 square miles (Chatham County Council on Aging, n.d., Chatham County North Carolina, n.d.). The agency has two senior centers hosting administrative offices, kitchen and dining areas, activity rooms and day activities, one in Pittsboro, North Carolina and one in Siler City, North Carolina. When the centers are fully operational (in non-COVID-19 response times), they each host exercise programs, small group social activities and clubs, congregate hot lunch, well-equipped fitness rooms, and other programs and services, including assistive equipment loans, caregiver respite, in-home aide, medical transportation, Meals on Wheels and more (Chatham County Council on Aging, n.d.).

While a number of participants are able to drive themselves to activities at the centers or get a ride from family or friends, a number of participants require transportation services through the Council on Aging to carry them from their homes to their “home” senior center to attend congregate activities and hot lunch service (Chatham County Council on Aging, n.d.).

While Chatham County’s overall population is 14% minority, the Council on Aging’s congregate nutrition program services are 56% minority clientele, with 49% of all congregate nutrition program participants being at or below poverty level (Chatham County Council on Aging, 2019). Though it is not as stark of a contrast as between the County as a whole and the congregate members served, the Chatham County Council on Aging’s overall client base is 47% minority, with 45% of all clientele being at or below poverty level (Chatham County Council on Aging, 2019).

The Council’s Eastern Center Activities and Fitness Coordinator, Jackie Green, offered a look at the typical day-to-day experience for congregate members who require transportation services to participate in activities compared to that of those who had their own transportation (either driving independently or getting a ride from a friend or family member). Both centers open at 8:00 am and close at 5:00 pm, Monday through Friday. Before congregate transportation buses arrive at the Eastern Center, the center’s activities are well under way and the fitness room is open and available for use. Exercise classes are taking place, as well as other activities, such as the once per week men’s meet-up called the 3Gs (Westervelt, 2020).

The transportation buses, which are chartered through a contract with local transit/paratransit provider, Chatham Transit (which has a fleet of wheelchair and mobility-friendly buses and vans), arrive at the center with congregate participants between 9:15 am and 10:15 am each weekday. Arrival time is not always consistent from one day to another and often

depends on the route, the driver, and any missed stops that may have happened along the way.

Ms. Green noted that depending on what time participants arrive at the Eastern Chatham Senior Center via Chatham Transit bus, they may have missed at least one or two of the center's available morning wellness programs or activities. "We couldn't count on the buses [arriving] before 10 am," she shared, adding that "even if we started [a program or activity] at 10 [am], sometimes the buses were not on time" (Westervelt, 2020).

Once congregant clients arrived at the center, they could participate in activities from 10 am until 12 noon, including some exercise classes and a daily interactive educational or enrichment program, such as storytellers, guest speakers, science and health presentations, trivia and bingo games, and occasional multi-generational offerings in cooperation with the Chatham Community Library located next door. Lunch was served at 12 noon and buses began departing at 12:20 pm to return congregate participants to their homes.

Any day trips beyond the center's day to day offerings frequently extended past the afternoon lunch time, with participants returning to the center after congregate buses had already taken participants home for the afternoon. Because of this, those who relied solely upon congregate transportation to participate in center activities could not participate in these excursions, which included monthly "Lunch Bunch" outings to local restaurants, day trips to Raleigh, North Carolina, and the like.

In addition to missing out on day trips, few congregate participants engaged in use of the fitness rooms when they were at the center for daily activities, as Green notes that they "chose to prioritize socializing, instead," given the short time frame of their stay at the center each day before having to return home on the bus (Westervelt, 2020).

Demographically, while there were white congregate transportation clients, the majority

of the congregate participants reliant on Council-provided transportation were Black. This demographic difference in transit rider vs. independent transportation user (e.g. independent driver or reliant on family or friends) has made a visible difference in the racial demographics of the class roster in each of the daily programming offerings, in relation to transport departure and arrival times and availability.

In classes that began before congregate transportation regularly arrived for the day, white participants regularly outnumbered Black participants. For example, in the morning Arthritis Foundation exercise classes that started before congregate arrival, out of a class of 18 people, only one participant was non-white (6% versus the 56% minority makeup of congregate as a whole) (Chatham County Council on Aging, 2019). For the “Lunch Bunch” outings, which did not offer a return trip home for congregate participants who typically rode the Chatham Transit bus, out of 20-22 participants, only 4-5 would be African-American (20% minority versus the 56% minority makeup of congregate participants as a whole) (Chatham County Council on Aging, 2019).

Other afternoon groups, such as the hiking group and health and wellness meet-ups were predominantly white in attendance, as was the mixed media art class, for which, according to Ms. Green, one African-American participant from the congregate transportation group would pay Chatham Transit directly for his own separate ride back home so that he could stay and participate (Westervelt, 2020).

Given the high number of Council on Aging participants who live at or below the poverty line, funding transportation out of pocket was not accessible to all. Chatham Transit fares within Chatham County are shown in the table below. The service also requires “reservations [to be made] 48 hours in advance” (Chatham Transit, n.d.). Between the need for reservations and the

cost of fares, spontaneity is compromised, as is affordability.

Table 1

Chatham Transit In-County Fare Schedule

Distance Traveled	Fare
0 to 5 miles	\$2.00
5 to 10 miles	\$4.00
10 to 20 miles	\$7.00
20 or more miles	\$3.00 for each 10 mile increment

(Chatham Transit, n.d.)

Unlike independently-booked fares through Chatham Transit, the Chatham County Council on Aging's congregate transportation to and from the center for regularly scheduled weekday programs was provided to congregate clients free of charge (with the option for client contributions if the participant could afford to do so and chose to do so). While free transportation certainly eases the financial burden of obtaining transportation to participate in social and educational events and to get a hot meal, unfortunately, full agency and autonomy is not possible within the current transportation model. Transportation to the center is based on route availability. While a participant who falls on one of the available routes could choose which combination of Monday through Friday days they would like to come to the center (based on activities and meals of choice and other aspects of their personal schedules), the participant may be turned away from a program on a day they wish to join if the bus is too full on the desired day or if there were not enough participants to warrant the creation of a new, full route.

In addition to day to day activities, for popular special events the Council put on, such as the annual Black History Celebration, Thanksgiving Celebration, Salute to Veterans Event, and Healthy Heart and Body Day, which require transportation not only to the center, but also

between centers and/or to outside venues, participants could find themselves turned away due to lack of transportation seating.

Given the demographics of those most in need of transportation assistance through the Council on Aging, these limits on transportation flexibility and availability appear to disproportionately impact the non-white senior center participants ability to join in on a full range of events and programs compared to their more transportation-independent counterparts. These circumstances work to limit agency, as well as opportunities to connect beyond an inadvertently race-segregated cohort of Council on Aging clients, particularly at the Eastern Chatham Senior Center. Class considerations also come into play, given the percentage of congregate participants who are at or below poverty level.

Unfortunately, these disparities in transportation access can have a long-term impact on client health and well-being. A 2002 report in the American Journal of Public Health noted that the cessation of driving independently “may have consequences such as depressed mood and less social engagement due to loss of mobility” (Foley et al., 2002). In addition to mental and social health, “the association between driving cessation and poor physical functioning was strong in longitudinal studies even after adjusting for sociodemographic factors and baseline health,” as was the rate of “cognitive decline over a 10-year period” (Chichuri et al., 2016).

“[T]he impact of not driving typically leads to increased isolation,... [a reduction in] keep[ing] medical appointments (by 15%), [a reduction in] grocery shopping (by 59%), and [a reduction in] be[ing] socially engaged through visits with friends and family and participation in religious and civic activities (65% fewer trips)” (National Center on Senior Transportation, 2011).

As one Chatham County, North Carolina community survey respondent noted in the

county's 2018-2023 Aging Plan report, "Once people cannot drive their car anymore it is hard to get around. Whether it is for medical visits or grocery shopping. Isolation and loneliness is the result" (Chatham Aging Plan Steering Committee, 2017).

"Many [older adults who were no longer able to drive] felt an overwhelming loss of independence" (Adler & Rottunda, 2006).

"As noted by Mr. X, a rural participant [in Adler and Rottunda's study], 'When [you] stop driving, you become [a] prisoner. Have to adhere to other people's schedule[s] to get what I want. Don't have the freedom'" (2006).

On top of these stressors, inability to attend special holiday events (such as the ones held by the Council on Aging) due to transportation limitations can exacerbate mental health challenges due to isolation around the holidays and as noted previously, lack of access to appropriate health, wellness, and social outlets can create reduction in well-being, which can then compound existing inequities.

Given the racial disparities in transportation access, the intersection between race disparities and the negative outcomes of driving cessation in older adults creates what Vivoda, et al. cites as "cumulative disadvantage," which "is associated with poorer psychological and physical health outcomes, as well as many other negative factors" (Vivoda et al., 2020).

The American Psychological Association notes that "limited access to community resources... significantly contributes to the experience of race-related stress and creates barriers to achieving healthy and productive aging" (Adomako, n.d.).

While the goal of funding transportation programs at the Chatham County Council on Aging and many similar organizations is to improve access for older adults to health, wellness, nutritional, and social supports in the community, racial disparities limit the scope of achieving

that goal.

Though transportation availability and flexibility at the Chatham County Council on Aging are currently limited by budget and route availability, consideration should be paid to identifying stable alternatives to increase transportation flexibility and availability. Doing so would increase participant agency and address unintentional racial disparities in ability to participate in all aspects of programming at and beyond the Council's two centers.

“[Transportation disparities have] important policy and programmatic implications as the U.S. older population will continue to grow more racially and ethnically diverse” (Choi et al., 2012).

Laying the proper groundwork now will improve the ability of the transportation system to address greater needs in the coming years, especially as baby boomers age. In doing the work to improve the system, it is vital to “recogn[ize] the intersectionality of race, ethnicity and gender when examining disparities in transportation mobility and subsequent relationships to health disparities” (Adorno et al., 2016).

References

- Adler, G. and Rottunda, S. (2006). Older adults' perspectives on driving cessation. *Journal of Aging Studies*, 20(3), 227-235. <https://doi.org/10.1016/j.jaging.2005.09.003>
- Adomako, F. (n.d.) African Americans Older Adults and Race-Related Stress, *American Psychological Association*. <https://www.apa.org/pi/aging/resources/african-american-stress.pdf>
- Adorno, G., Fields, N., Cronley, C., Parekh, R., and Maguder, K. (2018) Ageing in a Low Density Urban City: Transportation mobility as a social equity issue. *Ageing & Society*, 38, 296-320. doi:10.1017/S0144686X16000994
- Ang, B.H., Jennifer, O., Chen, W.S., and Lee, S.W.H. (2019). Factors and challenges of driving reduction and cessation: A systematic review and meta-synthesis of qualitative studies on self-regulation. *Journal of Safety Research*, 69, 101-108.
<https://doi.org/10.1016/j.jsr.2019.03.007>
- Chatham County Aging Plan Steering Committee. (2017). *Chatham County Aging Plan: 2018-2023*. https://chathamcouncilonaging.org/wp-content/uploads/Final-Interactive-Aging-Plan_5-11.pdf
- Chatham County Council on Aging. (2019). *Client Profile by Service and Year*. [Fact Sheet].
- Chatham County Council on Aging. (n.d.) *Services*. <https://chathamcouncilonaging.org/services/>
- Chatham County North Carolina. (n.d.) *About Us*. <https://www.chathamnc.org/about-us>
- Chatham Transit. (n.d.). *In-County Service*. <https://chathamtransit.org/in-county-service/#fares>
- Chihuri, S., Mielenz, T., DiMaggio, J., Betz, M., DiGuseppi, C., Jones, V., and Li, G. (2016). Driving Cessation and Health Outcomes in Older Adults. *Journal of the American Gerontological Society*, 64(2), 332-341.

<https://doi-org.libproxy.uncg.edu/10.1111/jgs.13931>

Choi, M., Mezuk, B., Lohman, M. C., Edwards, J. D., & Rebok, G. W. (2012). Gender and Racial Disparities in Driving Cessation Among Older Adults. *Journal of Aging and Health*, 25(8_suppl), 147S-162S. <https://doi-org.libproxy.uncg.edu/10.1177/0898264313519886>

Foley, D.J., Heimovitz, H.K., Guralnik, J.M., and Brock, D.B. (2002). Driving Life Expectancy of Persons Aged 70 Years and Older in the United States. *American Journal of Public Health*, 92(8), 1284-1289. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447231/>

National Center on Senior Transportation. (2011). *Everyone Rides: Transportation Access for Culturally and Ethnically Diverse Elders*. <https://www.aarp.org/content/dam/aarp/livable-communities/old-learn/transportation/everyone-rides-transportation-access.pdf>

Vichitvanichphong, S., Talei-Khoei, A., Kerr, D., and Ghapanchi, A.H. (2015). What Does Happen to Our Driving When We Get Older? *Transport Reviews*, 35(1), 56-81. <http://dx.doi.org/10.1080/01441647.2014.997819>

Vivoda, J.M., Walker, R.M., Cao, J., and Koumoutzis, A.(2020) How Accumulated Wealth Affects Driving Reduction and Cessation. *The Gerontologist*, 60(7), 1273-1281. <https://doi-org.libproxy.uncg.edu/10.1093/geront/gnaa039>
<https://academic-oup-com.libproxy.uncg.edu/gerontologist/article/60/7/1273/5826517#>

Westervelt, K. (2020). *Interview with Jackie Green*. [Unpublished Interview].