A Scan of Transportation Options Available for Older People in Massachusetts

Beth Dugan PhD, Nina Silverstein PhD, Bon Kim, ShuangShuang Wang PhD, Natalie Pitheckoff, Shiva Prisad, Kusum Jasuja, Kunyu Zhang

Gerontology Institute
John McCormack School of Policy and Global Studies
The University of Massachusetts Boston

Report for the Tufts Health Plan Foundation
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Background

The Governor's Council to Address Aging Issues in Massachusetts established workgroups to focus on several key areas: caregiving, employment, housing, and **transportation.** The transportation workgroup recognized that to make informed recommendations it needed a thorough understanding of the transportation services available to older people in Massachusetts. The first step was to conduct a scan of transportation services in the state and to learn more about national best practices.
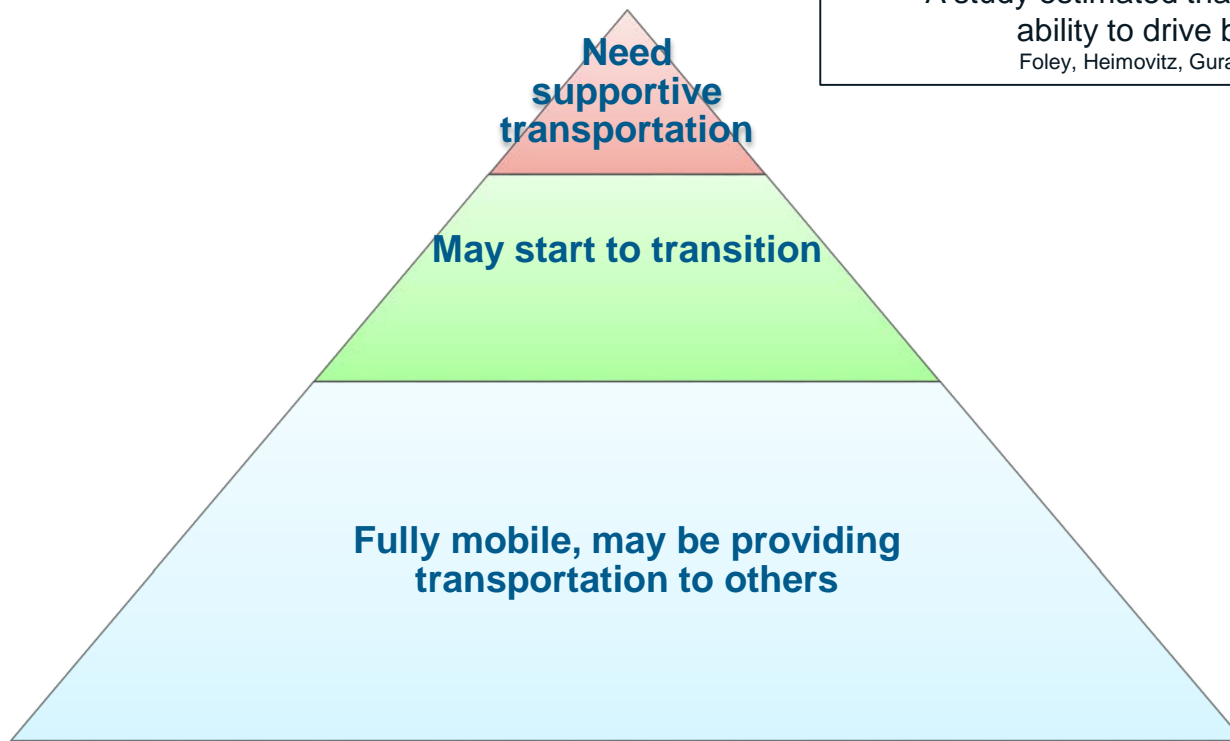
Researchers at the University of Massachusetts Boston Gerontology Institute conducted the scan during the spring of 2018 with the financial support of the Tufts Health Plan Foundation. This document highlights findings and national best practices. More detailed information is available in the project report.

Questions, ideas, or suggestions? contact beth.dugan@umb.edu.

This pyramid below depicts the heterogeneity of the older population and underscores the reality that there isn't a single transportation problem *or* solution.
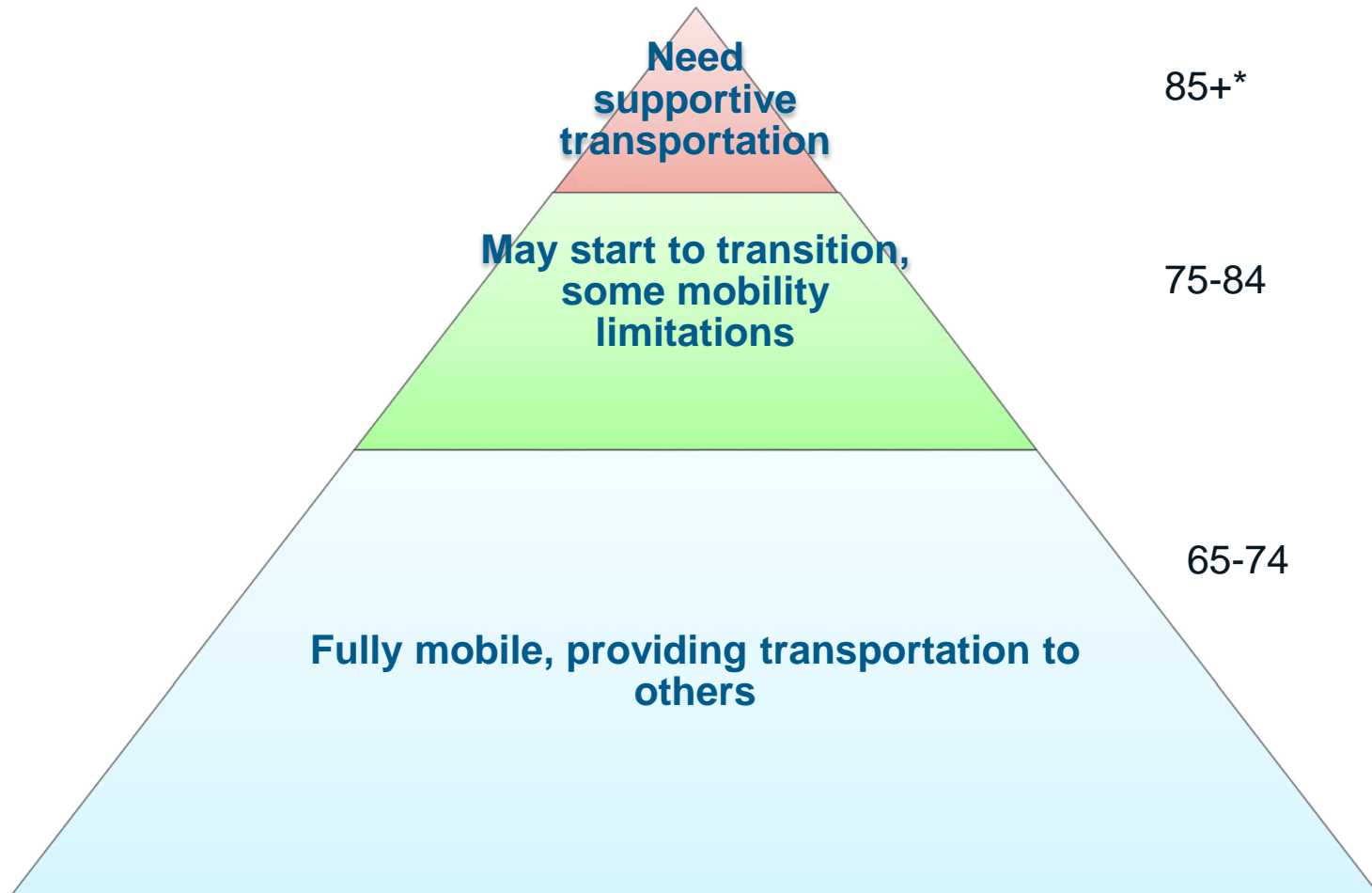
- The largest population group (**blue layer)** represents older adults who are fully mobile and may provide rides to others.
- The **green** population group represents older people with some mobility limitations who are starting to transition to more supportive transportation options.
- The red population group represents adults who need fully supportive transportation options.

A study estimated that we may outlive our ability to drive by 7-10 years.
Foley, Heimovitz, Guralnik, & Brock, 2002.

Need supportive transportation

May start to transition

Fully mobile, may be providing transportation to others

*Age is **not** an accurate marker of driving fitness.

We include it below to illustrate the potential size of population groups needing various types of transportation services.
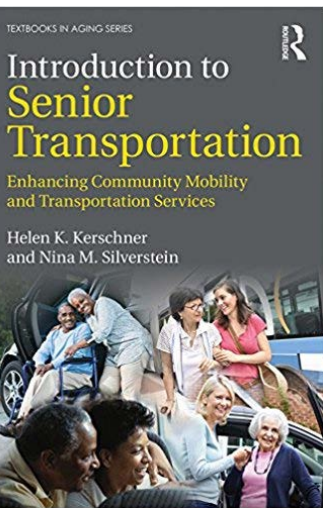
Need supportive transportation

85+*

May start to transition, some mobility limitations

75-84

65-74

Fully mobile, providing transportation to others

The continuum of need and services

Supportive Transportation

Drive personal vehicle or use public transit

Transit stop

Taxi

Curb-to-curb

Paratransit services

Door-to-door

Volunteer driver programs

Door-thru-door

Medical escort, ambulance

Stay at destination

TEXTBOOKS IN AGING SERIES

Introduction to Senior Transportation

Enhancing Community Mobility and Transportation Services

Helen K. Kerschner and Nina M. Silverstein

Concept drawn from Kerschner & Silverstein, 2018

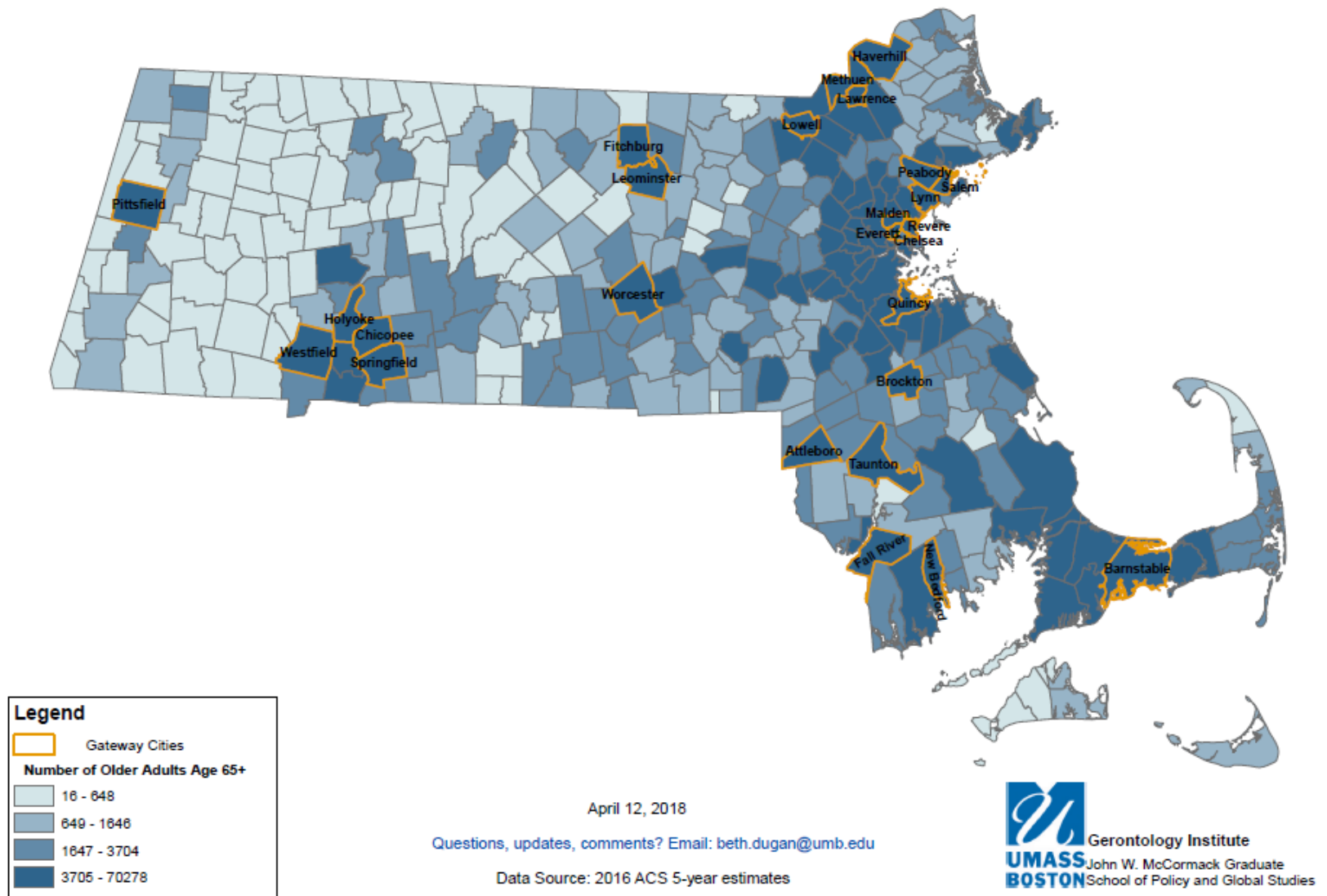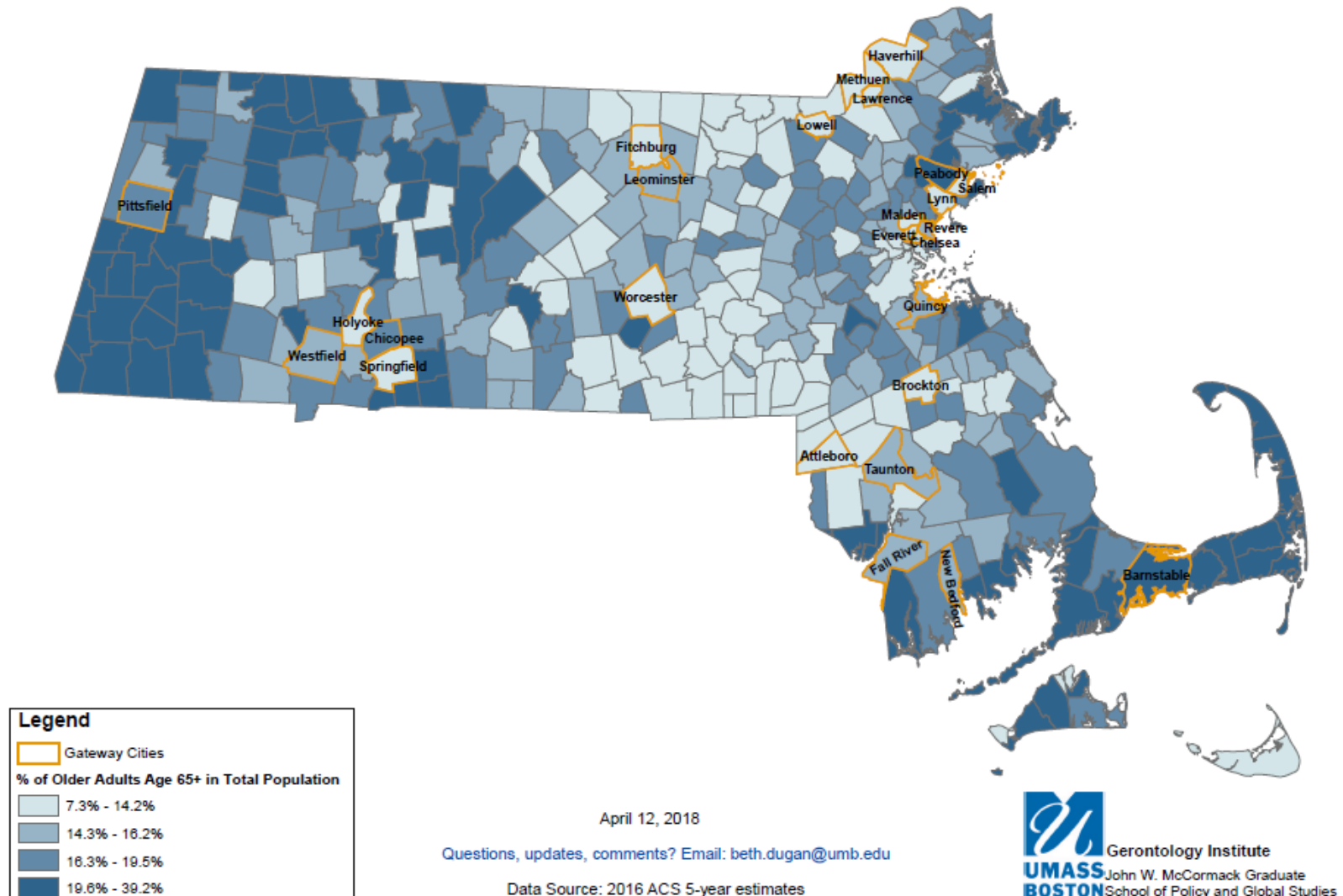Massachusetts has 26 *Gateway Cities* that anchor regional economies across the state. As seen below, most gateway cities are shaded dark blue which indicates a large number of older people (3,705 - 70,278).

Gateway Cities and Number of Older Adults Age 65+ by Communities in Massachusetts

Haverhill
Methuen
Lawrence
Lowell
Fitchburg
Leominster
Peabody
Salem
Lynn
Malden
Revere
Everett
Chelsea
Pittsfield
Worcester
Quincy
Holyoke
Chicopee
Westfield
Springfield
Brockton
Attleboro
Taunton
Fall River
New Bedford
Barnstable

Legend

Gateway Cities

Number of Older Adults Age 65+

	16 - 648
	649 - 1646
	1647 - 3704
	3705 - 70278

April 12, 2018

Questions, updates, comments? Email: beth.dugan@umb.edu

Data Source: 2016 ACS 5-year estimates

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This map shows the percentage of community residents who are older people (65+). Many of the gateway cities have large percentages of younger residents, somewhat offsetting the older population. Exceptions include Barnstable and Peabody.

Gateway Cities and Percentage of Older Adults Age 65+ by Communities in Massachusetts

Legend

Gateway Cities

% of Older Adults Age 65+ in Total Population

- 7.3% - 14.2%
- 14.3% - 16.2%
- 16.3% - 19.5%
- 19.6% - 39.2%

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Data Source: 2016 ACS 5-year estimates

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Methods

- The research team included 7 graduate gerontology students and two faculty members. Data were abstracted from existing sources (www.massridematch.org, alltransit.cnt.org, instatacart.com, peapod.com, etc.) and supplemented with web searches. Data were then merged with select files from the MA Healthy Aging Data Report (www.healthyagingdatareports.org).

- We mapped services available for each MA community, adding layers related to population characteristics and calculated access (total and per capita).

- In addition, telephone interviews were conducted with a sample of Regional Transit Authority leaders and key stakeholders about what services worked well, what gaps or problems they encountered.

- Finally, we queried leaders in senior transportation from across the nation to identify promising programs or best practices.
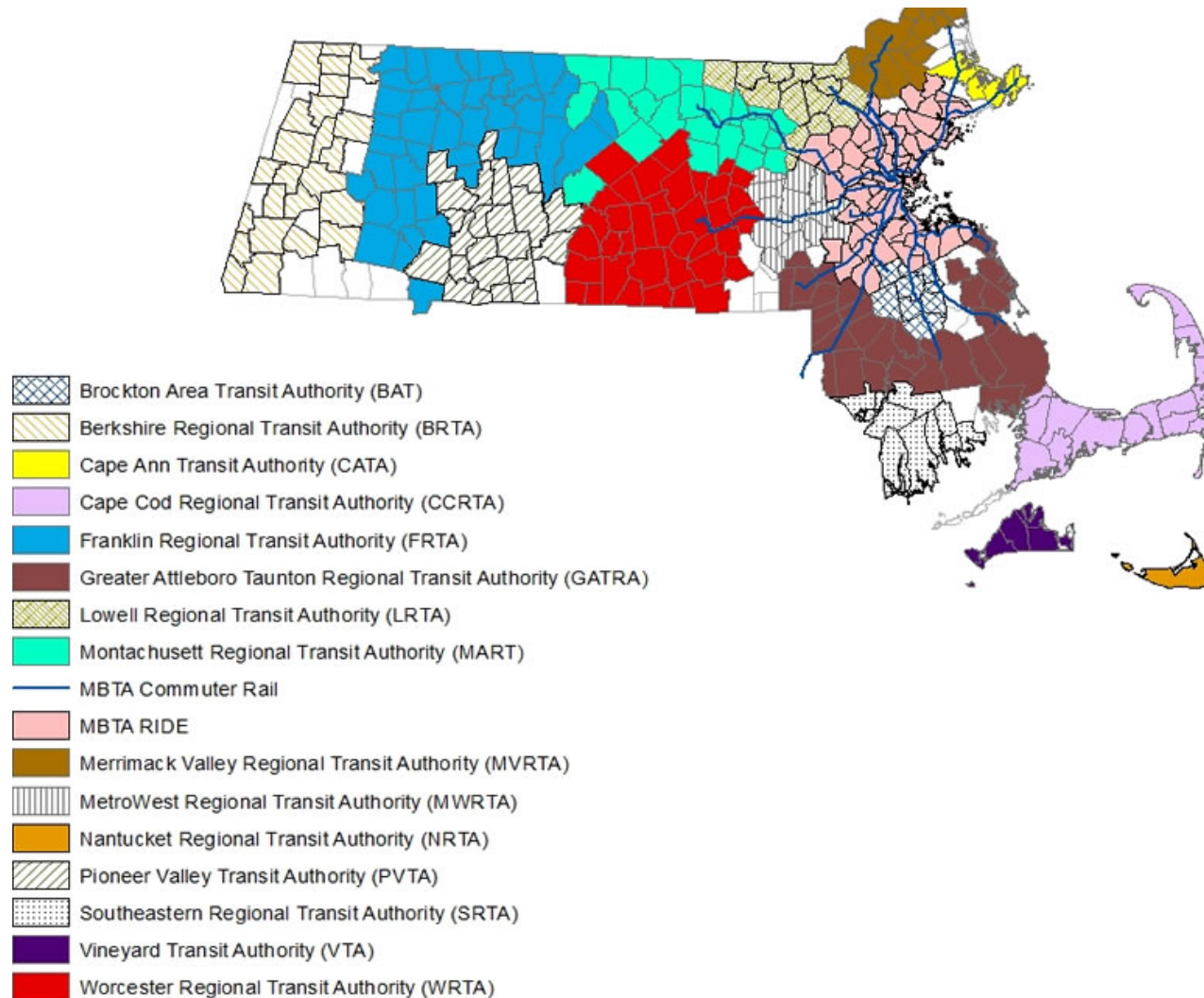
This map illustrates how MA public transportation services are currently organized.
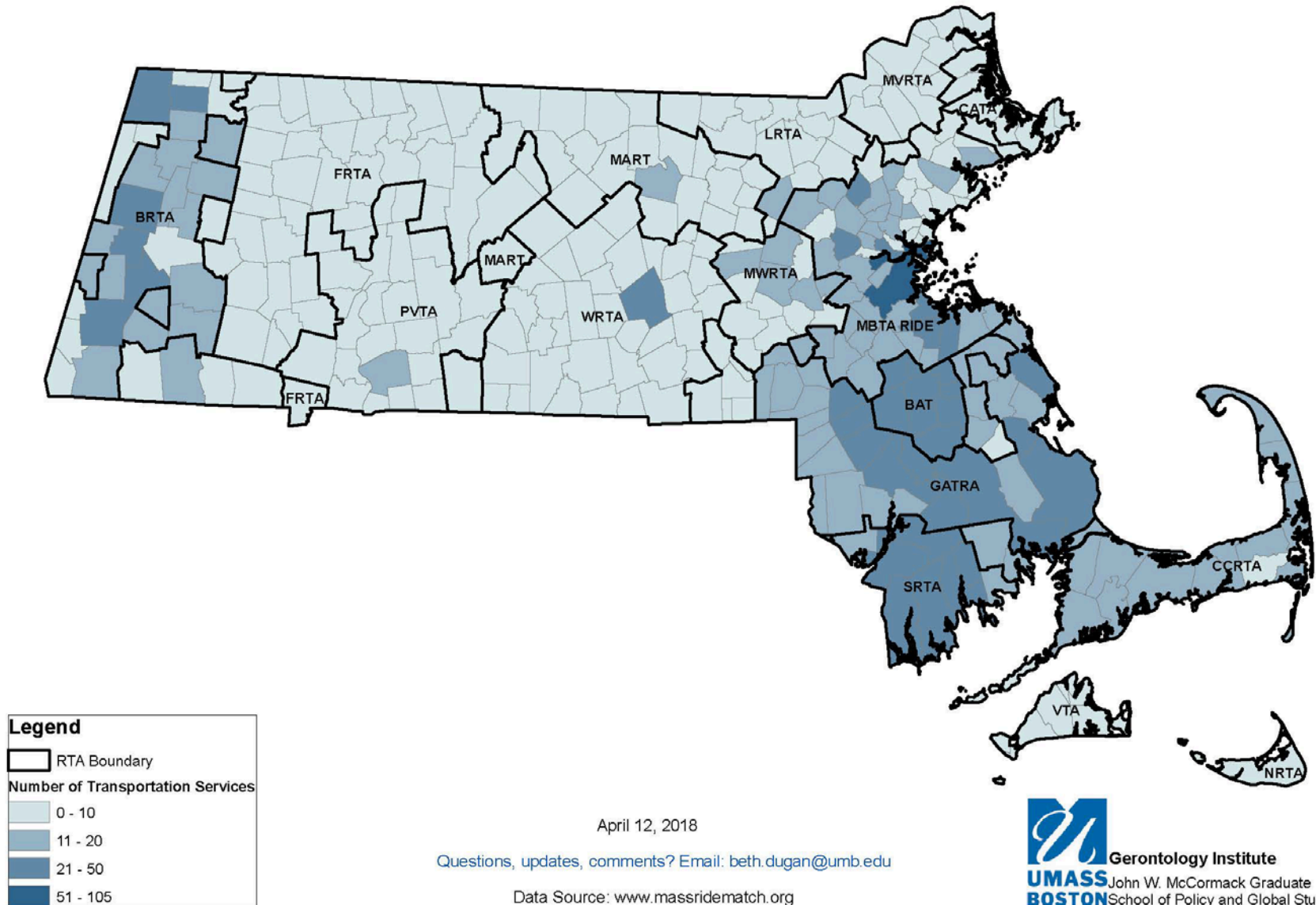The MBTA provides bus, subway, ferry, and commuter rail service.
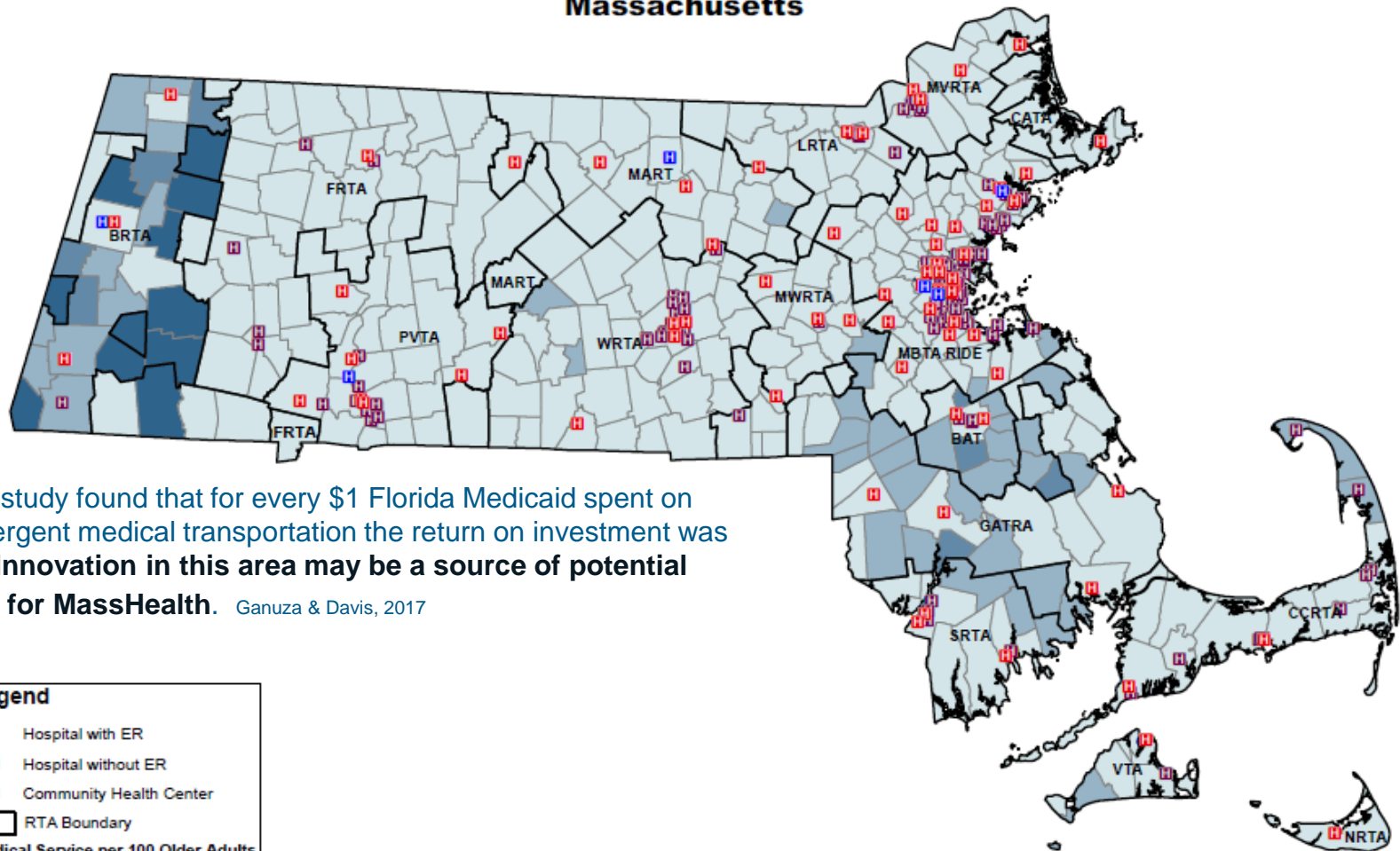Regional Transit Authorities (RTAs) provide fixed route and paratransit services.

- Brockton Area Transit Authority (BAT)
- Berkshire Regional Transit Authority (BRTA)
- Cape Ann Transit Authority (CATA)
- Cape Cod Regional Transit Authority (CCRTA)
- Franklin Regional Transit Authority (FRTA)
- Greater Attleboro Taunton Regional Transit Authority (GATRA)
- Lowell Regional Transit Authority (LRTA)
- Montachusett Regional Transit Authority (MART)
- MBTA Commuter Rail
- MBTA RIDE
- Merrimack Valley Regional Transit Authority (MVRTA)
- MetroWest Regional Transit Authority (MWRTA)
- Nantucket Regional Transit Authority (NRTA)
- Pioneer Valley Transit Authority (PVTA)
- Southeastern Regional Transit Authority (SRTA)
- Vineyard Transit Authority (VTA)
- Worcester Regional Transit Authority (WRTA)

This map illustrates a count of transportation services available in communities across the state.

Number of Transportation Services by Communities and Regional Transit Authority Boundaries in Massachusetts

Legend

RTA Boundary

Number of Transportation Services

- 0 - 10
- 11 - 20
- 21 - 50
- 51 - 105

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Data Source: www.massridematch.org

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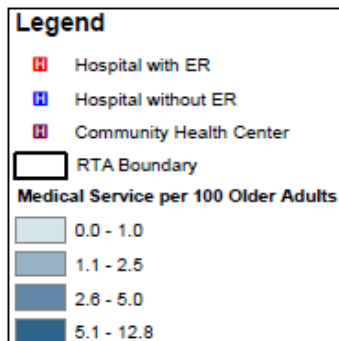John W. McCormack Graduate School of Policy and Global Studies

This map shows the relatively low levels of available medical transportation services on a per capita basis.
We conclude that there is ample room for growth in this sector.

Medical Transportation Services per 100 Older Adults Age 65+ by Communities and Regional Transit Authority Boundaries in Massachusetts

*A 2008 study found that for every $1 Florida Medicaid spent on non-emergent medical transportation the return on investment was $11.08. **Innovation in this area may be a source of potential savings for MassHealth.** Ganuza & Davis, 2017

Legend

H	Hospital with ER
H	Hospital without ER
H	Community Health Center
▭	RTA Boundary

Medical Service per 100 Older Adults

	0.0 - 1.0
	1.1 - 2.5
	2.6 - 5.0
	5.1 - 12.8

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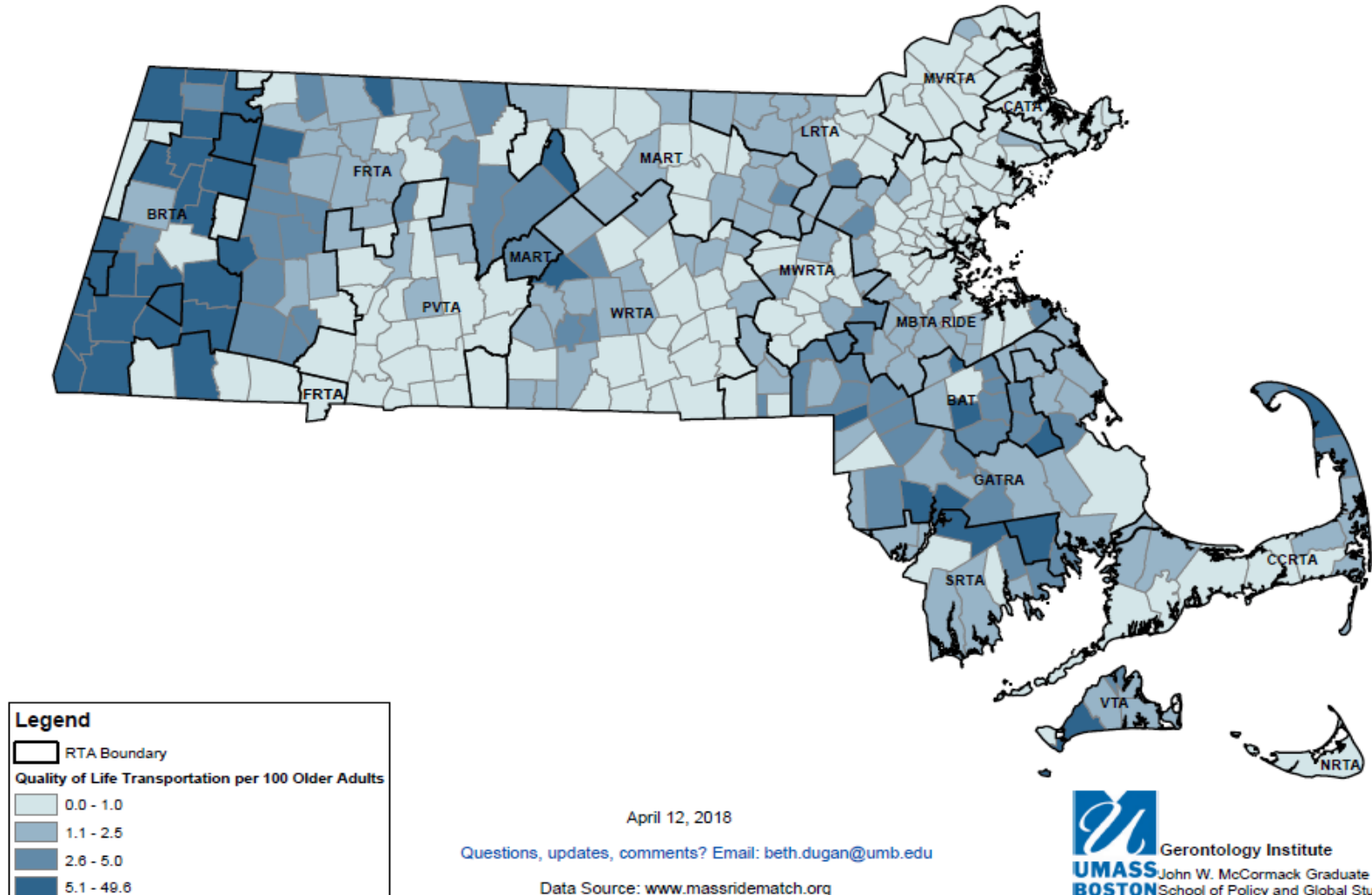
Data Source: www.massridematch.org

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Life is much more than going to and from medical appointments!
This map illustrates a count of all "non-medical" or quality of life transportation services
for older people available in MA. The communities that are lightly shaded represent areas with the least access
to quality of life transportation. ***This is another area of potential growth and innovation.**

Quality of Life Transportation Services per 100 Older Adults Age 65+ by Communities and Regional Transit Authority Boundaries in Massachusetts

Legend

RTA Boundary

Quality of Life Transportation per 100 Older Adults

- 0.0 - 1.0
- 1.1 - 2.5
- 2.6 - 5.0
- 5.1 - 49.6

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Data Source: www.massridematch.org

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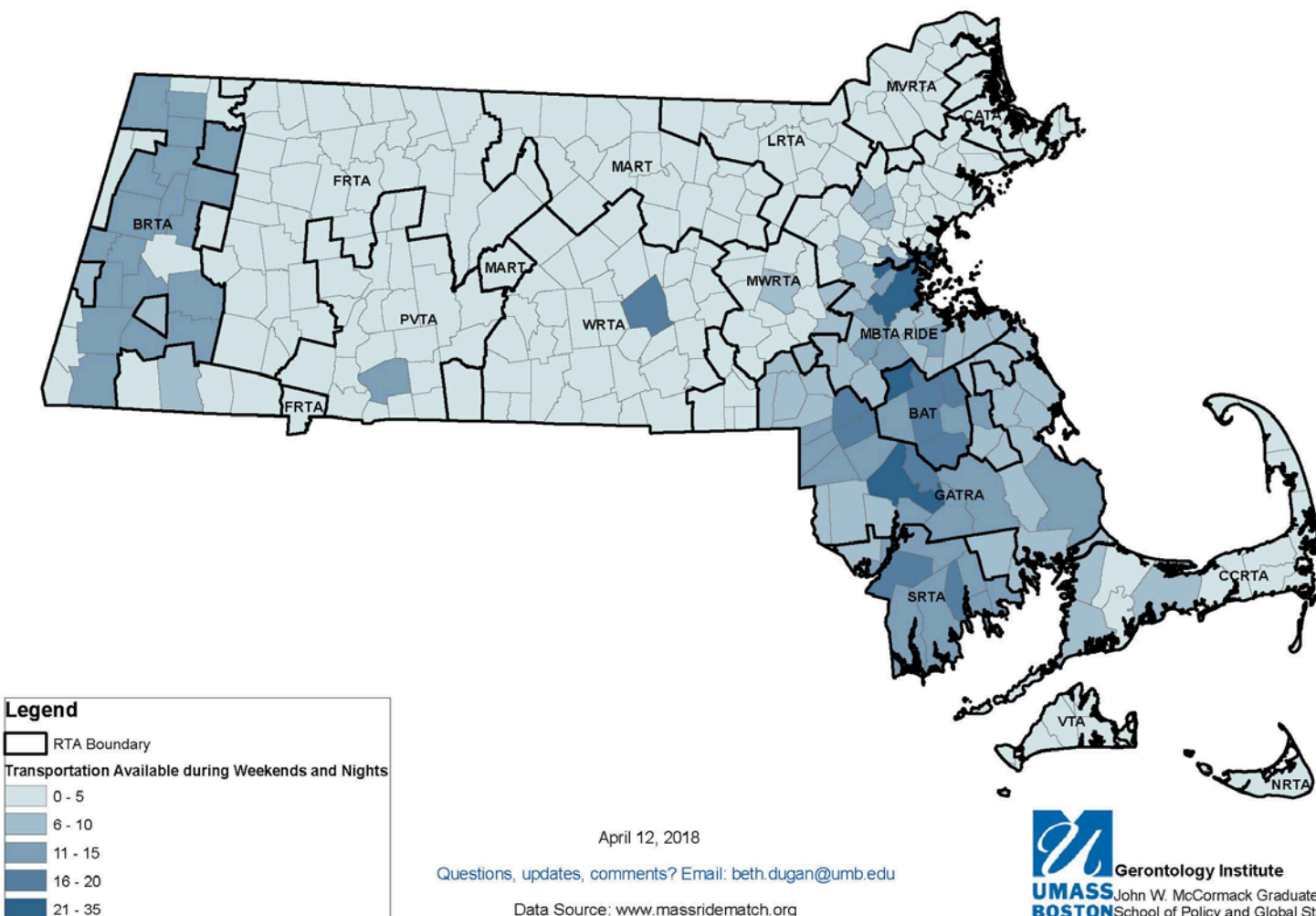School of Policy and Global Studies

A theme that emerged from the RTA leader and stakeholder interviews was the need for night and weekend services. This map illustrates a count of night/weekend transportation services available across the state.

The communities shaded light blue have the least access to night/weekend transportation for older people.

Transportation Services that are Available during Weekends and Nights by Communities and Regional Transit Authority Boundaries in Massachusetts

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Questions, updates, comments? Email: beth.dugan@umb.edu

Data Source: www.massridematch.org

Legend

RTA Boundary

Transportation Available during Weekends and Nights
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 35

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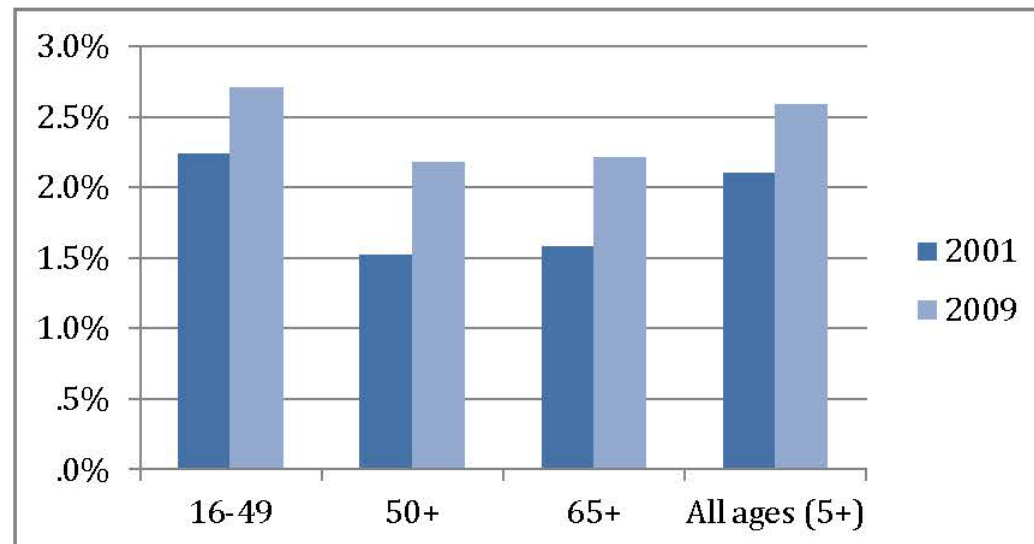
Older people in the US are **increasingly using public transit**. In 2009, older adults took more than 1 billion trips on public transportation (a 55 percent increase over trips recorded in 2001).

Fifteen percent of persons 65+ with access to public transportation in the US reported having used public transportation in the past month. Those who did took about two trips per week on average. We expect this trend to continue into the future.

Age-friendly transit should be a high priority.

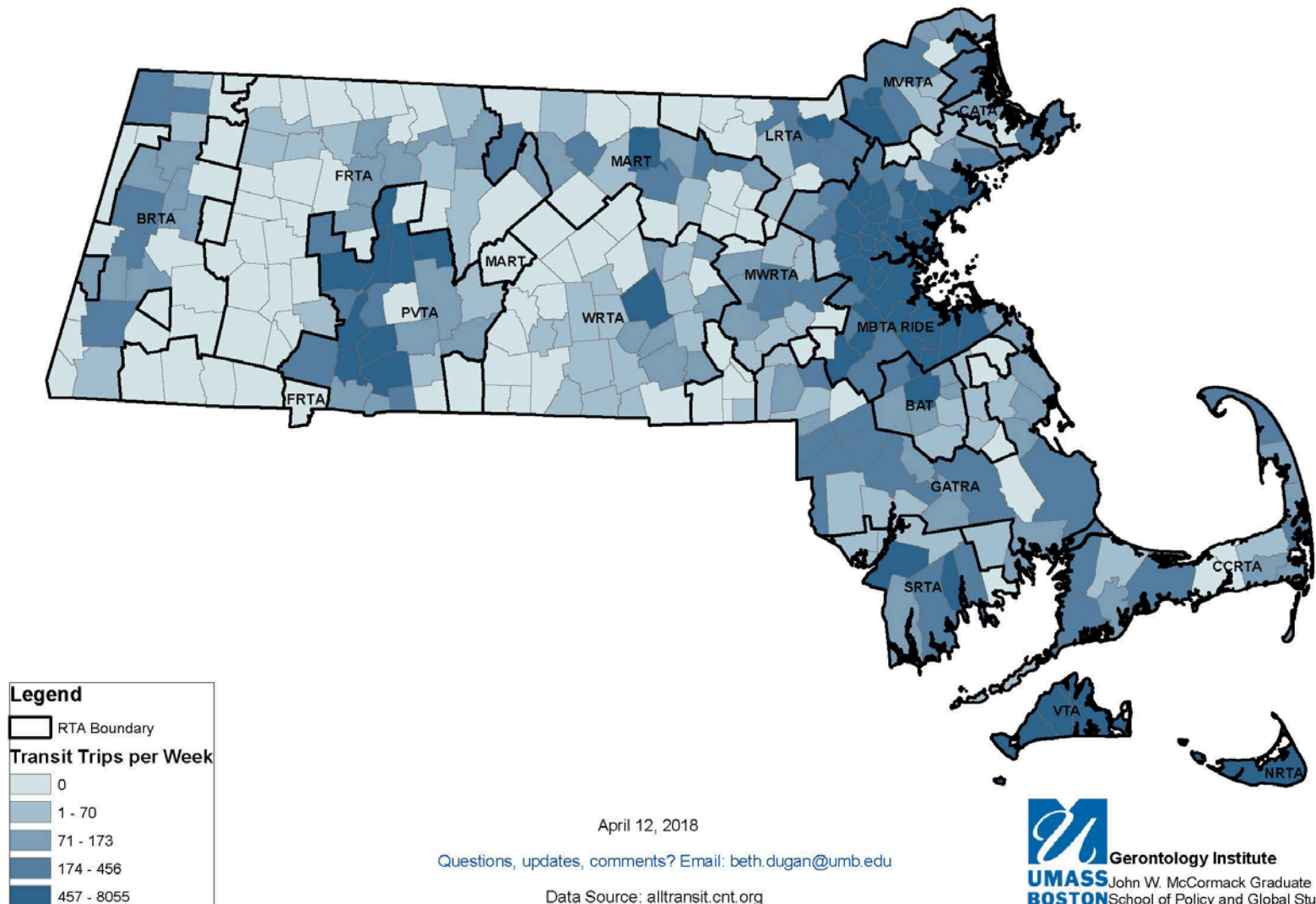### Percentage of All Trips on Public Transit by Age, 2001-2009[27]

Source: Lynott, Jana and Carlos Figueiredo (2011) ―How the Travel Patters of Older Adults Are Changing: Highlights from the 2009 National Household Travel Survey‖ AARP Public Policy Institute, Washington, D.C.

This map illustrates the count of transit trips per week by people of *any age* in communities. Darker shaded communities have more rides taken per week.

**Transit Trips per Week by Communities
and Regional Transit Authority Boundaries in Massachusetts**

MVRTA
CATA
LRTA
MART
FRTA
BRTA
MART
MWRTA
PVTA
WRTA
MBTA RIDE
FRTA
BAT
GATRA
CCRTA
SRTA
VTA
NRTA

Legend

RTA Boundary

Transit Trips per Week

- 0
- 1 - 70
- 71 - 173
- 174 - 456
- 457 - 8055

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Data Source: alltransit.cnt.org

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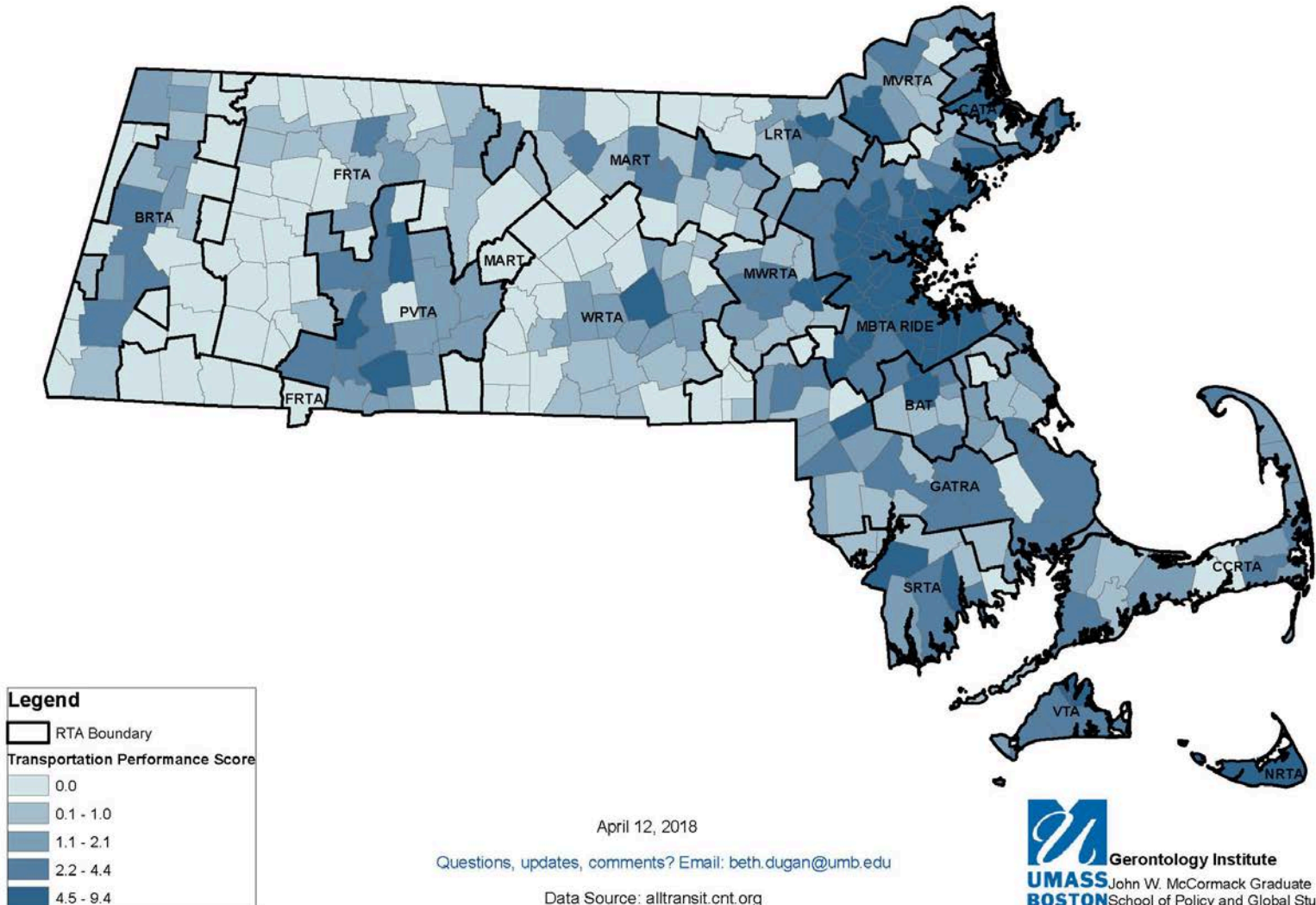BOSTON School of Policy and Global Studies

This map illustrates a summary performance score by communities.
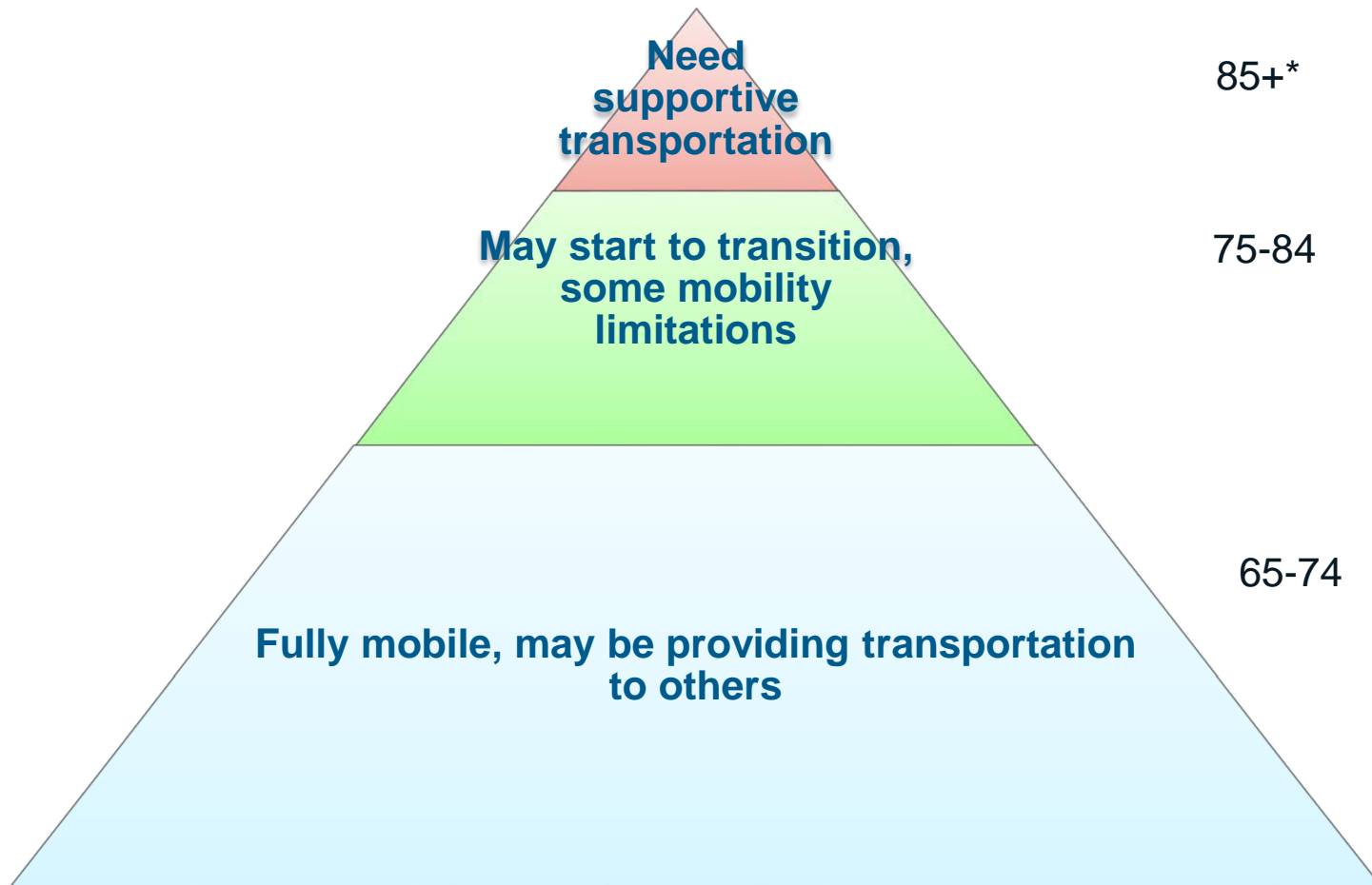The lightest shaded communities could be considered **transportation deserts**.

*Transportation deserts impact both residents and people who work there.

**Transportation Performance Score by Communities
and Regional Transit Authority Boundaries in Massachusetts**

Legend
RTA Boundary
Transportation Performance Score
0.0
0.1 - 1.0
1.1 - 2.1
2.2 - 4.4
4.5 - 9.4

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Data Source: alltransit.cnt.org

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*In the next series of slides we have mapped the summary performance score and the percentage of the population for the age groups below.
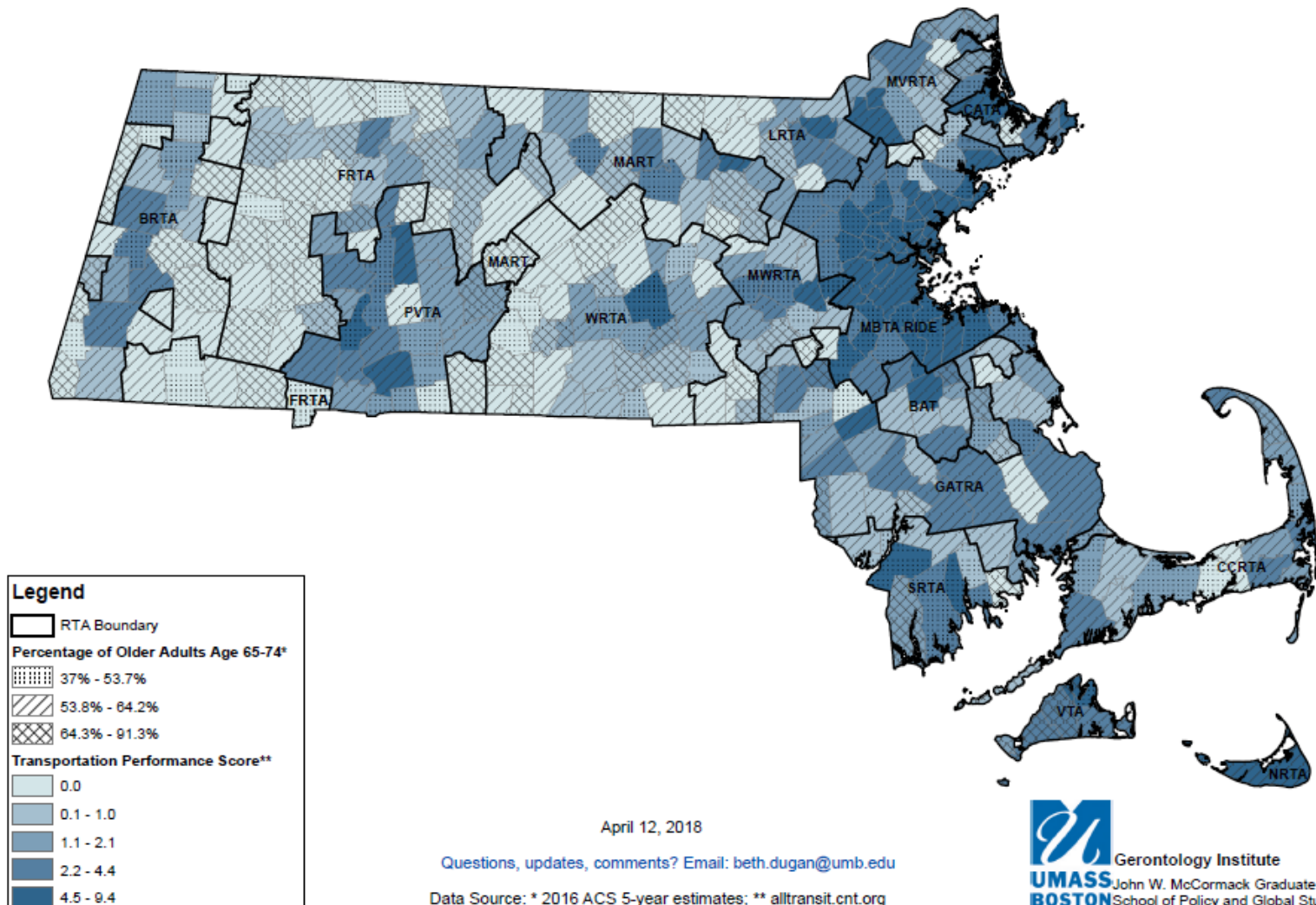
*Keep in mind that actual needs vary by functional status, not age.

Need supportive transportation

85+*

May start to transition, some mobility limitations

75-84

65-74

Fully mobile, may be providing transportation to others

This map shows the transportation performance score in shades of blue, with the percentage of community residents age 65-74 indicated by lines.
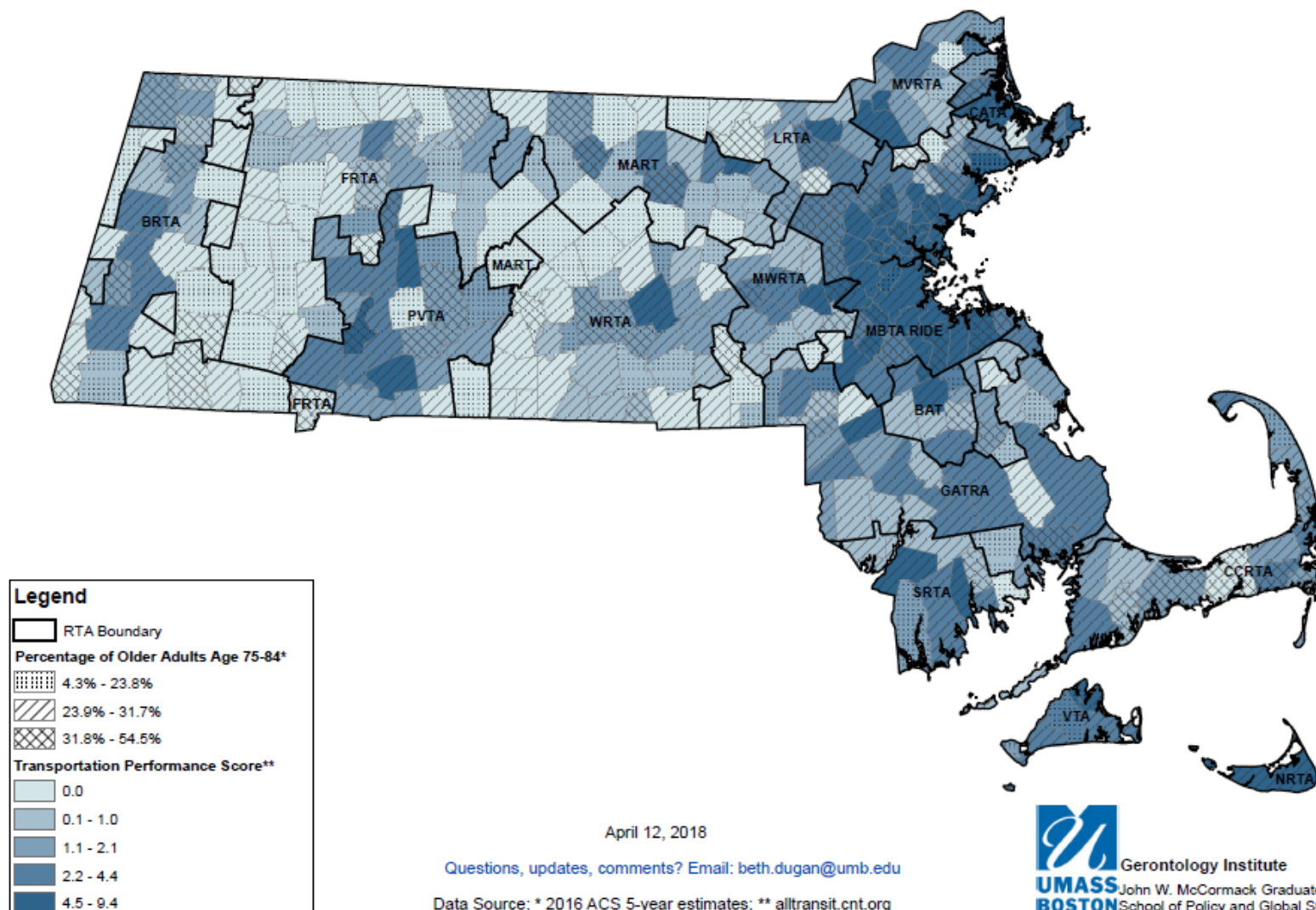
*Volunteer driver programs could recruit drivers in areas with a high % of "younger" mobile older people.

Transportation Performance Score, Percentage of Older Adults Age 65-74 and Regional Transit Authority Boundaries in Massachusetts

Legend

RTA Boundary

Percentage of Older Adults Age 65-74*
- 37% - 53.7%
- 53.8% - 64.2%
- 64.3% - 91.3%

Transportation Performance Score**
- 0.0
- 0.1 - 1.0
- 1.1 - 2.1
- 2.2 - 4.4
- 4.5 - 9.4

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Data Source: * 2016 ACS 5-year estimates; ** alltransit.cnt.org

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This map illustrates the summary transportation performance score and the percentage of residents age 75-84. This group may be starting to transition to supportive transportation. *Efforts to ease the transition may focus on communities with a high percentage of "older" residents.

Transportation Performance Score, Percentage of Older Adults Age 75-84 and Regional Transit Authority Boundaries in Massachusetts

Legend

RTA Boundary

Percentage of Older Adults Age 75-84*
- 4.3% - 23.8%
- 23.9% - 31.7%
- 31.8% - 54.5%

Transportation Performance Score**
- 0.0
- 0.1 - 1.0
- 1.1 - 2.1
- 2.2 - 4.4
- 4.5 - 9.4

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Data Source: * 2016 ACS 5-year estimates; ** alltransit.cnt.org

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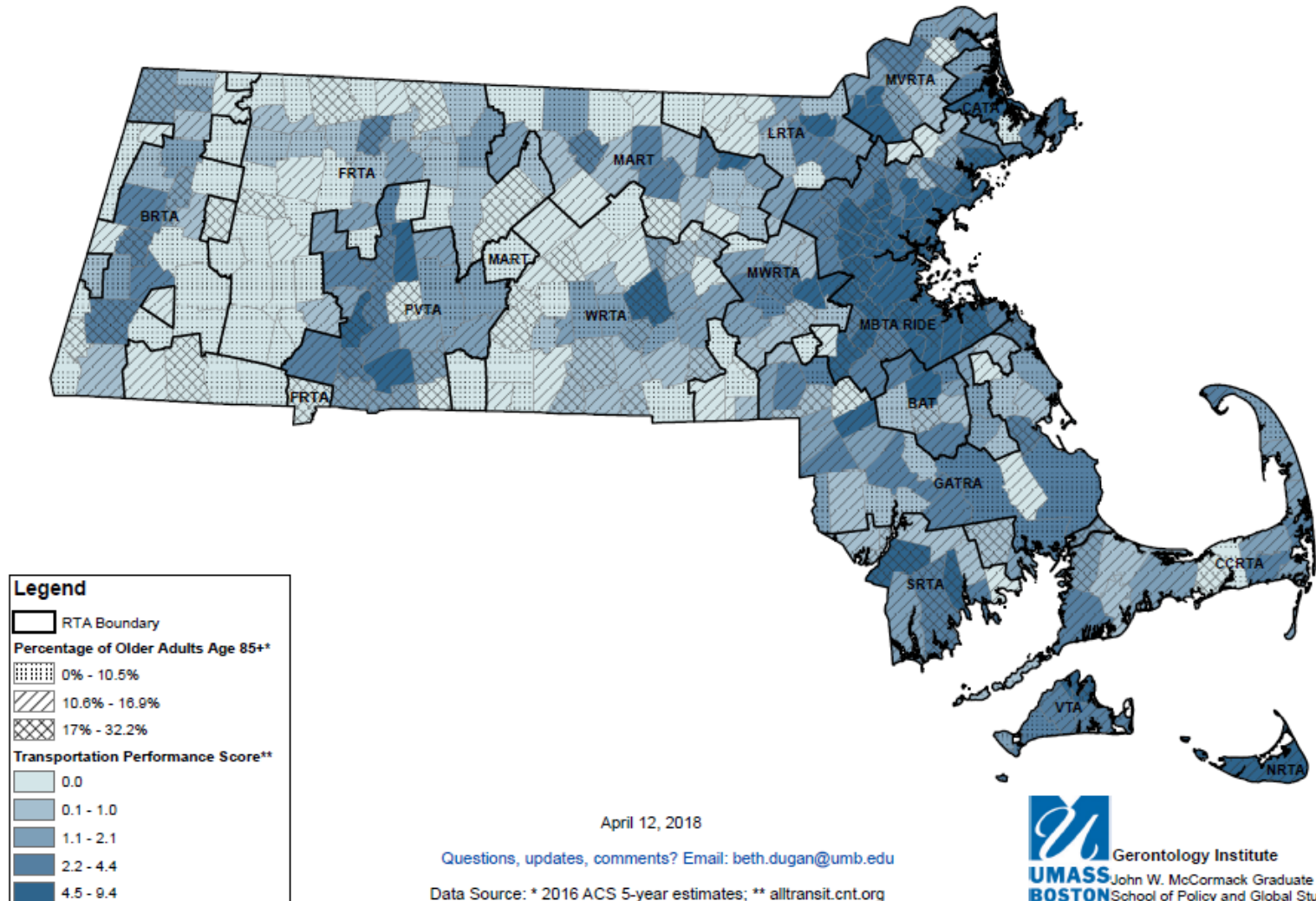John W. McCormack Graduate
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This map depicts the transportation performance score in blue, and the percentage of residents age 85+ with lines.

***Supportive transportation innovations** may be needed in communities with a high percentage of residents 85+ and a low transportation performance score.

Transportation Performance Score, Percentage of Older Adults Age 85+ and Regional Transit Authority Boundaries in Massachusetts
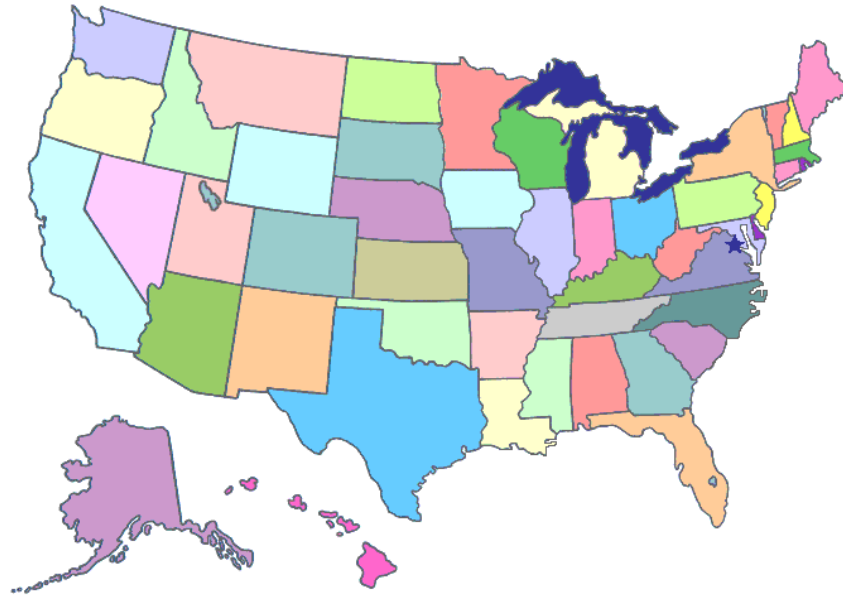
Legend

RTA Boundary

Percentage of Older Adults Age 85+**
- 0% - 10.5%
- 10.6% - 16.9%
- 17% - 32.2%

Transportation Performance Score**
- 0.0
- 0.1 - 1.0
- 1.1 - 2.1
- 2.2 - 4.4
- 4.5 - 9.4

April 12, 2018

Questions, updates, comments? Email: beth.dugan@umb.edu

Data Source: * 2016 ACS 5-year estimates; ** alltransit.cnt.org

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We listened to RTA Directors and key stakeholders

GAPS identified during interviews:

▸ A lack of adequate night and weekend services

▸ Not enough wheelchair lift vehicles

▸ The difficulty in "trip chaining" (e.g., to bank then to hair salon then to grocery store) or in planning trips that cross RTA borders.

▸ Not enough funding to meet demand for services.

Finally, we sought to learn from other states about innovations and best practices

California, Florida, Iowa, Maryland, Michigan, Missouri, New York, Oregon

Lesson #1

Take steps to ease the transition to non-driving and to supportive transportation options.

Targets: Individual, family; aging, social service & health care professionals

Michigan's Statewide Initiative: Older Driver Education & Safe Mobility Planning Strategy
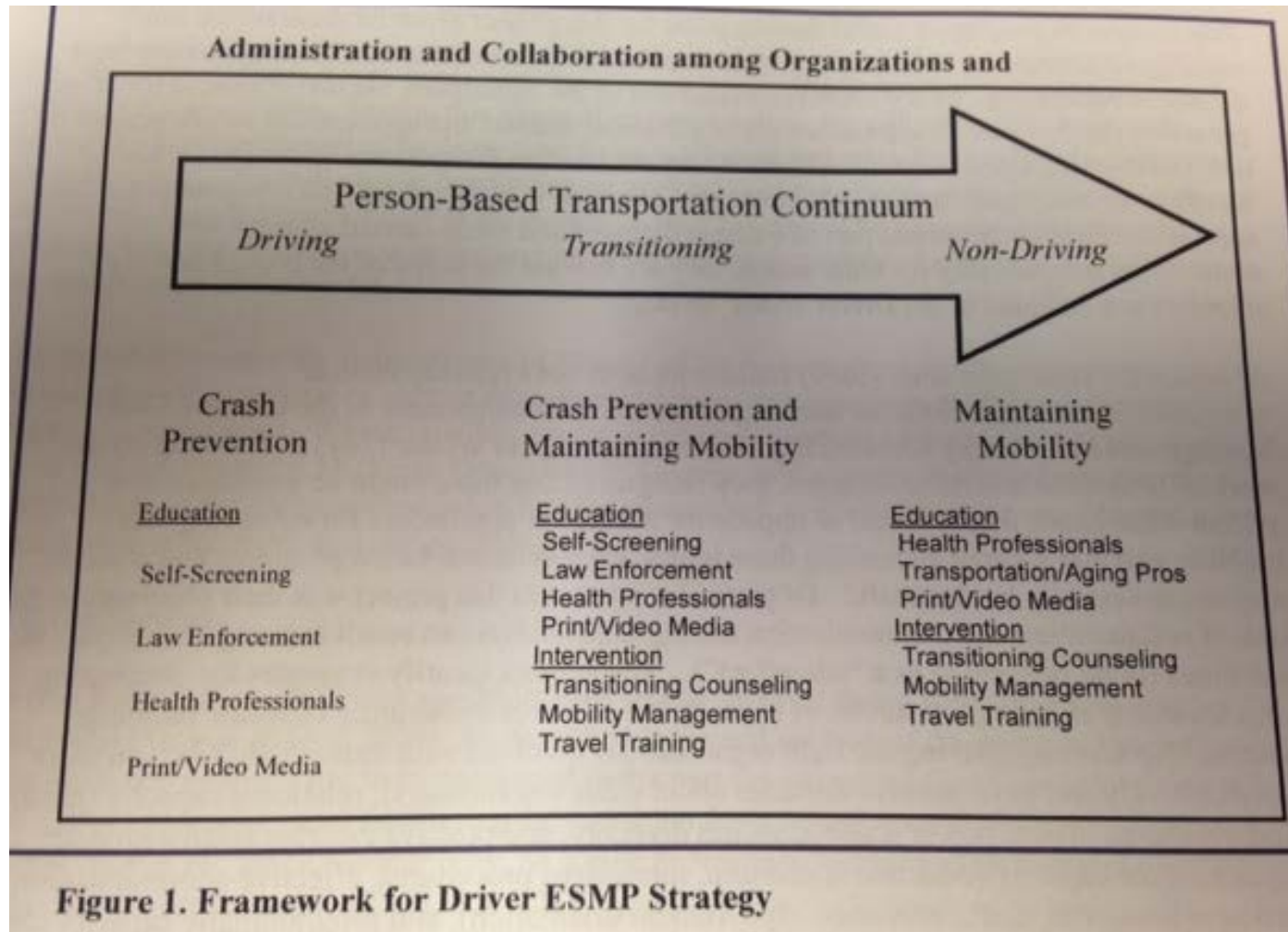
The goals are:

▸ to promote self-screening of personal driving skills;

▸ to make skill-building tools available to extend safe driving; and

▸ to assist older drivers and any support givers in making a safe and independent transition from personal vehicle use to other options for personal mobility and independence.

*In MA this could potentially be pilot tested with the consultation of the Strategic Highway Safety Plan Older Driver Emphasis Area planning committee.

Source: Eby, D.W., Molnar, L.J., Kostyniuk, L.P., Zanier, N., & St. Louis, R.M. (2016). Safe Drivers Smart Options Keys to Lifelong Mobility. Final Report. University of Michigan Transportation Research Institute. Ann Arbor, MI.

Michigan's Statewide Approach
Education & Safe Mobility Planning Strategy (ESMP)

Administration and Collaboration among Organizations and

Person-Based Transportation Continuum

Driving   *Transitioning*   *Non-Driving*

Crash Prevention	Crash Prevention and Maintaining Mobility	Maintaining Mobility
Education	Education	Education
Self-Screening	Self-Screening	Health Professionals
Law Enforcement	Law Enforcement	Transportation/Aging Pros
Health Professionals	Health Professionals	Print/Video Media
Print/Video Media	Print/Video Media	Intervention
	Intervention	Transitioning Counseling
	Transitioning Counseling	Mobility Management
	Mobility Management	Travel Training
	Travel Training	

Figure 1. Framework for Driver ESMP Strategy

Missouri's Mobility Transition Counseling (MTC)

The Mobility Transition Counseling approach utilizes a **person-specific assessment protocol** called the Assessment of Readiness for Mobility Transition (ARMT), an evidence-based tool intended to increase awareness about mobility loss and assess attitudes that might support or hinder productive planning.

**Dissemination of something similar in MA could be pilot tested (e.g., w MassMobility, EO Public Safety, COAs, other stakeholders).

Source: Meuser, T.M., Berg-Weger, M., Chibnall, J.T., Harmon, A.C. & Stowe, J.D. (2013). Assessment of readiness for mobility transition (ARMT): A tool for mobility transition counseling with older adults. *Journal of Applied Gerontology*, 32, 484-507.

Florida's Aging Road User 2017 Strategic Highway Safety Plan Strategies

▸ Promote and educate drivers on comprehensive driving evaluations and safety strategies to prevent crashes.

▸ Expand transportation choices and promote community design features to meet the mobility needs of an aging population.

▸ Develop and distribute resources and tools to support safe driving skills and encourage early planning to safely transition from driving.

Source: **Florida 2017 Aging Road User Strategic Safety Plan**
http://www.safeandmobileseniors.org/pdfs/FDOT_Aging_SafetyPlan_FINAL.pdf

National Aging & Disability Transportation Center*
Best Practices in Mobility Management

- Missouri's Mid-East Area on Aging's Transportation Options Counseling assists individuals and their caregivers in learning about options and making decisions about long term services and supports. https://agingmissouri.org/Transportation

- Michigan's Myride2 mobility management program (www.myride2.com). Operated under the auspices of the Area on Aging 1-B in Southfield Michigan. Myride2 is described as a **one-call/one-click mobility management service** that helps older adults and those with disabilities locate transportation options. Mobility specialists termed "mobility concierges" work with clients to address mobility and transportation issues.

(*formerly, National Center on Senior Transportation Center)

Promising Travel Training Programs

▸ Burkhardt (2014) lists the following elements of best practice in Travel Training:

  ▸ Transit Travel Orientation

  ▸ Group Travel Training

  ▸ Travel Ambassador Training

  ▸ One-on-One Training

Two programs to model are:

Rapid Travel Training Program in Grand Rapids, MI
https://www.ridetherapid.org/howtoride/travel-training

Ride Connection in Portland, OR
https://rideconnection.org/services/travel-training

Source: Burkhardt, J.E., Bernstein, D.J., Kulbicki, K., Eby, D.W., Molnar, L.J., Nelson, C.A., & McLary, J.M (2014). *Travel Training for Older Adults: A Handbook. Volume 2: Research Report*. Washington, DC: Transportation Research Board

Florida's Comprehensive Statewide Approach with Performance Measures is a Good Model to Consider for MA

- Review current mobility options and identify any gaps.
- Educate road users and service providers on community-based mobility programs.
- Expand <u>availability</u> and <u>variety</u> of transportation modes.
- Develop template for communities to promote their mobility resources and options.
- Determine whether services have increased in rural areas of the state where mobility options and resources are fewer.
- Study the impact of autonomous vehicles on aging road user mobility and begin developing information and materials to educate users about this new technology.
- Monitor the growth of transportation network services (i.e., Lyft, Uber).

Utilize Performance Measures:
- Number and type of alternative transportation options
- Number and type of other mobility options (community support services)
- Number and type of educational materials developed and distributed
- Number of individuals 65+ accessing mobility options and resources
- Increases in services and options in select rural communities

Recommendation #2

Identify and enhance existing transportation options and create new options where gaps exist.

Targets: community transportation, aging services & health care providers

…"Transportation options for older people are not a one size fits all. Physical and cognitive challenges vary. It is not necessary nor practical for all options to provide all levels of assistance from "curb-to-curb" to "through the door/stay at the destination" or to accommodate all destinations at all times of the day or night.

Coordination is key in weaving a strong net of options so that community-residing older people can get to where they want to go, when they want to go there and maintain as spontaneous a life as possible as any other age group…" (Silverstein, 2018)

How Age-Friendly and Dementia-Friendly are Transportation Options in Massachusetts?

Do existing options meet the criteria for the 5A's:

- ‣ Available
- ‣ Acceptable
- ‣ Accessible
- ‣ Adaptable
- ‣ Affordable

For user-friendly calculators to screen for these criteria see: Kerschner, H.K., & Silverstein, N.M. (2018). Introduction to Senior Transportation. Enhancing Community Mobility and Transportation Services. Routledge:NY

Star Award* programs across the US
(recognized for excellence in senior transportation)

Community-Based Transportation Providers

- *Prairie Hills Transit—Spearfish, South Dakota:* www.prairiehillstransit.com/
- *Ride Connection—Portland, Oregon:* www.rideconnection.org
- *Silver Ride LLC—San Francisco, California:* www.silverride.com/

Aging and Senior Service Transportation Providers

- *St. John's County Council on Aging—St. Augustine, Florida:* www.coasjc.com
- *Seniors Resource Center—Denver, Colorado:* www.srcaging.org

Faith-Based Transportation Providers

- *Catholic Charities Santa Clara County—San Jose, California:* www.catholiccharitiesusa.org
- *The Shepherd's Center of Kernersville—Kernersville, North Carolina:* www.shepctrkville.com

*From 2000 through 2013, the Beverly Foundation conveyed 143 STAR Awards to 125 organizations in 47 states (and Puerto Rico) that provide transportation to older people. The award is now offered by the National Center on Senior Transportation/CTAA with sponsorship by Toyota.

Star Award* programs across the US
(recognized for excellence in senior transportation)

Volunteer and Community Service Transportation Providers

▸ *Solutions for Seniors on the Go—Oceanside, California:* **www.ci.oceanside.ca.us**

▸ *Neighbor Ride—Howard County, Maryland:* **www.neighborride.org/**

▸ *Delmarva Community Services, Inc. (DCS)—Cambridge, Maryland:* **www.dcsdct.org/** services.

Neighborhood Transportation Providers

▸ *TRIP—Riverside, California:* **ilpconnect.org/trip-riverside**

▸ *Partners in Care—Pasadena, Maryland:* **www.partnersincare.org**

*From 2000 through 2013, the Beverly Foundation conveyed 143 STAR Awards to 125 organizations in 47 states (and Puerto Rico) that provide transportation to older people. The award is now offered by the National Center on Senior Transportation/CTAA with sponsorship by Toyota.

A Sample of *Best Practices* in Massachusetts

Innovation in the non-profit sector is promising, but **there is room for growth in all sectors.**

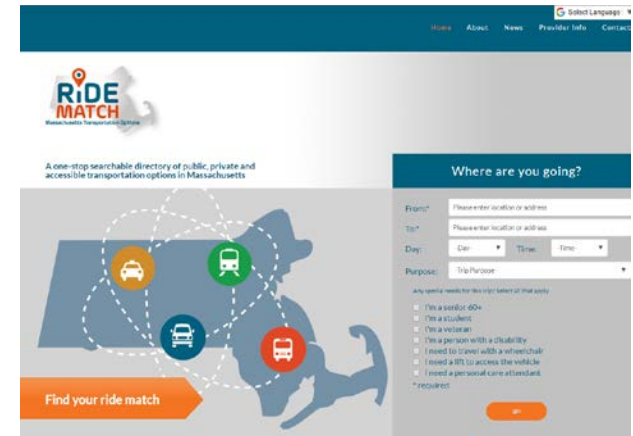https://trippsmass.org/

Medical Escort program at Friendship Works.
https://www.fw4elders.org/our-programs/medical-escort/

http://www.massridematch.org/

http://www.mves.org/find-what-you-need/transportation/

https://www.mass.gov/orgs/massmobility

Matching Innovation to Opportunity and Needs in MA:

Need supportive transportation

- Ambulance companies/ "cabulance" model
- Transit/ non-transit model (scheduling, scaling)
- Ramps, lifts, etc. (improving built environment)
- Awareness, cost/ benefit (missed appointments)

May start to transition, increase in self-regulation

- Education: finance, framing (cost of a car vs. cost of transportation services), mobility training
- Information: GATRA, transportation options counselor (GLSS)
- AARP, AAA, Friendship Works, RideMatch
- On-demand and flexible services (Uber, Lyft etc.)
- Medical transport (TRIP)

Fully mobile, may be providing transportation to others

- Physical activity/ fitness
- Cataract surgery awareness
- Car maintenance
- Car fit
- Lighting/ signage
- (complete streets)
- Mobility training
- Liability awareness/ Samaritan Law
- Rideshare, GPS, etc. (smart phone
- training)
- Education and training on smart car features
- Insurance incentives

Source: Transportation workgroup, Governor's Council to Address Aging Issues.

Resources

MassDOT/RMV/MBTA

- https://www.mbta.com/accessibility/the-ride

- http://www.massrmv.com/MatureDrivers.aspx

- https://commute.com/nuride

- http://www.massdot.state.ma.us/transit/MobilityManagementCenter.aspx

Statewide inventory

- http://www.massridematch.org/

Regional examples

- http://www.mves.org/trip/

- http://crosstownconnect.org/

- http://http://www.rideconnector.org/

- http://www.gatra.org/index.php/contact-us/rcc-meetings/

- http://www.hilltowncdc.org/rural-transportation/interest/#summary-of-key-findings

Resources

Between public and private mobility

- TRB Special Report 319
  http://www.trb.org/Main/Blurbs/173511.aspx

How public agencies can work with emerging mobility providers

- Transit Center, New York, NY
  http://transitcenter.org/publications/private-mobility-public-interest/

How is the performance score calculated by alltransit.net?

All Transit Performance Score – This scores the overall quality of transit as it pertains to actual use of transit. It combines with the TCI, described above, that measures "can I get transit" with the Jobs Accessible in 30 Minute Transit Ride, which measures "what can I get to once I am on transit," and combines them in a way that is reflective of what fraction of people use transit for a given type of trip – their journey to work – answering the question "how should I get to work."

In order to determine how to combine these two measures, like the TCI, we use an ordinary least square fit using these two variables as well as the same control variables, for the households (people per household, household income, and commuters per household) and other locational variables (average block size, fraction of renter dwelling units, fraction of single family homes, and transit access shed size). Once this weighted sum is made for every block group in the USA we create an index that ranges from zero to 100, where the value of zero is assigned to block groups that have no connectivity to transit and 100 is given to the highest value block group in the country.

For more information or to request a copy of the technical report contact
beth.dugan@umb.edu

The Gerontology Institute

John W. McCormack Graduate School of Policy and Global Studies

The University of Massachusetts Boston