Sponsored by the Sept.11th Memorial Program

A Typology of Senior Transportation Services in Westchester County

By Wei Li

Dept. of Civil Engineering, City College of New York

Advisors:

Cynthia Chen (City College of New York)

Joel Ettinger (New York Metropolitan Transportation Council)

October 18, 2006

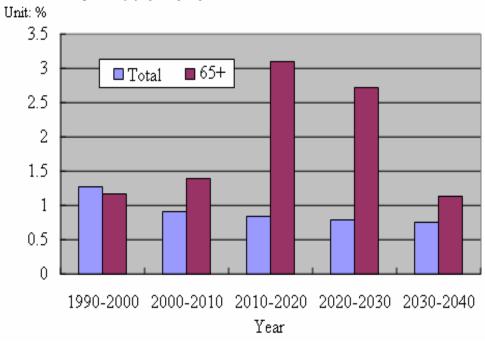
Acknowledgement

- Virginia Johnson (Westchester County DOT)
- Patty Chemka (Westchester County DOT)
- Carol Weinstein (Westchester County Department of Senior Programs and Services)
- Todd Goldman (University Transportation Research Center)
- New York Metropolitan Transportation Council
- University Transportation Research Center

Introduction Society is Aging

- National Trend
 - 2000: one in eight Americans is 65+
 - By 2030: one in five
- Seniors are driving more than years ago
 - Increasing reliance on automobile and higher license rates
 - Seniors drive 67% of the total trips by themselves (85+ : over 50%)

Figure 1. Annual Growth Rates of National General Population and Senior Population From 1990-2040



Source: U.S. Census Bureau, 2004

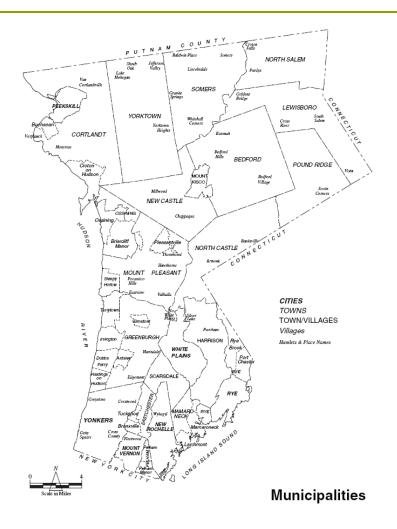
Introduction

- Key travel options for seniors who do not drive
 - Reliance on friends and family
 - Fixed route public transit
 - Paratransit
 - Community transportation service

Objectives

- Big Picture
- Area of Study Westchester County
- Objectives
 - Identify all the services available for senior population within Westchester County,
 - Select and describe the essential supply characteristics of these services,
 - Identify limitations of existing services, and
 - Identify innovative senior transportation programs and possible directions for future efforts.

Profile of Westchester County



- Population Structure
 - Total population is 923,459 (census 2000)
 - 129,300 are seniors,14%
 - 35,587 are 80+, 28% of senior group
- six cities, 15 townsand 22 villages
- South and north county

Senior Transportation Programs Identification

- Fixed route public transit
 - Bee-Line reduced fare program
- Paratransit
 - Bee-line paratransit
- Community transportation service
 - Transportation to and from senior centers/nutrition sites
 - Shopping bus
 - Medical Van
 - Taxi subsidy programs
 - Volunteer programs

Essential Supply Characteristics

- Objective
 - What, where and to whom do the services provide
- Administration
 - Agencies, funding, personnel
- Capacity
 - Mode, trip freq., #vehicles/drivers, ridership
- Accessibility
 - User costs, operating hours, procedures, reservation
- Adaptability
 - Special requirement are adapted?

Research Method

- Interviews with operators of senior transportation program via phone or in person
 - People from County DOT, Office of Disabled, Department of Senior Program and Services, and local offices/departments from 35 municipalities among all the 43 municipalities.
 - More than 50 interviews were conducted
- Descriptive data analysis

Bee-Line Bus Reduced Fare Program

Administration				Capacity							
Admin. /operators		nding urces	Pers	sonnel	Travel mode	Avg. # of veh. per route (off peak)		Avg. off peak headway (min)	Avg. daily system-wide ridership		
County DOT	FT		drive	erators, ers, info. rral, and kers.	Bus	Saturday:1 Sunday:1		Weekday:33 Saturday:50 Sunday:65	Weekday:3391 Saturday:1694 Sunday: 720 (seniors)		
	Objective				Accessibility						
Target population		Service area		Trip purpose	User costs		Typical operating hours	Procedures	Reservation		
65+, disabled and Medicare Holders		All over the County	he	Any	85¢ (+ 10¢ fo transfer)	or	8:00 a.m. to 6:00 p.m.	Show ID on bus and pay fare	Unnecessary		
			•		Adapta	abilit	<u></u>	•			
Pick-Up Location	•		-	corts / assi ailable	· · · · · · · · · · · · · · · · · · ·			Wheelchair accessible	Destination fixed/Private		
Bus stops	Sus stops One way only		Assistance on board available from the driver			W/ fare		44% now; 100% by 2008	Private		

Bee-Line Paratransit

The state of the s	Capacity								
Admin. /operators	Funding sources	Personnel	Travel mode		Number of vehicles		Trip frequency		vg. daily dership
Office for the	Federal and state funds. \$54M / yr.	Operators, drivers, info. referral, and workers.	Seven- passenger van		About 50.		NA	Weekday: 600- 800 trips Weekends: 200- 300	
	Accessibility								
Target population	Service area	Trip purposes	User costs	O hı	perating s	ing Procedures			Reservation
Functionally unable to use regular transit.	All over the county		\$3.00 one way	S	Sat: 8am- up		rtification and set interview. servations req'd.		Same day, and 1-4 days
Adaptability									
Pick-Up location	Round trip?	Escorts / A Available	Escorts / Assistance Available		Aides acceptance		Wheelchair accessible	Destination fixed/Private	
Curb-to-curb	Yes		Limited assistance from drivers on board.		Yes		Yes	Pı	rivate

Community Transportation Programs

- Supplemental programs of public transit
- The forms are various from municipalities
- Each municipality has its own community transportation programs
- The supply characteristics are similar for the same type of services

Five Typical Forms of Programs	No. of programs	No. of municipalities covered	% of municipalities covered		
To/from senior centers, nutrition sites	23	27	77%		
Shopping bus	25	28	80%		
Medical van	20	22	63%		
Taxi Subsidy Programs	9	10	29%		
Volunteer Programs	5	6	17%		



Figure 2. Medical van with lifts



Figure 3. Senior Bus

Community Transportation Program – Transportation to/from senior centers/nutrition sites

Objective

- Local seniors
- Purpose: congregate meals and/or recreational activities

Administration

 Local Office of aging, department of recreation and senior centers

Capacity

- Mode: Bus and/or van
- Average Daily Ridership: city: 30-50, town: 10-20, village: 5-10

Community Transportation Program – Transportation to/from senior centers/nutrition sites

- Accessibility
 - User costs: Free \$3 per round trip
 - Core hours: 9:00 a.m. 4:00 p.m.
 - Procedures and reservation
- Adaptability
 - Door-to-door (61%) and curb to curb (39%)
 - Less than 10% with escorts
 - 87% are wheelchair accessible

Other Types of Community Programs

- Shopping Bus
 - Daily or weekly group trips to designated grocery stores or supermarkets
- Medical Van
 - Daily or weekly trips to Dr.'s appointments, and hospitals upon individual requests
 - Free-\$6 per round trip
 - Longer reservation time
- Taxi Subsidy Programs
 - Half price discounted or \$1-2 dollars off
 - Limited to local destinations
 - Hours may be limited to the non-peak hours
- Volunteer Programs
 - Drivers are local volunteers
 - No destination limitations
 - Operated by non-government organizations
 - Free of charge

Countywide Ridership Comparison

- Bee-line bus
 - Systemwide:1,000,000 one-way trips per year (seniors)
 - 3300+ each weekday, 1600+ on Saturdays and 700+ on Sundays
- Bee-line paratransit
 - 200,000 one-way trips per year
 - 600-800 daily trips per weekday and 200-300 on weekends
 - 6,000 registered users and 57% are seniors
- Community program
 - 500-600 customers per month are transported to senior centers/nutrition sites
 - 550-700 individuals per month are provided with shopping, medical and other types of trips

Pros and Cons

- Bee-Line bus
 - Largest capacity
 - Affordable user costs and cheap operating costs
 - No reservation needed
 - Long waiting time at bus stops is difficult for many seniors, esp. in bad weather
 - Infrequent and limited services on weekends
 - Bus do not always stop at seniors' desired destination
 - Bus stops maybe difficult to walk to

Pros and Cons

- Bee-Line paratransit
 - Customized and flexible
 - Travel all over the county
 - Shorter travel time
 - Rigorous eligibility requirements
 - Application process is time-consuming and complicated
 - Long waiting time between segments of a whole trip
 - Expensive to operate

Pros and Cons

- Community programs
 - Targeted to specific social needs
 - Familiarity between each other
 - Limited to local destinations
 - Destinations are pre-determined
 - Hard to allocate the resources efficiently
 - Volunteer programs have insurance problems

Future Improvement

Bee-line Bus

- County DOT initiated focus group meetings, in order to understand senior riders' specific transportation needs
- All local buses would be equipped with wheelchair accessible lifts by the end of this year and BxM4c by the end of 2008
- Purchase of low-floor buses
- Education and training for senior riders
- Adjust stops or routes to better serve seniors' travel patterns

Future Improvement

- Bee-Line Paratransit
 - Simplify the application process (TCRP Synthesis 30: ADA Paratransit Eligibility Certification Practices)
 - More efficient scheduling in order to shorten riders' waiting time
 - Trying to adapt senior riders' specific requirement
 - Less expensive price or free for seniors who could not afford
 - Allow vehicles to enter private property

Future Improvement

- Community based programs
 - Increase coordination of neighboring municipalities so that more seniors and longer distance trips could be served
 - More efficient scheduling
 - Better marketing and education

- Livable communities
 - Increase availability of affordable senior housing near mixed-use village centers

- □ ITN America (Portland, Maine)
 - Non-profit transportation network service
 - Seniors are provided with cars and drivers
 - Drivers are paid with cars owned by ITN or volunteers with their own cars
 - Riders pay \$8 per trip
 - Challenge is to match the operating costs

Car-sharing program

- Seniors with cars and younger people without cars. Younger people drive for seniors.
- Senior who is able to drive take seniors nearby who are not able to drive if they regularly visit the same place, e.g., senior centers/recreation event sites

- Insurance Reform
 - Policies are needed to facilitate insurance for car-sharing and volunteer programs

Thanks!