

SWEETHART

COMPREHENSIVE OPERATIONAL ANALYSIS

September 2008



Prepared for HVCEO by



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SweetHART Operational Analysis

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1.0 INTRODUCTION

1.1 Study Purpose

This study provides an overview of the SweetHART senior/disabled transportation service operating in the Greater Danbury, CT, area. SweetHART is a comprehensive “Dial-A-Ride” paratransit service operated by HART since 1978.

The rider eligibility process, operating policies, customer satisfaction and performance measures are described in this report. Comparisons to past performance and other similar operations are provided.

Based on passenger feedback and an analysis of performance indicators, the recommendations made for SweetHART are primarily designed to improve service quality and ease of use for riders. Specific recommendations are made in improving the trip reservation process and for increasing the productivity and efficiency of the service.

2.0 EXISTING CONDITIONS

2.1 Service Area

SweetHART provides door-to-door paratransit service on a reservation basis to three groups of passengers. The first two groups are senior citizens age 60 and older, and persons with physical or cognitive disabilities regardless of age. SweetHART service to this group is provided to any location within member municipalities and to adjacent communities as schedules permit.

The third group of passengers is disabled persons that are classified as “ADA paratransit eligible.” ADA is the acronym for the Federal Americans with Disabilities Act of 1990.

SweetHART service is provided to ADA paratransit eligible persons within a 0.75 mile radius of the HART fixed route service area. ADA service is thus complementary to the fixed route bus system. It is intended to provide equal access to mass transit for persons who cannot use the fixed route service because of a qualifying disability.

Most SweetHART service is supported through municipal grants and the Federal Transit Administration Section 5307 program. ADA SweetHART service is funded by the State of Connecticut. A new state grant program, instituted in FY 2007, provides funds to municipalities to support programs like SweetHART and has allowed for some service expansion.

Seven municipalities in the Housatonic Valley Region receive SweetHART service including Bethel, Brookfield, Danbury, New Fairfield, New Milford (ADA service only), Newtown and Ridgefield. SweetHART also provides limited service outside the Region to the adjacent town of Roxbury.

2.2 Span of Service

Days and hours that SweetHART service is available vary significantly by municipality as shown below in Table 2.1.

Table 2.1 SweetHART Span of Service

Hours of Operation

Municipality	Monday-Friday	Saturday	Sunday
Bethel	6:55 a.m. – 5:05 p.m.**	8:15 a.m. - 10:30 p.m.***	9:00 a.m. - 7:00 p.m.***
Brookfield	8:30 a.m. – 3:45 p.m.**	8:15 a.m. - 10:30 p.m.***	9:00 a.m. - 7:00 p.m.***
Danbury	6:00 a.m. – 6:00 p.m.**	8:15 a.m. - 10:30 p.m.***	9:00 a.m. - 7:00 p.m.***
New Fairfield	7:00 a.m. – 6:00 p.m.	8:15 a.m. – 4:30 p.m.	Not Available
New Milford*	6:00 a.m. – 10:45 pm***	8:00 a.m. - 10:45 p.m.***	9:00 a.m. - 7:00 p.m.***
Newtown	7:00 a.m. – 6:00 p.m.	8:15 a.m. – 4:45 p.m.	Not Available
Ridgefield	7:45 a.m. – 6:00 p.m.	8:30 a.m. – 3:00 p.m.	Not Available
Roxbury	9:30 a.m. – 3:00 p.m. (T)	Not Available	Not Available

* The Commission on Aging operates additional demand response service in New Milford for senior citizens and disabled persons.

** Service available for ADA trips 6:00 a.m. to 10:45 p.m.

*** ADA service only.

Span of service is related to the number of vehicles available in any one municipality during a given part of each day. Where demand is higher, local governments have made the decision to fund more than one vehicle in that town or city. In the municipalities that have more than one vehicle, the starting times of each vehicle are staggered to extend the span of service during the weekday.

Danbury, Bethel, Brookfield and New Milford passengers who are ADA paratransit eligible can access paratransit service weeknights, on Saturdays and Sundays. Saturday service is available in Ridgefield, New Fairfield and Newtown to all registered clients.

Weekday and Saturday vehicle starting and ending times are shown for SweetHART in Figures 2.1 and 2.2.

Figure 2.1 Weekday Vehicle Allocation

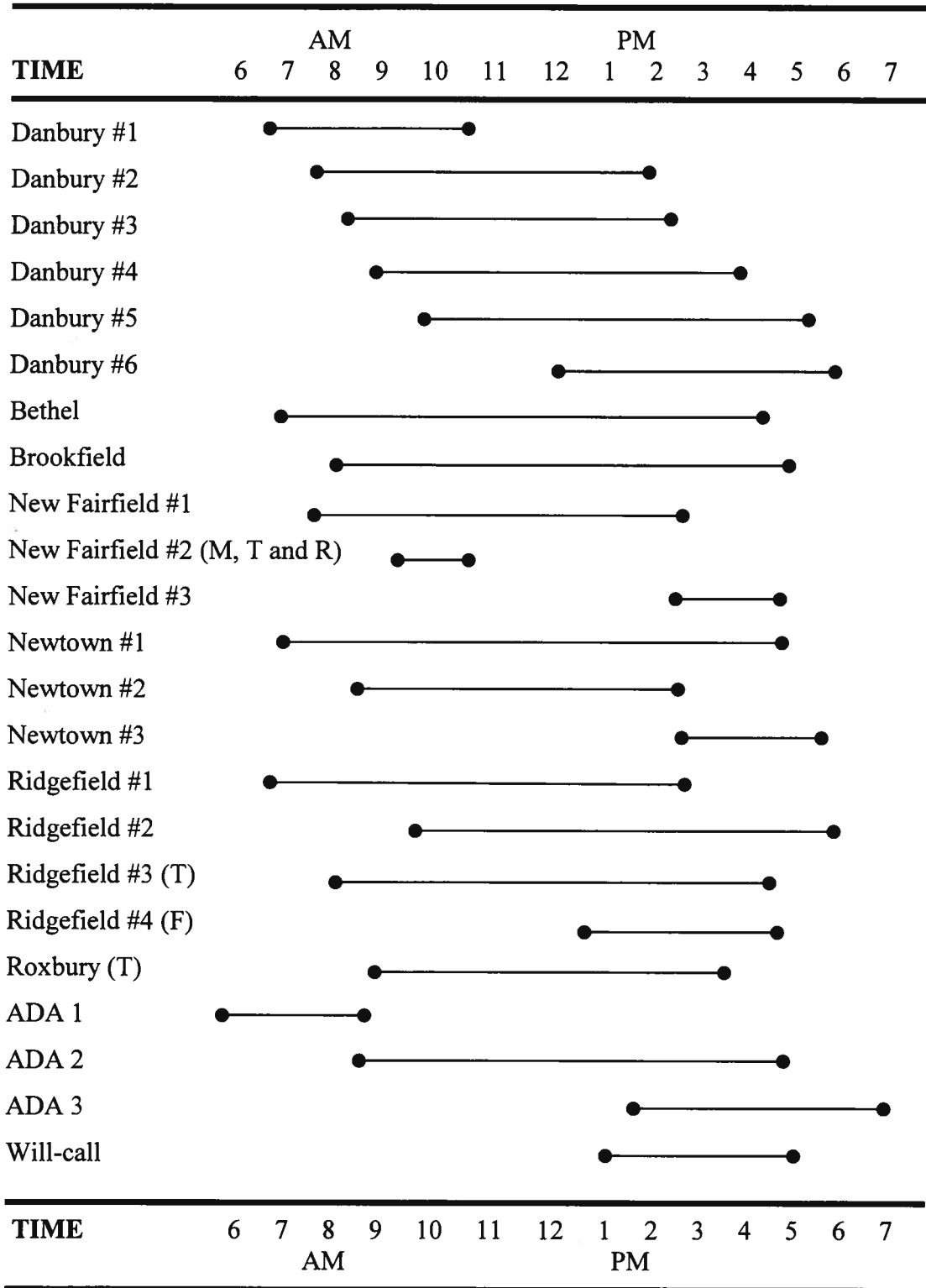
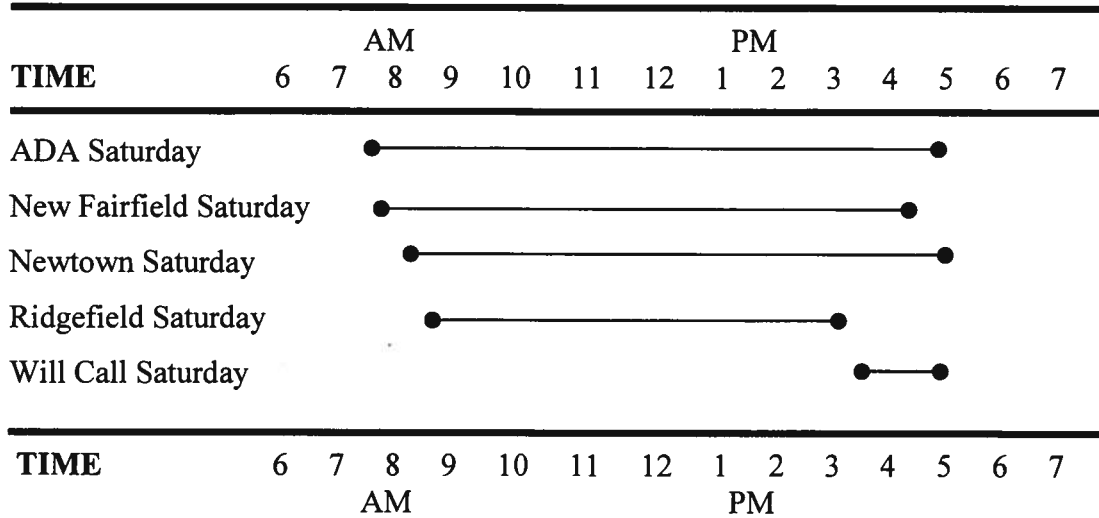


Figure 2.2 Saturday Vehicle Allocation



Weeknights from 6:30 to 10:45 PM, Saturdays from 4:30 to 10:45 PM and Sundays from 8:40 AM to 7:00 PM, a single vehicle provides ADA SweetHART coverage.

2.3 Ridership and Service History

Over the last ten years ridership varied between a high of 73,412 in FY1997 to a low of 59,166 in FY2002. Table 2.2 and Figure 2.3 illustrate the historical trend.

Since the completion of the last SweetHART operational analysis in 2000, total SweetHART ridership increased by 11.7 percent.

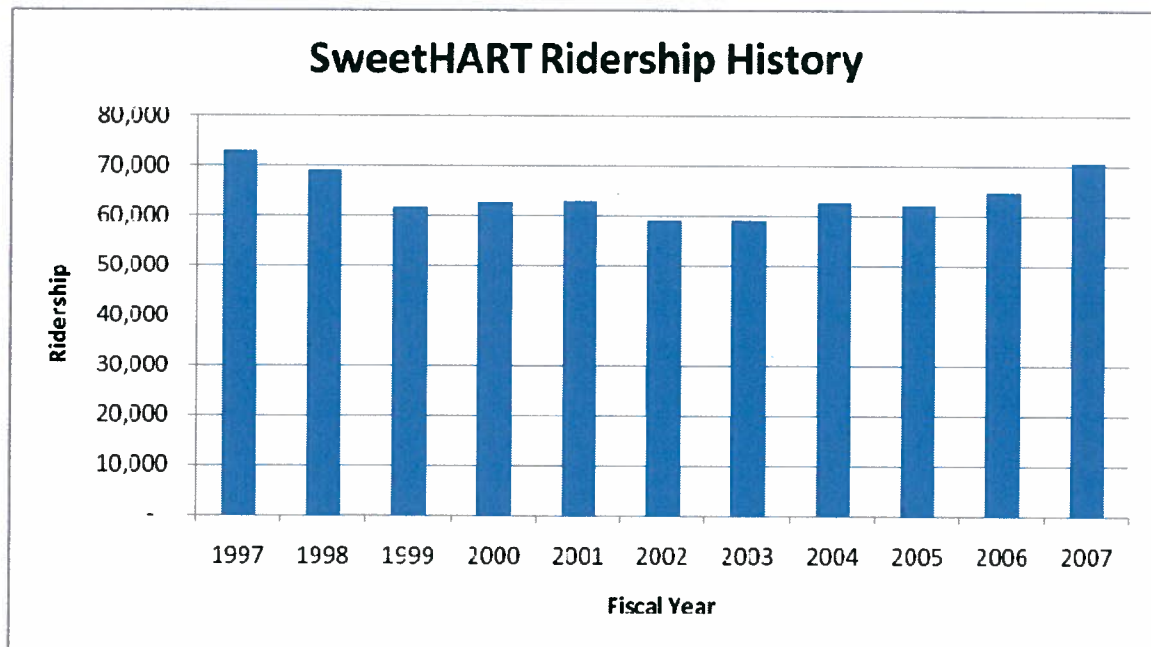
The most significant change in provision of service since 2000 was the creation of the state municipal dial-a-ride grant program in 2007. The program allowed for an increase of over 4,475 annual hours of SweetHART service.

The state municipal dial-a-ride grant program, also referred to as the 13b-38bb program, generated the only significant increase in the provision of service since the implementation of ADA SweetHART service in the early 1990's. HART began operating Roxbury service with the creation of this grant program.

Table 2.2 10 year SweetHART Ridership History

Fiscal Year	Ridership	Fiscal Year	Ridership
FY 1997	73,412	FY 2003	59,246
FY 1998	69,377	FY 2004	62,770
FY 1999	61,745	FY 2005	62,159
FY 2000	62,663	FY 2006	64,815
FY 2001	63,186	FY 2007	70,623
FY 2002	59,166		

Figure 2.3 SweetHART Ridership History



In the towns of Bethel, Brookfield and New Fairfield where bus availability is limited, ridership tends to be fairly stable; this is most evident in the town of Brookfield, where ridership for the ten year period only ranged between 4,043 and 4,787 annual trips. In Danbury, Ridgefield and Newtown, where more buses are supplied, ridership tends to follow a boom and bust type cycle. Among this group, Danbury showed the greatest variation, with a high of 33,823 riders in FY1997 and a low of 24,958 in FY2003.

New Milford ridership fluctuated markedly from a high of 1337 in FY1997 to a low of 32 in FY2002. Ridership here is limited to a small number of ADA paratransit eligible passengers.

Redding experienced a downward trend in ridership post 2000 after a series of municipal funding cuts. SweetHART service was terminated in Redding in 2004 and the town now manages its own dial-a-ride program. HART resumed a very limited SweetHART service for Redding in 2007 for wheelchair trips only, until the town acquired its own accessible vehicle.

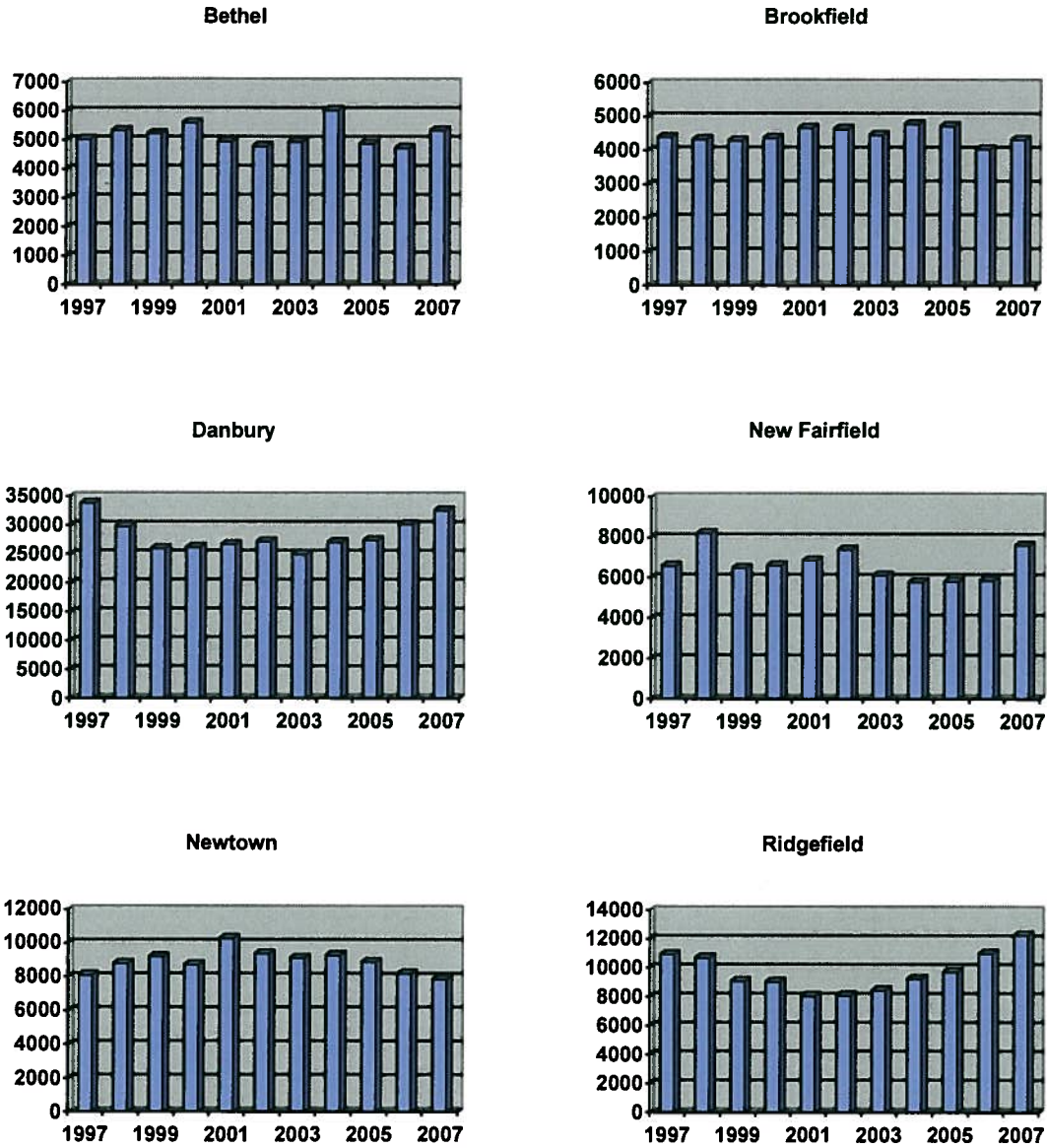
The following graphs illustrate these trends.

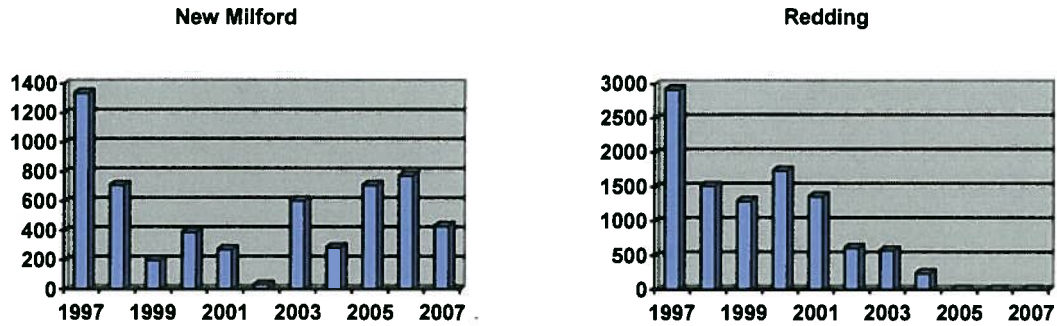
Table 2.3 10 Year Ridership History by Municipality, FY 1997-2007

Year	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Redding	Roxbury	New Milford*
1997	5,035	4,393	33,823	6,585	8,099	10,943	2,921	--	1,337
1998	5,336	4,329	29,775	8,210	8,788	10,712	1,517	--	710
1999	5,233	4,292	25,945	6,482	9,215	9,092	1,295	--	200
2000	5,613	4,366	26,193	6,611	8,716	9,037	1,738	--	389
2001	4,952	4,679	26,698	6,850	10,298	8,072	1,365	--	272
2002	4,793	4,649	27,201	7,394	9,380	8,105	612	--	32
2003	4,941	4,465	24,958	6,124	9,126	8,451	576	--	605
2004	6,043	4,787	27,075	5,785	9,301	9,250	243	--	286
2005	4,874	4,733	27,414	5,824	8,880	9,723	--	--	711
2006	4,728	4,043	30,179	5,868	8,201	11,022	--	--	774
2007	5,335	4,320	32,554	7,610	7,852	12,273	--	249	430

* ADA SweetHART service only

Figure 2.3 Annual Ridership by Municipality, FY 1997-2007





2.4 Prior SweetHART Studies

Several studies have been conducted of the SweetHART program since its inception in 1978.

In April 1987, Urbitran, a New York-based transportation planning and consulting firm, prepared **Technical Memorandum #1: Regional Needs Assessment and SweetHART Operations Review** for HVCEO. This was the first study of SweetHART, then providing service in Danbury, Bethel, New Fairfield, Newtown, Redding and Ridgefield.

The study provided a summary and analysis of SweetHART operations at the time and was a precursor to **HVCEO Regional Planning Bulletin 52: Opportunities for Elderly and Disabled Coordination** of October 1987.

The coordination study examined the SweetHART service in the context of other dial-a-ride programs provided in the Housatonic Region, and possibilities for coordination. The study suggested opportunities for coordination of services to help provide a longer service day, cost savings and other economies through consolidation of operations or maintenance.

The **1994 SweetHART Operational Analysis** provided an examination of the performance of the SweetHART system. The study recommended:

- Reconfiguration ADA runs, and in Newtown and New Fairfield to better meet passenger demand.
- Expansion of intertown service using new state funds and allowing intertown service for non-medical purposes
- Establishment of operational standards for travel time and will call trips

- Development of a customer relations training program
- Automate trip scheduling
- Research new wheelchair securement technology
- Improve road supervision of drivers
- Recertify SweetHART passengers
- Create an internal SweetHART Labor /management council to deal with service issues.

The **2000 SweetHART Comprehensive Operational Analysis** differed from the 1994 study in its inclusion of a customer satisfaction survey and peer analysis with similar dial-a-ride systems in Connecticut. The study included the following recommendations for service improvement:

- General expansion of SweetHART services
- Travel training of SweetHART passengers on fixed route to increase SweetHART capacity
- Recertification of SweetHART Passengers
- Installation of a telephone monitoring technology and telephone training
- Use of ITS technology
- Voluntary grouping of intertown trips
- Create transfer agreements with neighboring dial-a-ride programs
- Update SweetHART marketing materials

Brookfield Mobile Seniors Onward, completed by graduate student Maureen Farrell of Brookfield in 2008, lays out a strategic plan for senior transportation in Brookfield. The report was prepared in cooperation with the Brookfield Commission on Aging and HART.

The Brookfield study included interviews of residents knowledgeable about senior issues as well as on-board surveys on SweetHART and HART fixed route buses.

The study noted that awareness of services, repetition of messages, and the simplification of information was key to encourage use of transit services.

2.5 SweetHART Vehicle Roster

HART operates a fleet of SweetHART vehicles of various configurations. This fleet was going through the last stage of a replacement program as of spring 2008, the time of this writing. When the last of the 2003 and 2001 model year buses are retired by summer, the average age of a SweetHART bus will be less than 2 years. All of the vehicles are equipped with wheelchair lifts and securement devices. New vehicles include security cameras.

Seating capacities for ambulatory passengers vary between eight and fourteen passengers; buses have two or three wheelchair positions.

Vehicles purchased in 2001 included Magellan GPS systems as an aid for drivers. These systems were eventually eliminated as they proved a distraction and slowed the process by which drivers learned the street network.

Twenty two vehicles are used for regular SweetHART service. Table 2.4 provides more detailed specifications of the SweetHART fleet of vehicles.

Table 2.4 SweetHART Vehicle Roster

Make	Model	Capacity	Features	Year	Total
Ford/Eldorado	Aerotech	14/2 WC	Wheelchair lift, AC, Radio	2003	1
Ford/StarTrans	Senator	14/2 WC	Wheelchair lift, AC, Radio, camera system	2006	9
Ford/StarTrans	Senator	14/2 WC	Wheelchair lift, AC, Radio, camera system	2007	3
Ford/StarTrans	Senator	12/2 WC	Wheelchair lift, AC, Radio, camera system	2007	3
Ford/StarTrans	Senator	8/3 WC	Wheelchair lift, AC, Radio, camera system	2007	6

Total 22

2.6 Driver Assignment

SweetHART drivers select their work assignments, also known as runs, by seniority as established by the current labor agreement (drivers and schedulers are members of ATU Local 1622). SweetHART runs are selected at least annually. Runs are re-bid if a given assignment changes by more than two hours per week, when a run moves from full-time to part time, or when a driver leaves the SweetHART program.

Other HART drivers report daily for the purpose of filling work open due to illness or vacation. This work is assigned as per the union contract.

Most SweetHART runs are full time five days per week. Several are full time over four days and a few are part time. Many runs serve different

communities over the course of the week. Run 4, for example, serves Bethel, Ridgefield, or New Fairfield, depending on the day of the week.

Some SweetHART runs are combined with Ridgefield-Katonah or Danbury-Brewster Shuttle runs. This allows for a more efficient coverage of the peak-period-only shuttle work, helps to create more full time positions and aids in the retention of employees.

2.7 Fare Structure

SweetHART fares are 60 cents for local trips within a single municipality and 75 cents for trips that cross a municipal boundary. ADA eligible trips on SweetHART are charged a fare of \$1.25; equal to the fixed route bus fare.

Discounted ten ride passes can be purchased by SweetHART users. The ten ride pass offers a convenience factor and a small discount per trip. Pass prices are shown below.

Table 2.7 SweetHART Fare Structure

	<u>Local Fare</u>	<u>Intertown Fare</u>
Senior Citizen	\$0.60	\$0.75
Disabled	\$0.60	\$0.75
ADA Eligible Trips	\$1.25	\$1.25

Table 2.8 SweetHART Pass Prices

	<u>Local Pass</u>	<u>Intertown Pass</u>
Senior Citizen	\$5.50	\$7.00
Disabled	\$5.50	\$7.00
ADA Eligible Trips	\$11.00	\$11.00

The Ridgefield Commission on Disabled covers the cost of SweetHART rides for town residents. Ridgefield residents riding within Ridgefield or between Ridgefield and other municipalities do not pay a fare. Roxbury residents also ride without fares.

2.8 Passenger Eligibility

As mentioned in the beginning of the chapter, three distinct classes of passengers are eligible to use SweetHART service. Senior citizens over the age of 60, any person with a disability regardless of age and passengers qualified as ADA paratransit eligible.

ADA Eligibility and Policy Compliance

The American's with Disabilities Act of 1990 (the ADA) established a comprehensive framework and approach for ending discrimination against persons with disabilities. The Act bans the discrimination against persons with disabilities from services including public transportation.

HART is now in full compliance with all aspects of the ADA. The ADA regulations mandate that all public transportation providers make their fixed route services accessible to persons with disabilities. HART also provides complementary paratransit service (comparable to fixed route) to eligible individuals. These individuals must be located within a 0.75 mile buffer of an existing fixed route service, but are unable to use it because of their disability.

For more details, please refer to Appendix A: Passenger Eligibility Requirements.

2.9 Trip Reservation Process

SweetHART is a demand response service or “dial-a-ride” type service. Eligible passengers must call ahead of their planned travel time to make a trip reservation. Passengers can call ahead as early as two weeks for medical appointment and ADA eligible trips, and from one week up to 1:00 p.m. the day before for all other trips. ADA passengers can book until 5:00 p.m. the day before their trip.

Booking a trip as early as possible is strongly recommended to have the best chance of securing a trip. Trip reservations are accepted Monday through Friday. SweetHART will not schedule trip reservations beyond three weeks.

Trips are reserved on a first come, first serve basis with the exception of ADA eligible trips which receive top priority. On rare occasions, an ADA eligible trip may bump a non-ADA eligible trip as required by the ADA. Schedules fill up fast because many municipalities have a large demand for service and a limited amount of service available. No priority is given based on trip purpose.

Subscription trips, where regular users have a pre-scheduled trip and only call if they are not traveling, are considered case by case. They may be instituted if passengers have a regular trip for an extended period of time, and their pickup or drop off location does not create an operational problem (i.e., remote location). If the individual on subscription fails to call or “no-shows” they lose their subscription, and have to call in their requests.

SweetHART passengers may not know the time of their return trip if, for example, they are using SweetHART for a medical appointment. Such persons may call when ready to be picked up. Sweet HART will then pick up the person on the next available bus. Will-call runs are set up with the express purpose of handling these requests, although any driver may pick up a will-call if they have time in their schedule and origins and destinations are similar.

Please refer to Appendix C: SweetHART Trip Reservation Policies for more detailed information on reservation policies.

2.10 Trip Cancellations and no shows

Passengers are required to call in any trip cancellations at least 12 hours in advance. Cancellations are accepted around the clock using voice mail during evening hours and on weekends. Passengers who establish a pattern of excessive short cancellations can have their riding privileges suspended.

Cancellations called in with less than 12 hours notice are considered no shows. No shows also occur when the bus arrives and the passenger is not at the scheduled pick up location.

Passengers who miss five or more scheduled trips within a 60 day period are subject to having their riding privileges suspended. The maximum sanction for missing the first series of five or more scheduled trips in a 60 day period is a thirty day riding privilege suspension. Longer suspensions of riding privileges can result from missing an additional series of five or more trips in another 60 day period. Passengers have the right to appeal these sanctions to HART and ConnDOT if necessary.

3.0 PERFORMANCE INDICATORS

3.1 Introduction

This chapter examines the historical performance of the SweetHART system. An examination of service levels, trip length, travel time and the growth in the number of wheelchair trips is provided. Service efficiency, service costs, passenger revenue and peak travel times are also evaluated.

When comparing recent data with older data it is important to understand that the operating environment may have changed substantially from one year to another. Factors such as trip length, trip time, volume of wheelchair riders, service levels, etc. can greatly influence system performance measurements. These statistics can be dramatically affected by active riders, road construction, and locations of popular destinations in just a short period of time.

As a result of these factors, some caution must be used in making direct comparisons. For purposes of this study, historical SweetHART performance indicators are shown for the period of FY2002 to FY2007 for most statistics. Some effort is made to explain changes in the operating environment which have likely affected the performance of the service.

3.2 Service Levels

Although not a direct performance indicator, the trend in service levels over the past six years provides a context in which the indicators can be considered.

There were no significant changes in the funding structure of the SweetHART service between 2002 and the end of fiscal year 2006. Service hours varied slightly between these years and can be attributed to the differences in the number of annual service hours.

After 2006, new funding for SweetHART in the form of Connecticut State program 13(b)-38(bb) provided support for expansion in each member municipality. The funding for this program is allocated based on the Senior population and the square mileage of the municipality. Each municipality met with HART and determined the best use of these new funds.

A description of the expansion under the program is provided on the following page.

Figure 3.1 Service Hours and Miles FY 2002 to 2007

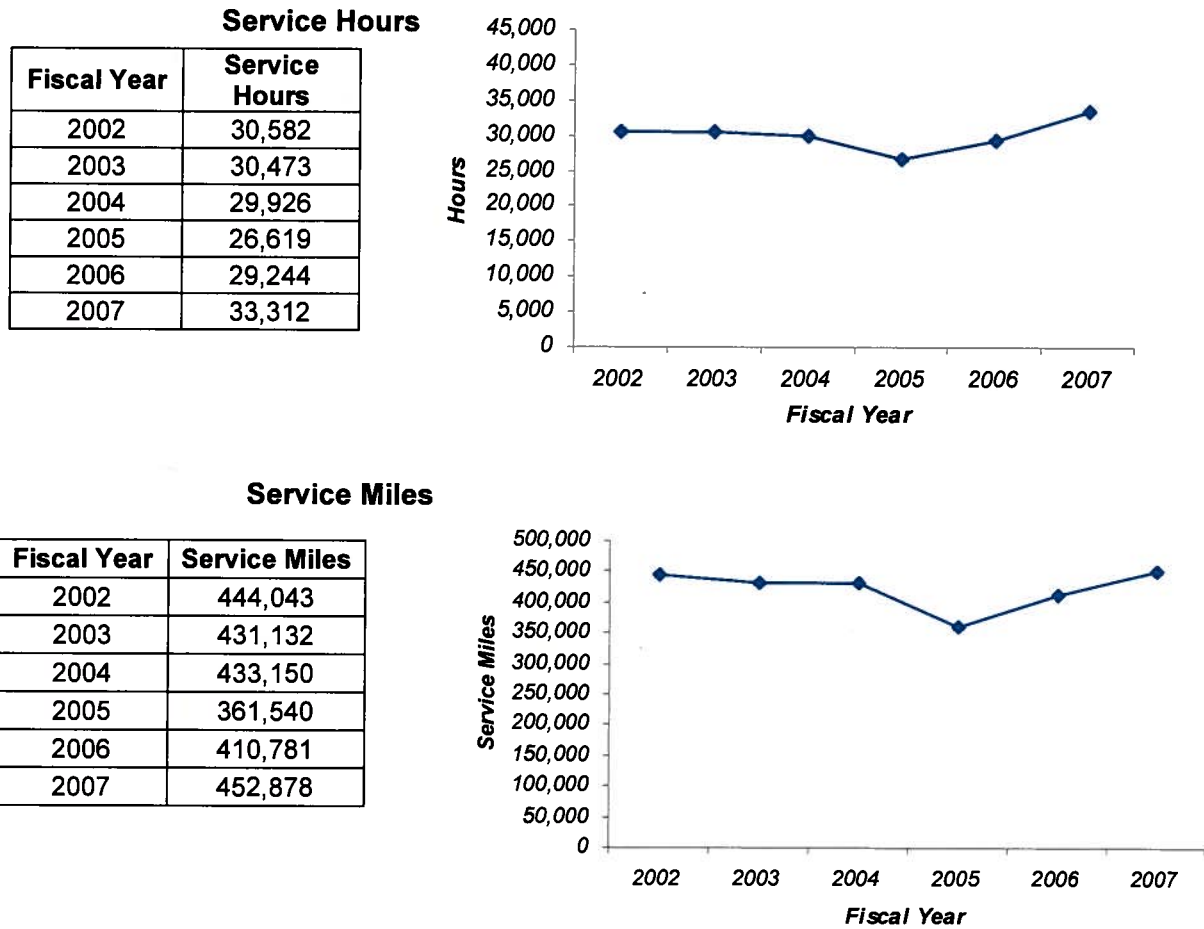


Figure 3.2 FY 2007 Service Expansion Detail

Municipality	New hours/year	Expansion
Bethel	430	Expanded service day M-F
Brookfield	541	Expanded service day M-F
Danbury	1420	Additional bus coverage M-F.
New Fairfield	457	Full day of Saturday service
Newtown	981	Additional service Monday-Wednesday to eliminate a split run and provide two full buses those days. A full day of Saturday service was also added.
New Milford	1040	Additional coverage and longer service day M-F. Expansion operated by New Milford Senior Center; not part of SweetHART program.
Ridgefield	737	A third bus operates Tuesday for medical trips. More bus coverage Friday in the p.m. peak.
Roxbury	338	Full day of service on Tuesday; new to SweetHART system.

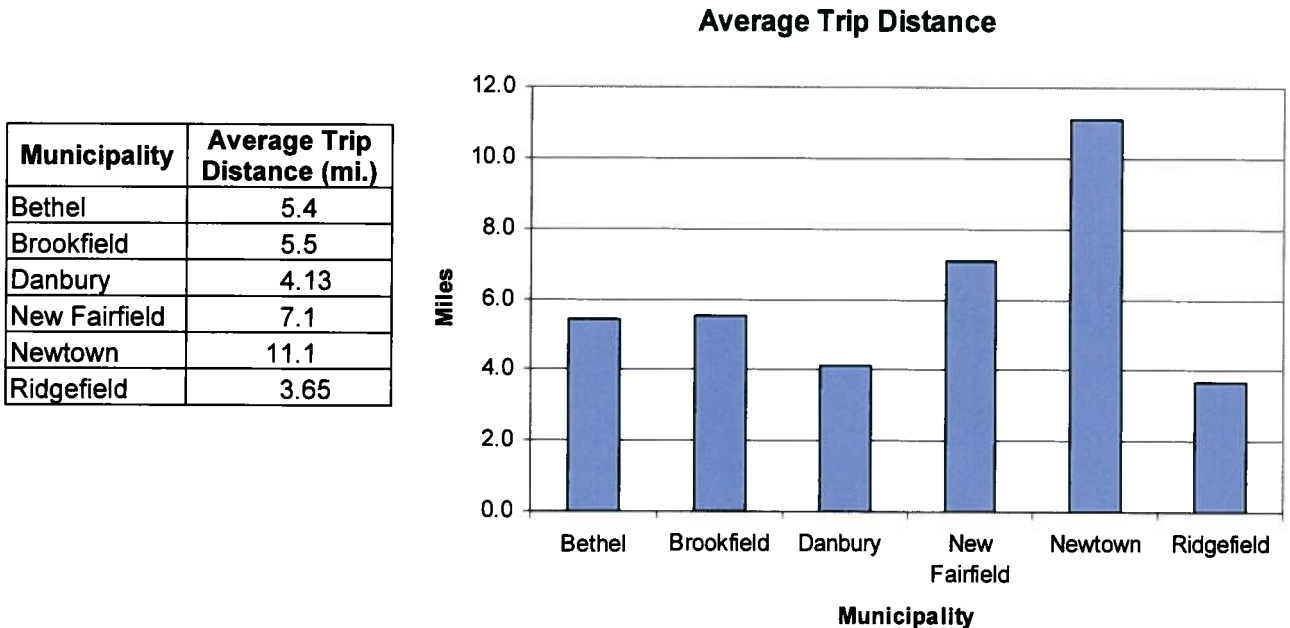
3.3 Trip Length

Average distance of each passenger trip and has a direct influence on system performance. As trip lengths grow shorter, the potential for improving service efficiency grows. As trip lengths grow longer, service efficiency is likely to decline.

At less than four miles, trip distance is shortest in Ridgefield, where senior housing and destinations are fairly concentrated. Trips in Newtown are longest, at just over 11 miles.

According to a March 2008 sampling, average trip length on the SweetHART system is 6.14 miles. This is slightly less than the sampling in 2000 which had an average trip length across all of the towns as 6.32 miles, indicating a small increase in trip efficiency.

Figure 3.3 Average Trip Distance, March 2008



3.4 Local Trip Travel Time by Municipality

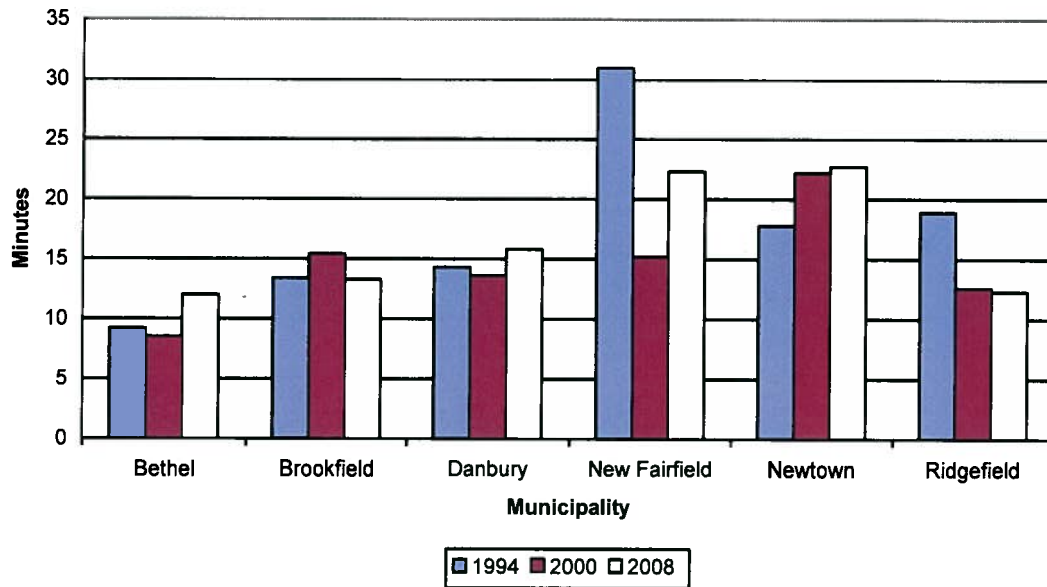
Travel time varies significantly according to municipality. Factors affecting travel times within a municipality include the geographic size of the municipality, a street and road network that provides direct routing between trip origins and destinations, and the average distance between trip origins and destinations.

The number of intertown trips produced by municipality can have a substantial impact on overall average travel time. For the purpose of this analysis, intertown and local trips were examined separately. A three day sample of local SweetHART trips was taken in March 2008 for each municipality and is summarized below. A FY 2000 sampling showed an average trip travel time of 14.6 minutes for local trips. The March 2008 sample shows an overall average of 16.4 minutes per local trip; a 12% increase from the 2000 sample.

Figure 3.4 Local Trip Travel Time By Municipality

Municipality	1994 Sample Travel Time (minutes)	2000 Sample Travel Time (minutes)	2008 Sample Travel Time (minutes)
Bethel	9.2	8.5	12.0
Brookfield	13.4	15.4	13.3
Danbury	14.3	13.6	15.8
New Fairfield	31.0	15.2	22.3
Newtown	17.8	22.2	22.7
Ridgefield	18.9	12.6	12.3
System	17.4	14.6	16.4

Local Trip Time in Minutes



3.5 Intertown Trip Travel Time by Municipality

For the SweetHART system as a whole, intertown trips take 76% more time than local trips.

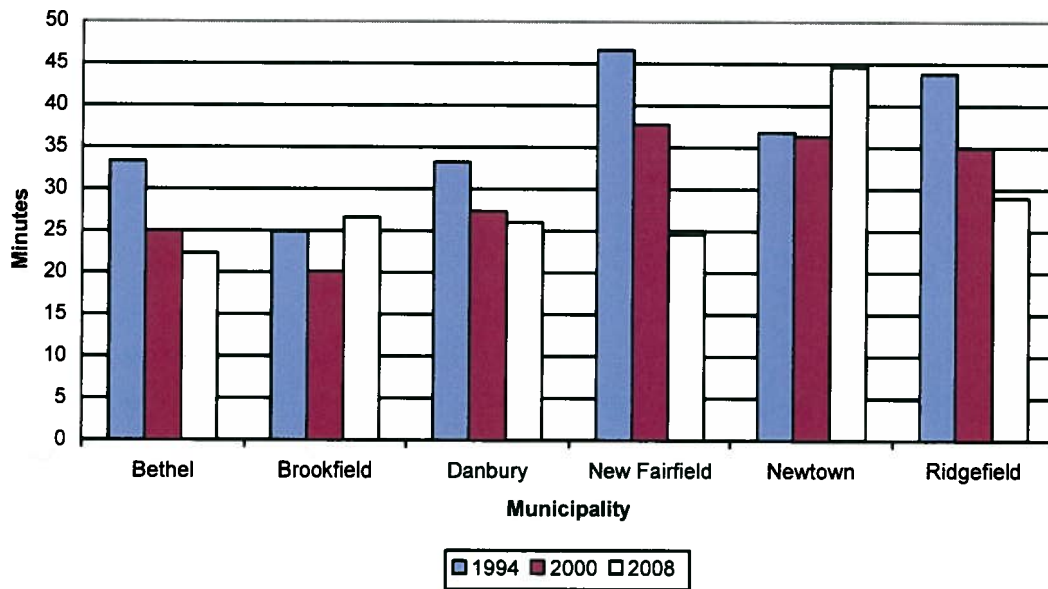
Most intertown trips are comprised of shopping, employment, and medical appointments in Danbury from outlying towns. Trips originating in Bethel have the shortest average travel time of 22.3 minutes while trips originating in Newtown have the longest average travel time at 44.6 minutes.

Overall, intertown trip time decreased as compared with past SweetHART analyses, with the average trip now at 28.9 minutes, down 4.3% from the 2000 SweetHART COA and down 20.6% from 1994. Trips originating or ending in Newtown and Brookfield, however, now take longer.

Figure 3.5 Intertown Trip Travel Time by Municipality

Municipality	1994 Sample Time (minutes)	2000 Sample Time (minutes)	2008 Sample Time (minutes)
Bethel	33.3	25.0	22.3
Brookfield	24.9	20.1	26.6
Danbury	33.2	27.3	26.0
New Fairfield	46.6	37.7	24.6
Newtown	36.8	36.3	44.6
Ridgefield	43.8	34.9	29.0
System	36.4	30.2	28.9

Intertown Trip Time in Minutes



3.6 Wheelchair Trips

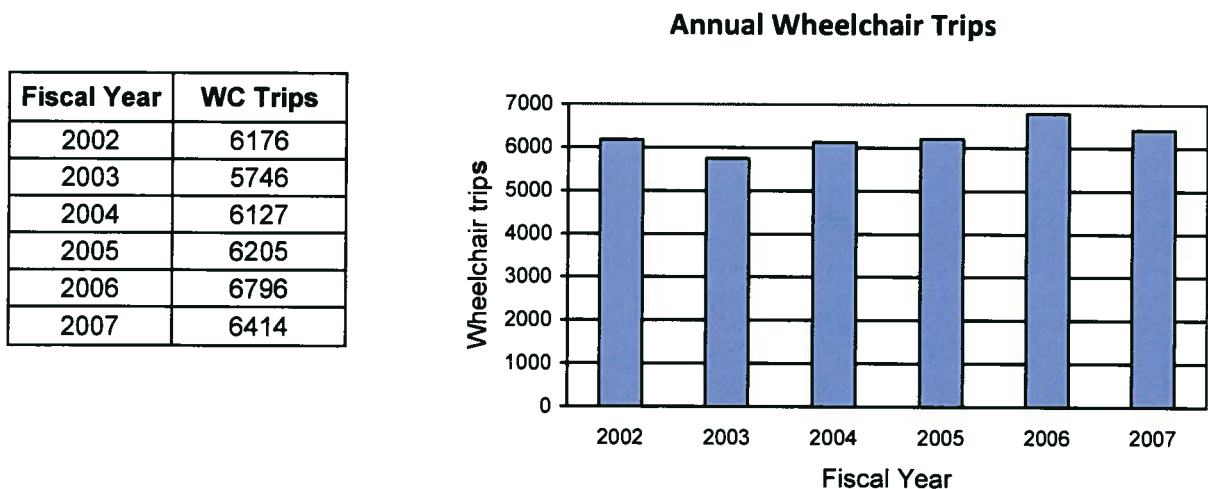
Another significant factor affecting both travel time and service efficiency is the number of trips by wheelchair bound passengers. From FY2002 to FY2007, an overall increase in wheelchair trips occurred with a peak in 2006. Between FY2002 and FY2007 trips increased from 6,176 trips to 6,414. This represents a 3.8% increase in the number of wheelchair trips. FY2006 actually saw the largest amount of wheelchair trips at 6,796, an increase of 10% over FY2002 trips.

The passage of the Americans with Disabilities Act of 1990 led to increased independence of wheelchair bound persons, which have in turn, increased use of SweetHART and similar services. Other reasons for the growth in wheelchair trips include the success of employment programs for persons with disabilities coordinated by Ability Beyond Disability and other social service providers.

Wheelchair trips require significant additional time to secure the wheelchair using a four point tie down system, and to board and disembark the passenger using the wheelchair lift. A minimum of 5-10 minutes in additional time is required for each wheelchair trip.

Given an increase in the number of wheelchair trips carried, some decrease in system performance would be expected. However, passengers per hour and mile have increased or remained relatively unchanged over the past six years. Possible mitigating factors include the number of long time employees in the SweetHART driver corps, and implementation of more sophisticated securement technology on buses that allows for faster tiedowns.

Figure 3.6 Wheelchair Passenger Trips

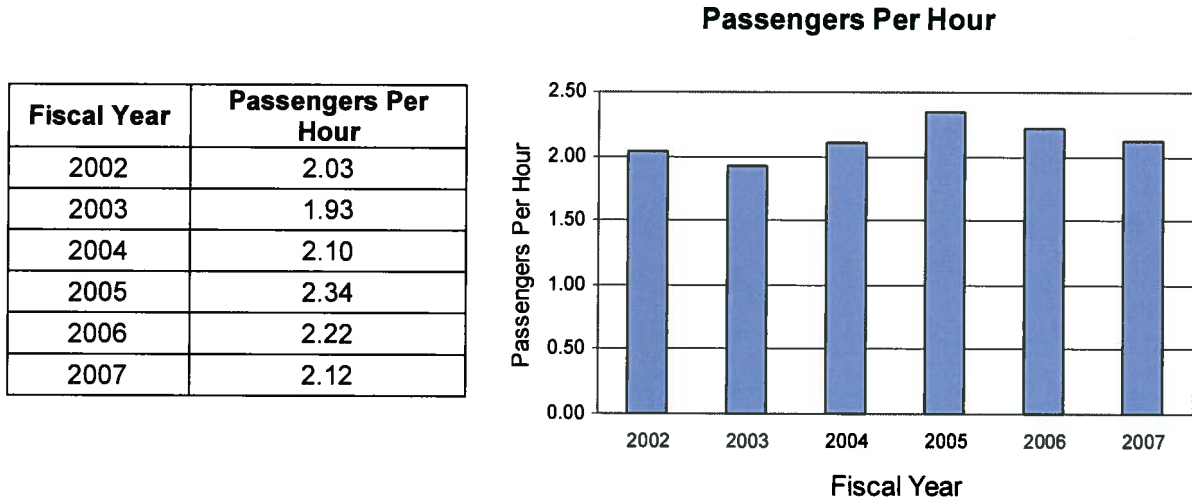


3.7 Service Efficiency

Passenger trips carried per hour and per mile are typical performance indicators for paratransit. SweetHART has not experienced significant changes in these indicators during the period FY 2002 to FY 2007. Passenger trips per hour ranged from 1.93 per hour in FY 2003 to 2.22 per hour in FY 2006.

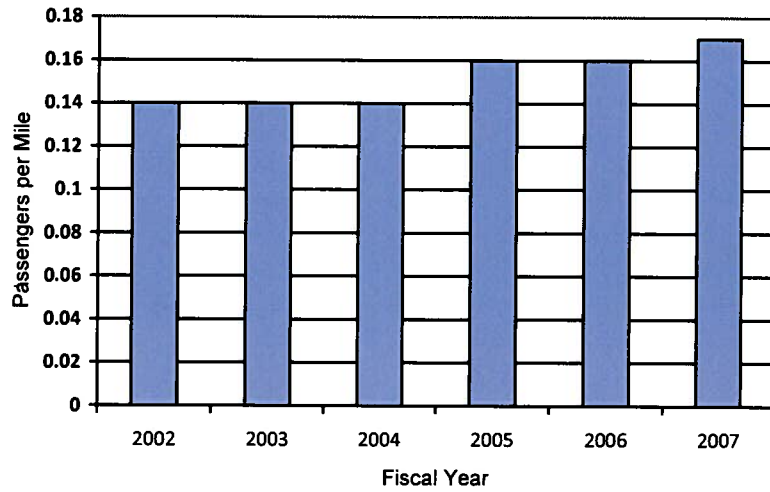
Figure 3.7 illustrates the trend in service efficiency for SweetHART from FY 2002 to FY 2007.

Figure 3.7 Service Efficiency Indicators, FY2002 – FY2007



Passengers per Mile

Fiscal Year	Passengers Per Mile
2002	0.14
2003	0.14
2004	0.14
2005	0.17
2006	0.16
2007	0.16



3.8 System Comparison

To compare HART’s service costs to other paratransit operations in the state, three Connecticut transit districts were selected: Norwalk Transit District, Greater New Haven Transit District and Middletown Transit District. All three agencies provide dial-a-ride services similar to SweetHART.

Figure 3.8 illustrates the trend in performance measures from FY 2002 to FY 2006 for HART and the other transit districts (at the time of the writing of this report, FY 2006 data was the most recent available from the National Transit Database).

Cost per hour is most useful in examining labor costs for the vehicle operators as well as the operator’s fringe benefits. Vehicle operator salaries and benefits represent the largest share of operating costs. Cost per mile is a good indicator for vehicle maintenance costs; including labor and benefits for maintenance workers as well as materials and supplies for the vehicles.

Trips per hour is an indicator of system productivity. Although the size of the transit operations selected varies, the four systems show very consistent productivity numbers. The spatial characteristics of passenger pick up and drop off locations drive the number of trips that can be made regardless of geographic location or fleet size.

Figure 3.8 System Comparisons FY 2002 – FY 2006

Cost per Mile

Source: National Transit Database

Year	Greater New Haven Transit District	Middletown Transit District	Norwalk Transit District	HART
2002	\$3.45	\$2.85	\$4.59	\$3.22
2003	\$4.30	\$2.57	\$6.71	\$3.18
2004	\$3.78	\$2.62	\$7.37	\$3.23
2005	\$4.47	\$2.99	\$7.54	\$3.68
2006	\$4.49	\$2.92	\$7.53	\$3.98

Cost per Hour

Source: National Transit Database

Year	Greater New Haven Transit District	Middletown Transit District	Norwalk Transit District	HART
2002	\$40.84	\$26.71	\$63.81	\$46.91
2003	\$46.02	\$31.07	\$81.73	\$45.18
2004	\$43.90	\$28.23	\$74.97	\$49.26
2005	\$49.83	\$22.88	\$68.01	\$50.31
2006	\$53.00	\$30.24	\$74.63	\$55.76

Trips per Hour

Source: National Transit Database

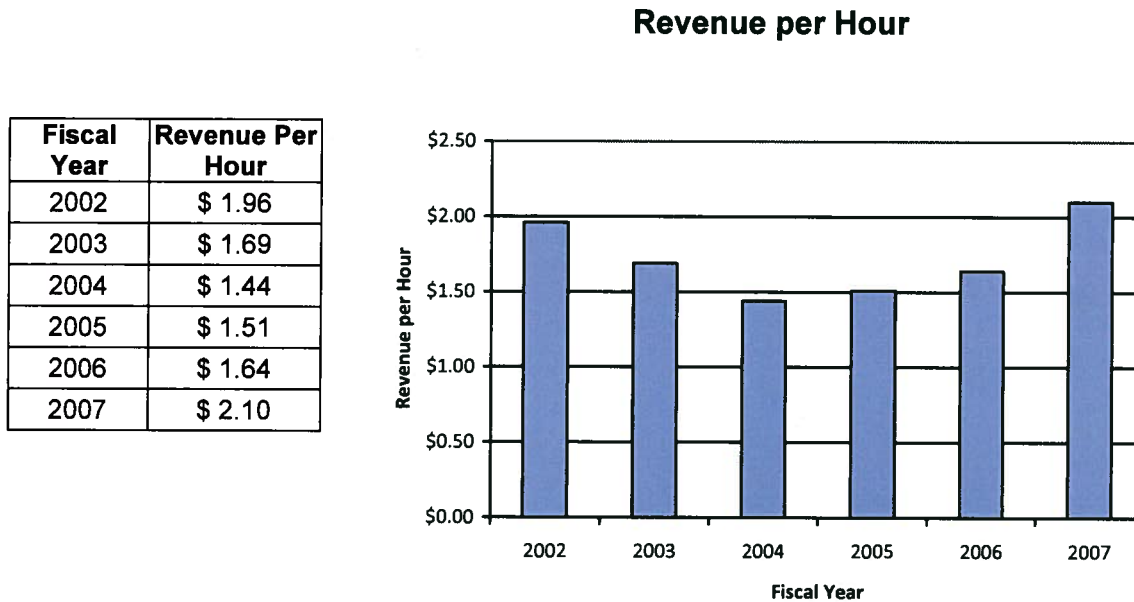
Year	Greater New Haven Transit District	Middletown Transit District	Norwalk Transit District	HART
2002	1.97	2.26	2.18	2.03
2003	1.86	2.29	2.54	1.93
2004	1.90	2.26	2.83	2.10
2005	2.04	2.19	2.22	2.34
2006	2.11	1.94	2.33	2.22

3.9 Passenger Revenue

Overall passenger revenue increased from FY 2002 to FY 2007. There was an ADA fare increase and a dip in ridership in 2004 which could be the cause of the decrease in revenue per hour shown in FY 2004 and FY 2005.

Figure 3.9 illustrates average revenue per service hour from FY 2002 to FY 2007.

Figure 3.9 Revenue per Service Hour



3.10 Passenger Boardings by Time of Day

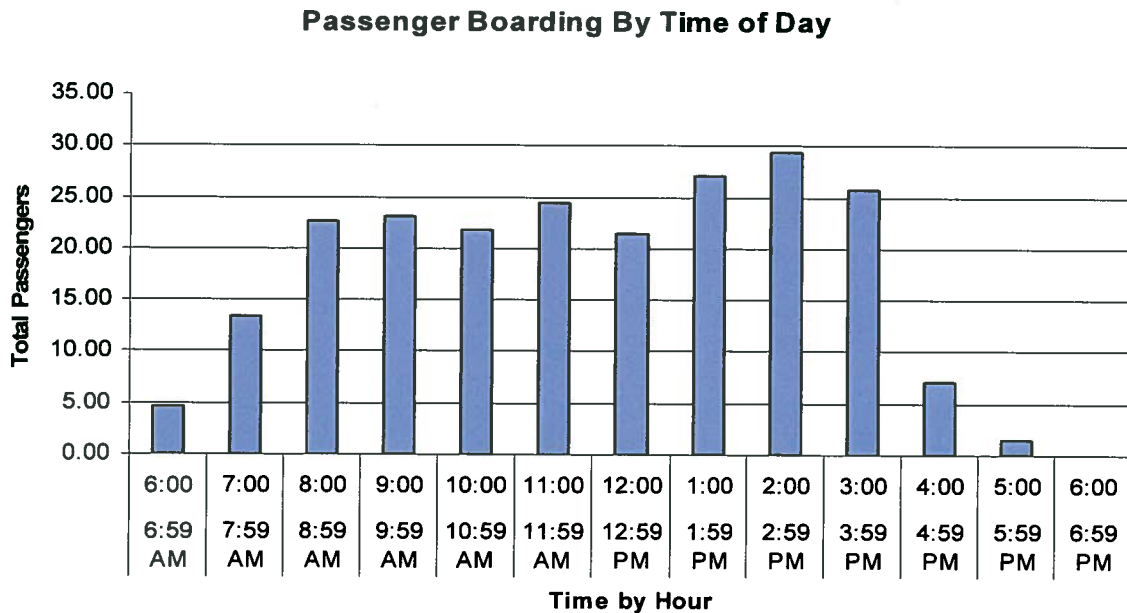
Passenger boardings indicate which periods of the day experience the most demand. A three day sample of SweetHART runs conducted in March 2008 shows that passenger boardings peak between 8:00 a.m. and 10:00 a.m. (45.00 boardings), 10:00 a.m. and 12:00 p.m. (45.35 boardings), and 1:00 p.m. to 3:00 p.m. (56.33 boardings). Boardings are also heavy between 12:00 p.m. to 1:00 p.m. (21.01 boardings) and 3:00 p.m. to 4:00 p.m. (24.67 boardings). Passenger boardings never drop below 21 boardings per hour between 8:00 a.m. and 4:00 p.m.

Boardings decrease significantly before 8:00 a.m. and after 4:00 p.m. This is due to limited service availability and a low demand for service in the early morning and later evening hours.

SweetHART runs peak at varying times throughout the day. In municipalities where there is more than one run, the first run will usually peak during the morning hours while carrying senior citizens to their respective senior centers and workers to employment. The second run will generally peak during the afternoon when making return trips from the senior centers or work.

Figure 3.10 illustrates average passenger boardings graphically.

Figure 3.10 Passenger Boarding by Time of Day



3.11 Unsuccessful trips

There are several outcomes that occur when a SweetHART user calls to schedule a trip. Firstly, a trip is scheduled and made successfully. The rate of successful trip reservations varied slightly between 81 to 83 percent of calls made over the past six years. Other outcomes can take place as follows:

- A *trip denial* occurs if there is no room in the schedule, and there is no alternate trip that can be offered. Note that trip denials only occur with significance on non-ADA SweetHART trips. The denial rates for ADA SweetHART trips are negligible, comprising about 0.01% of reservations.
- A *trip refusal* is one where an alternate trip time is offered by the scheduler, but the rider declines.
- *Cancellations* are trips reserved but cancelled with 12 or more hours notice.
- *No shows* occur if a bus arrives for a trip pickup and the passenger does not board the bus, or if a trip is cancelled same day.

Trip cancellations occur roughly 12-14% of the time. Over the 6 year period no show rates, while still relatively low, have increased by 71%.

Figure 3.11 SweetHART Reservation Outcomes

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Trip made	83.1%	81.9%	81.3%	81.4%	81.9%	82.5%
Denied	1.9%	1.7%	1.8%	1.3%	1.7%	1.4%
Refused	0.3%	0.3%	0.4%	0.4%	0.4%	0.3%
Cancelled	12.3%	14.2%	14.3%	12.1%	11%	11.7%
No Show	2.4%	1.9%	2.2%	4.8%	5%	4.1%

4.0 PASSENGER SURVEY RESULTS

4.1 Introduction

This chapter summarizes the results of a passenger survey conducted in April and May 2008. 1060 surveys were sent and 565 were received back, a response rate of over 53%. The survey is very similar to one conducted by HART in 2000, allowing for comparison of many responses between the two surveys.

The results of the survey were broken down by municipality for Bethel, Brookfield, Danbury, Newtown, New Fairfield and Ridgefield and summarized for the region as a whole. A majority of the respondents were very satisfied with the service and there were many positive comments.

Passenger comments from the survey help highlight which aspects of the service need improvement, and also include a few responses from residents of New Milford and Roxbury, where HART provides limited SweetHART service and for which only a few surveys were returned. Passenger feedback provides a basis for some of the recommendations in the next chapter.

4.2 Methodology

The survey was a brief multiple choice questionnaire. The first question asked respondents what municipality they lived in so that the surveys could be sorted accordingly. Passengers were also asked why they used the service and how often.

One question asked if respondents had access to the internet and e-mail, since there are now a host of technological options to help in the provision of service.

The nine other questions on the survey asked respondents to rate different aspects of the service on a scale of 1 to 5.

4.3 Sample Group

A mailing list of active riders was provided through the SweetHART scheduling software. An active rider was considered anyone who had taken one trip between March 2007 and March 2008.

The survey was sent to the list of passengers along with a stamped return envelope to encourage response rates. A letter explaining the survey's purpose and the date by which the survey should be returned also accompanied the survey.

4.4 Passenger demographics

Trip Purposes

Most of the survey respondents use the service for multiple purposes.

Regionally, medical appointments at 40.6% were the number one purpose for users of SweetHART. Shopping was the second most popular activity, at 23.3% followed by travel to senior centers (14.5%). The most common response under "other" (10.7%) was for hair appointments. Employment (10.1%) and school trips (0.8%) were less likely trip purposes. The relative priority of these trips has not changed significantly since the 2000 survey.

By municipality, Danbury riders used the service more for medical appointments (52% of responses) than elsewhere with relatively few using it for senior center trips. This is likely because the Danbury senior center operates its own bus. In New Fairfield, there are relatively more users riding the bus to the senior center and less for shopping than in other communities.

Tables 4.1 summarize trip purpose responses for the region and individual municipalities.

Table 4.1 Trip Purposes (responses by percent)

Trip Purpose	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
Work	11.8	12.1	7.8	10.6	13.8	4.7	10.1
Shopping	21.5	20.7	22.7	19.7	28.7	26.5	23.3
Medical Appointments	46.3	41.3	51.8	37.9	33.4	32.9	40.6
Senior Center	8.6	12.1	5.0	27.3	11.5	22.3	14.5
School	0.0	1.7	0.3	0.0	1.1	1.8	0.8
Other	11.8	12.1	12.4	4.5	11.5	11.8	10.7
TOTAL	100	100	100	100	100	100	100

Ridership Frequency

For the region as a whole, the largest percentage of respondents reported that they used the service one to five times per week. This figure varied only modestly by municipality. Following closely behind were the percentage of respondents (30.4%) who used the service one to five times a month. For the region, only 7.5% of the respondents reported using the service five to ten times a week. These regional averages vary little from 2000.

The greatest differences between municipalities show at the percentages of very frequent riders, with Newtown having the lowest number at 1.9% of respondents, and Brookfield with the greatest number at 13.9%.

Respondents in the category of “other” generally reported very occasional use of the service.

Table 4.2 summarizes ridership frequency for the region and individual municipalities.

Table 4.2 Ridership Frequency (Percent of Respondents)

Trip Frequency	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1-5 Times/Week	27.4	41.6	33.2	45.5	46.3	40.6	39.1
5-10 Times/Week	4.8	13.9	7.9	13.6	1.8	3.1	7.5
1-5 Times/Month	43.6	27.8	36.0	22.7	24.1	28.1	30.4
5-10 Times/Month	8.1	0.0	5.5	2.3	3.7	7.3	4.5
Never	0.0	2.8	0.4	2.3	0.0	1.1	1.1
Other	16.1	13.9	17.0	13.6	24.1	19.8	17.4
TOTAL	100	100	100	100	100	100	100

Internet and E-mail use

The survey asked passengers to indicate if they had access to the internet or used e-mail on a regular basis. Based on the survey results, a large majority of riders (79.7%) do not use the internet or e-mail regularly.

Respondents from the town of Newtown were more likely than residents of other municipalities to use the internet regularly, with almost 36% answering the question positively.

Table 4.3 summarizes internet usage for the region and individual municipalities.

Table 4.3 Internet and E-mail usage (% of Respondents)

Use of Internet	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
Yes	14.1	13.9	13.7	23.1	35.8	21.3	20.3
No	85.9	86.1	86.3	76.9	64.2	78.7	79.7
TOTAL	100	100	100	100	100	100	100

4.5 Passenger Satisfaction Ratings

The second part of the survey asked respondents to rate different aspects of the service on a scale of one to five (one being poor and five being excellent). The survey asked riders to rate general aspects of the service, the trip scheduling process and the SweetHART bus drivers. This section summarizes those results.

General Service Questions

A majority (79.2%) of respondents in the region indicated that the availability of information about SweetHART was very good or excellent. This is the lowest percentage of positive ratings regionally for any criteria measured in the survey, and responses varied widely by municipality.

Passengers in New Fairfield were the most satisfied with the availability of information; over 90% indicated that it was good or excellent. Passengers in Newtown were the least satisfied with the availability of information, with 72.6% indicating that it was very good or excellent.

On-time performance for the region was also rated favorably among the survey respondents as a whole, with 85.7% indicating that it was very good or excellent. Riders in Brookfield were the most satisfied with on-time performance with 91.4% reporting it was very good or excellent. Riders in Newtown were least satisfied, with 78.8% indicating that performance was very good or excellent.

Overall satisfaction with the service was a key indicator question. For the region, 88.5% of the respondents answered that their overall satisfaction with SweetHART was very good or excellent. Passengers in Bethel were most satisfied with the service, with 91.9% rating it very good or excellent. Respondents in Newtown were least satisfied, with 81.0% rating the service very good or excellent.

Figure 4.4 summarizes general service ratings for each municipality and the region as a whole.

Figure 4.4 General Service Questions Results

Availability of SweetHART Information (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	3.3	5.9	4.6	2.4	0.0	3.4	3.3
2	0.0	2.9	0.8	2.4	3.9	1.1	1.9
3	9.8	11.8	11.2	4.9	19.6	12.4	11.6
4	14.7	20.6	19.8	17.1	13.8	14.6	16.8
5 Excellent	65.6	55.9	59.5	73.2	58.8	61.8	62.4
No Opinion	6.6	2.9	4.1	0.0	3.9	6.7	4.0
TOTAL	100	100	100	100	100	100	100

On-Time Performance (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	0.0	5.7	4.1	2.3	1.9	0.0	2.3
2	1.6	0.0	1.6	0.0	5.8	2.2	1.9
3	14.5	0.0	11.3	9.3	13.5	5.6	9.0
4	29.0	20.0	23.1	20.9	28.8	30.0	25.3
5 Excellent	54.9	71.4	59.5	67.5	50.0	58.9	60.4
No Opinion	0.0	2.9	0.4	0.0	0.0	3.3	1.1
TOTAL	100	100	100	100	100	100	100

Overall Satisfaction with the Service (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	0.0	2.9	4.0	6.8	5.7	2.2	3.6
2	1.6	2.9	4.0	0.0	1.9	1.1	1.9
3	6.5	0.0	4.3	2.3	9.4	5.4	4.7
4	17.7	14.2	21.0	15.9	26.4	15.2	18.4
5 Excellent	74.2	77.1	65.9	75.0	54.7	73.9	70.1
No Opinion	0.0	2.9	0.8	0.0	1.9	2.2	1.3
TOTAL	100	100	100	100	100	100	100

Trip Scheduling Process

The next three questions on the survey asked survey respondents to rate knowledge and courtesy of the schedulers, as well as the overall trip scheduling process itself. Overall, the responses indicate that most passengers were pleased with the trip scheduling process and schedulers.

When asked about the courteousness and friendliness of the schedulers, 91.2% indicated that this measure rated very good or excellent. New Fairfield had the highest level of satisfaction among the municipalities. All communities demonstrated a high level of satisfaction with scheduler courtesy, with a variation of less than 10% between municipalities.

When rating scheduler knowledge of the SweetHART service, a majority (88.6%) felt it was very good or excellent. Riders in Bethel had the highest level of satisfaction; 93.5% indicating the measure was good or excellent. All communities showed positive satisfaction levels above 86% in regards to schedulers' knowledge of the service.

When asked about the overall trip scheduling process, most of the respondents (83.2%) indicated it was very good or excellent. Respondents in Bethel at 88.6% reported the highest level of satisfaction and residents in Brookfield at 76.4% were the least satisfied with the trip scheduling process.

Figure 4.5 summarizes the results of the trip scheduler ratings for each municipality and the region as a whole.

Figure 4.5 Trip Scheduling Survey Results

Courteousness/Friendliness of Scheduler (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	0.0	2.8	4.7	2.3	0.0	1.1	1.8
2	1.6	2.8	1.6	2.3	1.9	3.2	2.2
3	3.2	5.5	3.5	0.0	7.6	3.2	3.9
4	16.1	8.3	11.9	2.3	22.6	9.7	11.8
5 Excellent	79.1	77.8	77.9	93.1	67.9	80.6	79.4
No Opinion	0.0	2.8	0.4	0.0	0.0	2.2	0.9
TOTAL	100	100	100	100	100	100	100

Scheduler Knowledge of SweetHART Service (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	1.6	5.6	5.3	2.3	0.0	0.0	2.5
2	3.3	0.0	3.2	0.0	0.0	1.1	1.3
3	1.6	0.0	4.5	4.5	10.0	5.7	4.4
4	14.8	13.9	19.1	11.4	22.0	17.0	16.3
5 Excellent	78.7	72.2	64.2	81.8	68.0	68.2	72.2
No Opinion	0.0	8.3	3.7	0.0	0.0	8.0	3.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Overall Trip Scheduling Process (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	1.6	2.9	5.8	4.5	2.0	4.6	3.6
2	0.0	2.9	3.3	4.5	2.0	3.5	2.7
3	4.9	8.8	4.5	6.8	8.0	4.6	6.3
4	19.7	17.7	22.7	11.4	30.0	13.8	19.2
5 Excellent	68.9	58.9	62.0	70.5	56.0	67.8	64.0
No Opinion	4.9	8.8	1.7	2.3	2.0	5.7	4.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Bus Drivers

The last group of questions asked respondents to rate bus drivers' courtesy and friendliness, their knowledge of the SweetHART service and their overall job performance. The SweetHART drivers drew the top two most favorable ratings of the survey results.

With regard to the question of driver courtesy/friendliness, 94.5% of the respondents gave the drivers a very good or excellent rating. When considered separately, each municipality gave drivers positive ratings over 91%.

When asked about driver knowledge of the service, 89.4% of respondents gave a very good or excellent rating. The rating was highest in Bethel at 96.6%, but all towns had favorability ratings above 83%.

For the last key indicator, the rating of the driver's overall job performance, the response was also very positive. For the region as a whole, 94.6% of the respondents rated driver job performance as very good or excellent. All municipalities had positive ratings at 90% or better for this measure.

Figure 4.6 summarizes the bus driver ratings for each municipality and the region as a whole.

Figure 4.6 Bus Driver Ratings Survey Results

Courteousness/Friendliness of the Bus Driver (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	0.0	2.8	3.9	2.3	0.0	0.0	1.5
2	1.7	0.0	0.8	0.0	0.0	1.1	0.6
3	3.3	0.0	2.7	0.0	3.8	3.2	2.2
4	13.3	11.1	14.8	6.8	24.5	5.4	12.6
5 Excellent	81.7	83.3	76.6	90.9	71.7	87.1	81.9
No Opinion	0.0	2.8	1.2	0.0	0.0	3.2	1.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Driver Knowledge of SweetHART Service (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	1.7	2.9	4.5	2.4	0.0	0.0	1.9
2	0.0	0.0	2.4	0.0	2.0	1.1	0.9
3	1.7	0.0	4.0	2.4	8.0	2.3	3.1
4	19.0	8.6	18.2	9.5	30.0	10.1	16.4
5 Excellent	77.6	85.7	65.6	80.9	60.0	77.5	73.0
No Opinion	0.0	2.8	5.3	4.8	0.0	9.0	4.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Overall Driver Job Performance (% of Respondents)

Response	Bethel	Brookfield	Danbury	New Fairfield	Newtown	Ridgefield	Region
1 Poor	1.6	2.9	3.6	2.3	0.0	1.1	1.9
2	0.0	0.0	0.8	0.0	3.9	1.1	1.0
3	1.6	0.0	4.0	0.0	1.9	1.1	1.4
4	12.7	8.5	13.6	9.1	32.7	13.2	15.0
5 Excellent	84.1	85.7	76.4	86.3	61.5	81.3	79.2
No Opinion	0.0	2.9	1.6	2.3	0.0	2.2	1.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4.6 Change in Satisfaction Since 2000

It is worthwhile to note that in every case when considered regionally, responses of good or excellent increased for each of the performance measures in the survey.

Figure 4.7 Performance Ratings Comparison, 2000 and 2008 Surveys

Measure	Percent Good or Excellent 2000	Percent Good or Excellent 2008	Change in percent
Availability of SweetHART information	73.8	79.2	5.4
On-time performance	76.4	85.7	9.3
Overall satisfaction with service	82.6	88.5	5.9
Courteousness/friendliness of scheduler	81.9	91.2	9.3
Scheduler knowledge of SweetHART	78.7	88.5	9.8
Overall trip scheduling process	72.1	83.2	11.1
Courteousness/friendliness of driver	89.7	94.5	4.8
Driver knowledge of SweetHART	83.9	89.4	5.5
Overall driver job performance	88.2	94.2	6.0

The greatest increases in positive measures are related to the trip scheduling process and on-time performance, which ranged from an increase of 9.3 to 11.1 percentage points between the two surveys.

4.7 Passenger Comments and Feedback

Comments were encouraged at the end of the survey. There was a variety of feedback from passengers and most comments were positive. Many people provided multiple comments, suggestions and/or criticisms and these were recorded individually.

This section focuses on the comments that came from each municipality. It is important to note that not all survey respondents made comments about the service. The statistics here are based on the total number of comments received for each municipality, which was far below the number of survey respondents from each community.

- In Bethel about 67% of the comments were positive in regards to the service and drivers. The concerns expressed in the comments included problems with waiting time on return trips (11.8%), requests for additional service (8.8 %), and need for HART bus stops (5.5%).
- Various positive comments about the service, drivers and schedulers also accounted for 70% of the feedback in Brookfield. For Brookfield some concerns expressed were scheduling trips (15%), and requests for additional service (5%).
- 70.5% of the feedback in Danbury consisted of positive comments about the service, drivers and dispatchers. Trip scheduling problems (10.3%) was expressed as the largest problem by survey respondents, followed by waiting time for return trips at 8.2%.
- In New Fairfield, 66.7% of comments were positive statements about the service, drivers and Schedulers. The only negative concern expressed in New Fairfield was trip scheduling problems (33.3%).
- Newtown also had a majority of positive comments (59.4%) about the service, schedulers and drivers. The greatest concerns in Newtown were scheduling return trips (18.8%) and long/uncomfortable bus rides (15.6%).
- In Ridgefield a majority of the positive comments (73%) mention the service, drivers and schedulers. Trip scheduling at 14.5% was the biggest concern for Ridgefield passengers. Over 10% of comments made service suggestions or suggested that more buses were needed.
- A few comments came in from Roxbury and New Milford residents, mostly with service or policy suggestions.

Comment results are summarized by municipality in Figure 4.7.

Figure 4.8 Comments by Municipality

Bethel

Comment Category	No. of Responses	% of Total
Positive Comments- Service is good or excellent	16	47.1%
Positive Comments about the drivers and schedulers	7	20.6%
Waiting on return trips is a problem	4	11.8%
More buses/service needed	3	8.8%
Wants HART bus stop sign installed	2	5.9%
Scheduling trips/trip denials a problem	1	2.9%
Negative comments about driver	1	2.9%
TOTAL	44	100.0%

Brookfield

Comment Category	No. of Responses	% of Total
Positive Comments – service is good or excellent	11	55.0%
Scheduling trips is a problem	3	15.0%
Positive Comments about drivers	3	15.0%
Positive Comments about schedulers	2	10.0%
More buses/service needed	1	5.0%
TOTAL	20	100.0%

Danbury

Comment Category	No. of Responses	% of Total
Positive Comments – Service is good or excellent	79	54.1%
Scheduling trips is a problem – calling/scheduling/1-2 weeks too far out	15	10.3%
Positive comments about schedulers/staff	14	9.6%
Waiting time on return trips is a problem	12	8.2%
Positive Comments about drivers	10	6.8%
Negative comments about drivers	8	5.5%
More buses/service needed	4	2.7%
Positive comments about will call number	2	1.4%
Drivers need a raise	2	1.4%
TOTAL	146	100%

New Fairfield

Comment Category	No. of Responses	% of Total
Positive comments – service is good or excellent	15	55.6%
Scheduling trips is a problem/denials/bad times/too far in advance	9	33.3%
Positive comments about drivers	3	11.1%
TOTAL	27	100%

Newtown

Comment Category	No. of Responses	% of Total
Positive comments – service is good or excellent	15	46.9%
Scheduling trips is a problem – denials/bad times/too far in advance	6	18.8%
Bus rides too long/fast/cold	5	15.6%
Positive comments about schedulers	3	9.4%
Positive comments about drivers	1	3.1%
Negative comments about schedulers	1	3.1%
More buses/service needed	1	3.1%
TOTAL	32	100.0%

Ridgefield

Comment Category	No. of Responses	% of Total
Positive comments – service is good or excellent	29	60.4%
Scheduling trips is a problem – denials/bad times/too far in advance	7	14.5%
More buses/different service/same day service needed	5	10.4%
Positive comments about the drivers	3	6.3%
Positive comments about the schedulers	3	6.3%
Waiting/travel time on return trips is a problem	1	2.1%
TOTAL	48	100.0%

Other Towns

Comment Category	No. of Responses	% of Total
More buses/service needed	3	37.5%
Not riding anymore due to injury/operation	2	25.0%
Positive comments – service is good or excellent	1	12.5%
Maintain customer confidentiality	1	12.5%
Negative comments about drivers	1	12.5%
TOTAL	8	100%

5.0 RECOMMENDATIONS

5.1 Introduction

The recommendations set forth are envisioned as goals that could be achieved in the short or medium term. These recommendations address issues that were highlighted in the study, such as difficulty making trip reservations and will call waiting times. Feedback from the survey and other customer comments were useful in identifying problems passengers have with the service.

This chapter makes the following recommendations:

1. **Expand SweetHART service.**
2. **Encourage SweetHART riders to use fixed route service.**
3. **Implement intelligent transit system (ITS) technology on SweetHART vehicles.**
4. **Address return trip scheduling problems.**
5. **Improve communication opportunities with SweetHART riders.**
6. **Update no show and Cancellation policies.**
7. **Voluntary Grouping of Trips.**
8. **Formalize subscription trip policy.**

5.2 Service Expansion

Although ridership has increased within the past five years, demand still outstrips capacity. Capacity constraints are exacerbated by the increasing length of trips, travel time and the increasing number of wheelchair trips that SweetHART provides. Meeting demand is also more of a problem in communities where only one SweetHART vehicle is operating. Problems scheduling trips were mentioned in each town by survey respondents.

Growth in the elderly and disabled population over the next five years in the region will further strain the capacity of the SweetHART service. Based on population estimates provided by the State Office of Policy and Management, the 65 plus age group will grow by about 10,000 people in

the region by 2015. Additional service will most certainly need to be provided to this larger elderly population.

Over the past several years the state legislature has expressed a willingness to directly fund paratransit service for seniors. The addition of the 13(b) funds in 2006 allowed for HART to expand the number of hours available to all towns in the service area which helps with capacity constraints.

Ideally, additional SweetHART services would be implemented regionally rather than allocating vehicles by town. Regional vehicles would have more flexibility in meeting ridership demands throughout the service area because they would not be bound to a single municipality. Scheduling trips on these vehicles is also more efficient because they can transport passengers that may be in close proximity but different towns. As no funding is yet available for such service, no study of potential restructuring has been conducted..

5.3 Fixed Route Service and SweetHART Passengers

Fixed route service is a viable option for many SweetHART passengers and transitioning them in this way may only be a matter of education. Some passengers may be unaware that a fixed route is near their home or work and could be more convenient than setting up an appointment with SweetHART. For passengers not satisfied with a scheduled trip time or return trip, fixed route service can be a good alternative, particularly in Danbury, Bethel and Brookfield

This also in turn provides more opportunities for those that have no other option than to use the SweetHART service.

HART has teamed with the Kennedy Center, which provides free travel training services for seniors and disabled persons, to provide outreach in this area. Travel Training seminars are given at local senior centers and housing complexes to educate and encourage seniors on the benefits of the Fixed Route system. During these seminars, seniors are shown an informational video produced by ConnDOT, MetroPool and HART produced with SweetHART riders in mind that highlights the benefits of the fixed route system. After seeing the video, representatives of the Kennedy Center explain that they are available for travel training as a free service and they, along with HART staff, encourage seniors to take advantage of the service.

In addition to these seminars, it is recommended that current SweetHART passengers be made more aware of fixed route service. Fixed route information could be sent along with SweetHART applications and

discussed in the SweetHART handbook. Also, schedulers could make passengers aware of nearby bus stops and bus routes.

5.4 Intelligent Transit System Technology and SweetHART

ITS (Intelligent Transit System) technology encompasses a variety of hardware and software which can assist in dispatching, locating vehicles and providing driver information. Generally a vehicle is equipped with an on-board computer, a GPS (global positioning system) receiver, radio equipment for transmitting location back to base and an information display. This technology can aid both the driver and dispatchers greatly by providing real-time information that enhances the efficiency and productivity of the service.

GPS technology aids in the dispatch of will call services by assigning the nearest vehicle to an unscheduled pick-up, rather than relying on volunteers that respond to a call over the radio.

Dispatchers can easily locate vehicles requiring road service and provide assistance to drivers unfamiliar with a given location.

A drivers routing history can be reviewed with such technology, allowing for optimization of the order of and travel between regular pickups, or when investigating complaints. Other GPS equipment can remotely diagnose mechanical problems.

This is a fast moving area of technology, with more and more components available off the shelf. Greater Bridgeport Transit Authority is currently in the early stages of an ITS pilot funded through ConnDOT. HART should monitor the results of this project closely and look towards implementation as soon as is feasible.

5.5 Return Trip Waiting Times

Return trips are trips that generally bring people home after their doctor's appointment or shopping has been completed. Waiting time on return trips was mentioned as a concern time and time again by survey respondents. Waiting time for return trips was particularly an issue for passengers in Danbury. In order to address this problem a reevaluation of the "will-call" return trip policy should be completed.

"Will-call" trips are trips that remain unscheduled until the passenger calls the office for a return trip home or their next destination. This type of trip generally occurs in the afternoon, when a passenger is unsure when, for example, a medical appointment will be completed.

As indicated above, ITS should be a useful tool to deal with customer dissatisfaction with long wait times. With GPS technology, dispatchers can track vehicle location centrally and dispatch more efficiently.

5.6 Improve Communication with SweetHART Riders

HART makes an effort to create open lines of communication with the riders through public meetings at different senior centers in the area. One example of this is the SweetHART rider meetings held in New Fairfield every other month. During these meetings which are held at the New Fairfield Senior Center and facilitated by the Senior Center director, riders are encouraged to address any issues they have with the service and also make suggestions for improvements.

HART looks to continue these meetings and also encourage other senior centers to communicate in the same manner. Recently, outreach has focused on the Danbury, Brookfield and Newtown senior centers and continued communication should be encouraged.

ITS could also be utilized to improve communication with riders. Currently 20% of survey respondents say that they use email on a regular basis. As time progresses, it is likely that these numbers will increase. Email could be a useful tool in communicating holiday schedules or the news that a snow route is in effect to persons able to access a computer. This could cut down on the number of information seeking phone calls to the scheduling office and allow for greater efficiency.

5.7 Update No-show and Cancellation Policies

No-shows rates have increased over the past six years. Currently, HART notifies riders with excessive numbers of short cancellations (less than 12 hours notice) or no shows that his or her rate is high and may be causing an issue with the scheduling of other passengers and route efficiency. The rider is told that should the practice continue he or she will be suspended from the service for a period of time.

Trip cancellations rates cause difficulties in making and keeping schedules, however, even when they are made with over a days notice.

There is currently no policy addressing excessive numbers of cancellations made more than 12 hours in advance. Excessive cancellations impact both hold time during the trip scheduling process and system productivity. In some municipalities, cancellation rates exceed 13% of trips reserved. In

all cases they are far in excess of short cancels and no-show rates, which average around 3-4% of trips reserved by municipality.

No-show policies should be reviewed and sanctions enforced for habitual violators of the policy. HART should develop a standard for acceptable cancellations rates with over 12 hours notice and communicate this policy to riders.

5.8 Voluntary Trip Grouping

SweetHART passengers use the service for many purposes including shopping, medical appointments and dialysis. Currently, trip purpose is not examined when the trip is being scheduled. The practice of trip grouping on the part of the riders would allow for buses to be used more efficiently. Intertown trips generally increase travel time and ultimately reduce the number of trips that can be offered to other SweetHART riders. Within certain communities, such as Danbury, passengers have access to a range of health services and shopping and there should be less of a need to go out of town.

This is a decision that should be made in concert with each municipality. In those towns with a high number of intertown trips, such as Bethel, it may be a worthwhile endeavor. Passengers who make a weekly trip to the grocery store could, for example, be grouped together one morning of the week. The risk in restricting intertown trips is that the forced grouping of trips could reduce the perception of overall service quality. Through thoughtful communication and planning, voluntary trip grouping could occur with success.

5.9 Formalize Subscription Trip Policy

HART has an informal subscription trip policy that is applied case by case. A consistently applied subscription trips policy will help control call volume, and reduce caller time on hold.

Suggested standards include:

- Consistent trip reservation schedule for a two month period
- No excessive no shows or short cancellations
- Cancellation rates of no more than 10% of subscription trips.

In order to protect passengers not on subscription, the total number of subscriptions should not exceed 25% of trips made. This percentage and policy should be adjusted based on the operational needs of the service and each member municipality.

APPENDIX A

ADA POLICY COMPLIANCE

ADA Policy Compliance

Comparable paratransit service must meet the following service criteria:

- Operates in the same *service area* of the fixed route system
- Have a *response time* that is comparable
- Have comparable *fares*
- Have comparable *days and hours of service*
- Meet requests for any *trip purpose*
- Not limit service availability due to *capacity constraints*.

To meet ADA compliance HART operates four runs per weekday providing over sixteen hours per day of service. ADA service is also available on Saturday, between 8:00 a.m. and 9:00 p.m. with thirteen hours of service. On Sunday ADA SweetHART service operates from 8:55 a.m. to 7:00 p.m., approximately ten hours of service.

Compliance with the capacity constraints and response time requirement is presently accomplished through the “bumping” of non-ADA eligible trips on relatively short notice. “Bumping” means canceling the trip of a previously schedule non-ADA eligible trip. Presently, “bumping” occurs rarely.

APPENDIX B

ADA AND NON-ADA PASSENGER ELIGIBILITY

ADA Eligibility Criteria

- Any person with a disability who is unable, as a result of physical or mental impairment, to ride or disembark from an accessible public bus without the assistance of another person (except the operator of a wheelchair lift).
- Any individual with a disability who uses a wheelchair and wishes to travel on an accessible fixed route bus on which the wheelchair lift cannot be used safely at the desired bus stop; or if temporary conditions at the bus stop beyond HART's control prevent the safe use of the bus stop by all passengers.
- Any person with a disability using a common wheelchair and whose wheelchair cannot be accommodated on a regular fixed route bus because the vehicle's wheelchair lift does not meet ADA standards.
- Any person with a disability who has a specific impairment related condition which prevents him or her from traveling to or from a bus stop. Architectural and environmental barriers such as distance, terrain, or weather alone do not form a basis for eligibility. However, a person may be eligible if the interaction of the disability and barriers prevent him or her from traveling to or from a bus stop.

ADA eligibility is determined on a trip by trip basis. Some trips may be eligible while others are not. In addition to the person's eligibility their trip origin and destination must be within 0.75 mile buffer of an existing fixed route bus route for the trip to be considered ADA eligible. The requirement that trip origin and destination be within a 0.75 mile buffer of an existing fixed route bus route is a minimum requirement under ADA.

Persons whose trips are considered ADA eligible have a civil right to paratransit service. Because SweetHART is a service available to persons with disabilities and non-disabled senior citizens, priority must be given to those whose trips are ADA eligible.

Individual paratransit eligibility is determined using a certification application completed by each potential rider. From this application, HART determines whether or not an individual is ADA eligible. Once an individual is certified as eligible to use SweetHART, they must make reservations to use the service. It is during the reservation call that final ADA trip eligibility is determined.

Persons who are denied ADA eligibility can obtain a review of the denial with HART's CEO. HART has established an appeal policy to allow the affected individuals to be heard and present arguments in their own defense. Such individuals may further appeal to the Connecticut Department of Transportation (ConnDOT). ConnDOT's decision is considered final.

Non-ADA Eligibility

A review process is also undertaken for disabled passengers, and senior citizens over the age of 60. This process examines whether passengers are eligible for paratransit service outside of the 0.75 mile fixed route corridor defined as an "ADA eligible" trip.

HART reviews an application and determines whether the person is able to use fixed route service based on the responses to application questions. If the responses demonstrate that the person's disability fits the ADA prescribed eligibility categories and prevents them from using fixed route service, ADA eligibility is granted. ADA eligibility status gives a person first priority in the use of SweetHART.

In cases where additional information may be needed to make an eligibility determination, HART requests the applicant have a physician or health care professional complete a verification form which provides more in-depth information regarding the person's disability.

A letter notifying the applicant of the eligibility determination and the reasons for denial (if necessary) is sent upon completion of the review. The letter indicates eligibility status granted (either ADA eligible or non-ADA eligible). An identification card is included that indicates the eligibility status granted. Persons denied ADA eligibility can to the HART CEO within 60 days of the date of denial. The appeals process includes an opportunity for the person to present information and arguments. Final appeals can be made to ConnDOT.

APPENDIX C

TRIP SCHEDULING POLICIES

Trip Reservations and Scheduling

In 1999 HART installed an automated scheduling system, Trapeze Pass. In 2005, the system was upgraded and updated. Previously, reservations were manually logged and passenger manifests for each SweetHART route were handwritten.

The reservation process has improved with the new software. Important trip characteristics for each SweetHART rider, such as origin and destination points, are saved into a unique passenger file. Common destinations like shopping centers or doctor's offices can also be saved. These points are then plotted onto a detailed street map of the region. Using the geographically referenced data, passenger trips can automatically be scheduled and assigned to vehicles, and passenger manifests can be printed from the scheduling files.

Demand for trips varies by municipality. Because demand in Danbury is so high, riders must call as far in advance as necessary to have the best chance of getting their reservations for the days and times ahead. Trips in other towns are less difficult to obtain.

The peak calling period for reservations is between 7:00 a.m. and 11:00 a.m. on Monday morning. Callers making reservations on Monday morning generally have to hold on an average of three to four minutes, because the volume of calls is so high at that time.

Schedulers enter a passenger's requested trip time into the scheduling program. If the program determines that the trip cannot be accommodated at the requested time, it may be necessary to "negotiate" another pick up time with the passenger. ADA allows pickups to be negotiated up to an hour before or after a trip request.

If trip requests are available, the trip is confirmed by the scheduler. Passengers are given a 30 minute window in which to be prepared for their pickup. A passenger can call the day of the trip to get a more precise pickup time. Any trip request which cannot be honored within an hour before or after is logged as a trip denial in a client history file of the Trapeze program.

Some persons will schedule return pickup trips when ready, or “will call”. Many persons, particularly at medical appointments, do not know when they will be ready for return trip pickups, and use this option. To facilitate these pick-ups, HART has several buses dedicated to will-call pickups (although any driver with time in his or her schedule may respond to such requests) and a separate phone line for these calls.

Trip Cancellations and No shows

Passengers are required to call in any trip cancellations at least twelve hours in advance. Cancellations are accepted around the clock using voice mail during evening hours and on weekends. Passengers who establish a pattern of excessive trip cancellations can have their riding privileges suspended. Cancellations called in with less than twelve hours notice are considered no shows.

Passengers who miss five or more scheduled trips within a sixty day period may have their riding privileges suspended. The sanction for missing the first series of five or more scheduled trips in a sixty day period is up to a thirty day riding privilege suspension. Longer suspensions of riding privileges can result from missing an additional series of five or more trips in another sixty day period. Passengers have the right to appeal missed trip sanctions to HART and ConnDOT if necessary.

Companions, Attendants and Mobility Devices

SweetHART accommodates personal care attendants traveling with an eligible passenger. No fare is charged for personal care attendants. Companions such as friends or family members may accompany SweetHART passengers on a space available basis assuming they have the same origin and destination as the passenger they are accompanying. Friends and family members are required to pay the regular SweetHART fare.

SweetHART vehicles can carry wheelchairs not more than thirty inches wide and forty eight inches deep, and not weighing more than six hundred pounds when occupied. Other mobility devices such as crutches, canes, walkers, and three-wheeled scooters can be accommodated. Service animals are welcome to travel with eligible passengers (pets in carriers are permitted as well). Persons may also travel with respirators, portable oxygen, and other life support equipment.

Persons who cannot board a vehicle using the stairs but who do not use a wheelchair may enter the vehicle using the wheelchair lift.