8. TRANSIT-DEPENDENT AND SPECIAL FACILITY EVACUATION TIME ESTIMATES

This section details the analyses applied and the results obtained in the form of evacuation time estimates for transit vehicles (buses). The demand for transit service reflects the needs of two population groups: (1)residents, employees and transients with no vehicles available; and (2) residents of special facilities such as schools, health-support facilities, institutions and child-care facilities.

These transit vehicles merge into and become a part of the general evacuation traffic environment that is comprised mostly of "passenger cars" (pc's). The presence of each transit vehicle in the evacuating traffic stream is represented within the modeling paradigm described in Appendix D as equivalent to two pc's. This equivalence factor represents the longer size and more sluggish operating characteristics of a transit vehicle, relative to those of a pc.

Transit vehicles must be mobilized in preparation for their respective evacuation missions. Specifically:

- Bus drivers must be alerted
- They must travel to the bus depot
- They must be briefed there and assigned to a route or facility

These activities consume time. Based on discussions with local officials and with transport providers, it is estimated that bus mobilization time will average approximately 90 minutes extending from the Advisory to Evacuate to the time when buses are dispatched from their respective depots.

During this mobilization period, other mobilization activities are taking place. One of these is the action taken by parents, neighbors, relatives and friends to pick up children from school prior to the arrival of buses, so that they may join their families. Virtually all studies of evacuations have concluded that this "bonding" process of uniting family units is universally prevalent during emergencies and should be anticipated in the planning process.

For this reason, we provide estimates of required transit resources based on the reasonable expectation that many children will be picked up from school and reunited with their respective families, prior to the arrival of buses at these schools. We also provide estimates of buses under the assumption that no children will be picked up, to present an upper bound estimate.

The procedure is:

- Estimate demand for transit service
- Estimate time to perform all transit functions

- Estimate route travel times to the EPZ boundary and to the school reception centers

8.1 Transit-Dependent People - Demand Estimate

The telephone survey (see Appendix F) results were used to estimate the portion of the population requiring transit service:

- Those persons in households that do not have a vehicle available.

- Those persons in households that do have vehicle(s) that would not be available at the time the evacuation is ordered.

In the latter group, the vehicle(s) may be used by a commuter(s) who does not return (or is not expected to return) home to evacuate the household.

Car ownership statistics for the densely populated areas of Ossining and Peekskill and for other areas in and near the EPZ were obtained from NYS DMV vehicle registration statistics. Table 8-1 presents a comparison of vehicle ownership estimates obtained from the DMV data and from the telephone survey. The ratio of persons per vehicle based on the DMV estimates for Ossining and Peekskill are comparable to those of other communities. Since the availability of private vehicles on a per-capita basis for these two communities is comparable to that for the other EPZ communities, there is no basis for treating them separately in estimating transit needs, as was done in previous ETE studies.

Table 8-2 presents estimates of transit-dependent people. Note:

- Estimates of persons requiring transit vehicles include school children. For those evacuation scenarios where children are at school when evacuation is ordered, separate transportation is provided for the school children. The actual need for transit vehicles by residents is thereby less than the given estimates. However, we will not reduce our estimates of transit vehicles since it would add to the complexity of the implementation procedures.

- It is reasonable and appropriate to consider that many transit-dependent persons will evacuate by ride-sharing with neighbors, friends or family. For example, nearly 80 percent of those who evacuated from Mississauga, Ontario who did not use their own cars, shared a ride with neighbors or friends. Other documents report that approximately 70 percent of transit-dependent persons were evacuated via ride-sharing. **We will adopt a conservative estimate that 50 percent of transit-dependent persons will ride-share.**

The estimated number of bus trips needed to service transit-dependent persons is based on an estimate of average bus occupancy of 30 persons at the conclusion of the bus run. Table 8-6 documents that transit vehicle seating capacities equal or exceed 60 children (equivalent to 40 adults). If transit vehicle evacuees are two-thirds adults and one-third children, then the number of "adult seats" taken by 30 persons is 20 + (2/3 x10) = 27. On this basis, the average load factor anticipated is (27/40) x 100 = 68 percent. Thus, if the actual demand for service exceeds

the estimates of Table 8-2 by 50 percent, the demand for service can still be accommodated by the available bus seating capacity.

Table 8-2 indicates that transportation must be provided for almost 15,000 people. Therefore, a total of 490 bus runs are required to transport this population to reception centers.

To illustrate this estimation procedure, we calculate the number of persons, P, requiring public transit or ride-share, and the number of buses, B, required for Orange County:

$$P = 5693 \times (0.04 \times 2.69 + 0.24 \times (2.23 - 1) \times 0.72 \times 0.40 + 0.57 \times (3.24 - 2) \times (0.72 \times 0.40)^2) = 5963 \times 0.251 = 1430$$
$$B = (0.5P) / 30 = 24$$

These calculations are explained as follows:

- All members of households (HH) with no vehicles will evacuate by public transit or ride-share. The term 5693 x 0.04 x 2.69, accounts for these people.
- The members of HH with 1 vehicle away, who are at home, equal (2.23-1). The number of HH where the commuter will not return home is equal to (5693 x 0.24 x 0.72 x 0.40). The number of persons who will evacuate by public transit or ride-share is equal to the product of these two terms.
- The members of HH with 2 vehicles that are away, who are at home, equal (3.42 – 2). The number of HH where neither commuter will return home is equal to 5693 x 0.57 x $(0.72 \times 0.40)^2$. The number of persons who will evacuate by public transit or ride-share is equal to the product of these two terms.
- Households with 3 or more vehicles are assumed to have no need for transit vehicles.
- The total number of persons requiring public transit is the sum of such people in HH with no vehicles, or with 1 or 2 vehicles that are away from home.

8.2 School Population – Transit Demand

Table 8-3 presents the school population and transportation requirements for the direct evacuation of all schools within the EPZ at the end of 2002. The column in Table 8-3 entitled "Bus Runs Required" specifies the number of buses required for each school under the following set of assumptions and estimates:

- Half of all students (other than those at West Point) will be picked up by their parents prior to the arrival of the buses.

- Bus capacity, expressed in students per bus, is set to 50 for primary schools and 33 for middle and high schools. These estimates allow for approximately 20 percent "inefficiency" in loading the buses (since the actual seating capacities are about 60 and 40, respectively) and for seating of at least one adult staff member to accompany the students on each bus.

- With the exception of West Point, those staff members who do not accompany the students will evacuate in their private vehicles.

- For West Point, we assume that one-third of the staff will be evacuated by bus and the bus seating capacity will be 38, given the higher loading efficiency expected.

The County Plans call for assigning buses to evacuate the entire student body at every school. The column in Table 8-3 entitled "Buses Available" specifies the number of buses to be allocated for each school under the County Plans. To obtain these estimates, we assign seating capacities of 56 and 38 students per bus for elementary and higher-level schools, respectively, reflecting the higher loading efficiency associated with evacuating the entire student body. (Earlier, we assumed a lower efficiency resulting in 50 and 33 students per bus, when parents pick up some students). No allowance is made for student absenteeism that is in the neighborhood of 3 percent, daily.

We recommend that the Counties introduce procedures whereby the schools are contacted prior to the dispatch of buses from the depot (approximately 90 minutes after the Advisory to Evacuate), to ascertain the current estimate of students to be evacuated. In this way, the number of buses dispatched to the schools will reflect the actual number needed. Those buses originally allocated to evacuate school children that are not needed due to children being picked up by their parents, can be gainfully assigned to service other facilities or those persons who do not have access to private vehicles or to ride-sharing.

Table 8-4 presents a list of the school reception centers for each school in the EPZ. Those students not picked up by their parents prior to the arrival of the buses, will be transported to these centers where they will be subsequently retrieved by their respective families.

8.3 Special Facility Demand

Table 8-5 presents the census of special facilities in the EPZ as of the end of 2002. Approximately 5,700 people have been identified as living in, or being treated in, these facilities. This census also indicates the number of wheelchair-bound people and the number of bed-ridden people. The transportation requirements for this group are also presented. The number of ambulance runs is determined by assuming that 2 patients can be accommodated per ambulance trip; the number of wheelchair van runs assumes 4 wheelchairs per trip; and the number of bus runs estimated assumes 30 ambulatory patients per trip.

8.4 Evacuation Time Estimates for Transit-Dependent People

Buses assigned to evacuate transit-dependent people from the EPZ are provided by several depots. Table 8-6 presents the transportation resources available to evacuate all the schools, special facilities and transit-dependent persons in the EPZ as of the end of 2002.

Table 8-7 presents a summary of transit resource needs and availability as of the end of 2002. It is seen that the available resources expressed in terms of bus-seats, are sufficient in all counties to service the evacuation demand in a "single-wave", assuming drivers are available for all vehicles. In general, the buses will transport the evacuees to the appropriate reception centers and need not return to the EPZ for a second trip.

Exceptions to this rule may occur to some extent in Orange and/or Rockland Counties where the supply of transit resources is adequate to service the demand but where the margin is lower than for the other counties. In the event that the allocation of buses dispatched from the depots to the various facilities and to the bus routes is somewhat "inefficient", or if there is a shortfall of available drivers, then there may be a need for some buses to return to the EPZ from the reception center after completing its first evacuation trip, to complete a "second wave" of providing transport service to evacuees. For this reason, the ETE will be calculated for both a one wave transit evacuation and for two waves (Table 8-10). Of course, if the impacted Evacuation Region is other than R3 (the entire EPZ), then there will be ample transit resources relative to demand in the impacted Region and this discussion of a second wave would likely not apply.

For all counties, transit resources will be assigned to schools as a first priority. When these needs are satisfied, subsequent assignments of buses to service the transit-dependent should be sensitive to their mobilization time. Clearly, the buses should be dispatched after people have completed their mobilization activities and are in a position to board the buses when they arrive at the pick-up points.

Evacuation Time Estimates for Transit Trips were developed using both good weather and adverse weather conditions. Figure 8-1 presents the chronology of events relevant to transit operations. The elapsed time for each activity will now be discussed with reference to Figure 8-1.

Activity: Mobilize Drivers (A→B)

Mobilization is the elapsed time from the Advisory to Evacuate until the time the buses are dispatched from their respective depots.

Discussions with local personnel indicate that, historically, it takes between 30 and 45 minutes to alert bus drivers to the need for an early dismissal due to inclement weather. During conditions that could lead to early school dismissals (snow, storms), bus drivers are "primed" to respond even before they are notified. For a rapidly escalating radiological emergency, however,

with no observable indication before the fact, drivers would likely require a longer period of time to mobilize for an emergency. In response to a telephone survey, providers agreed that a mobilization time of 90 minutes is a reasonable expectation under these circumstances. Allowing 30 minutes for snow clearance of driveways, yields 2 hours mobilization time for the snow scenarios.

Activity: Travel to Facility (B→C)

We will conservatively assert that bus travel speeds are those computed by the PCDYNEV simulation model for all evacuating vehicles traveling outbound. Table 8-8 presents the evacuation travel speeds within each County, as functions of elapsed time from the Advisory to Evacuate and of weather conditions. By interpolating the speeds in Table 8-8, we will assign an average travel speed of 20 mph (15 mph, snow) at a time one hour and 30 minutes (2 hours, snow) after the Advisory to Evacuate, when the buses are dispatched from their respective depots.

The average distance from each depot to each assignment (school, special facility, pick-up route) is estimated as 6 miles, given the dispersion at bus depots in each county. Thus, this travel time is estimated at 20 minutes (25 minutes for snow).

Activity: Board Passengers (C→D)

Studies have shown that passengers can board a bus at headways of 2-4 seconds (Ref. HCM2000 Page 27-27). Therefore, the total dwell time to service passengers boarding a bus to capacity at a single stop (e.g., at a school) is about 5 minutes. For multiple stops along a pick-up route we must allow for the additional delay associated with stopping and starting at each pick-up point. This additional delay to service passengers expands this estimate of boarding time to 15 minutes.

Activity: Travel to EPZ Boundary (D→E)

School Evacuation

The average distance from a school to the EPZ boundary is conservatively estimated at 8 miles. The travel speeds within the EPZ are obtained from Table 8-8, assigning the computed values at 3 hours after the Advisory to Evacuate. The estimated speeds and travel times (nearest 5 minutes) are calculated for as follows:

County	Mean Speed (mph)			Travel Time (min) to EPZ Boundary		
	Good Weather	Rain	Snow	Good Weather	Rain	Snow
Orange	8	7	7	60	70	70
Putnam	10	9	9	50	55	55
Rockland	8	7	7	60	70	70
Westchester	7	5	5	70	95	95

Table 8-9 presents the evacuation time estimates for schools in the EPZ: (1) The elapsed time from the Advisory to Evacuate until the bus exits the EPZ; and (2) The elapsed time until the bus reaches the School Reception Center. Since the school evacuations will be completed in a single wave, then evacuation time out of the EPZ can be computed as the sum of travel times associated with Activities A→B, B→C, C→D, and D→E (For example: 90 min. + 20 + 5 + 60 = 2:55 for Orange County, with good weather. The evacuation time to the School Reception Center is determined by adding the time associated with Activity E→F (discussed below), to this EPZ evacuation time.

Evacuation of Transit-Dependent Population

The time at which buses will be dispatched from the depots to service the transit-dependent evacuees will be later than the time for the buses dispatched to the schools. The buses should be scheduled so that they arrive at their respective routes after their passengers have completed their mobilization. Thus, for these buses, we estimate an average dispatch time of 2 hours and 30 minutes (3 hours for snow).

Those buses servicing the transit-dependent evacuees will first travel along their pick-up routes, then proceed out of the EPZ. The travel distance along the respective pick-up routes within the Region is estimated as 4 miles and 8 miles, respectively, for Regions extending to 5 miles and to the EPZ boundary. The additional travel distance from the end of the route to the EPZ boundary is conservatively estimated at 8 miles. Thus, the total travel distances including route travel plus travel within their Regions to the EPZ boundary are 12 and 16 miles, respectively. The associated travel times are computed using the speeds of Table 8-8.

Table 8-10 presents the transit-dependent population evacuation time estimates obtained using the above procedures. For example, the ETE for a Region in Orange County that extends to 5 miles, is computed as 150 + 20 + 15 + 90 = 4:35 hours for good weather. Here, 90 minutes is the time to travel 12 miles at 8 mph. The ETE for a second wave (discussed below) is presented in the event there is a shortfall of available buses or bus drivers.

Activity: Travel to School Reception Centers (E→F)

The average distances from the EPZ boundary to the school reception centers are about 10 miles for Orange and Westchester Counties, and 15 miles for Putnam and Rockland Counties. For a one-wave evacuation, this travel time outside the EPZ does not contribute to the ETE. For a two-wave evacuation, the ETE for buses must be considered separately, since it could exceed the ETE for the general public.

Since this travel time will be outside the EPZ, where congestion is likely to be somewhat less pronounced, reasonable estimates for speeds are 10 mph for buses originating from Rockland and Westchester Counties and 20 mph for buses from Orange and Putnam Counties (8 and 15 mph for snow). The resulting travel times from the EPZ boundary to the school reception centers (Table 8-4) are:

- 30 minutes (40 for snow) for Orange County
- 45 minutes (60 for snow) for Putnam County
- 90 minutes (110 for snow) for Rockland County
- 60 minutes (75 for snow) for Westchester County

Activity: Passengers Leave Bus (F→G)

A bus can empty within 5 minutes.

Activity: Bus Returns to Route for Second Wave Evacuation (G→C)

The buses assigned to return to the EPZ to perform a "second wave" evacuation of transit-dependent evacuees will be those that evacuated the school children. These buses are assigned since they will be the first buses to complete their evacuation service and are therefore the first to be available for the second wave. The inbound trip to the EPZ from the school reception centers will be at a higher speed than the outbound trip since the direction of travel will be counter-flow relative to evacuating traffic. The travel times to the EPZ boundary at an average speed of 30 mph will be 20 minutes for Orange and Westchester Counties and 30 minutes for Putnam and Rockland Counties. The bus then travels to its route and proceeds to pick up transit-dependent evacuees along the route. Upon the completion of this activity, the bus will travel to the EPZ boundary to exit the EPZ. (Only Regions extending to the EPZ boundary would possibly require a second wave).

It is estimated that each bus servicing a second wave travels inbound from the EPZ boundary, a distance of 8 miles to the start of a pick-up route at 30 mph (15 minutes). The bus then travels along its route and back to the EPZ boundary, covering an estimated total distance of 16 miles at the speeds shown in Table 8-8 at 7 hours after the Advisory to Evacuate. The travel times for Orange County are computed as follows:

- Bus arrives at reception center at 3:25 in good weather (Table 8-9).
- Bus discharges passengers (5 minutes) and driver takes a 15-minute rest: 20 minutes.
- Bus returns to EPZ (20 minutes) then travels to the start of the route (15 minutes).
- Bus completes pick-ups along route: 15 minutes + (8 miles @ 6 mph) = 95 minutes.
- Bus travels to EPZ boundary: 8 miles @ 6 mph = 80 minutes.
- Bus exits EPZ at time 3:25 + 0:20 + 0:35 + 0:15 + 1:35 + 1:20 = 7:30 after the Advisory to Evacuate.

The ETE for the completion of the second wave are given in Table 8-10.

Evacuation of Ambulatory Persons from Special Facilities

The bus operations for this group are similar to those for school evacuation except:

- These buses will leave the depots later, approximately 2 hours after the Advisory to Evacuate.
- The passenger loading time will be longer at approximately 30 minutes to account for the time to move patients from inside the facility to the vehicles.

The time that these buses will leave these special facilities to begin their respective evacuation trips out of the EPZ is calculated as follows:

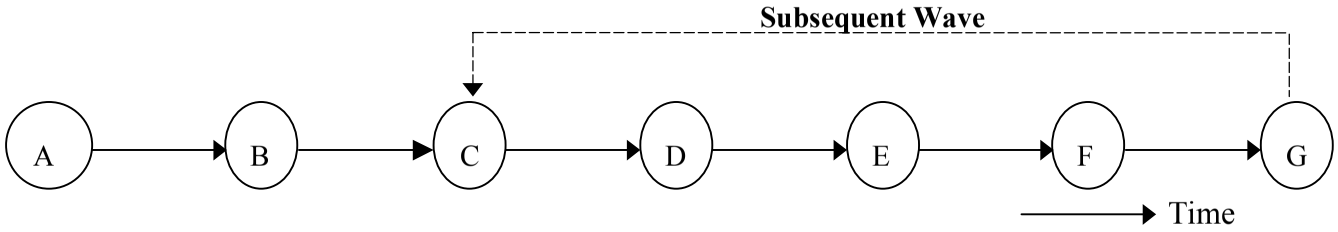
- Bus leaves depot at 2:00 (2:30 for snow).
- Bus travels to facility, 20 minutes (25 for snow).
- Passengers board bus, 30 minutes.

Thus, the bus will leave the facility at 2:50 after the Advisory to Evacuate. These buses will travel out of the EPZ at speeds given in Table 8-8 for 3 hours after the Advisory to Evacuate. As was done for the schools, it is assumed that the distance from the facility to the EPZ boundary averages 8 miles. For example, the travel time for an 8-mile trip to the EPZ boundary within Orange County at 8 mph will be 1 hour and the resulting ETE will be three hours and 50 minutes. The ETE to evacuate ambulatory residents from special facilities are presented in Table 8-11.

Emergency Medical Services (EMS) Vehicles

The previous discussion focused on transit operations for ambulatory and wheelchair-bound persons within the Region. It is also necessary to provide transit services to non-ambulatory persons who do not -- or cannot -- have access to private vehicles. As shown in Table 8-5, a total of 89 ambulance trips is anticipated for an evacuation of the entire EPZ. Table 8-12 is a compilation of available resources that exceed the number of ambulance trips required. Consequently, only a single wave of service is anticipated.

It is reasonable to expect that the response times of EMS vehicles should be less than for the buses dispatched to evacuate special facilities. We will conservatively estimate the same ETE for these EMS vehicles as for the vehicles evacuating ambulatory evacuees from special facilities. This approach takes into account that a somewhat longer vehicle loading time for these passengers, relative to that for the ambulatory evacuees, will balance the earlier arrival times of these vehicles at the facilities. Therefore, the ETE for EMS vehicles to leave the EPZ are the same as for the vehicles evacuating ambulatory evacuees from special facilities; see Table 8-11`.



Event

A	Advisory to Evacuate
B	Bus Dispatched from Depot
C	Bus Arrives at Facility/Pick-up Route
D	Bus Departs for Reception Center
E	Bus Exits Region
F	Bus Arrives at School Reception Center
G	Bus Available for "Second Wave" Evacuation Service

Activity

A→B	Driver Mobilization
B→C	Travel to Facility or to Pick-up Route
C→D	Passengers Board the Bus
D→E	Bus Travels Towards Region Boundary
E→F	Bus Travels Towards School Reception Center Outside the EPZ.
F→G	Passengers Leave Bus; Driver Takes a Break

Figure 8-1. Chronology of Transit Evacuation Operations

Table 8-1. Comparison of Vehicle Availability					
Zip Code	**Community**	**DMV Registered[1] Vehicles (2003)**	**Survey Vehicle Estimate**	**2003 Population**	**Persons Per Vehicle**
10501	AMAWALK, NY	1,006	917	1,308	1.30
10510	BRIARCLIFF, NY	6,958	7,139	10,189	1.46
10511	BUCHANAN, NY	1,748	1,601	2,285	1.31
10514	CHAPPAQUA, NY	7,940	9,129	13,028	1.64
10516	COLD SPRING, NY	3,948	3,917	5,570	1.41
10520	CROTON HDSN, NY	8,431	9,032	12,890	1.53
10524	GARRISON, NY	3,440	3,308	4,704	1.37
10527	GRANITE SPGS, NY	742	1,024	1,462	1.97
10537	LK PEEKSKILL, NY	2,102	1,305	1,855	0.88
10546	MILLWOOD, NY	1,181	839	1,197	1.01
10547	MOHEGAN LAKE, NY	5,217	6,083	8,682	1.66
10548	MONTROSE, NY	2,331	3,931	5,609	2.41
10562	OSSINING, NY	19,931	22,724	32,430	1.63
10566	PEEKSKILL, NY	15,734	16,438	23,459	1.49
10567	CORTLANDT MNR, NY	13,280	14,134	20,172	1.52
10579	PUTNAM VALLEY, NY	7,159	6,564	9,334	1.30
10588	SHRUB OAK, NY	2,126	1,600	2,284	1.07
10598	YORKTOWN HTS, NY	21,001	21,720	30,997	1.48
10901	SUFFERN, NY	14,833	13,802	23,783	1.60
10920	CONGERS, NY	6,389	5,522	9,514	1.49
10923	GARNERVILLE, NY	7,184	4,800	8,271	1.15
10927	HAVERSTRAW, NY	5,607	5,927	10,213	1.82
10928	HIGHLAND FLS, NY	2,969	3,953	6,004	2.02
10930	HIGHLAND MLS, NY	5,569	5,325	8,088	1.45
10956	NEW CITY, NY	23,274	19,516	33,627	1.44
10977	SPRING VALLEY, NY	28,334	29,807	51,360	1.81
10980	STONY POINT, NY	9,419	7,738	13,332	1.42
10984	THIELLS, NY	1,959	2,429	4,186	2.14
10986	TOMKINS COVE, NY	1,378	1,069	1,842	1.34
10989	VLY COTTAGE, NY	6,966	6,266	10,797	1.55
10993	W HAVERSTRAW, NY	3,011	3,706	6,386	2.12
12518	CORNWALL, NY	4,152	4,267	6,480	1.56
		245,319	**245,532**		

[1]DMV vehicle totals are reduced by 18.3 percent to account for commercial vehicles (large vans, pickup trucks) registered as private vehicles in suburban areas. Source: 1994 Residential Transportation Energy Consumption Survey, US Department of Energy.

Table 8-2. Transit Population Estimates

Portion of EPZ in County	2003 Population	Survey Average Household Size With Indicated No. of Vehicles			Estimated Number of Households	Survey Percent Households With			Survey Percent Households With Commuters	Survey Percent Households With Non-Returning Commuters	Total People Requiring Transport	Estimated Ridesharing Percentage	People Requiring Public Transit	Percent of Population Requiring Public Transit
		0	1	2		0 Vehicle	1 Vehicle	2 Vehicle						
Orange	16,167	2.69	2.23	3.24	5,693	4%	24%	57%	72%	40%	1,430	50%	715	4.4%
Putnam	20,260	2.69	2.23	3.24	6,535	2%	22%	42%	80%	40%	1,266	50%	633	3.1%
Rockland	122,762	2.69	2.23	3.24	36,536	7%	25%	43%	78%	40%	12,281	50%	6,141	5.0%
Westchester	146,087	2.69	2.23	3.24	51,439	5%	23%	48%	77%	40%	14,305	50%	7,153	4.9%
	305,276										29,282		14,642	4.8%

Table 8-3. School Population Demand Estimates								
ERPA	Distance (Miles)	Direc-tion	School Name	Municipality	Enroll-ment	Staff	Bus Runs Req'd	Buses Avail-able
Orange County Schools								
24	7.5	N	West Point ES	West Point	900	100	9	16
24	7.5	N	United States Military Academy	West Point	4,000	2,200	125	125
26	5	NNW	Fort Montgomery ES	Highland Falls	114	24	2	2
26	7	N	Highland Falls ES	Highland Falls	196	22	2	4
26	7	N	Highland Falls MS	Highland Falls	308	46	5	9
26	5	NNW	James O'Neill HS	Highland Falls	611	48	10	16
26	7	N	Sacred Heart of Jesus ES	Highland Falls	250	35	3	5
				Orange County Totals:	6,379	2,475	156	177
Putnam County Schools								
17	10	N	Garrison ES	Garrison	300	50	3	6
19	7	NE	Putnam Valley ES	Putnam Valley	680	95	7	13
19	7	NE	Putnam Valley H.S.	Putnam Valley	620	84	10	17
19	7	NE	Putnam Valley MS	Putnam Valley	465	80	7	13
23	10.5	N	Haldane Central	Cold Spring	880	165	12	20
				Putnam County Totals:	2,945	474	39	69
Rockland County Schools								
30	4.5	SW	Children of Mary Kindergarten	Stony Point	152	13	2	3
30	3.2	SSW	Immaculate Conception School	Stony Point	220	20	3	4
30	3.8	SW	James A. Farley MS	Stony Point	874	122	14	23
30	2.8	SW	Stony Point ES	Stony Point	733	104	8	13
31	5	SSW	Gerald F. Neary ES	Haverstraw	491	79	5	9
31	5	S	Haverstraw MS	Haverstraw	823	131	13	22
31	4.5	SSW	North Garnerville ES	Garnerville	338	55	4	6
31	4.8	SW	North Rockland HS	Thiells	2,562	343	39	68
31	5.2	S	Rockland Christian School	Haverstraw	22	3	1	1
31	4.5	SSW	St. Gregory Barbarigo School	Garnerville	210	25	3	4

Table 8-3. School Population Demand Estimates								
ERPA	Distance (Miles)	Direc-tion	School Name	Municipality	Enroll-ment	Staff	Bus Runs Req'd	Buses Avail-able
31	5	S	St. Peter's School	Haverstraw	225	25	4	5
31	5.5	SW	Thiells ES	Thiells	764	117	8	14
31	4.2	SSW	West Haverstraw ES	W. Haverstraw	718	135	7	13
31	5.5	SW	Willow Grove School	Thiells	942	150	14	25
32	8.5	S	Congers ES	Congers	346	24	3	7
32	7.8	S	Lakewood ES	Congers	469	29	5	9
33	9.8	S	Liberty ES	Valley Cottage	493	69	5	9
33	8.5	S	Rockland Country Day School	Congers	203	40	3	5
33	9.5	S	St. Paul School	Valley Cottage	450	30	7	10
34	8	SSW	Rockland Learning Center	Pomona	61	8	1	1
34	8.2	SSW	Woodglen ES	New City	538	38	6	10
35	10.2	SSW	Albertus Magnus HS	Bardonia	486	55	8	13
35	8.2	S	Clarkstown Senior HS North	New City	1,654	130	25	44
35	10.2	SSW	Congregation Hor Yitzchok	New City	12	7	1	1
35	9	SSW	Cornerstone Christian School	New City	104	20	1	2
35	11	S	Felix V. Festa Jr. High "A Wing"	W. Nyack	488	61	8	13
35	11	S	Felix V. Festa Jr. High "C Wing"	W. Nyack	389	61	6	11
35	11	S	Felix V. Festa Jr. High "D Wing"	W. Nyack	526	61	8	14
35	8.4	SSW	Hebrew Academy Early Childhd.	New City	31	9	1	1
35	9.8	SSW	Hillcrest School	New City	398	62	4	8
35	10	S	Laurel Plains ES	New City	454	34	5	9
35	9.8	SSW	Link ES	New City	547	32	6	10
35	8.5	SSW	Little Tor ESl	New City	316	20	4	6
35	10.4	SSW	Mesifta Ohr Hatorah	New City	11	4	1	1
35	8.5	S	New City ES	New City	474	24	5	9
35	8.5	S	New City Jewish Center	New City	400	40	5	10
35	9	SSW	Reuben Gittleman Hebrew Day	New City	355	60	4	7
35	9	SSW	St. Augustine's ES	New City	275	25	3	5
35	10	S	Strawtown ES	W. Nyack	425	22	5	8

Table 8-3. School Population Demand Estimates								
ERPA	Distance (Miles)	Direc-tion	School Name	Municipality	Enroll-ment	Staff	Bus Runs Req'd	Buses Avail-able
36	8.5	SW	Bais Yaakov Chofetz Chaim	Pomona	150	28	2	3
37	10.8	SW	Grandview School	Monsey	454	60	5	9
37	10	SSW	Hempstead ES	Spring Valley	500	60	5	9
37	10	SW	Lime Kiln ES	Suffern	332	N/A	4	6
37	10	SSW	Merrill L. Colton School	Spring Valley	466	60	5	9
37	8.8	SW	Pomona Jr. HS	Suffern	976	145	15	26
37	11	SSW	Ramapo Senior HS	Spring Valley	1,850	N/A	28	49
37	8.5	SSW	Summit Park ES	New City	504	72	5	9
37	9	SSW	Yeshiva Avir Yakov Girls	Spring Valley	2,455	N/A	32	55
37	10	SSW	Yeshiva Avir Yakov	Spring Valley	90	N/A	1	2
37	9	SSW	Yeshiva Avir Yakov	Spring Valley	90	N/A	2	3
				Rockland County Totals:	26,846	2,712	359	613
Westchester County Schools								
1	0.75	SSE	Buchanan-Verplank ES	Buchanan	439	75	5	8
2	2.2	NE	Assumption ES	Peekskill	270	20	3	5
2	2.8	NE	Hillcrest ES	Peekskill	470	60	5	9
2	2.2	NE	Oakside ES	Peekskill	487	47	5	9
2	2.5	NE	Park Street School	Peekskill	140	15	3	4
2	2.2	NE	Peekskill HS	Peekskill	715	110	11	19
2	1.8	NE	Peekskill MS	Peekskill	405	61	7	11
2	2.8	NE	Uriah Hill ES	Peekskill	310	30	4	6
2	1.8	ENE	Woodside ES	Peekskill	484	50	5	9
4	1.5	SSE	Frank G. Lindsey ES	Montrose	510	75	6	10
4	1.5	SE	Hendrick Hudson HS	Montrose	810	135	13	22
6	5.5	SE	Carrie E. Thompkins ES	Croton-On-Hudson	744	59	8	14
6	5.8	SE	Pierre Van Cortlandt MS	Croton-On-Hudson	349	50	6	10
8	4.6	ENE	Lincoln-Titus ES	Crompond	466	42	5	9
8	4	NE	St. Columbanus ES	Contlandt Manor	300	20	3	6
9	5	E	Walter Panas HS	Cortlandt Manor	874	85	14	23

Table 8-3. School Population Demand Estimates								
ERPA	Distance (Miles)	Direc-tion	School Name	Municipality	Enroll-ment	Staff	Bus Runs Req'd	Buses Avail-able
10	6	NE	George Washington ES	Mohegan Lake	570	40	6	11
10	8	ENE	Lakeland Alternative HS	Shrub Oak	24	6	1	1
10	7	NE	Lakeland HS	Shrub Oak	1,029	95	16	27
10	7	NE	St. Elizabeth Ann Seton School	Shrub Oak	570	30	6	11
10	6.2	NE	Van Cortlandtville ES	Mohegan Lake	645	65	7	12
11	7.8	ENE	Benjamin Franklin ES	Yorktown Heights	600	50	6	11
11	9	E	Brookside ES	Yorktown Heights	502	60	5	9
11	7.5	ENE	Crompond ES	Yorktown Heights	485	75	5	9
11	7.5	ENE	Fox Meadow Center	Yorktown Heights	80	N/A	2	3
11	8	ENE	Lakeland-Copper Beech MS	Yorktown Heights	1,478	80	23	39
11	7	ENE	Mercy College,Yorktown Center*	Yorktown Heights	800	170		
11	7.8	ENE	Mohansic ES	Yorktown Heights	440	72	5	8
11	7.5	ENE	Regional Alternative HS	Yorktown Heights	78	19	2	2
11	9.5	ENE	Thomas Jefferson ES	Yorktown Heights	519	40	6	10
11	7.5	ENE	Walkabout	Yorktown Heights	53	8	1	2
13	8.4	E	French Hill ES (K-2)	Yorktown Heights	437	60	5	8
13	8.8	E	Huntington Learning Center	Yorktown Heights	50	13	2	2
13	7.8	ENE	Mildred E. Strang MS	Yorktown Heights	1,050	133	16	28
13	8.2	E	Our Montessori School	Yorktown Heights	30	6	1	1
13	9.5	E	Pines Bridge School	Yorktown Heights	96	86	2	3
13	9.4	E	St. Patrick's ES	Yorktown Heights	400	25	4	8
13	9.5	E	Tech Center at Yorktown	Yorktown Heights	996	130	15	27
13	9.5	E	The Learning Center at Walden	Yorktown Heights	97	70	2	3
13	9.5	E	Walden School	Yorktown Heights	130	75	2	4
13	7.8	ENE	Yorktown HS	Yorktown Heights	1,293	190	20	34
14	10.5	ENE	Yorktown Christian Academy	Yorktown Heights	35	N/A	2	2
21	10	ESE	Westorchard ES	Chappaqua	570	N/A	6	11
22	8.2	SE	Anne M. Dorner MS	Ossining	904	128	14	24
22	9	SE	Brookside ES	Ossining	607	74	6	11

Table 8-3. School Population Demand Estimates								
ERPA	Distance (Miles)	Direc-tion	School Name	Municipality	Enroll-ment	Staff	Bus Runs Req'd	Buses Avail-able
22	8.2	SE	Claremont ES	Ossining	686	75	7	13
22	9	SSE	Ossining HS	Ossining	1,176	134	18	31
22	9.2	SSE	Park Early Childhood Center	Ossining	631	133	7	12
22	9	SE	Roosevelt Education Center	Ossining	104	22	1	2
22	9	SE	St. Ann's Parochial School	Ossining	385	38	4	7
22	8.4	SE	St. Augustine's School	Ossining	570	40	8	13
27	10.2	WNW	St Patrick's Pre-K	Highland Mills	25	7	1	1
48	3	SE	Croton-Harmon HS	Croton-On-Hudson	357	49	6	10
49	3.5	E	Blue Mountain MS	Cortlandt Manor	725	120	11	19
49	3.2	E	Furnace Woods ES	Cortlandt Manor	366	66	4	7
49	3.2	E	Ohr Hamier Seminary School	Peekskill	200	30	3	6
51	11.5	SE	Briarcliff HS	Briarcliff Manor	475	80	8	13
51	11.5	SE	Briarcliff MS	Briarcliff Manor	374	68	6	10
51	9.5	SE	Congregation Sons of Israel	Briarcliff Manor	400	18	5	10
51	12	SE	Pace University *	Pleasantville	3,815	662		
51	10.2	SE	St. Theresa's School	Briarcliff Manor	191	15	3	5
51	10.2	SSE	The Clearview School (AMIC)	Briarcliff Manor	119	N/A	2	3
51	11	SE	Todd ES	Briarcliff Manor	780	125	8	14
				Westchester County Totals:	33,720	4,416	393	671
				EPZ Totals:	**69,890**	**10,078**	**960**	**1,426**

* It is assumed that students attending colleges will have their own transportation

N/A = Not Available

Table 8-4. School Reception Centers			
Reception Center Code	**Reception Center**	**Address**	**Municipality**
Orange County Schools			
O1	South Junior High School	32-64 Monument Street	Newburgh
Putnam County Schools			
P1	Kent Elementary	Route 52	Kent
P2	Kent Primary School	Route 52	Kent
Rockland County Schools			
R1	St. Thomas Aquinas College	Route 340	Sparkill
R2	Bergen County Police and Fire Academy	281 Campgaw Rd	Mahway, NJ
R3	Bergen Catholic High School	1040 Oradell Ave	Oradell, NJ
R4	Rockland Community College	145 College Road	Suffern
R5	Don Bosco Prep High School	492 N. Franklin Tpke.	Ramsey, NJ
R6	Paramus Catholic High School	425 Paramus Road	Paramus, NJ
R7	St. Joseph's High School	40 Chestnut Ridge Road	Montvale, NJ
R8	Bergen County Vocational Technical H.S.	200 Hackensack Avenue	Hackensack, NJ
R9	Bergen County Vocational Technical H.S.	East 285 Pascack Road	Paramus, NJ
R10	Bergen County Vocational Technical H.S.	East 275 Pascack Road	Paramus, NJ
Westchester County Schools			
W01	Ardsley High	300 Farm Rd	Ardsley
W02	Blind Brook High	King St	Rye Brook
W03	Dobbs Ferry Middle	Broadway	Dobbs Ferry
W04	John Jay Middle	Route 121-124	Cross River
W05	John Jay Senior High (Westchester Cty)	Route 121-124	Cross River
W06	Juniper Hills Elem	Saratoga Rd	Greenburgh
W07	Mamaroneck Avenue	Nosband Ave	White Plains
W08	Maria Regina High	West Hartsdale Ave	Hartsdale
W09	North Salem High/Middle	Route 124	North Salem
W10	Pequenakonck Elem	Route 124	North Salem
W11	Richard J. Bailey Middle	33 Hillside Ave	Greenburgh

Table 8-4. School Reception Centers			
Reception Center Code	**Reception Center**	**Address**	**Municipality**
W12	Ridge Street	North Ridge St	Rye Brook
W13	S.U.N.Y. Purchase	Anderson Hill Rd	Purchase
W14	South Junior High	32-64 Monument St	Newburgh
W15	St. Patrick's	Rt 22 & Greenwich Rd	Bedford
W16	Valhalla Middle/High	300 Columbus Ave	Valhalla
W17	Westchester Community	75 Grasslands Rd	Valhalla
W18	White Plains Middle	128 Grandview Ave	White Plains
W19	Woodlands High	475 West Hartsdale Ave	Hartsdale
W20	German School of NY, White Plains	50 Partridge Rd	White Plains
W21	Fox Lane High	South Bedford Rd	Bedford
W22	Highview Elem	200 North Central Ave	Hartsdale
W23	Solomon Schecter	30 Dellwood Rd	White Plains
W24	Harrison High	Union Ave	Harrison
W25	Fox Lane Middle	South Bedrord Rd	Bedford
W26	King Street	King Street	Port Chester
W27	Horace Greeley High	70 Roaring Brook Rd	Chappaqua
W28	Park Avenue	Park Avenue	Port Chester
W29	Port Chester Middle	Bowman Ave	Port Chester
W30	Ridgeway	225 Ridgeway	White Plains

Table 8-5. Special Facility Transit Demand

ERPA	Distance (Miles)	Direction	Facility Name	Municipality	Capacity	Current Census	Ambulatory	Wheelchair Bound	Bedridden	Ambulance Runs	Wheelchair Bus Runs	Wheelchair Van Runs	Bus Runs
Putnam County													
17	6	NNE	Franciscan Sisters of Atonement	Garrison	70	70	30	27	13	7	2	0	1
17	6.4	NNE	Mother Lurana Home	Garrison	11	9	11	0	0	0	0	0	1
17	5.5	NNE	St. Christopher's Inn	Garrison	128	94	94	0	0	0	0	0	5
17	5.5	NNE	St. Paul's Friary of the Atonement	Garrison	10	6	4	2	0	0	0	1	1
17	6	NNE	Walter Hoving Home	Garrison	70	60	N/A	N/A	N/A	0	0	0	2
				Putnam County Totals:	289	239	139	29	13	7	2	1	10
Rockland County													
30	3.2	SSW	Sopko Apartments	Stony Point	75	75	N/A	N/A	N/A	0	0	0	3
31	5.2	SSW	Garnerville Home	Garnerville	38	38	38	0	0	0	0	0	2
31	5.4	S	Green Hills Estate Home for Adults	Haverstraw	164	164	164	0	0	0	0	0	6
31	4.5	SSW	Helen Hayes Hospital	West Haverstraw	155	188	0	100	18	12	7	0	2
31	5.2	S	Northern Riverview Healthcare	Haverstraw	182	181	30	121	30	16	9	0	2
31	5.4	SW	Venture North	Thiells	13	12	12	0	0	0	0	0	1
31	4.5	SSW	Walnut Hill Apts.	West Haverstraw	180	180	N/A	N/A	N/A	0	0	0	6

Table 8-5. Special Facility Transit Demand

ERPA	Dis-tance (Miles)	Dir-ection	Facility Name	Municipality	Capa-city	Current Census	Ambu-latory	Wheel-chair Bound	Bed-ridden	Ambu-lance Runs	Wheel-chair Bus Runs	Wheel-chair Van Runs	Bus Runs
31	5	SSW	Warren Knolls Apartments	Haverstraw	96	96	96	0	0	0	0	0	4
32	7.4	S	Rockland ARC (Day Hab)	Congers	612	610	569	41	0	0	3	0	20
33	10.5	S	Nyack Manor Nursing Home	Valley Cottage	160	146	0	0	0	0	0	0	6
33	10	S	Tolstoy Foundation Center	Valley Cottage	42	10	10	0	0	0	0	0	2
33	10	S	Tolstoy Foundation Nursing Home	Valley Cottage	96	86	7	79	0	0	6	0	1
35	9.8	SSW	L'Dor Adult Home	New City	44	44	44	0	0	0	0	0	2
35	8	SSW	Rockland ARC: Prime Time for Kids	New City	160	130	126	4	0	0	0	1	6
35	8	SSW	Squadron Gardens	New City	100	125	0	3	0	0	0	1	4
37	9.4	SSW	Friedwald Cntr for Rehab. & Nursing	New City	180	170	11	145	14	8	10	0	1
37	10.2	SSW	Hillcrest Nursing Home	Spring Valley	200	193	73	109	11	6	8	0	3
37	9.8	SW	Keahon House / Loeb House Inc.	Wesley Hills	12	12	N/A	N/A	N/A	0	0	0	1
37	8.8	SSW	Rockland County Adult Home	Pomona	38	27	27	0	0	0	0	0	2
37	8.8	SSW	Rockland Cnty Infirmary/Summit Park Hosp.	Pomona	341	335	12	323	12	6	22	0	0
				Rockland County Totals	2,888	2,822	1,219	925	85	48	65	2	74

Table 8-5. Special Facility Transit Demand													
ERPA	Distance (Miles)	Direction	Facility Name	Municipality	Capacity	Current Census	Ambulatory	Wheelchair Bound	Bedridden	Ambulance Runs	Wheelchair Bus Runs	Wheelchair Van Runs	Bus Runs
Westchester County													
1	1.0	SE	Community-Based Services	Buchanan	10	10	5	5	0	0	0	1	1
2	1.6	NE	Mt. St. Francis Convent/Franciscan Sisters Inf.	Peekskill	47	41	35	3	3	2	0	1	2
2	3.6	ENE	Society Hill at Westchester	Peekskill	10	10	N/A	N/A	N/A	0	0	0	1
2	2.8	ENE	Westchester ARC-The Villa at the Woods	Peekskill	2	2	2	0	0	0	0	0	1
2	1.2	NE	Westchester-Water View Estates	Peekskill	2	2	2	0	0	0	0	0	1
4	2	SE	Skyview Health Care Center	Croton-On-Hudson	120	120	120	0	0	0	0	0	4
4	1.8	SE	VA Hudson Valley Healthcare System	Montrose	400	138	138	0	0	0	0	0	14
6	5	SE	St. Jude Habilitation Inst.	Croton-On-Hudson	8	8	8	0	0	0	0	0	1
8	5.4	ENE	Camary-Statewide Services	Mohegan Lake	10	10	10	0	0	0	0	0	1
8	3.8	NE	Cardinal McCloskey (GH)	Cortlandt Manor	6	6	6	0	0	0	0	0	1
8	3.5	NNE	Cardinal McCloskey I.R.A.	Cortlandt Manor	5	5	5	0	0	0	0	0	1
8	3.8	NE	Cortlandt Healthcare Center	Cortlandt Manor	120	112	44	62	6	4	5	0	2
9	3.4	ENE	Hudson Valley Hospital Center	Cortlandt Manor	120	87	50	1	36	25	0	1	3

Table 8-5. Special Facility Transit Demand													
ERPA	Dis-tance (Miles)	Dir-ection	Facility Name	Municipality	Capa-city	Current Census	Ambu-latory	Wheel-chair Bound	Bed-ridden	Ambu-lance Runs	Wheel-chair Bus Runs	Wheel-chair Van Runs	Bus Runs
9	5	E	Westchester DDSO-(CROTON IRA)	Cortlandt Manor	8	8	8	0	0	0	0	0	1
9	3.8	ENE	Westledge Nursing Home	Peekskill	100	98	3	85	10	6	6	0	1
10	5.8	NE	Mohegan Manor	Mohegan Lake	150	150	150	0	0	0	0	0	5
10	7.4	ENE	Phoenix House	Shrub Oak	300	297	297	0	0	0	0	0	10
10	5.8	NE	Treetops at Mohegan Lake	Mohegan Lake	120	103	25	77	1	1	6	0	1
10	6.5	ENE	Westchester DDSO (ICFMR)	Mohegan Lake	6	6	6	0	0	0	0	0	1
10	6.5	ENE	Westchester DDSO-(STONY IRA)	Mohegan Lake	6	6	6	0	0	0	0	0	1
11	9	ENE	Community-Based Services (ICF Autism)	Yorktown Heights	10	10	10	0	0	0	0	0	1
11	9.2	ENE	Westchester DDSO-(GOMER IRA)	Yorktown Heights	13	13	13	0	0	0	0	0	1
12	5.5	ENE	Field Home-Holy Comforter	Yorktown Heights	200	200	200	0	0	0	0	0	7
12	5.5	ENE	Holy Comforter Nursing Home	Cortlandt Manor	202	185	37	120	28	16	8	0	2
12	6.4	ENE	Westchester ARC	Yorktown Heights	6	6	6	0	0	0	0	0	1
13	8.5	E	Beaver Ridge (Senior Housing)	Yorktown Heights	167	209	197	12	0	0	1	0	6
13	8.4	E	Country House in Westchester	Yorktown Heights	100	N/A	N/A	N/A	N/A	0	0	0	4

Table 8-5. Special Facility Transit Demand													
ERPA	Dis-tance (Miles)	Dir-ection	Facility Name	Municipality	Capa-city	Current Census	Ambu-latory	Wheel-chair Bound	Bed-ridden	Ambu-lance Runs	Wheel-chair Bus Runs	Wheel-chair Van Runs	Bus Runs
13	8.6	E	Opengate-Grasso	Yorktown Heights	8	8	8	0	0	0	0	0	1
13	9.2	E	Westchester DDSO-(MOSEMAN IRA)	Yorktown Heights	8	8	8	0	0	0	0	0	1
21	9.5	ESE	St. Jude Habilitation Inst-Millwood Hse.	Millwood	8	N/A	N/A	N/A	N/A	0	0	0	1
21	7.5	SE	St. Mary's Rehabilitation Center	Ossining	44	44	15	15	14	7	1	0	1
22	8.6	SE	Bethel Adult Day Services	Ossining	65	25	22	3	0	0	0	1	2
22	8.6	SE	Bethel Nursing/Rehab. Center at Ossining	Ossining	79	74	30	44	0	0	3	0	2
22	8.5	SE	Cardinal McCloskey Group Foster Care	Ossining	20	13	13	0	0	0	0	0	1
22	7.8	SE	Cedar Manor Nursing & Rehabilition Ctr.	Ossining	153	138	44	64	2	2	5	0	3
22	8.4	SE	Community-Based Services	Ossining	7	7	7	0	0	0	0	0	1
22	9.2	SSE	Faith Adult Home	Ossining	14	12	12	0	0	0	0	0	1
22	8.8	SSE	Family Serv. of Westchester-Maple Hse	Ossining	106	106	98	8	0	0	1	0	4
22	7.5	SE	Green Chimineys Childrens Serv. Ossining Group	Ossining	8	8	8	0	0	0	0	0	1
22	9.2	SE	Ossining House	Ossining	6	N/A	N/A	N/A	N/A	0	0	0	1
22	9	SE	St. Theresa's Residence (Maryknoll)	Maryknoll	70	67	38	29	0	0	2	0	2

Table 8-5. Special Facility Transit Demand													
ERPA	Dis-tance (Miles)	Dir-ection	Facility Name	Municipality	Capa-city	Current Census	Ambu-latory	Wheel-chair Bound	Bed-ridden	Ambu-lance Runs	Wheel-chair Bus Runs	Wheel-chair Van Runs	Bus Runs
22	8.4	SE	Stony Lodge Hospital, Inc.	Ossining	61	61	61	0	0	0	0	0	3
22	8.5	SE	Victoria Home	Ossining	49	47	10	37	0	0	3	0	1
22	6.5	SE	Westchester ARC	Ossining	7	7	7	0	0	0	0	0	1
22	9	SSE	Westchester ARC-Hunter House	Ossining	3	3	3	0	0	0	0	0	1
22	8.5	SE	Westchester DDSO-(HUDSON IRA)	Ossining	12	12	12	0	0	0	0	0	1
48	2.8	SSE	Bethel Nursing Rehabilitation Center	Croton-On-Hudson	200	200	0	0	0	0	0	0	7
48	2.8	SSE	Bethel Springvale Inn	Crugers	125	107	100	7	0	0	1	0	4
48	2.8	SE	Westchester ARC	Croton-On-Hudson	9	9	9	0	0	0	0	0	1
49	3	ENE	Lafayette House	Cortlandt Manor	6	6	6	0	0	0	0	0	1
49	2.8	ESE	Special Citizens Futures	Cortlandt Manor	8	8	8	0	0	0	0	0	1
49	3.8	E	Westchester ARC-Cortlandt House	Cortlandt Manor	10	10	10	0	0	0	0	0	1
50	6.2	SE	Danish Home for Aged	Croton-On-Hudson	24	15	15	0	0	0	0	0	1
51	11	SSE	Brandywine Adult Home	Briarcliff Manor	31	28	27	1	0	0	0	1	1
51	11	SSE	Brandywine Nursing Home Inc.	Briarcliff Manor	131	125	5	115	0	0	8	0	1

Table 8-5. Special Facility Transit Demand													
ERPA	**Dis-tance (Miles)**	**Dir-ection**	**Facility Name**	**Municipality**	**Capa-city**	**Current Census**	**Ambu-latory**	**Wheel-chair Bound**	**Bed-ridden**	**Ambu-lance Runs**	**Wheel-chair Bus Runs**	**Wheel-chair Van Runs**	**Bus Runs**
51	9.8	SE	Community-Based Services (ICS) Group Home	Briarcliff Manor	10	10	8	2	0	0	0	1	1
51	10.2	SE	North Hill Senior Housing	Briarcliff Manor	96	96	96	0	0	0	0	0	4
51	9.5	SE	Westchester ARC (ICFMR)	Briarcliff Manor	7	7	7	0	0	0	0	0	1
51	10.2	SE	Westchester DDSO-(BRIARCLIFF IRA)	Briarcliff Manor	10	10	10	0	0	0	0	0	1
51	10.2	SE	Westchester DDSO-(ECHO LAKE IRA)	Briarcliff Manor	12	11	11	0	0	0	0	0	1
Westchester County Totals:					3,655	3,124	2,091	690	100	63	50	6	130
EPZ Totals:					**6,832**	**6,185**	**3,449**	**1,644**	**198**	**118**	**117**	**9**	**214**

N/A = Not Available

Table 8-6. Indian Point EPZ Transportation Resources												
Westchester County Bus Companies	Fleet Available for Evacuation											Total Number of Drivers
	Bus				Van				Other Vehicles			
	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Total Seats	
Chappaqua Transportation	45	66		2,970	65	20		1,300				110
County Coach Corporation	24	66		1,584	20	10		200				30
	6	47		282								
Hendrick Hudson Central School D	25	66		1,650	20	16		320				50
Lakeland Central School District	3	30		90	4	18		72	3	7	21	125
	13	60		780	6	19		114				
	30	69		2,070	16	20		320				
	33	75		2,475	5	28		140				
Royal Coach (Yonkers)	65	66		4,290	40	12		480				90
Royal Coach (Thornwood)	40	66		2,640	17	12		204				37
Liberty Lines Transit	68	72		4,896	36	18		648				400
	36	49		1,764								
	36	53		1,908								
	80	18		1,440								
	120	47		5,640								
Croton-Harmon School District	15	60		900	10	20		200	1	5	5	37
					8	16		128	2	6	12	
					1	11		11				
					1	10		10				
					1	18		18				
White Plains Bus Co. (Fisher La.)	60	52		3,120	70	10		700				122
	4	55		220	10	8	8	80				
	15	48	48	720	60	6	6	360				
White Plains Bus Co. (Fulton)	20	52		1,040								
	10	48	48	480								
White Plains Bus Co. (Hartsdale)	40	52		2,080	30	10		300				
					10	8	8	80				
Bauman & Sons	39	66		2,574	56	16		896				60
Westchester County Totals:	827			45,613	486			6,581	6		38	1,061

Table 8-6. Indian Point EPZ Transportation Resources												
Orange County Bus Companies	Fleet Available for Evacuation											Total Number of Drivers
	Bus				Van				Other Vehicles			
	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Total Seats	
Bosch and Sons Inc.	15	66	2	1,020	4	15		60				14
Monroe Woodbury Cent School District	73	64		4,672	31	20		620	4			140
West Point Tours	*Fleet has capacity of 6,600 people. Availability depends on season and day*											
George M. Carol Inc	35	66		2,310	15	30		450				91
					16	24		384				
					3	27		81				
Orange County Totals:	123			8,002	69			1,595	4			245

Table 8-6. Indian Point EPZ Transportation Resources												
Rockland County Bus Companies	Fleet Available for Evacuation											Total Number of Drivers
	Bus				Van				Other Vehicles			
	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Total Seats	
Clarkstown Central School Dist.	29	66		1,914	25	16		400	2	5	10	100
East Ramapo Central School Dist.	10	78		780	3	28		84	2	6	12	65
	34	66		2,244	32	20		640				
Haverstraw Transit Inc	89	66		5,874	103	20		2,060	2	5	10	181
Rockland Coaches Inc.	162	66		10,692								200
Student Bus Company	6	60		360	14	20		280				30
Chestnut Ridge Transit (Spr V)	45	60		2,700	38	20		760	7	5	35	200
Peter Brega Inc	40	60		2,400	14	20		280				54
Chestnut Ridge Transit (Hillburn)	22	60		1,320	45	20		900	3	5	15	72
Monsey New Square Trails	18	49		882								18
R C Dept of S.S./ Med Trans.									8	6	48	6
R C Dept of Mental Health					18	15		270	1	7	7	
									15	5	75	
R C Dept of Public Transport:												
Transport of Rockland	15	58		870								36
	7	70		490								
	4	73		292								
Rockland County	13	51		663	8	16		128				21
	2	39		78								
T.R.I.P.S. O.P.T.	2	18	3	42	2				3	6	18	14
	7	11	2	91	7				1	5	5	
	5	17	3	100	5							
	4	11	2	52	4							
Rockland County Totals:	514			31,844	318			5,802	44		235	997

Table 8-6. Indian Point EPZ Transportation Resources												
Putnam County Bus Companies	Fleet Available for Evacuation											Total Number of Drivers
	Bus				Van				Other Vehicles			
	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Handi-capped Capacity	Total Seats	Number of Vehicles	Vehicle Capacity	Total Seats	
Garrison Union Free School	1	66		66								
Hudson Valley Bus (Garrison S.D.)	5	66		330								
Hudson Valley Bus (Put. V. C.S.D.)	15	66		990	2	20		40				
Mahopac Central School District	5	60		300	26	10		260				75
	45	74		3,330	11	5		55				
	18	60		1,080								
Putnam Valley Central School Dist.	3	66		198	16	20		320	2	7	14	41
	1	57		57								
Haldane Central School District	1	60		60	3	20		60				13
	1	48		48	1	24	3	27				
	1	72		72	2	16		32				
	2	71		142								
	5	66		330								
	1	47		47								
Putnam County Totals:	104			7,050	61			794	2		14	129

Table 8-7. Demand and Supply of Bus Resources					
County	Number of Students	Transit Dependents	Ambulatory and Wheelchair Medical Demand	Weighted Total Number of Seats Required	Number of Available Bus Seats
Orange	6,379	715	None	7,196	8,002
Putnam	2,945	633	235	2,443	7,050
Rockland	26,846	6,141	2,496	22,755	31,844
Westchester	33,720	7,153	2,822	25,396	45,613

Table 8-8. Mean Evacuation Speeds, Region R3												
Elapsed Time from Advisory to Evacuate (Hours)	Orange County Outbound Speed (MPH)			Putnam County Outbound Speed (MPH)			Rockland County Outbound Speed (MPH)			Westchester County Outbound Speed (MPH)		
	Good Weather	Rain	Snow	Good Weather	Rain	Snow	Good Weather	Rain	Snow	Good Weather	Rain	Snow
1	45	41	37	38	34	34	25	23	23	18	16	16
3	8	7	7	10	9	9	8	7	7	7	5	5
5	6	5	4	8	7	7	7	6	6	5	4	4
7	6	5	4	7	7	6	7	6	6	5	4	4
9	6	5	4	7	7	6	7	6	6	5	4	4

Table 8-9. School Evacuation Time Estimates						
	ETE to Leave EPZ			ETE to Reception Center		
County	Good Weather	Rain	Snow	Good Weather	Rain	Snow
Orange	2:55	3:05	3:40	3:25	3:35	4:20
Putnam	2.45	2:50	3:25	3:30	3:35	4:25
Rockland	2:55	3:05	3:40	4:25	4:35	3:30
Westchester	3:05	3:30	4:05	4:05	4:30	5:20

Table 8-10. Transit-Dependent Evacuation Time Estimates									
	Region Extends to 5 Miles			Region Extends to EPZ Boundary			Second Wave Completion (if needed)		
County	Good Weather	Rain	Snow	Good Weather	Rain	Snow	Good Weather	Rain	Snow
Orange	4:35	4:50	5:25	5:05	5:20	5:55	7:30	7:55	9:35
Putnam	4:15	4:50	5:00	4:40	4:50	5:25	6:50	7:10	8:05
Rockland	4:35	4:50	5:25	5:05	5:20	5:55	8:00	8:10	9:10
Westchester	4:50	5:30	6:05	5:20	6:15	6:50	8:25	9:40	10:35

Table 8-11. Ambulatory Evacuees from Special Facilities Evacuation Time Estimates			
	ETE to Leave EPZ		
County	Good Weather	Rain	Snow
Orange	3:50	4:00	4:35
Putnam	3:40	3:45	4:20
Rockland	3:50	4:00	4:35
Westchester	4:00	4:25	5:00

Table 8-12. Ambulance and Ambulette Resources	
Ambulance Companies	**Number of Ambulances**
Orange County Ambulance Companies	
Mobile Life Support	26
Cornwall Volunteer Ambulance Corp	2
Orange County Ambulance Total:	28
Putnam County Ambulance Companies	
Brewster Fire Department	2
Carmel Ambulance Corps	2
Garrison Ambulance Corps	2
Kent Fire Department	1
Lake Carmel Fire Department	1
Mahopac Fire Department	2
Mahopac Falls Fire Department	2
Patterson Fire Department	1
Phillipstown Ambulance Corps	2
Putnam Lake Fire Department	1
Putnam Valley Ambulance Corps	2
Putnam County Ambulance Total:	18
Rockland County Ambulance Companies	
Congers/Valley Cottage Ambulance Corps	2
Hatzolah Ambulance Corps	5
Haverstraw Ambulance Corps	3
Nanuet Community Ambulance Corps	3
New City Volunteer Ambulance Corps	4
Nyack Ambulance Corps	3
Pearl River Alumni Ambulance Corps	2
Piermont Ambulance Corps	1
Ramapo Valley Ambulance Corps	3
Rockland Mobile Care/Rockland Paramedics Services Inc.	26
Sloatsburg Community Ambulance Corps	2
South Orangetown Ambulance Corps	2
Spring Hill Community Ambulance Corps	5
Stony Point Ambulance Corps	3
W. P. Faist Ambulance Corps	2
Rockland County Ambulance Total:	66

Table 8-12. Ambulance and Ambulette Resources	
Ambulance Companies	**Number of Ambulances**
Westchester County Ambulette Companies	
American Ambulette Corporation	15
Avet Ambulette	70
MetroCare	80
Westchester County Ambulette Total:	165
Westchester County Ambulance Companies	
Ardsley-Secor VAC	1
Armonk Independent VFDAC	1
Bedford VFDAC	1
Briarcliff Manor VFDAC	1
Chappaqua VAC	1
Cortlandt VAC	1
Croton-on-Hudson VFDAC	1
Dobbs Ferry VAC	1
Eastchester VAC	1
Elmsford VFD Rescue	1
Harrison VAC	1
Hastings-on-Hudson VFDAC	1
Hawthorne VAC	1
Irvington VAC	1
Katonah-Bedford Hills VAC	1
Larchmont/Mamaroneck VAC	1
Lewisboro VAC	1
Mamaroneck Village VFD Rescue Squad	1
Mohegan VF Ass'n Emergency Rescue Squad	1
Mount Kisco Lions VAC	1
North Salem VAC	1
Sleepy Holow VFDAC	1
Ossining VAC	1
Peekskill Community VAC	1
Pleasantville VAC	1
Port Chester/Rye VAC	1
Pound Ridge Lions VAC	1
Scarsdale VAC	1
Somers VFDAC	1
Tarrytown VAC	1
Valhalla VAC	1
Verplanck Fire Protective Ass'n VAC	1
Vista VFDAC	1
Yorktown VAC	1
Westchester County Ambulance Total:	34