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VALLEY FORGE NATIONAL HISTORICAL PARK

SUMMARY OF SURVEY FINDINGS

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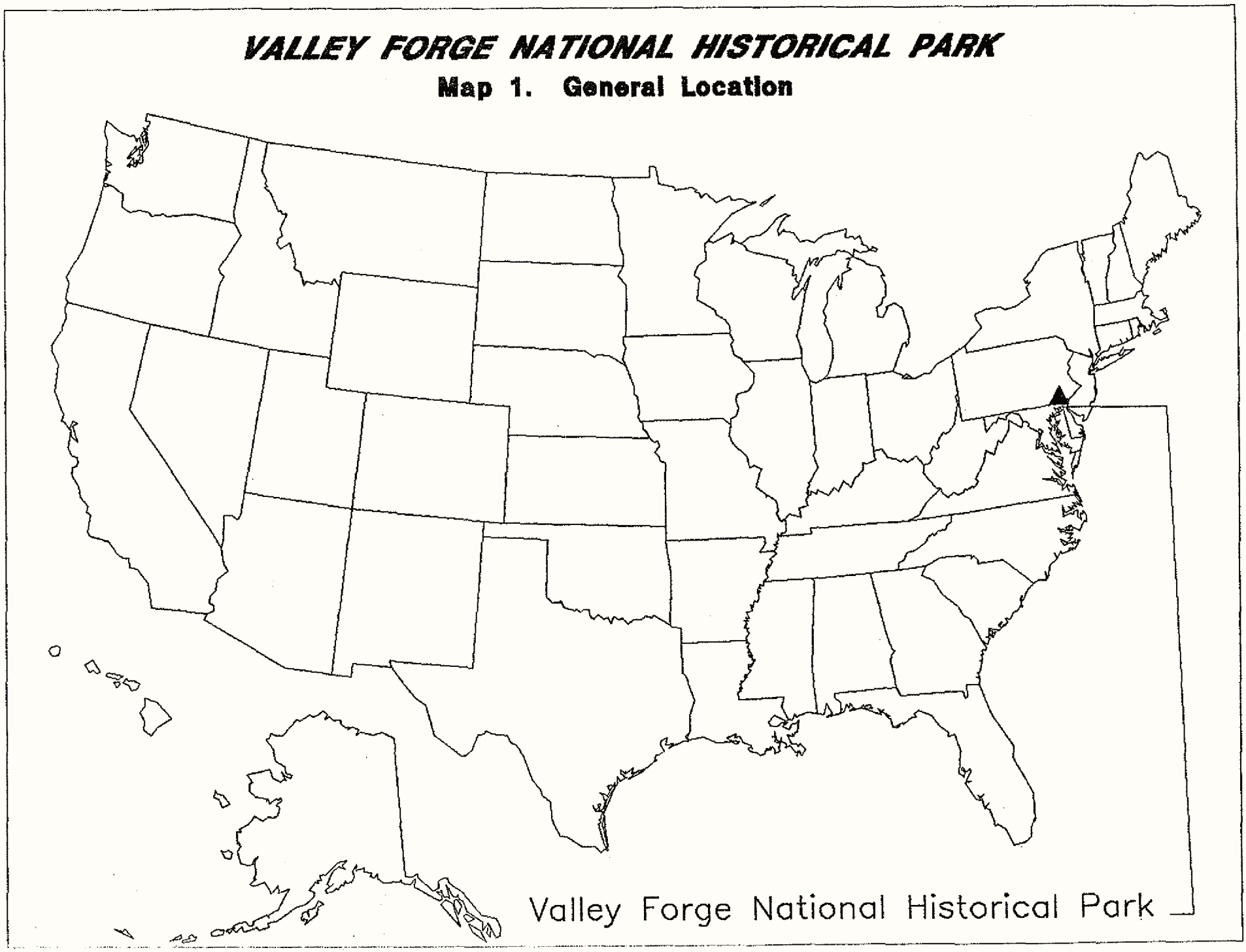
VALLEY FORGE NATIONAL HISTORICAL PARK

Map 1. General Location



VALLEY FORGE NATIONAL HISTORICAL PARK
SUMMARY OF SURVEY FINDINGS

Two visitor use surveys were conducted at Valley Forge National Historical Park during 1990. Survey I was a Persons-Per-Vehicle (PPV) enumeration study. Park personnel collected data from February 1990 through December 1990. Park staff also conducted personal interviews to collect data for Survey II which ran from March 1, 1990, through December 17, 1990. Survey I (PPV study) was scheduled to continue through the end of January 1991. Survey II was originally scheduled to run through February 28, 1991. Data collection for the last month of Survey I and the last two months of Survey II were canceled due to budget and staffing constraints at the park. The surveys were designed to provide information that would aid in the revision of visitor counting instructions for the park and to provide information of interest to park personnel. The results of the analyses of the data follow a discussion of the project methodology.

METHODOLOGY

Survey I

While on patrol, park rangers would count and record numbers of vehicles and passengers at various locations throughout the park (Attachment 1). The Survey Plan stated that data would be collected 14 times a month for a period of five minutes each (Attachment 2). The park staff were provided with a survey schedule to follow (Attachment 3). The short time-period was decided upon due to the large volume of traffic in the park and to minimize the work load upon the ranger staff. The object of this survey was to determine both recreation and nonrecreation PPV values. The survey locations determined whether the data collected, pertain to recreational or nonrecreational use of the park. The survey schedule was conscientiously followed and data were received in a timely manner.

Survey II

A one page survey instrument (Attachment 4) was designed and used to collect information from park visitors through a personal interview format. The sampling plan (Attachment 5) called for 21 one-half hour survey periods each month. Interviews were conducted following a set schedule (Attachment 6). The survey schedule was stratified by day-of-week, and time-of-day. Each day-of-week was represented three times each month. Morning, mid-day, and afternoon time-periods were represented seven times each month. Data were collected for a 10 month period in order to account for seasonal differences, if any.

The sampling procedures developed for the survey were designed to obtain a random sample. It was assumed that the samples were drawn from a normally distributed population. But caution is in order in interpreting the results of these analyses. The results shown, herein, are based upon the best data available. Valid conclusions may be drawn with reference to the respondents to the survey. Using the results with reference to the general park population may result in invalid conclusions, if there is a significant bias in the data.

On occasion, as happened here, the park will run into some unforeseen constraints and the survey will be affected. Budget and staffing limitations forced the cancellation of the last two months of planned data collection. In this instance, the winter season is represented by only one month's (March 1990) worth of data. Conclusions regarding this season will be subject to a larger margin of error.

RESULTS

Survey I

Survey I was designed to provide data that would be used to develop PPV values for recreational use (Table 1) and nonrecreational use (Table 2) of the park.

Table 1

VALLEY FORGE NATIONAL HISTORICAL PARK
Persons-Per-Vehicle for Recreation Visits
by Month for 1990

1990 Month	Number of Vehicles	Number of People	Seasonal PPV	Monthly PPV
February	39	67	1.72	1.72
March	66	116		1.76
April*	6	7	1.67	1.17
May*	10	15		1.50
June	69	120		1.74
July	77	138	1.51	1.79
August	76	96		1.26
September*	21	29		1.38
October*	22	35	1.64	1.59
November*	21	34		1.62
December*	18	18		1.00
Total	425	675	1.59	1.59

* Note: Individual monthly PPV figures may be biased due to the small number (less than 30) of survey respondents.

Statistical Analysis of Persons-Per-Vehicle Means

Survey I - Recreational Use

An analysis of variance (ANOVA) of the recreational PPV data by month shows that they do not vary significantly from each other. That is, the average PPV values are not different on a monthly basis.

Source of Variation	Analysis of Variance Dependent Variable = PPV				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Month	1.58	10	0.16	0.93	0.54
Error	2.22	13	0.17		

$F_{Critical} = 2.67, \alpha(1) = 0.05$

An analysis of variance (ANOVA) of the mean, for seasonal recreation PPV values, indicates that they do not vary significantly from season to season. That is, the average PPV values are not different each season.

The seasons were assumed to be:

Winter = February and March
Spring = April, May, and June
Summer = July, August, and September
Fall = October, November, and December

Source of Variation	Analysis of Variance Dependent Variable = PPV				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Season	0.40	3	0.13	0.78	0.52
Error	3.40	20	0.17		

$F_{Critical} = 3.10, \alpha(1) = 0.05$

Table 2

VALLEY FORGE NATIONAL HISTORICAL PARK
Persons-Per-Vehicle for Nonrecreation Visits
by Month for 1990

1990 Month	Number of Vehicles	Number of People	Seasonal PPV	Monthly PPV
February	535	795	1.40	1.49
March	450	583		1.30
April	230	290	1.35	1.26
May	312	468		1.50
June	358	455		1.27
July	239	351	1.48	1.47
August	340	534		1.57
September	406	568		1.40
October	284	453	1.52	1.60
November	274	386		1.41
December	155	242		1.56
Total	3,586	5,107	1.42	1.42

Statistical Analysis of Persons-Per-Vehicle Means

Survey I - Nonrecreational Use

An analysis of variance (ANOVA) of the nonrecreational PPV data shows that they do not vary significantly from each other. That is, the average nonrecreation PPV values are not different on a monthly basis.

Source of Variation	Analysis of Variance Dependent Variable = PPV				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Month	1.12	10	0.11	1.10	0.37
Error	10.06	99	0.10		

$F_{Critical} = 1.93$, $\alpha(1) = 0.05$

An analysis of variance (ANOVA) of the mean, for the seasonal PPV, indicates that they do not vary significantly from season to season. That is, the average PPV values are not different each season.

The seasons were assumed to be:

Winter = February and March
Spring = April, May, and June
Summer = July, August, and September
Fall = October, November, and December

Source of Variation	Analysis of Variance Dependent Variable = PPV				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Season	0.66	3	0.22	2.22	0.088
Error	10.52	106	0.10		

$F_{Critical} = 2.69$, $\alpha(1) = 0.05$

Survey II

I. Length-of-Stay

Respondents were asked: *"What time did you first arrive in the park on this visit?"* and *"What time do you expect to leave the park on this visit?"* The respondent's Length-of-Stay (LOS) in the park is determined from the responses to these questions. Figure 1 and Table 3 present the results of the analysis of the data.

Figure 1. VALLEY FORGE NHP
Length-of-Stay
By Month

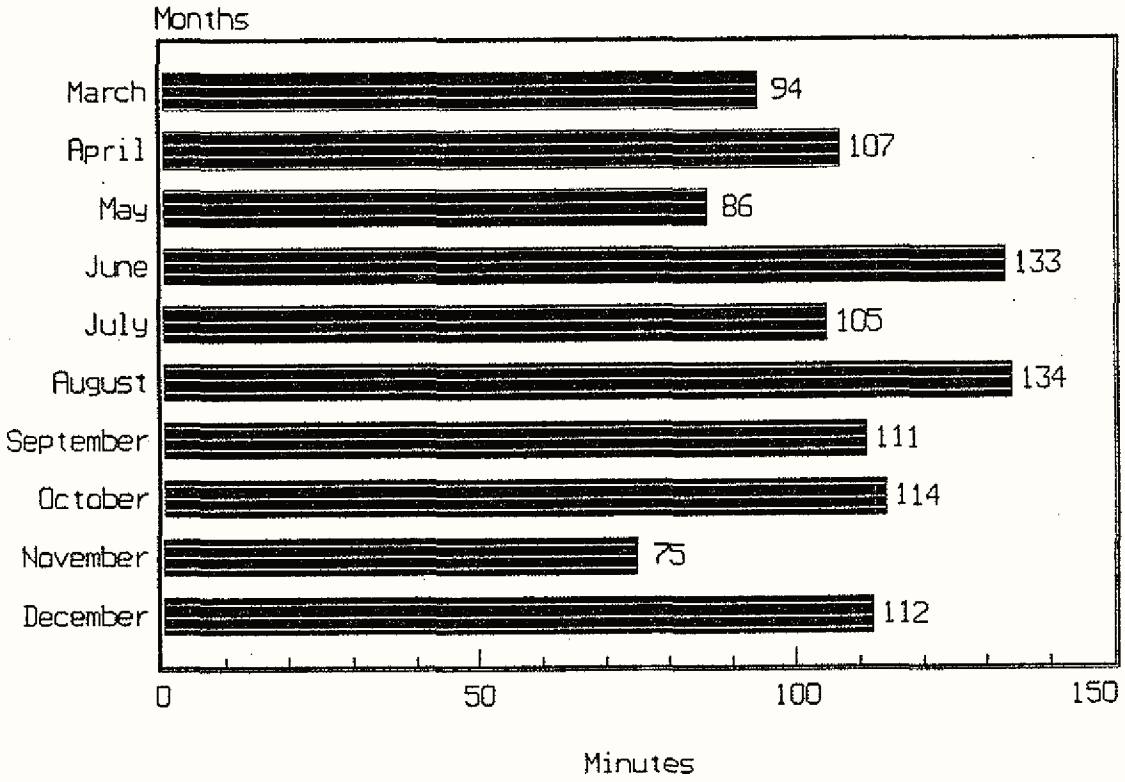


Table 3

VALLEY FORGE NATIONAL HISTORICAL PARK
Length-of-Stay
by Month for 1990

1990 Month	Number of Respondents	Seasonal Length-of-Stay	Monthly Length-of-Stay
March	153	1 hour 34 minutes	1 hour 34 minutes
April	120	1 hour 48 minutes	1 hour 47 minutes
May	104		1 hour 26 minutes
June	89		2 hours 13 minutes
July	105	1 hour 58 minutes	1 hour 45 minutes
August	94		2 hours 14 minutes
September	63		1 hour 51 minutes
October	57	1 hour 44 minutes	1 hour 54 minutes
November	32		1 hour 15 minutes
December*	29		1 hour 52 minutes
Total	846	1 hour 47 minutes	1 hour 47 minutes

* Note: Individual monthly PPV figures may be biased due to the small number (less than 30) of survey respondents.

Statistical Analysis of Length-of-Stay Means

An analysis of variance (ANOV) of the monthly mean, for LOS figures, shows that they do vary significantly from each other. That is, the average LOS values are different each month.

Source of Variation	Analysis of Variance Dependent Variable = LOS				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Month	240,000	9	26,500.3	4.64	0.00
Error	4,800,000	836	5,717.4		

$F_{Critical} = 1.90, \alpha(1) = 0.05$

An analysis of variance (ANOVA) of the mean, for the seasonal LOS, indicates that they do vary significantly from season to season. That is, the average LOS values are different each season.

The seasons were assumed to be:

Winter = March
Spring = April, May, and June
Summer = July, August, and September
Fall = October, November, and December

Source of Variation	Analysis of Variance Dependent Variable = LOS				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Season	56,313.9	3	18,771.3	3.19	0.023
Error	5,000,000	842	5,893.1		

$F_{Critical} = 2.62, \alpha(1) = 0.05$

II. Persons-Per-Vehicle

Visitors were asked: *"How many people are traveling in your vehicle?"* Visitors' responses are used to determine the number of persons-per-vehicle. The results are presented in Table 4 and Figure 2. The data and results are for recreation visits to the park. The survey plan called for only recreational users to be interviewed. Less than four percent ((32/901) x 100 = 3.55%)) of the visitors interviewed, did not respond when asked to indicate their participation in some sort of recreational activity while visiting the park. Also, most nonrecreational users of the park are commuters who were not likely to stop while within the park. Thus, the probability that nonrecreational users were contacted would have been low.

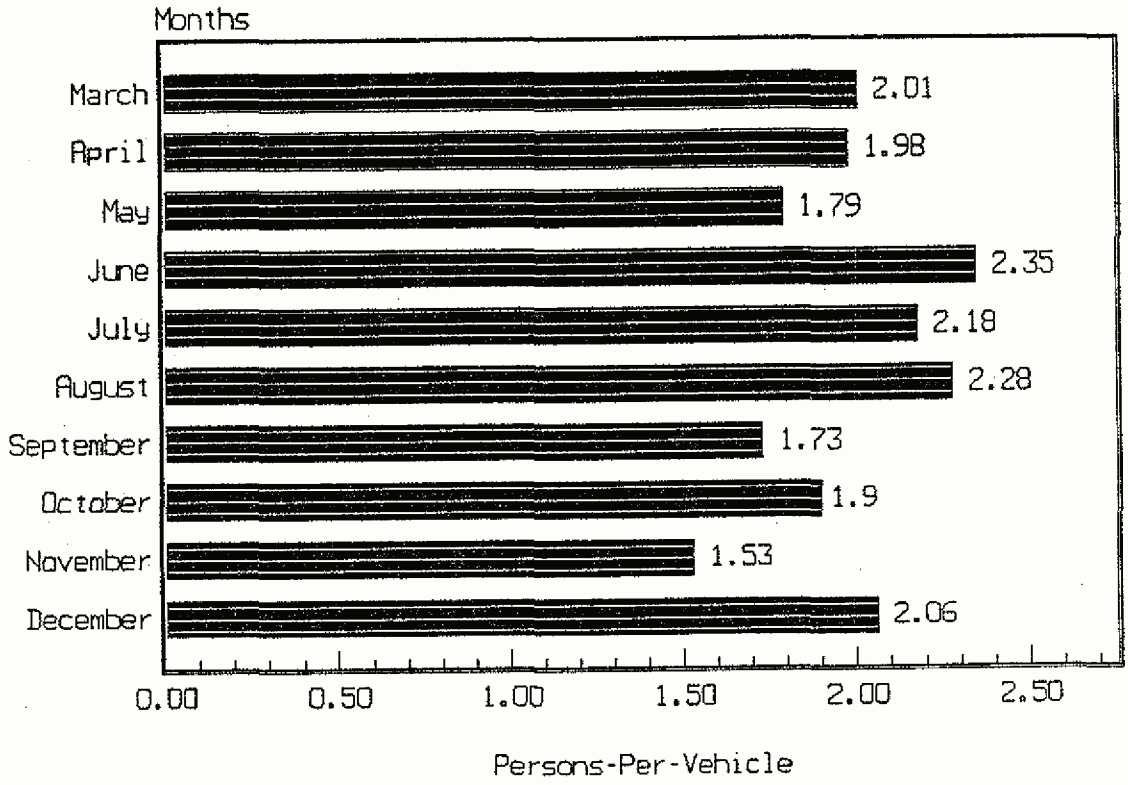
For the purpose of establishing a PPV for recreational use (or recreation visits) to the park, the results presented here should be used rather than the results presented in Table 1. Survey II results are more accurate. This is because, in Survey II, the visitors were actually contacted in person. Whereas, in Survey I, the visitors were only observed as they travelled through the park and the determination as to their purpose (recreation or nonrecreation) could only be surmised and not confirmed.

Table 4

VALLEY FORGE NATIONAL HISTORICAL PARK
Persons-Per-Vehicle for Recreation Visits
by Month for 1990

1990 Month	Number of Vehicles	Number of People	Seasonal PPV	Monthly PPV
March	153	308	2.01	2.01
April	119	236	2.02	1.98
May	104	186		1.79
June	86	202		2.35
July	114	249	2.11	2.18
August	103	235		2.28
September	67	116		1.73
October	61	116	1.85	1.90
November	32	49		1.53
December	31	64		2.06
Total	871	1,762	2.02	2.02

Figure 2. VALLEY FORGE NHP
Persons-Per-Vehicle
By Month



Statistical Analysis of Persons-Per-Vehicle Means

An analysis of variance (ANOVA) of the mean, for monthly PPV figures, shows that they do vary significantly from each other. That is, the average PPV values are different each month.

Source of Variation	Analysis of Variance Dependent Variable = PPV				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Month	39.29	9	4.37	2.65	0.005
Error	1,417.20	860	1.65		

$F_{Critical} = 1.90$, $\alpha(1) = 0.05$

An analysis of variance (ANOVA) of the mean, for the seasonal PPV, indicates that they do not vary significantly from season to season. That is, the average PPV values are not different each season.

The seasons were assumed to be:

Winter = March
Spring = April, May, and June
Summer = July, August, and September
Fall = October, November, and December

Source of Variation	Analysis of Variance Dependent Variable = PPV				
Total	Sums of Squares	Degrees of Freedom	Mean Square	$F_{Calculated}$	Probability
Groups: Season	6.15	3	2.05	1.22	0.299
Error	1,450.34	866	1.67		

$F_{Critical} = 2.62$, $\alpha(1) = 0.05$

III. Activities and Sites

The park managers are interested in what activities visitors participated in while at the park and what locations within the park they visited. So respondents were asked: *"What sites have you visited in the park during this visit, and what activities did you participate in while visiting those sites?"* Visitors were allowed to specify up to nine different sites and nine different activities. Some visitors did indicate that they visited nine different sites (Table 5a). Figure 3a shows the distribution of visits based upon total *responses*. Nineteen out of 20 respondents said they visited at least one site within the park (Table 5b). Also, some visitors showed that they participated in up to four different activities (Tables 5c and 5d).

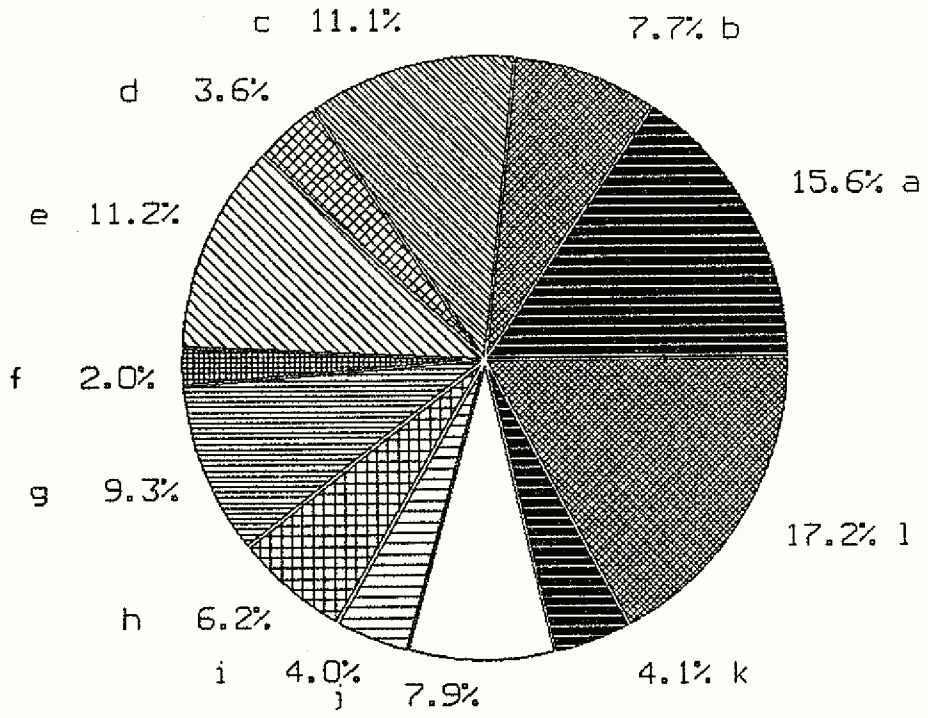
Table 5a

VALLEY FORGE NATIONAL HISTORICAL PARK
Sites Visited by Respondents*

SITES	NUMBER OF RESPONDENTS WHO INDICATED THEY VISITED A SITE									SUBTOTAL	PERCENT OF TOTAL RESPONSES (N = 1,644)
Visitor Center	239	16	2	0	0	0	0	0	0	257	15.6%
Auditorium	10	105	8	2	1	0	0	0	1	127	7.7
National Memorial Arch	60	47	62	8	3	1	1	1	0	183	11.1
Grand Parade Grounds	7	1	17	28	4	1	1	0	0	59	3.6
Outer Line Drive	61	38	25	30	28	2	0	0	0	184	11.2
Valley Creek Road	3	1	3	6	9	11	0	0	0	33	2.0
Washington's Headquarters	30	18	26	32	16	19	12	0	0	153	9.3
Inner Line Drive	32	22	7	4	9	7	12	9	0	102	6.2
Varnum's Picnic area	37	9	2	5	3	2	1	3	3	65	4.0
Bentzwood Picnic Area	122	2	3	0	0	1	0	1	1	130	7.9
Historical Society Museum/Chapel	10	7	8	6	12	9	5	6	5	68	4.1
Multi-Purpose Trail	235	29	6	6	1	2	1	2	1	283	17.2
Total**	864	295	169	127	86	55	33	22	11	1,644	100.0%

* Respondents were allowed to indicate that they visited up to nine different sites.
** See Table 5b.

Figure 3a. VALLEY FORGE NHP
Sites Visited by Respondents



Percent of Total Responses
(N = 1,644)

Key: a = Visitor Center
b = Auditorium
c = National Memorial Arch
d = Grand Parade Grounds
e = Outer Line Drive
f = Valley Creek Road
g = Washington's Headquarters
h = Inner Line Drive
i = Varnum's Picnic Area
j = Bentzwood Picnic Area
k = Historical Society Museum/Chapel
l = Multi-Purpose Trail

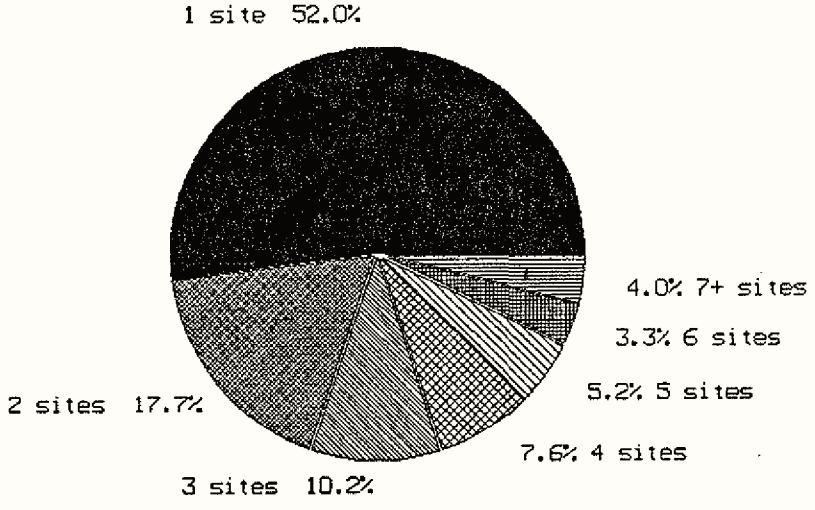
About 96 percent (or 95.9%) of the respondents to the survey indicated that they visited at least one site within the park (Table 5b). Fewer than one-third visited two or more sites.

Table 5b

VALLEY FORGE NATIONAL HISTORICAL PARK
Number of Sites Visited by Individual Respondents

Number of Sites Visited	Number of Responses (N = 1,662)	Percent of Total Respondents (N = 901)
1 site	864	95.9%
2 sites	295	32.7
3 sites	169	18.8
4 sites	127	14.1
5 sites	86	9.5
6 sites	55	6.1
7 sites	33	3.7
8 sites	22	2.4
9 sites	11	1.2%

Figure 3b. VALLEY FORGE NHP
Number of Sites Visited
Percent of Responses



Percent of Responses
(N = 1,662)

Table 5c

VALLEY FORGE NATIONAL HISTORICAL PARK
Number of Activities Participated in by Individual Respondents

ACTIVITY	NUMBER OF RESPONDENTS WHO INDICATED THAT THEY PARTICIPATED IN AN ACTIVITY				SUBTOTAL	PERCENT OF TOTAL RESPONSES (N = 1,050)
Historic Interest Visit	239	19	4	0	262	25.0
Jogging	105	8	0	0	113	10.8
Picnicking	36	21	4	1	62	5.9
Bicycling	51	8	2	0	61	5.8
Walking	333	58	13	0	404	38.5
Kite Flying	2	2	1	0	5	0.5
Other Outdoor Recreation	57	15	3	2	77	7.3
Fishing	17	1	0	0	18	1.7
Baseball	0	3	0	0	3	0.3
Driving for Pleasure	18	18	4	5	45	4.3
Total**	858	153	31	8	1,050	100.0%

* Respondents were allowed to indicate that they participated in up to nine different activities. But, no one indicated that they participated in any more than four activities while at the park.

** See Table 5d.

About 95 percent (95.2%) of the respondents to the survey indicated that they participated in at least one activity within the park (Table 5d). Fewer than one out of five (17.0%) participated in two or more activities.

Table 5d

VALLEY FORGE NATIONAL HISTORICAL PARK
Number of Activities Participated in by Individual Respondents

Number of Activities Participated in by Respondents	Number of Respondents	Percent of Total Respondents (N = 901)
1 activity	858	95.2%
2 activities	153	17.0
3 activities	31	3.4
4 activities	8	0.9%

IV. Previous Visits

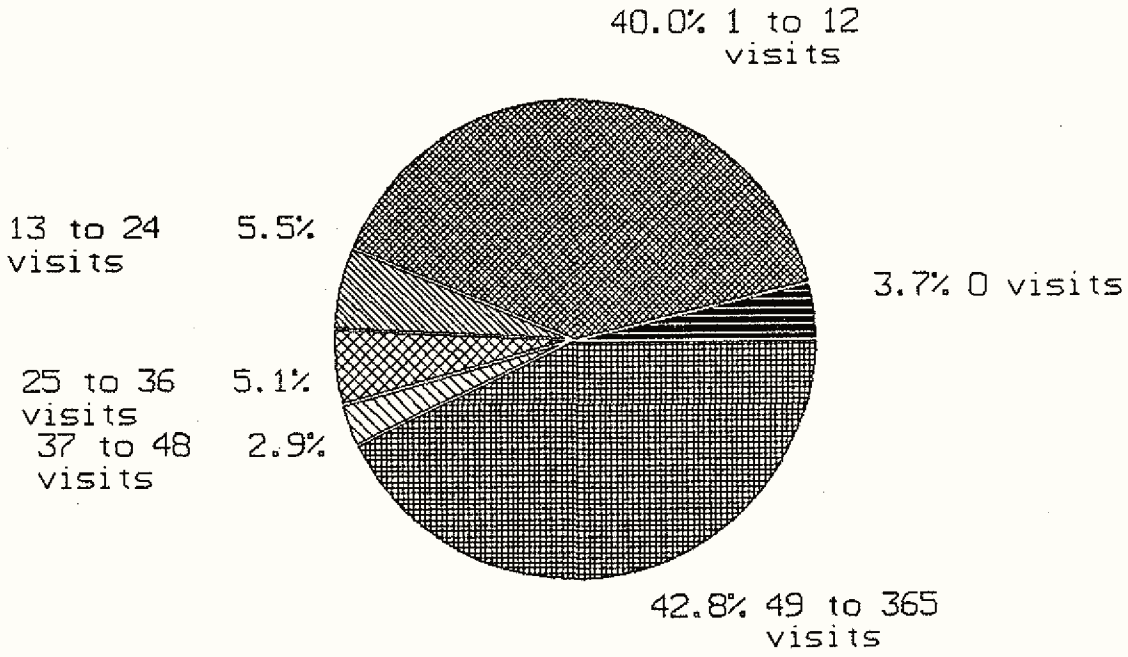
In order to get an idea of the amount of repeat visitation received by the park, the following question was asked: *"How many times did you come to this park for recreational visit(s) in the past 12 months?"* Approximately 96.3 percent of the respondents to this question were making a repeat visit to the park, Table 6 and Figure 4. About 18.4 percent of the respondents had visited the park once during the previous 12 months. Over four out of ten (42.4%) respondents had made at least an average of four visits per month during the previous year.

Table 6

VALLEY FORGE NATIONAL HISTORICAL PARK
Amount of Repeat Recreational Visitation
by Month for 1990

Number of Visits during Previous 12 Months	Number of Respondents (N = 803)	Percent of Total Respondents
0	30	3.7%
1	148	18.4
2	35	4.4
3	24	3.0
4	14	1.7
5	16	2.0
6	17	2.1
7	3	0.4
8	6	0.7
9	3	0.4
10	26	3.2
11	0	0.0
12	29	3.6
13 to 24	44	5.5
25 to 36	41	5.1
37 to 48	23	2.9
49 to 365	344	42.4
Total	803	100.0%

Figure 4. VALLEY FORGE NHP
Repeat Visitation
Percent of Respondents making Repeat
Visits to the Park



Percent of Respondents
(N = 803)

V. Visitor Conflicts

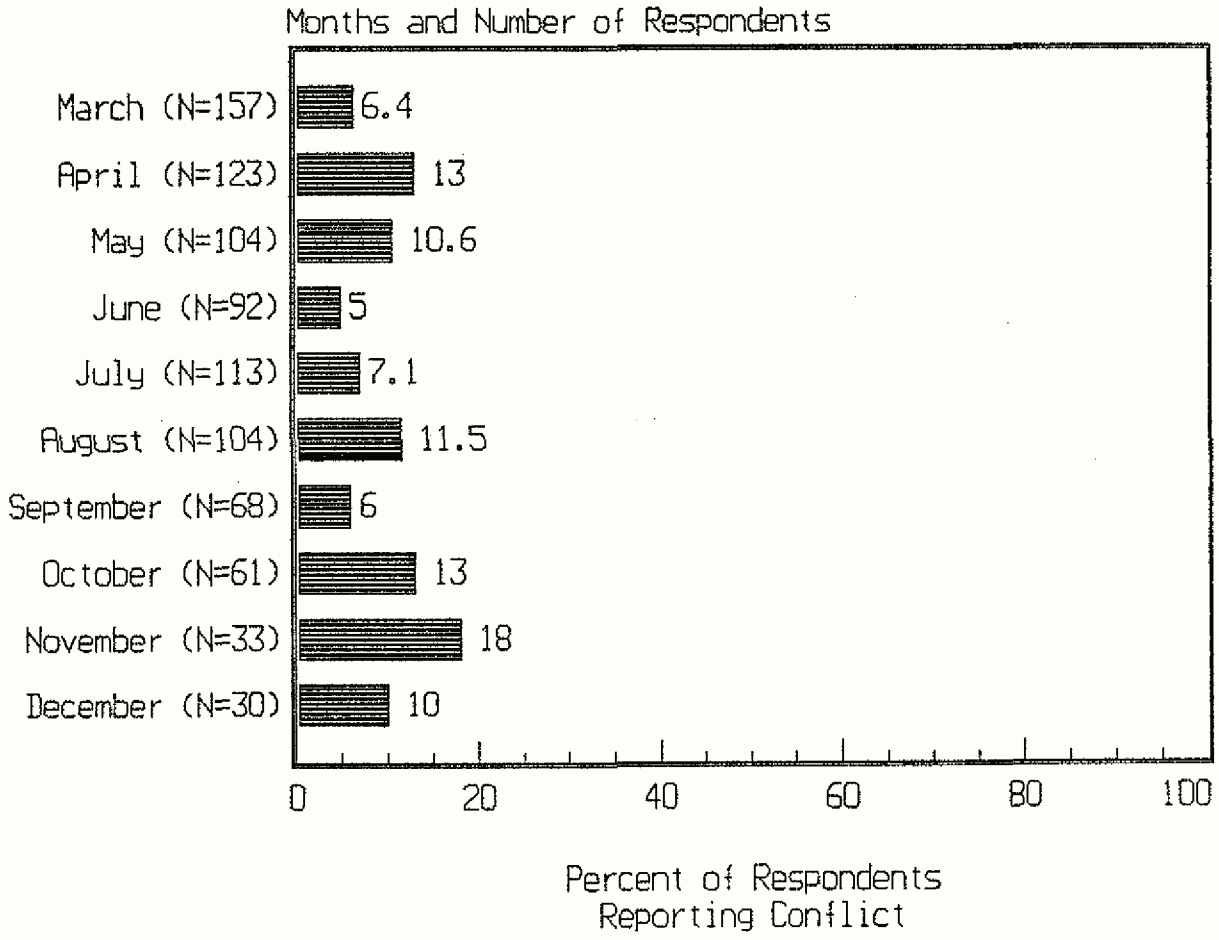
To determine the extent that conflicts affect the visitors' enjoyment of the park, they were asked: *"During this visit did other visitors and their activities interfere with your enjoyment of the park?"* The results are portrayed in Table 7. The percentage of respondents reporting a conflict ranged from five percent in June to 18 percent in November (Figure 5).

Table 7

VALLEY FORGE NATIONAL HISTORICAL PARK
Visitor Conflicts By Month for 1990

1990 Month	Total Number of Respondents	Number of Respondents YES	Percent of Respondents YES	Number of Respondents NO	Percent of Respondents NO
March	157	10	6.4%	147	93.6%
April	123	16	13.0	107	87.0
May	104	11	10.6	93	89.4
June	92	5	5.0	87	95.0
July	113	8	7.1	105	92.9
August	104	12	11.5	92	88.5
September	68	4	6.0	64	94.0
October	61	8	13.0	53	87.0
November	33	6	18.0	27	82.0
December	30	3	10.0	27	90.0
Total	886	83	9.4%	803	90.6%

Figure 5. VALLEY FORGE NHP
Percent of Respondents Reporting Some
Type of Visitor Conflict



VIX. Visitor Origins Analysis

An analysis of the respondents' home zip codes was done to determine visitor origins. There are two attachments to this report which provide the detailed results.

Attachment 7 provides a list of areas in numerical order of the first three digits of the respondents' zip code. This attachment lists the number of groups (parties) from each of the zip code areas. Only five of the 871 valid responses represented groups from foreign countries. That is, about 0.6 percent of the groups represented in the survey originated in foreign countries ((5/871)100 = 0.6%). Attachment 7 also has estimates of the air miles between the three-digit zip code areas and the three-digit zip code area in which the park is located.

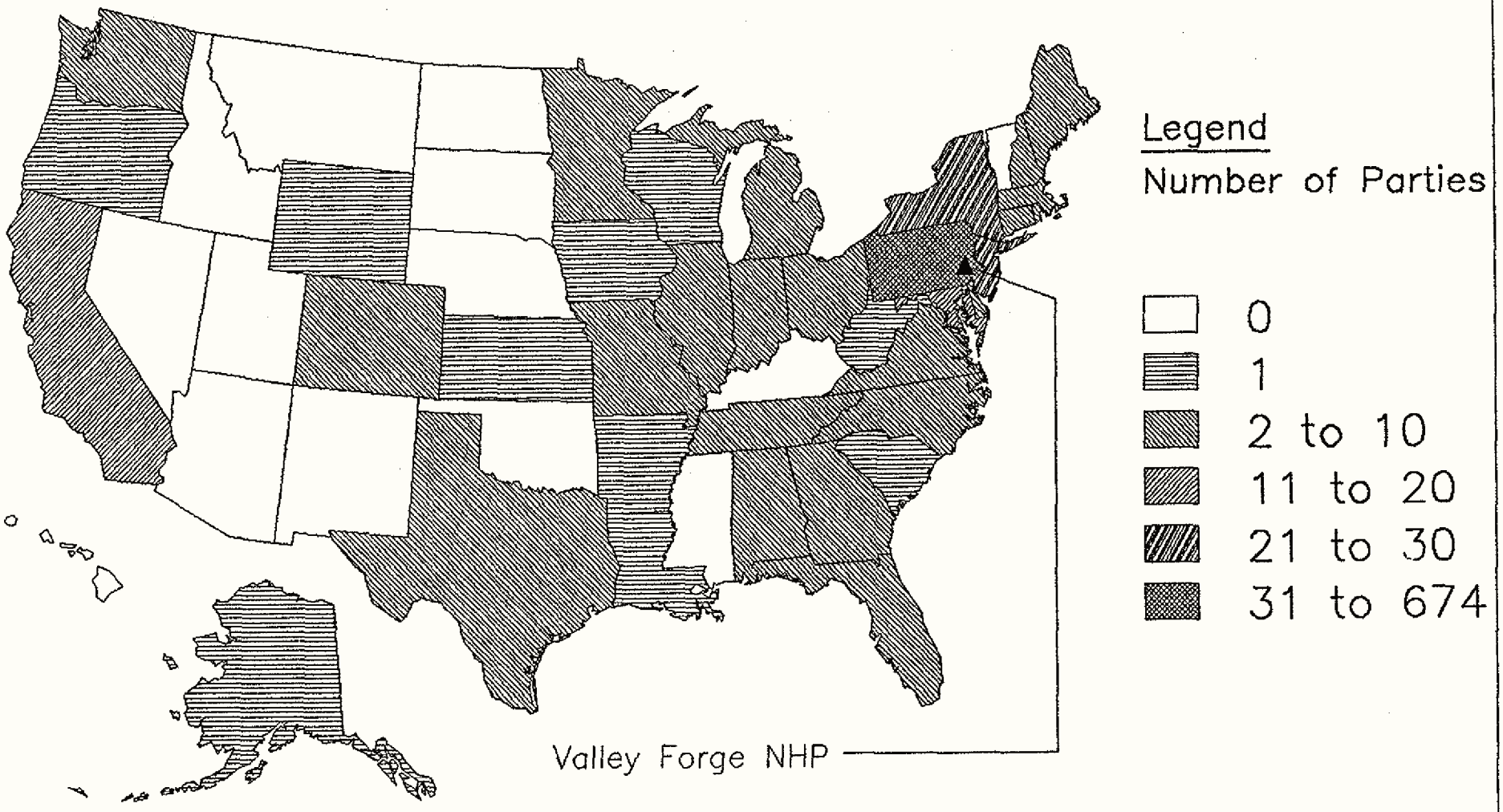
Map 2 shows the number of parties originating in each state. Map 3 identifies the numbers of parties coming from each three-digit zip code area in the nearby Region (Pennsylvania, New Jersey, Delaware, Maryland, and Washington D.C.).

Attachment 8 lists the locations by the frequency of parties from the various zip code areas. This attachment provides an estimate of the road miles between the park and these locations. The actual frequencies of response that were contained in the sample are provided. In addition, the expected numbers of respondents as predicted by an exponential model based upon population and distance are listed. The DIFFERENCE column shows the difference between the number of parties in the sample and the expected number of parties predicted by the model. The model used for this analysis utilizes only the variables of distance and population. Other variables not included in the model account for the majority of the variation between the actual and the expected number of parties.

Based upon this information, the average number of miles driven to reach the park was 221 miles (N = 871).

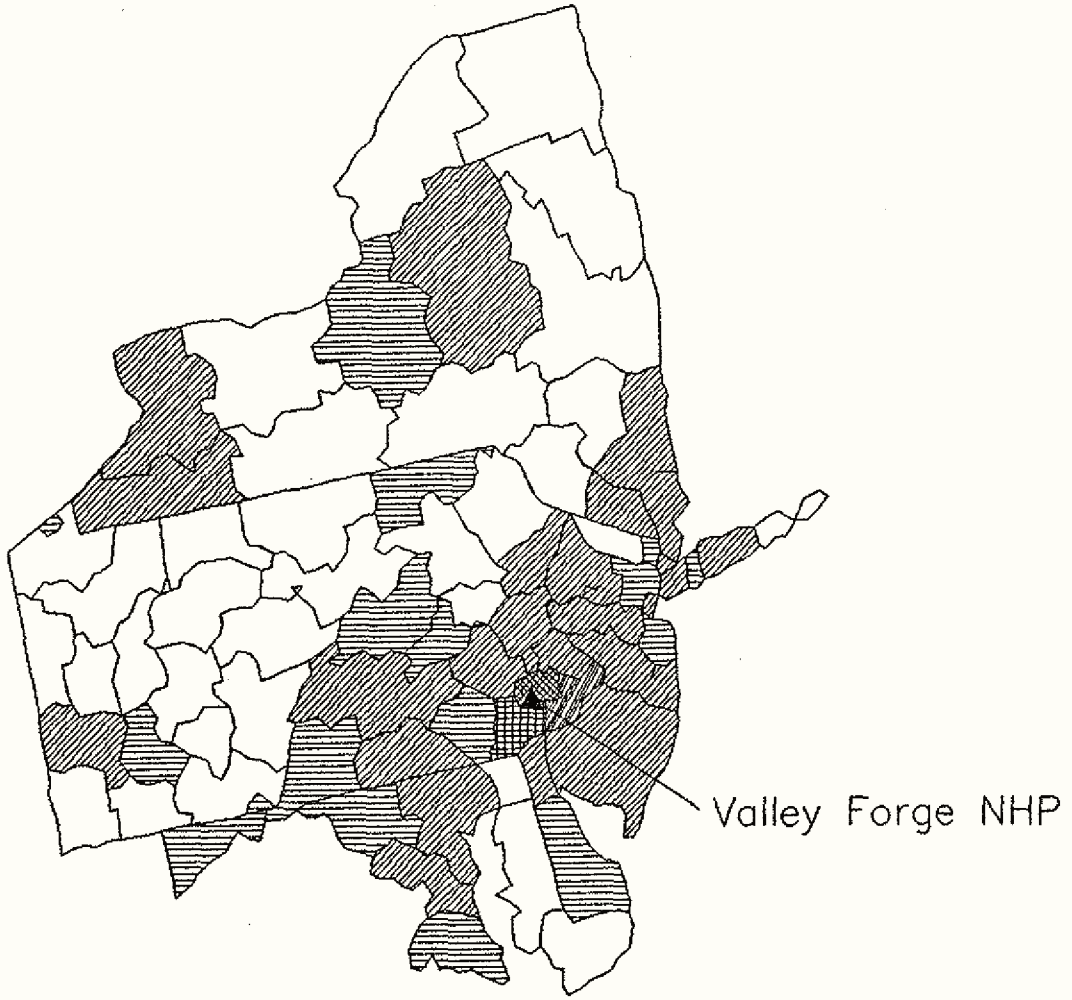
VALLEY FORGE NATIONAL HISTORICAL PARK

Map 2. Visitor Origins by State



VALLEY FORGE NATIONAL HISTORICAL PARK

Map 3. Visitor Origins
For Selected States



Legend

Number of Parties

- 0
- 1
- 2 to 37
- 74
- 167
- 386

VALLEY FORGE NATIONAL HISTORICAL PARK
PERSONS PER VEHICLE
SURVEY FORM

VEHICLE TYPE	NUMBER OF PASSENGERS PER VEHICLE 1	2	3	4	5	6	7+
AUTOMOBILE							
BUSES							
TOTAL VISITORS							
TOTAL VEHICLES							

TOTAL PASSENGERS_____ TOTAL VEHICLES_____ AVG. PPV _____

TOTAL BUSES _____

Location ____

INTERVIEWER'S NAME _____

SAMPLE DATE: Mo ___ Day ____ Yr ___ TIME PERIOD _____AM/PM TO _____AM/PM

Instructions For Entering Data on Persons Per Vehicle Survey Form

1) This form is designed to count the number of vehicles and number of persons per vehicle to determine a persons per vehicle multiplier for Valley Forge NHP.

2) The interviewer's name, date of the survey, and the time period the survey is conducted is placed at the bottom of the form.

3) The form is filled out by putting a tick mark under the appropriate box of the number of passengers in that vehicle. If there are more than 6 passengers in a vehicle put the exact number under 7+. If it is under the bus catagory put a 1 by buses under 7+. At the conclusion of each survey sum the columns at the bottom of the page and put the results at the end of the form. Exclude buses in the averages.

4) Buses are either school buses or commerical tour buses.

At the end of each month being surveyed send these forms to:

Richard Lichtkoppler
WASO-INT
P.O. Box 25287
Denver, CO 80225

If you have any questions conducting this survey please contact Dr. Richard Lichtkoppler, FTS 327-2710 or (303) 969-2710.

rj1 **SURVEY PLAN** Date 2/12/90

PARK: VALLEY FORGE NATIONAL HISTORICAL PARK

UNIT: Survey I - PPV only

VARIABLES: FOR VISIT COUNTING -> PPV only

OTHER ->

SAMPLE: POPULATION -> Vehicles travelling through the park.

LOCATION(S) -> Vary - Ranger on patrol will collect the data.

TIMES:

Number of Daily periods ->	1
Sample Days Per Month ->	14
Length of Survey Period ->	5 minutes
AM Times ->	0700 - 1000
Mid-Day times ->	1000 - 1400
PM times ->	1400 - 1800
Starting Date ->	2/2/90
Ending Date ->	1/31/90

METHOD(S): INTERVIEW:

ENUMERATION: PPV - count vehicles and people

NOTES:

FEBRUARY 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 :	2 SURVEY 10:30	3 SURVEY 16:15
4 SURVEY 12:45	5 SURVEY 08:45	6 :	7 SURVEY 15:15	8 :	9 :	10 :
11 SURVEY 10:00	12 :	13 SURVEY 18:15	14 :	15 SURVEY 15:45	16 SURVEY 12:00	17 SURVEY 10:00
18 :	19 :	20 SURVEY 12:15	21 :	22 SURVEY 10:15	23 :	24 :
25 :	26 SURVEY 14:00	27 :	28 SURVEY 11:45	:	:	:

VALLEY FORGE NATIONAL HISTORICAL PARK						MARCH 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 :	2 SURVEY 13:45	3 :
4 :	5 SURVEY 11:00	6 SURVEY 08:45	7 SURVEY 18:15	8 :	9 :	10 SURVEY 17:15
11 SURVEY 10:00	12 :	13 :	14 :	15 SURVEY 12:15	16 :	17 :
18 :	19 :	20 SURVEY 12:45	21 SURVEY 09:30	22 :	23 :	24 SURVEY 08:00
25 SURVEY 8:30	26 SURVEY 16:15	27 :	28 :	29 SURVEY 09:00	30 SURVEY 18:00	31 :

VALLEY FORGE NATIONAL HISTORICAL PARK — APRIL 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SURVEY 16:00	2 :	3 :	4 SURVEY 09:45	5 SURVEY 14:15	6 SURVEY 08:30	7 :
8 :	9 SURVEY 09:30	10 SURVEY 07:00	11 :	12 SURVEY 15:45	13 :	14 SURVEY 08:00
15 :	16 :	17 :	18 SURVEY 15:15	19 :	20 SURVEY 16:45	21 SURVEY 13:15
22 :	23 :	24 SURVEY 17:45	25 :	26 :	27 :	28 :
29 RVEY :00	30 SURVEY 10:45	:	:	:	:	:

VALLEY FORGE NATIONAL HISTORICAL PARK						MAY 1990
UNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 :	2 SURVEY 13:45	3 SURVEY 07:30	4 SURVEY 17:30	5 :
6 :	7 :	8 :	9 :	10 :	11 :	12 SURVEY 12:30
13 SURVEY 17:15	14 :	15 SURVEY 18:00	16 :	17 :	18 :	19 :
20 SURVEY 09:30	21 SURVEY 12:45	22 SURVEY 10:00	23 SURVEY 18:45	24 :	25 SURVEY 13:00	26 SURVEY 17:00
27 :	28 :	29 :	30 SURVEY 09:45	31 SURVEY 14:30	:	:

VALLEY FORGE NATIONAL HISTORICAL PARK — JUNE 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 SURVEY 12:15	2 :
3 SURVEY 12:00	4 :	5 :	6 SURVEY 08:30	7 :	8 SURVEY 18:30	9 SURVEY 09:30
10 :	11 :	12 SURVEY 15:45	13 :	14 SURVEY 17:45	15 :	16 :
17 :	18 SURVEY 12:45	19 :	20 :	21 :	22 SURVEY 09:15	23 SURVEY 13:30
24 SURVEY 09:00	25 SURVEY 15:15	26 :	27 SURVEY 16:15	28 SURVEY 07:45	29 :	30 :

VALLEY FORGE NATIONAL HISTORICAL PARK — JULY 1990

'NDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SURVEY 16:15	2 :	3 :	4 :	5 SURVEY 13:30	6 SURVEY 18:00	7 :
8 :	9 :	10 :	11 :	12 SURVEY 10:45	13 :	14 :
15 :	16 :	17 SURVEY 08:00	18 SURVEY 16:00	19 :	20 :	21 SURVEY 08:00
22 SURVEY 09:45	23 SURVEY 13:15	24 :	25 :	26 SURVEY 15:30	27 SURVEY 08:45	28 SURVEY 13:45
29 :	30 :	31 SURVEY 12:45	:	:	:	:

VALLEY FORGE NATIONAL HISTORICAL PARK						AUGUST 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 SURVEY 15:45	2 :	3 :	4 SURVEY 14:45
5 SURVEY 11:15	6 :	7 :	8 :	9 SURVEY 07:45	10 :	11 SURVEY 10:45
12 :	13 :	14 SURVEY 17:45	15 :	16 :	17 :	18 SURVEY 18:15
19 SURVEY 16:00	20 SURVEY 07:00	21 SURVEY 12:00	22 :	23 :	24 :	25 :
26 :	27 SURVEY 16:30	28 :	29 SURVEY 10:15	30 SURVEY 13:45	31 SURVEY 09:15	 :

VALLEY FORGE NATIONAL HISTORICAL PARK | SEPTEMBER 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	:	:	:	:	:	1 SURVEY 08:45
2 :	3 SURVEY 14:15	4 :	5 :	6 SURVEY 07:00	7 SURVEY 14:15	8 :
9 :	10 SURVEY 15:45	11 :	12 SURVEY 17:30	13 SURVEY 14:30	14 :	15 :
16 :	17 :	18 SURVEY 18:00	19 :	20 :	21 SURVEY 07:45	22 :
23 'IRVEY .:45	24 SURVEY 08:30	25 :	26 SURVEY 08:00	27 :	28 :	29 SURVEY 11:30
30 SURVEY 15:00	:	:	:	:	:	:

VALLEY FORGE NATIONAL HISTORICAL PARK — OCTOBER 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 :	2 :	3 SURVEY 13:00	4 SURVEY 17:45	5 SURVEY 14:15	6 :
7 :	8 :	9 SURVEY 18:45	10 :	11 :	12 :	13 SURVEY 16:30
14 SURVEY 10:15	15 :	16 :	17 :	18 :	19 :	20 SURVEY 09:30
21 :	22 SURVEY 08:00	23 :	24 :	25 SURVEY 10:30	26 SURVEY 15:00	27 SURVEY 11:45
28 SURVEY 1:45	29 SURVEY 15:15	30 SURVEY 09:15	31 :	:	:	:

VALLEY FORGE NATIONAL HISTORICAL PARK						NOVEMBER 1990
'NDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 :	2 :	3 SURVEY 08:30
4 :	5 SURVEY 16:15	6 SURVEY 10:30	7 SURVEY 15:45	8 SURVEY 11:45	9 :	10 :
11 :	12 :	13 SURVEY 13:15	14 :	15 SURVEY 15:00	16 SURVEY 07:30	17 :
18 SURVEY 17:15	19 :	20 :	21 :	22 :	23 SURVEY 12:30	24 SURVEY 17:00
25 'RVEY :00	26 SURVEY 13:45	27 :	28 SURVEY 14:00	29 :	30 :	:

VALLEY FORGE NATIONAL HISTORICAL PARK — DECEMBER 1990

NDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 :
2 :	3 :	4 :	5 SURVEY 16:15	6 SURVEY 08:00	7 SURVEY 12:30	8 :
9 SUVEY 15:15	10 SURVEY 09:30	11 SURVEY 15:00	12 :	13 :	14 SURVEY 16:30	15 SURVEY 14:45
16 SURVEY 11:00	17 SURVEY 15:30	18 :	19 SURVEY 07:00	20 :	21 :	22 SURVEY 08:30
23 :	24 :	25 SURVEY 10:00	26 :	27 SURVEY 12:45	28 :	29 :
30 SURVEY :	31 :	:	:	:	:	:

Form 10-157a
(Rev. 1/87)

PARK USE SURVEY
Valley Forge NHP

OMB No.1024-0036
Expires 3/91

1. "What time did you first arrive in the park on this visit?" (Please use military time)

Time _____ : _____

and Date ___/___/___

2. "What time do you expect to leave the park on this visit?" (If they are not leaving for the last time now, enter time and date they expect to leave.) (Please use military time)

Time _____ : _____

and Date ___/___/___

3. "What is your home town zip code?" _____

4. "How many people are traveling in your vehicle?" _____

5. "What sites have you visited in the park during this visit, and what activities did you participate in while visiting those sites?" (Enter the appropriate number(s) and letter(s) in this space.)

SITE [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

ACTIVITY [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

SITES
1. Visitor Center
2. Auditorium
3. National Memorial Arch
4. Grand Parade Grounds
5. Outer Line Drive
6. Valley Creek Road
7. Washington's Headquarters
8. Inner Line Drive
9. Varnum's Picnic Area
10. Betzwood Picnic Area
11. Historical Society Museum/Chapel
12. Multi-Purpose Trail

ACTIVITIES
1. Historic Interest Visit
2. Jogging
3. Picnicking
4. Bicycling
5. Walking
6. Kite Flying
7. Other Outdoor Recreation
8. Fishing
9. Baseball
0. Driving for Pleasure

6. "How many times did you come to this park for recreational visit(s) in the past 12 months?" _____

7. During this visit did other visitors and their activities interfere with your enjoyment of the park?" (Always check either Yes or No.) Yes = 1 _____ No = 2 _____

Park Name VAFO _____ Survey Location _____

Survey Date _____ Time of Survey _____

Day of the Week (circle one)	Sun	Mon	Tues	Weds	Thurs	Fri	Sat
	1	2	3	4	5	6	7

Interviewer's Name _____

VALLEY FORGE NATIONAL HISTORIC PARK -- SURVEY INSTRUCTIONS

Possible Greeting: "*Good Morning, etc., I am collecting information about public use. I need a volunteer, can you spare a minute? Information about your visit is used to correct our traffic counter data. Your response to this request is voluntary.*"
OR USE WORDS TO THIS EFFECT

INTERVIEW ONLY VISITORS WHO ARE VISITING THE PARK FOR RECREATIONAL PURPOSES!!!

1 and 2. Record the Month / Day / Year numerically. For example, July 2, 1990, would be recorded as 7 / 2 / 1990

Use military time, the 24 hour clock. For example, 7 minutes before 9 AM would be recorded as 08:53, 3 minutes past noon would be recorded as 12:03, half-past 2 PM would be recorded as 14:30, etc.

These two questions refer to when the respondent first entered the park on this particular visit and when they leave or plan to leave on this particular visit.

3. Write in the respondent's five number zip code, Canadian postal code, or name of foreign country.

4. Record the number of visitors in each vehicle (Persons-Per-Vehicle). Include only those traveling in the same vehicle with the person being interviewed now.

5. Write in the number or numbers that best describes the sites visited by the respondent. Then write in the letter or letters of the activities that best describes the respondents activities while visiting the park.

6. Record the answer given, based upon the visitor's best recollection, including the present visit.

7. Always check either YES or NO depending upon the visitor's response.

IMPORTANT! Be sure to write down the PARK NAME, SURVEY LOCATION, SURVEY DATE, TIME OF THE SURVEY, DAY OF THE WEEK (circle the appropriate abbreviation of the day of the week), and YOUR NAME. This information is required for our records and helps to identify the survey for purposes of analysis.

If you have any questions regarding the PARK USE SURVEY process or how to use this form please contact Dr. Richard Lichtkoppler at (303) 969-2710 or FTS 327-2710.

rjl **SURVEY PLAN** Date February 14, 1990

PARK: VALLEY FORGE NATIONAL HISTORICAL PARK
UNIT: Survey II

VARIABLES: FOR VISIT COUNTING -> LOS, PPV

OTHER -> Zip Codes, Sites Visited, Activities Participated in, # of recreational visits in past year, Interfearence from other visitors.

SAMPLE: POPULATION -> Recreational Visitors Only

LOCATION(S) -> Various locations around the park

TIMES:

Number of Daily Periods ->	1
Length of Survey Period ->	30 minutes
Sample Days Per Month ->	21
AM Times ->	0700 -1000
Mid-Day times ->	1000 - 1400
PM Times ->	1400 - 1600
Starting Date ->	3 /1 /90
Ending Date ->	2/28/90

METHOD(S): INTERVIEW: Personnal Interview by park staff

ENUMERATION:

NOTES:

VALLEY FORGE NATIONAL HISTORICAL PARK
PERSONAL INTERVIEW SURVEY II
SURVEY SCHEDULE LOCATIONS

The following are the interview locations for Survey II. They correspond to the SITE numbers listed on the survey calendar.

SITE 1 = The VISITOR CENTER PARKING LOTS (any lot)

SITE 2 = OUTER LINE DRIVE (anywhere along the road)

SITE 3 = NATIONAL MEMORIAL ARCH, through WAYNE STATUE to include END BIKE TRAIL

SITE 4 = ADJUTANT GENERALS QUARTERS (STUBEN MEMORIAL) and DEWEES'HOUSE AND WASHINGTON'S HEADQUARTERS

SITE 5 = INNER LINE DRIVE PARKING LOTS (any lot)

SITE 6 = VARNUM'S PICNIC AREA to WASHINGTON MEMORIAL CHAPEL to HUNTINGTON'S QUARTERS

SITE 7 = BETZWOOD PICNIC AREA AND PARK STATION LOT

Pick a safe place to conduct you interviews at the various sites. Exit interviews are preferred. That is, the interviews should be conducted at the exits to the parking lots so as to intercept the visitors as they are leaving. Exit interviews are preferred since the visitor will be able to tell you what they just did, and for how long, etc.

If you have any questions, please call Dr. Richard Lichtkoppler at (303) 969-2710 commercial, or 327-2710 FTS.

VALLEY FORGE NATIONAL HISTORICAL PARK						MARCH 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 SITE 1 11:15	2 SITE 2 14:00	3 SITE 3 09:15
4 SITE 4 15:45	5 SITE 5 11:15	6 SITE 6 09:00	7 SITE 7 18:30	8	9 SITE 1 16:15	10 SITE 2 17:30
11 SITE 3 10:15	12	13 SITE 4 14:45	14 SITE 5 13:15	15 SITE 6 12:30	16	17
18	19 SITE 7 09:15	20 SITE 3 13:00	21 SITE 2 09:45	22	23	24 SITE 1 08:50
25 SITE 5 :45	26 SITE 4 16:30	27	28	29 SITE 7 09:15	30 SITE 6 18:15	31

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710.

VALLEY FORGE NATIONAL HISTORICAL PARK						APRIL 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	2 SITE 6 14:00	3 SITE 5 09:00	4 SITE 4 10:00	5 SITE 3 14:30	6 SITE 2 08:45	7 :
8 :	9 SITE 1 09:45	10 SITE 7 07:15	11 :	12 SITE 6 16:00	13 :	14 SITE 5 08:15
15 SITE 4 10:00	16 :	17 :	18 SITE 3 15:30	19 SITE 2 15:00	20 SITE 1 17:00	21 SITE 7 13:30
22 :	23 :	24 SITE 6 18:00	25 SITE 5 13:00	26 :	27 SITE 4 11:00	28 SITE 3 14:00
29 TE 1 :15	30 SITE 2 11:00	: :	: :	: :	: :	: :

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710.

VALLEY FORGE NATIONAL HISTORICAL PARK						MAY 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 :	2 SITE 1 14:00	3 SITE 2 07:45	4 SITE 3 17:45	5 SITE 4 10:00
6 :	7 SITE 5 09:00	8 SITE 6 13:00	9 :	10 SITE 7 12:00	11 :	12 SITE 1 12:45
13 SITE 2 17:30	14 :	15 SITE 3 18:15	16 :	17 SITE 4 15:00	18 SITE 5 09:00	19 :
20 SITE 7 09:45	21 SITE 6 13:00	22 SITE 1 10:15	23 SITE 2 18:00	24 :	25 SITE 4 13:15	26 SITE 3 17:15
27 SITE 5 :00	28 SITE 7 12:00	29 :	30 SITE 6 10:00	31 :	: :	: :

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTINS AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						JUNE 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 SITE 7 12:30	2 :
3 SITE 6 12:15	4 SITE 5 13:00	5 :	6 SITE 4 08:45	7 SITE 3 12:00	8 SITE 2 18:45	9 SITE 1 09:45
10 :	11 :	12 SITE 7 16:00	13 SITE 6 :	14 SITE 5 18:00	15 :	16 SITE 4 13:45
17 SITE 3 11:00	18 SITE 2 13:00	19 SITE 1 10:00	20 :	21 :	22 SITE 7 09:30	23 SITE 6 13:45
24 SITE 5 :15	25 SITE 4 15:30	26 SITE 3 12:45	27 SITE 2 16:30	28 SITE 1 08:00	29 :	30 :

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						JULY 1990
NDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 SITE 1 16:30	2 :	3 :	4 :	5 SITE 2 13:45	6 SITE 3 18:15	7 :
8 SITE 4 13:30	9 SITE 5 14:00	10 :	11 SITE 6 09:00	12 SITE 7 11:00	13 SITE 1 12:00	14 SITE 2 13:00
15 :	16 :	17 SITE 3 08:15	18 SITE 4 16:15	19 :	20 :	21 SITE 5 08:15
22 SITE 6 10:00	23 SITE 7 13:30	24 SITE 1 15:00	25 SITE 2 12:30	26 SITE 3 15:45	27 SITE 5 09:00	28 SITE 4 14:00
29 :	30 SITE 6 11:00	31 SITE 7 13:00	: :	: :	: :	: :

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						AUGUST 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 SITE 7 16:00	2 :	3 SITE 6 12:00	4 SITE 5 15:00
5 SITE 4 11:30	6 SITE 3 10:00	7 SITE 2 10:00	8 :	9 SITE 1 08:00	10 :	11 SITE 7 11:00
12 SITE 6 14:00	13 :	14 SITE 5 18:00	15 SITE 4 11:00	16 SITE 3 13:00	17 :	18 SITE 2 18:30
19 SITE 1 16:15	20 SITE 7 07:15	21 SITE 6 12:15	22 :	23 :	24 SITE 5 16:00	25 :
26 :	27 SITE 4 16:45	28 :	29 SITE 3 10:30	30 SITE 2 14:00	31 SITE 1 09:30	 :

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						SEPTEMBER 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	:	:	:	:	:	1 SITE 1 09:00
2 :	3 SITE 2 14:30	4 SITE 3 10:00	5 SITE 4 12:00	6 SITE 5 07:15	7 SITE 6 14:30	8 :
9 SITE 7 15:00	10 SITE 1 16:00	11 :	12 SITE 2 17:45	13 SITE 3 14:45	14 :	15 SITE 4 11:00
16 :	17 :	18 SITE 5 18:15	19 :	20 SITE 6 11:30	21 SITE 7 08:00	22 :
23 SITE 1 :00	24 SITE 2 08:45	25 SITE 3 12:00	26 SITE 4 08:15	27 :	28 SITE 5 12:30	29 SITE 6 11:45
30 SITE 7 15:15	:	:	:	:	:	:

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						OCTOBER 1990
'IDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 :	2 SITE 7 12:00	3 SITE 6 13:15	4 SITE 5 18:00	5 SITE 4 14:30	6 :
7 SITE 3 12:00	8 SITE 2 14:00	9 SITE 1 18:00	10 :	11 :	12 SITE 7 09:00	13 SITE 6 16:45
14 SITE 5 10:30	15 :	16 :	17 SITE 4 14:00	18 SITE 3 12:00	19 :	20 SITE 2 09:45
21 :	22 SITE 1 08:15	23 :	24 SITE 7 11:00	25 SITE 6 10:45	26 SITE 5 15:15	27 SITE 4 12:00
28 TE 3 :00	29 SITE 2 15:30	30 SITE 1 09:45	31 :	:	:	:

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS CALL (303)969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						NOVEMBER 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 SITE 1 09:00	2 SITE 2 14:00	3 SITE 3 08:45
4 SITE 4 09:00	5 SITE 5 16:30	6 SITE 6 10:45	7 SITE 7 16:00	8 SITE 1 12:00	9 :	10 SITE 2 14:00
11 :	12 :	13 SITE 3 13:30	14 SITE 4 11:00	15 SITE 5 15:15	16 SITE 6 07:45	17 :
18 SITE 7 17:30	19 SITE 1 10:00	20 SITE 2 16:00	21 :	22 :	23 SITE 3 12:45	24 SITE 4 17:15
25 SITE 5 :15	26 SITE 6 14:00	27 :	28 SITE 7 14:15	29 :	30 :	 :

SEE ATTACHED LIST OF SITE LOCATION !!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! qUESTIONS? CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK						DECEMBER 1990
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3 SITE 7 14:00	4	5 SITE 6 16:30	6 SITE 5 08:15	7 SITE 4 12:45	8 SITE 3 12:00
9 SITE 2 15:30	10 SITE 1 09:15	11 SITE 7 15:15	12 SITE 6 15:00	13	14 SITE 5 16:45	15 SITE 4 15:00
16 SITE 3 11:15	17 SITE 2 15:45	18 SITE 1	19 SITE 7 07:15	20 SITE 6	21	22 SITE 5 08:45
23	24	25 SITE 4 10:15	26	27 SITE 3 13:00	28 SITE 2 09:00	29
30 SITE 1 09:00	31					

SEE ATTACHED LIST OF SITE LOCATIONS!!! VARY YOUR STARTING POINT WITHIN EACH SITE, SO THAT YOU ARE NOT STARTING AT THE SAME PLACE EACH TIME YOU WORK AT A PARTICULAR SITE! QUESTIONS? CALL (303) 969-2710 OR FTS 327-2710

VALLEY FORGE NATIONAL HISTORICAL PARK

	PARTIES	MILES	
12	1	207	PITTSFIELD MA
14	1	248	WORCESTER MA
15	2	248	WORCESTER MA
21	2	293	BOSTON MA
24	1	293	BROCKTON MA
28	3	293	PROVIDENCE RI
38	2	328	PORTSMOUTH NH
40	1	410	PORTLAND ME
42	1	373	AUBURN ME
64	2	171	NEW HAVEN CT
67	2	207	WATERBURY CT
70	1	125	NEWARK NJ
76	1	125	HACKENSACK NJ
77	1	105	RED BANK NJ
78	2	125	PATERSON NJ
79	2	86	SUMMIT NJ
80	4	53	SOUTH JERSEY NJ
82	1	126	SOUTH JERSEY NJ
86	2	53	TRENTON NJ
87	3	53	TRENTON NJ
88	4	105	NEW BRUNSWICK NJ
100	2	125	NEW YORK NY
10[illegible]	1	125	WHITE PLAINS NY
[illegible]	1	125	YONKERS NY
[illegible]	2	125	SUFFERN NY
110	1	125	QUEENS NY
112	2	125	BROOKLYN NY
113	2	125	FLUSHING NY
114	1	125	JAMAICA NY
115	1	125	WESTERN NASSAU NY
117	5	125	HICKSVILLE NY
125	1	171	POUGHKEEPSIE NY
126	1	171	POUGHKEEPSIE NY
130	1	204	SYRACUSE NY
134	2	211	UTICA NY
140	1	256	BUFFALO NY
142	1	256	BUFFALO NY
147	2	207	JAMESTOWN NY
150	2	210	PITSBURGH PA
151	1	210	PITTSBURGH PA
152	1	210	PITTSBURGH PA
156	1	158	GREENSBURG PA
165	1	248	ERIE PA
170	1	53	HARRISBURG PA
171	2	53	HARRISBURG PA
172	1	53	HARRISBURG PA
173	2	0	LANCASTER PA
175	1	0	LANCASTER PA
1[illegible]	1	53	HARRISBURG PA
[illegible]	1	68	POTTSVILLE PA

VALLEY FORGE NATIONAL HISTORICAL PARK

	PARTIES	MILES	
180	7	86	LEHIGH VALLEY PA
183	2	86	LEHIGH VALLEY PA
188	1	68	SCRANTON PA
189	8	0	SOUTHEASTERN PA
190	130	53	PHILADELPHIA PA
191	37	53	PHILADELPHIA PA
193	74	0	SOUTHEASTERN PA
194	386	0	SOUTHEASTERN PA
195	8	0	READING PA
196	5	0	READING PA
197	3	0	WILMINGTON DE
198	5	0	WILMINGTON DE
199	1	0	WILMINGTON DE
206	1	86	PRINCE GEORGES MD
208	3	86	PRINCE GEORGES MD
209	2	86	SILVER SPRING MD
210	4	86	BALTIMORE MD
211	2	86	BALTIMORE MD
212	3	86	BALTIMORE MD
215	1	158	CUMBERLAND MD
217	1	86	FREDERICK MD
221	1	86	NORTHERN VIRGINIA VA
22[illegible]	1	86	ARLINGTON VA
[illegible]	1	173	CHARLOTTESVILLE VA
[illegible]	2	211	RICHMOND VA
234	2	204	NORFOLK VA
260	1	263	WHEELING WV
280	2	436	CHARLOTTE NC
298	1	580	AUGUSTA GA(IN SC)
302	1	599	ATLANTA GA
306	1	560	ATHENS GA
322	1	760	JACKSONVILLE FL
323	1	817	TALLAHASSEE FL
331	3	981	MIAMI FL
333	1	981	FORT LAUDERDALE FL
334	3	915	WEST PALM BEACH FL
355	1	772	BIRMINGHAM AL
358	1	689	HUNTSVILLE AL
374	1	597	CHATTANOOGA TN
379	2	511	KNOXVILLE TN
435	1	436	TOLEDO OH
440	1	320	CLEVELAND OH
446	1	270	CANTON OH
452	1	429	CINCINNATI OH
469	1	525	KOKOMO IN
475	1	586	WASHINGTON IN
479	1	578	LAFAYETTE IN
481	1	414	DETROIT MI
4	1	387	ROYAL OAK MI
[illegible]	1	491	SAGINAW MI

VALLEY FORGE NATIONAL HISTORICAL PARK

MILES	POPULATION	CITY	NUMBER OF PARTIES		
			SAMPLE	EXPECTED	DIFFERENCE
77	74,119	SCRANTON PA	1	2	-1
59	496,214	HARRISBURG PA	1	18	-17
59	216,985	HARRISBURG PA	1	8	-7
59	156,714	HARRISBURG PA	1	6	-5
35	217,898	LANCASTER PA	1	9	-8

TOTAL SAMPLE N = 871
AVERAGE MILES DRIVEN 221

VALLEY FORGE NATIONAL HISTORICAL PARK

MILES	POPULATION	CITY	NUMBER OF PARTIES SAMPLE	EXPECTED	DIFFERENCE
771	78,546	EVANSTON IL	1	0	1
725	581,849	ATLANTA GA	1	1	0
723	203,410	CHATTANOOGA TN	1	0	1
710	155,955	WASHINGTON IN	1	0	1
702	155,307	AUGUSTA GA(IN SC)	1	0	1
700	254,489	LAFAYETTE IN	1	0	1
678	225,369	ATHENS GA	1	0	1
669	346,248	GRAND RAPIDS MI	1	1	0
647	685,609	KALAMAZOO MI	1	2	-1
640	182,200	GAYLORD MI	1	0	1
635	333,662	KOKOMO IN	1	1	0
612	498,534	LANSING MI	1	1	0
594	223,761	SAGINAW MI	1	1	0
526	242,969	TOLEDO OH	1	1	0
518	864,595	CINCINNATI OH	1	4	-3
500	1,385,597	DETROIT MI	1	7	-6
495	232,791	PORTLAND ME	1	1	0
467	70,893	ROYAL OAK MI	1	0	1
450	157,347	AUBURN ME	1	1	0
385	773,826	CLEVELAND OH	1	6	-5
352	95,528	BROCKTON MA	1	1	0
[illegible]24	406,006	CANTON OH	1	4	-3
[illegible]	174,867	WHEELING WV	1	2	-1
[illegible]7	683,692	BUFFALO NY	1	8	-7
307	393,909	BUFFALO NY	1	5	-4
297	195,563	ERIE PA	1	2	-1
297	181,600	WORCESTER MA	1	2	-1
251	871,681	PITTSBURGH PA	1	13	-12
251	422,958	PITTSBURGH PA	1	6	-5
247	144,886	PITTSFIELD MA	1	2	-1
243	348,520	SYRACUSE NY	1	5	-4
205	163,564	CHARLOTTESVILLE VA	1	3	-2
203	346,935	POUGHKEEPSIE NY	1	6	-5
203	78,733	POUGHKEEPSIE NY	1	1	0
187	324,940	GREENSBURG PA	1	6	-5
187	107,200	CUMBERLAND MD	1	2	-1
148	170,975	SOUTH JERSEY NJ	1	4	-3
147	1,548,475	NEWARK NJ	1	37	-36
147	690,369	WESTERN NASSAU NY	1	17	-16
147	615,186	JAMAICA NY	1	15	-14
147	468,926	HACKENSACK NJ	1	11	-10
147	225,897	YONKERS NY	1	5	-4
147	225,200	QUEENS NY	1	5	-4
147	68,147	WHITE PLAINS NY	1	2	-1
122	485,213	RED BANK NJ	1	13	-12
99	370,771	NORTHERN VIRGINIA VA	1	11	-10
99	277,505	FREDERICK MD	1	8	-7
[illegible]	168,735	PRINCE GEORGES MD	1	5	-4
[illegible]	152,888	ARLINGTON VA	1	5	-4
77	136,538	POTTSVILLE PA	1	4	-3

VALLEY FORGE NATIONAL HISTORICAL PARK

MILES	POPULATION	CITY	NUMBER OF PARTIES		
			SAMPLE	EXPECTED	DIFFERENCE
99	216,666	SUMMIT NJ	2	6	-4
99	194,361	SILVER SPRING MD	2	6	-4
99	75,380	LEHIGH VALLEY PA	2	2	0
59	259,958	TRENTON NJ	2	9	-7
59	144,260	HARRISBURG PA	2	5	-3
35	229,949	LANCASTER PA	2	9	-7
4388	70,811	ANCHORAGE AK	1	0	1
3055	678,470	SAN FRANCISCO CA	1	0	1
2991	1,435,295	OAKLAND CA	1	0	1
2946	283,248	SANTA BARBARA CA	1	0	1
2913	485,160	OXNARD CA	1	0	1
2902	474,119	SACRAMENTO CA	1	0	1
2854	694,093	SEATTLE WA	1	0	1
2847	521,870	LONG BEACH CA	1	0	1
2815	815,818	SAN DIEGO CA	1	0	1
2749	191,203	MOJAVE CA	1	0	1
2679	123,915	PENDLETON OR	1	0	1
2560	271,431	SPOKANE WA	1	0	1
1853	397,191	DENVER CO	1	0	1
1853	229,373	DENVER CO	1	0	1
1853	122,668	BRIGHTON CO	1	0	1
1853	98,534	BOULDER CO	1	0	1
[illegible]	97,531	CHEYENNE WY	1	0	1
[illegible]	407,052	AUSTIN TX	1	0	1
1612	279,414	TEMPLE TX	1	0	1
1565	971,238	DALLAS TX	1	0	1
1542	1,927,466	HOUSTON TX	1	0	1
1542	344,800	CONROE TX	1	0	1
1444	269,968	LONGVIEW TX	1	0	1
1417	136,565	SALINA KS	1	0	1
1270	29,968	OMAHA NE(IN IA)	1	0	1
1266	585,570	NEW ORLEANS LA	1	0	1
1192	497,389	FORT LAUDERDALE FL	1	0	1
1160	388,085	KANSAS CITY MO	1	0	1
1136	248,026	LITTLE ROCK AR	1	0	1
1125	496,905	MINNEAPOLIS MN	1	0	1
1072	81,486	ROLLA MO	1	0	1
1048	51,829	JEFFERSON CITY MO	1	0	1
991	254,765	TALLAHASSEE FL	1	0	1
937	159,941	BIRMINGHAM AL	1	0	1
922	573,907	JACKSONVILLE FL	1	0	1
902	304,652	SAINT LOUIS MO(IN IL)	1	0	1
847	396,800	MADISON WI	1	0	1
838	226,951	CENTRALIA IL	1	0	1
835	156,041	HUNTSVILLE AL	1	0	1
833	262,912	ROCKFORD IL	1	0	1
771	3,228,093	CHICAGO IL	1	5	-4
[illegible]	1,129,405	SOUTH SUBURBAN IL	1	2	-1
[illegible]	998,064	NORTH SUBURBAN IL	1	1	0
771	565,674	SOUTH SUBURBAN IL	1	1	0

VALLEY FORGE NATIONAL HISTORICAL PARK

MILES	POPULATION	CITY	NUMBER OF PARTIES SAMPLE	EXPECTED	DIFFERENCE
35	367,530	SOUTHEASTERN PA	386	15	371
59	1,048,933	PHILADELPHIA PA	130	37	93
35	262,995	SOUTHEASTERN PA	74	10	64
59	1,730,511	PHILADELPHIA PA	37	62	-25
35	240,115	SOUTHEASTERN PA	8	10	-2
35	148,509	READING PA	8	6	2
99	393,975	LEHIGH VALLEY PA	7	12	-5
147	1,459,329	HICKSVILLE NY	5	35	-30
35	216,651	WILMINGTON DE	5	9	-4
35	172,444	READING PA	5	7	-2
122	631,829	NEW BRUNSWICK NJ	4	17	-13
99	430,469	BALTIMORE MD	4	13	-9
59	902,195	SOUTH JERSEY NJ	4	32	-28
2847	1,002,344	INGLEWOOD CA	3	0	3
1192	1,278,324	MIAMI FL	3	0	3
1111	803,613	WEST PALM BEACH FL	3	0	3
352	604,619	PROVIDENCE RI	3	6	-3
99	1,309,332	BALTIMORE MD	3	39	-36
99	316,463	PRINCE GEORGES MD	3	9	-6
59	294,666	TRENTON NJ	3	10	-7
35	181,721	WILMINGTON DE	3	7	-4
3018	569,046	SAN JOSE CA	2	0	2
	847,213	VAN NUYS CA	2	0	2
[illegible]	1,101,880	SANTA ANA CA	2	0	2
2847	150,639	GLENDALE CA	2	0	2
1853	752,067	DENVER CO	2	0	2
1565	727,301	DALLAS TX	2	0	2
1565	507,011	FORT WORTH TX	2	0	2
1125	889,750	MINNEAPOLIS MN	2	0	2
1125	552,548	SAINT PAUL MN	2	0	2
1125	381,143	SAINT PAUL MN	2	0	2
771	1,198,643	NORTH SUBURBAN IL	2	2	0
618	291,231	KNOXVILLE TN	2	1	1
526	403,688	CHARLOTTE NC	2	2	0
395	216,283	PORTSMOUTH NH	2	2	0
352	1,610,536	BOSTON MA	2	15	-13
297	279,386	WORCESTER MA	2	3	-1
252	448,775	RICHMOND VA	2	7	-5
252	191,641	UTICA NY	2	3	-1
251	493,384	PITSBURGH PA	2	7	-5
247	280,616	WATERBURY CT	2	4	-2
247	194,216	JAMESTOWN NY	2	3	-1
243	341,719	NORFOLK VA	2	5	-3
203	687,442	NEW HAVEN CT	2	13	-11
147	2,314,085	BROOKLYN NY	2	55	-53
147	1,422,039	NEW YORK NY	2	34	-32
147	882,871	FLUSHING NY	2	21	-19
[illegible]	406,744	SUFFERN NY	2	10	-8
	273,956	PATERSON NJ	2	7	-5
99	256,072	BALTIMORE MD	2	8	-6

VALLEY FORGE NATIONAL HISTORICAL PARK

	PARTIES	MILES	
950	2	2477	SAN JOSE CA
958	1	2382	SACRAMENTO CA
978	1	2200	PENDLETON OR
981	1	2343	SEATTLE WA
992	1	2102	SPOKANE WA
996	1	3600	ANCHORAGE AK
---	5	FOREIGN PARTIES	

VALLEY FORGE NATIONAL HISTORICAL PARK

2	PARTIES	MILES	
488	1	506	LANSING MI
490	1	535	KALAMAZOO MI
495	1	553	GRAND RAPIDS MI
497	1	529	GAYLORD MI
516	1	1045	OMAHA NE(IN IA)
535	1	699	MADISON WI
550	2	926	SAINT PAUL MN
551	2	926	SAINT PAUL MN
553	1	926	MINNEAPOLIS MN
554	2	926	MINNEAPOLIS MN
600	2	636	NORTH SUBURBAN IL
601	1	636	NORTH SUBURBAN IL
602	1	636	EVANSTON IL
604	1	636	SOUTH SUBURBAN IL
605	1	636	SOUTH SUBURBAN IL
606	1	636	CHICAGO IL
610	1	687	ROCKFORD IL
620	1	744	SAINT LOUIS MO(IN IL)
628	1	691	CENTRALIA IL
640	1	955	KANSAS CITY MO
651	1	863	JEFFERSON CITY MO
654	1	883	ROLLA MO
67	1	1166	SALINA KS
7	1	1042	NEW ORLEANS LA
7	1	935	LITTLE ROCK AR
750	2	1287	DALLAS TX
752	1	1287	DALLAS TX
756	1	1188	LONGVIEW TX
760	2	1287	FORT WORTH TX
765	1	1325	TEMPLE TX
770	1	1268	HOUSTON TX
773	1	1268	CONROE TX
787	1	1413	AUSTIN TX
800	1	1523	DENVER CO
801	1	1523	DENVER CO
802	2	1523	DENVER CO
803	1	1523	BOULDER CO
806	1	1523	BRIGHTON CO
820	1	1514	CHEYENNE WY
902	3	2337	INGLEWOOD CA
907	1	2337	LONG BEACH CA
912	2	2337	GLENDALE CA
913	2	2391	VAN NUYS CA
921	1	2311	SAN DIEGO CA
926	2	2365	SANTA ANA CA
930	1	2391	OXNARD CA
934	1	2418	SANTA BARBARA CA
935	1	2257	MOJAVE CA
9	1	2508	SAN FRANCISCO CA
9	1	2455	OAKLAND CA