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OA/ID Number: 52065
Folder ID Number: 52065-004

Folder Title:
[TIRR] New Options Research Notes [1975-1978] [1]

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[illegible]

SCI/NON-SCI

Bush Library Photocopy

February 21, 1978.

RTM Female/Male comparative data for non-sci patients has indicated that both are fairly steady from week to week.

Female study shows that they were more flat from week to week and that male study was more inconsistent from week to week.

Reminder of only two participants in female RTM study as compared to 5 participants in male RTM study.

* In RTM study under sex category for male and female → both studies for comparison were NON-SCI.

→ In NON-SCI study for RTM; it clearly shows this to be a fairly accurate graphing of a normal curve of RTM for NON-SCI as a whole.

In Odometer study, NON-SCI graph shows consistently greater mileage than SCI.

However, the sixth week of cycles for NON-SCI indicates the considerable decrease whereas the SCI graph indicates an increase.

BAR GRAPHS

ODD METER STUDY →

RTM STUDY →

INCLUDES CATEGORIES OF COMPARISON

FOR : QUADRIPLEGIA,

PARAPLEGIA,

CEREBRAL PALSY

* TOTAL NON-SCI

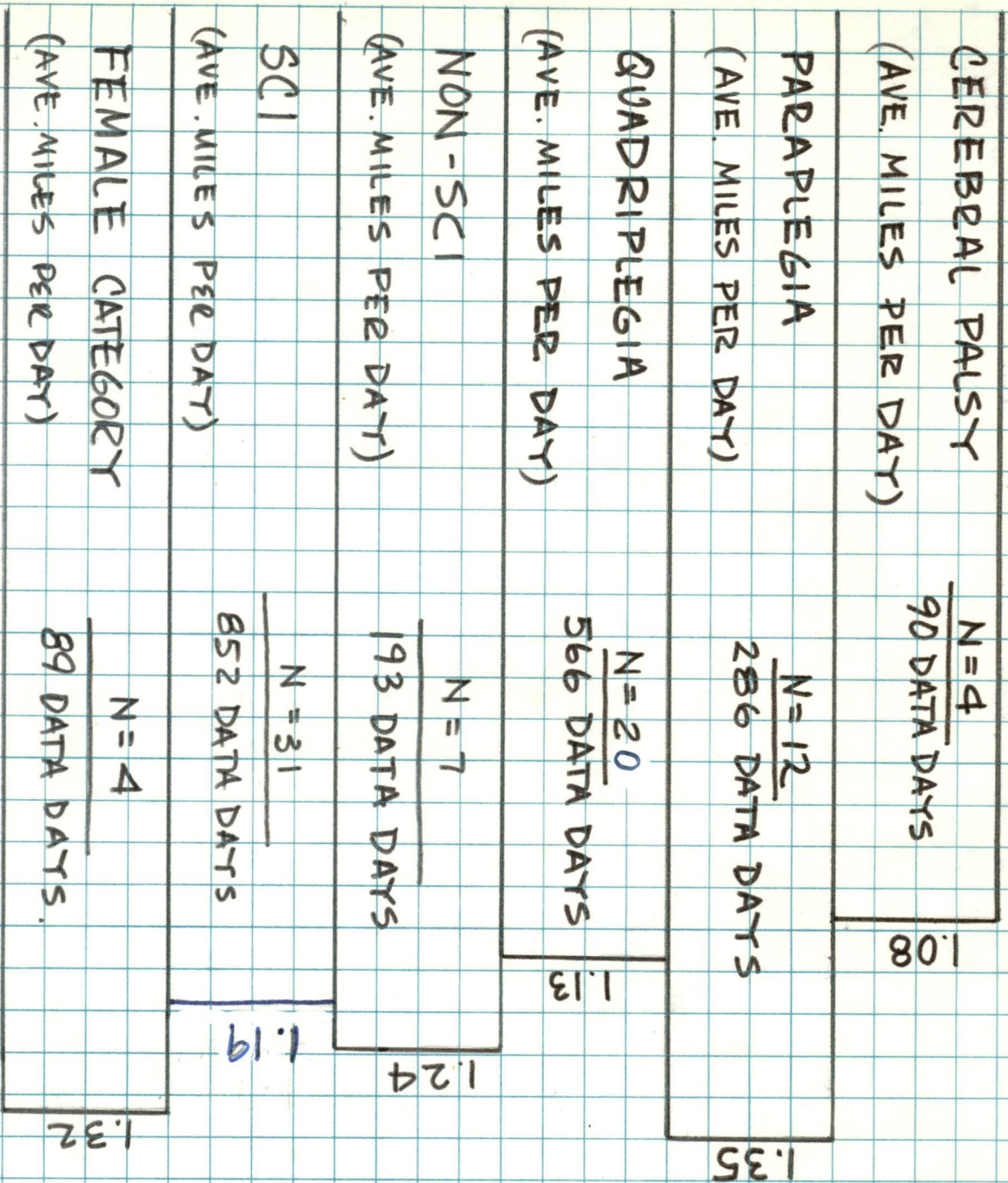
* TOTAL SCI

FEMALE

MALE

ODOMETER STUDY

N = average participants per week participating over a 6 week period.
 Data days - represent total number of days which data is collected and is useful for study - covering 11, 6 week cycles.



Female category - only data available
was from NON-SCI participants.

Male category - derived from only
NON-SCI participants. for comparison.

TOTAL Male category?

For RTM graph, very few if any paras
participated past the sixth cycle -
- so sci, male groups consist only of
quadriplegics.

QUAD CATEGORY (AVE. DAILY OOB T)	$\frac{N=20}{368 \text{ DATA DAYS}}$ (CYCLES 6-11)	12.0
CEREBRAL PALSY CATEGORY (AVE. DAILY OOB T)	$\frac{N=5}{128 \text{ DATA DAYS}}$	15.2
NON-SCI (AVE. DAILY OOB T)	$\frac{N=7}{169 \text{ DATA DAYS}}$	15.0
FEMALE CATEGORY * all non-sci (AVE. DAILY OOB T)	$\frac{N=2}{42 \text{ DATA DAYS}}$	15.6
MALE CATEGORY * all non-sci (AVE. DAILY OOB T)	$\frac{N=5}{127 \text{ DATA DAYS}}$	14.85

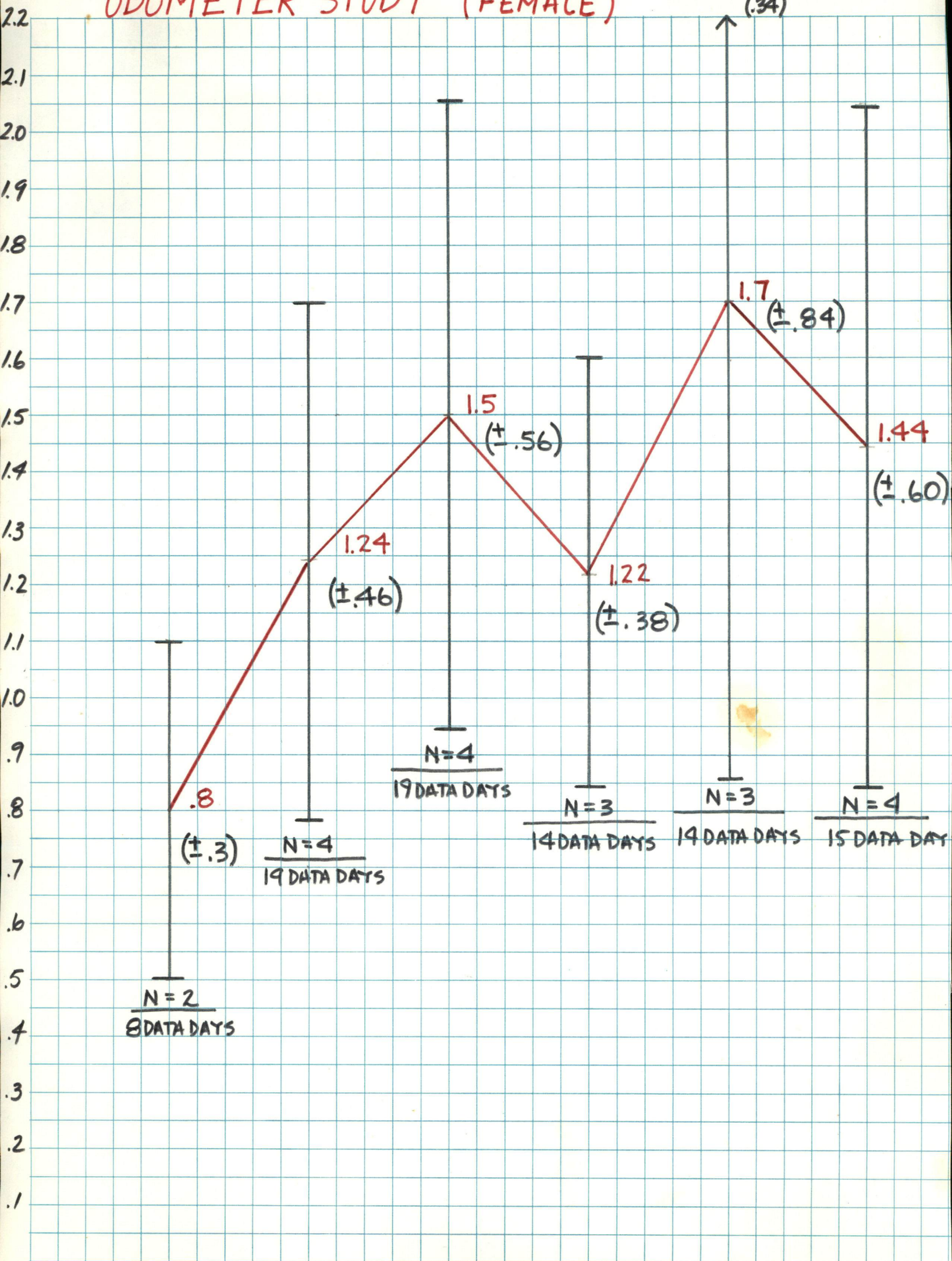
Quad category is also
TOTAL SCI category - due to
insufficient data of para study group
for RTM,

N = average participants
per week participating
over 11, 6 week cycles.
Data Days - represents the
total number of days
which data is collected,
and is useful for study
- covering 11, 6 week cycles

SEX CATEGORY
MALE/FEMALE COMPARATIVE
DATA STUDY.

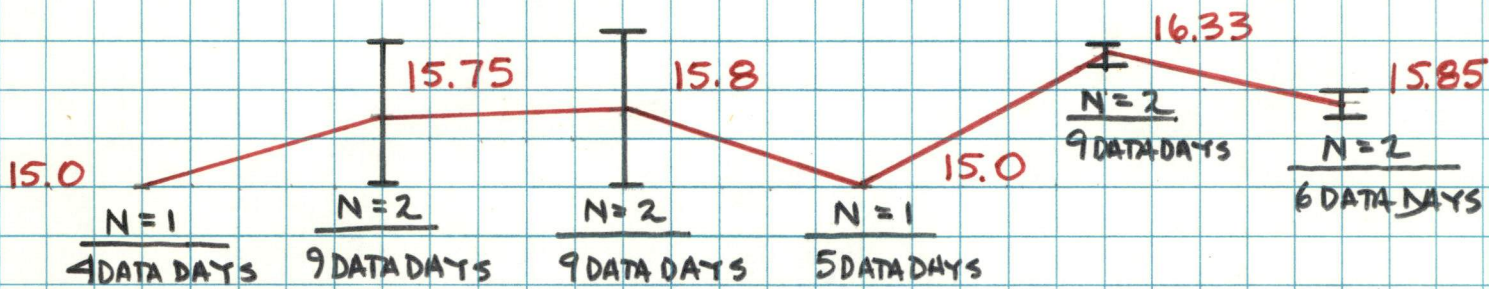
ODOMETER GRAPH
RTM GRAPH

ODOMETER STUDY (FEMALE)



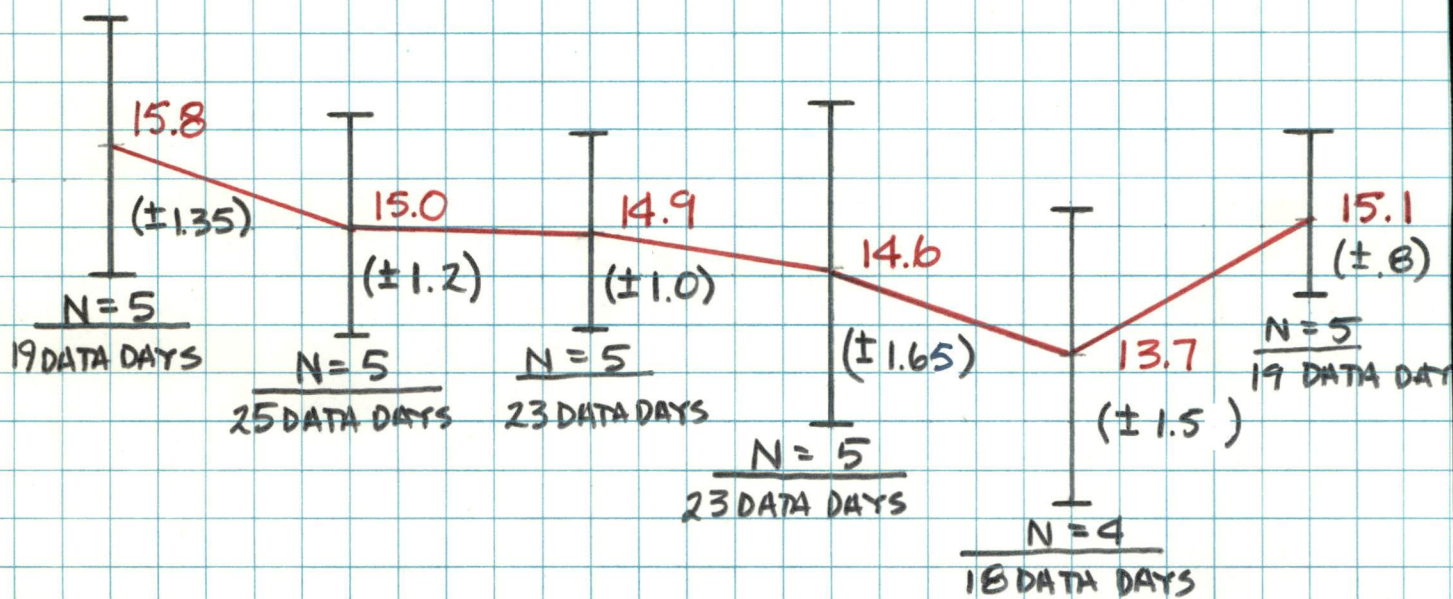
RTM STUDY (FEMALE) * all non-sci

21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1



RTM STUDY (MALE)

* all non-sci



SEX CATEGORY (ODOMETER STUDY)

FEMALEWeek One

N = 2

ave = .8

5 .3 8DD

D. Neumann

Ruby Gottlieb

4D (1.1)

.3

.09

Patty Ward

.07

.18 1/2

D. Justice

4D (.5)

V. MacDaniel

Week Two

N = 4

ave = 1.245 46 19DD

D. Neumann

5D (1.0)

.0576

R. Gottlieb

.0036

P. Ward

5D (1.3)

D. Justice

5D (.7)

.2916

V. MacD.

4D (1.95)

.5041

Week Three

N = 4

ave = 1.55 56 19DD

D. Neumann

5D (1.3)

.04

R. Gottlieb

.01

P. Ward

5D (1.6)

.5625

D. Justice

5D (1.75)

.64

V. MacD.

4D (2.3)

Week Four

$N = 3$

ave = 1.22

$\sigma = .38$

1400

D. Neumann

SD (.76)

.2116

R. Gottlieb

.2304

P. Ward

SD (1.7)

.0004

D. Justis

V. MacD.

4D (1.2)

Week Five

$N = 3$

ave = 1.7

$\sigma = .84$

1400

D. Neumann

SD (.74)

.9216

R. Gottlieb

P. Ward

SD (1.6)

.01

D. Justis

V. MacD.

4D (2.8)

1.21

Week Six

$N = 4$

ave = 1.44

$\sigma = .60$

1500

D. Neumann

4D (.64)

.64

R. Gottlieb

P. Ward

4D (1.8)

.1296

D. Justis

4D (1.1)

.1156

V. MacD.

3D (2.2)

.5776

both NON-SCIS

SEX CATEGORY (RTM STUDY)

FEMALE

Week One

$N=2$

ave.

15.0

400

V. MacD

—

C. Heartfield 4D (15.0).

Week Two

$N=2$

ave.

15.75

$\sigma = .75$

900

V. MacD 4D (16.5)

C. Heartfield 5D (15.0)

Week Three

$N=2$

ave.

15.8

$\sigma = .8$

700

V. MacD 4D (16.6)

C. Heartfield 5D (15.0)

Week Four

$N=2$

ave.

15.0

500

V. MacD

—

C. Heartfield 5D (15.0)

Week Five

$N=2$

ave.

16.33

$\sigma = .07$

900

V. MacD 4D (16.4)

C. Heartfield 5D (16.25)

Week Six

$N=2$

ave.

15.85

$\sigma = .15$

600

V. MacD 3D (15.7)

15

C. Heartfield 3D (16.0)

SEX CATEGORY (RTM STUDY)

MALE

NON-SCI.

Week OneN = 5 ave = 15.84 G = 1.35 1900

D. Conley	40 (13.5)	5.4756
G. Provost	40 (15.8)	.0016
T. Fancher	30 (17.5)	2.7556
K. White	40 (15.2)	.4096
J. Vickers	40 (15.2)	<u>.4096</u>

Week TwoN = 5 ave = 15.0 G = 1.16 2500

D. Conley	50 (14.1)	.81
G. Provost	50 (14.8)	.04
T. Fancher	50 (17.1)	4.41
K. White	50 (13.8)	1.44
J. Vickers	50 (14.9)	<u>.01</u>

Week ThreeN = 5 ave = 14.98 G = 1.13 2300

D. Conley	40 (14.7)	.0324
G. Provost	50 (15.6)	.5184
T. Fancher	40 (16.0)	1.2544
K. White	50 (13.23)	2.7225
J. Vickers	50 (14.9)	<u>.0004</u>

D. Conley	50 (12.3)	5.1076
G. Provost	50 (16.1)	2.3716
T. Fancher	30 (16.6)	4.1616
K. White	50 (14.6)	.0016
J. Vickers	50 (13.2)	<u>1.8496</u>

$N=5$ $\text{ave} = 14.6$ $\sigma = 1.64$ 2300

D. Conley	30 (11.8)	3.6864
G. Provost	—	5.1984
T. Fancher	50 (16.0)	.3136
K. White	50 (13.16)	<u>0.324</u>
J. Vickers	50 (13.9)	

$N=4$ $\text{ave} = 13.7\bar{5}$ $\sigma = 1.52$ 1800

D. Conley	40 (14.5)	.09
G. Provost	40 (15.0)	.01
T. Fancher	40 (16.3)	1.44
K. White	40 (15.62)	.2704
J. Vickers	30 (13.88)	<u>1.4884</u>
		3.2988

$N=5$ $\text{ave} = 15.1$ $\sigma = .81$ 1900

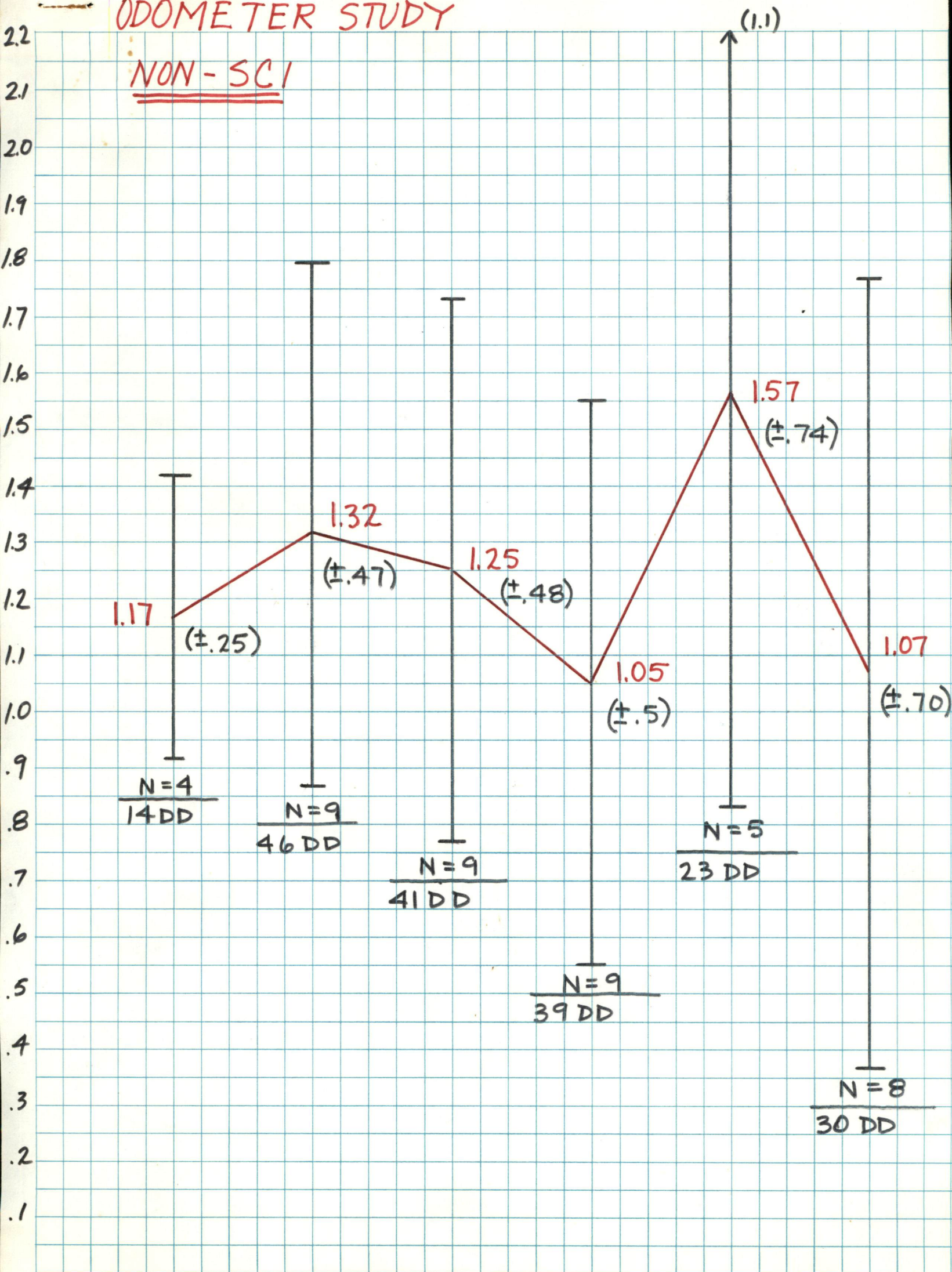
NON-SCI STUDY GROUP

ODOMETER GRAPH

RTM GRAPH

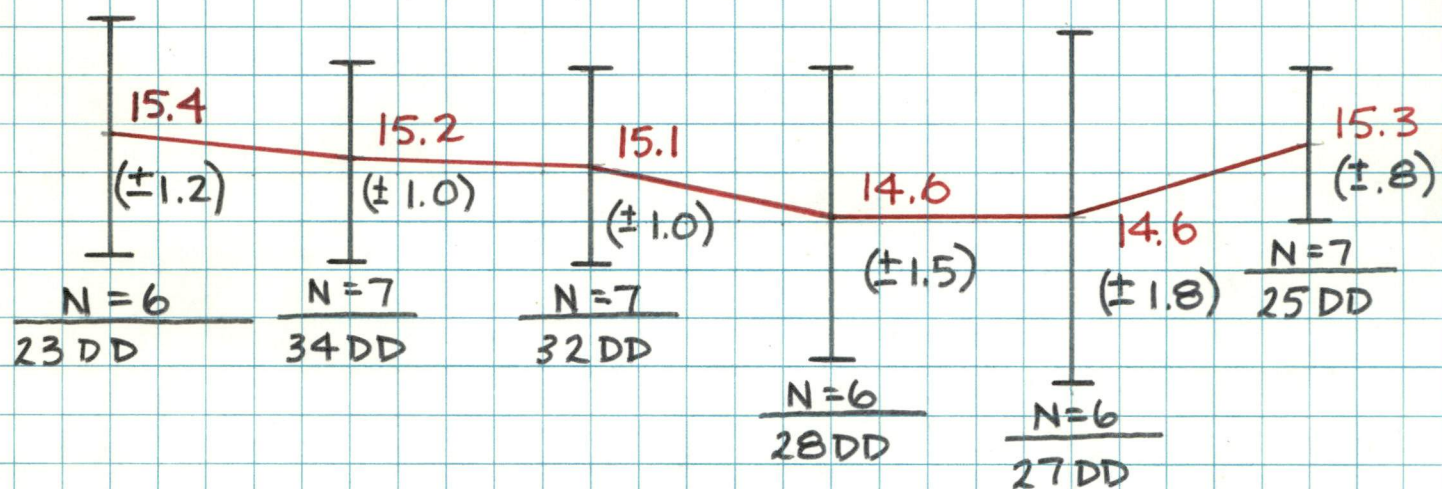
ODOMETER STUDY

NON-SCI



RTM STUDY

NON-SCI



NON-SCI CATEGORY (ODOMETER STUDY)

Week One, N = 4, ave. 1.17, $\sigma = .248$, 14DD

G. Provost 3D (.83)

T. Fancher 3D (1.2)

K. White 4D (1.13)

J. Vickers 4D (1.53)

J. Colon

R. Patin

R. Trevino

E. Wilson

V. MacD

D. Conley

Week Two, N = 9, ave. 1.32, $\sigma = .47$

G. Provost 4D, (.7) .62 .85 .7225 .3844

T. Fancher 5D, (1.4) .08 .15 .0225 .0064

K. White 4D (1.2) .12 .35 .1225 .0044

J. Vickers 5D (2.0) .18 .45 .2025 .0324

J. Colon 5D (1.5) .68 .05 .0025 .4624

R. Patin 5D (1.1) .22 .45 .2025 .0484

R. Trevino 5D (3.6) .1

E. Wilson 5D (1.5) .18 .05 .0025 .0324

V. MacD 4D (1.95) .63 .4 .1600 .3969

D. Conley 4D (.53) .79 1.02 1.0404 .6241

2.4779/10 2.0018/9

46 Data Days.

<u>Week Three</u>		$N = 9$	ave. = <u>1.25</u>	$\sigma = \textcircled{.48}$
G. Provost	50 (.67)	.58	.3364	
T. Fancher	40 (1.65)	.4	.16	
K. White	50 (1.15)	.1	.01	<u>41 DD</u>
J. Vickers	50 (1.54)	.29	.0841	
J. Colm	50 (1.2)	.05	.0025	
R. Patni	50 (1.0)	.25	.0625	
R. Trevino	50 (5.2)			
E. Wilson	50 (1.0)	.25	.0625	
V. Mac D.	40 (2.3)	1.05	1.1025	
D. Conley	30 (.76)	.49	.2401	
			<u>2.0831</u>	

<u>Week Four</u>		$N = 9$	ave = <u>1.05</u>	$\sigma = \textcircled{.5}$
G. Provost	20 + 19 40 (.47)	.58	.3364	
T. Fancher	18 + 2 40 (.6)	.45	.2025	<u>39 DD</u>
K. White	20 + 5 ✓ 30 (.89)	.16	.0256	
J. Vickers	20 + 5 50 (1.04)	.01	.0001	
J. Colm	20 + 2 50 (2.0)	.95	.9025	
R. Patni	20 ✓ 50 (1.2)	.15	.0225	
R. Trevino	50 (5.0)	.65	.4225	
E. Wilson	30 → 50 (1.7)			
V. Mac D.	20 ✓ 40 (1.2)	.15	.0225	
D. Conley	30 → 40 (.4)	.65	.4225	
			<u>2.3571/9</u>	

Week Five. $N = 5$ $ave = 1.57$ $\sigma = (.74)$

G. Provost.	_____			
T. Fenchel.	40 (1.56)	.101	1.0201	23 DD
K. White.	_____			
J. Vickers.	50 (1.81)	.24	.0576	
J. Colon.	_____			
R. Patini	50 (1.2)	.37	.1369	
R. Truino	50 (7.2)			
E. Wilson	50 (1.5)	.07	.0049	
V. MacD.	40 (2.8)	1.23	1.5129	
D. Conley.	_____		2.7329/5	

Week Six. $N = 8$ $ave = 1.07$ $\sigma = (.69)$

G. Provost.	40 (.33)	.74	.5476	
T. Fenchel.	40 (.13)	.94	.8836	30 DD
K. White.	40 (1.21)	.14	.0196	
J. Vickers	30 (1.65)	.58	.3364	
J. Colon.	_____			
R. Patini	40 (.9)	.17	.0289	
R. Truino	_____			
E. Wilson	40 (1.7)	.63	.3969	
V. MacD.	30 (2.2)	1.13	1.2769	
D. Conley.	40 (.5)	.57	.3249	
			3.8148/8	

NON-SCI category (RTM STUDT)

Week One			
g. Parrost.	40.	(15.8)	.44
T. Fanchur.	30	(17.5)	2.14
K. White.	40	(15.2)	.16
J. Vickers.	40.	(15.2)	.16
C. Heatfield.	40.	(15.0)	.32
V. MacD.			
D. Canby	40.	(13.5)	1.86
			3.9596
			8.413615
N = 6 $\sigma = 4$ $\sigma = 1.12$ 23 DD			

Week Two			
g. Parrost.	50.	(19.8)	.87
T. Fanchur.	50	(17.1)	1.4
K. White.	50	(13.8)	1.37
J. Vickers.	50	(14.9)	.27
C. Heatfield.	50	(15.0)	.17
V. MacD.	40.	(16.5)	1.33
D. Canby	50	(14.1)	1.07
			1.1949
			6.989417
N = 7 $\sigma = 2$ $\sigma = 1.0$ 34 DD			

Week Three $N=7$ $\text{ave} = 15.15$ $G = (1.0)$

G. Provost.	5D (15.6)	.45	.2025	
T. Fancher	4D (16.0)	.85	.7225	<u>32.00</u>
K. White	5D (13.23)	1.92	3.6864	
J. Vickers	5D (14.9)	.25	.0625	
C. Heartfield	5D (15.0)	.15	.0225	
V. MacD	4D (16.6)	1.45	2.1025	
D. Conley	4D (14.7)	.45	.2025	
				7.0014/7

Week Four $N=6$ $\text{ave} = 14.6\bar{3}$ $G = (1.5)$

G. Provost	5D (16.1)	1.47	2.1609	
T. Fancher	3D (16.6)	1.97	3.8809	<u>28.00</u>
K. White	5D (14.6)	.03	.0009	
J. Vickers	5D (13.2)	1.43	2.0449	
C. Heartfield	5D (15.0)	.37	.1369	
V. MacD				
D. Conley	5D (12.3)	2.33	5.4289	
				13.6534/6

J. Forrest
 T. Fancher
 K. White
 J. Vickers
 C. Heantfield
 V. MacD.
 O. Conley

50	(16.0)	1.42	2.0164
50	(13.16)	1.42	2.0164
50	(13.9)	.68	.4624
50	(16.25)	1.67	2.7889
40	(16.4)	1.82	3.3124
30	(11.8)	2.78	7.7284

18.3249/6

Week Five N=6 $\text{ave.} = 14.58$ $\sigma = 1.8$

27DD

J. Forrest
 T. Fancher
 K. White
 J. Vickers
 C. Heantfield
 V. MacD.
 O. Conley

40	(15.0)	.28	.0784
40	(16.3)	1.02	1.0404
40	(15.62)	.34	.1156
30	(13.83)	1.45	2.1025
30	(16.0)	.72	.5184
30	(15.7)	.42	.1764
40	(14.5)	.78	.6084

4.6401/7

Week Six N=7 $\text{ave.} = 15.8$ $\sigma = 1.81$

25DD

SCI STUDY

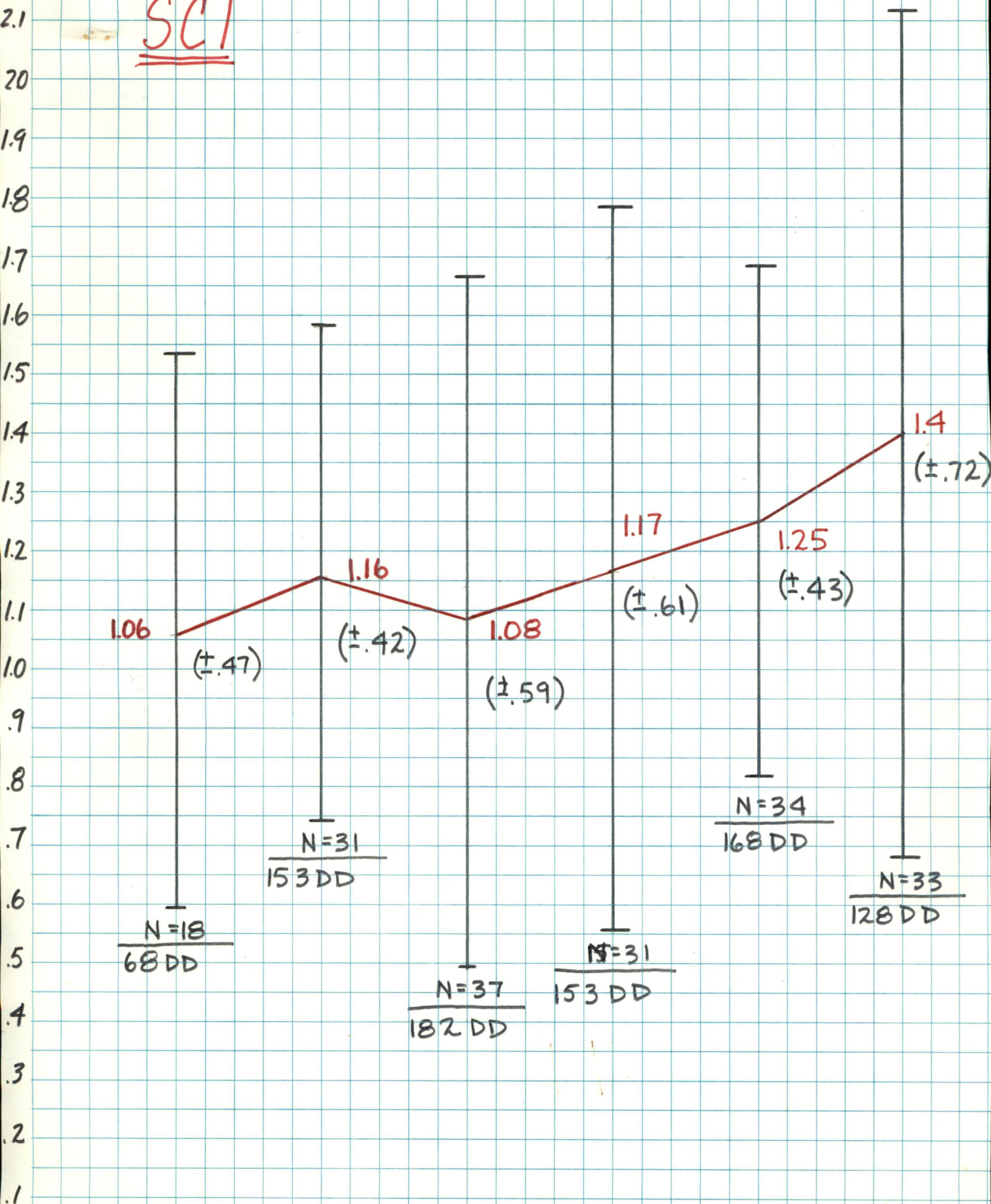
ODOMETER GRAPH

→ RTM GRAPH $\approx$ RTM GRAPH FOR
QUADRIPLÉGIA CATEGORY.

(PARAS DO NOT HAVE ADEQUATE DATA TO
CONTRIBUTE TO SCI, RTM STUDY.)

ODOMETER STUDY

SCI



SCI CATEGORY (ODOMETER STUDY)

Week One

$N = 18$ $\sigma = .47$ — Δ 68 DD,
AVE = 1.06

Week Two

$N = 31$ $\sigma = .42$ — Δ 153 DD
AVE = 1.16

Week Three

$N = 37$ $\sigma = .59$ — Δ 182 DD
AVE = 1.08

Week Four

$N = 31$ $\sigma = .61$ — Δ 153 DD
AVE = 1.17

Week Five

$N = 34$ $\sigma = .43$ — Δ 168 DD
AVE = 1.25

Week Six

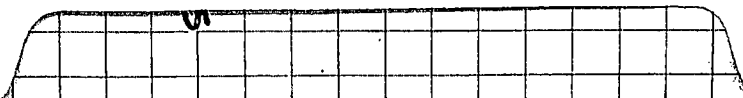
$N = 33$ $\sigma = .72$ — Δ 128 DD
AVE = 1.40

SCI category (RTM STUDY).

Week One.

* Sci category is also total Quadriplegia category. — A there is not enough information - data - from the paraplegia category to contribute.

DISABILITY CATEGORY



ODOMETER STUDY : GRAPHS

- QUADRIPLEGIA CATEGORY
- PARAPLEGIA CATEGORY
- CEREBRAL PALSY CATEGORY

RTM STUDY : GRAPHS

- QUADRIPLEGIA CATEGORY
- CEREBRAL PALSY CATEGORY

* BAR GRAPHS → RTM/ODO STUDY.

- INCLUDES : NON-SCI (CPS and other disabilities)
- SCI (QUADS and PARAS)
- FEMALE
- MALE

DISABILITY

DESCRIPTION CATEGORY

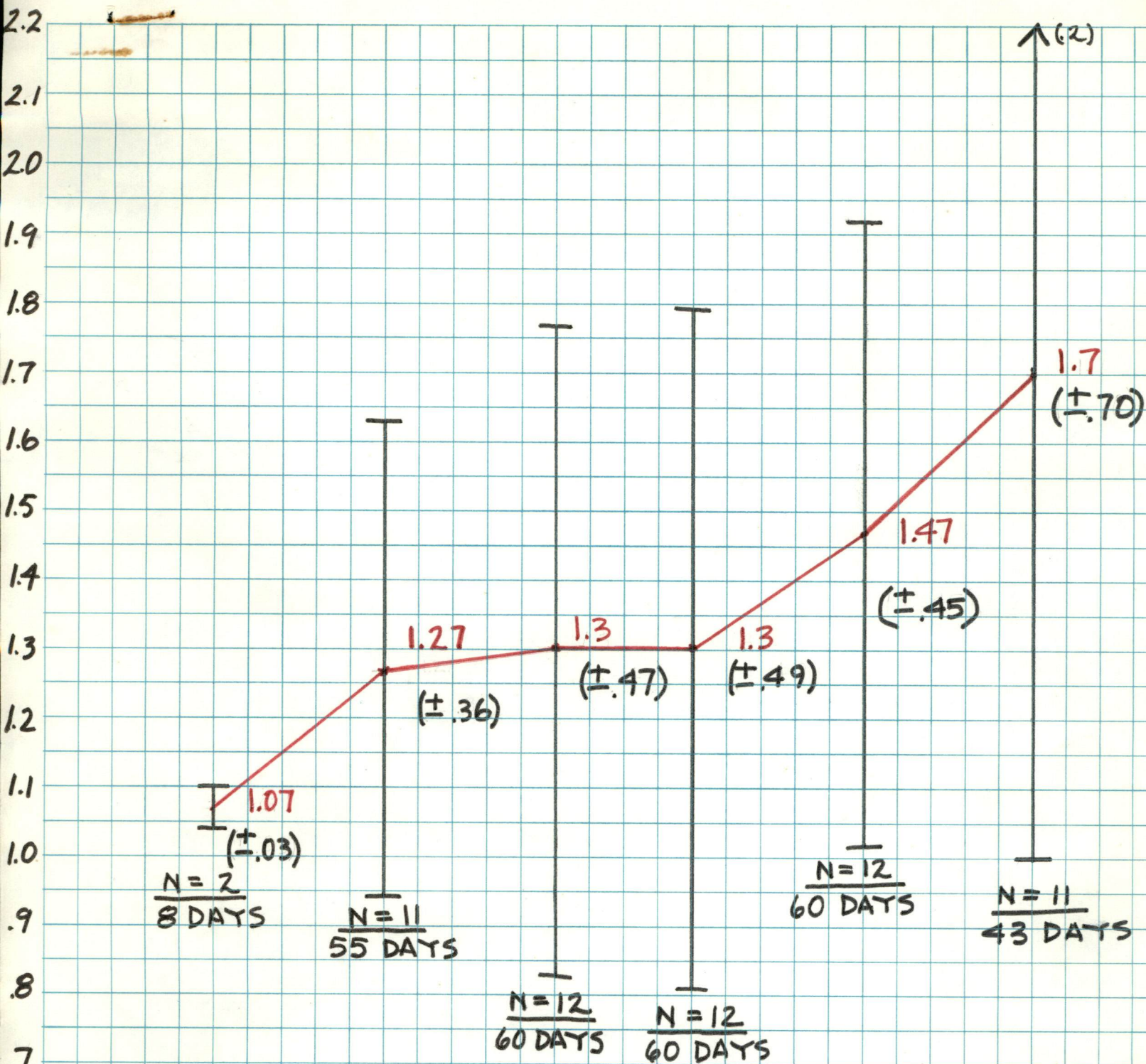
DATA → (CYCLES 1 THRU 11)

BAR GRAPH DESIGNATING AVERAGE
MILES PER DAY OVER ALL 6 WEEKS IN
EACH CYCLE. → Include bars for
NON-SCIS and SCIS.

PARAPLEGIA STUDY GROUP

ODOMETER STUDY

* INSUFFICIENT DATA FOR
RTM STUDY



ODOMETER STUDY for paraplegics participating
in the New Options program —

Average daily mileage of participants for (cycles 1-11
for each week in the New Options program.

PARA STUDY ODOMETER

Week One

N = 2

ave. 1.07

4D	(1.04)	.03	.0009	.0009
4D	(1.1)	.03		.0009

8 DATA DAYS

.0018
2

$\sigma = .03$

Week Two

N = 11

ave. 1.27

5D	(1.68)	.2704	.41	.1681
5D	(1.8)	.4096	.53	.2809
5D	(1.26)	.01	.01	.0001
5D	(1.3)	.0196	.03	.0009
5D	(1.0)	.0256	.27	.0729
5D	(.6)	.3736	.67	.4489
5D	(.9)	.0676	.37	.1369
5D	(1.8)	.4096	.53	.2809
5D	(1.3)	.0196	.03	.0009
5D	(1.1)	.0036	.17	.0289
5D	(1.2)	.0016	.07	.0049

1.4243
11 = .13 =

55 DATA DAYS

$\sigma = .36$

Week Three

N = 12

$$ave = \boxed{1.3}$$

SD	.2401	(1.68)	.36	.38	.14
SD	.0041	(1.4)	.1024	.1	.01
SD	.3025	(1.74)	.4856	.44	.1936
SD	.5929	(.42)	.4356	.88	.7744
SD	.0121	(1.3)	.0484	0	0
SD	.0001	(1.2)	.0144	.1	.01
SD	.74	(.7)	.4624	.9	.81
SD	.36	(1.5)	.1764	.2	.04
SD	.1681	(1.6)	.2704	.3	.09
SD	.0121	(1.3)	.0484	0	0
SD	.6561	(2.0)	.9464	.7	.49
SD	.0961	(.88)	.04	.42	.1764

$$\frac{2.7344}{12} = .228$$

$$s = \boxed{.47}$$

60 DATA DAYS

Week Four

$N = 12$

ave = $\sqrt{1.3}$

.2025	50	(1.62)	.32	.1764	.1024
.1849	50	(1.6)	.3	.16	.09
.1849	50	(1.6)	.3	.16	.09
.3969	50	(.54)	.76	.4356	.5776
.1681	50	(.76)	.59	.1936	.2916
.0961	50	(.86)	.44	.1156	.1936
.0289	50	(1.0)	.3	.04	.09
.1849	50	(1.6)	.3	.16	.09
.2809	50	(1.7)	.4	.25	.16
.0729	50	(.9)	.4	.09	.16
1.2769	50	(2.3)	1.0	1.21	1.0
.0049	50	(1.1)	.2	.01	.04

$$\frac{2.8852}{12} = .2404$$

60 DATA DAYS.

$$\sigma = .49$$

Week Five

$N = 12$

ave = $\boxed{1.47}$

50	(1.3)	.0025	.17	.0289
50	(1.1)	.0225	.37	.1369
50	(2.3)	1.1025	.83	.6889
50	(1.7)	.2025	.23	.0529
50	(.74)	.2601	.73	.5329
50	(1.1)	.0225	.37	.1369
50	(1.2)	.0025	.27	.0729
50	(1.6)	.1225	.13	.0169
50	(1.6)	.1225	.13	.0169
50	(1.3)	.0025	.17	.0289
50	(2.3)	1.1025	.83	.6889
50	(1.4)	.0225	.07	.0049

$$\frac{2.4068}{12} = .2005$$

60 DATA DAYS.

$$\sigma = \boxed{.448}$$

Week Six

$N = 11$

ave = 1.7

3D	(1.6)	.04	.1	.01
4D	(2.9)	2.25	1.2	1.44
4D	(2.1)	.49	.4	.16
4D	(.64)	.5776	1.06	1.1236
4D	(1.2)	.04	.5	.25
4D	(1.2)	.04	.5	.25
4D	(2.6)	1.44	.9	.81
4D	(1.8)	.16	.1	.01
4D	(1.0)	.16	.7	.49
4D	(2.5)	1.21	.8	.64
4D	(1.3)			
4D	(1.2)	.04	.5	.25

$$\frac{5.4336}{11} = .4939$$

43 DATA DAYS

$$\sigma = .7028$$

-1.2

PARA STUDY

→ CYCLE ONE

ODOMETER

Carlos S. Carreno - manual

① 1.04/4D	④ 1.62/5D.
② 1.68/5D	⑤ 1.3/5D
③ 1.68/5D	⑥ —

Joseph Woolsey -

② Completely
③ insufficient data.

William E. McVea

→ CYCLE TWO

ODOMETER

Jerry Wayne Borden manual

① —	④ 1.6/5D
② 1.8/5D.	⑤ 1.1/5D
③ 1.4/5D	⑥ 1.6/3D.

George D. Reed manual

① —	④ 1.6/5D
② 1.24/5D	⑤ 2.3/5D
③ 1.74/5D	⑥ 2.9/4D

Gary D. Gordon electric

① —	④ .54/5 DAY.
② 1.3/5D	⑤ 1.7/5D
③ .42/5D	⑥ 2.1/4D

Deborah L. Neumann electric

① —	④ .74/5D
② 1.0/5D	⑤ .74/5D
③ 1.3/5D	⑥ .64/4D.

→ CYCLE THREE

Ruby - Gottlieb manual

① 1.1/4D	④ .86/5D
② .6/5D	⑤ 1.1/5D
③ 1.2/5D	⑥ 1.2/4D.

Patty Ward

CYCLE FOUR

Stanford K. Tuck

manual

ODOMETER

① —

④ 1.0/5D

② 1.7/5D

⑤ 1.2/5D

③ 1.4/5D

⑥ 1.2/4D

Robert Hipp

manual

① —

④ 1.4/5D

② 1.2/5D

⑤ 1.6/5D

③ 1.5/5D

⑥ 2.6/4D

Cycle Two

Patthy Ward

manual

① —

④ 1.7/5D

② 1.3/5D

⑤ 1.6/5D

③ 1.6/5D

⑥ 1.8/4D

CYCLE FIVE

El Roy Barnes

manual

① —

④ .9/5D

② 1.1/5D

⑤ 1.3/5D

③ 1.3/5D

⑥ 1.0/4D

Ervin Bell

- Insufficient data

CYCLE SIX

Shehee Belland

manual

① —

④ 2.3/5D

② —

⑤ 2.3/5D

(ODOMETER)

③ 2.0/5D

⑥ 2.5/4D

(RTM)

① 15.9/4D

④ 15.4/5D

② 12.1/5D

⑤ 15.4/5D

③ 15.5/5D

⑥ 13.8/4D

CYCLE ELEVEN

H. C. Cessna

ODD

RTM

① —

① 13.5/3D

② 1.2/5D

② 15.6/5D

③ .88/5D

③ 15.5/5D

④ 1.1/5D

④ 15.3/5D

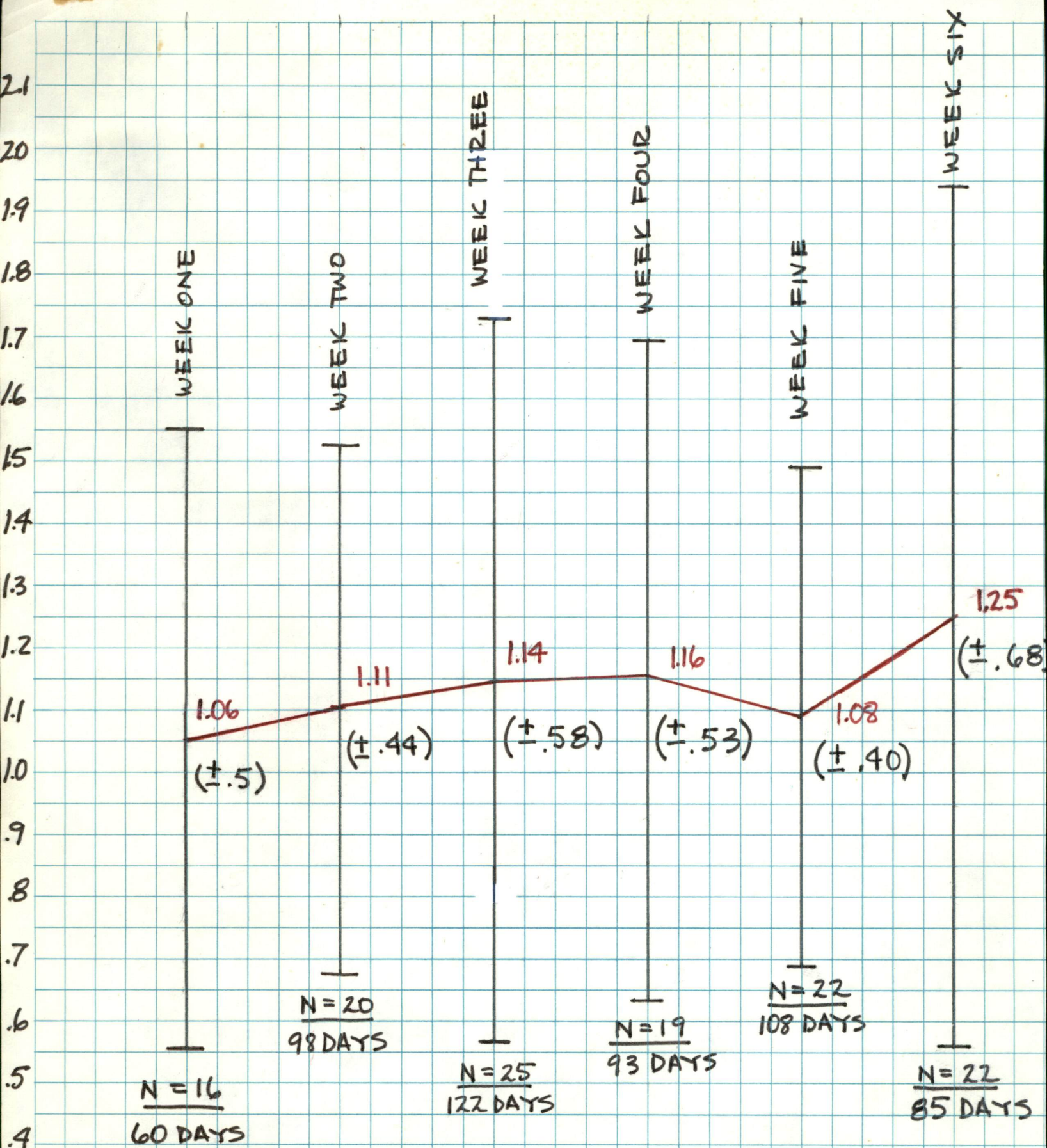
⑤ 1.4/5D

⑤ 14.5/5D

⑥ 1.2/4D

⑥ 14.9/4D

QUADRIPLEGIA STUDY
ODOMETER STUDY
RTM STUDY



ODOMETER STUDY for quadriplegics participating in the New Options program —

Ave. daily mileage of participants for cycles 1-11 for each week in the New Options program.

DOMETER

ROAD STUDY

N = 16

ave. $\boxed{1.06}$

Week one

4D (1.5) (1.849) .44 ~~1.1849~~ ~~1.1849~~

4D (.87) .04 .19

4D (2.32) 1.5625 1.25

4D (.67) .16 .39

4D (.97) .01 .09

3D (1.03) .0014 .03

3D (1.13) .0014 .07

3D (.92) .0025 .14

3D (.53) .2914 .53

.281

.0196

.005

.0009

.008

.152

1.1180 1.588

.036

~~1.1849~~

60 DATA DAYS

4D (.44) .3969 .62
 4D (.83) .0574 .23
 4D (2.0) .8649 .94
 4D (.9) .0289 .14
 4D (5) .3249 .56
 4D (1.1) .0009 .04
 4D (1.35) .0784 .29

.384
 .053
 .884
 .026
 .314
 .0016
 .084

$$\frac{4.03}{16} = .252 = 6 = \boxed{.5}$$

QUAD STUDY

OBOMETER

Week two

N = 20

ave. = 1.11

SD	(2.0)	.9	.81
SD	(1.4)	.3	.09
SD	(.7)	.4	.16
AD	(1.9)	.8	.64
AD	(1.55)	.44	.194
SD	(1.4)	.3	.09
SD	(.7)	.4	.16
SD	(.3)	.81	.64
SD	(.7)	.2114	.16
SD	(.9)	.2	.04
SD	(.98)	.13	.017
SD	(.83)	.27	.073
SD	(.88)	.22	.098
SD	(.83)	.27	.073
SD	(1.0)	.256	.01
SD	(1.65)	.55	.303
SD	(.95)	.14	.026
SD	(1.0)	.256	.01
SD	(1.61)	.5	.25
SD	(.83)	.27	.073

98 DATA DAYS

$$\frac{3.96}{20} = .198$$

$$.198 = \boxed{.44}$$

QUAD STUDY

DOMETER

Walk three

N = 25

ave. = 1.14

122 DATA DAYS

50	1.0	.0361	-.14	.0064	.0196	.0361
50	1.4	.0789	.26	.1024	.0676	.0789
50	2.6	1.9981	1.46	2.3104	2.18	1.9881
50	1.74		.6	.4356	.36	.3025
50	1.0		-.14	.0064	.0196	.0361
50	1.5		.36	.1764	.1296	.0961
50	.5		.64	.3364	.4096	.4761
50	.3		.84	.6084	.7056	.7921
50	.5		.64	.3364	.4096	.4761
50	.4		.74	.4624	.5476	.6241
50	1.49		.35	.1681	.1225	.09
50	.83		.31	.0625	.0961	.1296
50	.52		.58	.2704	.3364	.3969
50	2.5		.62	.3136	.3844	.4489
40	2.31		1.17	1.5129	1.3689	1.2544
50	1.38		.24	.09	.0578	.0361
50	1.2		.06	.0144	.0036	.0001
50	1.9		.76	.6724	.5776	.5041
50	.62		.52	.2116	.2704	.3249
50	.92	.0729	.22	.0256	.0484	
50	1.61	.1764	.47	.2809	.2209	
50	1.16	.0081	.04	.0016	.0016	
50	.67	.2704	.47	.1681	.2209	
40	1.1	.0081	.04	.0016	.0016	
40	1.3	.0121	.16	.0256	.0256	

8.5355

= 25

.3414 = 8

1.584

ODOMETER

QUAD STUDY

Week four →

$N = 19$

ave. = 1.16

50	1.3	.0169	.14	.0196	.01
50	1.0	.0289	.16	.0256	.04
50	2.48	1.7161	1.32	1.7424	1.6384
50	1.44	.0841	.3	.09	.0676
50	1.5	.1089	.34	.1156	.09
50	1.0	.0289	.16	.0256	.04
50	.2	.0409	.96	.9216	1.0
50	.7	.2209	.46	.2116	.25
50	1.0	.0289	.16	.0256	.04
50	1.47	.09	.31	.0961	.0729
50	.75	.1764	.41	.1681	.2025
50	.76	.1681	.4	.16	.1936
50	.70	.2209	.46	.2116	.25
50	2.12	.9025	.96	.9216	.8464
50	1.36	.0361	.2	.04	.0256
50	1.3	.0169	.14	.0196	.01
50	.63	.2916	.53	.2809	.3249
50	1.3	.0169	.14	.0196	.01
30	.67	.25	.49	.2401	.2809

$$\frac{5.33}{19} = .2808 = G = \underline{.53}$$

93 DATA DAYS

ODOMETERQUAD STUDYWeek five →

N = 22

ave = 1.08

50	.3	.9025	.78	.6084
50	1.3	.0025	.22	.0484
50	1.2	.0025	.12	.0144
50	1.36	.0121	.28	.0784
50	1.1	.0225	.02	.0004
50	1.3	.0025	.22	.0484
50	1.3	.0025	.22	.0484
50	.2	1.1025	.88	.7744
50	.9	.1225	.18	.0324
50	1.2	.0025	.12	.0144
50	1.74	.2401	.66	.4356
50	.96	.0841	.12	.0144
50	.78	.2209	.3	.09
50	.93	.1024	.15	.0225
50	1.71	.2116	.63	.3969
50	1.25	0	.17	.0289
50	1.88	.3969	.8	.64
50	.98	.0729	.1	.01
50	.92	.1089	.16	.0256
30	1.31	.0036	.23	.0529
50	.85	.16	.23	.0529
50	1.36	.0121	.28	.0784

$$\frac{3.5161}{22} = 1598 = 6 =$$

108 DATA DAYS.

.4

ODOMETER

QUAD STUDY

Week Six →

N = 22

me 1.25

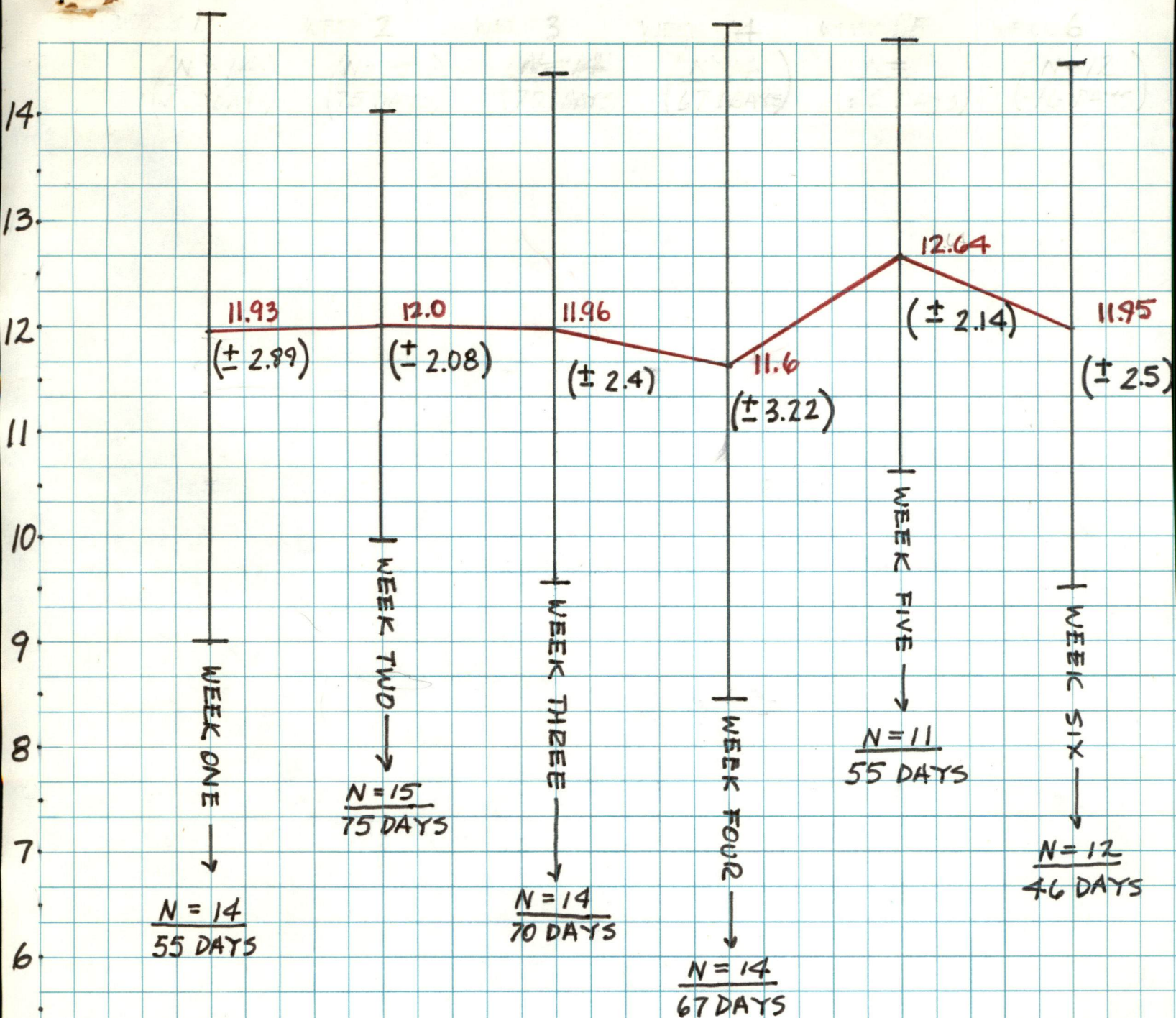
40	1.2	.05	.0025	.04
40	1.4	.15	.0225	0
40	1.1	.15	.0225	.09
40	1.1	.15	.0225	.09
40	.72	.53	.2809	.4624
40	2.4	1.15	1.3225	1.0
40	2.4	1.15	1.3225	1.0
40	1.7	.45	.2025	.09
40	.5	.75	.5625	.81
40	.4	.85	.7225	1.0
40	1.2	.05	.0025	.04
40	.65	.6	.36	.5625
40	.64	.61	.3721	.5776
40	.84	.41	.1681	.3136
40	1.73	.48	.2304	.1089
40	.77	.48	.2304	.3969
30	2.61	1.36	1.8496	1.4641
30	1.62	.37	.1369	.0484
30	1.03	.22	.0484	.1369
40	2.38	1.13	1.2769	.9604
40	.58	.67	.4489	.6724
40	.5	.75	.5625	.81

85 DATA DAYS

$$\frac{10.17}{22} = .4623 = 6 =$$

-0010

.68



RTM STUDY for quadriplegics participating
in the New Options program —

Ave. daily out of bed time for cycles
6-11 for each week in the New Options
program.

QUAD STUDY

RTM

Week one

$N=14$

ave = $\boxed{11.93}$

4D (10.5)	-1.43	2.04
4D (10.0)	-1.93	3.73
4D (10.78)	-1.15	1.32
4D (13.8)	1.87	3.5
4D (15.3)	3.37	11.35
4D (14.0)	2.07	4.29
4D (12.5)	.57	.35
4D (5.3)	-6.6	43.56
4D (14.3)	2.4	5.76
4D (15.7)	3.77	14.2
4D (14.12)	2.19	4.8
4D (13.1)	1.17	1.37
4D (7.9)	4.03	16.24
3D (9.7)	2.23	4.97

$$\left(\frac{117.48}{14} \right) =$$

$$8.4 \quad \sigma = \boxed{2.89}$$

55 DATA DAYS

QUAD STUDY

RTM

Week two

$N = 15$

ave =

12.0

5D	(9.56)	-2.44	5.95
5D	(9.54)	-2.46	6.05
5D	(8.7)	-3.3	10.89
5D	(13.43)	1.43	2.05
5D	(14.3)	2.3	5.29
5D	(13.0)	1.0	1.0
5D	(11.6)	-.4	.16
5D	(12.0)	0	0
5D	(14.1)	2.1	4.41
5D	(15.43)	3.43	11.76
5D	(12.96)	.96	.92
5D	(10.3)	1.7	2.89
5D	(9.6)	-2.4	5.76
5D	(14.6)	2.6	6.76
5D	(11.0)	-1.0	1.0

$$\left(\frac{64.89}{15} \right) =$$

$$4.33 = \sigma = \underline{2.08}$$

75 DATA DAYS

RTM

QUAD STUDY

Week three

$N = 14$

ave. = $\boxed{11.96}$

5D	(12.56)	.6	.36
5D	(10.65)	-7.31	1.72
5D	(8.5)	-3.46	11.97
5D	(13.36)	1.43	2.05
5D	(15.0)	3.04	9.24
5D	(14.0)	2.04	4.16
5D	(10.83)	-1.13	1.28
5D	(11.0)	-.96	.92
5D	(13.2)	1.24	1.54
5D	(14.13)	2.17	4.71
5D	(12.5)	.54	.30
5D	(8.2)	-3.76	14.14
5D	(14.5)	2.54	6.45
5D	(7.3)	-4.66	21.71

$$\left(\frac{80.55}{14} \right) = 5.75 = \sigma = \boxed{2.4}$$

70 DATA DAYS

RTM

QUAD STUDY

Week four

$N = 14$

ave = 11.6

5D	(11.43)	- .17	.03
5D	(9.73)	- 1.87	3.5
5D	(7.76)	- 3.84	14.75
5D	(14.24)	2.64	6.97
5D	(14.0)	2.4	5.76
5D	(10.93)	- 0.67	.45
5D	(11.4)	- .2	.04
5D	(15.1)	3.5	12.25
4D	(15.12)	3.52	12.39
4D	(13.58)	1.98	3.9
4D	(5.3)	- 6.3	39.7
5D	(10.6)	- 1.0	1.0
5D	(16.3)	4.7	22.1
5D	(6.9)	4.7	22.1

$$\left(\frac{144.94}{14} \right) =$$

$$10.35 = \sigma = \span style="border: 1px solid black; padding: 2px;">3.22$$

55 +
12

67 DATA DAYS

RTM

QUAD STUDY

Week five $N = 11$ $ave = \boxed{12.64}$

5D	(12.46)	- .18	.03
5D	(10.9)	-1.74	3.03
5D	(10.62)	-2.02	4.1
5D	(14.56)	1.92	3.68
5D	(14.0)	1.36	1.85
5D	(11.93)	-.71	.50
5D	(10.96)	-1.68	2.8
5D	(14.4)	1.76	3.1
5D	(16.0)	3.36	11.3
5D	(8.6)	-4.04	16.32
5D	(14.6)	1.96	3.84

$$\left(\frac{50.55}{11} \right) = 4.59 = 5 = \boxed{2.14}$$

55 DATA DAYS

RTM

QUAD STUDY

Week six

$N = 12$

ave. =

11.95

4D	(8.24)	-3.71	13.76
4D	(8.33)	-3.62	13.10
4D	(9.12)	-2.83	8.00
4D	(15.53)	3.58	12.81
4D	(12.6)	.65	.42
4D	(10.95)	-1.	1.0
3D	(11.3)	-.65	.42
3D	(13.7)	1.75	3.06
4D	(15.78)	3.83	14.67
4D	(11.33)	-.62	.38
4D	(11.4)	-.55	.30
4D	(15.1)	3.15	9.92

$$\left(\frac{77.84}{12} \right) = 6.48 = \sigma = \boxed{2.5}$$

46 DATA DAYS

QUAD STUDY

ODOMETER

Cycle 3

Christopher Lunn

① 2.0/4D

④ —

② 1.4/5D

⑤ .3/5D

③ 1.0/5D

⑥ 1.2/4D

Paul Landry

① .9/4D

④ 1.3/5D

② 1.4/5D

⑤ 1.3/5D

③ 1.4/5D

⑥ 1.4/4D

Deborah Justiss

① .5/4D

④ —

② .7/5D

⑤ —

③ .75/5D

⑥ 1.1/4D

Cycle 2 NO QUADS w/ DATA

Cycle 1

Albert Rye

① —

④ 1.0/5D

② —

⑤ 1.2/5D

③ —

⑥ 1.1/4D

Guy Bell

① 1.1/4D

④ 2.48/5D

② 1.9/4D

⑤ 1.36/5D

③ 2.6/5D

⑥ .72/4D

Stephen Guest

① 1.35/4D

④ 1.46/5D

② 1.85/4D

⑤ 1.1/5D

③ 1.74/5D

⑥ 2.4/4D

QUAD STUDY

Cycle 4 —

ODOMETER

Frank Bridges

① ———

④ 1.5/5D

② 1.4/5D

⑤ 1.3/5D

③ 1.0/5D

⑥ 2.4/4D

George Olsen

① ———

④ 1.0/5D

② .76/5D

⑤ 1.3/5D

③ 1.5/5D

⑥ 1.7/4D

Gregory Witt

① ———

④ .9/5D

② ———

⑤ ———

③ .5/5D

⑥ .5/4D

Stephen Wynn

① ———

④ .2/5D

② .3/5D

⑤ .2/5D

③ .3/5D

⑥ .4/4D

Stephen Walker

① ———

④ .7/5D

② .7/5D

⑤ .9/5D

③ .5/5D

⑥ ———

Thomas Stord

① ———

④ 1.0/5D

② .9/5D

⑤ 1.2/5D

③ .4/5D

⑥ 1.2/4D

QUAD STUDY 10/20

Cycle 6. — RTM

ODOMETER

Gary Hill - ① 10.5 / 4 DAYS ✓

① —

② 9.56 / 5 DAYS ✓

② .978 / 5D

③ 12.56 / 5 DAYS ✓

③ 1.49 / 5D

④ 11.43 / 5 DAYS ✓

④ 1.47 / 5D

⑤ 12.46 / 5 DAYS ✓

⑤ 1.74 / 5D

⑥ 8.24 / 4 DAYS ✓

⑥ .65 / 4D

Robert Murray

① 10.0 / 4 DAYS ✓

① —

② 9.54 / 5 DAYS ✓

② .83 / 5D

③ 10.65 / 5 DAYS ✓

③ .53 / 5D

④ 9.73 / 5 DAYS ✓

④ .75 / 5D

⑤ 10.9 / 5 DAYS ✓

⑤ .96 / 5D

⑥ 8.33 / 4 DAYS ✓

⑥ .64 / 4D

Carl Ritter

① 10.78 / 4 DAYS ✓

① —

② 8.7 / 5 DAYS ✓

② .88 / 5D

③ 8.5 / 5 DAYS ✓

③ .56 / 5D

④ 7.76 / 5 DAYS ✓

④ .76 / 5D

⑤ 10.62 / 5 DAYS ✓

⑤ .78 / 5D

⑥ 9.12 / 4 DAYS ✓

⑥ .84 / 4D

Cycle 5

Marvin Barnidge

① —

② .83 / 5D

③ .52 / 5D

④ .70 / 5D

⑤ .93 / 5D

⑥ —

QUAD STUDY

Cycle 7

RTM

ODOMETER

Richard M. Bonse

- ① 13.8/4D ✓
- ② 13.43/5D ✓
- ③ 13.36/5D ✓
- ④ 14.24/5D ✓
- ⑤ 14.56/5D ✓
- ⑥ 15.53/4D ✓

- ① 1.5/4D
- ② —
- ③ 2.31/4D
- ④ 2.12/5D
- ⑤ 1.71/5D
- ⑥ 1.73/4D

Marchamaster

- ① 15.3/4D ✓
- ② 14.3/5D ✓
- ③ 15.0/5D ✓
- ④ 14.0/5D ✓
- ⑤ 14.0/5D ✓
- ⑥ 12.6/4D ✓

- ① —
- ② —
- ③ 1.38/5D
- ④ 1.36/5D
- ⑤ 1.25/5D
- ⑥ .77/4D

Bryan S. Lewis

- ① 14.0/4D ✓
- ② 13.0/5D ✓
- ③ 14.0/5D ✓
- ④ —
- ⑤ —
- ⑥ —

- ① .87/4D
- ② 1.0/5D
- ③ 1.2/5D
- ④ —
- ⑤ —
- ⑥ —

Cycle 8

QUAD STUDY

RTM

ODOMETER

Michael Alford

① 12.5/4D	✓	① 2.32/4D
② 11.6/5D	✓	② 1.65/5D
③ 10.83/5D	✓	③ 1.90/5D
④ 10.93/5D	✓	④ 1.3/5D
⑤ 11.93/5D	✓	⑤ 1.88/5D
⑥ 10.95/4D	✓	⑥ 2.61/3D

Gouland Bilmosti

① 5.33/4D	✓	① .67/4D
② 12.0/5D	✓	② .95/5D
③ 11.0/5D	✓	③ .62/5D
④ 11.4/5D	✓	④ .63/5D
⑤ 10.96/5D	✓	⑤ .98/5D
⑥ 11.3/3D	✓	⑥ 1.62/3D

Gary B. Smith

① 14.33/4D	✓	① .97/4D
② 14.1/5D	✓	② 1.0/5D
③ 13.2/5D	✓	③ .92/5D
④ 15.1/5D	✓	④ 1.3/5D
⑤ 14.4/5D	✓	⑤ .92/5D
⑥ 13.7/3D	✓	⑥ 1.03/3D

QUAD STUDY

Cycle 9

RTM

ODOMETER

Ken Chandler

- | | | |
|------------|---|-----------|
| ① 15.7/4D | ✓ | ① 1.03/3D |
| ② 15.43/5D | ✓ | ② 1.61/5D |
| ③ ——— | | ③ 1.23/5D |
| ④ 15.12/4D | ✓ | ④ ——— |
| ⑤ 16.0/5D | ✓ | ⑤ 1.31/3D |
| ⑥ 15.78/4D | | ⑥ 2.38/4D |

Anthony Cervantes

- | | | |
|------------|---|-----------|
| ① 14.12/4D | ✓ | ① 1.13/3D |
| ② 12.96/5D | ✓ | ② .83/5D |
| ③ 14.13/5D | ✓ | ③ 1.10/5D |
| ④ 13.58/4D | ✓ | ④ .67/3D |
| ⑤ ——— | | ⑤ ——— |
| ⑥ 11.33/4D | ✓ | ⑥ ——— |

Cycle 10

QUAD STUDY

RTM

ODOMETER

Edgar Women

- ① 13.1 / 3D ✓
- ② 10.3 / 5D ✓
- ③ 12.5 / 5D ✓
- ④ 5.3 / 4D ✓
- ⑤ —
- ⑥ —

- ① .92 / 3D
- ② .57 / 5D
- ③ .67 / 5D
- ④ —
- ⑤ —
- ⑥ —

Cycle 11

ROAD STUDY

ODOMETER

Charles Hammerson

RTM

①	7.9/4D	✓	①	0.53/3D
②	9.6/5D	✓	②	—
③	8.2/5D	✓	③	1.1/4D
④	10.6/5D	✓	④	—
⑤	8.6/5D	✓	⑤	0.85/5D
⑥	11.4/4D	✓	⑥	0.58/4D

Samuel Kott

①	—	✓	①	—
②	14.6/5D	✓	②	1.3/4D
③	14.5/5D	✓	③	1.3/4D
④	16.3/5D	✓	④	—
⑤	14.6/5D	✓	⑤	1.36/5D
⑥	15.1/4D	✓	⑥	0.5/4D

James Lockett

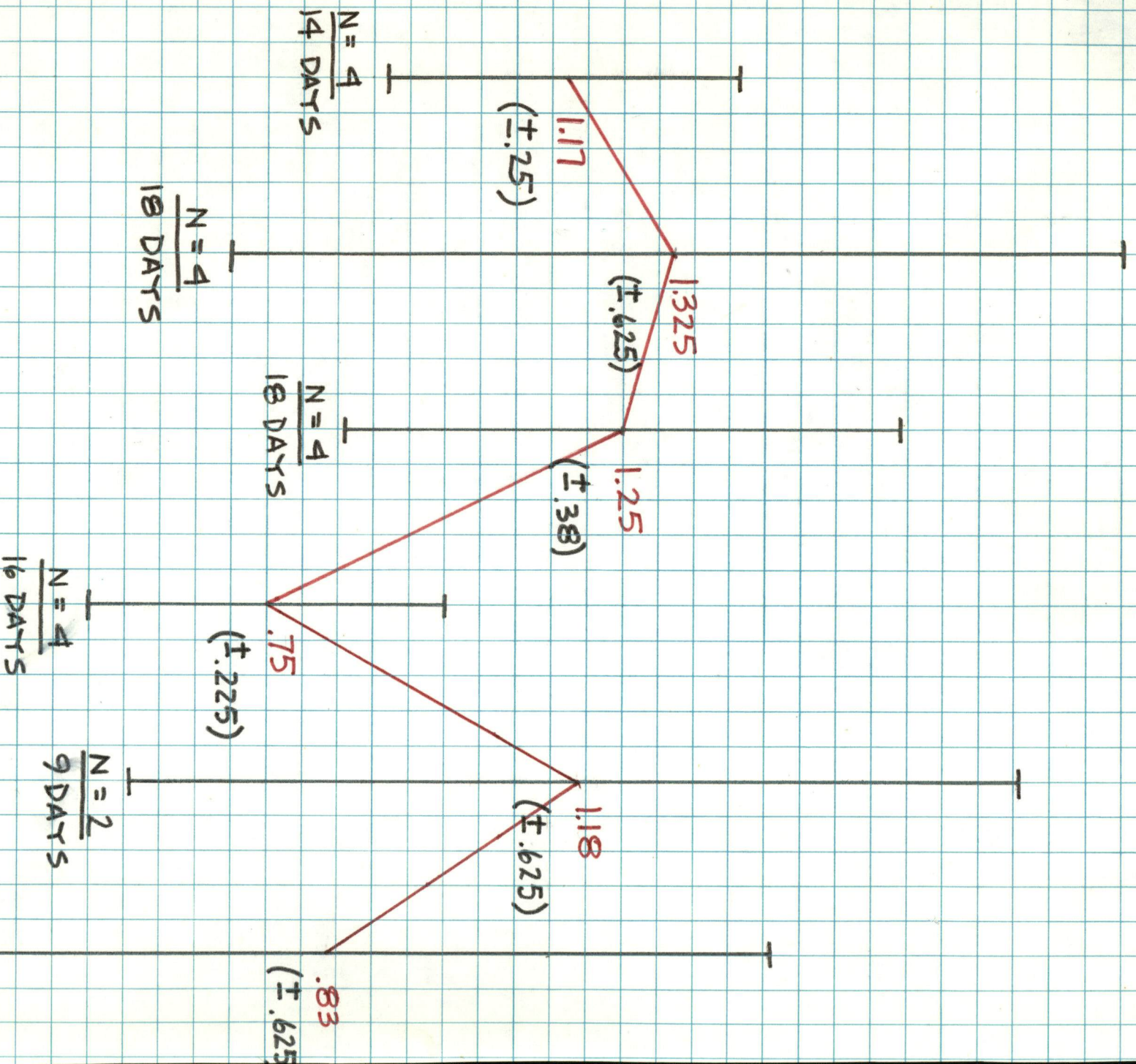
①	9.7/3D	✓	①	44/4D
②	11.0/5D	✓	②	0.5/4D
③	7.3/5D	✓	③	—
④	6.9/5D	✓	④	—
⑤	—	—	⑤	—
⑥	—	—	⑥	—

Also various dissolutions categories.
All are NON-SCI.

RTM STUDY

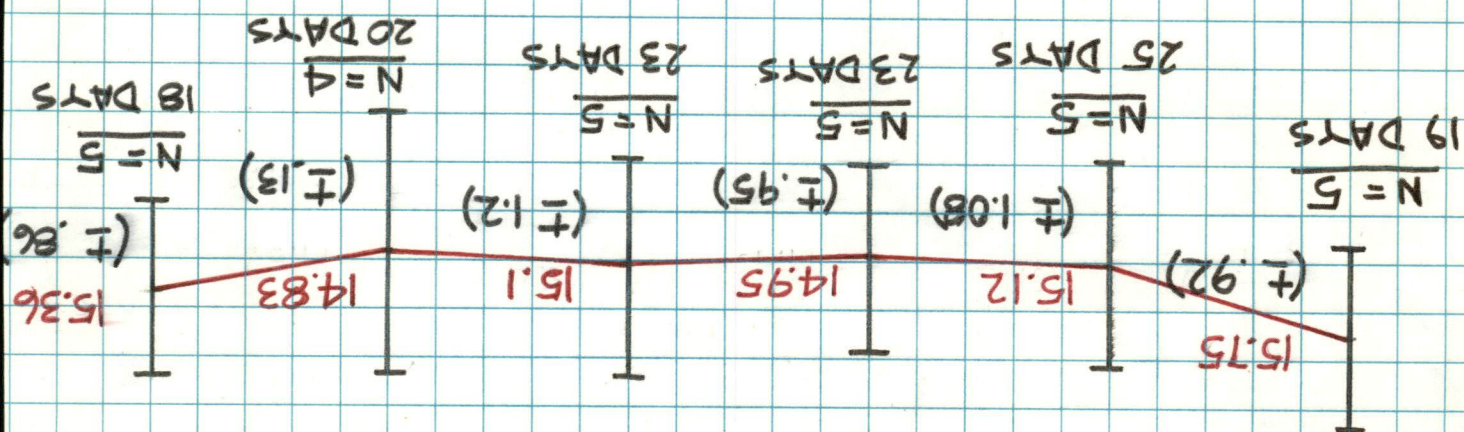
ODOMETER STUDY

FEDERAL PAIST
STUDY GROUP



HOURS → 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

RTM STUDY for participants in New Options program with Cerebral Palsy
Ave. daily out of bed time for each week in the New Options program.



CEREBRAL PALSY STUDY (ODOMETER)

Week One $N = 4$ $\text{ave} = \boxed{1.17}$

3D (.83) .34 .1156

3D (1.2) .03 .0009

4D (1.13) .04 .0016

4D (1.53) .36 .1296

.2477 .061925
4

14 DATA DAYS

$\sigma = \boxed{.248}$

Week Two $N = 4$ $\text{ave} = \boxed{1.325}$

4D (.7) .625 .3906

5D (1.4) .075 .0056

4D (1.2) .125 .3535

5D (2.0) .675 .8216

1.5713 = .392825
4

18 DATA DAYS

$\sigma = \boxed{.426}$

Week Three $N = 4$ $\text{ave} = \boxed{1.25}$

5D (.67) .58 .3364

4D (1.65) .4 .16

5D (1.15) .1 .01

5D (1.54) .29 .0841

.5905 = .1476
4

18 DATA DAYS

$\sigma = \boxed{.384}$

15 DATA DAYS

40 (1.33)
40 (.13)
40 (1.21)
30 (1.65)

.5
.7
.38
.82

.25
.49
.144
.6724

N = 4

ave = $\boxed{1.83}$

$$\sigma = \boxed{1.624}$$

$$\frac{1.5564}{4} = .3891$$

9 DATA DAYS

40 (1.56)
50 (1.81)

.625
.625

.3906
.3906

N = 2

ave = $\boxed{1.18}$

$$\sigma = \boxed{.625}$$

16 DATA DAYS

40 (1.47)
40 (.6)
30 (.89)
50 (1.04)

.28
.15
.14
.29

.0784
.0225
.0196
.0841

N = 4

ave = $\boxed{.75}$

$$\sigma = \boxed{.226}$$

$$\frac{.2046}{4} = .051$$

CEREBRAL PALSY STUDY (RTM)

Week One

N = 5

ave. = 15.74

40/ .06 .0036

30/ 1.76 3.0976

40) .54 .2916

40 .54 .2916

40 .74 .5476

$$\frac{4.232}{5} = .8464 \quad \sigma = \boxed{.92}$$

19 DATA DAYS

Week Two

N = 5

ave. = 15.12

50 .32 .1024

50 1.98 3.9204

50 1.32 1.7424

50 .22 .0484

50 .12 .0144

$$\frac{5.828}{5} = 1.1656 \quad \sigma = \boxed{1.08}$$

25 DATA DAYS

Week Three

N = 5

ave. = 14.95

40 .65 .4225

40 1.05 1.1025

50 1.72 2.9584

50 .05 .0025

50 .05 .0025

$$\frac{4.4884}{5} = .8976 \quad \sigma = \boxed{.95}$$

23 DATA DAYS

20 DATA DAYS

$$\sigma = \boxed{1.326}$$

$$= 1.7598 = \frac{7.0392}{4}$$

$$\begin{array}{r} 2.0164 \\ 7.0392 \\ \hline 2.789 \\ 1.3689 \end{array}$$

$$\begin{array}{r} 1.42 \\ .93 \\ 1.67 \\ 1.17 \end{array}$$

$$\begin{array}{r} 5D \quad (16.25) \\ 5D \quad (13.9) \\ 5D \quad (13.16) \\ 5D \quad (16.0) \end{array}$$

Week Five

$$N = 4$$

$$\text{ave.} \quad \boxed{14.83}$$

$$\sigma = \boxed{1.19}$$

$$= 1.424 = \frac{7.21}{5}$$

$$\begin{array}{r} .01 \\ 3.61 \\ .25 \\ 2.25 \\ 1.0 \end{array}$$

$$\begin{array}{r} .1 \\ 1.9 \\ .5 \\ 1.5 \\ 1. \end{array}$$

$$\begin{array}{r} 5D \quad (15.0) \\ 5D \quad (13.2) \\ 5D \quad (14.6) \\ 3D \quad (16.6) \\ 5D \quad (16.1) \end{array}$$

Week Four

$$N = 5$$

$$\text{ave.} \quad \boxed{15.1}$$

GP - RTM

ave. $\boxed{15.36}$

$N = 5$

Week Six

4D	(15.0)	.36	
4D	(16.3)	.94	
4D	(15.62)	.26	
3D	(13.88)	1.48	
3D	(16.0)	.64	

18 DATA DATS

$\sigma = \boxed{.858}$

$$= \frac{3.6802}{5} = .736 =$$

CEREBRAL PALSY STUDY.

CYCLE ELEVEN

(electric) Giles Provost ODO, ① .83/3D ② .7/4D ③ .67/5D ④ .47/4D ⑤ ——— ⑥ .33/4D

RTM, ① 15.8/4D ② 14.8/5D ③ 15.6/5D ④ 16.1/5D ⑤ ——— ⑥ 15.0/4D.

(mammal) CYCLE TEN

Timothy Farcher ODO, ① 1.2/3D ② 1.4/5D ③ 1.65/4D ④ .6/4D ⑤ .56/4D ⑥ .13/4D

RTM, ① 17.5/3D ② 17.1/5D ③ 16.0/4D ④ 16.6/3D ⑤ 16.0/5D ⑥ 16.3/4D

CYCLE NINE

(mammal) Kimball White.

ODO, ① 1.13/4D ② 1.2/4D ③ 1.15/5D ④ .89/3D ⑤ ——— ⑥ 1.21/4D

RTM, ① 15.2/4D ② 13.9/5D ③ 13.23/5D ④ 14.6/5D ⑤ 13.16/5D ⑥ 15.62/4D.

CYCLE EIGHT

(electric) John Larrie Vicken.

ODO, ① 1.53/4D ② 2.0/5D ③ 1.54/5D ④ 1.04/5D ⑤ 1.81/5D ⑥ 1.65/3D

RTM, ① 15.2/4D ② 14.9/5D ③ 14.9/5D ④ 13.2/5D ⑤ 13.9/5D ⑥ 13.83/3D

Cathleen Heartfield.

(no wheelchair)

RTM, ① 15.0/4D ② 15.0/5D ③ 15.0/5D ④ 15.0/5D ⑤ 16.25/5D ⑥ 16.0/3D

ODOMETER STUDY ; RTM STUDY

DISABILITY CATEGORIES (CON'T)

MUSCULAR DYSTROPHY
Joseph L. Colon ⑤
(electric chair)

ODO Δ 1) — 4) 2.0/5D
2) 1.5/5D 5) —
3) 1.2/5D 6) —

FREDRIX ATAXIA
Russel L. Potin ⑤ ✓
(manual chair)

ODO Δ 1) — 4) 1.2/5D
2) 1.1/5D 5) 1.2/5D
3) 1.0/5D 6) .9/4D

POLIO
Ricardo Trevino ⑤
(electric chair)

ODO Δ 1) — 4) 5.0/5D
2) 3.6/5D 5) 7.2/5D
3) 5.2/5D 6) —

BRAIN DAMMAGE
Ernest Wilson ⑤
(electric chair)

ODO Δ 1) — 4) 1.7/5D
2) 1.5/5D 5) 1.5/5D
3) 1.0/5D 6) 1.7/4D

SPINAL BIFIDA
Vicky MacDaniel ⑩
(manual chair)

ODO Δ 1) — 4) 1.2/4D
2) 1.95/4D 5) 2.8/4D
3) 2.3/4D 6) 2.2/3D

RTM Δ 1) — 3) 16.6/4D 5) 16.4/4D
2) 16.5/4D 4) — 6) 15.7/3D

Duke Conley ⑪
(manual chair)

ODO Δ 1) — 4) .4/4D
2) .53/4D 5) —
3) .76/3D 6) .5/4D

RTM Δ 1) 13.5/4D 3) 14.7/4D 5) 11.8/3D
2) 14.1/4D 4) 12.3/5D 6) 14.5/4D.

Odometer daily averages per cycle
(daily mileage)

RTM daily averages per cycle
(daily out of bed time)

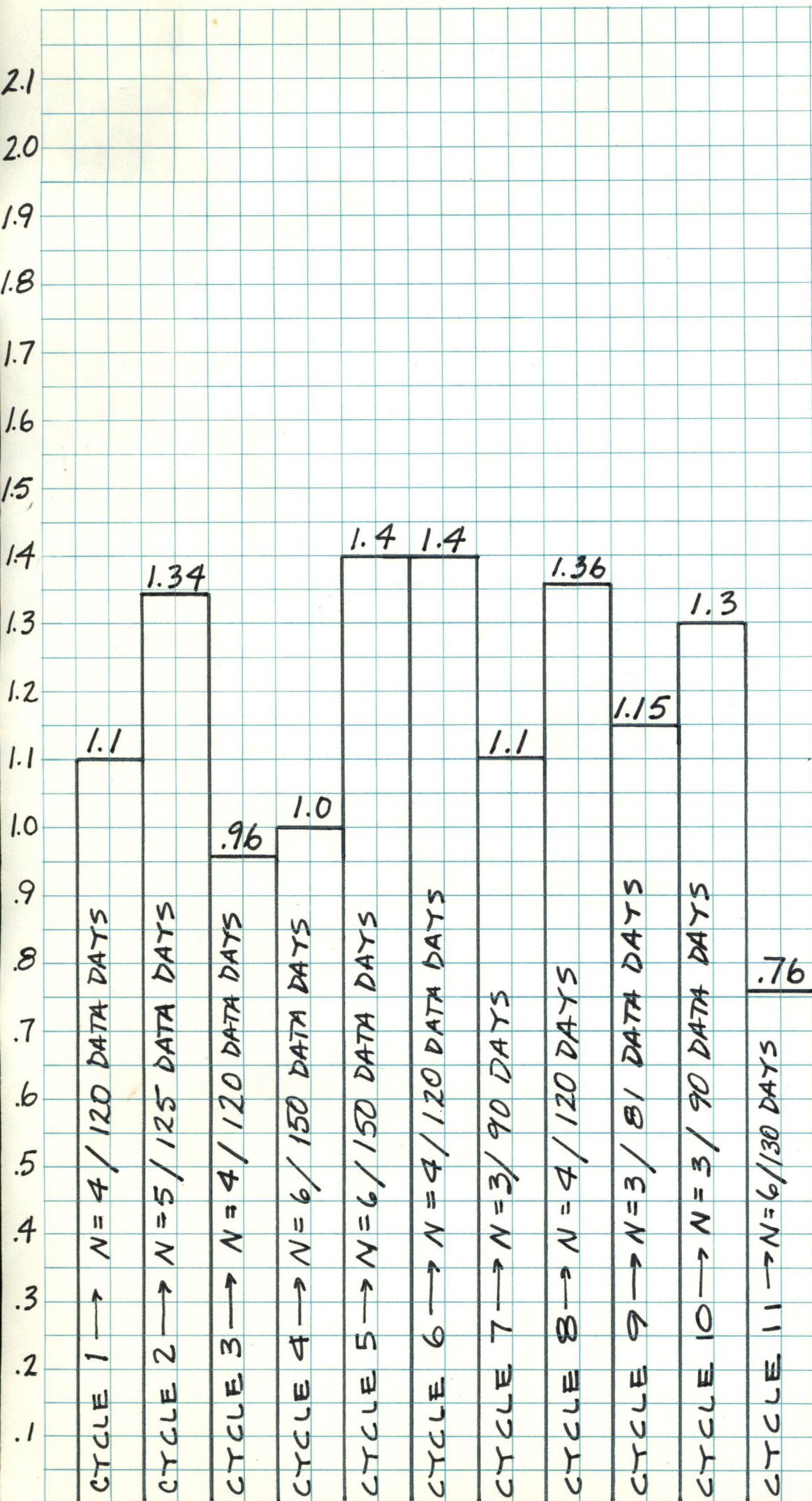
→ Normal curves - averages and standard
deviations for both odometer and RTM.

DAILY AVERAGES
BY CYCLE

ODOMETER DAILY AVE.
(CYCLES 1 THRU 11)

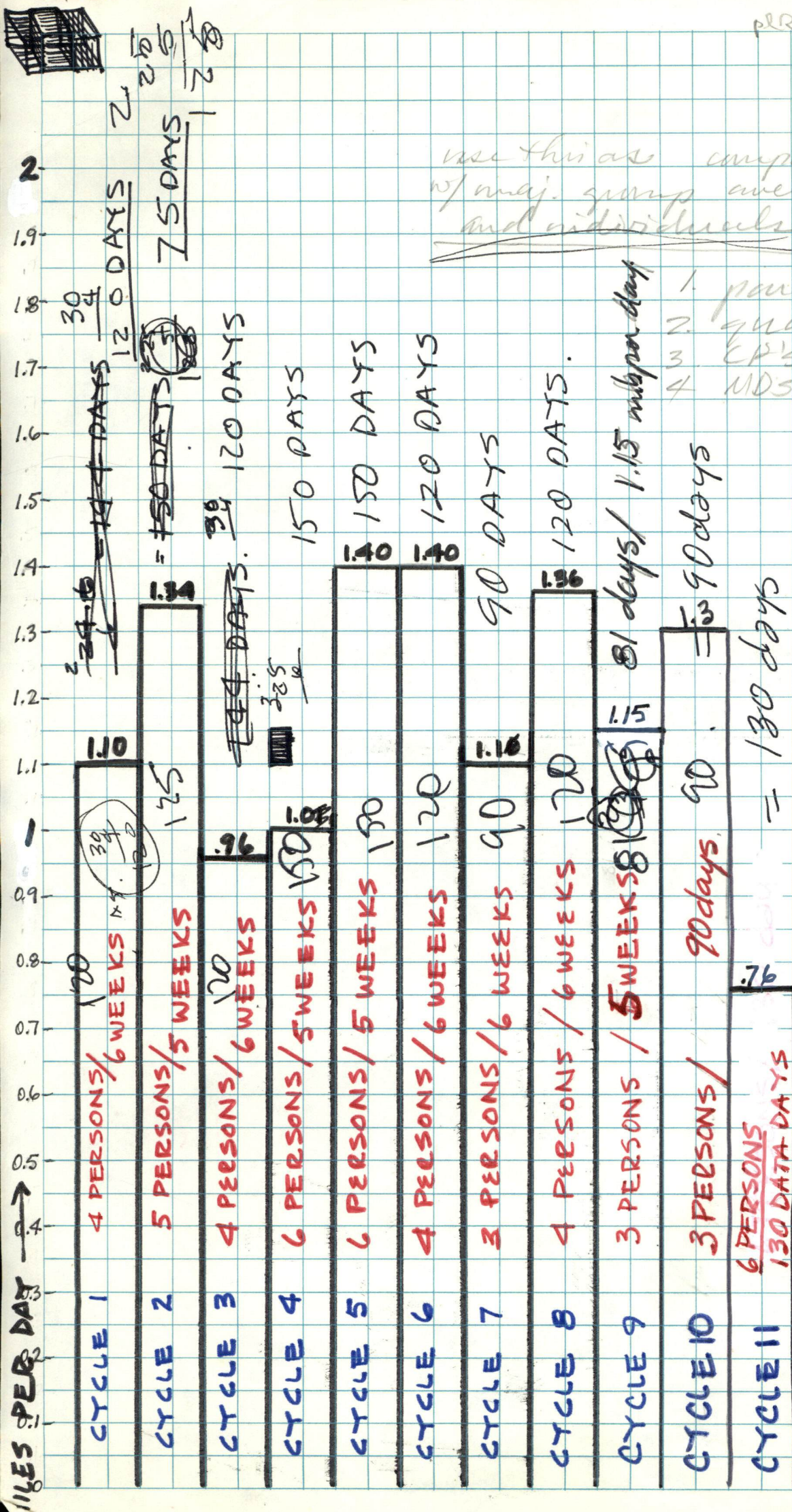
RTM DAILY AVE.
(CYCLES 6 THRU 11)

ODOMETER DAILY AVERAGES



PLR participant

PLR participant



1. paras
2. quads
3. CP's
4. MD's

sheep 02/ =

1.3 90 days

76

6 PERSONS
130 DATA DAYS

ODOMETER — averages calculated for miles per day.

CYCLE ONE

1.46	—	#1	—	6 weeks
1.3	—	#2	—	6 weeks
.26	—	#3	—	6 weeks
1.41	—	#4	—	6 weeks

ave. = 1.11

4 PARTICIPANTS
6 WEEKS
120 DAYS

CYCLE TWO

1.31	—	#1	—	5 weeks
1.84	—	#2	—	5 weeks
1.53	—	#3	—	5 weeks
1.14	—	#4	—	5 weeks
.88	—	#5	—	5 weeks

ave. = 1.34

5 PARTICIPANTS
5 WEEKS
125 DAYS

CYCLE THREE

1.2	—	#1	—	6 weeks
.94	—	#2	—	6 weeks
1.03	—	#3	—	5 weeks
.68	—	#4	—	5 weeks

1.96

ave. =

4 PARTICIPANTS
6 WEEKS
120 DAYS

CYCLE FOUR

1.42 — Br. — 5 weeks
1.2 — OL. — 5 weeks
.91 — Tu. — 5 weeks
1.62 — Hi — 5 weeks
.26 — Wy — 5 weeks
.70 — — 5 weeks

ave. =

1.01

6 PARTICIPANTS

5 WEEKS

150 DAYS

CYCLE FIVE

.81 — E.Ba — 5 weeks
.83 — R.Pa — 5 weeks
1.2 — E.Wi — 5 weeks
3.8 — R.Tu — 5 weeks
1.3 — J.Co — 5 weeks
.51 — M.Ba — 5 weeks

ave. =

1.40

6 PARTICIPANTS

5 WEEKS.

150 DAYS

CYCLE SIX

ave. = 1.40 miles per day...

4 PARTICIPANTS

6 WEEKS

120 DAYS

CYCLE SEVEN

ave. = 1.10 miles per day...

3 PARTICIPANTS

6 WEEKS

90 DAYS

CYCLE EIGHT

1.94	—	M. Al	—	6 weeks	} $\begin{array}{l} \text{ave.} = \\ \boxed{1.36} \\ \hline 4 \text{ PARTICIPANTS} \\ \hline 6 \text{ WEEKS.} \\ 120 \text{ DAYS} \end{array}$
.91	—	G. Bi	—	6 weeks	
1.6	—	G. Vi	—	6 weeks	
1.02	—	G. Sm	—	6 weeks	

CYCLE NINE

.8	—	A. Ce.	—	4 weeks	} $\begin{array}{l} \text{ave.} = \\ \boxed{1.15} \\ \hline 3 \text{ PARTICIPANTS} \\ \hline 81 \text{ DAYS} \end{array}$
1.5	—	K Ch	—	5 weeks	
1.1	—	K Wh	—	5 weeks	

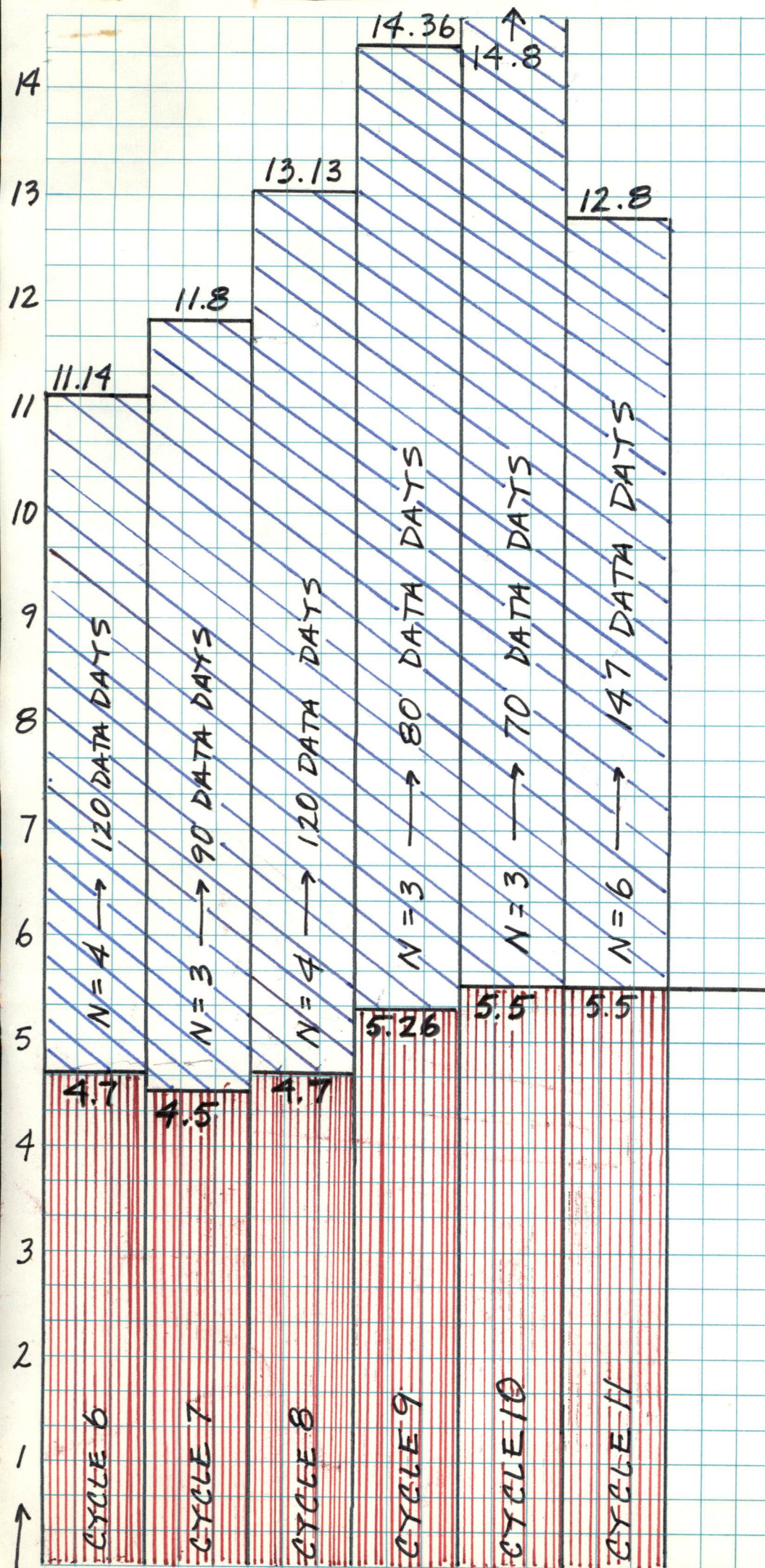
CYCLE TEN

Tim Fancher	—	.9	—	6 weeks	} $\begin{array}{l} \text{ave.} = \\ \boxed{1.3} \\ \hline 3 \text{ PARTICIPANTS} \\ \hline 90 \text{ DAYS} \end{array}$
V. Ca	—	2.1	—	5 weeks	
E. Wa	—	.7	—	3 weeks	

CYCLE ELEVEN

HC Ce	—	1.16	—	5 weeks	} $\begin{array}{l} \text{ave.} = \\ \boxed{.76} \\ \hline 6 \text{ PARTICIPANTS} \\ \hline 130 \text{ DAYS.} \end{array}$
D Co	—	.55	—	4 weeks	
C. Ha	—	.77	—	4 weeks	
S. Lo	—	1.12	—	4 weeks	
J. Lo	—	.35	—	4 weeks	
G. Pr	—	.6	—	5 weeks	

RTM DAILY AVERAGES



HOURS PER DAY

RTM/ OUT OF BED TIME AVERAGES

CYCLE 6

<u>00BT</u>	<u>SCHEDULED TIME</u>
10.8 → G. Hi	→ 4.7
14.7 → J. L. Ba	→ 5.0
9.9 → R. Mu	→ 4.6
<u>9.25</u> → C. Ri	→ <u>4.5</u>
(11.15) → <u>00BT AVE.</u>	(4.7) ST. AVE.

CYCLE 7

<u>00BT</u>	<u>SCHEDULED TIME</u>
14.15 → R. M. Bo	→ 4.51
14.2 → M. La	→ 4.56
<u>7.04</u> → B. Le	→ <u>4.58</u>
(11.8) → <u>00BT AVE.</u>	(4.55) ST. AVE.

CYCLE 8

<u>00BT</u>	<u>SCHEDULED TIME</u>
11.47 → M. J. Al	→ 5.02
10.34 → G. E. Bi	→ 5.21
14.32 → J. L. Vi	→ 5.02
14.15 → G. B. Sm	→ 4.77
<u>15.38</u> → C. He	→ <u>5.15</u>
(13.13) → <u>00BT AVE.</u>	(5.03) ST. AVE.

CYCLE 9

SCHEDULED TIME

00BT

13.2 → A. Ce → 5.3

15.6 → K Ch → 5.3

14.3 → K Wh → 5.2

(14.36) → 00BT AVE. → 80 DAYS → (5.26) S.T. AVE.

CYCLE 10

SCHEDULED TIME

00BT

16.3 → V Ca (MC) → 5.56

16.5 → T Fa → 5.55

10.3 → E Wa → 5.5

(14.8) → 00BT AVE. → 70 DAYS → (5.5) ST. AVE.

CYCLE 11

SCHEDULED TIME

00BT

14.9 → HC Ce → 5.6

13.5 → D Co → 5.4

9.4 → C Ha → 5.5

15.0 → S ho → 5.6

8.7 → J ho → 5.6

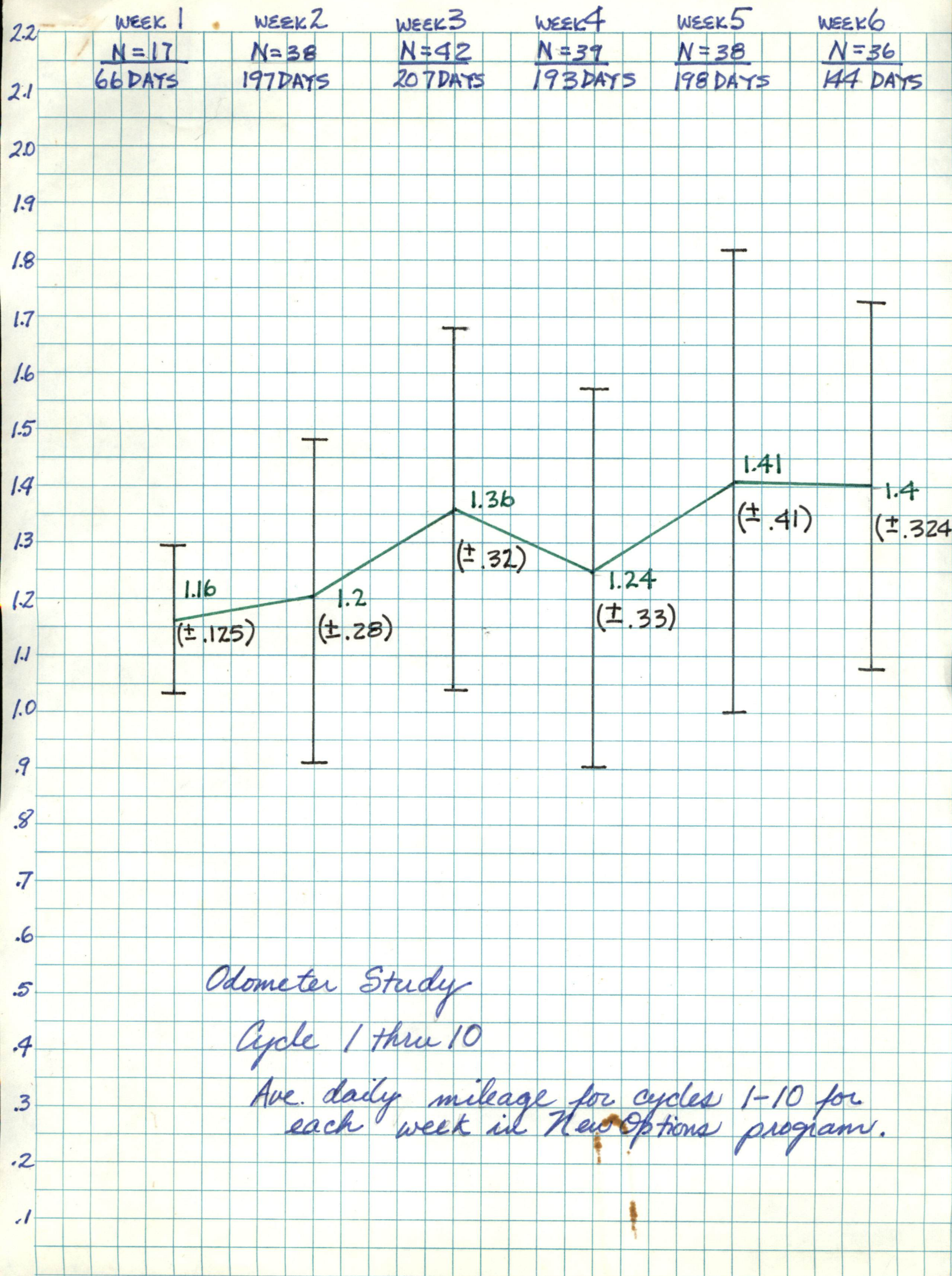
15.46 → G Pr → 5.6

(12.8) → 00BT AVE. → 147 DAYS → (5.55) ST. AVE.

CYCLES 1 THRU 10

Average daily mileage for
each week in New Options
program

(Data collected from an average of
35 participants for each weekly
category, over 10, 6 week cycles.)



Standard Deviation

Instructions.

1. Record # of participants from which data is collected (cycles 1 thru 10) under each weekly category.
2. Record # of possible data days and record # of data from which data is collected.
3. In calculating the standard deviation --
 - a. find the ave. of all daily averages from that particular week of cycle 1 thru 10.
 - b. subtract that final average from each daily average of each particular cycle.
 - c. square the difference
 - d. add all differences together
 - e. divide by # of cycles from which data was taken for that particular week.
 - f. find the square root of the last result and this is the final anticipated outcome.

Calculations for standard deviation

Week 1 → ave (cycle 1-10) = 1.16

(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
2P. 4D. = 8 - C1	(1.2) .04	.0016
4P. 4D. = 16 - C3	(1.1) .06	.0036
2P. 4D. = 8 - C7	(1.2) .04	.0016
4P. 4D. = 16 - C8	(1.4) .24	.0576
3P. 4D. = 12 - C9	(1.0) .16	.0256
2P. 3D. = 6 - C10	(1.1) .06	.0036

TOTAL P = 17
TOTAL D = (P x D) = 66

$\frac{6}{.0936}$

= .0156 = S =

.125

(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
3P. 4D. = 12 - C1	(1.6) .4	.16
5P. 5D. = 25 - C2	(1.3) .1	.01
4P. 5D. = 20 - C3	(1.0) .2	.04
6P. 5D. = 30 - C4	(1.9) .3	.09
6P. 5D. = 30 - C5	(1.6) .4	.16
3P. 5D. = 15 - C6	(.9) .3	.09
1P. 5D. = 5 - C7	(.8) .4	.16
4P. 5D. = 20 - C8	(1.4) .2	.04
3P. 5D. = 15 - C9	(1.2) 0	0
3P. 5D. = 15 - C10	(1.3) .1	.01

TOTAL P = 38
TOTAL D = (P x D) = 197

$\frac{10}{.76}$

= .076 = S =

.28

3P. 4D.

Week 3 $\rightarrow$ ave (cycle 1-10) = 1.36

	(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
3P.5D, 16	C ₁	(2.0) .64	.4096
5P.5D, 26	C ₂	(1.3) .06	.0036
4P.5D, 20	C ₃	(1.1) .26	.0676
7P.5D, 35	C ₄	(.8) .56	.3136
6P.5D, 30	C ₅	(1.7) .34	.1156
4P.5D, 26	C ₆	(1.2) .16	.0256
3P.5D, 16	C ₇	(1.5) .14	.0196
4P.5D, 20	C ₈	(1.3) .06	.0036
3P.5D, 16	C ₉	(1.2) .16	.0256
3P.4D, 12	C ₁₀	(1.5) .14	.0196

$$\frac{1.004}{10} = .1004 = \leq \boxed{.317}$$

TOTAL P 42

TOTAL D = (P x D_i) = 207 DAYS

Week 4 $\rightarrow$ ave (cycle 1-10) = 1.24

	(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
4P.5D, 20	C ₁	(1.6) .36	.1296
5P.5D, 25	C ₂	(1.2) .04	.0016
2P.5D, 10	C ₃	(1.1) .14	.0196
7P.5D, 35	C ₄	(1.0) .24	.0576
6P.5D, 30	C ₅	(2.0) .76	.5776
4P.5D, 20	C ₆	(1.4) .16	.0256
3P.5D, 15	C ₇	(1.2) .04	.0016
4P.5D, 20	C ₈	(1.1) .14	.0196
2P.5D, 10	C ₉	(.9) .34	.1156
2P.4D, 8	C ₁₀	(.9) .34	.1156

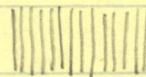
$$\frac{1.064}{10} = .1064 = \leq \boxed{.33}$$

TOTAL P =

TOTAL D = (P x D_i) =

Week 5 ave (cycle 1-10) $\rightarrow$ 1.41

	(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
4P.5D, 20	C ₁	(1.2) - .21	.0441
5P.5D, 26	C ₂	(1.5) .09	.0081
3P.5D, 15	C ₃	(.9) - .51	.2601
7P.5D, 36	C ₄	(1.0) - .41	.1681
5P.5D, 26	C ₅	(2.4) .99	.9801
4P.5D, 20	C ₆	(1.5) .09	.0081
3P.5D, 15	C ₇	(1.1) - .31	.0961
4P.5D, 20	C ₈	(1.5) .09	.0081
1P.5D, 5	C ₉	(1.3) - .11	.0121
2P.4D, 8	C ₁₀	(1.7) .29	.0841



TOTAL P = 36
TOTAL D = (P x D_i) =

$$\frac{1.669}{10} = .1669 \quad \rightarrow \quad \boxed{.409}$$

Week 6 ave (cycle 1-10) $\rightarrow$ 1.40

	(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
3P.4D,	C ₁	(1.5) .1	.01
5P.4D,	C ₂	(1.8) .4	.16
4P.4D,	C ₃	(1.2) - .2	.04
6P.4D,	C ₄	(1.5) .1	.01
3P.4D,	C ₅	(1.2) - .2	.04
4P.4D,	C ₆	(1.2) - .2	.04
3P.4D,	C ₇	(.9) - .5	.25
4P.4D,	C ₈	(1.7) .3	.09
2P.4D,	C ₉	(1.9) .5	.25
2P.4D,	C ₁₀	(1.0) - .4	.16

TOTAL P = 36
TOTAL D = (P x D_i) = 144

$$\frac{1.05}{10} = .105 \quad \rightarrow \quad \boxed{.324}$$

ODOMETER STUDY

182

CYCLE ONE

DAILY AVE. PER WEEK.

change daily averages

multiply ave $\times$ # data base day
add and divide by total data days

WEEK ONE

[2266(E)] $\rightarrow$ 1.35/4 DAYS.

[224BE] $\rightarrow$.83/4 DAYS + [224BM] $\rightarrow$.28/4 DAYS. = 1.11

[253CM] $\rightarrow$ NO DATA

[260RE] $\rightarrow$ NO DATA

WEEK ONE DAILY AVERAGE =
1.2 MLS/DAY
4 DAY DATA BASE
2 PARTICIPANTS

WEEK TWO

[2266(E)] $\rightarrow$ 1.85/4 DAYS

[224BE] $\rightarrow$ 1.45/4 DAYS + [224BM] $\rightarrow$.46/4 DAYS. 1.91

[253CM] $\rightarrow$ 1.04/5 DAYS

[260RE] $\rightarrow$ NO DATA

WEEK TWO DAILY AVE. =
1.6 MLS/DAY
4.5 DAY DATA BASE
3 PARTICIPANTS

WEEK THREE

[2266(E)] $\rightarrow$ 1.74/5 DAYS

[224BE] $\rightarrow$ 2.32/5 DAYS + [224BM] $\rightarrow$.28/5 DAYS.

[253CM] $\rightarrow$ 1.68/5 DAYS

[260RE] $\rightarrow$ NO DATA

2.0 MLS/DAY
5 DAY DATA BASE
3 PARTICIPANTS

WEEK FOUR

[2266E] $\rightarrow$ 1.46/5 DAYS.

[224BE] $\rightarrow$ 2.26/5 DAYS + [224BM] $\rightarrow$.22/5 DAYS

[253CM] $\rightarrow$ 1.62/5 DAYS

[260RE] $\rightarrow$ 1.0/5 DAYS

1.6 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK FIVE

[2266E] $\rightarrow$ 1.1/5 DAYS

[224BE] $\rightarrow$.76/5 DAYS + [224BM] $\rightarrow$.4/5 DAYS.

[253CM] $\rightarrow$ 1.3/5 DAYS

[260RE] $\rightarrow$ 1.2/5 DAYS.

1.2 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK SIX

[2266E] $\rightarrow$ 2.4/4 DAYS.

[224BE] $\rightarrow$.70/3 DAYS. + [224BM] $\rightarrow$.02/4 DAYS.

[253CM] $\rightarrow$ NO DATA

[260RE] $\rightarrow$ 1.1/4 DAYS

1.5 MLS/DAY
4 DAY DATA BASE - 3 PARTICIPANTS

ODOMETER STUDY

CYCLE TWO

WEEK ONE

[JWBM] → NO DATA
[GDGE] → NO DATA
[DLNE] → NO DATA
[GDRM] → NO DATA
[PWM] → NO DATA

WEEK TWO

[JWBM] → 1.8 / 5 DAYS
[GDGE] → 1.3 / 5 DAYS
[DLNE] → 1.0 / 5 DAYS
[GDRM] → 1.26 / 5 DAYS
[PWM] → 1.3 / 5 DAYS

1.3 MLS./DAY
5 DAY DATA BASE
5 PARTICIPANTS

WEEK THREE

[JWBM] → 1.4 / 5 DAYS
[GDGE] → .92 / 5 DAYS
[DLNE] → 1.3 / 5 DAYS
[GDRM] → 1.74 / 5 DAYS
[PWM] → 1.6 / 5 DAYS

1.3 MLS./DAY
5 DAY DATA BASE
5 PARTICIPANTS

WEEK FOUR

[JWBM] → 1.6 / 5 DAYS
[GDGE] → .54 / 5 DAYS
[DLNE] → .74 / 5 DAYS
[GDRM] → 1.6 / 5 DAYS
[PWM] → 1.7 / 5 DAYS

1.2 MLS./DAY
5 DAY DATA BASE
5 PARTICIPANTS

WEEK FIVE

[JWBM] → 1.1 / 5 DAYS
[GDGE] → 1.7 / 5 DAYS
[DLNE] → .74 / 5 DAYS
[GDRM] → 2.3 / 5 DAYS
[PWM] → 1.6 / 5 DAYS

1.5 MLS./DAY
5 DAY DATA BASE
5 PARTICIPANTS

WEEK SIX

[JWBM] → 1.6/2 DAYS
[GDGE] → 2.1/4 DAYS
[DLNE] → .64/4 DAYS
[GDEM] → 2.9/4 DAYS
[PWM] → 1.8/4 DAYS

1.8 MLS/DAYS

4 DAY DATA BASE

5 PARTICIPANTS

ODOMETER STUDY

CYCLE THREE

WEEK ONE

[PLM] → .9 MLS/4 DAYS
[RGM] → 1.1/4 DAYS
[CLM] → 2.0/4 DAYS
[DJM] → .5/4 DAYS

1.1 MLS/DAY
4 DAY DATA BASE
4 PARTICIPANTS

WEEK TWO

[PLM] → 1.4 MLS/5 DAYS
[RGM] → .6/5 DAYS
[CLM] → 1.4/5 DAYS
[DJM] → .7/5 DAYS

1.0 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK THREE

[PLM] → 1.4 MLS/5 DAYS
[RGM] → 1.2/5 DAYS
[CLM] → 1.0/5 DAYS
[DJM] → .75/5 DAYS

1.1 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK FOUR

[PLM] → 1.3/5 DAYS
[RGM] → .86/5 DAYS
[CLM] → NO DATA
[DJM] → NO DATA

1.1 MLS/DAY
5 DAY DATA BASE
2 PARTICIPANTS

WEEK FIVE

[PLM] → 1.3/5 DAYS
[RGM] → 1.1/5 DAYS
[CLM] → .3/5 DAYS
[DJM] → NO DATA

.9 MLS/DAY
5 DAY DATA BASE
3 PARTICIPANTS

WEEK SIX

[PLM] → 1.4/4 DAYS.
[RGM] → 1.2/4 DAYS.
[CLM] → 1.2/4 DAYS.
[DJM] → 1.1/4 DAYS.

1.2 MLS/DAY
4 DAY DATA BASE
4 PARTICIPANTS.

ODOMETER STUDY

CYCLE FOUR

WEEK ONE

[FBM] →

[GOM] →

[STM] →

[RHM] →

[SWM] →

[GWE] →

[SWAM] →

NO DATA

WEEK TWO

[FBM] → 1.4/5D

[GOM] → .76/5D

[STM] → .9/5D

[RHM] → 1.2/5D

[SWM] → .3/5D

[GWE] → NO DATA

[SWAM] → .7/5D

.9 MLS/DAY
5 DAY
DATA BASE
6 SUBJECTS

WEEK THREE

[FBM] → 1.0/5D

[GOM] → 1.5/5D

[STM] → .4/5D

[RHM] → 1.5/5D

[SWM] → .3/5D

[GWE] → .5/5D

[SWAM] → .5/5D

.8 MLS/DAY
5 DAY
DATA BASE
7 SUBJECTS

WEEK FOUR

[FBM] → 1.5/5D

[GOM] → 1.0/5D

[STM] → 1.0/5D

[RHM] → 1.6/5D

[SWM] → .2/5D

[GWE] → .9/5D

[SWAM] → .7/5D

1.0 MLS/DAY
5 DAY
DATA BASE
7 SUBJECTS

WEEK FIVE

[FBM] → 1.3/5D

[GOM] → 1.3/5D

[STM] → 1.2/5D

[RHM] → 1.6/5D

[SWM] → .2/5D

[GWE] → NO DATA

[SWAM] → .9/5D

1.1 MLS/DAY
5 DAY
DATA BASE
6 SUBJECTS

WEEK SIX

[FBM] → 2.4/4D

[GOM] → 1.7/4D

[STM] → 1.2/4D

[RHM] → 2.6/4D

[SWM] → .4/4D

[GWE] → .5/4D

[SWAM] → NO DATA

1.5 MLS/DAY
4 DAY
DATA BASE
6 SUBJECTS

ODOMETRIC STUDY

CIRCLE FIVE

WEEK ONE

[EBM] →
[RPM] →
[EWE] →
[RTE] →
[JCE] →
[MBE] →

NO DATA

[EBM] → 1.1/5D
[RPM] → 1.1/5D
[EWE] → 1.5/5D
[RTE] → 3.4/5D
[JCE] → 1.5/5D
[MBE] → .8/5D

WEEK TWO

1.6 MILES/DAY
5 DAY
DATA BASE
6 PARTICIPANTS

WEEK FOUR

[EBM] → .9/5D

[RPM] → 1.2/5D

[EWE] → 1.7/5D

[RTE] → 5.0/5D

[JCE] → 2.0/5D

[MBE] → .7/5D

1.7 MILES/DAY

5 DAY

DATA BASE

6 PARTICIPANTS

WEEK THREE

[EBM] → 1.3/5D

[RPM] → 1.0/5D

[EWE] → 1.0/5D

[RTE] → 5.2/5D

[JCE] → 1.2/5D

[MBE] → .5/5D

WEEK FIVE

[EBM] → 1.3/5D

[RPM] → 1.2/5D

[EWE] → 1.5/5D

[RTE] → 7.2/5D

[JCE] → NO DATA

[MBE] → .9/5D

2.4 MILES/DAY

5 DAY DATA BASE

5 PARTICIPANTS

WEEK SIX

[EBM] → 1.0/5D

[RPM] → .9/4D

[EWE] → 1.7/4D

[RTE] → NO DATA

[JCE] → NO DATA

[MBE] → NO DATA

1.2 MILES/DAY
4 DAY DATA BASE
3 PARTICIPANTS

ODOMETRIC STUDY

CYCLE SIX

WEEK ONE

[JLBM]
[GHE]
[RBM]
[CRE]

NO DATA

WEEK TWO

[JLBM] NO DATA
[GHE] 1.0 MLS/5DA
[RBM] .8 MLS/5DA
[CRE] .9 MLS/5DA

9 MLS/DAY
5 DAY DATA BASE
3 PARTICIPANTS

WEEK THREE

[JLBM] 2.0 MLS/5DA
[GHE] 1.5 MLS/5DA
[RBM] .5 MLS/5DA
[CRE] .6 MLS/5DA

1.2 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK FOUR

[JLBM] 2.3 MLS/5DA
[GHE] 1.5 MLS/5DA
[RBM] .8 MLS/5DA
[CRE] .8 MLS/5DA

1.4 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK FIVE

[JLBM] 2.3 MLS/5DA
[GHE] 1.8 MLS/5DA
[RBM] 1.0 MLS/5DA
[CRE] .8 MLS/5DA

1.5 MLS/DAY
5 DAY DATA BASE
4 PARTICIPANTS

WEEK SIX

[JLBM] 2.5 MLS/4DA
[GHE] .7 MLS/4DA
[RBM] .6 MLS/4DA
[CRE] .8 MLS/4DA

1.2 MLS/DAY
4 DAY DATA BASE
4 PARTICIPANTS

ODOMETER STUDY

CYCLE SEVEN

WEEK ONE

[RMBE] 1.4 MLS/4DA
[MLM] NO DATA
[BLE] .9 MLS/4DA

1.2 MLS/DAY
4 DAY
DATA BASE
2 PARTICIPANTS

WEEK TWO

[RMBE] NO DATA
[MLM] NO DATA
[BLE] .8 MLS/5DA

.8 MLS/DAY
5 DAY
DATA BASE
1 PARTICIPANT

WEEK THREE

[RMBE] 2.0 MLS/5DA
[MLM] 1.3 MLS/5DA
[BLE] 1.1 MLS/5DA

1.5 MLS/DAY
5 DAY DATA BASE
3 PARTICIPANTS

WEEK FOUR

[RMBE] 2.0 MLS/5DA
[MLM] 1.3 MLS/5DA
[BLE] .2 MLS/5DA

1.2 MLS/DAY
5 DAY
DATA BASE
3 PARTICIPANTS

WEEK FIVE

[RMBE] 2.0 MLS/5DA
[MLM] 1.2 MLS/5DA
[BLE] 0 MLS/5DA

1.1 MLS/DAY
5 DAY
DATA BASE
3 PARTICIPANTS

WEEK SIX

[RMBE] 1.7 MLS/4DA
[MLM] .8 MLS/4DA
[BLE] .10 MLS/4 DAY ME.

.9 MLS/DAY
4 DAY
DATA BASE
3 PARTICIPANTS

ODOMETRIC STUDY

CYCLE EIGHT

WEEK ONE

[MAE] 2.3 M/S/4DA
[GBE] 1.7 M/S/4DA
[LVE] 1.5 M/S/4DA
[GSM] 1.0 M/S/4DA

1.4 M/S/DAY
4 DAY
DATA BASE
4 PARTICIPANTS

[MAE] 1.7 M/S/5DA
[GBE] 1.0 M/S/5DA
[LVE] 2.0 M/S/5DA
[GSM] 1.0 M/S/5DA

WEEK TWO

WEEK THREE

[MAE] 2.0 M/S/5DA
[GBE] .6 M/S/5DA
[LVE] 1.5 M/S/5DA
[GSM] 1.0 M/S/5DA

1.3 M/S/DAY
5 DAY
DATA BASE
4 PARTICIPANTS

[MAE] 1.3 M/S/5DA
[GBE] .6 M/S/5DA
[LVE] 1.0 M/S/5DA
[GSM] 1.3 M/S/5DA

WEEK FOUR

WEEK FIVE

[MAE] 2.0 M/S/5DA
[GBE] 1.0 M/S/5DA
[LVE] 2.0 M/S/5DA
[GSM] 1.0 M/S/5DA

1.5 M/S/DAY
5 DAY
DATA BASE
4 PARTICIPANTS

[MAE] 2.6 M/S/4DA
[GBE] 1.6 M/S/4DA
[LVE] 1.7 M/S/4DA
[GSM] 1.0 M/S/4DA

WEEK SIX

WEEK ONE

[ACE/M] 1.1 M/S/4DA
[KCE] 1.0 M/S/4DA
[KWM] 1.1 M/S/4DA

1.0 M/S/DAY
4 DAY
DATA BASE
3 PARTICIPANTS

[ACE/M] .8 M/S/5DA
[KCE] 1.6 M/S/5DA
[KWM] 1.2 M/S/5DA

WEEK TWO

WEEK THREE

[ACE/M] 1.1 M/S/5DA
[KCE] 1.2 M/S/5DA
[KWM] 1.2 M/S/5DA

1.2 M/S/DAY
5 DAY
DATA BASE
3 PARTICIPANTS

[ACE/M] .7 M/S/5DA
[KCE] NO DATA
[KWM] 1.0 M/S/5DA

WEEK FOUR

WEEK FIVE

[ACE/M] - NO DATA
[KCE] - 1.3 M/S/5DA
[KWM] - NO DATA

1.3 M/S/DAY
5 DAY
DATA BASE
1 PARTICIPANT

[ACE/M] - NO DATA
[KCE] - 2.5 M/S/4DA
[KWM] - 1.2 M/S/4DA

WEEK SIX

WEEK FIVE

1.9 M/S/DAY
4 DAY
DATA BASE
2 PARTICIPANTS

CTCLE TEN

WEEK ONE

[VCM] NO DATA
[TFM] 1.2 / 3D
[EWM] .92 / 3D

1.1 MLS/DAY
3 DAY DATABASE
2 PARTICIPANTS

WEEK TWO

[VCM] 1.95 / 4D
[TFM] 1.4 / 5D
[EWM] .57 / 5D

1.3 MLS/DAY
4.55 DAY DATABASE
3 PARTICIPANTS

WEEK THREE

[VCM] 2.3 / 4D
[TFM] 1.65 / 4D
[EWM] .67 / 5D

1.5 MLS/DAY
4.45 DAY DATABASE
3 PARTICIPANTS

WEEK FOUR

[VCM] 1.2 / 4D
[TFM] .6 / 4D

.9 MLS/DAY
4 DAY DATABASE
2 PARTICIPANTS

WEEK FIVE

[VCM] 2.8 / 4D
[TFM] .56 / 4D

1.7 MLS/DAY
4 DAY DATABASE
2 PARTICIPANTS

WEEK SIX

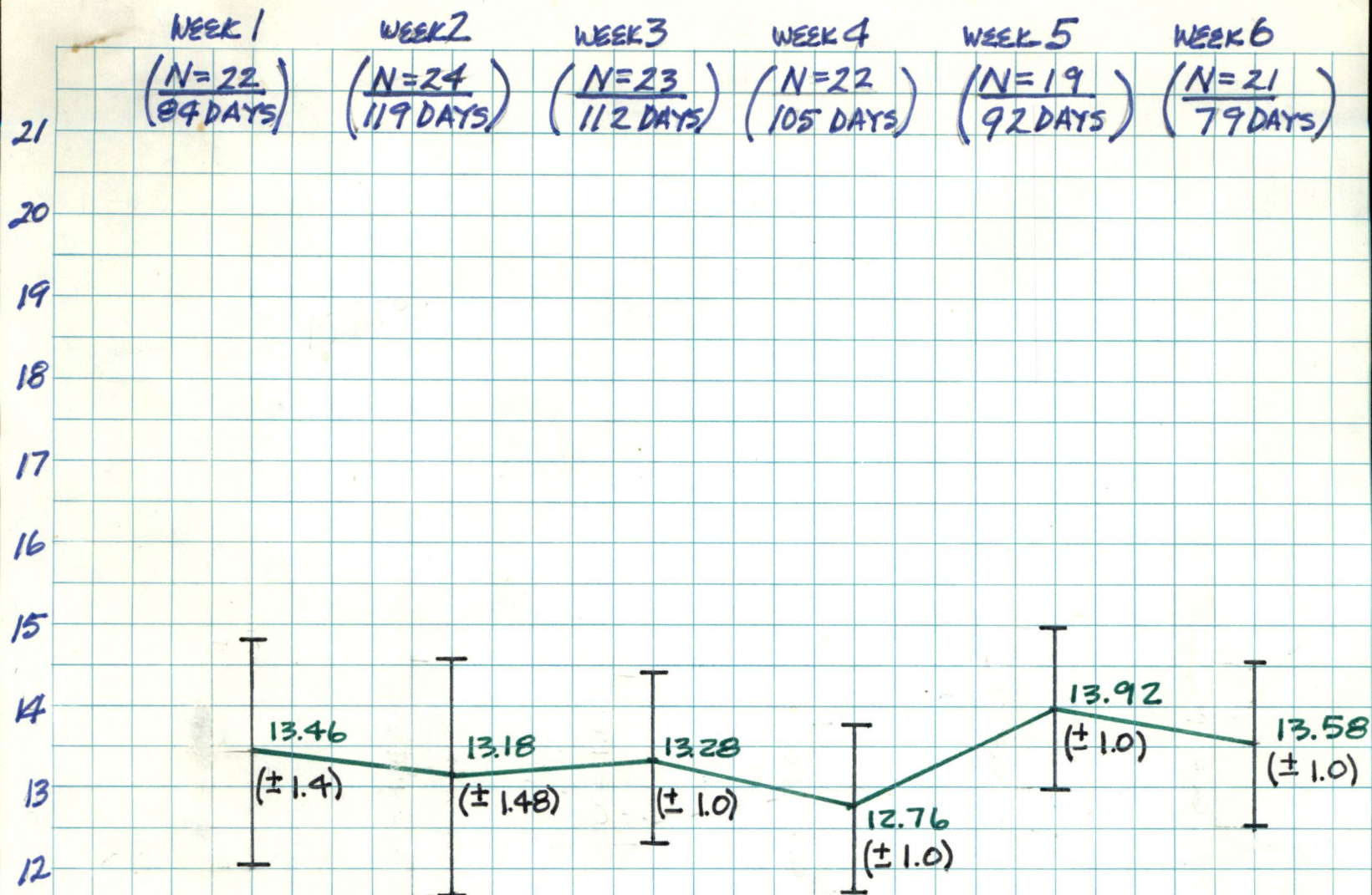
[VCM] 2.2 / 3D
[TFM] .13 / 4D

1.0 MILES/DAY
4.3 DAY DATABASE
2 PARTICIPANTS

CYCLES 6 THRU 11

Average daily out of bed time
for each week in New Options
program.

(Data collected from an average of
22 participants for each weekly
category, over 5, 6 week cycles.)



RTM study

Cycle 6 thru 11

Ave. daily out of bed time for cycles 6-11
for each week in Row Options program.

Calculations for standard deviation

Week 1 (ave. cycle 6-11) = 13.46 hrs.

(1) $(x_1 - \bar{x})^2$

5P X 3LP - C11	(12.1)	-1.36	1.85
2P X 3D - C10	(15.3)	1.84	3.40
3P X 4D - C9	(15.0)	1.54	2.40
5P X 4D - C8	(12.5)	-.96	.92
3P X 4D - C7	(14.9)	.94	.88
4P X 4D - C6	(11.8)	-1.66	2.75

TOTAL D = (P X D₁) = 84 patient days

TOTAL P = 22 (N)

$$\frac{12.2}{22} = 2.03 = \sigma = \boxed{1.4}$$

Week 2 (ave. cycle 6-11) = 13.18 hrs.

(1) $(x_2 - \bar{x})^2$

6P X 5D - C11	(13.3)	-.12	.0144
3P X 4LP - C10	(14.6)	1.42	2.0164
3P X 5D - C9	(14.1)	.92	.8464
5P X 5D - C8	(13.5)	.32	.1024
3P X 5D - C7	(13.6)	.42	.1764
4P X 5D - C6	(10.0)	-3.18	10.1124

TOTAL D = (P X D₁) = 119 patient days

TOTAL P = 24 (N)

$$\frac{13.2684}{24} = 2.2 = \sigma = \boxed{1.48}$$

Week 3 (ave cycle 6-11) = 13.28 hrs.

(i) $(x_i - \bar{x})$

$(x_i - \bar{x})^2$

6P x 4.8D	-C ₁₁	(12.4)	-0.68	.4624
3P x 4.3D	-C ₁₀	(5.0)	1.72	2.9584
2P x 5D	-C ₉	(13.2)	-0.08	.0064
5P x 5D	-C ₈	(13.0)	-0.28	.0784
3P x 5D	-C ₇	(14.1)	.82	.6724
4P x 5D	-C ₆	(11.8)	-1.48	2.1904

$$\text{TOTAL P} = \frac{23}{(N)} = \frac{6.3684}{1.0614} = 5 = \boxed{1.03}$$

$$\text{TOTAL D} = (\text{PxD}) = \frac{112}{\text{patient days}}$$

Week 4 (ave cycle 6-11) = 12.76 hrs.

(i) $(x_i - \bar{x})$

$(x_i - \bar{x})^2$

6P x 5D	-C ₁₁	(13.0)	.24	.4898
2P x 3.5D	-C ₁₀	(0.8)	1.96	1.4
3P x 4.3D	-C ₉	(14.4)	1.64	1.2
5P x 5D	-C ₈	(13.2)	.44	.6633
2P x 5D	-C ₇	(14.1)	1.34	1.1575
4P x 5D	-C ₆	(11.1)	1.66	1.2884

$$\text{TOTAL P} = \frac{22}{(N)} = \frac{6.199}{1.033} = 5 = \boxed{1.016}$$

$$\text{TOTAL D} = (\text{PxD}) = \frac{105}{\text{patient days}}$$

Week 5 (ave. cycle 6-11) = 13.92

	(i)	($x_i - \bar{x}$)	($x_i - \bar{x}$) ²
4P x 4.5D, - C ₁₁	(12.4)	-1.52	1.2328
2P x 4.5D, - C ₁₀	(16.2)	2.28	1.5099
2P x 5D, - C ₉	(14.6)	.68	.8244
5P x 5D, - C ₈	(13.6)	-0.32	.5656
2P x 5D, - C ₇	(14.3)	.38	.6164
4P x 5D, - C ₆	(12.4)	1.52	1.2328
		<u>5.9821</u>	.997 = <u>.998</u>
		6	

TOTAL P = 19 (N)

TOTAL D = (P x D_i) = 92 patient days.

Week 6 (ave. cycle 6-11) = 13.58

	(i)	($x_i - \bar{x}$)	($x_i - \bar{x}$) ²
5P x 4D, - C ₁₁	(14.2)	.62	.7874
2P x 3.5D, - C ₁₀	(16.0)	2.42	1.5556
3P x 4D, - C ₉	(14.2)	.62	.7874
5P x 3.2D, - C ₈	(13.2)	-0.38	.6164
2P x 4D, - C ₇	(14.1)	.52	.7211
4P x 4D, - C ₆	(9.8)	-3.78	1.9442
		<u>6.4121</u>	1.068 = <u>1.03</u>
		6	

TOTAL P = 21 (N)

TOTAL D = (P x D_i) = 79 patient days.

CYCLE ELEVEN

WEEK ONE

(HCC-M) 13.5/3D
(DC-M) 13.5/4D
(CH-E) 7.9/4D
(SL-E) NO DATA
(JL-M) 9.7/3D
(GP-E) 15.8/4D

WEEK ONE DAILY AVE. =

12.08 HRS./DAY

3.6 DATA DAYS

5 PARTICIPANTS

WEEK TWO

(HCC-M) 15.1/5D
(DC-M) 14.1/5D
(CH-E) 9.6/5D
(SL-E) 14.6/5D
(JL-M) 11.0/5D
(GP-E) 14.8/5D

WEEK 2 DAILY AVE. =

13.3 HRS./DAY

5 DAY DATA BASE

6 PARTICIPANTS

WEEK THREE

(HCC-M) 15.5/5D
(DC-M) 14.7/4D
(CH-E) 8.2/5D
(SL-E) 14.5/5D
(JL-M) 7.3/5D
(GP-E) 15.6/5D

WEEK 3 DAILY AVE. =

12.6 HRS./DAY

6 PARTICIPANTS

4.8 DAY DATA BASE

WEEK FOUR

WEEK 4 DAILY AVE. =

(HCC - M) 15.3/5D

(DC - M) 12.3/5D

(CH - E) 10.6/5D

(SL - E) 16.3/5D

(JL - M) 6.9/5D

(GP - E) 16.1/5D

13.0 HRS/DAY

5 DAY DATA BASE

6 PARTICIPANTS.

WEEK FIVE

WEEK 5 DAILY AVE. =

(HCC - M) 14.5/5D

(DC - M) 11.8/3D

(CH - E) 8.6/5D

(SL - E) 14.6/5D

(JL - M) NO DATA

(GP - E) NO DATA

12.4 HRS/DAY

4.5 DAY DATA BASE

4 PARTICIPANTS

WEEK SIX

WEEK 6 DAILY AVE. =

(HCC - M) 14.9/4D

(DC - M) 14.5/4D

(CH - E) 11.4/4D

(SL - E) 15.1/4D

(JL - M) NO DATA

(GP - E) 15.0/4D

14.2 HRS/DAY

4 DAY DATA BASE

5 PARTICIPANTS

Cycle 10

WEEK 1

(VC-M) - NO DATA

(TF-M) - 17.5/3D

(EW-M) - 13.1/3D

WEEK 1 DAILY AVE. =

15.3 HRS/DAY

3 DAY DATA BASE

2 PARTICIPANTS

(WEEK 2)

(VC-M) - 16.5/4D

(TF-M) - 17.1/5D

(EW-M) - 10.3/5D

WEEK 2 DAILY AVE. =

14.6 HRS/DAY

4.6 DAY DATA BASE

3 PARTICIPANTS

(WEEK 3)

(VC-M) - 16.6/4D

(TF-M) - 16.0/4D

(EW-M) - 12.5/5D

WEEK 3 DAILY AVE. =

15.0 HRS/DAY

4.3 DAY DATA BASE

3 PARTICIPANTS

(WEEK 4)

(VC-M) NO DATA

(TF-M) 16.6/3D

(EW-M) 5.3/4D

WEEK 4 DAILY AVE. =

10.8 HRS/DAY

3.5 DAY DATA BASE

2 PARTICIPANTS

(WEEK 5)

(VC-M) 16.4/4D

(TF-M) 16.0/5D

(EW-M) NO DATA

WEEK 5 DAILY AVE. =

16.2 HRS/DAY

4.5 DAY DATA BASE

2 PARTICIPANTS

(WEEK 6)

(VC-M) 15.7/3D

(TF-M) 16.3/4D

(EW-M) NO DATA

WEEK 6 DAILY AVE. =

16.0 HRS/DAY

3.5 DAY DATA BASE

2 PARTICIPANTS

Cycle 9

(WEEK 1) 15.2/4D

(KC-E) 15.2/4D

(KW-M) 15.2/4D

(AC-M) 14.1/4D

WEEK 1 DAILY AVE. =

15.0 HRS/DAY

4 DAY DATA BASE

3 PART.

(WEEK 2)

(KC-E) 15.4/5D

(KW-M) 13.8/5D

(AC-M) 13.0/5D

WEEK 2 DAILY AVE. =

14.1 HRS/DAY

5 DAY DATA BASE

3 PARTICIPANTS.

(WEEK 3)

(KC-E) NO DATA

(KW-M) 12.2/5D

(AC-M) 14.1/5D

13.2 HRS/DAY

5 DAY DATA BASE

2 PART.

(WEEK 4)

(KC-E) 15.1/4D

(KW-M) 14.6/5D

(AC-M) 13.6/4D

14.4 HRS/DAY

4.3 DAY DATA BASE

3 PART.

(WEEK 5)

(KC-E) 16.0/5D

(KW-M) 13.2/5D

(AC-M) NO DATA

14.6 HRS/DAY

5 DAY DATA BASE

2 PART.

(WEEK 6)

(KC-E) 15.8/4D

(KW-M) 15.6/4D

(AC-M) 11.3/4D

14.2 HRS/DAY

4 DAY DATA BASE

3 PART.

Cycle 8.

WEEK 1

(MJA-E) 12.5/4D

(GEB-E) 5.3/4D

(JLV-E) 15.2/4D

(GBS-M) 14.3/4D

(CH-O) 15.0/4D

12.5 HRS./DAY

4 DDB

5 PARTS,

WEEK 2

(MJA-E) 11.6/5D

(GEB-E) 12.0/5D

(JLV-E) 15.0/5D

(GBS-M) 14.1/5D

(CH-O) 15.0/5D

13.5 HRS/DAY

5 DDB

5 PARTS,

WEEK 3

(MJA-E) 10.8/5D

(GEB-E) 11.0/5D

(JLV-E) 15.0/5D

(GBS-M) 13.2/5D

(CH-O) 15.0/5D

13.0 HRS/DAY

5 DDB

5 PARTS,

WEEK 4

(MJA-E) 11.0/5D

(GEB-E) 11.5/5D

(JLV-E) 13.2/5D

(GBS-M) 15.1/5D

(CH-O) 15.0/5D

13.2 HRS./DAY

5 DDB

5 PARTS,

WEEK 5

(MJA-E) 12.0/5D
(GEB-E) 11.0/5D
(ULV-E) 14.0/5D
(GBS-M) 14.5/5D
(CH-O) 16.3/5D

12.6 HRS./DAY
5 DOB
5 PARTS.

WEEK 6

(MJA-E) 11.0/4D
(GEB-E) 11.3/3D
(ULV-E) 13.8/3D
(GBS-M) 13.8/3D
(CH-O) 16.0/3D

13.2 HRS./DAY
3.2 DOB
5 PARTS.

Cycle 7

WEEK 1

(RMB-E) 13.8/4D
(ML-M) 15.3/4D
(BSL-M) 14.0/4D

14.4 HRS./DAY

4 DDB

3 PARTS

WEEK 2

(RMB-E) 13.4/5D
(ML-M) 14.3/5D
(BSL-M) 13.0/5D

13.6 HRS./DAY

5 DDB

3 PARTS.

WEEK 3

(RMB-E) 13.4/5D
(ML-M) 14.9/5D
(BSL-M) 14.0/5D

14.1 HRS./DAY

5 DDB

3 PARTS.

WEEK 4

(RMB-E) 14.24/5D
(ML-M) 14.0/5D
(BSL-M) _____

14.1 HRS./DAY

5 DDB

2 PARTS.

WEEK 5

(RMB-E) 14.6/5D
(ML-M) 14.0/5D
(BSL-M) _____

14.3 HRS./DAY

5 DDB

2 PARTS.

WEEK 6

(RMB-E) 15.5/4D
(ML-M) 12.6/4D
(BSL-M) _____

14.1 HRS./DAY

4 DDB

2 PARTS.

Cycle 6.

WEEK 1

(GH-E) 10.5/4D
(ULB-M) 16.0/4D
(RM-M) 10.0/4D
(CR-E) 10.8/4D

WEEK 1 DAILY AVE. =

11.8 HRS./DAY

400B

4 PTS.

WEEK 2

(GH-E) 9.6/5D
(ULB-M) 12.1/5D
(RM-M) 9.5/5D
(CR-E) 8.7/5D

10.4 HRS./DAY

500B

4 PTS.

WEEK 3

(GH-E) 12.6/5D
(ULB-M) 15.5/5D
(RM-M) 10.6/5D
(CR-E) 8.5/5D

11.8 HRS./DAY

500B

4 PTS.

WEEK 4

(GH-E) 11.4/5D
(ULB-M) 15.4/5D
(RM-M) 9.7/5D
(CR-E) 7.8/5D

11.1 HRS./DAY

500B

4 PTS.

WEEK 5

(GH-E) 12.5/5D
(ULB-M) 15.4/5D
(RM-M) 11.0/5D
(CR-E) 10.6/5D

12.4 HRS./DAY

500B

4 PTS.

WEEK 6

(GH-E) 8.2/4D
(ULB-M) 13.8/4D
(RM-M) 8.3/4D
(CR-E) 9.1/4D

9.8 HRS./DAY

400B

4 PTS.

Cycle 1

	2260 (E)	224B (E,M)	253C (M)	260 R (E)	AVE. PER WEEK	
(JUNE 28 - JULY 4)	$\frac{5.4M}{4D}$	3.3 (E) + 1.1 (M)	—	—	$\frac{4.9}{2P}$	27.9 (4.9)
(JULY 5 - 11)	$\frac{7.4M}{4D}$	5.8 (E) + 2.3 (M)	—	—	$\frac{7.75}{2P}$	
(JULY 12 - 18)	$\frac{8.7M}{5D}$	11.6 (E) + 1.4 (M)	5.2 M	—	$\frac{8.96}{3P}$	
(JULY 19 - 25)	$\frac{7.3M}{5D}$	11.3 (E) + 1.1 (M)	8.4 M	5.0 M	$\frac{8.27}{4P}$	
(JULY 26 - AUG. 1)	$\frac{5.5M}{5D}$	4.8 (E) + 2.0 (M)	8.1 M	6.0 M	$\frac{6.6}{4P}$	
(AUG. 2 - 8)	$\frac{9.7M}{6D}$	2.1 (E) + .1 (M)	6.4 M	4.3 M	$\frac{5.65}{4P}$	$\frac{7.02}{6W}$
INDIVIDUAL AVERAGE	$\frac{1.22}{6W}$ 1.22	$\frac{1.30}{6W}$ 1.30	$\frac{1.75}{4W}$ 1.75	$\frac{1.33}{3W}$ 1.33	$\frac{6.81}{4P}$	

AVE
GROUP

Cycle 2

	JWB (M)	GDG(E)	DLN(E)	GDR(M)	PW (M)	AVE PER WEEK
(AUG. 16 - 22)	Insufficient Data					
(AUG. 23 - 29)	8.9 m	6.7 m	5.0 m	6.3 m	6.5 m	$\frac{6.68}{5P}$
(AUG. 30 - SEPT 5)	7.1 m	7.1 m	6.8 m	8.7 m	7.9 m	$\frac{7.52}{5P}$
(SEPT 6 - 12)	8.0 m	2.7 m	3.8 m	8.0 m	8.8 m	$\frac{6.26}{5P}$
(SEPT 13 - 19)	5.5 m	8.6 m	3.7 m	11.5 m	8.3 m	$\frac{7.52}{5P}$
(SEPT 20 - 24)	3.2 m	8.5 m	3.2 m	11.4 m	6.8 m	$\frac{6.62}{5P}$
INDIVIDUAL AVERAGE	$\frac{6.54}{5W}$	$\frac{6.72}{5W}$	$\frac{4.5}{5W}$	$\frac{9.18}{5W}$	$\frac{7.66}{5W}$	$\frac{6.62}{5P}$ AVE. GROUP $\rightarrow$ $\frac{6.92}{5P}$ 5.596 5W

Cycle 3

	PL (M)	RG (M)	GL (M)	DJ (M)	AVE. PER WEEK
(Oct. 4 - 10)	3.65 m	4.39	8.17	1.96	$\frac{4.59}{4P}$
(Oct 11 - 17)	6.98 m	3.03	6.76	3.44	$\frac{5.05}{4P}$
(Oct 18 - 24)	7.04 m	6.15	5.02	3.76	$\frac{5.5}{4P}$
(Oct. 25 - 31)	6.58 m	4.33	—	<u>WALKING</u>	$\frac{5.42}{2P}$
(Nov. 1 - 7)	6.43 m	5.67	1.29	<u>walking</u>	$\frac{4.42}{3P}$
(Nov. 8 - 14)	5.52 m	4.86	4.73	4.55	$\frac{4.915}{4P}$ AVE. GROUP
INDIVIDUAL AVERAGE	$\frac{6.033}{6W}$	$\frac{4.738}{6W}$	$\frac{5.199}{5W}$	$\frac{3.42}{4W}$	$\frac{4.84}{4P}$ $\frac{4.983}{6W}$

Cycle 4

	FB (M)	GO (M)	ST (M)	RH (M)	SW (M)	GW (E)	TES (E)	SWA (M)	AVE. PER WEEK
(Nov. 15 - 21)	Insufficient data								
(Nov. 22 - 28)	<u>6.84m</u>	<u>3.82m</u>	4.68m	6.0m	1.29m	—	—	3.4m	$\frac{3.70}{6P}$
(Nov. 29 - Dec. 5)	<u>5.08m</u>	7.47m	2.01m	7.73m	1.33m	2.49m	—	2.65m	$\frac{4.10}{7P}$
(Dec. 6 - Dec. 12)	<u>7.42m</u>	5.22m	5.15m	8.11m	1.10m	4.45m	—	3.70m	$\frac{5.02}{7P}$
(Dec. 13 - Dec. 19)	<u>6.57</u>	6.33m	6.22m	8.07m	1.13m	—	—	4.27	$\frac{5.43}{6P}$
(Dec. 20 - 24)	9.58	7.02m	4.82m	10.68m	1.84m	1.91	—	—	$\frac{5.97}{6P}$ AVE. GROUP → $\frac{4.84}{5W}$
INDIVIDUAL AVERAGE	$\frac{7.099}{5W}$	$\frac{5.97}{5W}$	$\frac{4.57}{5W}$	$\frac{8.1}{5W}$	$\frac{1.34}{5W}$	$\frac{2.95}{3W}$		$\frac{3.50}{4W}$ → $\frac{4.79}{7P}$	

Cycle 5

	EB(M)	RP(M)	EW(E)	RT(E)	JC(E)	MB(E)	AVE. PER WEEK
(Jan. 10-16)	Insufficient data						
(Jan 17-23)	$\frac{5.5 \text{ mL.}}{(.54 - 1.18)}$	$\frac{5.6 \text{ mL.}}{(.48 - 1.26)}$	$\frac{7.4 \text{ mL.}}{(.88 - 1.74)}$	$\frac{18.1 \text{ mL.}}{(1.4 - 4.4)}$	$\frac{7.4 \text{ mL.}}{(.04 - 2.95)}$	$\frac{4.0 \text{ mL.}}{(.30 - 1.0)}$	$\frac{8 \text{ mL}}{6P}$
(Jan 24-30)	$\frac{6.5 \text{ mL.}}{(.83 - 1.19)}$	$\frac{5.1 \text{ mL.}}{(.53 - 1.01)}$	$\frac{5.1 \text{ mL.}}{(.206 - 1.6)}$	$\frac{25.8 \text{ mL.}}{(2.9 - 4.5)}$	$\frac{5.8 \text{ mL.}}{(.78 - .74)}$	$\frac{2.2 \text{ mL.}}{(.0009 - .40)}$	$\frac{8.4 \text{ mL}}{6P}$
(Jan 31 - Feb 6)	$\frac{4.5 \text{ mL.}}{(.52 - .77)}$	$\frac{6.0 \text{ mL.}}{(.57 - 2.0)}$	$\frac{8.5 \text{ mL.}}{(.74 - 2.37)}$	$\frac{25.0 \text{ mL.}}{(3.3 - 5.0)}$	$\frac{9.9 \text{ mL.}}{(1.12 - 1.90)}$	$\frac{3.2 \text{ mL.}}{(0 - .83)}$	$\frac{9.5 \text{ mL}}{6P}$
(Feb 7-13)	$\frac{6.5 \text{ mL.}}{(.44 - 1.2)}$	$\frac{6.1 \text{ mL.}}{(.60 - 1.18)}$	$\frac{7.4 \text{ mL.}}{(.77 - 1.45)}$	$\frac{35.8 \text{ mL.}}{(3.1 - 6.7)}$	—	$\frac{4.5 \text{ mL.}}{(.39 - .66)}$	$\frac{12.06 \text{ mL}}{5P}$
(Feb 14-18)	$\frac{4.2 \text{ mL.}}{(.227 - 1.07)}$	$\frac{3.7 \text{ mL.}}{(.04 - 1.06)}$	$\frac{7.0 \text{ mL.}}{(.77 - 1.44)}$	—	—	—	$\frac{4.96 \text{ mL}}{3P}$
INDIVIDUAL AVERAGE	$\frac{5.44}{5W}$	$\frac{4.18}{5W}$	$\frac{7.08}{5W}$	$\frac{26.178}{4W}$	$\frac{7.7}{3W}$	$\frac{3.475}{4W}$	AVE. GROUP → $\frac{8.584}{5 \text{ WEEKS}}$ → $\frac{9.008}{6P}$

Cycle

JLB (M) GH (E) EB (M) CE (E) AVE. PER WEEK

(Feb. 28 - Mar 6)

Shunt Point

Data

(Mar 7 - 13)

2.543
 $(1.02 - 4.08)$

$.778 \text{ mL}$
 $(.77 - 1.28)$

$.83 \text{ mL}$
 $(.30 - 2.44)$

$.88 \text{ mL}$
 $(.5 - 2.09)$

$.896$
 $3P$

.9

(Mar 14 - 20)

2.043 mL
 $(1.02 - 4.08)$

1.497 mL
 $(1.33 - 1.35)$

$.532 \text{ mL}$
 $(.447 - .66)$

$.56 \text{ mL}$
 $(.258 - .77)$

1.158
 $4P$

1.2

(Mar 21 - 27)

2.346 mL
 $(2.155 - 2.92)$

1.479 mL
 $(.947 - 2.18)$

$.75 \text{ mL}$
 $(.42 - 1.583)$

$.766 \text{ mL}$
 $(.4 - 1.71)$

1.335
 $4P$

1.35

(Mar 28 - Apr. 3)

2.87 mL
 $(2.03 - 2.44)$

1.747 mL
 $(1.55 - 2.37)$

4.79 mL
 $(.61 - 1.21)$

$.7866$
 $(.387 - 1.507)$

2.548
 $4P$

2.55

(Apr 4 - 8)

2.459 mL
 $(2.39 - 2.50)$

$.6535$
 $(.134 - 1.24)$

$.64 \text{ mL}$
 $(.55 - .73)$

$.841$
 $(.342 - 1.34)$

1.148
 $4P$

1.2

INDIVIDUAL AVERAGE

2.4295
 $4W$

1.2713
 $5W$

1.508
 $5W$

$.7667$
 $5W$

1.493
 $4P$

1.5

AVE. GROUP
 ←

1.415
 $5W$

1.43
 $5W$

Cycle 7

INDIVIDUAL AVERAGE	5W	4W	5W			
(May 23 - 27)	1.847 1.732 mL (1.32 - 2.50)	1.139 .79 mL (.48 - 1.39)	.6058 .088 mL (.02 - .342)			
(May 16 - 22)	1.80 mL (1.04 - 2.44)	1.22 mL (.60 - 1.75)	1.220 0			
(May 9 - 15)	1.843 mL (.924 - 2.53)	1.28 mL (.20 - 1.99)	1.161 mL (0 - .805)			
(May 2 - 8)	1.936 mL (.634 - 3.70)	1.269 mL (.484 - 1.46)	1.098 mL (.512 - 1.75)			
(April 25 - May 1)	—	—	.810 mL (.30 - 1.335)			
(April 18 - 24)	1.924 mL (.985 - 2.79)	—	.872 mL (.235 - 1.17)			
	EMB (E)	ML (M)	BL (E)			
				Ave.	PER WEEK	
				2P	1.398	
				1P	.810	
				3P	1.434	
				3P	1.094	
				3P	1.006	
				3P	.87	
				Ave. GROUP	1.197	
				6W	1.102	

CYCLE 8

INDIVIDUAL AVERAGE	6W	6W	6W	6W	6W	6W
(July 11-15)	1.95 2.6 ML (2.3-3.0)	.91 1.4 ML (1.1-2.1)	1.6 1.7 ML (1.1-1.9)	1.0 1.0 ML (.5-1.7)	1.0 1.7 ML (.9-2.8)	1.7 1.7 ML (1.1-2.1)
(July 4-8)	1.9 1.9 ML (1.16-2.8)	1.8 1.8 ML (.97-1.7)	1.8 1.8 ML (1.1-2.8)	.9 .9 ML (.3-1.6)	1.4 1.4 ML (.9-2.8)	1.4 1.4 ML (1.1-2.1)
(June 27-July 1)	1.3 1.3 ML (.75-3.0)	.63 .63 ML (.72-2.6)	1.0 1.0 ML (.67-2.5)	1.3 1.3 ML (.7-1.6)	1.1 1.1 ML (.7-1.6)	1.1 1.1 ML (.7-1.6)
(June 20-24)	1.9 1.9 ML (.70-2.8)	.62 .62 ML (.37-.72)	1.5 1.5 ML (.14-1.9)	.9 .9 ML (.3-1.8)	1.2 1.2 ML (.9-2.8)	1.2 1.2 ML (.9-2.8)
(June 13-17)	1.7 1.7 ML (1.2-2.3)	.95 .95 ML (.56-1.2)	2.0 2.0 ML (1.4-2.6)	1.0 1.0 ML (.5-1.4)	1.4 1.4 ML (.9-2.8)	1.4 1.4 ML (1.1-2.1)
(June 6-10)	2.3 2.3 ML (1.5-4.2)	.67 .67 ML (1.0-1.4)	1.5 1.5 ML (.7-2.3)	.97 .97 ML (.64-1.4)	1.3 1.3 ML (.9-2.8)	1.3 1.3 ML (1.1-2.1)
	M-A (F)	G-B (F)	J-L-V (F)	G-S (M)		

Ave
PER WEEK

$$\frac{1.36}{4P}$$

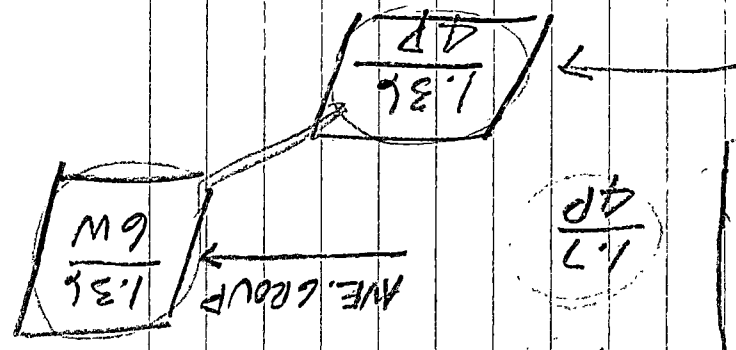
$$\frac{1.4}{4P}$$

$$\frac{1.2}{4P}$$

$$\frac{1.1}{4P}$$

$$\frac{1.4}{4P}$$

$$\frac{1.7}{4P}$$



CYCLE 9

	AL (E,M)	KC (E)	KW (M)	Ave. PER WEEK
(July 18-22)	$\frac{1.1 \text{ ML}}{(.73 - 1.5)}$	$\frac{1.0 \text{ ML}}{(.95 - 1.2)}$	$\frac{1.1 \text{ ML}}{(.9 - 1.4)} \rightarrow$	$\frac{1.0}{3P}$
(July 25-29)	$\frac{.83 \text{ ML}}{(.4 - 1.4)}$	$\frac{1.4 \text{ ML}}{(.9 - 1.9)}$	$\frac{1.2 \text{ ML}}{(.6 - 1.8)} \rightarrow$	$\frac{1.2}{3P}$
(Aug 1-5)	$\frac{1.1 \text{ ML}}{(.32 - 2.4)}$	$\frac{1.2 \text{ ML}}{(.7 - 1.5)}$	$\frac{1.2 \text{ ML}}{(.2 - 2.5)} \rightarrow$	$\frac{1.16}{3P}$
(Aug 8-12)	$\frac{.67 \text{ ML}}{(.44 - 1.1)}$	—	$\frac{.9 \text{ ML}}{(.88 - .91)} \rightarrow$	$\frac{.8}{2P}$
(Aug 15-19)	—	$\frac{1.3 \text{ ML}}{(.1 - 1.7)}$	— $\rightarrow$	$\frac{1.3}{1P}$
(Aug 22-26)	—	$\frac{2.4 \text{ ML}}{(.16 - 3.6)}$	$\frac{1.2 \text{ ML}}{(.7 - 1.7)} \rightarrow$	$\frac{1.8}{2P}$
INDIVIDUAL AVE.	$\frac{.93}{4W}$	$\frac{1.5}{5W}$	$\frac{.9}{5W} \rightarrow$	$\frac{1.1}{3P}$
				Ave. GROUP $\rightarrow \frac{1.2}{6W}$

Calculations for Standard Deviation (Cycles 1 thru 7)

Week 1

	(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
3.61	C1	(4.9) 1.3	1.69	C8		
	C4	(4.54) .94	.88			
	C7	(1.4) -2.2	4.84			
$\frac{7.41}{3} = 2.47 = \sigma$				<u>1.57</u> (1-7)		

Week 2

	(i)	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	
4.70	C1	(7.75) 3.05	9.30	2.47
	C2	(6.68) 1.98	3.92	1.57
	C3	(5.05) .35	.122	4.09
	C4	(3.7) -1.	1	
	C5	(8.0) 3.3	10.89	28.8
	C6	(.89) -3.81	14.51	12.9
	C7	(.81) -3.89	15.13	
		<u>54.87</u>		
		7	= 7.84	= <u><u>2.81</u></u>

follow person days for data to establish standard deviation.

18.
6
12.9
7.0

5.1

Week 4

(x)	$(x_2 - \bar{x})$	$(x_1 - \bar{x})^2$
C1	(3.27) 3.17	10.04
C2	(4.26) 1.16	1.35
C3	(5.4) .3	.09
C4	(5.0) -1	1.0
C5	(9.5) 4.4	19.36
C6	(1.33) -3.77	14.21
C7	(1.1) -4.0	16.0

$$\frac{62.05}{7} = 8.86 = \sigma$$

2.97

5.1

Week 3

(x)	$(x_2 - \bar{x})$	$(x_1 - \bar{x})^2$
C1	(8.96) 3.86	14.9
C2	(7.52) 2.42	5.85
C3	(5.5) .4	.16
C4	(4.1) -1	1.0
C5	(8.4) 3.3	10.89
C6	(1.5) -3.95	15.60
C7	(1.4) -3.7	13.7

$$\frac{62.1}{7} = 8.87 = \sigma$$

2.97

4.3

Week 6

$(x_1 - \bar{x})$	$(x_2 - \bar{x})$	$(x_1 - \bar{x})^2$
C1	(5.45) 1.35	1.82
C2	(6.42) 2.32	5.38
C3	(4.92) .62	.38
C4	(5.91) 1.67	2.78
C5	(4.96) .66	.44
C6	(1.15) -3.15	9.92
C7	(1.87) 3.43	11.76

$$\frac{32.16}{7} = 4.586$$

$$2.14$$

5.65

Week 5

$(x_1 - \bar{x})$	$(x_2 - \bar{x})$	$(x_1 - \bar{x})^2$
C1	(4.4) .95	.90
C2	(7.53) 1.87	3.50
C3	(4.4) -1.25	1.56
C4	(5.43) -.22	.048
C5	(12.0) 6.35	40.32
C6	(2.5) -3.15	9.92
C7	(1.0) -4.65	21.62

$$\frac{77.868}{7} = 11.124$$

$$3.33$$

C8
C9
C10

$(x_1 - \bar{x})$	$(x_2 - \bar{x})$	$(x_1 - \bar{x})^2$
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Special code for long distances.

David Patten

4179-3406

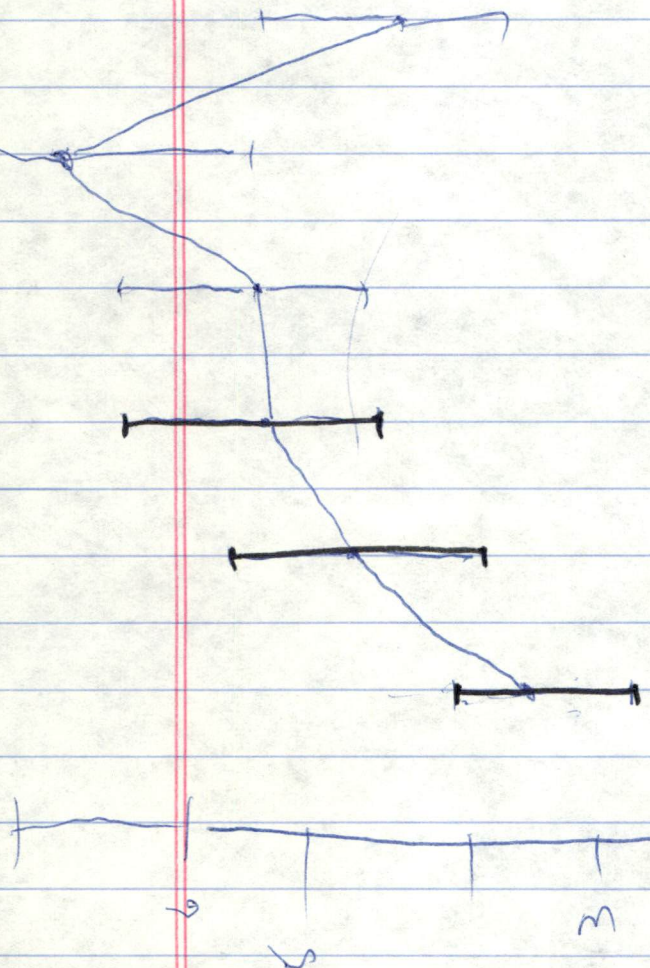
4222

Carroll B/V.

Carroll, Texas

77503

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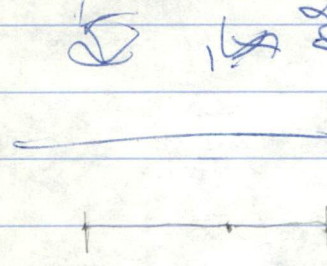


1

2

3

mean & S.D. - missing wk
For 32 participants



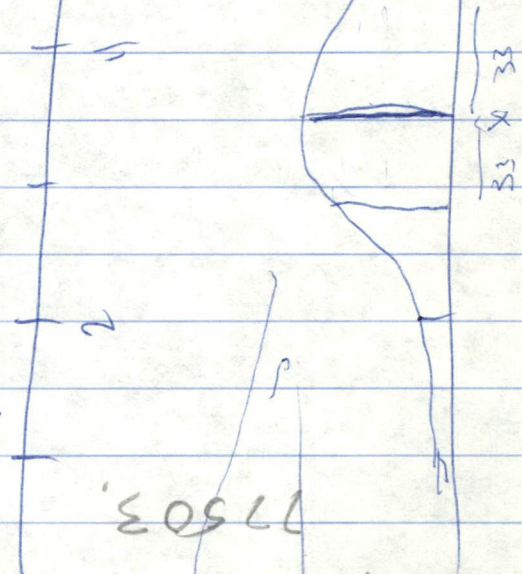
RT

ST

mean S.D. for time all day
a week of bed for - participants

Ask Claude
about formula for
standard deviation —

sum of squares
between difference
from the mean.
subtract
figure from mean -
~~standard deviation~~
and square



33 x 33

$$\frac{1}{10} \times \frac{1}{10} = \frac{1}{10 \times 10} = \frac{1}{100}$$

$$\bar{X} = \frac{\sum_{i=1}^N x_i}{N}$$

$$\sigma^2 = \frac{\sum_{i=1}^N (x_i - \bar{X})^2}{N} = 8.72$$

$$\sigma = \sqrt{\sigma^2} = 2.95$$

i	$x_i - \bar{X}$	$(x_i - \bar{X})^2$
1.1	1.1 - 5.1 = -4	16
1.33	1.33 - 5.1 = -3.77	14.21
3.1	.1	.01
4.1	.3	.09
5.1	1.16	1.35
6.1	3.17	10.05
7.1	4.4	19.36
		61.08

$$\frac{61.08}{7} = 8.72$$

With new standard deviation calculations - begin new graph for odometer study.

Can begin an RTM study also.

Cycle 1-7 group average per week.

include scheduled three?

if there is a point, here is the comparison.

$$N = 33$$

HOURS

HOURS

↑

81

7

13

11

7

9

42

1

0

(1) M T W T H F S S M T W T H F S S M T W T H F S S M T W T H F S S
M T W T H F S S M T W T H F S S M T W T H F S S M T W T H F S S

(2)

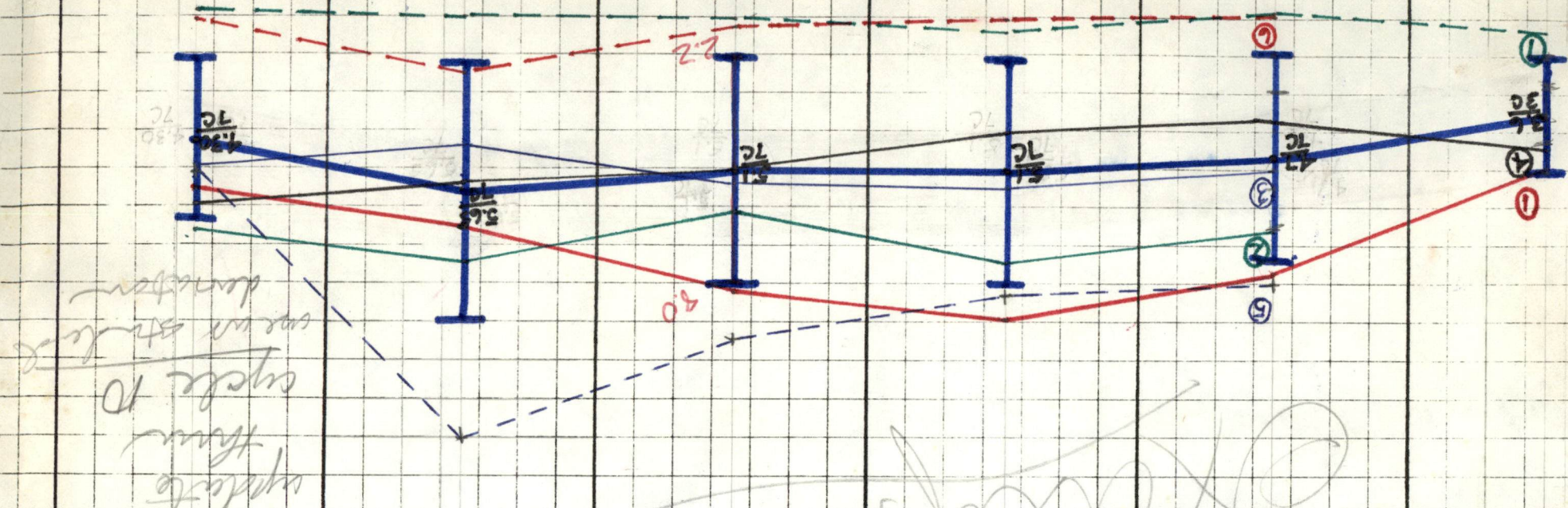
(3)

(4)

(5)

(6)

वे. 151	वे. 2.8	वे. 2.7	वे. 2.97	वे. 3.33	वे. 2.14
AVE. 3.4/50gals.	AVE - 4.7/70gals.	AVE - 5.1/70gals.	AVE. 5.1/70gals.	AVE. 3.63/70gals.	AVE - 4.3/70gals.



ODOMETER STUDY

CYCLES 1-7 AVE. PER WEEK

WEEK ONE WEEK TWO WEEK THREE WEEK FOUR WEEK FIVE WEEK SIX

HOURS

HOURS

