

From: [Sandra Hamilton](#)
To: [Mike Murray](#)
Subject: Fw: Chapter 3 question
Date: 09/13/2010 06:35 AM
Attachments: [CAHA Ramp Counts.xls](#)

Hi Mike,

See the attachment below for data from Butch for your 5 induction loop ramp counters.

He called me and we discussed drawing conclusions from the ramp count data (both his induction loops and RTI's) which boiled down to the fact that these are numbers of vehicle trips or passes over the ramps and not numbers of discrete individual visitors to the park, or for that matter, numbers of individual vehicles visiting the beach. This is because the same vehicle can be making multiple trips over one or more ramps during a day or several days without leaving the park. The Whalebone Junction counter counts trips into the park, and with the ramp data you can't correlate trips into the park trips over the ramps. The ramp count data gives an upper bound (i.e. you would not estimate more individual visitors driving onto the beach than there are trips counted over the ramps, and because we know at least some of the same vehicles make multiple trips, it would in fact be fewer).

In the RTI summary, given the wide range and the number of samples, the large difference in the numbers looked normal to Butch.

I'll call Carol and work up some text that explains this for you and Butch to review.

Sandy

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----- Forwarded by Sandra Hamilton/DENVER/NPS on 09/10/2010 04:37 PM -----

**Butch
Street/DENVER/NPS**

To Sandra Hamilton/DENVER/NPS@NPS
cc

09/10/2010 12:00 PM Subject Re: Fw: Chapter 3 question

Sandy,

Here is the dataset for ramp counts.

Thanks

0027992

Butch Street
303 343-2704

www.nature.nps.gov/stats



CAHA Ramp Counts.xls

From: [Mike Murray](#)
To: [Sandra Hamilton](#)
Cc: [Doug Wetmore](#); [Thayer Broili](#)
Subject: Chapter 3 question
Date: 09/08/2010 08:05 AM

Sandy,

Would you please see if Butch Street could review Chapter 3, pp. 307-309 information/data on "Beach Driving" estimates. The RTI estimate for the amount of beach driving, based on the ramp counts, is

An estimated mean of 994,604 passengers were involved with these vehicle trips with a 95% confidence interval of 654,961 to 1,334,247 passengers (table 48-1).

While I don't have the expertise to question the calculation, the estimate seems counter-intuitive given that overall visitation is about 2.2 million per year. From the RTI data, people will infer that ORV visitors accounted for about 50% of the visiting population under the consent decree, which likely depressed the amount of ORV use; however, other studies suggest that ORV use, even before the consent decree, is a smaller percentage of the overall visitation. I realize that the ramp count-based ORV use estimate is different than the methodology for estimating overall visitation, but am wondering if we need some brief explanation or qualifying language in the ORV use estimate section, so that the RTI estimate does not inadvertently imply that ORV use constitutes a higher proportion of overall visitation than it really is. Or, if it really is that high of a proportion, the relationship is clearly stated.

In any case, I don't have the expertise to analyze the math. I just know that we need to make clear what the relationship is, if any, between the RTI ORV use estimate and the NPS overall visitation estimate.

Thanks,

Mike Murray
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0027994

Average of fieldvaluex		label	
years	month1	TRAFFIC COUNT AT Coquina Beach	TRAFFIC COUNT AT RAMP 34
2009	1	0	0
	2	0	0
	3	0	0
	4	9,323	3,156
	5	5,205	0
	6	920	1,140
	7	14,010	5,097
	8	13,675	3,988
	9	11,191	3,340
	10	6,100	4,346
	11	5,446	3,264
	12	2,806	830
2009 Total		68,676	25,161
2010	1	2,411	835
	2	1,895	663
	3	1,140	0
	4	8,798	3,150
	5	8,084	3,836
	6	10,736	4,272
	7	15,825	4,703
	8	12,283	4,224
2010 Total		61,172	21,683

TRAFFIC COUNT AT RAMP 43/44	TRAFFIC COUNT AT RAMP 55
0	0
0	0
0	0
2,068	7,267
4,416	4,176
7,912	8,199
10,226	15,470
13,258	14,065
14,001	11,776
14,423	10,696
11,850	6,612
5,220	2,765
83,374	81,026
3,081	4,167
2,104	2,800
0	0
8,457	5,644
7,850	7,698
6,994	8,621
10,189	14,221
12,922	14,099
51,597	57,250

TRAFFIC COUNT AT RAMP 70	
	0
	0
	0
	6,059
	3,114
	5,589
	7,573
	5,429
	4,382
	5,648
	2,999
	1,440
	42,233
	1,046
	601
	0
	3,297
	3,691
	4,577
	6,611
	5,189
	25,012