Table 18: AP+ and SafeTRAC Outcomes
Descriptive Comparisons of Changes in Unweighted Means or Standard Deviations

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Outcome variables								
PERCLOS during night hours mean	9	7.58	6.52	-1.06	1.95	-4.45	1.51	0.140
SafeTRAC Driver's Alertness mean	9	70.10	75.33	5.23	6.65	-8.52	14.36	0.046
Lateral distance standard deviation	9	49.07	43.47	-5.60	12.00	-24.14	15.43	0.199
Steering wheel movements SD	7	0.70	0.85	0.15	0.07	0.01	0.25	0.002
Front Wheel movements SD	7	0.64	0.72	0.08	0.06	-0.04	0.15	0.014
Technical variables								
Vehicle speed mean	9	60.10	60.06	-0.05	0.56	-0.72	0.98	0.812
Engine rotation mean	8	1503.1	1501.9	-1.2	14.5	-14.8	23.9	0.815
X acceleration mean	6	0.012	0.022	0.010	0.026	-0.005	0.063	0.400
Y acceleration mean	6	0.041	0.039	-0.002	0.010	-0.018	0.012	0.689
Ambient light mean	9	14.25	11.15	-3.10	13.49	-25.44	16.67	0.510

Table 19: AP+ and SafeTRAC Outcomes
Mixed Model ANOVA Comparisons Based on Doubly-Weighted Means or SD's

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SE	t-statistic	Difference p-value
Outcome variables							
PERCLOS during night hours mean	9	6.65	5.98	-0.66	0.38	-1.72	0.123
SafeTRAC Driver's Alertness mean	9	69.84	75.89	6.06	2.30	2.63	0.030
Lateral distance standard deviation	9	47.49	42.53	-4.96	4.15	-1.19	0.266
Steering wheel movements SD	7	0.67	0.83	0.16	0.03	6.29	0.001
Front Wheel movements SD	7	0.62	0.71	0.09	0.02	3.89	0.008
Technical variables							
Vehicle speed mean	9	60.45	60.60	0.15	0.16	0.90	0.393
Engine rotation mean	8	1504.9	1508.4	3.5	4.9	0.7	0.501
X acceleration mean	6	0.012	0.022	0.010	0.010	1.030	0.350
Y acceleration mean	6	0.041	0.040	-0.001	0.003	-0.370	0.728
Ambient light mean	9	12.78	9.82	-2.97	3.85	-0.77	0.463

Notes: Mean values and difference in mean values are model-predicted least squares estimates.

U.S. Study Phase 2 results

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 20: AP+ and SafeTRAC Outcomes
Descriptive Comparisons of Changes in Unweighted Medians or Interquartile Ranges

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Outcome variables								
PERCLOS during night hours median	9	4.11	3.00	-1.11	1.27	-3.00	0.00	0.030
SafeTRAC Driver's Alertness median	9	71.22	76.22	5.00	6.86	-9.00	14.00	0.060
Lateral distance IQR	9	48.67	38.44	-10.22	17.62	-56.00	2.00	0.120
Steering wheel movements IQR	7	0.86	0.86	0.00	0.58	-1.00	1.00	1.000
Front Wheel movements IQR	7	0.86	0.71	-0.14	0.38	-1.00	0.00	0.356
Technical variables								
Vehicle speed median	9	61.78	61.89	0.11	0.33	0.00	1.00	0.347
Engine rotation median	8	1520.0	1517.5	-2.5	12.8	-20.0	20.0	0.598
X acceleration median	6	0.012	0.020	0.008	0.031	-0.010	0.070	0.534
Y acceleration median	6	0.038	0.033	-0.005	0.008	-0.020	0.000	0.203
Ambient light median	9	0.00	0.00	0.00	0.00	0.00	0.00	.

U.S. Study Phase 2 results

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 21: AP+ and SafeTRAC Outcomes
Mixed Model ANOVA Comparisons Based on Doubly-Weighted Medians or IQR's

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SE	t-statistic	Difference p-value
Outcome variables							
PERCLOS during night hours median	9	3.47	2.64	-0.83	0.31	-2.70	0.027
SafeTRAC Driver's Alertness median	9	71.07	76.85	5.78	2.22	2.60	0.032
Lateral distance IQR	9	47.99	38.40	-9.59	6.25	-1.53	0.164
Steering wheel movements IQR	7	0.70	0.76	0.05	0.08	0.63	0.553
Front Wheel movements IQR	7	0.83	0.70	-0.13	0.13	-1.01	0.352
Technical variables							
Vehicle speed median	9	61.97	62.14	0.18	0.23	0.75	0.473
Engine rotation median	8	1520.2	1522.8	2.7	2.5	1.1	0.325
X acceleration median	6	0.011	0.022	0.010	0.011	0.910	0.404
Y acceleration median	6	0.036	0.034	-0.002	0.002	-1.220	0.276
Ambient light median	9	.	.	.	.	.	.

Notes: Mean values and difference in mean values are model-predicted least squares estimates.

Table 22: Total Durations Used as Weighting Factors in Mixed Model ANOVA

Outcomes	PERCLOS Camera		Lateral distance		Driver's Alertness		Steering wheel movements		Front Wheel movements		Vehicle speed		Engine rotation		X acceleration		Y acceleration	
Feedback	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
SID																		
31	81.5	83.6	73.5	75.4	81.5	83.6	81.5	83.6	81.5	83.6	81.5	83.6	81.5	83.6	.	.	.	.
32	65.4	29.5	72.9	39.5	79.6	41.7	79.6	41.7	79.6	41.7	79.6	41.7	79.6	41.7	.	.	.	.
35	57.8	5.9	75.2	8.0	81.6	8.4	81.6	8.4	81.6	.	81.6	8.4	81.6	8.4	81.6	8.4	81.6	8.4
36	19.1	8.6	17.9	6.6	19.1	8.6	.	.	19.1	8.6	19.1	8.6	19.1	8.6	19.1	8.6	19.1	8.6
37	43.2	45.2	35.4	37.0	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2
38	82.5	73.8	77.0	68.9	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8
40	28.9	73.9	25.9	68.4	28.9	74.8	28.9	74.8	28.9	74.8	28.9	74.8	28.9	74.8	28.9	74.8	28.9	74.8
41	44.7	50.7	37.0	39.2	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7
42	56.7	25.9	65.2	24.3	68.8	26.1	.	.	68.8	.	68.8	26.1	.	.	.	.	.	.
Mean	53.3	44.1	53.3	40.8	58.9	45.9	63.1	54.0	58.9	54.1	58.9	45.9	57.6	48.4	50.0	43.6	50.0	43.6

Table 23: PVT Outcomes
Mixed Model ANOVA Predicted Mean Values by Condition and Time of Day

	ICC[&]	Test for Time*FB Interaction[^]	Day			Evening			Night			Main Effects[#]	
			No FB	FB	p-value	No FB	FB	p-value	No FB	FB	p-value	FB	TOD
Total trials among 12 drivers			37	32		12	3		178	174			
Primary Variables													
Raw lapses (RT>500 ms)	0.303	0.331	3.43	6.02	0.134	-0.66	5.82	0.233	3.12	4.59	**0.016**	**0.005**	**0.088**
Median response time	0.246	0.555	257.1	277.6	0.125	227.2	258.3	0.367	243.7	258.0	**0.000**	**0.000**	**0.002**
Post test sleepiness	0.429	0.112	4.51	5.97	0.172	1.83	8.44	**0.051**	3.29	5.33	**0.000**	**<0.0001**	**0.082**
Secondary Variables													
Transformed lapses	0.334	0.359	3.65	4.32	0.222	1.45	4.17	0.240	2.89	3.63	**0.004**	**0.002**	**0.011**
Mean fastest 10% RT's	0.603	0.752	201.3	203.9	0.550	185.9	190.0	0.496	190.1	195.2	**0.002**	**0.002**	**<0.0001**
Mean slowest 10% 1/RT's	0.347	0.421	2.21	1.83	0.062	3.05	2.27	0.294	2.55	2.28	**0.001**	**0.000**	**0.000**
Total response errors	0.606	0.609	3.20	5.10	0.215	4.41	3.80	0.645	4.18	5.06	**0.038**	**0.038**	0.734
Reciprocol RT slope	0.156	0.102	-0.035	-0.066	**0.087**	-0.034	-0.033	0.907	-0.040	-0.031	0.160	0.664	0.339
Grand mean RT	0.304	0.566	280.1	298.2	0.197	212.3	297.0	0.285	282.7	307.8	**0.021**	**0.011**	0.071
RT standard deviation	0.273	0.402	117.5	120.5	0.659	1.2	196.6	0.258	136.9	170.0	0.162	0.113	0.132
RT distribution asymmetry	0.215	0.273	0.225	0.259	0.164	0.197	0.284	0.302	0.222	0.237	**0.061**	**0.014**	0.464
Pre test sleepiness	0.367	0.110	4.57	5.13	0.722	1.82	7.22	0.064	3.16	5.09	**0.000**	**<0.0001**	0.139

Notes:

[&] ICC Intraclass correlation controlling for time of day and feedback condition.

[^] Mixed model ANOVA test for interaction, if significant then feedback effects were assessed at each time of day interval.

[#] If interaction was not significant, it was removed and feedback and time of day effects were assessed as main effects.

U.S. Study Phase 2 results

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 24: Actigraphy Variables **Mixed Model ANOVA Fixed Effects (Predicted Means and Differences in Means)**							
Outcome variables	**N**	**No Feedback Mean**	**Feedback Mean**	**Difference Mean**	**Difference SE**	**t-statistic**	**Difference p-value**
Prior Sleep	10	337.43	353.30	15.87	17.175	0.920	0.380
Sleep Episodes	10	1.875	2.114	0.239	0.102	2.330	0.045
AMS (Actigraphy Movement Score)	10	1920.50	2068.17	147.67	104.86	1.410	0.193
Sleep Efficiency	10	69.658	64.634	-5.024	4.739	-1.060	0.317
Sleep Performance Model (Max)	10	86.262	86.236	-0.027	1.977	-0.010	0.990
Sleep Performance Model (Min)	10	62.969	63.713	0.744	1.953	0.380	0.712
Notes: Mean values and difference in mean values are model-predicted least squares estimates.							

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Intraclass Correlations Coefficients

Table 25: Actigraphy Variables Mixed Model ANOVA Random Effects and Intraclass Correlations					
Outcome variables	$Sigma^2_{(driver)}$	$Sigma^2_{(residual)}$	$Sigma^2_{(total)}$	ICC	p-value
Prior Sleep	2527.6	1474.94	4002.58	0.632	0.055
Sleep Episodes	0.048	0.052	0.101	0.481	0.097
AMS (Actigraphy Movement Score)	3553863.8	54974.8	3608838.6	0.985	0.018
Sleep Efficiency	301.9	112.3	414.2	0.729	0.039
Sleep Performance Model (Max)	30.0	19.5	49.5	0.606	0.060
Sleep Performance Model (Min)	17.0	19.1	36.0	0.471	0.101

Note: ICC is the proportion of total variance across drivers and days explained by systematic driver variance after removing variance explained by the no feedback and feedback conditons.

U.S. Study Phase 2 results

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 26: AP+ and SafeTRAC Outcomes at Night Descriptive Comparisons of Changes in Unweighted Means or Standard Deviations								
	N	No Feedback Mean	Fedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Outcome variables								
PERCLOS during night hours mean	9	7.58	6.52	-1.06	1.95	-4.45	1.51	0.140
SafeTRAC Driver's Alertness mean	9	70.67	75.62	4.95	6.52	-8.70	14.36	0.052
Lateral distance standard deviation	9	48.53	43.55	-4.98	11.05	-18.46	15.43	0.213
Steering wheel movements SD	7	0.66	0.84	0.18	0.10	0.01	0.35	0.004
Front Wheel movements SD	7	0.63	0.72	0.08	0.06	-0.04	0.15	0.013
Technical variables								
Vehicle speed mean	9	60.16	60.13	-0.04	0.60	-0.85	0.98	0.861
Engine rotation mean	8	1504.1	1503.0	-1.0	14.8	-19.9	23.9	0.853
X acceleration mean	6	0.012	0.022	0.010	0.026	-0.005	0.063	0.401
Y acceleration mean	6	0.041	0.039	-0.002	0.009	-0.017	0.012	0.701
Ambient light mean	9	3.306	0.521	-2.785	8.098	-24.364	0.249	0.332

Table 27: AP+ and SafeTRAC Outcomes at Night
Mixed Model ANOVA Comparisons Based on Doubly-Weighted Means or SD's

	N	No Feedback Mean	Fedback Mean	Difference Mean	Difference SE	t-statistic	Difference p-value
Outcome variables							
PERCLOS during night hours mean	9	6.65	5.98	-0.66	0.38	-1.72	0.123
SafeTRAC Driver's Alertness mean	9	70.48	76.47	5.99	2.29	2.61	0.031
Lateral distance standard deviation	9	46.70	42.76	-3.94	3.96	-0.99	0.349
Steering wheel movements SD	7	0.64	0.81	0.17	0.03	5.73	0.001
Front Wheel movements SD	7	0.62	0.71	0.09	0.02	3.86	0.008
Technical variables							
Vehicle speed mean	9	60.51	60.66	0.15	0.18	0.84	0.424
Engine rotation mean	8	1505.6	1509.3	3.7	5.2	0.7	0.493
X acceleration mean	6	0.012	0.023	0.010	0.010	1.040	0.346
Y acceleration mean	6	0.041	0.040	-0.001	0.002	-0.270	0.798
Ambient light mean	9	2.456	0.610	-1.847	2.011	-0.920	0.385

Notes: Mean values and difference in mean values are model-predicted least squares estimates.

U.S. Study Phase 2 results

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 28: AP+ and SafeTRAC Outcomes at Night
Descriptive Comparisons of Changes in Unweighted Medians or Interquartile Ranges

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Outcome variables								
PERCLOS during night hours median	9	4.11	3.00	-1.11	1.27	-3.00	0.00	0.030
SafeTRAC Driver's Alertness median	9	71.44	76.56	5.11	6.88	-9.00	14.00	0.056
Lateral distance IQR	9	45.78	38.22	-7.56	9.37	-30.00	2.00	0.042
Steering wheel movements IQR	7	0.86	0.86	0.00	0.58	-1.00	1.00	1.000
Front Wheel movements IQR	7	0.86	0.71	-0.14	0.38	-1.00	0.00	0.356
Technical variables								
Vehicle speed median	9	61.89	61.89	0.00	0.50	-1.00	1.00	1.000
Engine rotation median	8	1520.0	1520.0	0.0	10.7	-20.0	20.0	1.000
X acceleration median	6	0.012	0.020	0.008	0.031	-0.010	0.070	0.534
Y acceleration median	6	0.037	0.033	-0.003	0.005	-0.010	0.000	0.175
Ambient light median	9	0.00	0.00	0.00	0.00	0.00	0.00	.

Table 29: AP+ and SafeTRAC Outcomes at Night
Mixed Model ANOVA Comparisons Based on Doubly-Weighted Medians or IQR's

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SE	t-statistic	Difference p-value
Outcome variables							
PERCLOS during night hours median	9	3.47	2.64	-0.83	0.31	-2.70	0.027
SafeTRAC Driver's Alertness median	9	71.36	77.27	5.91	2.21	2.67	0.028
Lateral distance IQR	9	44.38	37.41	-6.97	3.52	-1.98	0.083
Steering wheel movements IQR	7	0.71	0.75	0.04	0.07	0.54	0.611
Front Wheel movements IQR	7	0.83	0.69	-0.14	0.13	-1.04	0.339
Technical variables							
Vehicle speed median	9	62.07	62.29	0.22	0.23	0.96	0.363
Engine rotation median	8	1522.8	1521.5	-1.3	5.7	-0.2	0.828
X acceleration median	6	0.011	0.022	0.010	0.011	0.920	0.398
Y acceleration median	6	0.036	0.034	-0.002	0.002	-1.170	0.295
Ambient light median	9	.	.	.	.	.	.

Notes: Mean values and difference in mean values are model-predicted least squares estimates.

Table 30: Total Durations Used as Weighting Factors in Mixed Model ANOVA for Night Outcomes

Outcomes	PERCLOS Camera		Lateral distance		Driver's Alertness		Steering wheel movements		Front Wheel movements		Vehicle speed		Engine rotation		X acceleration		Y acceleration	
Feedback	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
SID																		
31	81.5	83.6	73.5	75.4	81.5	83.6	81.5	83.6	81.5	83.6	81.5	83.6	81.5	83.6	.	.	.	.
32	65.4	29.5	59.1	27.7	65.4	29.5	65.4	29.5	65.4	29.5	65.4	29.5	65.4	29.5	.	.	.	.
35	57.8	5.9	54.1	5.6	57.8	5.9	57.8	5.9	57.8	.	57.8	5.9	57.8	5.9	57.8	5.9	57.8	5.9
36	19.1	8.6	17.9	6.6	19.1	8.6	.	.	19.1	8.6	19.1	8.6	19.1	8.6	19.1	8.6	19.1	8.6
37	43.2	45.2	35.4	37.0	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2	43.2	45.2
38	82.5	73.8	77.0	68.9	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8	82.5	73.8
40	28.9	73.9	25.8	67.4	28.9	73.9	28.9	73.9	28.9	73.9	28.9	73.9	28.9	73.9	28.9	73.9	28.9	73.9
41	44.7	50.7	37.0	39.2	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7	44.7	50.7
42	56.7	25.9	53.7	24.0	56.7	25.9	.	.	56.7	.	56.7	25.9	.	.	.	.	.	.
Mean	53.3	44.1	48.2	39.1	53.3	44.1	57.7	51.8	53.3	52.2	53.3	44.1	52.9	46.4	46.0	43.0	46.0	43.0

U.S. Study Phase 2 results

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 31: Diary Data -Mean Cumulative Daily Duration Variables
Descriptive Comparisons of Changes in Means and Medians

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Means								
Rest/Eating: Duration	10	0.057	0.036	-0.020	0.100	-0.283	0.077	0.538
Rest/Sleep: Duration	10	0.111	0.092	-0.018	0.073	-0.190	0.079	0.451
Sleep/Nap out of vehicle: Duration	10	1.583	1.754	0.171	0.515	-0.340	1.278	0.321
Sleep/Nap in vehicle: Duration	10	0.116	0.061	-0.056	0.257	-0.745	0.180	0.511
Medians								
Rest/Eating: Duration	10	0.000	0.034	0.034	0.072	0.000	0.170	0.168
Rest/Sleep: Duration	10	0.000	0.000	0.000	0.000	0.000	0.000	.
Sleep/Nap out of vehicle: Duration	10	1.750	1.925	0.175	0.334	0.000	1.000	0.132
Sleep/Nap in vehicle: Duration	10	0.000	0.000	0.000	0.000	0.000	0.000	.

Table 32: Diary Data -Mean Frequency per Day Variables
Descriptive Comparisons of Changes in Means and Medians

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Means								
Rest/Eating: Frequency	10	0.172	0.180	0.009	0.237	-0.467	0.367	0.912
Rest/Sleep: Frequency	10	0.167	0.169	0.002	0.085	-0.111	0.167	0.939
Sleep/Nap out of vehicle: Frequency	10	0.262	0.271	0.009	0.062	-0.059	0.167	0.660
Sleep/Nap in vehicle:Frequency	10	0.076	0.094	0.018	0.113	-0.118	0.219	0.625
Medians								
Rest/Eating: Frequency	10	0.000	0.200	0.200	0.422	0.000	1.000	0.168
Rest/Sleep: Frequency	10	0.000	0.000	0.000	0.000	0.000	0.000	.
Sleep/Nap out of vehicle: Frequency	10	0.300	0.300	0.000	0.000	0.000	0.000	.
Sleep/Nap out of vehicle: Frequency	10	0.000	0.000	0.000	0.000	0.000	0.000	.

Table 33: AP+ and SafeTRAC Outcomes
Descriptive Comparisons of Changes in Unweighted Means or Standard Deviations

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
USA								
PERCLOS during night hours mean	9	7.58	6.52	-1.06	1.95	-4.45	1.51	0.140
SafeTRAC Driver's Alertness mean	9	70.10	75.33	5.23	6.65	-8.52	14.36	0.046
Lateral distance standard deviation	9	49.07	43.47	-5.60	12.00	-24.14	15.43	0.199
Steering wheel movements SD	7	0.70	0.85	0.15	0.07	0.01	0.25	0.002
Front wheel movements SD	7	0.64	0.72	0.08	0.06	-0.04	0.15	0.014
Canada								
PERCLOS during night hours mean	16	6.65	5.03	-1.63	3.85	-10.52	2.80	0.112
SafeTRAC Driver's Alertness mean	18	82.58	81.80	-0.78	1.94	-4.93	2.32	0.107
Lateral distance standard deviation	18	32.41	31.88	-0.53	2.74	-4.66	5.03	0.424
Steering wheel movements SD	19	3.21	2.31	-0.90	4.09	-14.24	3.95	0.349
Front wheel movements SD	14	3.27	3.05	-0.22	1.13	-3.58	1.09	0.485
USA vs. Canada p-values								
PERCLOS during night hours mean	25	0.612	0.280	0.687				
SafeTRAC Driver's Alertness mean	27	0.001	0.121	0.001				
Lateral distance standard deviation	27	<.0001	0.000	0.095				
Steering wheel movements SD	26	0.097	0.052	0.508				
Front wheel movements SD	21	<.0001	<.0001	0.499				

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Pooled Data (Canada Study Phase 1 and U.S. Study Phase 2)

Comparisons of NO FEEDBACK and FEEDBACK conditions

Table 34: AP+ and SafeTRAC Outcomes
Descriptive Comparisons of Changes in Unweighted Means or Standard Deviations

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SD	Difference Min	Difference Max	Difference p-value
Pooled (USA and Canada)								
PERCLOS during night hours mean	25	6.99	5.56	-1.42	3.26	-10.52	2.80	0.039
SafeTRAC Driver's Alertness mean	27	78.42	79.64	1.22	4.94	-8.52	14.36	0.210
Lateral distance standard deviation	27	37.97	35.75	-2.22	7.42	-24.14	15.43	0.132
Steering wheel movements SD	26	2.53	1.92	-0.62	3.50	-14.24	3.95	0.377
Front wheel movements SD	21	2.39	2.27	-0.12	0.92	-3.58	1.09	0.566

Comparison of FEEDBACK condition versus NO FEEDBACK condition
p values between U.S. and Canada Comparison Study Phases

Table 35: AP+ and SafeTRAC Outcomes
Mixed Model ANOVA Comparisons Based on Doubly-Weighted Means or SD's

	N	No Feedback Mean	Feedback Mean	Difference Mean	Difference SE	t-statistic	Difference p-value
USA							
PERCLOS during night hours mean	9	6.65	5.98	-0.66	0.38	-1.72	0.123
SafeTRAC Driver's Alertness mean	9	69.84	75.89	6.06	2.30	2.63	0.030
Lateral distance standard deviation	9	47.49	42.53	-4.96	4.15	-1.19	0.266
Steering wheel movements SD	7	0.67	0.83	0.16	0.03	6.29	0.001
Front wheel movements SD	7	0.62	0.71	0.09	0.02	3.89	0.008
Canada							
PERCLOS during night hours mean	16	6.58	4.99	-1.60	0.89	-1.79	0.094
SafeTRAC Driver's Alertness mean	18	82.42	82.18	-0.24	0.47	-0.50	0.620
Lateral distance standard deviation	18	30.02	29.92	-0.10	0.78	-0.12	0.903
Steering wheel movements SD	19	2.75	1.97	-0.78	0.85	-0.92	0.372
Front wheel movements SD	14	3.10	3.00	-0.09	0.26	-0.35	0.733
USA vs. Canada p-values							
PERCLOS during night hours mean	25	0.853	0.440	0.767			
SafeTRAC Driver's Alertness mean	27	0.001	0.178	0.009			
Lateral distance standard deviation	27	0.000	<.0001	<.0001			
Steering wheel movements SD	26	0.091	0.017	0.018			
Front wheel movements SD	21	<.0001	<.0001	<.0001			