a) **BPA Treatments Litter Counts and Proportions**

Table 1. Summary Statistics for Litter Size by Sex and Number Born Dead for Bisphenol-A

Dose		Litter Size		# of Males		# of Females		# of Unsexed		# Born Dead	
(µg/kg$_{BW}$/day)	N	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Control	73	11.8	0.4	5.8	0.2	5.8	0.2	0.2	0.1	0.00	0.00
BPA 2.5	65	12.6	0.3	6.4	0.3	6.0	0.3	0.2	0.1	0.08	0.05
BPA 25	61	11.9	0.5	6.2	0.3	5.6	0.3	0.1	0.0	0.02	0.02
BPA 250	64	11.6	0.5	5.7	0.2	5.7	0.4	0.2	0.1	0.00	0.00
BPA 2500	64	12.3	0.4	6.2	0.3	5.8	0.3	0.3	0.1	0.02	0.02
BPA 25000	64	11.5	0.4	5.5	0.3	5.8	0.3	0.2	0.1	0.02	0.02

Table 2. Summary Statistics for Litter Sex Proportions for Bisphenol-A

Dose		Male %		Female %		Unsexed %	
(µg/kg$_{BW}$/day)	N	Mean	SE	Mean	SE	Mean	SE
Control	73	49.4	1.5	49.5	1.5	1.1	0.4
BPA 2.5	65	51.5	2.3	47.0	2.3	1.6	0.6
BPA 25	61	52.2	2.2	47.0	2.2	0.8	0.3
BPA 250	64	50.6	2.0	47.9	2.1	1.5	0.7
BPA 2500	64	50.9	1.8	46.7	1.7	2.3	0.9
BPA 25000	64	47.3	2.3	51.5	2.3	1.1	0.6

Table 3. Poisson Regression Test of Treatment Effect on Litter Counts for Bisphenol-A [1]

Dose (µg/kg·$_{BW}$·/day)

Analysis[2]	Control Mean	SE	P	BPA 2.5 Mean	SE	Pct	P	BPA 25 Mean	SE	Pct	P	BPA 250 Mean	SE	Pct	P	BPA 2500 Mean	SE	Pct	P	BPA 25000 Mean	SE	Pct	P
Alive	11.8	0.4	0.442	12.6	0.4	106.6	0.566	11.9	0.4	101.0	1.000	11.6	0.4	98.2	0.996	12.3	0.4	104.1	0.885	11.5	0.4	97.4	0.981
Females	5.8	0.3	0.859	6.0	0.3	102.6	0.996	5.6	0.3	95.6	0.961	5.7	0.3	98.0	0.999	5.8	0.3	99.4	1.000	5.8	0.3	99.9	1.000
Males	5.8	0.3	0.262	6.4	0.3	109.9	0.519	6.2	0.3	107.5	0.763	5.7	0.3	97.9	0.999	6.2	0.3	106.0	0.881	5.5	0.3	94.7	0.915
Males+	6.0	0.3	0.361	6.6	0.3	110.5	0.450	6.3	0.3	106.2	0.864	5.9	0.3	98.4	1.000	6.5	0.3	108.8	0.617	5.7	0.3	95.0	0.927

[1] All p-values and % are relative to the control group, except for the trend p-value shown below control.

[2] Analysis 'Alive' was based on the sum of counts of unsexed and sexed pups; analysis of 'Males+' included unsexed as well as male pups.

Table 4. Comparison of Sex Proportions for Bisphenol-A (Proportion of Males)

Dose (µg/kg·$_{BW}$·/day)

Control[1] Mean	SE	P	BPA 2.5 Mean	SE	Pct	P	BPA 25 Mean	SE	Pct	P	BPA 250 Mean	SE	Pct	P	BPA 2500 Mean	SE	Pct	P	BPA 25000 Mean	SE	Pct	P
0.505	0.017	0.606	0.524	0.017	103.7	0.914	0.532	0.018	105.2	0.752	0.506	0.018	100.2	1.000	0.528	0.018	104.5	0.833	0.493	0.018	97.5	0.984

[1] All p-values and % are relative to the control group, except for trend shown below control.

b) **BPA Treatments Litter Weights**

Table 5. Summary Statistics for Litter Weights (g) for Bisphenol-A

Dose (µg/kg·$_{BW}$·/day)

Analysis	Control N	Mean	SE	BPA 2.5 N	Mean	SE	BPA 25 N	Mean	SE	BPA 250 N	Mean	SE	BPA 2500 N	Mean	SE	BPA 25000 N	Mean	SE
Average Female	73	6.83	0.11	62	6.60	0.10	61	6.80	0.10	64	6.79	0.10	63	6.72	0.13	64	6.90	0.13
Average Male	73	7.06	0.11	62	6.99	0.09	61	7.18	0.14	64	7.11	0.09	63	7.00	0.12	64	7.24	0.12
Average Pup	73	6.96	0.09	62	6.82	0.10	61	7.04	0.11	64	6.93	0.08	63	6.88	0.11	64	7.05	0.12
Females	73	38.49	1.62	62	37.16	2.33	61	36.69	1.97	64	36.44	2.16	63	37.04	1.73	64	37.24	1.74
Males	73	40.10	1.74	62	43.57	2.29	61	43.47	2.15	64	39.14	1.63	63	41.65	1.82	64	38.09	2.04
Total	73	78.59	2.31	62	80.73	2.62	61	80.16	2.81	64	75.58	2.88	63	78.69	2.38	64	75.33	2.59

Table 6. Test of Treatment and Covariate Effects on Litter Weight[1] for Bisphenol-A
Dose (μg/kg$_{BW}$/day)

Analysis	Effect	NumDF	DenDF	Fvalue	P value
Mean Female	Treatment	5	380	0.343	0.886
	Pup Count	1	380	117.263	**<.001**
Mean Male	Treatment	5	380	0.462	0.804
	Pup Count	1	380	86.685	**<.001**
Mean Pup	Treatment	5	380	0.469	0.799
	Pup Count	1	380	147.269	**<.001**
Females	Treatment	5	381	0.147	0.980
Males	Treatment	5	381	1.334	0.248
Total	Treatment	5	381	0.748	0.588

1. Analyses were performed separately for females, males, and totals; ANOVA was performed for litter weights and ANOCOVA was performed for mean pup weights.

Table 7. ANOCOVA of Litter Mean Pup Weight and ANOVA of Litter Weight (g)[1] for Bisphenol-A
Dose (μg/kg$_{BW}$/day)

Analysis	Control Mean	SE	P	BPA 2.5 Mean	SE	Pct	P	BPA 25 Mean	SE	Pct	P	BPA 250 Mean	SE	Pct	P	BPA 2500 Mean	SE	Pct	P	BPA 25000 Mean	SE	Pct	P
Mean Female	6.816	0.094	0.661	6.685	0.102	98.1	0.824	6.791	0.102	99.6	1.000	6.742	0.100	98.9	0.980	6.760	0.101	99.2	0.994	6.853	0.100	100.5	0.999
Mean Male	7.040	0.096	0.505	7.068	0.105	100.4	1.000	7.177	0.106	101.9	0.814	7.064	0.103	100.3	1.000	7.038	0.104	100.0	1.000	7.194	0.103	102.2	0.726
Mean Pup	6.942	0.081	0.785	6.899	0.088	99.4	0.997	7.037	0.088	101.4	0.900	6.887	0.086	99.2	0.989	6.915	0.087	99.6	1.000	7.001	0.086	100.9	0.985
Females	38.488	1.810	0.667	37.158	1.964	96.5	0.985	36.690	1.980	95.3	0.948	36.436	1.933	94.7	0.909	37.040	1.949	96.2	0.978	37.241	1.933	96.8	0.988
Males	40.104	1.829	0.210	43.574	1.985	108.7	0.584	43.470	2.001	108.4	0.616	39.142	1.953	97.6	0.997	41.649	1.969	103.9	0.972	38.094	1.953	95.0	0.919
Total	78.592	2.439	0.208	80.732	2.647	102.7	0.968	80.161	2.668	102.0	0.992	75.578	2.605	96.2	0.877	78.689	2.626	100.1	1.000	75.334	2.605	95.9	0.840

1. All p-values and % are relative to the control group, except for trend shown below control.

3

c) **EE₂ Treatments Litter Counts and Proportions**

Table 8. Summary Statistics for Litter Size by Sex and Number Born Dead for Ethinyl Estradiol

Dose		Litter Size		# of Males		# of Females		# of Unsexed		# Born Dead	
(µg/kg·BW·/day)	N	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Control	73	11.8	0.4	5.8	0.2	5.8	0.2	0.2	0.1	0.00	0.00
EE2 0.5	41	11.8	0.6	6.1	0.4	5.4	0.4	0.3	0.2	0.00	0.00
EE2 5.0	51	12.2	0.4	5.8	0.3	6.1	0.3	0.3	0.1	0.04	0.04

Table 9. Summary Statistics for Litter Sex Proportions for Ethinyl Estradiol

Dose		Male %		Female %		Unsexed %	
(µg/kg·BW·/day)	N	Mean	SE	Mean	SE	Mean	SE
Control	73	49.4	1.5	49.5	1.5	1.1	0.4
EE2 0.5	41	53.2	2.4	44.8	2.2	1.9	1.1
EE2 5.0	51	48.0	2.1	49.6	2.1	2.4	1.0

Table 10. Poisson Regression Test of Treatment Effect on Litter Counts for Ethinyl Estradiol Dose (µg/kg·BW·/day) [1]

	Control		EE2 0.5				EE2 5.0			
Analysis[2]	Mean	SE	Mean	SE	Pct	P	Mean	SE	Pct	P
Alive	11.8	0.4	11.8	0.5	100.1	1.000	12.2	0.5	103.3	0.769
Females	5.8	0.3	5.4	0.4	93.0	0.598	6.1	0.3	104.6	0.782
Males	5.8	0.3	6.1	0.4	105.4	0.744	5.8	0.3	99.6	0.998
Males+	6.0	0.3	6.4	0.4	107.0	0.607	6.1	0.3	102.1	0.947

[1] All p-values and % are relative to the control group.
[2] Analysis 'Alive' was based on the sum of counts of unsexed and sexed pups.[3] Analysis of 'Males+' included unsexed as well as male pups.

Table 11. Comparison of Sex Proportions for Ethinyl Estradiol (Proportion of Males)

Dose (µg/kg·BW·/day)									
Control[1]		EE2 0.5				EE2 5.0			
Mean	SE	Mean	SE	Pct	P	Mean	SE	Pct	P
0.505	0.017	0.540	0.023	106.9	0.371	0.499	0.020	98.8	0.965

[1] All p-values and % are relative to the control group

d) **EE₂ Treatments Litter Weights**

Table 12. Summary Statistics for Litter Weights (g) for Ethinyl Estradiol

				Dose (µg/kg'BW'/day)					
	Control				**EE2 0.5**			**EE2 5.0**	
Analysis	*N*	*Mean*	*SE*	*N*	*Mean*	*SE*	*N*	*Mean*	*SE*
Average Female	73	6.83	0.11	39	6.56	0.14	50	6.87	0.11
Average Male	73	7.06	0.11	39	7.12	0.11	50	7.19	0.14
Average Pup	73	6.96	0.09	39	6.85	0.12	50	7.03	0.12
Females	73	38.49	1.62	39	34.87	2.41	50	39.96	2.31
Males	73	40.10	1.74	39	41.84	2.87	50	38.64	1.99
Total	73	78.59	2.31	39	76.71	3.94	50	78.60	2.93

Table 13. Test of Treatment and Covariate Effects on Litter Weight[1] for Ethinyl Estradiol
Dose (µg/kg'BW'/day)

Analysis	*Effect*	*NumDF*	*DenDF*	*Fvalue*	*P value*
Mean Female	Treatment	2	158	2.454	0.089
	Pup Count	1	158	70.962	**<.001**
Mean Male	Treatment	2	158	0.633	0.532
	Pup Count	1	158	39.376	**<.001**
Mean Pup	Treatment	2	158	1.059	0.349
	Pup Count	1	158	67.228	**<.001**
Females	Treatment	2	159	1.325	0.268
Males	Treatment	2	159	0.473	0.624
Total	Treatment	2	159	0.116	0.890

1. Analyses were performed separately for females, males, and totals; ANOVA was performed for litter weights and ANOCOVA was performed for mean pup weights.

Table 14. ANOCOVA of Litter Mean Pup Weight and ANOVA of Litter Weight (g)[1] for Ethinyl Estradiol

					Dose (µg/kg'BW'/day)					
	Control		**EE2 0.5**				**EE2 5.0**			
Analysis	*Mean*	*SE*	*Mean*	*SE*	*Pct*	*P*	*Mean*	*SE*	*Pct*	*P*
Mean Female	6.814	0.085	6.565	0.117	96.3	0.159	6.900	0.103	101.3	0.757
Mean Male	7.040	0.096	7.128	0.131	101.3	0.817	7.208	0.116	102.4	0.443
Mean Pup	6.942	0.079	6.851	0.108	98.7	0.736	7.058	0.096	101.7	0.558
Females	38.488	1.747	34.869	2.390	90.6	0.381	39.958	2.111	103.8	0.823
Males	40.104	1.804	41.838	2.468	104.3	0.804	38.638	2.180	96.3	0.833
Total	78.592	2.492	76.708	3.410	97.6	0.873	78.596	3.011	100.0	1.000

1. All p-values and % are relative to the control group, except for trend shown below control.