

Table G-11. Summary of Unadjusted Results for Polytomous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter	Contrast	Dioxin Category	n	Number (%) Abnormal	Est. Relative Risk (95% C.I.) ^a	p-Value ^a
15-10	Hematocrit	Low vs. Normal	Comparison	1,211	27 (2.2)		
			Background RH	381	8 (2.1)	0.97 (0.43,2.16)	0.933
			Low RH	239	5 (2.1)	0.93 (0.35,2.43)	0.875
			High RH	239	5 (2.1)	0.91 (0.35,2.40)	0.850
			Low plus High RH	478	10 (2.1)	0.92 (0.44,1.92)	0.820
		High vs. Normal	Comparison	1,211	5 (0.4)		
			Background RH	381	0 (0.0)	--	0.464 ^b
			Low RH	239	0 (0.0)	--	0.695 ^b
			High RH	239	1 (0.4)	0.91 (0.10,7.96)	0.931
			Low plus High RH	478	1 (0.2)	--	0.856 ^b
15-12	Platelet Count	Low vs. Normal	Comparison	1,205	35 (2.9)		
			Background RH	379	14 (3.7)	1.40 (0.74,2.66)	0.299
			Low RH	238	6 (2.5)	0.84 (0.35,2.03)	0.702
			High RH	238	2 (0.8)	0.26 (0.06,1.10)	0.067
			Low plus High RH	476	8 (1.7)	0.47 (0.20,1.13)	0.090
		High vs. Normal	Comparison	1,205	5 (0.4)		
			Background RH	379	2 (0.5)	1.02 (0.19,5.30)	0.984
			Low RH	238	0 (0.0)	--	0.693 ^b
			High RH	238	2 (0.8)	2.61 (0.49,13.84)	0.261
			Low plus High RH	476	2 (0.4)	--	0.999 ^b

Table G-11. Summary of Unadjusted Results for Polytomous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter	Contrast	Dioxin Category	n	Number (%) Abnormal	Est. Relative Risk (95% C.I.) ^a	p-Value ^a
16-5	Diabetic Severity	No Treatment vs. Nondiabetic	Comparison	1,195	63 (5.3)		
			Background RH	379	16 (4.2)	0.91 (0.51,1.61)	0.749
			Low RH	235	13 (5.5)	1.04 (0.55,1.94)	0.912
			High RH	240	19 (7.9)	1.43 (0.83,2.47)	0.202
			Low plus High RH	475	32 (6.7)	1.22 (0.77,1.92)	0.394
		Diet Only vs. Nondiabetic	Comparison	1,195	17 (1.4)		
			Background RH	379	6 (1.6)	1.23 (0.48,3.17)	0.668
			Low RH	235	5 (2.1)	1.49 (0.54,4.11)	0.437
			High RH	240	7 (2.9)	2.00 (0.81,4.92)	0.131
			Low plus High RH	475	12 (2.5)	1.73 (0.81,3.70)	0.156
		Oral Hypoglycemic vs. Nondiabetic	Comparison	1,195	72 (6.0)		
			Background RH	379	5 (1.3)	0.27 (0.11,0.69)	0.006
			Low RH	235	14 (6.0)	0.92 (0.49,1.72)	0.795
			High RH	240	18 (7.5)	1.08 (0.61,1.91)	0.799
			Low plus High RH	475	32 (6.7)	1.00 (0.63,1.58)	0.988
		Requiring Insulin vs. Nondiabetic	Comparison	1,195	17(1.4)		
			Background RH	379	8 (2.1)	1.55 (0.66,3.63)	0.318
			Low RH	235	8 (3.4)	2.43 (1.03,5.72)	0.042
			High RH	240	8 (3.3)	2.40 (1.02,5.65)	0.046
			Low plus High RH	475	16 (3.4)	2.41 (1.20,4.83)	0.013

Table G-11. Summary of Unadjusted Results for Polytomous Variables - Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter	Contrast	Dioxin Category	n	Number (%) Abnormal	Est. Relative Risk (95% C.I.) ^a	p-Value ^a
G-86	16-10 TSH	Low vs. Normal	Comparison	1,161	9 (0.8)		
			Background RH	367	6 (1.6)	2.27 (0.80,6.50)	0.125
			Low RH	233	1 (0.4)	0.54 (0.07,4.31)	0.564
			High RH	234	3 (1.3)	1.60 (0.43,6.02)	0.485
			Low plus High RH	467	4 (0.9)	0.93 (0.25,3.48)	0.919
		High vs. Normal	Comparison	1,161	36 (3.1)		
			Background RH	367	17 (4.6)	1.46 (0.80,2.64)	0.214
			Low RH	233	7 (3.0)	0.97 (0.43,2.22)	0.951
			High RH	234	10 (4.3)	1.47 (0.72,3.02)	0.294
			Low plus High RH	467	17 (3.6)	1.20 (0.66,2.17)	0.553
	16-21 Serum Insulin	Low vs. Normal	Comparison	996	131 (13.2)		
			Background RH	342	51 (14.9)	0.96 (0.66,1.39)	0.820
			Low RH	186	20 (10.8)	0.84 (0.50,1.43)	0.527
			High RH	183	13 (7.1)	0.58 (0.31,1.07)	0.082
			Low plus High RH	369	33 (8.9)	0.70 (0.45,1.07)	0.102
		High vs. Normal	Comparison	996	418 (42.0)		
			Background RH	342	122 (35.7)	0.91 (0.69,1.20)	0.507
			Low RH	186	85 (45.7)	1.14 (0.81,1.61)	0.460
			High RH	183	87 (47.5)	0.99 (0.70,1.40)	0.968
			Low plus High RH	369	172 (46.6)	1.06 (0.82,1.39)	0.643

Table G-11. Summary of Unadjusted Results for Polytomous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter	Contrast	Dioxin Category	n	Number (%) Abnormal	Est. Relative Risk (95% C.I.) ^a	p-Value ^b
18-11	Loss of Vital Capacity	Mild vs. None	Comparison	1,211	97 (8.0)		
			Background RH	381	31 (8.1)	1.18 (0.77,1.81)	0.456
			Low RH	238	18 (7.6)	0.89 (0.52,1.51)	0.663
			High RH	243	17 (7.0)	0.75 (0.43,1.29)	0.295
			Low plus High RH	481	35 (7.3)	0.81 (0.54,1.23)	0.325
		Moderate or Severe vs. None	Comparison	1,211	18 (1.5)		
			Background RH	381	6 (1.6)	1.27 (0.50,3.27)	0.616
			Low RH	238	2 (0.8)	0.52 (0.12,2.28)	0.387
			High RH	243	2 (0.8)	0.46 (0.10,2.00)	0.297
			Low plus High RH	481	4 (0.8)	0.49 (0.16,1.46)	0.199
18-12	Obstructive Abnormality	Mild vs. None	Comparison	1,211	356 (29.4)		
			Background RH	381	131 (34.4)	1.26 (0.98,1.62)	0.071
			Low RH	238	85 (35.7)	1.38 (1.02,1.86)	0.037
			High RH	243	55 (22.6)	0.70 (0.50,0.97)	0.031
			Low plus High RH	481	140 (29.1)	0.98 (0.77,1.24)	0.838
		Moderate vs. None	Comparison	1,211	73 (6.0)		
			Background RH	381	25 (6.6)	1.14 (0.70,1.85)	0.595
			Low RH	238	13 (5.5)	1.03 (0.56,1.92)	0.915
			High RH	243	13 (5.3)	0.82 (0.44,1.52)	0.533
			Low plus High RH	481	26 (5.4)	0.92 (0.58,1.47)	0.731
		Severe vs. None	Comparison	1,211	15 (1.2)		
			Background RH	381	7 (1.8)	1.42 (0.57,3.55)	0.453
			Low RH	238	6 (2.5)	2.37 (0.90,6.24)	0.080
			High RH	243	1 (0.4)	0.33 (0.04,2.56)	0.291
			Low plus High RH	481	7 (1.5)	0.88 (0.27,2.90)	0.835

^a Adjusted for percent body fat at the time of the blood measurement of dioxin.

^b P-value determined using a chi-square test with continuity correction because of the sparse number of participants with abnormalities.

--: Relative risk, confidence interval, and p-value are not presented because of the sparse number of participants with abnormalities.

Table G-11. Summary of Unadjusted Results for Polytomous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Note: Relative risk and confidence interval relative to Comparisons.

RH = Ranch Hand.

Comparison: 1987 Dioxin $\leq$ 10 ppt.

Background: (Ranch Hand): 1987 Dioxin $\leq$ 10 ppt.

Low (Ranch Hand): 1987 Dioxin $>$ 10 ppt, 10 ppt $<$ Initial Dioxin $\leq$ 94 ppt.

High (Ranch Hand): 1987 Dioxin $>$ 10 ppt, Initial Dioxin $>$ 94 ppt.

Table G-12. Summary of Unadjusted Results for Polytomous Variables – Model 4 (Ranch Hands: Log₂ (1987 Dioxin + 1))

Table Ref.	Clinical Parameter	Contrast	Est. Relative Risk (95% C.I.)	p-Value
11-28	Polyneuropathy Severity Index	Moderate vs. None or Mild	1.38 (1.04,1.84)	0.024
		Severe vs. None or Mild	1.13 (0.59,2.15)	0.717
13-48	α -1-Antitrypsin	Low vs. Normal	0.76 (0.49,1.19)	0.229
		High vs. Normal	0.80 (0.48,1.33)	0.393
15-4	RBC Count	Low vs. Normal	0.91 (0.73,1.14)	0.405
		High vs. Normal	1.16 (0.69,1.95)	0.566
15-6	WBC Count	Low vs. Normal	0.78 (0.63,0.96)	0.020
		High vs. Normal	0.99 (0.77,1.27)	0.957
15-8	Hemoglobin	Low vs. Normal	0.82 (0.68,1.00)	0.049
		High vs. Normal	0.47 (0.20,1.14)	0.096
15-10	Hematocrit	Low vs. Normal	0.91 (0.65,1.26)	0.568
		High vs. Normal	1.41 (0.43,4.63)	0.573
15-12	Platelet Count	Low vs. Normal	0.70 (0.50,0.96)	0.028
		High vs. Normal	0.95 (0.48,1.88)	0.879
16-5	Diabetic Severity	No Treatment vs. Nondiabetic	1.28 (1.06,1.55)	0.010
		Diet Only vs. Nondiabetic	1.27 (0.94,1.72)	0.120
		Oral Hypoglycemic vs. Nondiabetic	1.58 (1.28,1.94)	<0.001
		Requiring Insulin vs. Nondiabetic	1.15 (0.87,1.50)	0.323
16-10	TSH	Low vs. Normal	0.97 (0.63,1.48)	0.881
		High vs. Normal	0.98 (0.78,1.24)	0.894
16-21	Serum Insulin	Low vs. Normal	0.83 (0.69,1.00)	0.050
		High vs. Normal	1.16 (1.04,1.30)	0.008
18-11	Loss of Vital Capacity	Mild vs. None	0.94 (0.79,1.12)	0.480
		Moderate or Severe vs. None	0.83 (0.53,1.31)	0.430
18-12	Obstructive Abnormality	Mild vs. None	0.83 (0.75,0.92)	<0.001
		Moderate vs. None	0.86 (0.70,1.05)	0.145
		Severe vs. None	0.70 (0.47,1.04)	0.078

Note: Relative risk for a twofold increase in 1987 dioxin.

Table G-13. Summary of Adjusted Results for Continuous Variables – Model 1 (Ranch Hands vs. Comparisons)

Table Ref.	Clinical Parameter (Units)	Occupational Category	Adj. Mean		Difference of Adj. Means (95% C.I.)	p-Value
			RH	C		
9-6	Body Fat (percent) ^a	All	22.13	22.29	-0.17 --	0.481
		Officer	21.96	21.81	0.16 --	0.674
		Enlisted Flyer	21.84	22.43	-0.59 --	0.319
		Enlisted Groundcrew	22.45	22.76	-0.31 --	0.394
9-8	Erythrocyte Sedimentation Rate (mm/hr) ^b	All	5.12	5.08	0.04 --	0.850
		Officer	4.30	4.38	-0.08 --	0.789
		Enlisted Flyer	5.13	5.74	-0.60 --	0.286
		Enlisted Groundcrew	5.81	5.39	0.42 --	0.236
10-35	PSA (ng/ml) ^a	All	1.202	1.199	0.003 --	0.946
		Officer	1.157	1.194	-0.037 --	0.590
		Enlisted Flyer	1.289	1.249	0.040 --	0.719
		Enlisted Groundcrew	1.177	1.149	0.028 --	0.668
13-11	AST (U/l) ^a	All	23.36	23.17	0.18 --	0.597
		Officer	23.88	23.80	0.08 --	0.885
		Enlisted Flyer	22.79	22.87	-0.09 --	0.916
		Enlisted Groundcrew	23.32	22.95	0.37 --	0.470
13-13	ALT (U/l) ^a	All	42.29	42.09	0.20 --	0.707
		Officer	42.75	42.14	0.61 --	0.460
		Enlisted Flyer	41.72	42.84	-1.12 --	0.386
		Enlisted Groundcrew	41.96	41.66	0.30 --	0.698
13-15	GGT (U/l) ^a	All	46.80	45.47	1.33 --	0.223
		Officer	45.24	43.62	1.62 --	0.331
		Enlisted Flyer	48.28	47.66	0.62 --	0.826
		Enlisted Groundcrew	46.67	45.39	1.28 --	0.439
13-17	Alkaline Phosphatase (U/l) ^a	All	82.77	80.46	2.32 --	0.016
		Officer	78.68	76.88	1.80 --	0.215
		Enlisted Flyer	84.06	83.47	0.58 --	0.811
		Enlisted Groundcrew	85.11	81.68	3.43 --	0.021
13-19	Total Bilirubin (mg/dl) ^a	All	0.511	0.511	-0.000 --	0.963
		Officer	0.528	0.528	0.000 --	0.993
		Enlisted Flyer	0.487	0.505	-0.018 --	0.482
		Enlisted Groundcrew	0.512	0.507	0.006 --	0.727
13-22	Lactic Dehydrogenase (U/l) ^a	All	155.3	155.0	0.3 --	0.790
		Officer	154.8	155.3	-0.6 --	0.768
		Enlisted Flyer	153.1	153.9	-0.8 --	0.787
		Enlisted Groundcrew	157.8	156.3	1.5 --	0.397
13-24	Cholesterol (mg/dl) ^c	All	212.3	212.6	-0.3 --	0.850
		Officer	206.6	210.4	-3.8 --	0.141
		Enlisted Flyer	215.3	216.4	-1.2 --	0.781
		Enlisted Groundcrew	214.6	211.4	3.2 --	0.197

**Table G-13. Summary of Adjusted Results for Continuous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter (Units)	Occupational Category	Adj. Mean		Difference of Adj. Means (95% C.I.)	p-Value
			RH	C		
13-26	HDL Cholesterol (mg/dl) ^a	All	47.08	46.81	0.28 --	0.600
		Officer	48.76	48.86	-0.10 --	0.907
		Enlisted Flyer	47.56	45.28	2.29 --	0.078
		Enlisted Groundcrew	45.68	45.81	-0.13 --	0.866
13-28	Cholesterol-HDL Ratio ^a	All	4.48	4.51	-0.03 --	0.546
		Officer	4.21	4.27	-0.06 --	0.446
		Enlisted Flyer	4.49	4.76	-0.27 --	0.051
		Enlisted Groundcrew	4.67	4.58	0.08 --	0.316
13-30	Triglycerides (mg/dl) ^a	All	107.4	105.6	1.8 --	0.546
		Officer	100.3	97.1	3.2 --	0.458
		Enlisted Flyer	107.0	119.5	-12.4 --	0.109
		Enlisted Groundcrew	110.5	105.2	5.3 --	0.239
13-32	Creatine Phosphokinase (U/l) ^a	All	140.3	139.4	0.9 --	0.809
		Officer	147.7	145.3	2.4 --	0.696
		Enlisted Flyer	131.5	136.4	-4.9 --	0.568
		Enlisted Groundcrew	140.2	138.3	1.8 --	0.736
13-34	Serum Amylase (U/l) ^a	All	63.65	63.74	-0.09 --	0.929
		Officer	61.86	65.36	-3.50 --	0.037
		Enlisted Flyer	65.17	62.44	2.73 --	0.301
		Enlisted Groundcrew	64.84	62.86	1.98 --	0.218
13-41	Prealbumin (mg/dl)	All	29.66	29.70	-0.04 (-0.47,0.39)	0.861
		Officer	30.03	30.20	-0.17 (-0.86,0.51)	0.621
		Enlisted Flyer	30.03	29.55	0.48 (-0.59,1.55)	0.382
		Enlisted Groundcrew	29.10	29.21	-0.11 (-0.76,0.54)	0.746
13-43	Albumin (mg/dl)	All	4,180.8	4,183.8	-3.0 (-32.1,26.0)	0.837
		Officer	4,163.1	4,192.1	-28.9 (-74.9,17.1)	0.218
		Enlisted Flyer	4,201.9	4,164.9	37.0 (-35.0,109.0)	0.314
		Enlisted Groundcrew	4,190.5	4,184.7	5.8 (-38.1,49.6)	0.797
13-45	α -1-Acid Glycoprotein (mg/dl) ^a	All	83.11	82.51	0.60 --	0.464
		Officer	78.64	80.08	-1.43 --	0.248
		Enlisted Flyer	83.83	83.68	0.15 --	0.942
		Enlisted Groundcrew	86.86	84.10	2.76 --	0.030
13-47	α -1-Antitrypsin (mg/dl) ^c	All	146.7	143.1	3.6 --	0.001
		Officer	138.6	137.9	0.7 --	0.693
		Enlisted Flyer	150.5	145.9	4.7 --	0.086
		Enlisted Groundcrew	151.5	145.6	5.9 --	<0.001
13-49	α -2-Macroglobulin (mg/dl) ^a	All	161.9	162.8	-0.9 --	0.610
		Officer	154.5	155.7	-1.2 --	0.643
		Enlisted Flyer	163.8	165.7	-1.9 --	0.664
		Enlisted Groundcrew	167.4	167.6	-0.2 --	0.951
13-51	Apolipoprotein B (mg/dl) ^c	All	110.6	111.8	-1.2 --	0.275
		Officer	105.9	109.2	-3.3 --	0.048
		Enlisted Flyer	112.9	115.1	-2.2 --	0.413
		Enlisted Groundcrew	112.6	111.4	1.2 --	0.457

**Table G-13. Summary of Adjusted Results for Continuous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter (Units)	Occupational Category	Adj. Mean		Difference of Adj. Means (95% C.I.)	p-Value
			RH	C		
13-53	C3 Complement (mg/dl) ^a	All	120.2	120.0	0.2 --	0.837
		Officer	116.5	116.1	0.4 --	0.765
		Enlisted Flyer	120.8	122.2	-1.4 --	0.505
		Enlisted Groundcrew	122.8	122.3	0.6 --	0.668
13-55	C4 Complement (mg/dl) ^a	All	26.98	27.21	-0.23 --	0.333
		Officer	26.02	26.91	-0.90 --	0.017
		Enlisted Flyer	27.74	26.77	0.98 --	0.104
		Enlisted Groundcrew	27.61	27.67	-0.06 --	0.876
13-57	Haptoglobin (mg/dl) ^c	All	128.5	120.5	8.0 --	0.003
		Officer	112.2	106.8	5.4 --	0.172
		Enlisted Flyer	137.3	127.8	9.5 --	0.160
		Enlisted Groundcrew	137.4	127.4	9.9 --	0.016
13-59	Transferrin (mg/dl) ^a	All	246.2	243.1	3.1 --	0.037
		Officer	243.5	241.6	1.9 --	0.412
		Enlisted Flyer	247.9	244.8	3.1 --	0.404
		Enlisted Groundcrew	247.1	242.9	4.2 --	0.063
14-7	Systolic Blood Pressure (mm Hg) ^a	All	127.7	128.4	-0.6 --	0.415
		Officer	127.2	128.1	-0.9 --	0.468
		Enlisted Flyer	128.7	128.6	0.1 --	0.967
		Enlisted Groundcrew	127.5	128.2	-0.7 --	0.574
14-9	Diastolic Blood Pressure (mm Hg) ^c	All	75.68	75.62	0.06 --	0.889
		Officer	75.29	75.37	-0.08 --	0.907
		Enlisted Flyer	76.47	76.13	0.33 --	0.752
		Enlisted Groundcrew	75.37	75.29	0.08 --	0.898
15-3	RBC Count (million/mm ³)	All	4.95	4.96	-0.02 (-0.05,0.02)	0.311
		Officer	4.91	4.94	-0.03 (-0.08,0.02)	0.268
		Enlisted Flyer	4.94	4.98	-0.04 (-0.12,0.04)	0.343
		Enlisted Groundcrew	4.98	4.97	0.00 (-0.05,0.05)	0.919
15-5	WBC Count (thousand/mm ³) ^a	All	6.26	6.26	0.00 --	0.974
		Officer	6.03	6.03	0.00 --	0.972
		Enlisted Flyer	6.17	6.31	-0.14 --	0.377
		Enlisted Groundcrew	6.55	6.50	0.05 --	0.648
15-7	Hemoglobin (gm/dl)	All	15.05	15.05	-0.10 (-0.09,0.08)	0.883
		Officer	15.03	15.07	-0.05 (-0.18,0.09)	0.489
		Enlisted Flyer	15.02	15.10	-0.09 (-0.29,0.12)	0.422
		Enlisted Groundcrew	15.07	15.01	0.06 (-0.07,0.19)	0.356
15-9	Hematocrit (percent)	All	44.99	45.05	-0.06 (-0.32,0.21)	0.681
		Officer	44.90	45.11	-0.21 (-0.63,0.21)	0.326
		Enlisted Flyer	44.92	45.16	-0.24 (-0.88,0.41)	0.477
		Enlisted Groundcrew	45.08	44.93	0.15 (-0.25,0.55)	0.457
15-11	Platelet Count (thousand/mm ³) ^c	All	205.8	203.0	2.9 --	0.172
		Officer	199.1	207.3	-8.2 --	0.014
		Enlisted Flyer	213.3	197.7	15.6 --	0.003
		Enlisted Groundcrew	208.9	200.8	8.1 --	0.011

**Table G-13. Summary of Adjusted Results for Continuous Variables - Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter (Units)	Occupational Category	Adj. Mean		Difference of Adj. Means (95% C.I.)	p-Value
			RH	C		
15-13	Prothrombin Time (seconds) ^a	All	10.49	10.50	-0.01 --	0.873
		Officer	10.52	10.50	0.02 --	0.765
		Enlisted Flyer	10.45	10.48	-0.03 --	0.718
		Enlisted Groundcrew	10.50	10.51	-0.02 --	0.762
15-16	Absolute Neutrophils (segs) (thousand/mm ³) ^a	All	3.46	3.45	0.01 --	0.774
		Officer	3.26	3.28	-0.02 --	0.808
		Enlisted Flyer	3.44	3.47	-0.03 --	0.804
		Enlisted Groundcrew	3.68	3.61	0.06 --	0.416
15-17	Absolute Neutrophils (bands) (Nonzero Measurements) (thousand/mm ³) ^a	All	0.159	0.150	0.009 --	0.126
		Officer	0.152	0.141	0.011 --	0.221
		Enlisted Flyer	0.143	0.156	-0.013 --	0.389
		Enlisted Groundcrew	0.177	0.161	0.016 --	0.099
15-19	Absolute Lymphocytes (thousand/mm ³) ^a	All	1.79	1.79	0.00 --	0.964
		Officer	1.80	1.75	0.05 --	0.259
		Enlisted Flyer	1.74	1.82	-0.08 --	0.236
		Enlisted Groundcrew	1.82	1.83	-0.01 --	0.781
15-20	Absolute Monocytes (thousands/mm ³) ^c	All	0.471	0.476	-0.006 --	0.544
		Officer	0.461	0.468	-0.007 --	0.620
		Enlisted Flyer	0.452	0.490	-0.037 --	0.106
		Enlisted Groundcrew	0.489	0.481	0.008 --	0.590
15-21	Absolute Eosinophils (Nonzero Measurements) (thousand/mm ³) ^a	All	0.151	0.154	-0.003 --	0.576
		Officer	0.154	0.147	0.007 --	0.347
		Enlisted Flyer	0.150	0.153	-0.003 --	0.806
		Enlisted Groundcrew	0.149	0.162	-0.013 --	0.106
15-23	Absolute Basophils (Nonzero Measurements) (thousand/mm ³) ^a	All	0.072	0.074	-0.002 --	0.280
		Officer	0.071	0.073	-0.001 --	0.669
		Enlisted Flyer	0.072	0.074	-0.002 --	0.682
		Enlisted Groundcrew	0.073	0.076	-0.003 --	0.326
16-6	Time to Diabetes Onset (years)	All	--	--	--	0.871
		Officer	--	--	--	0.993
		Enlisted Flyer	--	--	--	0.390
		Enlisted Groundcrew	--	--	--	0.666
16-9	TSH (μIU/ml) ^a	All	1.64	1.57	0.07 --	0.105
		Officer	1.69	1.59	0.10 --	0.178
		Enlisted Flyer	1.48	1.58	-0.09 --	0.370
		Enlisted Groundcrew	1.71	1.60	0.11 --	0.088
16-11	Thyroxine (μg/dl) ^c	All	6.96	6.93	0.03 --	0.565
		Officer	6.58	6.66	-0.08 --	0.370
		Enlisted Flyer	7.12	7.08	0.04 --	0.774
		Enlisted Groundcrew	7.19	7.06	0.13 --	0.129
16-14	Fasting Glucose (mg/dl) ^a	All	103.7	103.8	0.0 --	0.970
		Officer	101.9	101.0	0.9 --	0.550
		Enlisted Flyer	104.1	105.7	-1.6 --	0.516
		Enlisted Groundcrew	104.7	105.1	-0.3 --	0.819

**Table G-13. Summary of Adjusted Results for Continuous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter (Units)	Occupational Category	Adj. Mean		Difference of Adj. Means (95% C.I.)	p-Value
			RH	C		
16-16	2-Hour Postprandial Glucose (mg/dl) ^a	All	105.5	105.0	0.5 --	0.702
		Officer	103.0	99.5	3.5 --	0.086
		Enlisted Flyer	106.4	109.3	-2.9 --	0.405
		Enlisted Groundcrew	106.0	107.2	-1.2 --	0.563
16-20	Serum Insulin (μIU/ml) ^a	All	49.07	47.99	1.09 --	0.562
		Officer	43.72	41.32	2.40 --	0.353
		Enlisted Flyer	49.21	52.20	-2.99 --	0.548
		Enlisted Groundcrew	53.35	52.31	1.05 --	0.735
16-22	α-1-C Hemoglobin (percent) ^a	All	6.77	6.76	0.01 --	0.882
		Officer	6.61	6.55	0.06 --	0.427
		Enlisted Flyer	6.74	6.88	-0.14 --	0.284
		Enlisted Groundcrew	6.91	6.90	0.01 --	0.905
16-24	Total Testosterone (ng/dl) ^c	All	422.3	423.4	-1.1 --	0.883
		Officer	412.5	414.7	-2.2 --	0.848
		Enlisted Flyer	439.6	430.4	9.2 --	0.618
		Enlisted Groundcrew	418.5	422.2	-3.7 --	0.733
16-26	Free Testosterone (pg/ml) ^c	All	13.80	13.79	0.01 --	0.941
		Officer	13.39	13.61	-0.21 --	0.464
		Enlisted Flyer	14.23	14.10	0.13 --	0.783
		Enlisted Groundcrew	13.81	13.64	0.17 --	0.528
16-28	Estradiol (pg/ml) ^c	All	42.18	42.83	-0.65 --	0.384
		Officer	40.35	43.90	-3.55 --	0.003
		Enlisted Flyer	44.77	42.56	2.21 --	0.241
		Enlisted Groundcrew	42.26	41.37	0.89 --	0.427
16-30	LH (mIU/ml) ^a	All	3.84	3.85	-0.01 --	0.955
		Officer	3.85	3.63	0.22 --	0.185
		Enlisted Flyer	3.55	3.92	-0.37 --	0.147
		Enlisted Groundcrew	4.03	4.10	-0.08 --	0.650
16-32	FSH (mIU/ml) ^a	All	5.92	5.85	0.06 --	0.689
		Officer	6.01	5.62	0.40 --	0.112
		Enlisted Flyer	5.67	5.70	-0.03 --	0.928
		Enlisted Groundcrew	6.06	6.27	-0.21 --	0.401
17-4	CD3+ Cells (T Cells) (cells/mm ³) ^a	All	1,245.2	1,283.7	-38.5 --	0.255
		Officer	1,313.3	1,266.5	46.8 --	0.392
		Enlisted Flyer	1,201.6	1,298.4	-96.8 --	0.224
		Enlisted Groundcrew	1,205.6	1,297.3	-91.7 --	0.073
17-5	CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	All	871.6	894.0	-22.4 --	0.333
		Officer	926.9	906.9	20.0 --	0.601
		Enlisted Flyer	835.6	896.5	-61.0 --	0.261
		Enlisted Groundcrew	842.4	886.4	-44.0 --	0.205
17-6	CD8+ Cells (Suppressor T Cells) (cells/mm ³) ^a	All	565.6	593.0	-27.4 --	0.169
		Officer	565.9	558.6	7.3 --	0.812
		Enlisted Flyer	551.8	624.3	-72.5 --	0.132
		Enlisted Groundcrew	564.7	606.9	-42.2 --	0.170

**Table G-13. Summary of Adjusted Results for Continuous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter (Units)	Occupational Category	Adj. Mean		Difference of Adj. Means (95% C.I.)	p-Value
			RH	C		
17-7	CD16+56+ Cells (Natural Killer Cells) (cells/mm ³) ^a	All	265.8	281.6	-15.8 --	0.106
		Officer	261.0	271.7	-10.7 --	0.478
		Enlisted Flyer	241.8	300.4	-58.7 --	0.011
		Enlisted Groundcrew	280.8	283.3	-2.5 --	0.869
17-8	CD20+ Cells (B Cells) (cells/mm ³) ^a	All	196.2	198.2	-2.0 --	0.808
		Officer	211.3	198.2	13.1 --	0.343
		Enlisted Flyer	185.0	199.7	-14.7 --	0.450
		Enlisted Groundcrew	189.2	199.3	-10.1 --	0.422
17-9	CD3+CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	All	786.5	807.2	-20.7 --	0.347
		Officer	839.6	820.0	19.6 --	0.589
		Enlisted Flyer	753.7	807.5	-53.8 --	0.296
		Enlisted Groundcrew	758.1	800.7	-42.5 --	0.196
17-10	Absolute Lymphocytes (cells/mm ³) ^a	All	1,787.3	1,793.3	-6.1 --	0.827
		Officer	1,805.1	1,752.2	52.9 --	0.227
		Enlisted Flyer	1,740.1	1,814.4	-74.3 --	0.279
		Enlisted Groundcrew	1,795.4	1,830.0	-34.6 --	0.412
17-11	IgA (mg/dl) ^a	All	234.9	236.2	-1.4 --	0.790
		Officer	221.5	224.0	-2.5 --	0.740
		Enlisted Flyer	238.2	238.1	0.1 --	0.995
		Enlisted Groundcrew	246.1	246.8	-0.7 --	0.927
17-12	IgG (mg/dl) ^a	All	1,121.4	1,135.4	-13.9 --	0.217
		Officer	1,101.3	1,115.6	-14.3 --	0.417
		Enlisted Flyer	1,111.7	1,144.1	-32.3 --	0.251
		Enlisted Groundcrew	1,145.3	1,152.2	-6.8 --	0.694
17-13	IgM (mg/dl) ^a	All	90.5	92.4	-2.0 --	0.365
		Officer	89.2	89.9	-0.7 --	0.831
		Enlisted Flyer	89.3	98.1	-8.7 --	0.120
		Enlisted Groundcrew	90.7	91.4	-0.7 --	0.824
18-8	FVC (percent of predicted)	All	94.21	93.79	0.41 (-0.81,1.64)	0.506
		Officer	94.31	93.76	0.56 (-1.39,2.50)	0.575
		Enlisted Flyer	95.01	94.45	0.56 (-2.47,3.59)	0.716
		Enlisted Groundcrew	93.36	93.12	0.23 (-1.61,2.07)	0.804
18-9	FEV ₁ (percent of predicted)	All	90.23	90.06	0.17 (-1.24,1.57)	0.814
		Officer	90.92	90.81	0.11 (-2.13,2.35)	0.925
		Enlisted Flyer	89.19	90.46	-1.27 (-4.75,2.21)	0.475
		Enlisted Groundcrew	90.07	89.32	0.75 (-1.36,2.87)	0.484
18-10	Ratio of Observed FEV ₁ to Observed FVC ^d	All	0.770	0.771	-0.001 --	0.701
		Officer	0.771	0.775	-0.004 --	0.411
		Enlisted Flyer	0.764	0.770	-0.005 --	0.486
		Enlisted Groundcrew	0.774	0.771	0.003 --	0.532

^a Means transformed from natural logarithm scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on natural logarithm scale; p-value based on difference of means on natural logarithm scale.

**Table G-13. Summary of Adjusted Results for Continuous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

^b Means transformed from natural logarithm (clinical parameter + 0.1) scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on natural logarithm (clinical parameter + 0.1) scale; p-value based on difference of means on natural logarithm (clinical parameter + 0.1) scale.

^c Means transformed from square root scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on square root scale; p-value based on difference of means on square root scale.

^d Means transformed from natural logarithm (1 – clinical parameter) scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on natural logarithm (1 – clinical parameter) scale; p-value based on difference of means on natural logarithm (1 – clinical parameter) scale.

Note: RH = Ranch Hand; C = Comparison.

Table G-14. Summary of Adjusted Results for Continuous Variables – Model 2 (Ranch Hands: Log₂ (Initial Dioxin))

Table Ref.	Clinical Parameter (Units)	R ²	Adj. Slope (Standard Error)	p-Value
9-6	Body Fat (percent) ^a	0.105	0.022 (0.010)	0.020
9-8	Erythrocyte Sedimentation Rate (mm/hr) ^b	0.086	0.041 (0.039)	0.289
10-35	PSA (ng/ml) ^a	0.114	-0.045 (0.031)	0.152
13-11	AST (U/l) ^a	0.057	0.010 (0.014)	0.493
13-13	ALT (U/l) ^a	0.094	0.011 (0.012)	0.357
13-15	GGT (U/l) ^a	0.097	0.008 (0.022)	0.709
13-17	Alkaline Phosphatase (U/l) ^a	0.037	-0.021 (0.011)	0.053
13-19	Total Bilirubin (mg/dl) ^a	0.038	0.004 (0.019)	0.822
13-22	Lactic Dehydrogenase (U/l) ^a	0.036	0.000 (0.007)	0.979
13-24	Cholesterol (mg/dl) ^c	0.044	0.083 (0.054)	0.122
13-26	HDL Cholesterol (mg/dl) ^a	0.132	0.005 (0.010)	0.625
13-28	Cholesterol-HDL Ratio ^a	0.118	0.007 (0.011)	0.499
13-30	Triglycerides (mg/dl) ^a	0.055	0.006 (0.027)	0.830
13-32	Creatine Phosphokinase (U/l) ^a	0.121	-0.004 (0.023)	0.871
13-34	Serum Amylase (U/l) ^a	0.125	-0.029 (0.015)	0.060
13-41	Prealbumin (mg/dl)	0.072	-0.127 (0.207)	0.538
13-43	Albumin (mg/dl)	0.054	-1.264 (12.791)	0.921
13-45	α-1-Acid Glycoprotein (mg/dl) ^a	0.046	-0.016 (0.009)	0.086
13-47	α-1-Antitrypsin (mg/dl) ^c	0.101	0.023 (0.041)	0.582
13-49	α-2-Macroglobulin (mg/dl) ^a	0.135	0.009 (0.010)	0.368
13-51	Apolipoprotein B (mg/dl) ^c	0.033	0.061 (0.048)	0.209
13-53	C3 Complement (mg/dl) ^a	0.083	0.009 (0.006)	0.145
13-55	C4 Complement (mg/dl) ^a	0.019	-0.004 (0.008)	0.638
13-57	Haptoglobin (mg/dl) ^c	0.066	-0.087 (0.111)	0.433
13-59	Transferrin (mg/dl) ^a	0.014	-0.001 (0.006)	0.798
14-7	Systolic Blood Pressure (mm Hg) ^a	0.135	-0.000 (0.006)	0.983
14-9	Diastolic Blood Pressure (mm Hg) ^c	0.073	0.019 (0.023)	0.425
15-3	RBC Count (million/mm ³)	0.070	-0.004 (0.016)	0.821
15-5	WBC Count (thousand/mm ³) ^a	0.213	0.008 (0.009)	0.414
15-7	Hemoglobin (gm/dl)	0.084	0.030 (0.039)	0.443
15-9	Hematocrit (percent)	0.068	0.091 (0.119)	0.443
15-11	Platelet Count (thousand/mm ³) ^c	0.090	0.073 (0.065)	0.262
15-13	Prothrombin Time (seconds) ^a	0.036	0.000 (0.003)	0.956
15-16	Absolute Neutrophils (segs) (thousand/mm ³) ^a	0.198	0.000 (0.012)	0.988
15-17	Absolute Neutrophils (bands) (Nonzero Measurements) (thousand/mm ³) ^a	0.117	-0.075 (0.036)	0.040
15-19	Absolute Lymphocytes (thousand/mm ³) ^a	0.064	0.024 (0.014)	0.087
15-20	Absolute Monocytes (thousand/mm ³) ^c	0.041	0.000 (0.006)	0.999
15-21	Absolute Eosinophils (Nonzero Measurements) (thousand/mm ³) ^a	0.009	0.012 (0.029)	0.670
15-23	Absolute Basophils (Nonzero Measurements) (thousand/mm ³) ^a	0.082	-0.003 (0.026)	0.917
16-6	Time to Diabetes Onset (years) ^d	--	-0.074 (0.030)	0.013
16-9	TSH (μIU/ml) ^a	0.071	-0.019 (0.024)	0.433
16-11	Thyroxine (μg/dl) ^c	0.045	-0.004 (0.010)	0.682
16-14	Fasting Glucose (mg/dl) ^a	0.160	0.023 (0.009)	0.014

**Table G-14. Summary of Adjusted Results for Continuous Variables – Model 2
(Ranch Hands: Log₂ (Initial Dioxin)) (Continued)**

Table Ref.	Clinical Parameter (Units)	R ²	Adj. Slope (Standard Error)	p-Value
16-16	2-Hour Postprandial Glucose (mg/dl) ^a	0.139	0.003 (0.013)	0.832
16-20	Serum Insulin (μIU/ml) ^a	0.195	0.054 (0.040)	0.170
16-22	α-1-C Hemoglobin (percent) ^a	0.163	0.024 (0.007)	0.001
16-24	Total Testosterone (ng/dl) ^c	0.206	-0.015 (0.161)	0.927
16-26	Free Testosterone (pg/ml) ^c	0.240	-0.008 (0.024)	0.742
16-28	Estradiol (pg/ml) ^c	0.019	0.046 (0.057)	0.423
16-30	LH (mIU/ml) ^a	0.014	-0.008 (0.027)	0.755
16-32	FSH (mIU/ml) ^a	0.051	-0.007 (0.024)	0.763
17-4	CD3+ Cells (T Cells) (cells/mm ³) ^a	0.132	0.042 (0.027)	0.113
17-5	CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	0.152	0.041 (0.026)	0.119
17-6	CD8+ Cells (Suppressor T Cells) (cells/mm ³) ^a	0.039	0.023 (0.034)	0.505
17-7	CD16+56+ Cells (Natural Killer Cells) (cells/mm ³) ^a	0.112	-0.030 (0.038)	0.429
17-8	CD20+ Cells (B Cells) (cells/mm ³) ^a	0.236	0.075 (0.038)	0.052
17-9	CD3+CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	0.159	0.046 (0.028)	0.098
17-10	Absolute Lymphocytes (cells/mm ³) ^a	0.066	0.023 (0.014)	0.109
17-11	IgA (mg/dl) ^a	0.049	0.040 (0.020)	0.046
17-12	IgG (mg/dl) ^a	0.119	-0.003 (0.010)	0.761
17-13	IgM (mg/dl) ^a	0.046	-0.003 (0.022)	0.896
18-8	FVC (percent of predicted)	0.099	-0.303 (0.558)	0.588
18-9	FEV ₁ (percent of predicted)	0.143	0.007 (0.637)	0.991
18-10	Ratio of Observed FEV ₁ to Observed FVC ^e	0.216	-0.011 (0.012)	0.360

^a Slope and standard error based on natural logarithm of clinical parameter versus log₂ (initial dioxin).

^b Slope and standard error based on natural logarithm of (clinical parameter + 0.1) versus log₂ (initial dioxin).

^c Slope and standard error based on square root of clinical parameter versus log₂ (initial dioxin).

^d Slope and standard error based on time to diabetes onset versus log₂ (initial dioxin) under a censored Weibull distribution.

^e Slope and standard error based on natural logarithm of (1 – clinical parameter) versus log₂ (initial dioxin).

--: R-squared not presented because analysis was based on a censored Weibull distribution.

Table G-15. Summary of Adjusted Results for Continuous Variables -- Model 3 (Ranch Hands and Comparisons by Dioxin Category)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
9-6	Body Fat (percent) ^a	0.069	Comparison	1,211	22.25		
			Background RH	378	20.73	-1.52 --	<0.001
			Low RH	237	23.00	0.75 --	0.052
			High RH	241	23.51	1.26 --	0.002
			Low plus High RH	478	23.26	1.01 --	0.001
9-8	Erythrocyte Sedimentation Rate (mm/hr) ^b	0.083	Comparison	1,211	5.12		
			Background RH	376	4.92	-0.20 --	0.484
			Low RH	237	5.12	0.00 --	0.992
			High RH	240	5.48	0.36 --	0.322
			Low plus High RH	477	5.29	0.17 --	0.510
10-35	PSA (ng/ml) ^a	0.085	Comparison	1,151	1.201		
			Background RH	362	1.163	-0.038 --	0.527
			Low RH	221	1.258	0.057 --	0.441
			High RH	234	1.209	0.008 --	0.919
			Low plus High RH	455	1.232	0.031 --	0.600
13-11	AST (U/l) ^a	0.033	Comparison	1,193	23.23		
			Background RH	374	22.76	-0.47 --	0.305
			Low RH	235	23.93	0.70 --	0.207
			High RH	238	24.17	0.94 --	0.100
			Low plus High RH	473	24.05	0.82 --	0.055
13-13	ALT (U/l) ^a	0.093	Comparison	1,193	42.21		
			Background RH	374	41.31	-0.90 --	0.192
			Low RH	235	43.65	1.44 --	0.084
			High RH	238	43.62	1.41 --	0.098
			Low plus High RH	473	43.63	1.42 --	0.026

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
13-15	GGT (U/l) ^a	0.115	Comparison	1,193	45.40		
			Background RH	374	44.67	-0.73 --	0.606
			Low RH	235	47.84	2.43 --	0.159
			High RH	238	50.40	5.00 --	0.006
			Low plus High RH	473	49.11	3.71 --	0.006
13-17	Alkaline Phosphatase (U/l) ^a	0.027	Comparison	1,193	80.38		
			Background RH	375	83.68	3.48 --	0.008
			Low RH	235	83.18	2.79 --	0.071
			High RH	239	80.32	-0.06 --	0.967
			Low plus High RH	474	81.72	1.34 --	0.255
13-19	Total Bilirubin (mg/dl) ^a	0.022	Comparison	1,193			
			Background RH	374	0.517	-0.002 --	0.901
			Low RH	235	0.515	-0.003 --	0.884
			High RH	238	0.520	0.003 --	0.861
			Low plus High RH	473	0.517	0.000 --	0.981
13-22	Lactic Dehydrogenase (U/l) ^a	0.036	Comparison	1,192	155.5		
			Background RH	374	156.1	0.6 --	0.737
			Low RH	235	155.0	-0.5 --	0.774
			High RH	238	156.8	1.3 --	0.528
			Low plus High RH	473	155.9	0.4 --	0.812
13-24	Cholesterol (mg/dl) ^c	0.018	Comparison	1,193	212.9		
			Background RH	374	211.0	-1.9 --	0.392
			Low RH	235	210.6	-2.3 --	0.389
			High RH	238	217.3	4.4 --	0.115
			Low plus High RH	473	214.0	1.1 --	0.616
13-26	HDL Cholesterol (mg/dl) ^a	0.116	Comparison	1,192	46.77		
			Background RH	374	47.11	0.34 --	0.628
			Low RH	234	47.10	0.33 --	0.687
			High RH	238	46.77	0.00 --	0.999
			Low plus High RH	472	46.93	0.16 --	0.795

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
13-28	Cholesterol-HDL Ratio ^a	0.088	Comparison	1,192	4.52		
			Background RH	374	4.45	-0.07 --	0.352
			Low RH	234	4.43	-0.09 --	0.289
			High RH	238	4.61	0.09 --	0.290
			Low plus High RH	472	4.52	0.00 --	0.978
13-30	Triglycerides (mg/dl) ^a	0.082	Comparison	1,193	105.9		
			Background RH	373	103.2	-2.7 --	0.483
			Low RH	235	107.0	1.1 --	0.820
			High RH	238	118.2	12.3 --	0.013
			Low plus High RH	473	112.5	6.6 --	0.070
13-32	Creatine Phosphokinase (U/l) ^a	0.102	Comparison	1,193	140.2		
			Background RH	374	139.5	-0.7 --	0.889
			Low RH	235	142.6	2.4 --	0.679
			High RH	238	143.8	3.6 --	0.549
			Low plus High RH	473	143.2	3.0 --	0.503
13-34	Serum Amylase (U/l) ^a	0.075	Comparison	1,193	63.45		
			Background RH	374	62.33	-1.12 --	0.427
			Low RH	235	66.45	3.00 --	0.078
			High RH	238	61.31	-2.14 --	0.205
			Low plus High RH	473	63.82	0.37 --	0.774
13-41	Prealbumin (mg/dl)	0.055	Comparison	1,193	29.65		
			Background RH	374	29.51	-0.15 (-0.73,0.44)	0.626
			Low RH	235	29.69	0.04 (-0.65,0.73)	0.908
			High RH	238	29.72	0.06 (-0.64,0.77)	0.860
			Low plus High RH	473	29.71	0.05 (-0.48,0.58)	0.847

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
13-43	Albumin (mg/dl)	0.042	Comparison	1,193	4,183.0		
			Background RH	374	4,187.9	5.0 (–34.0,43.9)	0.803
			Low RH	235	4,154.2	–28.7 (–74.7,17.3)	0.221
			High RH	238	4,200.2	17.2 (–30.0,64.4)	0.476
			Low plus High RH	473	4,177.3	–5.6 (–41.0,29.8)	0.755
13-45	α -1-Acid Glycoprotein (mg/dl) ^a	0.029	Comparison	1,193	82.72		
			Background RH	374	82.67	–0.05 --	0.961
			Low RH	235	83.42	0.70 --	0.600
			High RH	238	83.78	1.06 --	0.436
			Low plus High RH	473	83.60	0.88 --	0.389
13-47	α -1-Antitrypsin (mg/dl) ^c	0.062	Comparison	1,193	143.8		
			Background RH	374	147.2	3.4 --	0.024
			Low RH	235	145.5	1.7 --	0.339
			High RH	238	148.4	4.6 --	0.011
			Low plus High RH	473	147.0	3.2 --	0.020
13-49	α -2-Macroglobulin (mg/dl) ^a	0.113	Comparison	1,193	163.2		
			Background RH	374	162.2	–1.0 --	0.683
			Low RH	235	159.9	–3.3 --	0.232
			High RH	238	163.3	0.1 --	0.959
			Low plus High RH	473	161.6	–1.6 --	0.461
13-51	Apolipoprotein B (mg/dl) ^c	0.015	Comparison	1,193	112.0		
			Background RH	374	110.0	–2.0 --	0.170
			Low RH	235	109.5	–2.5 --	0.154
			High RH	238	113.6	1.6 --	0.358
			Low plus High RH	473	111.6	–0.4 --	0.761
13-53	C3 Complement (mg/dl) ^a	0.126	Comparison	1,193	120.1		
			Background RH	374	119.5	–0.6 --	0.594
			Low RH	235	121.0	0.9 --	0.518
			High RH	238	121.8	1.7 --	0.217
			Low plus High RH	473	121.4	1.3 --	0.213

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
13-55	C4 Complement (mg/dl) ^a	0.039	Comparison	1,193	27.24		
			Background RH	374	26.93	-0.31 --	0.336
			Low RH	235	27.27	0.03 --	0.942
			High RH	238	26.97	-0.27 --	0.494
			Low plus High RH	473	27.12	-0.12 --	0.680
13-57	Haptoglobin (mg/dl) ^c	0.044	Comparison	1,193	120.9		
			Background RH	374	129.8	8.9 --	0.014
			Low RH	235	127.5	6.6 --	0.118
			High RH	238	128.0	7.1 --	0.105
			Low plus High RH	473	127.7	6.8 --	0.036
13-59	Transferrin (mg/dl) ^a	0.021	Comparison	1,193	243.0		
			Background RH	374	245.2	2.2 --	0.282
			Low RH	235	246.1	3.1 --	0.200
			High RH	238	247.9	4.9 --	0.050
			Low plus High RH	473	247.0	4.0 --	0.032
14-7	Systolic Blood Pressure (mm Hg) ^a	0.109	Comparison	1,155	128.5		
			Background RH	360	128.5	0.0 --	0.990
			Low RH	221	127.9	-0.6 --	0.651
			High RH	236	127.0	-1.5 --	0.222
			Low plus High RH	457	127.4	-1.1 --	0.262
14-9	Diastolic Blood Pressure (mm Hg) ^c	0.050	Comparison	1,155	75.67		
			Background RH	360	75.56	-0.11 --	0.844
			Low RH	221	75.23	-0.44 --	0.515
			High RH	236	76.69	1.02 --	0.135
			Low plus High RH	457	75.98	0.31 --	0.544
15-3	RBC Count (million/mm ³)	0.052	Comparison	1,210	4.97		
			Background RH	380	4.97	0.00 (-0.04,0.05)	0.893
			Low RH	238	4.93	-0.03 (-0.09,0.02)	0.230
			High RH	239	4.94	-0.02 (-0.08,0.03)	0.441
			Low plus High RH	477	4.94	-0.03 (-0.07,0.01)	0.196

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
15-5	WBC Count (thousand/mm ³) ^a	0.206	Comparison	1,210	6.27		
			Background RH	380	6.28	0.01 --	0.902
			Low RH	238	6.18	-0.09 --	0.383
			High RH	239	6.33	0.06 --	0.600
			Low plus High RH	477	6.26	-0.01 --	0.831
15-7	Hemoglobin (gm/dl)	0.086	Comparison	1,210	15.06		
			Background RH	380	15.04	-0.02 (-0.14,0.09)	0.679
			Low RH	238	15.04	-0.02 (-0.16,0.11)	0.731
			High RH	239	15.12	0.06 (-0.08,0.20)	0.379
			Low plus High RH	477	15.08	0.02 (-0.08,0.12)	0.715
15-9	Hematocrit (percent)	0.067	Comparison	1,210	45.08		
			Background RH	380	45.04	-0.04 (-0.39,0.32)	0.839
			Low RH	238	44.87	-0.21 (-0.63,0.20)	0.318
			High RH	239	45.22	0.14 (-0.29,0.56)	0.534
			Low plus High RH	477	45.04	-0.04 (-0.36,0.28)	0.817
15-11	Platelet Count (thousand/mm ³) ^c	0.041	Comparison	1,204	204.2		
			Background RH	378	202.3	-1.9 --	0.509
			Low RH	237	204.4	0.2 --	0.959
			High RH	238	214.8	10.6 --	0.002
			Low plus High RH	475	209.6	5.4 --	0.038
15-13	Prothrombin Time (seconds) ^a	0.012	Comparison	986	10.50		
			Background RH	308	10.52	0.02 --	0.695
			Low RH	182	10.46	-0.04 --	0.521
			High RH	193	10.49	-0.01 --	0.823
			Low plus High RH	375	10.47	-0.03 --	0.575

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
15-16	Absolute Neutrophils (segs) (thousand/mm ³) ^a	0.171	Comparison	1,210	3.45		
			Background RH	380	3.45	0.00 --	0.961
			Low RH	238	3.44	-0.01 --	0.854
			High RH	239	3.50	0.05 --	0.551
			Low plus High RH	477	3.47	0.02 --	0.780
15-17	Absolute Neutrophils (bands) (Nonzero Measurements) (thousand/mm ³) ^a	0.078	Comparison	1,001	0.148		
			Background RH	315	0.150	0.002 --	0.750
			Low RH	195	0.165	0.017 --	0.076
			High RH	201	0.161	0.013 --	0.166
			Low plus High RH	396	0.163	0.015 --	0.038
15-19	Absolute Lymphocytes (thousand/mm ³) ^a	0.060	Comparison	1,210	1.79		
			Background RH	380	1.83	0.04 --	0.356
			Low RH	238	1.77	-0.02 --	0.572
			High RH	239	1.77	-0.02 --	0.572
			Low plus High RH	477	1.77	-0.02 --	0.457
15-20	Absolute Monocytes (thousand/mm ³) ^c	0.050	Comparison	1,210	0.479		
			Background RH	380	0.464	-0.015 --	0.223
			Low RH	238	0.464	-0.015 --	0.319
			High RH	239	0.499	0.020 --	0.193
			Low plus High RH	477	0.482	0.003 --	0.822
15-21	Absolute Eosinophils (Nonzero Measurements) (thousand/mm ³) ^a	0.025	Comparison	1,063	0.153		
			Background RH	336	0.156	0.003 --	0.677
			Low RH	205	0.147	-0.006 --	0.447
			High RH	211	0.144	-0.009 --	0.229
			Low plus High RH	416	0.146	-0.007 --	0.194
15-23	Absolute Basophils (Nonzero Measurements) (thousand/mm ³) ^a	0.088	Comparison	562	0.075		
			Background RH	168	0.074	-0.001 --	0.657
			Low RH	91	0.071	-0.004 --	0.183
			High RH	109	0.073	-0.002 --	0.563
			Low plus High RH	200	0.072	-0.003 --	0.220

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
16-6	Time to Diabetes Onset (years)	--	Comparison	1,183	--		
			Background RH	375	--	--	0.024
			Low RH	232	--	--	0.214
			High RH	238	--	--	0.100
			Low plus High RH	470	--	--	0.061
16-9	TSH (μIU/ml) ^a	0.033	Comparison	1,161	1.57		
			Background RH	365	1.64	0.07 --	0.250
			Low RH	233	1.64	0.07 --	0.292
			High RH	233	1.62	0.05 --	0.454
			Low plus High RH	466	1.63	0.06 --	0.237
16-11	Thyroxine (μg/dl) ^c	0.031	Comparison	1,161	6.93		
			Background RH	365	6.93	0.00 --	0.969
			Low RH	233	7.02	0.09 --	0.344
			High RH	233	6.98	0.05 --	0.646
			Low plus High RH	466	7.00	0.07 --	0.357
16-14	Fasting Glucose (mg/dl) ^a	0.132	Comparison	1,200	103.8		
			Background RH	377	102.8	-1.0 --	0.418
			Low RH	235	102.9	-0.9 --	0.551
			High RH	240	106.3	2.5 --	0.106
			Low plus High RH	475	104.6	0.8 --	0.482
16-16	2-Hour Postprandial Glucose (mg/dl) ^a	0.116	Comparison	987	105.1		
			Background RH	338	106.1	1.0 --	0.585
			Low RH	183	106.1	1.0 --	0.655
			High RH	181	104.6	-0.5 --	0.804
			Low plus High RH	364	105.4	0.3 --	0.900

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
16-20	Serum Insulin (μIU/ml) ^a	0.208	Comparison	987	47.57		
			Background RH	338	47.31	-0.26 --	0.914
			Low RH	183	49.87	2.30 --	0.455
			High RH	181	51.51	3.94 --	0.226
			Low plus High RH	364	50.68	3.11 --	0.195
16-22	α-1-C Hemoglobin (percent) ^a	0.136	Comparison	1,200	6.78		
			Background RH	377	6.72	-0.06 --	0.412
			Low RH	235	6.70	-0.08 --	0.330
			High RH	240	6.97	0.19 --	0.022
			Low plus High RH	475	6.83	0.05 --	0.363
16-24	Total Testosterone (ng/dl) ^c	0.169	Comparison	1,189	422.9		
			Background RH	370	434.4	11.5 --	0.248
			Low RH	234	414.5	-8.4 --	0.470
			High RH	237	416.8	-6.1 --	0.613
			Low plus High RH	471	415.7	-7.2 --	0.420
16-26	Free Testosterone (pg/ml) ^c	0.220	Comparison	1,189	13.80		
			Background RH	370	13.98	0.18 --	0.459
			Low RH	234	13.50	-0.30 --	0.315
			High RH	237	13.94	0.14 --	0.643
			Low plus High RH	471	13.72	-0.08 --	0.735
16-28	Estradiol (pg/ml) ^c	0.009	Comparison	1,213	42.96		
			Background RH	381	41.76	-1.20 --	0.241
			Low RH	239	41.51	-1.45 --	0.231
			High RH	243	44.13	1.17 --	0.374
			Low plus High RH	482	42.82	-0.14 --	0.888

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
16-30	LH (mIU/ml) ^a	0.047	Comparison	1,213	3.84		
			Background RH	381	4.00	0.16 --	0.281
			Low RH	239	3.73	-0.11 --	0.479
			High RH	243	3.81	-0.03 --	0.839
			Low plus High RH	482	3.77	-0.07 --	0.553
16-32	FSH (mIU/ml) ^a	0.072	Comparison	1,213	5.87		
			Background RH	381	6.02	0.15 --	0.491
			Low RH	239	5.98	0.11 --	0.668
			High RH	243	5.83	-0.04 --	0.855
			Low plus High RH	482	5.90	0.03 --	0.877
17-4	CD3+ Cells (T Cells) (cells/mm ³) ^a	0.096	Comparison	436	1,284.8		
			Background RH	140	1,237.1	-47.7 --	0.308
			Low RH	83	1,272.3	-12.5 --	0.823
			High RH	91	1,239.1	-45.5 --	0.403
			Low plus High RH	174	1,254.9	-29.9 --	0.474
17-5	CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	0.116	Comparison	436	897.9		
			Background RH	140	854.8	-43.1 --	0.176
			Low RH	83	893.6	-4.3 --	0.911
			High RH	91	886.1	-11.8 --	0.752
			Low plus High RH	174	889.7	-8.2 --	0.774
17-6	CD8+ Cells (Suppressor T Cells) (cells/mm ³) ^a	0.040	Comparison	436	592.0		
			Background RH	140	576.2	-15.8 --	0.574
			Low RH	83	576.2	-15.8 --	0.634
			High RH	91	541.9	-50.1 --	0.112
			Low plus High RH	174	558.0	-34.0 --	0.164
17-7	CD16+56+ Cells (Natural Killer Cells) (cells/mm ³) ^a	0.051	Comparison	436	282.6		
			Background RH	140	268.0	-14.6 --	0.285
			Low RH	83	286.7	4.1 --	0.805
			High RH	91	252.0	-30.6 --	0.046
			Low plus High RH	174	268.0	-14.6 --	0.227

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
17-8	CD20+ Cells (B Cells) (cells/mm ³) ^a	0.111	Comparison	436	198.1		
			Background RH	140	200.6	2.5 --	0.827
			Low RH	82	185.2	-12.9 --	0.325
			High RH	91	194.6	-3.5 --	0.788
			Low plus High RH	173	190.1	-8.0 --	0.419
17-9	CD3+CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	0.122	Comparison	436	809.9		
			Background RH	140	766.6	-43.3 --	0.151
			Low RH	82	806.9	-3.0 --	0.935
			High RH	91	803.8	-6.1 --	0.865
			Low plus High RH	174	805.3	-4.6 --	0.866
17-10	Absolute Lymphocytes (cells/mm ³) ^a	0.060	Comparison	1,154	1,794.7		
			Background RH	365	1,821.6	26.9 --	0.477
			Low RH	220	1,768.7	-26.0 --	0.562
			High RH	229	1,755.8	-38.9 --	0.389
			Low plus High RH	449	1,762.1	-32.6 --	0.340
17-11	IgA (mg/dl) ^a	0.018	Comparison	1,154	236.3		
			Background RH	365	231.0	-5.3 --	0.435
			Low RH	220	233.2	-3.1 --	0.707
			High RH	229	241.0	4.7 --	0.575
			Low plus High RH	449	237.1	0.8 --	0.890
17-12	IgG (mg/dl) ^a	0.070	Comparison	1,154	1,136.6		
			Background RH	365	1,122.1	-14.5 --	0.340
			Low RH	220	1,121.4	-15.2 --	0.404
			High RH	229	1,125.1	-11.5 --	0.535
			Low plus High RH	449	1,123.3	-13.3 --	0.340

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Table Ref.	Clinical Parameter (Units)	R ²	Dioxin Category	n	Adj. Mean	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value
17-13	IgM (mg/dl) ^a	0.019	Comparison	1,154	92.5		
			Background RH	365	91.2	-1.3 --	0.659
			Low RH	220	90.7	-1.8 --	0.599
			High RH	229	89.4	-3.1 --	0.390
			Low plus High RH	449	90.0	-2.5 --	0.358
18-8	FVC (percent of predicted)	0.119	Comparison	1,210	93.87		
			Background RH	380	93.72	-0.15 (-1.80,1.50)	0.859
			Low RH	237	94.29	0.42 (-1.54,2.39)	0.674
			High RH	243	94.61	0.75 (-1.25,2.74)	0.465
			Low plus High RH	480	94.45	0.59 (-0.92,2.09)	0.445
18-9	FEV ₁ (percent of predicted)	0.153	Comparison	1,210	90.03		
			Background RH	380	89.32	-0.70 (-2.59,1.19)	0.469
			Low RH	237	90.58	0.55 (-1.70,2.80)	0.632
			High RH	243	91.19	1.16 (-1.13,3.45)	0.319
			Low plus High RH	480	90.89	0.86 (-0.86,2.58)	0.328
18-10	Ratio of Observed FEV ₁ to Observed FVC ^d	0.195	Comparison	1,210	0.770		
			Background RH	380	0.766	-0.004 --	0.376
			Low RH	237	0.772	0.002 --	0.740
			High RH	243	0.774	0.004 --	0.466
			Low plus High RH	480	0.773	0.003 --	0.481

^a Means transformed from natural logarithm scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on natural logarithm scale; p-value based on difference of means on natural logarithm scale.

^b Means transformed from natural logarithm (clinical parameter + 0.1) scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on natural logarithm (clinical parameter + 0.1) scale; p-value based on difference of means on natural logarithm (clinical parameter + 0.1) scale.

^c Means transformed from square root scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on square root scale; p-value based on difference of means on square root scale.

^d Means transformed from natural logarithm (1 - clinical parameter) scale; difference of means after transformation to original scale; confidence interval not given because analysis was performed on natural logarithm (1 - clinical parameter) scale; p-value based on difference of means on natural logarithm (1 - clinical parameter) scale.

Table G-15. Summary of Adjusted Results for Continuous Variables – Model 3 (Ranch Hands and Comparisons by Dioxin Category) (Continued)

Note: RH = Ranch Hand.

Comparison: 1987 Dioxin $\leq$ 10 ppt.

Background: (Ranch Hand): 1987 Dioxin $\leq$ 10 ppt.

Low (Ranch Hand): 1987 Dioxin $>$ 10 ppt, 10 ppt $<$ Initial Dioxin $\leq$ 94 ppt.

High (Ranch Hand): 1987 Dioxin $>$ 10 ppt, Initial Dioxin $>$ 94 ppt.

Table G-16. Summary of Adjusted Results for Continuous Variables – Model 4 (Ranch Hands: Log₂ (1987 Dioxin + 1))

Table Ref.	Clinical Parameter (Units)	R ²	Adj. Slope (Standard Error)	p-Value
9-6	Body Fat (percent) ^a	0.155	0.054 (0.006)	<0.001
9-8	Erythrocyte Sedimentation Rate (mm/hr) ^b	0.088	0.052 (0.025)	0.037
10-35	PSA (ng/ml) ^a	0.076	-0.021 (0.020)	0.312
13-11	AST (U/l) ^a	0.036	0.028 (0.009)	0.002
13-13	ALT (U/l) ^a	0.079	0.033 (0.007)	<0.001
13-15	GGT (U/l) ^a	0.103	0.042 (0.014)	0.003
13-17	Alkaline Phosphatase (U/l) ^a	0.042	-0.021 (0.007)	0.003
13-19	Total Bilirubin (mg/dl) ^a	0.023	0.008 (0.012)	0.519
13-22	Lactic Dehydrogenase (U/l) ^a	0.015	0.006 (0.005)	0.187
13-24	Cholesterol (mg/dl) ^c	0.023	0.046 (0.034)	0.178
13-26	HDL Cholesterol (mg/dl) ^a	0.081	-0.014 (0.007)	0.037
13-28	Cholesterol-HDL Ratio ^a	0.074	0.021 (0.007)	0.006
13-30	Triglycerides (mg/dl) ^a	0.041	0.063 (0.017)	<0.001
13-32	Creatine Phosphokinase (U/l) ^a	0.091	0.039 (0.015)	0.011
13-34	Serum Amylase (U/l) ^a	0.063	-0.030 (0.010)	0.003
13-41	Prealbumin (mg/dl)	0.053	-0.007 (0.140)	0.961
13-43	Albumin (mg/dl)	0.040	-11.121 (8.711)	0.202
13-45	α -1-Acid Glycoprotein (mg/dl) ^a	0.056	-0.012 (0.006)	0.049
13-47	α -1-Antitrypsin (mg/dl) ^c	0.102	-0.047 (0.027)	0.089
13-49	α -2-Macroglobulin (mg/dl) ^a	0.131	-0.005 (0.006)	0.390
13-51	Apolipoprotein B (mg/dl) ^c	0.023	0.046 (0.031)	0.142
13-53	C3 Complement (mg/dl) ^a	0.067	0.017 (0.004)	<0.001
13-55	C4 Complement (mg/dl) ^a	0.044	0.001 (0.005)	0.849
13-57	Haptoglobin (mg/dl) ^c	0.055	-0.116 (0.073)	0.114
13-59	Transferrin (mg/dl) ^a	0.014	0.003 (0.004)	0.385
14-7	Systolic Blood Pressure (mm Hg) ^a	0.126	-0.005 (0.004)	0.165
14-9	Diastolic Blood Pressure (mm Hg) ^c	0.061	0.016 (0.016)	0.315
15-3	RBC Count (million/mm ³)	0.047	-0.001 (0.010)	0.941
15-5	WBC Count (thousand/mm ³) ^a	0.219	0.007 (0.006)	0.263
15-7	Hemoglobin (gm/dl)	0.088	0.021 (0.026)	0.421
15-9	Hematocrit (percent)	0.075	0.029 (0.079)	0.712
15-11	Platelet Count (thousand/mm ³) ^c	0.066	0.049 (0.044)	0.264
15-13	Prothrombin Time (seconds) ^a	0.016	-0.001 (0.002)	0.685
15-16	Absolute Neutrophils (segs) (thousand/mm ³) ^a	0.196	0.006 (0.008)	0.455
15-17	Absolute Neutrophils (bands) (Nonzero Measurements) (thousand/mm ³) ^a	0.076	0.011 (0.024)	0.657
15-19	Absolute Lymphocytes (thousand/mm ³) ^a	0.050	0.007 (0.009)	0.455
15-20	Absolute Monocytes (thousand/mm ³) ^c	0.032	0.007 (0.004)	0.125
15-21	Absolute Eosinophils (Nonzero Measurements) (thousand/mm ³) ^a	0.028	-0.010 (0.020)	0.608
15-23	Absolute Basophils (Nonzero Measurements) (thousand/mm ³) ^a	0.076	-0.006 (0.016)	0.716
16-6	Time to Diabetes Onset (years) ^d	--	-0.118 (0.027)	<0.001
16-9	TSH (μ IU/ml) ^a	0.046	0.008 (0.017)	0.624
16-11	Thyroxine (μ g/dl) ^c	0.047	-0.001 (0.007)	0.862
16-14	Fasting Glucose (mg/dl) ^a	0.082	0.018 (0.006)	0.002

**Table G-16. Summary of Adjusted Results for Continuous Variables – Model 4
(Ranch Hands: $\log_2$ (Initial Dioxin + 1))(Continued)**

Table Ref.	Clinical Parameter (Units)	R ²	Adj. Slope (Standard Error)	p-Value
16-16	2-Hour Postprandial Glucose (mg/dl) ^a	0.137	0.002 (0.008)	0.850
16-20	Serum Insulin (μ IU/ml) ^a	0.235	0.026 (0.025)	0.305
16-22	α -1-C Hemoglobin (percent) ^a	0.119	0.016 (0.005)	<0.001
16-24	Total Testosterone (ng/dl) ^c	0.193	-0.149 (0.109)	0.172
16-26	Free Testosterone (pg/ml) ^c	0.234	-0.029 (0.016)	0.066
16-28	Estradiol (pg/ml) ^c	0.017	0.019 (0.036)	0.599
16-30	LH (mIU/ml) ^a	0.034	-0.024 (0.017)	0.149
16-32	FSH (mIU/ml) ^a	0.066	-0.001 (0.016)	0.958
17-4	CD3+ Cells (T Cells) (cells/mm ³) ^a	0.088	0.035 (0.018)	0.046
17-5	CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	0.091	0.038 (0.018)	0.033
17-6	CD8+ Cells (Suppressor T Cells) (cells/mm ³) ^a	0.049	0.014 (0.022)	0.540
17-7	CD16+56+ Cells (Natural Killer Cells) (cells/mm ³) ^a	0.059	-0.001 (0.025)	0.960
17-8	CD20+ Cells (B Cells) (cells/mm ³) ^a	0.105	0.030 (0.026)	0.253
17-9	CD3+CD4+ Cells (Helper T Cells) (cells/mm ³) ^a	0.097	0.042 (0.019)	0.025
17-10	Absolute Lymphocytes (cells/mm ³) ^a	0.046	0.008 (0.009)	0.393
17-11	IgA (mg/dl) ^a	0.031	0.021 (0.013)	0.115
17-12	IgG (mg/dl) ^a	0.073	-0.001 (0.006)	0.920
17-13	IgM (mg/dl) ^a	0.025	-0.008 (0.014)	0.586
18-8	FVC (percent of predicted)	0.111	0.377 (0.385)	0.329
18-9	FEV ₁ (percent of predicted)	0.161	0.652 (0.443)	0.142
18-10	Ratio of Observed FEV ₁ to Observed FVC ^e	0.218	-0.012 (0.008)	0.161

^a Slope and standard error based on natural logarithm of clinical parameter versus $\log_2$ (initial dioxin).

^b Slope and standard error based on natural logarithm of (clinical parameter + 0.1) versus $\log_2$ (initial dioxin).

^c Slope and standard error based on square root of clinical parameter versus $\log_2$ (initial dioxin).

^d Slope and standard error based on time to diabetes onset versus $\log_2$ (initial dioxin) under a censored Weibull distribution.

^e Slope and standard error based on natural logarithm of (1 – clinical parameter) versus $\log_2$ (initial dioxin).

--: R-squared not presented because analysis was based on a censored Weibull distribution.

Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1 (Ranch Hands vs. Comparisons)

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
9-3	Self-perception of Health	All	1.43 (1.09,1.87)	0.010
		Officer	1.26 (0.75,2.12)	0.383
		Enlisted Flyer	1.52 (0.82,2.82)	0.183
		Enlisted Groundcrew	1.48 (1.03,2.14)	0.035
9-4	Appearance of Illness or Distress	All	1.44 (0.67,3.06)	0.350
		Officer	1.13 (0.25,5.16)	0.878
		Enlisted Flyer	2.12 (0.33,13.61)	0.426
		Enlisted Groundcrew	1.42 (0.52,3.89)	0.496
9-5	Relative Age Appearance	All	1.21 (0.88,1.65)	0.237
		Officer	1.29 (0.70,2.36)	0.410
		Enlisted Flyer	1.28 (0.65,2.50)	0.476
		Enlisted Groundcrew	1.14 (0.74,1.75)	0.550
9-7	Body Fat	All	0.92 (0.75,1.11)	0.369
		Officer	1.05 (0.77,1.45)	0.754
		Enlisted Flyer	0.71 (0.43,1.16)	0.173
		Enlisted Groundcrew	0.89 (0.67,1.18)	0.431
9-9	Erythrocyte Sedimentation Rate	All	1.17 (0.84,1.63)	0.356
		Officer	0.86 (0.48,1.53)	0.602
		Enlisted Flyer	1.59 (0.75,3.38)	0.231
		Enlisted Groundcrew	1.29 (0.79,2.10)	0.305
10-3	Skin Neoplasms	All	1.32 (1.09,1.60)	0.005
		Officer	1.38 (1.03,1.85)	0.030
		Enlisted Flyer	1.66 (1.02,2.69)	0.040
		Enlisted Groundcrew	1.16 (0.86,1.56)	0.339
10-4	Malignant Skin Neoplasms	All	1.19 (0.93,1.54)	0.175
		Officer	1.29 (0.90,1.85)	0.161
		Enlisted Flyer	1.86 (0.99,3.51)	0.055
		Enlisted Groundcrew	0.86 (0.56,1.34)	0.509
10-5	Benign Skin Neoplasms	All	1.31 (1.07,1.61)	0.011
		Officer	1.41 (1.02,1.95)	0.035
		Enlisted Flyer	1.41 (0.82,2.43)	0.220
		Enlisted Groundcrew	1.20 (0.88,1.63)	0.257
10-6	Skin Neoplasms of Uncertain Behavior or Unspecified Nature	All	1.18 (0.42,3.36)	0.755
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	2.57 (0.73,9.10)	0.144
10-7	Basal Cell Carcinoma	All	1.21 (0.92,1.59)	0.169
		Officer	1.34 (0.92,1.96)	0.129
		Enlisted Flyer	1.97 (1.01,3.85)	0.046
		Enlisted Groundcrew	0.80 (0.49,1.30)	0.363

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
10-8	Basal Cell Carcinoma (Ear, Face, Head, and Neck)	All	1.20 (0.89,1.62)	0.242
		Officer	1.29 (0.84,1.97)	0.244
		Enlisted Flyer	1.83 (0.90,3.72)	0.097
		Enlisted Groundcrew	0.84 (0.48,1.45)	0.527
10-9	Basal Cell Carcinoma (Trunk)	All	1.24 (0.79,1.94)	0.357
		Officer	1.47 (0.85,2.57)	0.170
		Enlisted Flyer	2.47 (0.59,10.26)	0.214
		Enlisted Groundcrew	0.52 (0.19,1.48)	0.222
10-10	Basal Cell Carcinoma (Upper Extremities)	All	0.76 (0.44,1.34)	0.340
		Officer	0.98 (0.51,1.89)	0.947
		Enlisted Flyer	0.56 (0.05,6.30)	0.635
		Enlisted Groundcrew	0.38 (0.11,1.37)	0.139
10-11	Basal Cell Carcinoma (Lower Extremities)	All	1.38 (0.39,4.85)	0.616
		Officer	1.83 (0.40,8.33)	0.436
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.78 (0.07,8.71)	0.839
10-12	Squamous Cell Carcinoma	All	1.46 (0.77,2.78)	0.250
		Officer	1.10 (0.49,2.49)	0.813
		Enlisted Flyer	1.86 (0.29,11.86)	0.514
		Enlisted Groundcrew	2.67 (0.73,9.76)	0.139
10-13	Nonmelanoma	All	1.18 (0.91,1.53)	0.219
		Officer	1.31 (0.91,1.90)	0.144
		Enlisted Flyer	2.00 (1.05,3.81)	0.035
		Enlisted Groundcrew	0.76 (0.48,1.22)	0.258
10-14	Melanoma	All	1.78 (0.83,3.79)	0.136
		Officer	1.92 (0.69,5.30)	0.211
		Enlisted Flyer	--	--
		Enlisted Groundcrew	2.01 (0.62,6.50)	0.246
10-15	Systemic Neoplasms (All Sites Combined)	All	0.88 (0.70,1.12)	0.307
		Officer	0.77 (0.56,1.07)	0.125
		Enlisted Flyer	0.98 (0.60,1.61)	0.937
		Enlisted Groundcrew	0.98 (0.70,1.36)	0.888
10-16	Malignant Systemic Neoplasms	All	1.12 (0.74,1.70)	0.592
		Officer	1.09 (0.63,1.88)	0.766
		Enlisted Flyer	1.91 (0.82,4.43)	0.132
		Enlisted Groundcrew	0.82 (0.41,1.67)	0.589
10-17	Benign Systemic Neoplasms	All	0.93 (0.73,1.19)	0.574
		Officer	0.78 (0.55,1.10)	0.155
		Enlisted Flyer	0.95 (0.56,1.59)	0.831
		Enlisted Groundcrew	1.11 (0.79,1.57)	0.548

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
10-18	Systemic Neoplasms of Uncertain Behavior or Unspecified Nature	All	0.71 (0.34,1.47)	0.355
		Officer	0.96 (0.40,2.31)	0.925
		Enlisted Flyer	0.45 (0.04,5.19)	0.523
		Enlisted Groundcrew	0.44 (0.13,1.50)	0.190
10-19	Malignant Systemic Neoplasms (Eye, Ear, Face, Head, and Neck)	All	0.98 (0.35,2.75)	0.974
		Officer	2.07 (0.53,8.16)	0.298
		Enlisted Flyer	0.38 (0.04,4.02)	0.424
		Enlisted Groundcrew	0.49 (0.08,2.87)	0.429
10-20	Malignant Systemic Neoplasms (Oral Cavity, Pharynx, and Larynx)	All	0.63 (0.16,2.44)	0.501
		Officer	1.35 (0.17,10.61)	0.777
		Enlisted Flyer	0.52 (0.04,6.28)	0.603
		Enlisted Groundcrew	0.31 (0.03,3.40)	0.336
10-21	Malignant Systemic Neoplasms (Thymus, Heart, and Mediastinum)	All	--	--
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
10-22	Malignant Systemic Neoplasms (Thyroid Gland)	All	1.46 (0.20,10.39)	0.708
		Officer	3.08 (0.28,34.40)	0.362
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
10-23	Malignant Systemic Neoplasms (Bronchus and Lung)	All	3.66 (0.78,17.13)	0.070
		Officer	3.51 (0.57,21.64)	0.176
		Enlisted Flyer	2.58 (0.21,31.26)	0.456
		Enlisted Groundcrew	--	--
10-24	Malignant Systemic Neoplasms (Liver)	All	1.57 (0.22,11.35)	0.655
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	1.72 (0.11,27.93)	0.703
10-25	Malignant Systemic Neoplasms (Colon and Rectum)	All	1.50 (0.41,5.47)	0.536
		Officer	2.59 (0.37,17.95)	0.335
		Enlisted Flyer	1.57 (0.19,13.30)	0.678
		Enlisted Groundcrew	0.85 (0.13,5.78)	0.872
10-26	Malignant Systemic Neoplasms (Kidney and Bladder)	All	3.12 (0.88,11.04)	0.061
		Officer	1.86 (0.43,8.16)	0.409
		Enlisted Flyer	--	--
		Enlisted Groundcrew	4.20 (0.36,49.46)	0.254
10-27	Malignant Systemic Neoplasms (Prostate)	All	0.69 (0.38,1.25)	0.219
		Officer	0.58 (0.27,1.22)	0.151
		Enlisted Flyer	1.54 (0.41,5.75)	0.521
		Enlisted Groundcrew	0.59 (0.19,1.84)	0.360

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
10-28	Malignant Systemic Neoplasms (Testicles)	All	--	--
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
10-29	Malignant Systemic Neoplasms (Connective and Other Soft Tissues)	All	0.79 (0.05,12.82)	0.870
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
10-30	Hodgkin's Disease	All	0.29 (0.03,3.23)	0.291
		Officer	0.47 (0.04,5.86)	0.554
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
10-31	Non-Hodgkin's Lymphoma	All	0.18 (0.01,2.61)	0.186
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.61 (0.02,15.18)	0.762
10-32	Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	All	0.70 (0.10,5.03)	0.724
		Officer	0.69 (0.05,9.34)	0.781
		Enlisted Flyer	--	--
		Enlisted Groundcrew	1.57 (0.08,31.01)	0.767
10-33	Malignant Skin and Systemic Neoplasms	All	1.06 (0.80,1.41)	0.668
		Officer	1.14 (0.79,1.65)	0.470
		Enlisted Flyer	1.63 (0.91,2.92)	0.103
		Enlisted Groundcrew	0.78 (0.51,1.19)	0.247
10-34	All Skin and Systemic Neoplasms	All	1.04 (0.83,1.30)	0.756
		Officer	1.06 (0.77,1.46)	0.725
		Enlisted Flyer	1.15 (0.72,1.84)	0.557
		Enlisted Groundcrew	0.98 (0.72,1.33)	0.881
10-36	PSA	All	1.02 (0.64,1.60)	0.947
		Officer	1.45 (0.80,2.63)	0.216
		Enlisted Flyer	0.78 (0.32,1.90)	0.578
		Enlisted Groundcrew	0.68 (0.33,1.41)	0.302
11-3	Inflammatory Diseases	All	13.50 (1.61,113.13)	0.002
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	6.38 (0.64,63.30)	0.114
11-4	Hereditary and Degenerative Diseases	All	1.07 (0.78,1.46)	0.688
		Officer	1.13 (0.68,1.89)	0.635
		Enlisted Flyer	1.31 (0.66,2.62)	0.444
		Enlisted Groundcrew	0.92 (0.57,1.48)	0.737

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
11-5	Peripheral Disorders	All	1.12 (0.89,1.40)	0.341
		Officer	1.25 (0.88,1.78)	0.215
		Enlisted Flyer	0.91 (0.54,1.54)	0.733
		Enlisted Groundcrew	1.09 (0.77,1.54)	0.622
11-6	Other Neurological Disorders	All	1.25 (0.98,1.59)	0.078
		Officer	1.09 (0.65,1.84)	0.734
		Enlisted Flyer	1.33 (0.79,2.21)	0.283
		Enlisted Groundcrew	1.28 (0.92,1.78)	0.136
11-7	Smell	All	1.20 (0.60,2.36)	0.609
		Officer	0.53 (0.16,1.71)	0.286
		Enlisted Flyer	5.12 (0.56,46.70)	0.148
		Enlisted Groundcrew	1.57 (0.58,4.27)	0.376
11-8	Visual Fields	All	0.49 (0.09,2.64)	0.387
		Officer	--	--
		Enlisted Flyer	0.48 (0.04,5.78)	0.566
		Enlisted Groundcrew	0.70 (0.06,8.00)	0.778
11-9	Light Reaction	All	0.13 (0.02,0.98)	0.010
		Officer	--	--
		Enlisted Flyer	0.36 (0.04,3.38)	0.371
		Enlisted Groundcrew	--	--
11-10	Ocular Movement	All	1.17 (0.56,2.42)	0.675
		Officer	0.56 (0.11,2.90)	0.485
		Enlisted Flyer	1.76 (0.29,10.81)	0.543
		Enlisted Groundcrew	1.37 (0.54,3.45)	0.508
11-11	Facial Sensation	All	1.38 (0.19,9.87)	0.750
		Officer	1.45 (0.09,23.48)	0.792
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
11-12	Jaw Clench	All	--	--
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
11-13	Smile	All	2.45 (0.71,8.50)	0.149
		Officer	0.71 (0.06,7.91)	0.777
		Enlisted Flyer	--	--
		Enlisted Groundcrew	3.62 (0.69,19.00)	0.128
11-14	Palpebral Fissure	All	0.71 (0.26,1.94)	0.502
		Officer	0.63 (0.12,3.31)	0.582
		Enlisted Flyer	0.87 (0.05,14.32)	0.921
		Enlisted Groundcrew	0.90 (0.25,3.27)	0.876

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
11-15	Balance	All	1.38 (0.47,4.03)	0.553
		Officer	3.37 (0.64,17.73)	0.151
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.73 (0.13,4.07)	0.719
11-16	Speech	All	0.60 (0.18,1.97)	0.388
		Officer	0.76 (0.07,8.59)	0.828
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.66 (0.16,2.63)	0.551
11-17	Tongue Position Relative to Midline	All	--	--
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
11-18	Palate and Uvula Movement	All	--	--
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
11-19	Cranial Nerve Index	All	1.01 (0.69,1.48)	0.940
		Officer	0.88 (0.46,1.68)	0.694
		Enlisted Flyer	1.23 (0.49,3.08)	0.656
		Enlisted Groundcrew	1.05 (0.61,1.80)	0.856
11-20	Neck Range of Motion	All	1.35 (1.06,1.72)	0.015
		Officer	1.31 (0.90,1.89)	0.153
		Enlisted Flyer	1.97 (1.13,3.42)	0.016
		Enlisted Groundcrew	1.16 (0.78,1.71)	0.466
11-21	Pinprick	All	1.19 (0.81,1.76)	0.368
		Officer	1.28 (0.67,2.43)	0.451
		Enlisted Flyer	1.81 (0.84,3.89)	0.131
		Enlisted Groundcrew	0.85 (0.45,1.60)	0.618
11-22	Light Touch	All	1.13 (0.71,1.81)	0.597
		Officer	1.67 (0.77,3.61)	0.193
		Enlisted Flyer	1.40 (0.56,3.50)	0.470
		Enlisted Groundcrew	0.67 (0.31,1.47)	0.321
11-23	Muscle Status	All	1.50 (0.93,2.40)	0.094
		Officer	0.98 (0.47,2.05)	0.960
		Enlisted Flyer	1.72 (0.63,4.70)	0.289
		Enlisted Groundcrew	2.24 (1.01,4.93)	0.046
11-24	Patellar Reflex	All	0.97 (0.56,1.67)	0.910
		Officer	1.05 (0.48,2.29)	0.901
		Enlisted Flyer	0.16 (0.02,1.32)	0.089
		Enlisted Groundcrew	1.43 (0.61,3.34)	0.408

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
11-25	Achilles Reflex	All	1.07 (0.84,1.37)	0.594
		Officer	1.17 (0.80,1.70)	0.413
		Enlisted Flyer	0.91 (0.51,1.60)	0.737
		Enlisted Groundcrew	1.05 (0.71,1.55)	0.815
11-26	Biceps Reflex	All	1.31 (0.57,3.05)	0.527
		Officer	1.13 (0.33,3.80)	0.848
		Enlisted Flyer	1.34 (0.18,9.89)	0.776
		Enlisted Groundcrew	1.61 (0.39,6.58)	0.509
11-27	Babinski Reflex	All	0.81 (0.31,2.10)	0.666
		Officer	2.16 (0.35,13.17)	0.403
		Enlisted Flyer	0.36 (0.04,3.59)	0.385
		Enlisted Groundcrew	0.64 (0.16,2.51)	0.526
11-29	Polyneuropathy Prevalence Index	All	0.99 (0.76,1.28)	0.923
		Officer	1.02 (0.68,1.51)	0.941
		Enlisted Flyer	0.86 (0.48,1.52)	0.601
		Enlisted Groundcrew	1.03 (0.67,1.59)	0.877
11-30	Multiple Polyneuropathy Index	All	1.51 (0.94,2.45)	0.092
		Officer	1.44 (0.69,2.98)	0.330
		Enlisted Flyer	1.77 (0.69,4.56)	0.234
		Enlisted Groundcrew	1.43 (0.60,3.39)	0.421
11-31	Confirmed Polyneuropathy Indicator	All	2.35 (0.88,6.22)	0.082
		Officer	0.51 (0.10,2.59)	0.414
		Enlisted Flyer	--	--
		Enlisted Groundcrew	8.59 (0.97,76.27)	0.054
11-32	Tremor	All	0.90 (0.64,1.28)	0.564
		Officer	1.06 (0.59,1.89)	0.850
		Enlisted Flyer	1.14 (0.53,2.44)	0.734
		Enlisted Groundcrew	0.72 (0.42,1.21)	0.212
11-33	Coordination	All	0.86 (0.48,1.56)	0.622
		Officer	1.65 (0.64,4.26)	0.302
		Enlisted Flyer	0.28 (0.03,2.58)	0.263
		Enlisted Groundcrew	0.64 (0.27,1.50)	0.305
11-34	Romberg Sign	All	1.38 (0.47,4.03)	0.553
		Officer	3.37 (0.64,17.73)	0.151
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.73 (0.13,4.07)	0.719
11-35	Gait	All	1.26 (0.83,1.89)	0.275
		Officer	1.01 (0.54,1.89)	0.972
		Enlisted Flyer	1.05 (0.43,2.59)	0.911
		Enlisted Groundcrew	1.79 (0.91,3.49)	0.090

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
11-36	CNS Index	All	0.99 (0.75,1.31)	0.957
		Officer	1.01 (0.64,1.58)	0.975
		Enlisted Flyer	0.92 (0.50,1.70)	0.799
		Enlisted Groundcrew	1.01 (0.67,1.54)	0.950
12-3	Psychoses	All	1.03 (0.65,1.63)	0.905
		Officer	1.12 (0.47,2.71)	0.796
		Enlisted Flyer	1.85 (0.68,5.04)	0.230
		Enlisted Groundcrew	0.76 (0.40,1.47)	0.423
12-4	Alcohol Dependence	All	1.04 (0.74,1.48)	0.816
		Officer	0.82 (0.43,1.58)	0.557
		Enlisted Flyer	0.94 (0.43,2.04)	0.871
		Enlisted Groundcrew	1.25 (0.76,2.03)	0.377
12-5	Drug Dependence	All	0.58 (0.09,3.74)	0.553
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.78 (0.11,5.56)	0.802
12-6	Anxiety	All	1.00 (0.82,1.23)	0.979
		Officer	0.93 (0.64,1.35)	0.709
		Enlisted Flyer	1.01 (0.63,1.63)	0.953
		Enlisted Groundcrew	1.04 (0.79,1.38)	0.776
12-7	Other Neuroses	All	1.08 (0.90,1.29)	0.434
		Officer	0.80 (0.60,1.07)	0.127
		Enlisted Flyer	1.04 (0.66,1.65)	0.857
		Enlisted Groundcrew	1.44 (1.09,1.91)	0.011
12-8	SCL-90-R Anxiety	All	0.85 (0.63,1.14)	0.267
		Officer	0.75 (0.39,1.46)	0.400
		Enlisted Flyer	0.53 (0.27,1.06)	0.073
		Enlisted Groundcrew	1.02 (0.70,1.50)	0.904
12-9	SCL-90-R Depression	All	0.79 (0.61,1.03)	0.077
		Officer	0.89 (0.54,1.46)	0.642
		Enlisted Flyer	0.45 (0.24,0.84)	0.013
		Enlisted Groundcrew	0.90 (0.64,1.28)	0.562
12-10	SCL-90-R Hostility	All	0.81 (0.58,1.13)	0.217
		Officer	0.71 (0.34,1.49)	0.367
		Enlisted Flyer	0.66 (0.30,1.45)	0.301
		Enlisted Groundcrew	0.90 (0.59,1.39)	0.642
12-11	SCL-90-R Interpersonal Sensitivity	All	0.79 (0.61,1.02)	0.070
		Officer	0.93 (0.55,1.56)	0.772
		Enlisted Flyer	0.52 (0.28,0.93)	0.029
		Enlisted Groundcrew	0.86 (0.61,1.20)	0.366

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
12-12	SCL-90-R Obsessive-Compulsive Behavior	All	0.83 (0.65,1.07)	0.157
		Officer	0.95 (0.58,1.54)	0.824
		Enlisted Flyer	0.77 (0.44,1.35)	0.365
		Enlisted Groundcrew	0.81 (0.57,1.14)	0.225
12-13	SCL-90-R Paranoid Ideation	All	0.98 (0.68,1.40)	0.898
		Officer	0.84 (0.35,2.03)	0.698
		Enlisted Flyer	0.56 (0.23,1.37)	0.206
		Enlisted Groundcrew	1.17 (0.76,1.81)	0.479
12-14	SCL-90-R Phobic Anxiety	All	0.92 (0.68,1.24)	0.570
		Officer	0.53 (0.25,1.11)	0.090
		Enlisted Flyer	0.59 (0.29,1.18)	0.136
		Enlisted Groundcrew	1.24 (0.85,1.81)	0.270
12-15	SCL-90-R Psychoticism	All	0.81 (0.62,1.06)	0.116
		Officer	0.68 (0.39,1.17)	0.162
		Enlisted Flyer	0.67 (0.36,1.27)	0.223
		Enlisted Groundcrew	0.92 (0.65,1.31)	0.651
12-16	SCL-90-R Somatization	All	1.02 (0.80,1.31)	0.847
		Officer	1.02 (0.60,1.74)	0.948
		Enlisted Flyer	0.67 (0.40,1.13)	0.133
		Enlisted Groundcrew	1.22 (0.88,1.70)	0.232
12-17	SCL-90-R Global Severity Index (GSI)	All	0.87 (0.67,1.13)	0.285
		Officer	0.93 (0.54,1.61)	0.805
		Enlisted Flyer	0.57 (0.32,1.04)	0.066
		Enlisted Groundcrew	0.97 (0.70,1.36)	0.876
12-18	SCL-90-R Positive Symptom Total (PST)	All	0.80 (0.62,1.03)	0.083
		Officer	0.80 (0.48,1.33)	0.382
		Enlisted Flyer	0.67 (0.38,1.18)	0.168
		Enlisted Groundcrew	0.86 (0.61,1.20)	0.365
12-19	SCL-90-R Positive Symptom Distress Index (PSDI)	All	1.20 (0.86,1.69)	0.283
		Officer	1.29 (0.62,2.68)	0.495
		Enlisted Flyer	0.78 (0.36,1.66)	0.513
		Enlisted Groundcrew	1.37 (0.88,2.12)	0.165
13-3	Uncharacterized Hepatitis	All	1.18 (0.62,2.26)	0.617
		Officer	1.05 (0.33,3.35)	0.935
		Enlisted Flyer	1.62 (0.35,7.40)	0.533
		Enlisted Groundcrew	1.13 (0.45,2.85)	0.795
13-4	Jaundice	All	0.49 (0.25,0.96)	0.028
		Officer	0.46 (0.18,1.17)	0.103
		Enlisted Flyer	3.47 (0.36,33.8)	0.284
		Enlisted Groundcrew	0.29 (0.08,1.03)	0.055

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
13-5	Chronic Liver Disease and Cirrhosis (Alcohol-related)	All	0.93 (0.60,1.45)	0.762
		Officer	1.50 (0.71,3.19)	0.290
		Enlisted Flyer	0.70 (0.26,1.88)	0.474
		Enlisted Groundcrew	0.75 (0.39,1.45)	0.390
13-6	Chronic Liver Disease and Cirrhosis (Non-alcohol-related)	All	1.43 (0.68,3.03)	0.348
		Officer	2.47 (0.58,10.52)	0.219
		Enlisted Flyer	0.77 (0.13,4.71)	0.777
		Enlisted Groundcrew	1.32 (0.47,3.69)	0.598
13-7	Liver Abscess and Sequelae of Chronic Liver Disease	All	1.45 (0.09,23.24)	0.795
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
13-8	Enlarged Liver (Hepatomegaly)	All	0.73 (0.38,1.41)	0.339
		Officer	0.78 (0.26,2.36)	0.662
		Enlisted Flyer	2.53 (0.62,10.38)	0.198
		Enlisted Groundcrew	0.29 (0.08,1.03)	0.057
13-9	Other Liver Disorders	All	1.19 (0.97,1.45)	0.090
		Officer	1.15 (0.83,1.57)	0.400
		Enlisted Flyer	0.98 (0.60,1.61)	0.933
		Enlisted Groundcrew	1.31 (0.98,1.75)	0.073
13-10	Current Hepatomegaly	All	2.13 (0.80,5.67)	0.127
		Officer	3.17 (0.57,17.56)	0.187
		Enlisted Flyer	--	--
		Enlisted Groundcrew	1.18 (0.31,4.51)	0.805
13-12	AST	All	1.14 (0.81,1.61)	0.448
		Officer	1.09 (0.63,1.89)	0.763
		Enlisted Flyer	0.84 (0.36,1.92)	0.671
		Enlisted Groundcrew	1.35 (0.81,2.28)	0.252
13-14	ALT	All	1.12 (0.80,1.57)	0.495
		Officer	1.58 (0.86,2.89)	0.138
		Enlisted Flyer	0.97 (0.46,2.01)	0.927
		Enlisted Groundcrew	0.97 (0.60,1.57)	0.889
13-16	GGT	All	1.08 (0.80,1.45)	0.604
		Officer	1.24 (0.75,2.06)	0.399
		Enlisted Flyer	1.39 (0.73,2.65)	0.310
		Enlisted Groundcrew	0.86 (0.55,1.35)	0.512
13-18	Alkaline Phosphatase	All	1.34 (0.74,2.42)	0.332
		Officer	0.45 (0.14,1.41)	0.172
		Enlisted Flyer	2.03 (0.56,7.40)	0.284
		Enlisted Groundcrew	2.46 (0.99,6.13)	0.053

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
13-20	Total Bilirubin	All	0.86 (0.58,1.25)	0.420
		Officer	0.90 (0.52,1.57)	0.723
		Enlisted Flyer	1.15 (0.43,3.08)	0.779
		Enlisted Groundcrew	0.71 (0.38,1.33)	0.286
13-21	Direct Bilirubin	All	0.32 (0.04,2.82)	0.254
		Officer	0.50 (0.05,4.90)	0.551
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
13-23	Lactic Dehydrogenase	All	0.90 (0.67,1.21)	0.479
		Officer	0.86 (0.54,1.37)	0.530
		Enlisted Flyer	1.03 (0.47,2.24)	0.945
		Enlisted Groundcrew	0.90 (0.58,1.39)	0.625
13-25	Cholesterol	All	1.04 (0.82,1.34)	0.726
		Officer	0.80 (0.53,1.23)	0.312
		Enlisted Flyer	1.00 (0.54,1.83)	0.993
		Enlisted Groundcrew	1.28 (0.90,1.82)	0.167
13-27	HDL Cholesterol	All	1.13 (0.81,1.57)	0.473
		Officer	1.15 (0.62,2.15)	0.650
		Enlisted Flyer	0.98 (0.47,2.04)	0.957
		Enlisted Groundcrew	1.18 (0.74,1.87)	0.483
13-29	Cholesterol-HDL Ratio	All	1.01 (0.85,1.22)	0.878
		Officer	1.09 (0.81,1.47)	0.563
		Enlisted Flyer	0.67 (0.43,1.04)	0.075
		Enlisted Groundcrew	1.11 (0.85,1.45)	0.436
13-31	Triglycerides	All	1.12 (0.90,1.39)	0.318
		Officer	1.10 (0.76,1.58)	0.628
		Enlisted Flyer	0.66 (0.39,1.12)	0.123
		Enlisted Groundcrew	1.37 (1.00,1.88)	0.047
13-33	Creatine Phosphokinase	All	0.87 (0.63,1.20)	0.390
		Officer	0.84 (0.50,1.41)	0.519
		Enlisted Flyer	0.55 (0.21,1.41)	0.210
		Enlisted Groundcrew	1.00 (0.63,1.58)	0.998
13-35	Serum Amylase	All	0.91 (0.54,1.54)	0.733
		Officer	0.43 (0.18,1.03)	0.058
		Enlisted Flyer	1.66 (0.36,7.69)	0.514
		Enlisted Groundcrew	1.60 (0.73,3.50)	0.240
13-36	Antibodies for Hepatitis A	All	0.93 (0.76,1.12)	0.434
		Officer	0.95 (0.68,1.31)	0.739
		Enlisted Flyer	1.07 (0.69,1.68)	0.754
		Enlisted Groundcrew	0.85 (0.64,1.14)	0.285

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
13-37	Prior Hepatitis B	All	0.59 (0.44,0.80)	<0.001
		Officer	0.47 (0.25,0.91)	0.024
		Enlisted Flyer	0.58 (0.31,1.07)	0.079
		Enlisted Groundcrew	0.66 (0.44,0.97)	0.035
13-38	Current Hepatitis B	All	0.56 (0.05,6.93)	0.646
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.68 (0.06,8.27)	0.762
13-39	Antibodies for Hepatitis C	All	0.63 (0.27,1.47)	0.274
		Officer	0.36 (0.04,3.27)	0.367
		Enlisted Flyer	0.61 (0.05,6.87)	0.690
		Enlisted Groundcrew	0.73 (0.27,1.98)	0.532
13-40	Stool Hemocult	All	0.78 (0.49,1.25)	0.301
		Officer	0.90 (0.45,1.80)	0.774
		Enlisted Flyer	0.34 (0.07,1.70)	0.191
		Enlisted Groundcrew	0.82 (0.41,1.64)	0.574
13-42	Prealbumin	All	1.87 (0.82,4.26)	0.136
		Officer	1.03 (0.32,3.29)	0.962
		Enlisted Flyer	1.64 (0.09,28.94)	0.736
		Enlisted Groundcrew	4.27 (1.05,17.39)	0.043
13-44	Albumin	All	0.45 (0.12,1.65)	0.200
		Officer	1.08 (0.24,4.91)	0.918
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
13-46	α -1-Acid Glycoprotein	All	1.39 (0.88,2.21)	0.163
		Officer	0.73 (0.31,1.76)	0.487
		Enlisted Flyer	1.78 (0.64,4.95)	0.270
		Enlisted Groundcrew	1.86 (0.96,3.60)	0.066
13-50	α -2-Macroglobulin	All	0.70 (0.42,1.16)	0.157
		Officer	0.59 (0.25,1.40)	0.234
		Enlisted Flyer	0.46 (0.15,1.39)	0.169
		Enlisted Groundcrew	1.01 (0.46,2.19)	0.988
13-52	Apolipoprotein B	All	0.85 (0.71,1.02)	0.073
		Officer	0.80 (0.61,1.06)	0.115
		Enlisted Flyer	0.53 (0.34,0.82)	0.005
		Enlisted Groundcrew	1.07 (0.82,1.40)	0.603
13-54	C3 Complement	All	0.79 (0.42,1.50)	0.474
		Officer	0.62 (0.23,1.63)	0.333
		Enlisted Flyer	0.27 (0.03,2.33)	0.233
		Enlisted Groundcrew	1.41 (0.54,3.71)	0.487

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
13-56	C4 Complement	All	1.46 (0.20,10.59)	0.707
		Officer	2.85 (0.26,31.68)	0.394
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
13-58	Haptoglobin	All	1.26 (1.04,1.52)	0.020
		Officer	1.18 (0.85,1.64)	0.316
		Enlisted Flyer	1.27 (0.81,2.01)	0.295
		Enlisted Groundcrew	1.31 (0.99,1.73)	0.061
13-60	Transferrin	All	0.71 (0.52,0.97)	0.027
		Officer	0.63 (0.38,1.04)	0.070
		Enlisted Flyer	0.83 (0.41,1.68)	0.601
		Enlisted Groundcrew	0.74 (0.47,1.18)	0.208
14-3	Essential Hypertension	All	0.96 (0.79,1.17)	0.708
		Officer	0.85 (0.63,1.16)	0.317
		Enlisted Flyer	1.27 (0.79,2.04)	0.316
		Enlisted Groundcrew	0.96 (0.72,1.29)	0.811
14-4	Heart Disease (Excluding Essential Hypertension)	All	1.26 (1.04,1.53)	0.018
		Officer	1.21 (0.88,1.66)	0.238
		Enlisted Flyer	2.10 (1.28,3.45)	0.004
		Enlisted Groundcrew	1.10 (0.83,1.46)	0.496
14-5	Myocardial Infarction	All	1.02 (0.73,1.42)	0.915
		Officer	0.86 (0.50,1.46)	0.567
		Enlisted Flyer	1.57 (0.72,3.43)	0.255
		Enlisted Groundcrew	0.99 (0.59,1.67)	0.975
14-6	Stroke or Transient Ischemia Attack	All	1.21 (0.51,2.85)	0.666
		Officer	1.18 (0.31,4.51)	0.806
		Enlisted Flyer	--	--
		Enlisted Groundcrew	1.80 (0.53,6.06)	0.345
14-8	Systolic Blood Pressure	All	0.99 (0.79,1.24)	0.899
		Officer	0.95 (0.67,1.35)	0.784
		Enlisted Flyer	1.13 (0.66,1.93)	0.661
		Enlisted Groundcrew	0.96 (0.67,1.38)	0.832
14-10	Diastolic Blood Pressure	All	1.02 (0.67,1.56)	0.916
		Officer	1.21 (0.62,2.35)	0.576
		Enlisted Flyer	1.18 (0.41,3.37)	0.760
		Enlisted Groundcrew	0.84 (0.44,1.59)	0.584
14-11	Heart Sounds	All	0.71 (0.45,1.13)	0.139
		Officer	0.60 (0.28,1.29)	0.190
		Enlisted Flyer	0.65 (0.23,1.84)	0.419
		Enlisted Groundcrew	0.86 (0.42,1.74)	0.675

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
14-12	Overall Electrocardiograph	All	0.96 (0.78,1.18)	0.688
		Officer	1.07 (0.79,1.47)	0.655
		Enlisted Flyer	1.24 (0.76,2.00)	0.389
		Enlisted Groundcrew	0.76 (0.55,1.05)	0.095
14-13	Right Bundle Branch Block	All	0.88 (0.49,1.56)	0.650
		Officer	0.89 (0.36,2.22)	0.807
		Enlisted Flyer	1.47 (0.49,4.44)	0.493
		Enlisted Groundcrew	0.55 (0.19,1.59)	0.271
14-14	Left Bundle Branch Block	All	0.47 (0.15,1.50)	0.182
		Officer	0.21 (0.02,1.76)	0.150
		Enlisted Flyer	--	--
		Enlisted Groundcrew	0.56 (0.11,2.83)	0.479
14-15	Non-Specific ST- and T-Wave Changes	All	1.00 (0.79,1.27)	0.984
		Officer	1.03 (0.71,1.48)	0.882
		Enlisted Flyer	1.22 (0.69,2.14)	0.495
		Enlisted Groundcrew	0.88 (0.60,1.29)	0.517
14-16	Bradycardia	All	0.69 (0.41,1.16)	0.151
		Officer	0.74 (0.38,1.42)	0.360
		Enlisted Flyer	1.14 (0.32,4.09)	0.846
		Enlisted Groundcrew	0.36 (0.10,1.30)	0.120
14-17	Tachycardia	All	2.94 (0.69,12.51)	0.129
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	1.54 (0.19,12.63)	0.685
14-18	Arrhythmia	All	1.02 (0.69,1.52)	0.913
		Officer	1.39 (0.75,2.55)	0.296
		Enlisted Flyer	1.26 (0.54,2.97)	0.591
		Enlisted Groundcrew	0.62 (0.31,1.25)	0.180
14-19	Evidence of Prior Myocardial Infarction	All	0.90 (0.56,1.43)	0.649
		Officer	0.88 (0.43,1.78)	0.718
		Enlisted Flyer	1.02 (0.35,2.96)	0.972
		Enlisted Groundcrew	0.86 (0.40,1.85)	0.709
14-20	ECG: Other Diagnoses	All	4.67 (0.47,46.79)	0.153
		Officer	--	--
		Enlisted Flyer	--	--
		Enlisted Groundcrew	3.29 (0.28,38.94)	0.346
14-21	Funduscope Examination	All	0.92 (0.69,1.22)	0.562
		Officer	1.27 (0.79,2.02)	0.321
		Enlisted Flyer	1.06 (0.59,1.91)	0.852
		Enlisted Groundcrew	0.62 (0.39,0.99)	0.047

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
14-22	Carotid Bruits	All	0.94 (0.53,1.65)	0.823
		Officer	0.72 (0.26,1.99)	0.524
		Enlisted Flyer	1.94 (0.58,6.46)	0.283
		Enlisted Groundcrew	0.78 (0.33,1.86)	0.578
14-23	Radial Pulses	All	2.85 (0.67,12.16)	0.143
		Officer	1.24 (0.16,9.95)	0.837
		Enlisted Flyer	--	--
		Enlisted Groundcrew	5.69 (0.54,60.05)	0.148
14-24	Femoral Pulses	All	1.66 (0.79,3.49)	0.178
		Officer	1.51 (0.52,4.38)	0.448
		Enlisted Flyer	1.48 (0.27,8.02)	0.652
		Enlisted Groundcrew	2.08 (0.55,7.87)	0.282
14-25	Popliteal Pulses	All	1.04 (0.56,1.90)	0.911
		Officer	0.95 (0.35,2.52)	0.911
		Enlisted Flyer	0.99 (0.21,4.82)	0.995
		Enlisted Groundcrew	1.13 (0.46,2.79)	0.784
14-26	Dorsalis Pedis Pulses	All	0.97 (0.69,1.37)	0.857
		Officer	1.27 (0.73,2.22)	0.398
		Enlisted Flyer	1.33 (0.62,2.86)	0.463
		Enlisted Groundcrew	0.64 (0.37,1.12)	0.117
14-27	Posterior Tibial Pulses	All	1.25 (0.84,1.86)	0.280
		Officer	1.40 (0.73,2.68)	0.307
		Enlisted Flyer	1.17 (0.49,2.78)	0.724
		Enlisted Groundcrew	1.16 (0.62,2.16)	0.649
14-28	Leg Pulses	All	1.03 (0.76,1.40)	0.850
		Officer	1.30 (0.79,2.16)	0.306
		Enlisted Flyer	1.46 (0.74,2.88)	0.270
		Enlisted Groundcrew	0.71 (0.44,1.14)	0.158
14-29	Peripheral Pulses	All	1.05 (0.77,1.42)	0.761
		Officer	1.27 (0.77,2.09)	0.353
		Enlisted Flyer	1.48 (0.75,2.92)	0.260
		Enlisted Groundcrew	0.75 (0.47,1.21)	0.242
14-30	ICVI Index	All	0.99 (0.61,1.60)	0.958
		Officer	1.25 (0.57,2.70)	0.577
		Enlisted Flyer	0.50 (0.17,1.51)	0.218
		Enlisted Groundcrew	1.12 (0.53,2.39)	0.764
15-14	Prothrombin Time	All	1.13 (0.49,2.60)	0.781
		Officer	1.29 (0.43,3.91)	0.650
		Enlisted Flyer	--	--
		Enlisted Groundcrew	1.15 (0.30,4.35)	0.838

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
15-15	RBC Morphology	All	1.16 (0.82,1.64)	0.400
		Officer	1.03 (0.57,1.87)	0.923
		Enlisted Flyer	1.09 (0.52,2.30)	0.814
		Enlisted Groundcrew	1.31 (0.78,2.22)	0.307
15-18	Absolute Neutrophils (bands) (Zero vs. Nonzero)	All	0.99 (0.79,1.25)	0.956
		Officer	0.74 (0.51,1.09)	0.134
		Enlisted Flyer	1.88 (1.08,3.27)	0.026
		Enlisted Groundcrew	0.98 (0.69,1.39)	0.918
15-22	Absolute Eosinophils (Zero vs. Nonzero)	All	1.01 (0.77,1.31)	0.970
		Officer	1.18 (0.74,1.87)	0.489
		Enlisted Flyer	0.95 (0.49,1.87)	0.893
		Enlisted Groundcrew	0.92 (0.64,1.34)	0.674
15-24	Absolute Basophils (Zero vs. Nonzero)	All	1.16 (0.97,1.38)	0.106
		Officer	1.16 (0.88,1.53)	0.303
		Enlisted Flyer	0.87 (0.57,1.34)	0.529
		Enlisted Groundcrew	1.28 (0.98,1.68)	0.065
16-3	Past Thyroid Disease	All	0.89 (0.64,1.22)	0.459
		Officer	0.91 (0.56,1.48)	0.701
		Enlisted Flyer	1.37 (0.64,2.94)	0.419
		Enlisted Groundcrew	0.70 (0.41,1.19)	0.189
16-4	Composite Diabetes Indicator	All	1.04 (0.81,1.33)	0.755
		Officer	1.08 (0.72,1.63)	0.711
		Enlisted Flyer	0.82 (0.45,1.47)	0.498
		Enlisted Groundcrew	1.11 (0.77,1.61)	0.572
16-7	Thyroid Gland	All	0.54 (0.21,1.39)	0.183
		Officer	0.53 (0.17,1.67)	0.276
		Enlisted Flyer	1.23 (0.08,19.88)	0.883
		Enlisted Groundcrew	0.38 (0.04,3.39)	0.384
16-8	Testicular Examination	All	1.20 (0.77,1.87)	0.427
		Officer	0.84 (0.44,1.62)	0.611
		Enlisted Flyer	1.31 (0.48,3.55)	0.595
		Enlisted Groundcrew	1.96 (0.88,4.39)	0.101
16-12	Thyroxine	All	1.04 (0.61,1.80)	0.875
		Officer	1.21 (0.57,2.55)	0.622
		Enlisted Flyer	1.24 (0.25,6.24)	0.796
		Enlisted Groundcrew	0.80 (0.32,2.02)	0.636
16-13	Anti-Thyroid Antibodies	All	1.01 (0.32,3.21)	0.981
		Officer	0.73 (0.13,4.02)	0.717
		Enlisted Flyer	2.62 (0.24,29.23)	0.434
		Enlisted Groundcrew	0.73 (0.07,8.06)	0.796

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
16-15	Fasting Glucose	All	1.07 (0.84,1.37)	0.562
		Officer	1.11 (0.75,1.64)	0.611
		Enlisted Flyer	0.90 (0.50,1.60)	0.712
		Enlisted Groundcrew	1.12 (0.78,1.61)	0.526
16-17	2-Hour Postprandial Glucose	All	0.98 (0.75,1.30)	0.912
		Officer	1.42 (0.92,2.20)	0.110
		Enlisted Flyer	0.81 (0.43,1.54)	0.526
		Enlisted Groundcrew	0.75 (0.48,1.16)	0.191
16-18	Fasting Urinary Glucose	All	0.98 (0.63,1.52)	0.924
		Officer	1.40 (0.61,3.22)	0.432
		Enlisted Flyer	1.13 (0.41,3.11)	0.816
		Enlisted Groundcrew	0.77 (0.42,1.43)	0.412
16-19	2-Hour Postprandial Urinary Glucose	All	1.22 (0.97,1.53)	0.094
		Officer	1.47 (1.01,2.14)	0.044
		Enlisted Flyer	0.73 (0.42,1.28)	0.276
		Enlisted Groundcrew	1.26 (0.90,1.76)	0.180
16-23	α -1-C Hemoglobin	All	1.14 (0.85,1.53)	0.373
		Officer	1.13 (0.67,1.90)	0.652
		Enlisted Flyer	0.65 (0.33,1.28)	0.210
		Enlisted Groundcrew	1.43 (0.95,2.16)	0.087
16-25	Total Testosterone	All	1.16 (0.83,1.63)	0.378
		Officer	1.22 (0.71,2.07)	0.475
		Enlisted Flyer	1.21 (0.50,2.96)	0.673
		Enlisted Groundcrew	1.11 (0.67,1.83)	0.688
16-27	Free Testosterone	All	1.09 (0.54,2.19)	0.812
		Officer	1.06 (0.39,2.90)	0.911
		Enlisted Flyer	6.41 (0.74,55.13)	0.091
		Enlisted Groundcrew	0.37 (0.08,1.76)	0.210
16-29	Estradiol	All	0.95 (0.78,1.16)	0.619
		Officer	0.78 (0.56,1.07)	0.120
		Enlisted Flyer	0.89 (0.56,1.42)	0.616
		Enlisted Groundcrew	1.16 (0.87,1.55)	0.312
16-31	LH	All	1.02 (0.70,1.50)	0.907
		Officer	1.24 (0.70,2.20)	0.458
		Enlisted Flyer	0.86 (0.29,2.55)	0.782
		Enlisted Groundcrew	0.88 (0.49,1.59)	0.674
16-33	FSH	All	1.04 (0.75,1.45)	0.794
		Officer	1.18 (0.74,1.85)	0.488
		Enlisted Flyer	1.49 (0.70,3.17)	0.297
		Enlisted Groundcrew	0.68 (0.37,1.26)	0.221

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
17-14	ANA Test	All	1.01 (0.84,1.20)	0.946
		Officer	0.95 (0.72,1.27)	0.736
		Enlisted Flyer	1.07 (0.68,1.67)	0.778
		Enlisted Groundcrew	1.04 (0.79,1.36)	0.801
17-15	Thyroid Microsomal Antibody	All	1.02 (0.59,1.75)	0.947
		Officer	1.14 (0.51,2.55)	0.750
		Enlisted Flyer	0.75 (0.17,3.19)	0.692
		Enlisted Groundcrew	1.00 (0.43,2.35)	0.994
17-16	MSK Smooth Muscle Antibody	All	0.99 (0.75,1.31)	0.953
		Officer	1.30 (0.84,2.03)	0.239
		Enlisted Flyer	0.48 (0.24,0.99)	0.045
		Enlisted Groundcrew	1.02 (0.68,1.53)	0.934
17-17	MSK Mitochondrial Antibody	All	2.79 (0.51,15.31)	0.222
		Officer	6.58 (0.70,61.53)	0.098
		Enlisted Flyer	--	--
		Enlisted Groundcrew	--	--
17-18	MSK Parietal Antibody	All	1.00 (0.64,1.56)	0.996
		Officer	1.36 (0.65,2.87)	0.416
		Enlisted Flyer	0.58 (0.19,1.74)	0.331
		Enlisted Groundcrew	0.97 (0.51,1.85)	0.920
17-19	Rheumatoid Factor	All	0.91 (0.69,1.22)	0.540
		Officer	1.09 (0.71,1.68)	0.692
		Enlisted Flyer	0.98 (0.51,1.91)	0.956
		Enlisted Groundcrew	0.71 (0.44,1.15)	0.167
18-3	Asthma	All	1.36 (0.87,2.10)	0.175
		Officer	1.48 (0.74,2.94)	0.266
		Enlisted Flyer	0.45 (0.12,1.74)	0.247
		Enlisted Groundcrew	1.69 (0.89,3.21)	0.111
18-4	Bronchitis	All	1.15 (0.92,1.43)	0.213
		Officer	1.02 (0.70,1.47)	0.936
		Enlisted Flyer	1.61 (0.95,2.71)	0.075
		Enlisted Groundcrew	1.11 (0.81,1.54)	0.514
18-5	Pneumonia	All	0.87 (0.66,1.16)	0.354
		Officer	0.74 (0.47,1.16)	0.185
		Enlisted Flyer	1.75 (0.85,3.61)	0.126
		Enlisted Groundcrew	0.79 (0.50,1.24)	0.304

**Table G-17. Summary of Adjusted Results for Dichotomous Variables – Model 1
(Ranch Hands vs. Comparisons) (Continued)**

Table Ref.	Clinical Parameter	Occupational Category	Adj. Relative Risk (95% C.I.)	p-Value
18-6	Thorax and Lung Abnormalities	All	0.97 (0.71,1.31)	0.821
		Officer	1.57 (0.90,2.71)	0.110
		Enlisted Flyer	0.99 (0.53,1.85)	0.978
		Enlisted Groundcrew	0.69 (0.44,1.09)	0.115
18-7	X-ray Interpretation	All	1.23 (0.92,1.64)	0.158
		Officer	1.39 (0.87,2.20)	0.167
		Enlisted Flyer	1.16 (0.56,2.39)	0.685
		Enlisted Groundcrew	1.14 (0.75,1.73)	0.554

--: Relative risk, confidence interval, and p-value are not presented because of the sparse number of participants with abnormalities.

Table G-18. Summary of Adjusted Results for Dichotomous Variables – Model 2 (Ranch Hands: Log₂ (Initial Dioxin))

Table Ref.	Clinical Parameter	Adj. Relative Risk (95% C.I.)	p-Value
9-3	Self-perception of Health	0.98 (0.79,1.21)	0.832
9-4	Appearance of Illness or Distress	0.65 (0.36,1.15)	0.117
9-5	Relative Age Appearance	1.01 (0.77,1.31)	0.962
9-7	Body Fat	1.00 (0.85,1.19)	0.986
9-9	Erythrocyte Sedimentation Rate	1.23 (0.94,1.62)	0.138
10-3	Skin Neoplasms	0.81 (0.68,0.98)	0.028
10-4	Malignant Skin Neoplasms	0.87 (0.68,1.12)	0.287
10-5	Benign Skin Neoplasms	0.79 (0.64,0.97)	0.020
10-6	Skin Neoplasms of Uncertain Behavior or Unspecified Nature	0.88 (0.42,1.85)	0.732
10-7	Basal Cell Carcinoma (All Sites Combined)	0.70 (0.53,0.94)	0.014
10-8	Basal Cell Carcinoma (Ear, Face, Head, and Neck)	0.62 (0.44,0.87)	0.003
10-9	Basal Cell Carcinoma (Trunk)	1.18 (0.75,1.86)	0.470
10-10	Basal Cell Carcinoma (Upper Extremities)	0.56 (0.21,1.51)	0.219
10-11	Basal Cell Carcinoma (Lower Extremities)	1.46 (0.50,4.26)	0.511
10-12	Squamous Cell Carcinoma	0.98 (0.52,1.85)	0.944
10-13	Nonmelanoma	0.79 (0.60,1.03)	0.075
10-14	Melanoma	1.28 (0.76,2.16)	0.366
10-15	Systemic Neoplasms (All Sites Combined)	1.00 (0.84,1.20)	0.980
10-16	Malignant Systemic Neoplasms	0.82 (0.57,1.18)	0.272
10-17	Benign Systemic Neoplasms	0.99 (0.82,1.19)	0.903
10-18	Systemic Neoplasms of Uncertain Behavior or Unspecified Nature	1.16 (0.58,2.31)	0.678
10-19	Malignant Systemic Neoplasms (Eye, Ear, Face, Head, and Neck)	0.79 (0.27,2.33)	0.666
10-20	Malignant Systemic Neoplasms (Oral Cavity, Pharynx, and Larynx)	1.15 (0.34,3.88)	0.822
10-21	Malignant Systemic Neoplasms (Thymus, Heart, and Mediastinum)	--	--
10-22	Malignant Systemic Neoplasms (Thyroid Gland)	0.12 (0.01,2.84)	0.059
10-23	Malignant Systemic Neoplasms (Bronchus and Lung)	0.53 (0.21,1.34)	0.144
10-24	Malignant Systemic Neoplasms (Liver)	2.06 (0.82,5.15)	0.140
10-25	Malignant Systemic Neoplasms (Colon and Rectum)	0.93 (0.42,2.07)	0.855
10-26	Malignant Systemic Neoplasms (Kidney and Bladder)	1.05 (0.47,2.38)	0.899
10-27	Malignant Systemic Neoplasms (Prostate)	0.68 (0.33,1.37)	0.254
10-28	Malignant Systemic Neoplasms (Testicles)	0.77 (0.22,2.64)	0.663
10-29	Malignant Systemic Neoplasms (Connective and Other Soft Tissues)	2.39 (0.68,8.37)	0.179
10-30	Hodgkin's Disease	--	--
10-31	Non-Hodgkin's Lymphoma	--	--
10-32	Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	--	--
10-33	All Malignant Skin and Systemic Neoplasms	0.91 (0.72,1.14)	0.396
10-34	All Skin and Systemic Neoplasms	0.90 (0.76,1.07)	0.244
10-36	PSA	0.61 (0.40,0.93)	0.014
11-3	Inflammatory Diseases	0.98 (0.45,2.17)	0.964
11-4	Hereditary and Degenerative Disorders	1.02 (0.76,1.36)	0.909
11-5	Peripheral Disorders	1.09 (0.90,1.32)	0.400
11-6	Other Neurological Disorders	0.99 (0.81,1.20)	0.922
11-7	Smell	0.83 (0.46,1.50)	0.534
11-8	Visual Fields	4.37 (0.84,22.64)	0.049
11-9	Light Reaction	--	--