

PROJECT: 7742.01 FRA HORN BAN. COMPARE ACCIDENT RATES BY BAN CATEGORY BY PERCENTILE GROUP
 2003 7
 PROGRAM: FRA4.SAS CROSSINGS: SELECT NATIONWIDE

14:50 Tuesday, January 28,

1997-2001 Grade Crossing Accident Rates
 By Predicted Accident Probability (PAP) Group and Whistle Ban

Warning Device: 1. Passive

PAP Group	Ban						% Increase with Ban
	No Whistle Ban			With Whistle Ban			
	Number of Crossings	5-Year Accidents	Accident Rate	Number of Crossings	5-Year Accidents	Accident Rate	
1	35152	570	0.0032	129	6	0.0093	186.8
2	14435	574	0.0080	64	3	0.0094	17.9
3	9351	574	0.0123	63	3	0.0095	-22.4
4	7618	567	0.0149	83	9	0.0217	45.7
5	6096	573	0.0188	41	4	0.0195	3.8
6	4674	577	0.0247	22	0	0.0000	-100.0
7	4411	567	0.0257	45	8	0.0356	38.3
8	3508	571	0.0326	35	7	0.0400	22.9
9	2727	562	0.0412	26	15	0.1154	179.9
10	2256	573	0.0508	25	4	0.0320	-37.0
Overall	90228	5708	0.0127	533	59	0.0221	75.0

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1997-2001 Grade Crossing Accident Rates
 By Predicted Accident Probability (PAP) Group and Whistle Ban

Warning Device: 2. Flashing Lights

PAP Group	Ban						% Increase with Ban
	No Whistle Ban			With Whistle Ban			
	Number of Crossings	5-Year Accidents	Accident Rate	Number of Crossings	5-Year Accidents	Accident Rate	
1	7827	274	0.0070	43	1	0.0047	-33.6
2	5379	271	0.0101	52	4	0.0154	52.7
3	3000	270	0.0180	39	6	0.0308	70.9
4	2110	273	0.0259	41	2	0.0098	-62.3
5	1960	265	0.0270	29	10	0.0690	155.0
6	1466	267	0.0364	31	9	0.0581	59.4
7	1237	270	0.0437	35	5	0.0286	-34.6
8	1170	266	0.0455	31	8	0.0516	13.5
9	883	267	0.0605	30	10	0.0667	10.2
10	479	272	0.1136	13	4	0.0615	-45.8
Overall	25511	2695	0.0211	344	59	0.0343	62.4

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1997-2001 Grade Crossing Accident Rates
 By Predicted Accident Probability (PAP) Group and Whistle Ban

Warning Device: 3. Gates

PAP Group	Ban						% Increase with Ban
	No Whistle Ban			With Whistle Ban			
	Number of Crossings	5-Year Accidents	Accident Rate	Number of Crossings	5-Year Accidents	Accident Rate	
1	7674	209	0.0054	61	7	0.0230	321.4
2	5152	212	0.0082	70	4	0.0114	38.9
3	4133	212	0.0103	64	4	0.0125	21.8
4	3123	205	0.0131	87	12	0.0276	110.1
5	2183	207	0.0190	91	9	0.0198	4.3
6	1958	204	0.0208	101	11	0.0218	4.5
7	1552	209	0.0269	68	8	0.0235	-12.6
8	1388	195	0.0281	97	22	0.0454	61.4
9	1165	194	0.0333	98	22	0.0449	34.8
10	667	160	0.0480	174	57	0.0655	36.6
Overall	28995	2007	0.0138	911	156	0.0342	147.4

1997-2001 Accident Rate Overprediction
 By Predicted Accident Probability (PAP) Group and Whistle Ban

Warning Device: 1. Passive

PAP Group	Ban										
	No Whistle Ban					With Whistle Ban					% P/O Increase with Ban
	Number of Crossings	5-Year Accidents	Accident Rate (O)	Predicted Accident Rate (P)	Over-prediction (P/O)	Number of Crossings	5-Year Accidents	Accident Rate (O)	Predicted Accident Rate (P)	Over-prediction (P/O)	
1	35152	570	0.0032	0.0023	0.72	129	6	0.0093	0.0012	0.13	-81.8
2	14435	574	0.0080	0.0097	1.22	64	3	0.0094	0.0101	1.08	-11.4
3	9351	574	0.0123	0.0147	1.20	63	3	0.0095	0.0150	1.58	31.3
4	7618	567	0.0149	0.0195	1.31	83	9	0.0217	0.0194	0.89	-31.6
5	6096	573	0.0188	0.0247	1.31	41	4	0.0195	0.0247	1.27	-3.5
6	4674	577	0.0247	0.0305	1.24	22	0	0.0000	0.0300	.	.
7	4411	567	0.0257	0.0376	1.46	45	8	0.0356	0.0379	1.07	-27.1
8	3508	571	0.0326	0.0478	1.47	35	7	0.0400	0.0488	1.22	-16.9
9	2727	562	0.0412	0.0641	1.56	26	15	0.1154	0.0639	0.55	-64.4
10	2256	573	0.0508	0.1203	2.37	25	4	0.0320	0.1100	3.44	45.2
Overall	90228	5708	0.0127	0.0175	1.39	533	59	0.0221	0.0241	1.09	-21.3

1997-2001 Accident Rate Overprediction
 By Predicted Accident Probability (PAP) Group and Whistle Ban

Warning Device: 2. Flashing Lights

PAP Group	Ban										
	No Whistle Ban					With Whistle Ban					% P/O Increase with Ban
	Number of Crossings	5-Year Accidents	Accident Rate (O)	Predicted Accident Rate (P)	Over-prediction (P/O)	Number of Crossings	5-Year Accidents	Accident Rate (O)	Predicted Accident Rate (P)	Over-prediction (P/O)	
1	7827	274	0.0070	0.0056	0.79	43	1	0.0047	0.0053	1.14	43.5
2	5379	271	0.0101	0.0186	1.85	52	4	0.0154	0.0184	1.20	-35.3
3	3000	270	0.0180	0.0271	1.50	39	6	0.0308	0.0279	0.91	-39.8
4	2110	273	0.0259	0.0342	1.32	41	2	0.0098	0.0338	3.47	162.4
5	1960	265	0.0270	0.0419	1.55	29	10	0.0690	0.0417	0.60	-61.0
6	1466	267	0.0364	0.0506	1.39	31	9	0.0581	0.0512	0.88	-36.6
7	1237	270	0.0437	0.0610	1.40	35	5	0.0286	0.0607	2.12	52.0
8	1170	266	0.0455	0.0765	1.68	31	8	0.0516	0.0757	1.47	-12.8
9	883	267	0.0605	0.1049	1.73	30	10	0.0667	0.1090	1.63	-5.7
10	479	272	0.1136	0.1881	1.66	13	4	0.0615	0.1558	2.53	52.8
Overall	25511	2695	0.0211	0.0314	1.49	344	59	0.0343	0.0471	1.37	-7.5

1997-2001 Accident Rate Overprediction
 By Predicted Accident Probability (PAP) Group and Whistle Ban

Warning Device: 3. Gates

PAP Group	Ban											% P/O Increase with Ban
	No Whistle Ban					With Whistle Ban						
	Number of Crossings	5-Year Accidents	Accident Rate (O)	Predicted Accident Rate (P)	Over-prediction (P/O)	Number of Crossings	5-Year Accidents	Accident Rate (O)	Predicted Accident Rate (P)	Over-prediction (P/O)		
1	7674	209	0.0054	0.0075	1.37	61	7	0.0230	0.0085	0.37	-73.1	
2	5152	212	0.0082	0.0157	1.90	70	4	0.0114	0.0159	1.39	-27.0	
3	4133	212	0.0103	0.0212	2.07	64	4	0.0125	0.0211	1.69	-18.4	
4	3123	205	0.0131	0.0268	2.04	87	12	0.0276	0.0273	0.99	-51.6	
5	2183	207	0.0190	0.0325	1.71	91	9	0.0198	0.0322	1.63	-4.8	
6	1958	204	0.0208	0.0386	1.85	101	11	0.0218	0.0385	1.77	-4.5	
7	1552	209	0.0269	0.0458	1.70	68	8	0.0235	0.0460	1.95	14.9	
8	1388	195	0.0281	0.0555	1.98	97	22	0.0454	0.0556	1.22	-38.0	
9	1165	194	0.0333	0.0705	2.12	98	22	0.0449	0.0699	1.56	-26.4	
10	667	160	0.0480	0.1078	2.25	174	57	0.0655	0.1266	1.93	-14.0	
Overall	28995	2007	0.0138	0.0262	1.89	911	156	0.0342	0.0544	1.59	-15.9	

