

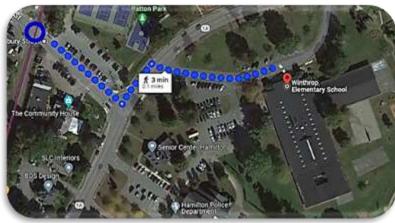


# FRA State Crossing Data – Schools <1mile from QZ Crossing

Schools located within one mile of train crossing - Elem, Jr., & Sr.

Outer Zeren (	(07)													07 -	
Quiet Zones (	(Q2)				_									QZ 🔻	1
				Whistle	Last	1			Crossing		Hwy		RR Max		
City Name	→ <sup>↑</sup> Crossing ID	Street IT	Railroad	Date	🕂 Updated 🍸	Rr Narr 2	Gates	J Gate Ped	• Road •	Median 🖓	Speed 🔻	Spd 🔻	Spd 🛛	No	Yes
Acton	052357H	244 Arlington St (school)	MBTA	06/25/05	07/15/21	Elem school 0.2mi from QZ crossing	2	1	Grade	None	25	65	79		1
Acton Tota	al														1
Andover	053010C	182 Andover St (school)	MBTA	06/25/05	11/12/21	Elem School 0.7mi from QZ crossing	2	1	Grade	None	20	0	60		1
Andover	053014E	60 Essex St (school)	MBTA	06/25/05	11/12/21	Mid/High School 0.5mi from QZ crossin	1g <b>2</b>	2	Grade	None	(blank)	10	60		1
Andover To	tal														2
Belmont	052315W	33 Brighton St (school)	MBTA	11/04/05	11/05/20	Elem School is 0.7mi to QZ crossing	2	2	Grade	None	(blank)	50	79		1
Belmont To	tal														1
Hamilton	054157F	47 Asbury St (school)	MBTA	12/24/05	11/02/21	Elem School is 0.1mi to QZ crossing	2	1	Grade	None	30	30	60		1
Hamilton To	otal														1
WALPOLE	546766S	Summer Street (school)	MBTA	TBD	06/17/22		2	2	Grade	None	(blank)	40	60	1	
WALPOLE To	tal													1	
Grand Tota	al													1	5

Quiet Zoned designated railroad crossings (as of 2005) less than one mile from schools with identical configuration to current Summer Street crossing: 2-quadrant gate arms, pedestrian gate arms, no median





Winthrop Elementary School in Hamilton, MA is a 3 minute walk to a railroad crossing designated a Quiet Zone since 12/24/2005.

There have been zero (0) train incidents at this QZ crossing which is slightly closer to an elementary school than Boyden Elementary School is to the Summer Street crossing.

The maximum rail speed on both the Hamilton and South Walpole crossings is 60mph.

### Safety Concerns – FRA Incidents at Summer Street crossing

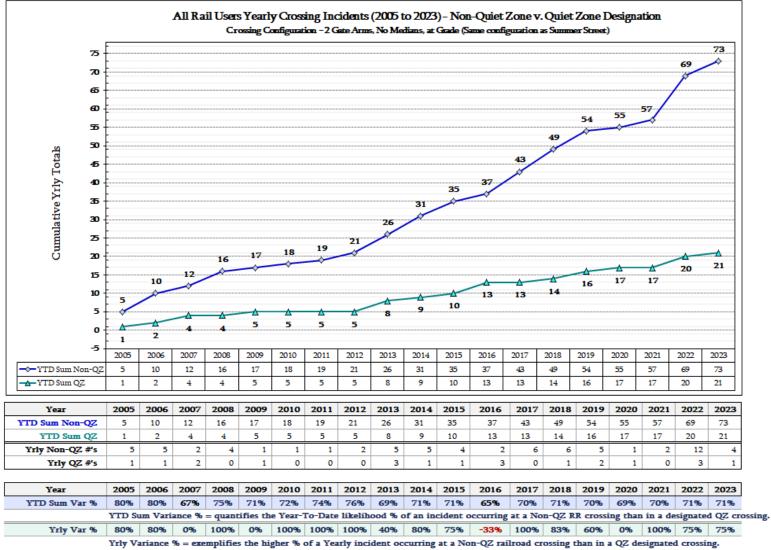
According to the FRA website there has been two incidents at the Summer Street crossing - 1994 and 1997. These occurred many years prior to installation of the current 2-quadrant safety gate arms. Incident reports below.

Name Of	LROAD ADM									Alphabetic	Code F	R Accider	nt/Inciden	I NO	
. Reporting	Rairoad				onrail (C	121				1a. CR		D. 70977	1		
2. Other Raile		in Train	Accident/1		oursu [C	A.				23.					
. Rairoad R					onrail IC	RL				32. CR					
U.S. DOT-	AAR Grade G	Crossing	ID No.		7665	-	e of Accident/In	cident 0	9/30/97	6. Time of A			7:30 AM	30 AM	
Nestest R	aliroad Statio			040		Division		-	9. County	_	1	). State		- Coide	
WALPO						IBANY	(		NORI			Abbr.	25 2		
1. City (#1	nacty) 1	VALPO	LE		12.	Highway N	lame or No. S	UMMER	STREE	T	6	Public	Priva	174	
		Highway	User Invo	lved	1.0					ipment involved					
A. Auto D B. Truck E 14. Vehicle S lest. mph et l	peed mpact) (	H. Mo 15. D 1. N	hool Bus torcycle irection lotth 2, Si	M. Other (geograp outh 3. Eas	an (specify) hical) t 4. Wes	A Code 1 3	3. Train (sta 18. Position of	ts pushing nding) Car Unit I	2) 6. Light 7. Light n Train	loco(s) (moving) loco(s) (standing)	B. Train C. Train	(spe pulling- RC pushing- R standing-	CL ROL	1	
6. Position	1. Stalled on 2. Stopped of			wing over cr	rossing	Code	19. Circumstan			ent struck highway Int struck by highwa			111	Cod	
Oa. Was the	highway use				đ	Code	20b. Was then				ay user		_	Cod	
	pact transpo					1.							- 12	4	
	way User 1 e name and o				4. Neither fal release		1. Hig	nway Obe	r 2. Hai	I Equipment 3. 8	3010 4.N	either			
1. Temperat	ure		Visibility	(single entry	9	Code	23. Weather	(single en	etry)					Cod	
specify if mit	103) 60	*F 1.1	Daam 2.	Day 3. Du	sk 4. Dark	2	1. Clear 2	Cloudy :	3. Rain 4.	Fog 5. Sleet 6.	Snow		1	1	
	<b>x</b> 28.	er train 5 er train 6 Number o Locomot	i. Single o i. Cut of ca of	ar 8. Light i Irs 9. Main./ 29. Number Cans	oco(6) Inspect. ca	Consist Spi R. Recorde	eed (Recorded) d	it Involved 2. Yard 7 available	3. Siding 9) Code	4. industry 1 31. Time Table 0	Virection	GLE M		Cod	
		Units	2		·	E. Estimate		2 mph		1. North 2. So			_	2	
Crossing 2. Cantilever FLS 5. Hwy. traffic signals 8. Sto					B. Stop sig	Watchman 12. None					ng 1. Yes 2. No			2	
Code(s)	03	06	07		ode 36.	Conceines	Warning Interco		ZU Sec 1	varn min (1); 37. Crossing II				Cod	
1. Both S					.00e   50.		way Signals	alleves.	Code	Lights or S				LOB	
2. Side of	Vehicle App	roach		]i	1. Yes 2. No 3. Unknown 2					1 1 1 1 1	1. Yes 2. No 3. Unknown				
3. Opcos 8. Driver's	te Side of Ve	Code		r Drove Beh				41. Drive		1, 100 2.	NO 3. UP	LEIOWN .		Cod	
Age	Gender 1. Male	1	and s	Struck or wa 1. Yes 2. N	s Struck b	y Second T		1. Dr 2. St	ove aroun	nd or thru the gate d then proceeded			ing	4	
2. Driver Pa	2. Female issed Standir		Code	43. View o	f Track Ob	soured by	(primary o		d not stop					Cod	
Highway			1.14.576		nanent Str		3. Passing 1			7. Other			110		
.Yes 2.N	o 3. Unkno	wh	2	2. Stan			ent 4. Topograp			hicks 6. Not Obs				8	
Car	sualbes to:		Killed	injured						45. Was Driver I		sle?		Cod	
5. Highway-	Rail Crossing	users	0	0	47. Higt						1. Yes 2. No 48. Total Number of Highway-Rall Crossing I				
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9. Railroad I		_	0	0			of People on Tra ogers and crew)	1		Incident Rep	on Being P		10	2	
2. Passeng			0	0	. 405	seen as j	The second s	2	2	1. Yes 2. N	1. Yes 2. No				
3a. Special	And in case of the local division of the loc	-					53b. Special S	tudy Bloc	k				_		
4. Narradive CAMP 01 50 CARTER, I	UTH STRUC	K CAR A DED WES	T SUMM T TO EAS	R ST. NO I T. BLOCK	NJURIES. 14 IS ZERO	DRIVER V D, BLOCK J	FAS FOULING 3 18, 47UNENOW	CENG STO X	opped fo	OR TRAIN. IT WAS	STRUCK	ON DRIVE	R'S FRO	NT	
55. Typed Name and Tibe 55. Signature															

Name Of									Alphabetic	Code RR Accidenti	ncident N			
Reporting R	aliroad		0	onrail [CR	i)				13. CR	15. 70301				
Other Rain	ad involved in Trai	n Accident/		ouran lead					23.	20.				
Rairoad Re	sponsible for Track	Maintenan	ce C	onrail (CR	-				33. CR	33. CR 30. 70301				
U.S. DOT-A	AR Grade Crossin	D No.		7665		of Accident/in	cident ()	6/06/94		coldent/incident 04:1	10 PM			
Nearest Ra	Iroad Station				vision		-	9. County		10. State	Cod			
WALPO	LE			-		_		NORE	OLE	Abbr	25 MA			
1. City (If in	a city) SOUTH	WALPO	LE	12. H	ghway Na	me or No. S	UMMER	R STREE	T	Pohia	Privata			
	Highes	ay User Invo	olved						pment involved		-			
A. Auto D. B. Truck E. 4. Vehicle Sp	eed 15.	chool Bus ctorcycle Directon	K. Pedestr M. Other (geograp	specify) hical)	A Code 1	7. Equipment 1. Train (uni 2. Train (uni 3. Train (sta 6. Position of	ts pushing nding)	g) 6. Light 7. Light	loco(s) (moving)	6. Other (specify A. Train pulling- RCL B. Train pushing- RCI C. Train standing- RC	/) Cor 1 1			
est mph at in	31 F 7 8	Address in the later	outh 3. Eas		4		-			1				
	<ol> <li>Stalled on crossing</li> <li>Stopped on Crossing</li> </ol>		wing over o	rossing	Code 1	9. Circumstar			nt struck highway u nt struck by highwa		Co:			
Da. Was the	highway user and/o	r rail equips	nent involve	d	Code 2	too. Was there			tais release by	1.445	Cot			
	pact transporting ha av User 2. Rail 8			I Maimar		1. Hig	way Lise	r 2 Rai	Equipment 3.8	oth 4 Neither				
	name and quantity	and the second second		Contraction of the local division of the loc	it any									
1. Temperate		Visibility	single entry	1	Code	23. Weather	(single er	atryj			Co			
pecity it min	us) 70 °F 1	Dawn 2	Day 3. Du	sk 4. Dark	2	1. Clear 2	Cloudy	3. Rain 4.	Fog 5. Sieet 6. t	Snow	1 1			
	uipment 1. Freight train 2. Passenger train 3. Commuter train	5. Single c. 6. Cut of ca	in 7, Yardi ar 8, Lighti ars 9, Main./	oco(s) Inspect. car	Code		t involved 2. Yard	a 3. Siding	Cod 4. industry 1	SINGLE MAI				
7. FRA Track			29. Numbe Cars			d (Recorded)	f availabh	e) Code	31. Time Table D	rection	Co			
Class	2 Units	otive 1			Recorded Estimated	1	8 mph	E	1 North 2 Sou	th 3. East 4. West	1 1			
	1. Gates 2. Cantilever FLS 3. Standard FLS 03 06	6. Audible	tic signals	7. Crossbuck	10. Flat			33. Signa Warr	ied Crossing	34. Whistle Ban 1. Yes 2. No 3. Unknown	Co			
5. Location o				ode 35. C	W priceon	arning Interco	nected	Code	and the second se	iminated by Street	Co			
	Vehicle Approach		L		with Highway Signals 1. Yes. 2. No. 3. Unknown 3					Lights or Special Lights				
	e Side of Vehicle A 9. Drivers Code		Denue Bab	ind or in Fron		Code	41. Drive				Co			
Age	Gender 1. Maie 2. Female	and	Struck or wa 1. Yes 2. N	is Struck by S Io 3. Unkno	econd Tra wn	ain 2	1. D 2. St 3. D	rove aroun topped ani ld not stop	d then proceeded	4. Stopped on crossing 5. Other (specify)	3			
<ol> <li>Driver Pas Highway V</li> </ol>	ised Standing	Code		f Track Obsc hanent Struct		(primary of 3. Passing T			7. Other (a	marilla	Co			
	3. Uriknown	2				t 4. Topograp	hy 6.H	ighway Ve	hickes 8. Not Opstr		8			
		1 20035		44. Driver	8/35		Co	de	45. Was Driver in	the Vehicle?	Cod			
Cas	ualities to:	Killed	Injured	1. Kille	1. Killed 2. Injured 3. Uninjured 2					1. Yes 2. No				
6. Highway-f	tali Crossing Users	0	1		A					48. Total Number of Highway-Rall Crossing Us (Include driver) 1				
9. Railroad E	mpioyees	0	0			People on Tra			51. Is a Rall Equi		Cod			
2. Passenge	rs on Train	0	0	(Includ	e passeng	ers and crew)			1. Yes 2. No	Incident Report Being Filed				
3a. Special S		-				535. Special S	tudy Bloc	*		10. 				
I. Narrative I														
	ne and Tibe	_	55. Signatu							57. Date				

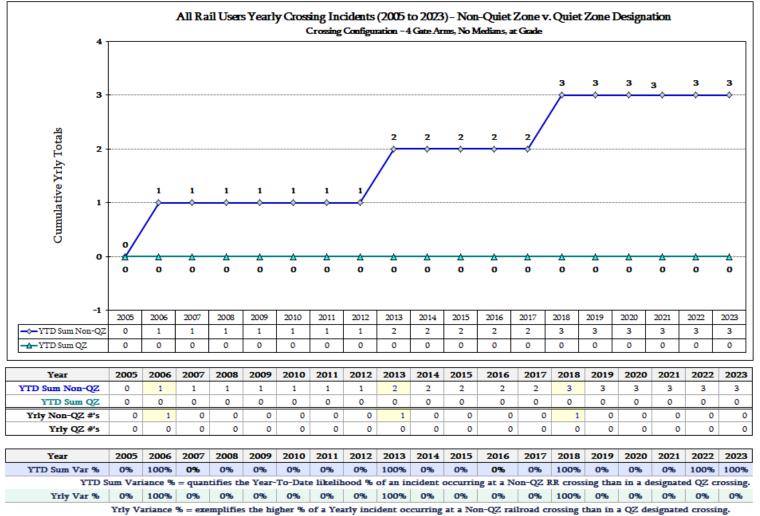
U.S. DEPARTMENT OF TRANSPORTATION: FRA Office of Safety Analysis, as of 7/2/23

### Safety – FRA Crossings: 2 Gates, No Median data comparison



Negative % = higher number of incidents occuring at QZ designated crossing for that respective year

### Safety – FRA Crossings: 4 Gates, No Median data comparison

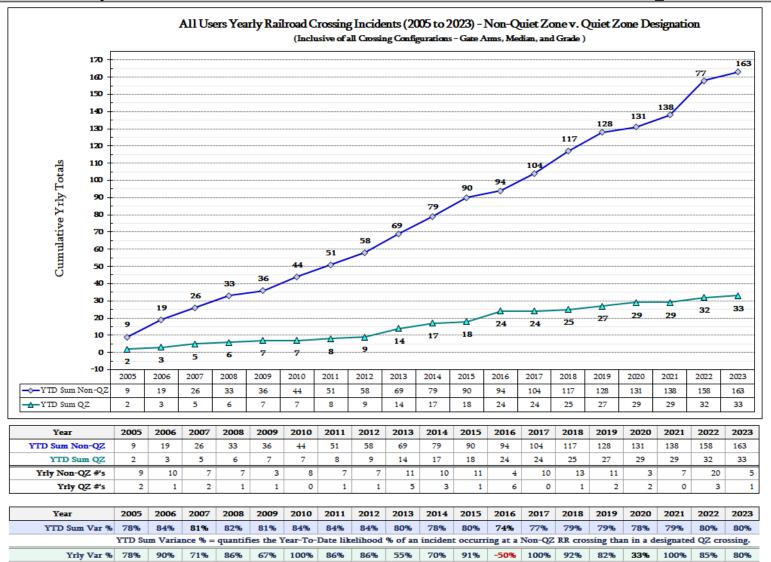


4-Quadrant crossing gate configuration is exponentially safer for ALL.

Negative % = higher number of incidents occuring at QZ designated crossing for that respective year

Railroad incidents are substantially lower at crossings with 4-quandrant gate configuration. Nonetheless, the data shows incidents have a greater probability to occur at a non-Quiet Zone crossing than a designated Quiet Zone

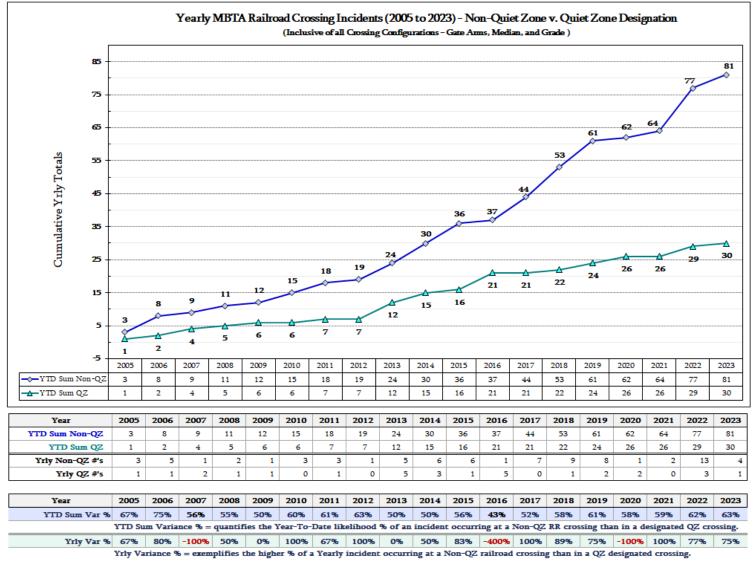
### Safety Concerns – FRA All RR Users data comparison



Yrly Variance % = exemplifies the higher % of a Yearly incident occurring at a Non-QZ railroad crossing than in a QZ designated crossing.

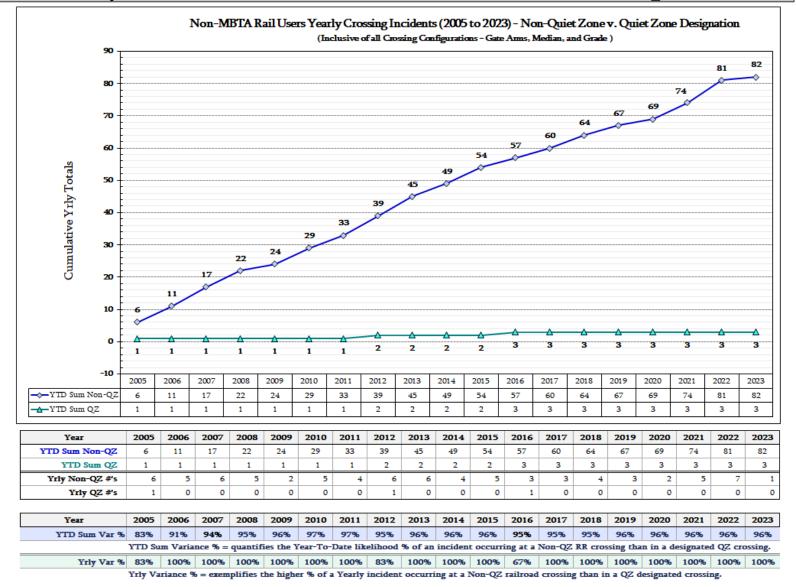
Negative % = higher number of incidents occuring at QZ designated crossing for that respective year

### Safety Concerns – FRA MBTA data comparison

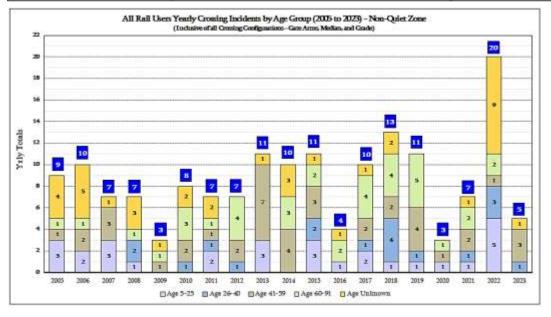


Negative % = higher number of incidents occuring at QZ designated crossing for that respective year

## Safety Concerns – FRA Non-MBTA data comparison

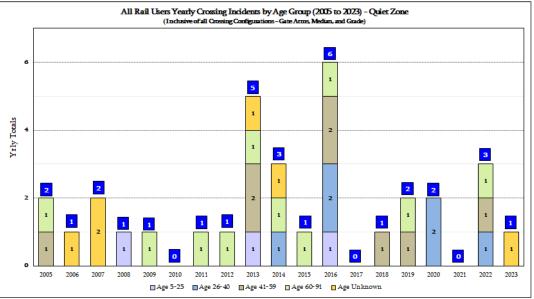


# Safety Concerns – FRA Age Data comparison



Numbers in the blue boxes represent the total incidents occurring in that respective year

Of 196 incidents between 2005 to 2023, 2 were under the age of 16; 99% of incidents were caused by those age 17 and older

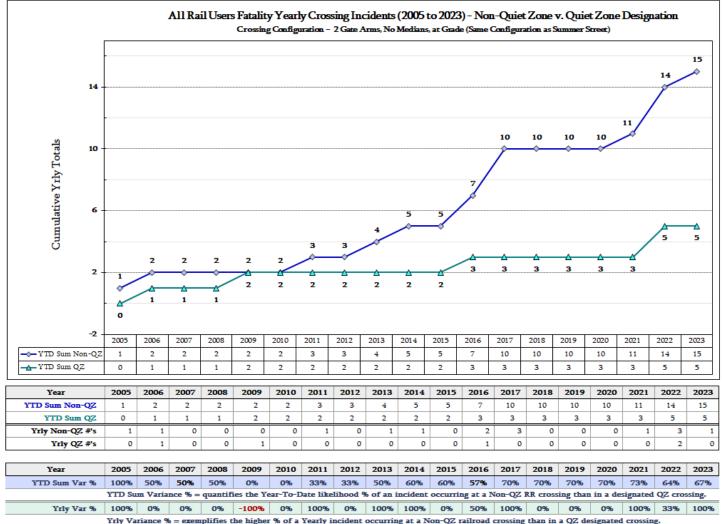


U.S. DEPARTMENT OF TRANSPORTATION: FRA Office of Safety Analysis, as of 7/2/23

# Safety Concerns – FRA Incident Cause Data comparison

196	33	163		23%	77%
Cause	QZ	Non-QZ	Total	% QZ	% Non-QZ
Auto between gates Total	1	5	6	17%	83%
Auto between gates (weather) Total	1	1	2	50%	50%
Auto did not stop Total		16	16	0%	100%
Auto drove around gates Total	4	11	15	27%	73%
Auto drove in front of train Total		2	2	0%	100%
Auto drove onto RR tracks Total	1		1	100%	0%
Auto on tracks Total	4	34	38	11%	89%
Auto pushed into crossing (accident) Total		1	1	0%	100%
Auto slid onto tracks Total	2	4	6	33%	67%
Auto struck train Total		3	3	0%	100%
Auto stuck on tracks Total	3	6	9	33%	67%
Auto stuck on tracks (weather) Total	1	1	2	50%	50%
Auto tried to beat the train Total		2	2	0%	100%
Auto tried to drive around train Total		3	3	0%	100%
Auto trying to beat gates Total	2	1	3	67%	33%
Bicyclist struck train Total		1	1	0%	100%
Bicyclist went around gates Total	2		2	100%	0%
Cell phone distraction Total		2	2	0%	100%
Gates did not activated Total	1	1	2	50%	50%
Gates lowered on vehicle Total	1	1	2	50%	50%
Obstructed view of crossing Total		1	1	0%	100%
Ped ran infront of train Total	1	1	2	50%	50%
Ped ran across tracks Total		1	1	0%	100%
Ped ran around gates Total	1		1	100%	0%
Ped stood in front of train Total		1	1	0%	100%
Ped Suicide Total	3	5	8	38%	63%
Ped Trespasser Total	1	17	18	6%	94%
Semi Truck on crossing Total		1	1	0%	100%
Suicide Attempt Total		1	1	0%	100%
Train failed to stop Total		1	1	0%	100%
Train struck by auto Total	1	18	19	5%	95%
Truck drove around Conductor Total		1	1	0%	100%
Truck on tracks Total		6	6	0%	100%
Unoccupied auto on tracks Total	2	9	11	18%	82%
Unknown Total	1	5	6	17%	83%

### Safety Concerns – FRA Fatality Data comparison

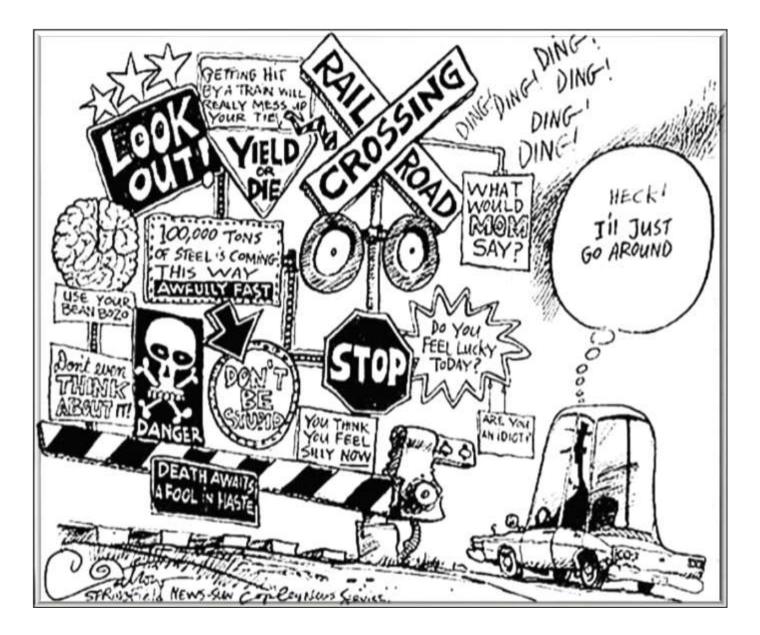


Variance w = exemplifies the ingula w of a rearry incluent occurring at a Nor Q2 rainoad clossing than in a Q2 designated Negative % = higher number of incidents occurring at QZ designated crossing for that respective year

# Safety Concerns – FRA Fatalities, QZ, & School Data

All RR Users									YR						
						Median	Crossing							I	
WHIS BAN	GX ID	RR User	CITY	HIGHWAY	Gates	Туре	Position	Cause	05	06	09	16	19		
Yes (2005)	052315W	MBTA	Belmont	33 Brighton St (school)	2	None	Grade	Ped Suicide (Age: Unknown)		1				Τ	
Yes (2005)	052315W	MBTA	Belmont	33 Brighton St (school)	2	None	Grade	Ped Suicide (Age: 82)			1			I	
Yes (2005)	052315W	MBTA	Belmont	33 Brighton St (school)	2	None	Grade	Auto stuck on tracks (Age: 58)				1			
Yes (2005)	052315W	MBTA	Belmont	33 Brighton St (school)	2	None	Grade	Auto trying to beat gates (Age: 53)					1	i	
Yes	052315W Tota	1								1	1	1	1	I	
Yes (2005)	053014E	ATK	Andover	60 Essex St (school)	2	None	Grade	Ped Trespasser (Age: 63)	1					I	
Yes (2005)	053014E	ATK	Andover	60 Essex St (school)	2	None	Grade	Auto between gates (Age: 57)				1			
Yes	053014E Total								1			1			
Yes Total											1	2	1	I	

Incidents at QZ designated crossings which are less than a mile from a school



# FRA QUIET ZONE – Who can establish a Quiet Zone (QZ)

The establishment of a quiet zone falls under the authority of the Federal Railroad Administration (FRA). Rail users cannot prohibit the creation of an FRA-approved quiet zone.

- MBTA does not have authority to deny, but can give feed back and assist with any necessary upgrades to the crossing
- CSX approved General Engineering Consultant will work with your community during the establishment process. (https://www.csx.com/index.cfm/library/files/about-us/property/guiet-zones/)
- Town Public Authorities agencies responsible for traffic control or law enforcement - Police, Fire, Traffic, Board

# FRA QUIET ZONE (QZ) – Basic Requirements

- > Must be at least ½ mile long
- > All crossings in the QZ <u>must</u> have:
  - ✓ Flashing lights
  - ✓ Crossing gates
  - Warning signs (in absence of horns)
  - Power out indicators
  - Constant warning time devices

# South Walpole Village, circa 1858

W Bacon 6.47 W. Boval D&E Shith I Boyden Smiths Hill 0.Smith Leland Ooden N.B. Wilmarth A H Billinos Cemetery T. Clark T.Clark ClarksM PD School TClar Carside John Mann Scale 15840 Boyden J. Carroll J Boyden

<u>Detrimental to our way of life</u> - is the train horns <u>Improve our quality of life</u> - is a Guiet Zone "We must carefully examine change so that we are able to discard those aspects of change which would be detrimental to our way of life, and, at the same time, take advantage of those aspects of change which will enhance and improve our quality of life"

Alex Gampbell.