

U.S. Department of Transportation

Federal Railroad Administration

Reporting of Suicide and Trespass Incidents by Online Media in the United States

Office of Research, Development, and Technology Washington, DC 20590



NOTICE

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof. Any opinions, findings and conclusions, or recommendations expressed in this material do not necessarily reflect the views or policies of the United States Government, nor does mention of trade names, commercial products, or organizations imply endorsement by the United States Government. The United States Government assumes no liability for the content or use of the material contained in this document.

NOTICE

The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the objective of this report.

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. 1. AGENCY USE ONLY (Leave blank) 2. REPORT DATE 3. REPORT TYPE AND DATES COVERED March 2017 **Technical Report** 4. TITLE AND SUBTITLE 5. FUNDING NUMBERS The Reporting of Suicide and Trespass Incidents by Online Media in the United States RR04AA PA155 6. AUTHOR(S) Scott H. Gabree, Ph.D. and Bianka Mejia 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 8. PERFORMING ORGANIZATION REPORT NUMBER John A. Volpe National Transportation Systems Center 55 Broadway Cambridge, MA 02142 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) 10. SPONSORING/MONITORING AGENCY REPORT NUMBER U.S. Department of Transportation Federal Railroad Administration Office of Railroad Policy and Development DOT/FRA/ORD-17/02 Office of Research, Development, and Technology Washington, DC 20590 11 SUPPLEMENTARY NOTES COR: 12a. DISTRIBUTION/AVAILABILITY STATEMENT 12b. DISTRIBUTION CODE This document is available to the public through the FRA Web site at http://www.fra.dot.gov. 13. ABSTRACT The reporting of a suicide death in the media has the potential to increase imitative suicide attempts for vulnerable individuals who read the article, a phenomenon known as suicide contagion or the "Werther effect." Organizations around the world have developed recommendations for how to responsibly report on suicide incidents in a way less likely to result in contagion. For this research, 1,173 articles on FRA-reported suicide and trespass incidents were collected and analyzed for content. While media outlets often followed many of the suicide reporting recommendations, none were consistently followed in every article analyzed and a few key recommendations were often never applied. For example, the term "suicide" was often included in the title of articles, details about the location where the suicide took place and the actions preceding impact were often provided, while helpseeking information was only rarely included. In general, railway suicide incidents tended to be reported in a similar way to trespass incidents, rather than as a suicide by another means. The development of railway-specific recommendations could help to encourage responsible reporting practices regarding railway trespass and suicide incidents. 14. SUBJECT TERMS 15. NUMBER OF PAGES 64 Railroad, Suicide, Trespass, Media, Reporting, Suicide Contagion, Werther effect 16. PRICE CODE 20. LIMITATION OF ABSTRACT 17. SECURITY CLASSIFICATION **18. SECURITY CLASSIFICATION 19. SECURITY CLASSIFICATION** OF REPORT OF THIS PAGE OF ABSTRACT Unclassified Unclassified Unclassified

NSN 7540-01-280-5500

METRIC/ENGLISH CONVERSION FACTORS

ENGLISH TO METRIC	METRIC TO ENGLISH	
LENGTH (APPROXIMATE)	LENGTH (APPROXIMATE)	
1 inch (in) = 2.5 centimeters (cm)	1 millimeter (mm) = 0.04 inch (in)	
1 foot (ft) = 30 centimeters (cm)	1 centimeter (cm) = 0.4 inch (in)	
1 yard (yd) = 0.9 meter (m)	1 meter (m) = 3.3 feet (ft)	
1 mile (mi) = 1.6 kilometers (km)	1 meter (m) = 1.1 yards (yd)	
	1 kilometer (km) = 0.6 mile (mi)	
AREA (APPROXIMATE)	AREA (APPROXIMATE)	
1 square inch (sq in, in²) = 6.5 square centimeters (cr	n ²) 1 square centimeter (cm ²) = 0.16 square inch (sq in, in ²)	
1 square foot (sq ft, ft²) = 0.09 square meter (m²)	1 square meter (m ²) = 1.2 square yards (sq yd, yd ²)	
1 square yard (sq yd, yd²) = 0.8 square meter (m²)	1 square kilometer (km ²) = 0.4 square mile (sq mi, mi ²)	
1 square mile (sq mi, mi²) = 2.6 square kilometers (km	10,000 square meters (m^2) = 1 hectare (ha) = 2.5 acres	
1 acre = 0.4 hectare (he) = $4,000$ square meters (m ²)		
MASS - WEIGHT (APPROXIMATE)	MASS - WEIGHT (APPROXIMATE)	
1 ounce (oz) = 28 grams (gm)	1 gram (gm) = 0.036 ounce (oz)	
1 pound (lb) = 0.45 kilogram (kg)	1 kilogram (kg) = 2.2 pounds (lb)	
1 short ton = 2,000 pounds = 0.9 tonne (t)	1 tonne (t) = 1,000 kilograms (kg)	
(lb)	= 1.1 short tons	
VOLUME (APPROXIMATE)	VOLUME (APPROXIMATE)	
1 teaspoon (tsp) = 5 milliliters (ml)	1 milliliter (ml) = 0.03 fluid ounce (fl oz)	
1 tablespoon (tbsp) = 15 milliliters (ml)	1 liter (I) = 2.1 pints (pt)	
1 fluid ounce (fl oz) = 30 milliliters (ml)	1 liter (I) = 1.06 quarts (qt)	
1 cup (c) = 0.24 liter (l)	1 liter (I) = 0.26 gallon (gal)	
1 pint (pt) = 0.47 liter (I)		
1 quart (qt) = 0.96 liter (l)		
1 gallon (gal) = 3.8 liters (l)		
1 cubic foot (cu ft, ft ³) = 0.03 cubic meter (m ³)	1 cubic meter (m ³) = 36 cubic feet (cu ft, ft ³)	
1 cubic yard (cu yd, yd ³) = 0.76 cubic meter (m ³)	1 cubic meter (m ³) = 1.3 cubic yards (cu yd, yd ³)	
TEMPERATURE (EXACT)		
[(x-32)(5/9)] °F = y °C	[(9/5) y + 32] °C = x °F	
QUICK INCH - CENTIME	TER LENGTH CONVERSION	
0 1 2	3 4 5	
Inches		
Centimeters 0 1 2 3 4 5	6 7 8 9 10 11 12 13	
QUICK FAHRENHEIT - CELS	US TEMPERATURE CONVERSIO	
°F -40° -22° -4° 14° 32° 50° 68	° 86° 104° 122° 140° 158° 176° 194° 212°	
°C -40° -30° -20° -10° 0° 10° 20	° 30° 40° 50° 60° 70° 80° 90° 100°	

For more exact and or other conversion factors, see NIST Miscellaneous Publication 286, Units of Weights and Measures. Price \$2.50 SD Catalog No. C13 10286

Acknowledgements

The Office of Research Development and Technology, under the Federal Railroad Administration (FRA) within the U.S. Department of Transportation (U.S. DOT), sponsored the research for this project. The authors would like to thank Michael Coplen, Program Manager from FRA's Human Factors Division, FRA, for his strategic guidance and support.

The authors would like to thank Stephanie Chase, Ph.D., with the Aviation Human Factors Division at Volpe, The National Transportation Systems Center, for her advice and support with this effort. The authors would also like to thank Michael Martino, from the Association of American Railroads, for his support in connecting the authors with resources in the rail community to help better understand this issue.

Contents

Acknowle	dgements	iii		
Illustration	Illustrationsv			
Tables		vii		
Executive	Summary	8		
1	Introduction			
1.1 1.2 1.3	Objectives Scope Organization of the Report	11		
2	Methods	13		
2.1 2.2 2.3	Media Report Selection Recommendation Selection Coding of Articles	14		
3	Results	17		
3.1 3.2	Comparison with Media Reporting Recommendations General Reporting Trends			
4	Conclusion			
5	References	58		
Appendix	A. Sources for Media Reporting Recommendations	60		
Abbreviat	ions and Acronyms			

Illustrations

Figure 1. Process to obtain final data set	14
Figure 2. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that included "suic in the headline	
Figure 3. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that indicated suic in the body	
Figure 4. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles by level of detail a location	
Figure 5. Percent of articles about suicide by level of detail about location	26
Figure 6. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles by level of detail a the incident	
Figure 7. Percent of articles about suicide by level of detail about incident	29
Figure 8. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that included a discussion of lethality	30
Figure 9. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that included a discussion of trespassing	31
Figure 10. Percent of articles about suicide that mentioned the individual as having trespasse	ed 32
Figure 11. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles by type of image video included	
Figure 12. Percent of articles about suicide by type of image or video	35
Figure 13. Percent of articles about suicide which glorified or glamourized the individual	36
Figure 14. Percent of articles about suicide that romanticized the act of suicide	37
Figure 15. Percent of articles about suicide that added value statement about suicide	38
Figure 16. Percent of articles about suicide that overemphasized suicide rates	39
Figure 17. Percent of articles about suicide that oversimplified suicide	40
Figure 18. Percent of articles about suicide by source cited for cause of death	41
Figure 19. Percent of articles about suicide that provided help-seeking information	42
Figure 20. Number of FRA-Suicide and FRA-Trespass incidents (solid) and how many of th incidents had at least one media article (striped)	
Figure 21. Percent of FRA-Suicide (blue) and FRA-Trespass (orange) articles by time of day the incident	
Figure 22. Number of FRA-Suicide incidents (solid blue) and how many of those incidents hat least one media article (striped blue) by time of day	
Figure 23. Number of FRA-Trespass incidents (solid orange) and how many of those incider had at least one media article (striped orange) by time of day	

Figure 24. Percent of FRA-Suicide (blue) and FRA-Trespass (orange) articles by day of the week
Figure 25. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by day of the week
Figure 26. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by day of the week
Figure 27. Percent of FRA-Suicide (blue) and FRA-Trespass (orange) articles by month
Figure 28. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by month
Figure 29. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by month
Figure 30. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by State with five or more suicide casualties
Figure 31. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by State with ten or more trespass casualties
Figure 32. New Jersey Example: FRA-Suicide incidents (blue bars) that had FRA-Suicide media articles (orange dots) and all articles that included "suicide" in the headline (grey dots) 53
Figure 33. California Example: FRA-Suicide incidents (blue bars) that had FRA-Suicide media articles (orange dots) and all articles that included "suicide" in the headline (grey dots) 54
Figure 34. Florida Example: FRA-Suicide incidents (blue bars) that had FRA-Suicide media

articles (orange dots) and all articles that included "suicide" in the headline (grey dots).... 55

Tables

Table 1. Recommendation questions to be reviewed	18
Table 2. "Suicide" or similar language in the headline	21
Table 3. "Suicide" or similar language in the body of the article	23

Executive Summary

Volpe, The National Transportation Systems Center (Volpe Center) collected 1,173 online media articles about FRA-reported suicide and trespass incidents over the course of 12 months and found several reporting practices with the potential to increase suicide contagion on the rail system. Based on the findings of this research, the Volpe Center concluded that the development of rail-specific recommendations for how to report on railway fatalities could help to encourage more responsible reporting practices and thus mitigate the risk of suicide contagion.

Media attention following a suicide death has the potential to result in copycat suicide attempts, an effect that has been demonstrated for many methods of suicide, including those that occur on the railway system. Suicide prevention groups are aware of this issue and have developed specific recommendations to minimize the risk of suicide contagion through the media. These recommendations range from high-level ones, such as not including the term "suicide" in the headline, to more content-specific recommendations, such as not oversimplifying suicide or glamorizing the victim involved. These recommendations aim to reduce sensationalistic portrayals of suicide, decrease the likelihood of vulnerable individuals identifying or admiring suicide victims or acts of suicide, and increase the inclusion of information on seeking help.

The Volpe Center examined 1,173 online media articles about FRA-reported suicide and trespass incidents and compared them against recommendations to identify whether U.S. media outlets were following these recommendations. The articles about trespass were collected for comparative purposes to understand whether the articles about suicide tended to be reported more similarly to trespass incidents or suicide casualties by another means that would be reported based upon suicide reporting recommendations.

In general, many media outlets reported on both suicide and trespass incidents in a manner consistent with recommendations. However, there were key recommendations which US online media outlets frequently did not follow.

- Including the term "suicide" in the headline of an article which could sensationalize the incident and highlight the potential notoriety such an act may bring about. Nearly a quarter of media articles about FRA-reported suicide incidents included the term "suicide" in the headlines and 4 percent of FRA-reported trespass (non-suicide) incidents included the term "suicide" in the headlines.
- Providing detailed information about the location where a suicide occurred which could provide a vivid depiction of this event. This could increase the chance of a vulnerable individual acting on thoughts of suicide in a similar location. The name of a specific crossing, street, or station was provided in 26 percent of FRA-reported suicide incidents. In many cases, even more detailed location information, such as the number of feet from a specific location, was provided for 5 percent of FRA-reported suicide incidents. FRA-reported trespass incidents provided a similar proportion of crossing, street, or station (32 percent) information, to detailed location information (4 percent); however for trespasses, communicating this type of information may be beneficial in terms of forewarning the general public of similar dangers.
- Providing detailed information about a suicide incident, which itself is known to create a vivid image of the incident that a vulnerable individual may relate to and consider acting

in a similar manner. Articles about FRA-reported suicides included details about behaviors immediately before train-person collisions 45 percent of the time. Articles about FRA-reported trespasses included this information 47 percent of the time. However, as with location information, communicating these details about trespasses may help serve as a safety message to the general public.

- Including an image of a train in an article about a train fatality, which may seem reasonable. However, in the case of suicide, the train depicts the manner of suicide strongly discouraged. 16 percent of articles about FRA-reported suicide included an image of a train and the majority of those articles included the term "suicide" in the headlines. Having the term suicide directly next to an image of a train could draw unwelcome attention, linking suicide with the rail system.
- Out of 208 articles that chose to report on incidents as suicides (excluding articles about preventing suicides), only 11 of these articles included any help-seeking information. The inclusion of information for those in need can be very valuable when a decision is made to report on a suicide as such.

Three preliminary case studies, which were conducted at the state level, are provided where evidence of contagion may be present. For each of the three states, a cluster of events occurred closer to one another, in terms of both location and time, than might be expected. In each case, the incident at the beginning of the cluster was reported by the media and the article's headline included the term "suicide." While this is far from conclusive evidence of contagion, it may provide a starting point from which further research may be conducted.

Many other factors were explored during this research. However, for most recommendations there was a general trend by U.S. online media to report responsibly. It is worth noting that no single recommendation was followed consistently in every article collected, indicating room for improvement. The articles examined also cited a variety of individuals as sources from whom information about the cause of death was obtained, including both onsite police officers and railroad officials. This may present an opportunity for the rail industry to improve its strategy for engaging with the media to increase the usage of responsible reporting practices.

The findings in this report indicate that railway suicide incidents are often reported in a similar way to trespass incidents. In other words, the reportage provides details about or photos of the location, includes details about what happened just before the collision, and does not provide help-seeking information. These are aspects typically absent from reportage about suicide by other means, but consistent with how trespass incidents are typically reported. This may be because suicide incidents on the rail system tend to be more visible to the public than many other types of suicide and therefore, reporters feel compelled to provide more details; or, reporters who typically focus on transportation issues may not be aware of suicide reporting recommendations. In either case, there may be benefits to developing railway-specific recommendations for how to report on suicide incidents and disseminating such recommendations to both media outlets as well as individuals who interface with the media following rail-related incidents.

1 Introduction

In 2014, 42,773 individuals lost their lives in the United States as a result of suicide. This means that for every 100,000 people in the United States, 12.93 died by suicide that year. It is also reported that for every suicide death there are as many as 25 attempts that do not result in a fatality.¹ Suicide deaths that occur on the U.S. rail system are not specifically identified by the Center for Disease Control (CDC), making it difficult to extract these incidents from the overall data. However, in June of 2011 the Federal Railroad Administration (FRA) published a new regulation requiring all rail carriers to report suicide incidents. Since then, an average of 281 suicide fatalities per year have been reported by U.S. rail carriers. While this represents less than 1 percent of all suicide fatalities that occur in the U.S. each year, these incidents have significant train delays that often result.

One factor known to influence the rate of suicide, as well as the manner chosen to complete an act of suicide, is if and how a suicide is reported by the media. The concept that media attention may contribute to a method-specific rise in suicide was given a name, *the Werther effect*, in a 1974 paper by David Phillips (Phillips, 1974). The Werther effect has since been widely accepted as a cause of suicide imitation (for comprehensive reviews see Stack, 2002; Gould 2001; Sisask & Varnik, 2012). This effect has been shown with a variety of different methods of suicide, including charcoal burning in Hong Kong (Chung & Leung, 2001), Korea (Huh et al, 2009), and Taiwan (Chen et al, 2012); firearm suicide in Austria (Etzersdorfer, Voracek, & Sonneck, 2001); as well as for suicides involving rail or transit systems. There have been several studies that have noted a likely Werther effect on transit or rail systems around the world.

One of the most studied examples of the Werther effect comes from Austria (Sonneck, Etzersdorfer, & Nagel-Kuess, 1994). Between 1984 and 1987 the number of suicides on the Viennese subway system increased dramatically. In mid-1987 a working group of the Austrian Association for Suicide Prevention developed media guidelines and worked with local media to abstain from reporting on these suicides. In the latter half of 1987, after the aforementioned agreement to abstain from reporting, the rate of suicide on the subway system dropped by 75 percent and that rate was sustained for at least the next 5 years. It was later demonstrated that these reductions were a direct result of the changes in media reporting influenced by the guidelines (Niederkrotenthaler & Sonneck, 2009).

Another rail-specific example of the Werther effect shows how a drastic increase in suicides can occur following the widespread coverage of a celebrity suicide (German goalkeeper Robert Enke) on the German rail network. Suicide rates in Germany had been trending downward from 1991 until 2006 when they suddenly began to increase. This increase was pronounced in 2009 and was found largely for individuals being struck by trains, presumably imitating the very public suicide act of Enke (Ladwig, Kunrath, Lukaschek, & Baumert, 2012). Overall, the rate of rail suicide increased by nearly 19 percent in the two years following Enke's death. While the overall suicide rate in Germany rose 6.6 percent between 2007 and 2010, suicides on the rail system rose by 25 percent (Hegerl et al, 2013). There is even evidence that this one suicide, and the coverage it received throughout Europe due to Enke's role in Germany's national soccer

¹ Suicide Statistics - AFSP. (n.d.). Retrieved April 18, 2016, from https://afsp.org/about-suicide/suicide-statistics

team, may have resulted in an increase in suicide rates in at least three other European countries (Koburger et al, 2015).

It is important to note that not all reporting about suicide will result in an increase in suicide rates. In fact, there is evidence that some types of reporting may actually reduce the number of subsequent suicides. Specifically, media coverage of an individual with suicidal ideation that is not accompanied by suicidal behavior was associated with a reduction in suicide rates (Niederkrotenthaler et al, 2010). This effect has been termed the *Papageno Effect* and represents the benefits of responsible media reporting and the media's potential for positive impact.

The Werther effect is relatively well understood, and various organizations have developed recommendations for how the media can responsibly report on suicides. In general, not reporting on a specific suicide is preferred. However, in some cases a media outlet may feel as though an article is necessary. For example, a media outlet may decide it needs to report on an incident due to its impact on the rail system or traffic issues. Recommendations for how to responsibly report on suicides are available to the general public for free from a wide variety of sources. Any media outlet publishing an article about a suicide and wishing to avoid aspects of reportage most likely to result in contagion is able to refer to these sources.

This report explores how current U.S. media outlets are currently reporting on rail-related suicide incidents. Articles written about both suicide and non-suicide rail incidents were compared to available recommendations for reporting on suicide. The non-suicide incidents included are casualties resulting from pedestrians trespassing onto rail systems and coming in contact with trains. In this report, these individuals are referred to as "trespassers," a term used by FRA. Trespass incidents are included to better understand how the media reports on these type of events and to discover whether rail suicide incidents are reported in a similar way to these trespass incidents or if they are reported as recommendations suggest that a suicide be reported.

Additionally, it has been shown that reports on rail-related fatalities, even non-suicides, can result in an increase in rail suicides (Kunrath, Baumert, & Ladwig, 2010). Thus, by understanding the language typically used in both trespass and suicide reports, there may be additional insights into the potential for contagion related to these reports.

1.1 Objectives

The objective of this report is to better understand how current online media outlets are reporting on FRA-reportable trespass and suicide casualties. With a better understanding of how media outlets are approaching these stories, FRA and railroad industry may be able to identify strategies for encouraging more responsible reporting and thus reduce the potential for suicide contagion.

1.2 Scope

The current effort focused exclusively on the reporting of FRA-reportable train-person incidents. While there are many incidents involving vehicles at grade crossings, both suicide and accidental, that get a large amount of media attention, these were not considered in the analysis. The media reporting surrounding vehicular incidents may be unique from those involving pedestrians, therefore this initial effort only focused on pedestrians. Additionally, there are a large number of similar incidents that occur on the US transit system, but were not included in the analysis.

1.3 Organization of the Report

This report is organized in three high level sections, each with several sub-sections. Only the first level of sub-sections is provided below.

- 2. Methods
 - 2.1. Media Report Selection
 - 2.2. Recommendation Selection
 - 2.3. Coding of Articles
- 3. Results
 - 3.1. Comparison with Media Reporting Recommendations
 - 3.2. General Reporting Trends
- 4. Conclusion

The methods section provides an overview of this research effort and how media articles were collected and coded. Results provides an analysis of the reporting style of articles as well as trends for when articles are likely to be reported on. Lastly, the conclusions section provides a review of the analysis as well as suggestions for next steps based on the results.

2 Methods

This research effort involved the collection of online media articles of FRA-reported trainpedestrian incidents and the comparison of the content of those articles to known recommendations for the reporting of suicides. As such, there were three methodological aspects of this study to be described in this section: the selection of media articles for examination, the selection of criteria against which to compare these articles, and the coding of the articles for the comparison. Each of these processes are described in detail below.

2.1 Media Report Selection

To obtain a sample of media reports on railway incidents a series of Google Alerts were set-up. The Google Alert service conducts daily automated searches of online news articles for stories that contain specified words or combinations of words. While this was not likely to uncover every online news article written about a railway incident, it likely did capture a wide swath of the online articles published on this topic. For this effort, the phrases selected for a Google Alert were: "train" and "accident"; "train" and "death"; "train" and "suicide"; "railroad" and "trespassing"; "railroad" and "fatality"; and "struck by train". Search terms within quotes were matched identically and if more than one term was used, both needed to appear at some place in the article. Not every iteration of the search terms was used because in many cases a less restrictive set of search terms would yield a better result. For example, a search for "train" and "death" may still result in an article about a suicide fatality.

Note that the search terms selected were likely to identify articles of non-suicide, or trespass, incidents on the rail system as well as suicides. This was because the reporting of rail trespass incidents may help to better understand the thought process behind the reporting of suicides on the rail system. It also provided a comparison between the two types of articles to explore if media outlets were reporting on these types of incidents differently.

The results of the Google Alerts were checked every day from September 1, 2013 through August 31, 2014. Each day, when the results of the Google Alerts were culled, researchers removed any incidents that clearly did not fit the study objectives. The focus of this effort was on only FRA-reported train-pedestrian incidents, thus any articles from other countries were ignored. Additionally, if an initial review of the article revealed that the incident involved a vehicle or didn't involve a train, it was also ignored and not included in the data set. The goal was to attempt to whittle the initial list of articles down to incidents that were likely to be reported to the FRA as a pedestrian-train incident. This initial effort resulted in 1,214 media articles.

As stated above, for this effort we were only interested in FRA-reported train-pedestrian incidents², so any other reports needed to be removed from the dataset. To identify the FRA reports corresponding to the media articles that had been gathered we conducted a search of FRA-reports using information such as date, time, location (state and county), and age of person, which were often included in both the media article as well as the FRA data. Media articles without a corresponding FRA-report were also not included in this analysis. This may have

² The FRA has an Accident/Incident database for all FRA-reported casualties. This database was used as a guide for identifying which articles were about FRA reportable incidents.

happened for a variety of reasons, including reports of transit incidents or of grade crossing incidents without a reportable injury. There were 285 articles about incidents that did not have a corresponding FRA report, leaving 929 incidents for analysis.

At this point in the process, the data set that had been initially culled had been filtered to include only FRA-reported fatalities and injuries, but there were still some incidents involving vehicles that had been missed in the initial review and needed to be removed. Vehicular collisions with a train are a unique type of incident that may be more likely to be approached in a sensationalistic way based on images of the wrecked vehicle. As such, these incidents were not included as they may have biased the findings of this research effort. Instead, this effort focused on rail incidents (both fatalities and injuries) that involved a train and a person (or multiple people). In total, 72 of the remaining articles were about an incident that involved a vehicle and were removed from the study, leaving 857 articles for analysis.

Lastly, given the large number of FRA-reported incidents for which there were no media articles, researchers conducted a second search for articles using the identifying information included in each FRA report without a corresponding media article. The search terms used for this second search relied primarily on the date and location of the incident as well as terms like "train death" or "train suicide" depending on the incident. If the search revealed any online media articles about the incident, the first article was included in the dataset. Note that if multiple articles were found via this search method only the top result was included. In sum, 316 articles were added to the overall dataset through this process to arrive at a final sample size of 1,173 articles as described in Figure 1 below.



Figure 1. Process to obtain final data set

Of the 1,173 articles included in the final dataset 304 articles were about FRA-reported suicide incidents (henceforth called FRA-Suicides) and 869 articles were about FRA-reported trespass incidents (FRA-Trespass). In some cases, an FRA incident may have had more than one article written about it. Each of those multiple articles were included in this dataset if they were captured in the initial Google Alert search result.

During the timespan that the articles were being collected (9/1/2013 through 8/31/2014) there were 1,228 FRA-reported pedestrian trespass and suicide incidents (256 FRA-Suicide and 972 FRA-Trespass). Of these 1,228 FRA-Suicide and FRA-Trespass incidents, at least one media article was collected for 54 percent (664) of the incidents (536 fatalities and 128 injuries). Therefore, the 1,173 articles were reporting on 664 of the incidents that happened during that time span.

2.2 Recommendation Selection

In addition to the collection of media articles about railroad incidents, a search was conducted for available recommendations for the reporting of a suicide by the media. Note that the term

"recommendations" will be used throughout this report and not "guidelines" or another term, though such terms are often used in practice to describe these documents. Each recommendation list is voluntary; media outlets may choose to follow the suggestions if they seek to avoid a reporting style that may encourage suicide contagion.

In total, 30 different recommendations were gathered and reviewed. We included not only US based organizations and agencies (15 of the sources), but also recommendations from international groups and other organizations located in non-US countries (15 of the sources). The full list of recommendations that were reviewed is provided in Appendix A along with a link where the recommendations can be found online. Note that this is not intended to represent an exhaustive list of all sources of recommendations, but rather a wide swath of available recommendations.

Once this collection of recommendations was obtained and summarized they were reviewed to identify common themes that were present across many different recommendations. No recommendation was present in every list that was reviewed. However, this was likely due to the fact that different organizations may have different audiences in mind or may be focused on a different aspect of the reporting. Still, there were several recommendations that occurred frequently across a wide variety of organizations. These commonly used recommendations are included below, in no particular order:

- Avoid using the term "suicide" in the headline
- Do not over-emphasize suicide rates
- Avoid language which assigns a value to the act of suicide (e.g., successful suicide attempt or committed suicide)
- Avoid over-simplifying suicide (e.g., as the result of a single event)
- Avoid glorifying or glamourizing the individual
- Avoid romanticizing the act of suicide
- Do not describe the method used to attempt suicide
- Do not describe the details surrounding the location where the incident took place
- Avoid using photos of the location or method of death, or of grieving family and friends or memorials and funerals
- Do not speculate about cause of death, only report as a suicide if confirmed by a coroner or medical examiner
- If reporting on suicide, provide help-seeking information and information about warning signs for those at risk for suicide

Note that this is not a complete listing of all recommendations which exist about reporting on suicides, but rather a consolidated list of appropriate recommendations that were most often included our review. In some cases, the terms used by different organizations may vary, but from context they likely refer to the same thing (e.g., a recommendation to not "sensationalize" by one group may mean the same as a recommendation to not "glamourize" by another group). Researchers, where possible, attempted to consolidate these similar ideas to achieve a set of unique themes that represented the core concepts each group conveyed. Additionally, some recommendations that were common in multiple lists are not applicable to the current online media format. For example, many recommendations suggested avoiding prominent placement of the article, such as on the front page. In an online setting the placement of an article within the

website may change several times, even within a given day. As such, any recommendations that would not translate clearly to online media reporting were excluded from the current list.

2.3 Coding of Articles

The remaining step is to compare the 1,173 articles that were collected to the recommendations list that was selected. This was done by coding each of the articles along a wide variety of metrics so that the reports could more easily be summarized. This coding was not only to identify how an article compares to each of the recommendations listed above, though this was an important aspect of the coding, but also to capture more general information about the incident or article. These more general pieces of information included items such as the date of the article, what time the incident took place, the gender and age of the individual involved, the website where the article was published, among other items.

Coding was performed by three different coders, though one individual performed the majority of the overall coding. One month of coding was first completed by all three coders. The results, across coders, of this first month were compared to one another and discrepancies were identified. Consistency across coders was extremely high with a few exceptions. All three coders convened to discuss the reasons for these discrepancies and solutions were identified. The majority of these discrepancies dealt with semantic issues (e.g., should the name of a website be <u>www.nytimes.com</u> or "New York Times"), which would impact the ability to quickly analyze the data, but not necessarily the content. Other discrepancies dealt with refining definitions so that the choices were clear.

Once this initial review was completed and the definitions were refined, two of the coders continued to code the remaining eleven months. Due to availability, one of the two coders did the majority of the coding. Once complete, a primary coder went back to review the second coder's file for consistency and found no discrepancies. Additionally, this coder went back through the entire data file to ensure that the findings were logically consistent with one another (e.g., if an article was coded as having used the term "suicide" in the body then none of the following codes should have been coded in a way that indicated the incident was not reported as a suicide). The final result was a dataset that had coded each article collected along a wide variety of variables that could then be compared to known recommendations for reporting on suicide. This is the dataset on which the remainder of this report is based.

3 Results

The following section provides a review of the 1,173 media articles that were gathered between September 1, 2013 and August 31, 2014. In many cases, the analyses are presented separately for articles that discussed FRA-reported suicide incidents (FRA-Suicide) and those that discussed FRA-reported trespass incidents (FRA-Trespass). Reviewing these articles separately helps to better understand if online media outlets were reporting on these types of incidents differently, as one might expect given the recommendations listed above were only for suicide reporting. In total 304 articles on FRA-Suicide and 869 articles on FRA-Trespass were reviewed and analyzed.

In addition to reviewing the potential differences between articles about suicide and trespass, it is also of interest to explore every instance where the media outlet reported on the incident as a suicide, regardless of the actual official determination. In some cases, media outlets chose to report on an incident and referred to it as a suicide despite the fact that the incident would later be ruled accidental (e.g., a trespass fatality). Any article that reported on the incident as a suicide provided the opportunity to compare the reporting style to known recommendations for reporting on suicides; did the media outlet report on the suicide in a way that is consistent with current recommendations? This type of analysis is also provided, where relevant. Of the 304 FRA-Suicide articles only 134 chose to report on the incident specifically as a suicide. Out of the 869 FRA-Trespass articles, an additional 74 articles chose to report on the incident specifically as a suicide, thus a total of 208 articles were collected that specifically referred to the incident in question as a suicide.

Results are presented in two high-level sections. First are comparisons of the articles collected with known media reporting recommendations. This section takes each of the articles that were collected and identifies how often known media recommendations for suicide reporting were violated. The second section explores more general trends in reporting based solely on the frequency that these articles were published (e.g., by time, month, state). The Comparison with Media Reporting Recommendations section addresses the content of the articles while the General Reporting Trends section addresses more high-level trends in when articles are likely to be published.

3.1 Comparison with Media Reporting Recommendations

The content of an article written about a suicide, or even about a railway fatality, may inadvertently promote the rail system as a potential means for suicide to vulnerable individuals who read the article. Recommendations exist to help journalists and editors choose responsible reporting practices when publishing articles about a suicide. This section takes a subset of these recommendations and identifies whether online media sources reporting on railway incidents tended to follow these recommendations.

The results in this section are presented in three thematically distinct sub-sections:

3.1.1. Use of the Term "Suicide" – Was the term "suicide" or a similar term used in the headline or article, and if so, how?

3.1.2. Suicide versus Trespass Reporting – How did the reporting of a suicide incident differ from the reporting of a trespass incident for any aspects that may be present in both types of article?

3.1.3. Suicide Specific Reporting – When an article specifically mentioned that an incident was a suicide, what information was included and how was that information presented?

Each of these sections discusses a unique portion of the content presented within the articles. Table 1 shows the specific recommendations and questions addressed in each section.

Table 1. Recommendation questions to be reviewed

Table 1. Recommendation questions to be reviewed			
Key Recommendation Questions			
Use of the term "suicide"			
Is there any use of the word "suicide" or other words indicating suicide in the headline?			
• "Suicide" in the headline			
Other language indicating suicide used in headline			
No mention of suicide in the headline			
Is there any use of the word "suicide" or other words indicating suicide in the body?			
• <i>"suicide" in body text</i>			
 Other language indicating suicide used in body text 			
 No mention of suicide in body text 			
Suicide mentioned only to indicate it was NOT a suicide			
Suicide vs. Trespass reporting			
Does the article include a description of where the incident took place?			
Specific distance from known area			
Street, crossing or station name			
 "Near" or similar without more specific information 			
City or Town only			
No location provided			
Does the article include a description of details of the incident?			
 Details of specific actions/behaviors prior to impact 			
 Details of how tracks was accessed 			
Details of the actual train-person collision or resulting trauma			
No details provided			
Does the article discuss lethality?*			
Train described as highly lethal			
Death described as instant			
Death described as painless			
 Lethality or quickness not discussed 			

Desethe entire refer to the incident of a transpoor event?*
Does the article refer to the incident as a trespass event?*
 Refers to person as having trespassed
No trespass reference
Does the article include inappropriate images?
 Location – Shots from scene
• Train related photo (i.e., tracks or train)
Grieving individuals
Memorials or funeral
• <i>Map</i>
Video reports from scene
Photo of decedent
Generic, stock photo
Suicide specific reporting
Does the article glorify or glamourize the decedent?
Tributes from family or friends
 Portraying victim in overly positive light
No glorification
Does the article romanticize the act of suicide?
Romanticizes the event
 Suicide described as solution to problems
 Suicide not romanticized
 Not applicable, suicide not mentioned
Does the article use language that applies a value to the act of suicide?
Positive value
Negative value
No value mentioned
Not applicable, suicide not mentioned
Does the article overemphasize on suicide rates?
Over-emphasis on rates
No over-emphasis
Not applicable, suicide not mentioned
Does the article oversimply the act of suicide?
Attributed to single event
Failure to mention mental health issues
Other oversimplification
No oversimplification
Not applicable suicide not mentioned

Does t	the article quote an official source for cause of death?
•	Police official
•	Coroner
•	Rail official
•	Medical examiner
•	Train crew
•	Other
•	No official source
Does t	the article include help-seeking information?
•	Help line provided
•	Suicide warning signs
•	Both provided
*	Note that these topics were not explicitly pulled or derived from existing roll suicide.

* Note that these topics were not explicitly pulled or derived from existing rail suicide recommendations, but rather represent potentially interesting topics that are rail-specific.

A total of fourteen areas were covered in this analysis. The questions above were established based on these fourteen recommendations as a way for the coders to identify the areas and items where the media reported in a way that was consistent with available recommendations.

3.1.1 Use of the Term "Suicide"

The purpose of this first section is to identify how many of the articles included in this study reported on the incident using the term "suicide" or using language that clearly indicated suicide. Media articles may use this type of language in the headline of an article or in the body of the article if they choose to report on the incident specifically as a suicide, as opposed to reporting as a rail incident without discussing intent. This section provides a basis for analyses that are described in sections 3.1.2 and 3.1.3, which, at times, consider the number of articles that did indicate suicide.

3.1.1.1 Use of "Suicide" in the Article Headline

Including the term "suicide" in a headline serves to highlight the act of suicide. This type of emphasis on the act of suicide may sensationalize the incident or give undue weight to the method of death. An individual considering suicide who sees such a headline may believe that suicide may bring about headline-worthy news, which may seem attractive to someone experiencing suicidal ideation. Other variations on the term "suicide", such as "intentionally jumped", "stepped in front of", and "took own life", may be just as sensationalistic and should also be avoided because they may attract vulnerable individuals to the story.

Online media articles were separated into FRA-Suicide (n = 304) and FRA-Trespass (n = 869) incidents and reviewed for the use of "suicide" or similar language in the headline. Figure 2 shows the percent of each type of incident that used this kind of language in the headline.

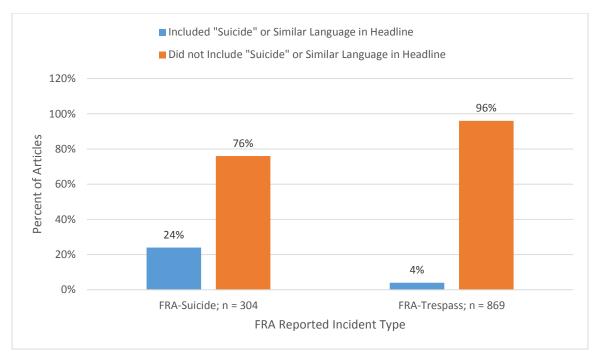


Figure 2. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that included "suicide" in the headline

Twenty-four percent of media articles of FRA-Suicide incidents had the word "suicide", or a variation with the same meaning, in the headline. Surprisingly, four percent of media articles of FRA-Trespass incidents also included the word suicide, or a variation of it, in the headline despite these incidents not being ruled a suicide by an official source. This indicates that some reporters are not only highlighting the act of suicide by using the term in the headline, but also they are not waiting until a confirmation on the cause of death has been announced.

Table 2 provides a more detailed review of these data, to further explore differences between the specific use of the word "suicide" and articles that used language that indicated suicide. Most of the headlines used the word "suicide" specifically. However in 13 cases, 9 for FRA-Suicide and 4 for FRA-Trespass, other descriptive language was used. This language included "...Jumps in Front of Train" and "Man Killed Self...". As expected, the word "suicide", or other language indicating suicide, was used more often in articles about FRA-Suicide incidents.

 Table 2. "Suicide" or similar language in the headline

	Headline Language			
FRA Ruling	"Suicide" in Headline	Other Language Indicating Suicide Used in the headline	No Mention of Suicide in the Headline	
Suicide	65 (21%)	9 (3%)	230 (76%)	
Trespass	29 (3%)	4 (<1%)	836 (96 %)	

3.1.1.2 Use of "Suicide" in the Body of the Article

While using the term "suicide" in the headline of an article may draw undue attention to the act of suicide, using "suicide" in the body of an article is often necessary to describe the event that took place. There are certainly uses of the term "suicide" which may be problematic, however, the term itself may also be used in productive ways, such as sharing warning signs of suicide or providing stories about overcoming suicidal ideation. That said, the use of the term suicide, or other terms clearly implying suicide, are interesting for understanding how many of these incidents were reported by the media specifically as a suicide. With a rail-related incident, a media outlet may choose to describe the incident purely as a rail-related fatality/injury and not provide details about the motivation of the individual.

Figure 3 presents the percent of articles which reported on the incident as a suicide by using the term "suicide" or other language which clearly indicate the intent of the individual involved, at some point in the body of the article.

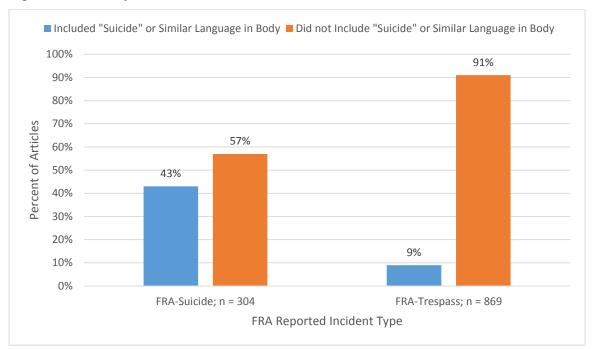


Figure 3. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that indicated suicide in the body

As expected, more FRA-Suicide articles described the incident as a suicide in the body of the article (43 percent or 131 articles), compared to FRA-Trespass articles (9 percent or 74 articles). While 74 FRA-Trespass articles represents only 9 percent of the FRA-Trespass articles collected, it is still a surprisingly high number of articles describing an incident as a suicide that was never officially ruled a suicide.

Table 3 provides a more detailed review of these data, separating the articles that used the word "suicide" from those that used other language indicating suicide. The table also provides the number of articles that mentioned suicide, but only as a way of indicating that the incident was not a suicide.

	Language in Article Body			
"Suicide" in FRA Ruling body of text		Other language indicating suicide used in body of text	No Mention of suicide in body of text	Suicide mentioned only to indicate it was not a suicide
Suicide	114 (38%)	17 (6%)	169 (56%)	4 (1%)
Trespass	63 (7%)	11 (1%)	755 (87%)	40 (5%)

Table 3. "Suicide" or similar language in the body of the article

Few articles used the term suicide as a way of ruling out the possibility of a suicide - 4 for FRA-Suicide articles and 40 for FRA-Trespass articles. When the article did report on the incident as a suicide, the majority of articles used the exact word "suicide" in the body of the text - 114 for FRA-Suicide and 63 for FRA-Trespass. In addition to these 205 articles that used suicide, or similar language, in the body of the article, 3 articles used the word "suicide" in the headline, but never in the body. Thus, a grand total of 208 articles were written that specified suicide as the cause of death (or injury in the case of an attempt).

Media articles that cover a rail-related incident as a suicide, whether it be in the headline or body of the article, have the potential to influence vulnerable individuals who may be considering suicide. The subsequent sections further explore how certain aspects of an article, if covered as a suicide, may influence contagion.

3.1.2 Suicide versus Trespass Reporting

This section compares the reporting of FRA reported suicide and trespass incidents. Articles about FRA-Suicide incidents are compared to articles about FRA-Trespass incidents to identify any differences in reporting across five key areas:

- 3.1.2.1. Detailed Location Information
- 3.1.2.2. Details of the Incident
- 3.1.2.3. Discussion of Lethality
- 3.1.2.4. Description of Incident as Resulting from Trespass
- 3.1.2.5. Images Included with the Article

There are many aspects of an article about a rail casualty that might be reported for both a trespass and suicide incident, five of which are presented in this section. Though these details may be present for both trespass and suicide incidents, it does not mean that they should be reported in the same way. In fact, the same details may have a different effect on a reader depending on whether the details describe a trespass incident or a suicide. A detailed description of how a trespass fatality came to be may help others avoid similar errors, while a similarly detailed description of a suicide may simply inform the reader of a means to accomplish such an act. Each section includes a comparison of how articles about FRA-Suicide (n = 304) and FRA-Trespass (n = 869) chose to report about a particular topic. Additionally, where appropriate a

separate analysis was conducted on the subset of articles that chose to report on the incident as a suicide (n = 208), which includes both FRA-Suicide and FRA-Trespass incidents.

3.1.2.1 Detailed Location Information

Providing detailed information about the location where a suicide occurred may allow a reader who is considering suicide to imagine themselves taking their own life at that location. While creating a vivid picture of an incident may be the goal of many articles, suicide articles require a different strategy as a vividly painted picture of an incident may draw individuals to that location. Suicides that occur on rail are unique from most other methods of suicide in that providing location information also provides the method used by the individual. A vulnerable individual who had not previously considered the rail system as a means to end their life may become aware of this potential means and have the location information for where this may be possible. In many cases a journalist may be compelled to share the location of an incident because of impacts on traffic or to simply inform the public about an incident. However, there may be ways for a reporter to share the location of an incident without providing details that would allow a person considering suicide to replicate the same event.

For the current effort, four different categories for how an article may describe the location were coded. Each category is listed below along with examples from articles in our dataset that range in the specificity of the location provided.

- **Specific distance from known location** the most detail provided about the location where an incident occurred. These articles describe the exact location where a rail incident occurred including distance from a commonly known location. When a location description is this specific it has the potential to paint a mental image that may be more likely to result in contagion.
 - o e.g., "100ft east of 10th Street"
- Street, crossing, or station name not quite as specific as providing distance from known location. These articles provided the street, crossing or station name where an incident took place or near where the incident occurred. While not quite as descriptive, this level of detail may also have the potential to draw vulnerable people to the site described.
 - o e.g., "...incident occurred at [...] Station" or "15th Street crossing"
- Use of the word 'near' or similar without more specific information the use of a less-specific modifier to blur the details about where an incident took place. Typically such an article would say that an incident took place *near* a certain location (thus providing some information to the public), but not provide enough details to elicit a mental image of exactly where an incident took place.
 - e.g., "near [...] Street"
- Articles that only provided city or town location information typically these articles would report the city or town where an incident took place (thus providing some information to the public) without providing any additional details about location.

Figure 4 shows the proportion of articles that included each level of detail about the location where an incident took place for FRA-Suicide and FRA-Trespass incidents.

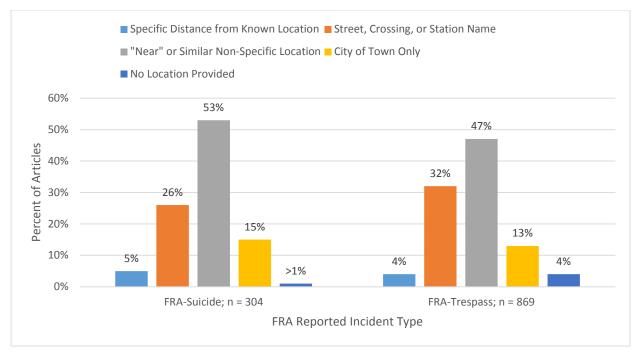


Figure 4. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles by level of detail about location

Generally, the pattern was very similar for FRA-Suicide and FRA-Trespass incidents. The majority of articles, regardless of incident type, reported location in a somewhat vague manner, using a term like "near". Articles about FRA-Trespass were slightly more likely to include a street or crossing name or no location information at all and slightly less likely to use more vague descriptions such as "near".

Figure 5 shows the breakdown of media articles that covered the incident as a suicide. Since these articles specifically talked about suicide, these are the articles that have the most potential to result in contagion if the discussion of the location is too vivid.

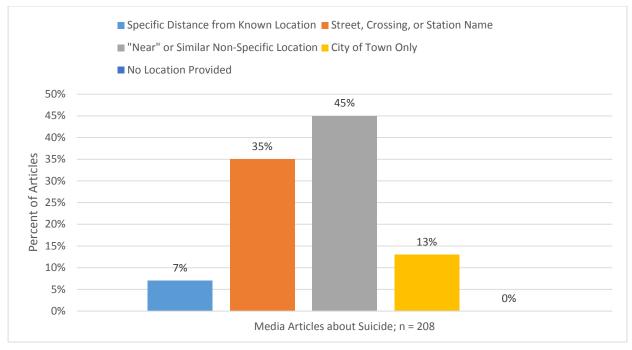


Figure 5. Percent of articles about suicide by level of detail about location

Seven percent (15 articles) of these articles included the specific distance from a known area, while the largest proportion of articles (45% or 93 articles) included less specific information such as "near" or similar without more specific information. Surprising, is that the two worst offending categories – Specific Distance from Known Location and Street, Crossing, or Station Name – were more common for articles about suicide than they were for either FRA-Suicide or FRA-Trespass articles. This means that media outlets may be more inclined to provide these details when reporting about a suicide incident, even though this information is potentially dangerous to include.

3.1.2.2 Details of the Incident

One reason why a media article about a suicide may elicit imitation is that a vulnerable individual may identify with the person in the story and may be able to envision completing a similar act. The more detailed the account of the actual incident, the easier it is for a person suffering from suicidal ideation to imagine such a scenario. Often, rail suicides are quite public and these types of incidents may be seen as an opportunity to create a sensational story surrounding the events. For trespass incidents, a detailed description of how a person came to be struck by a train may prove helpful; a detailed account may make a reader aware of the dangers of trespassing and make them more likely to stay alert near rail tracks. Unfortunately, the same is not true for suicide, so one would expect to see very different levels of detail surrounding the incidents for each type of article. The categories that were coded with respect to the details of the incident are included below with examples pulled directly from articles in the dataset. Note that in this case a single article may include more than one category.

• **Details of specific actions and behaviors** – articles that included details of the actions or behaviors prior to impact. Articles about suicide that include this level of detail may provide a vivid image of how one can take one's life using the rail system.

• e.g., "...walked out in front of train..." or "...man walked onto the tracks and faced the train..."

In other cases where the article is focused on trespass (and suicide is not discussed), this level of detail may provide insight about how to avoid potentially risky and dangerous situations.

- e.g., "...attempting to run across the railroad tracks while the gates were down and the lights were flashing" or "apparently talking on a cellphone when he was struck from behind by a train"
- **Details of how track was accessed** articles that included details about how the individual accessed the rail right-of-way. Details on how the track was accessed may provide vulnerable individuals with insight into how one may gain access to the tracks, particularly in locations where the rail system is not readily accessible outside of crossings.
 - e.g., "...gained access to the tracks by climbing the fences or by walking along Route [...] and through a wooded area"
- **Details of the actual train-person collision or resulting trauma** articles that included details on the collision itself or resulting trauma. This type of detail may indirectly attract individuals who are suffering from suicidal ideation to the rail since it highlights the lethality of a train. These same details, however, may help make individuals aware of these dangers in the case of trespass.
 - o e.g., "died from multiple blunt force injuries when he was hit"

Figure 6 shows the percent of articles that included each of these types of details.

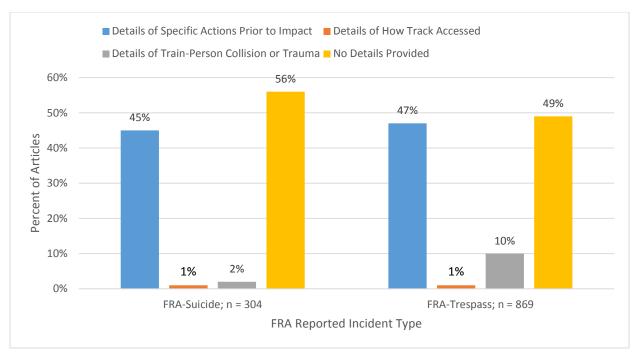


Figure 6. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles by level of detail about the incident

Although it may be expected that FRA-Trespass articles would include more details about the incident when compared with FRA-Suicide articles, they followed a similar trend. Forty-five percent of FRA-Suicide articles included details of specific actions or behaviors compared to 47 percent of FRA-Trespass articles. FRA-Trespass articles were more likely to include details of the actual train-person collision or resulting trauma (10%) compared to FRA-Suicide articles (2%). Again, these type of details may prove helpful to prevent future trespass incidents when included in a FRA-Trespass articles, however, when included in a FRA-Suicide article they have the potential to cause contagion.

Media articles that describe the incident as a result of an act of suicide may be more at risk for suicide contagion if the details of the act of suicide are particularly vivid. For these articles, the potential benefits for trespass awareness were no longer present as the article was clearly about suicide and not trespass. Figure 7 shows the breakdown of articles that reported on the incident as a suicide.

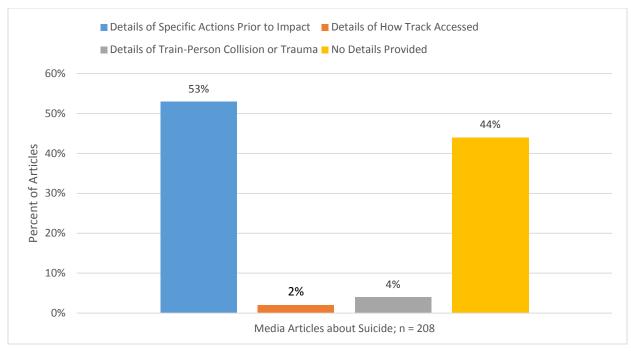


Figure 7. Percent of articles about suicide by level of detail about incident

Articles that reported on the incident as a suicide were more likely to include descriptive details of specific actions or behaviors than for either FRA-Suicide or FRA-Trespass alone. Generally these articles either provided details of the specific actions or behaviors or no details at all. Few articles included details of how tracks were accessed (2%) or details of the actual train-person collision (4%).

3.1.2.3 Discussion of Lethality

An article about suicide may not only influence an individual's likelihood to act on his or her suicidal ideation, but it may also have an effect on the manner of suicide selected. The accessibility and lethality of a potential means for suicide are among the factors that an individual considering suicide may take into account. Manners of attempting suicide that are described as accessible and lethal may cause vulnerable individuals to specifically consider that means. Despite the fact that there are many individuals who survive suicide attempts on the rail system each year, the rail system is generally perceived as highly lethal. A focus on the lethality of a train-person collision may draw undue attention to the potential of the rail system as a means for suicide. Although the guidelines do not explicitly suggest for media articles to avoid publicizing the lethality of a manner of death, media articles that do so may inadvertently increase the visibility and acceptability of the rail as a manner of suicide.

For this research effort, an article was considered to have discussed lethality if it included language describing the train as highly lethal or if the death was described as instant or painless (e.g., "...killed instantly."). Figure 8 shows the percent of articles that did and did not discuss lethality.

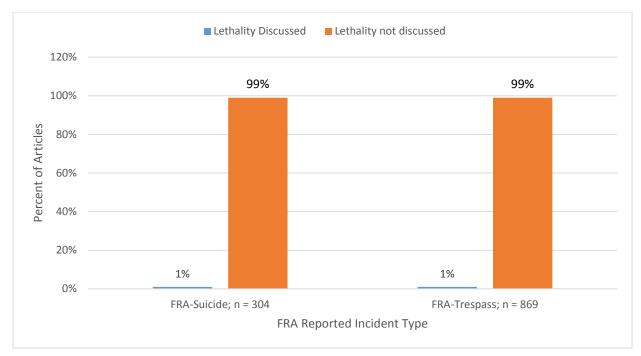


Figure 8. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that included a discussion of lethality

The majority of FRA-Suicide and FRA- Trespass articles (99% for both) did not describe train lethality. Only one article that reported on the incident as a suicide noted lethality by describing the death as instant. While such language would be problematic for describing a suicide fatality, it seems that the media generally does not focus on the lethality of the incident.

3.1.2.4 Description of Incident as Resulting from Trespass

Nearly any individual who is struck by a train was in that situation because they trespassed on rail property³. Trespassing on railroad property is illegal. Media outlets are under no obligation to describe the person involved in a rail related incident as a trespasser. However, in some cases it may help to make the reader aware of this fact and potentially prevent future trespass incidents. Although media recommendations do not consider this (it does not pertain to most manners of suicide), it is an issue that is unique to the rail environment and may be worth investigating. Figure 9 shows the percent of articles that did and did not mention trespass.

³ There are few situations when an individual can legally be on the right-of-way, e.g., at a passive crossing or an active crossing when the bells and gates are not active. Otherwise, being on railroad tracks is an unlawful act of trespass.

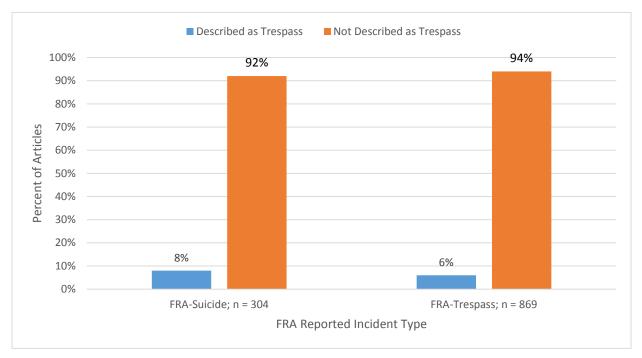


Figure 9. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles that included a discussion of trespassing

Both FRA-Suicide articles and FRA-Trespass articles follow a similar trend with the vast majority of articles never discussing trespass. Only 8 percent of FRA-Suicide articles referred to the individual(s) involved as having trespassed, while 92 percent never mentioned trespass. Similarly, only 6 percent of FRA-Trespass articles do so while 94 percent do not. One might expect articles about trespass incidents to benefit the most from promoting the idea that trespassing on the rail system is illegal, but this rarely occurred. When only articles that reported on an incident as a suicide were considered even fewer, only 3 percent of these articles, described the individual as having trespassed (see Figure 10).

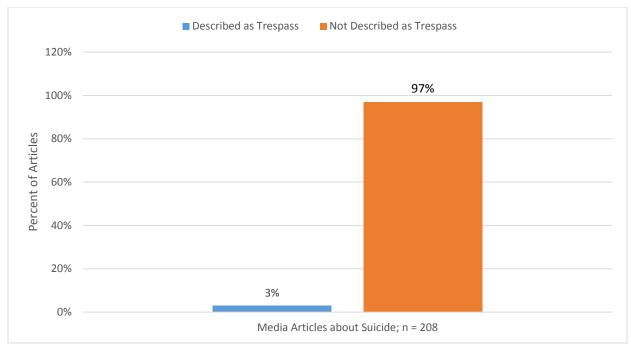


Figure 10. Percent of articles about suicide that mentioned the individual as having trespassed

While a greater awareness of the illegality of trespassing may help with trespass prevention, such changes in reporting style are unlikely to result in any changes in suicide rates on the rail system. Still, these types of reporting changes may help individuals become more aware of rail safety in general.

3.1.2.5 Images Included with the Article

The examples above show how the words selected for an article may have an impact on an individual considering suicide. The images selected may have a similar impact for many of the same reasons. Media outlets may consider the meaning that an image presents and how a vulnerable individual may interpret that meaning. Each article was reviewed and any images included were coded and placed into one of the following categories

- *Location of event* any photo or video that showed the actual scene of the incident. Such an image may have shown the train or law enforcement officials or any other aspects of the scene, but must also have shown an image of the actual site in a way that clearly showed where the incident took place. As with detailed descriptions of the location, an image of the actual site where a suicide took place may draw an individual considering suicide to that particular site to attempt a similar act.
- **Train visual** any photo of a train. This could be any train photo aside from a photo of the scene that included a train and provided a clear image of exactly where the incident took place (this would be *Location of event*). Recommendations for suicide reporting suggest avoiding a discussion of the means of suicide. In this case, the train itself is the means and such an image may cause an individual to consider the rail system as a means for suicide. An image of a train may be particularly likely to result

in contagion if it is placed alongside a headline or article which specifically discusses suicide.

- *Grieving individuals* any photo of a group of individuals or a single person visibly grieving. These images may act to glamourize or romanticize the individual by making it seem like an act of suicide may result in an outpouring of care from those around them. Articles that include this type of image may make suicide seem like an attractive option to vulnerable individuals who may be looking for attention or support from those around them.
- *Memorial or funeral* any photo of a memorial (e.g., flowers) or funeral. These images, similar to images of grieving individuals, may glamourize the individual. A memorial photo may make it seem as if this act resulted in positive attention that a vulnerable individual may desire.
- *Map* any map of where an incident took place. This is not a photo or a video but rather a map providing the location where the incident occurred without a specific image. Maps give the precise location of the incident and thus may help an individual considering suicide to identify a location where such an act may be possible.
- *Articles from scene (video only)* a video (and a video only) of a reporter at the scene reporting about the incident. Videos often discuss precise location, method and may sensationalize the event by showcasing the act of suicide (at that location and using the rail system) on a news program. Although videos were not analyzed for content they were included in this analysis.
- *Photo of decedent* a photo of the person who was involved in the incident. Recommendations on the reporting of suicide suggest that if a photo of the individual is included, that it be a school photo or other simple photo. Photos showing the individual with others or participating in an activity may allow others to more easily identify with the individual and potentially with the act of suicide.
- *Generic, stock photo* a generic stock photo. These images are not from the scene of the event and have no direct implication that the incident was a rail suicide (e.g., police tape or a generic police car). These images do not include location information or depict the method.

Figure 11 shows the percent of FRA-Suicide and FRA-Trespass articles that included each of these types of images or videos.

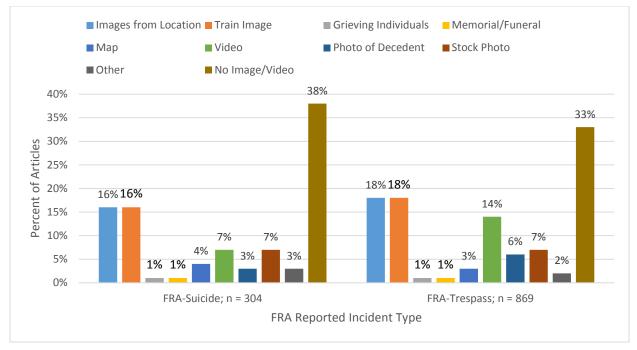


Figure 11. Percent of FRA-Suicide (left) and FRA-Trespass (right) articles by type of image or video included

The majority of articles did not include a visual at all, which is preferred for avoiding contagion. Although FRA-Suicide and FRA-Trespass articles follow a similar pattern, six percent of FRA-Trespass articles included a photo of the decedent, while only three percent of FRA-Suicide articles did. This reflects that FRA-Suicide articles were less likely to glorify or give positive attention to the individual by including a photo of the decedent. Video articles from the scene were also twice as likely to be included in a FRA-Trespass articles (14 percent) compared to FRA-Suicide articles (7 percent).

Recommendations for images may be understood differently for articles that cover the incident as a suicide versus one that does not. Rail related images for trespass casualties may serve to highlight the dangers of trespassing on the right-of-way or of not being vigilant in looking for a train. However, when an article indicates that the incident was a suicide in the headline or body then an image of a train may simply work to highlight the means of suicide.

Figure 12 shows a breakdown of incidents that are covered as a suicide.

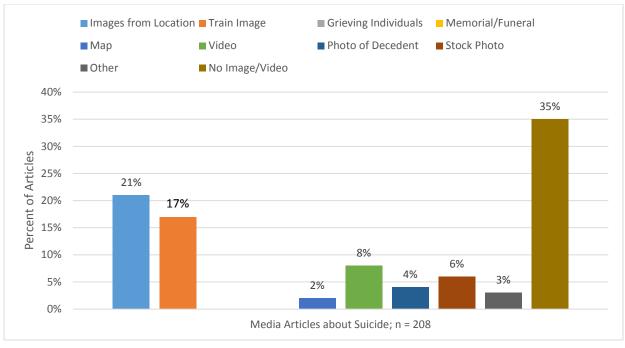


Figure 12. Percent of articles about suicide by type of image or video

Of the 208 articles that covered the incident as a suicide, none included images of memorials or grieving individuals. However, 17 percent (36 articles) of these articles included a train visual which may induce contagion since such images depict a means of suicide. Of these 36 articles that included an image of a train, 22 (61 percent) used "suicide" in the headline meaning that without even reading the article, an individual may be able to link the rail system and suicide. Additionally, 21 percent of these articles showed an image from the scene where the incident took place, thus detailing a potential location for an individual to seek out and attempt suicide.

This section has explored some topics where one might have expected to find differences between trespass and suicide reporting. In many cases these differences were not found, articles tended to report about suicide incidents as they would for a trespass incident. The following section provides details that are specific to suicide reports to see if they were reported in keeping with known recommendations.

3.1.3 Suicide Specific Reporting

In this section, only articles that covered the incident as a suicide are included. Articles that never mentioned the act of suicide are not considered because the recommendations below are specific to suicide and thus articles on trespass would never include these details. Therefore the 208 FRA-Suicide and FRA-Trespass articles that were identified as covering the incident as a suicide are used for analysis in this section. While interesting that there were 74 FRA-Trespass incidents that were reported as a suicide, for this section the distinction in the FRA system is not necessary because all that is needed is that the journalist believed that he or she was reporting on a suicide and thus would have been wise to follow existing recommendations. This section is divided into six sub-sections:

- 3.1.3.1. Glorifying or Glamourizing the Suicide Victim
- 3.1.3.2. Romanticizing the Act of Suicide

- 3.1.3.3. Assigning a Value to the Act of Suicide
- 3.1.3.4. Overemphasizing Rail Suicide Rates
- 3.1.3.5. Oversimplifying Suicide
- 3.1.3.6. Obtaining an Official Determination of Cause of Death
- 3.1.3.7. Providing Help-Seeking Information

Each of these sections is presented below along with a description of why these recommendations exist and if the present study found evidence that articles tended to follow known recommendations.

3.1.3.1 Glorifying or Glamourizing the Suicide Victim

Media articles that glorify or glamourize an individual who has attempted or died by suicide may cause a vulnerable individual to see that person as having died in a manner which resulted in positive attention. This type of coverage may lead vulnerable individuals who desire such attention to identify with the individual and take their own life. Media articles were considered to have glorified or glamorized an individual if they included tributes from family or friends, or if the media article portrayed the victim(s) in an overly positive light. Figure 13 shows the percent of all media articles collected that reported on the incident about suicide and included such glorifying language.

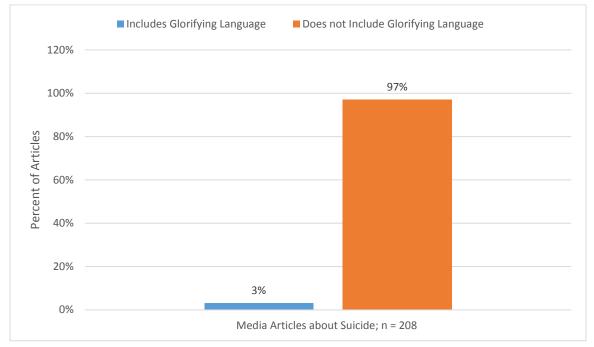


Figure 13. Percent of articles about suicide which glorified or glamourized the individual

The majority of articles that covered the incident as a suicide did not glorify or glamourize the individual (97 percent). There were, however, 3 percent (7 articles) that did include glorifying language and in every case it was in the form of tributes from family or friends.

3.1.3.2 Romanticizing the Act of Suicide

Media articles that romanticize the act of suicide may make suicide seem like an attractive or compelling way to die. Romanticizing language makes a suicide on the right-of way seem poetic or like a grand gesture, including articles that describe the individual kneeling and facing the train, or making the sign of the cross. It also includes describing a suicide as a solution to a specific problem in the person's life. In these cases, the act of suicide might be seen as a dramatic reaction to a common problem. Articles that mention suicide and romanticize the act of suicide have the potential to draw vulnerable individuals to consider attempting suicide on the rail system in a similar fashion. Figure 14 shows the percent of articles that romanticize the act of suicide.

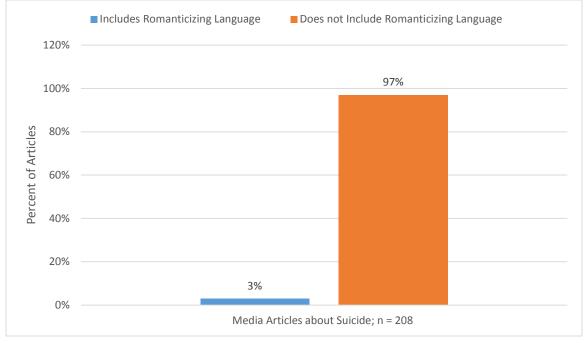


Figure 14. Percent of articles about suicide that romanticized the act of suicide

The majority of articles that reported on an incident as a suicide did not romanticize the act of suicide (97 percent). Of those that did romanticize the act (seven total articles), three articles romanticized the acts before the collision, one saying "…held up his hand and said something to the effect of, 'I love you guys', before being hit…". Four articles were found to romanticize the act of suicide by describing it as an action that was taken as a result of a particular incident; addiction, the illness of a spouse, and bullying.

3.1.3.3 Assigning a Value to the Act of Suicide

Media articles that assign a value to the suicide may stigmatize (for negative values) or highlight (for positive values) those who died by or attempted suicide. A negative value may be something like saying that the individual "committed" suicide, a term that implies criminality despite suicide not being considered illegal in the US. Negative values may also be the use of a term such as "failed" or "unsuccessful" to refer to a suicide attempt that did not result in a fatality. By stating that the individual failed in the attempt to end his or her life, the writer implies that a death by suicide would have been a success. In fact, this type of language,

referring to a suicide attempt as "successful" represents a positive value that may be placed on a suicide in a media article. By stating that an individual "successfully died by suicide" the media article is referring to the act of suicide in a positive light. Ideally, the language chosen for an article about suicide would not assign a value to the individual or act of suicide such as to make the person seem like a criminal or a failure, but also not portray a suicide death as a success. Figure 15 shows the percent of articles with and without suicide values statements.

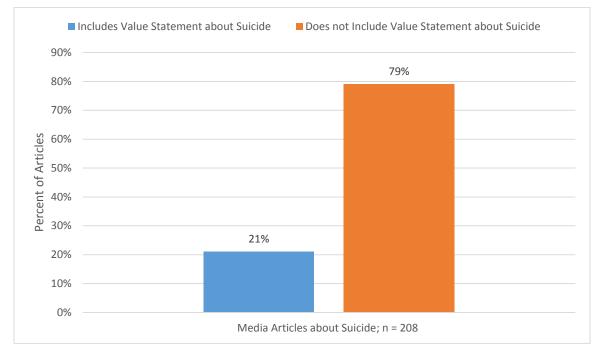


Figure 15. Percent of articles about suicide that added value statement about suicide

Of the 208 articles that reported on an incident as an act of suicide, 21 percent (43 articles) included some sort of value judgement about the act. Every one of the value judgements were negative judgements, typically using the term "commit" to refer to the act of suicide.

3.1.3.4 Overemphasizing Rail Suicide Rates

Media articles that overemphasize current rates of railroad suicide are sensationalizing the problem and may cause a reader to believe that such acts are more common than they really are. By propagating, in a sensationalistic way, that suicide rates are rising a vulnerable reader may assume that a large number of people are acting on the types of thoughts that they are experiencing and thus be more likely to act on them. Use of terms such as "skyrocketing", "another", "epidemic", or "hotspot" may not create a realistic view of the actual problem. Figure 16 shows the percent of articles that included this type of language.

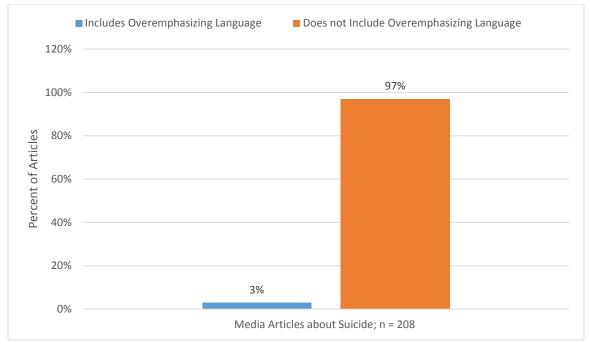


Figure 16. Percent of articles about suicide that overemphasized suicide rates

Only 3 percent (six articles) of articles that indicated suicide overemphasized the rail suicide rates. Those that did overemphasize the rates of suicide used the following language: "…a growing problem", "yet another", and a "rash of suicides".

3.1.3.5 Oversimplifying Suicide

Media articles that oversimplify a suicide incident, or make a suicide seem as though it was a reaction to a single problem, fail to convey the complexity of mental health and suicide. Suicide is a complicated issue that typically involves individuals suffering from significant underlying mental health problems. Thoughts of suicide, or suicidal ideation, may be heightened in some moments and subside shortly after. Rarely is a suicide a direct reaction to a single event, without several other complicating factors including mental health or substance abuse disorders. By oversimplifying suicide as the result of a single problem and failing to mention the complexity of this issue, an article may let readers associate more readily with individuals who choose to act on their suicidal ideation. For example, implying that a student died by suicide because of pressure to succeed at school may allow other students feeling that similar pressure, and currently experiencing suicidal ideation, to begin thinking that suicide may be a viable option to consider. Figure 1 shows the percent of articles with and without oversimplifying language.

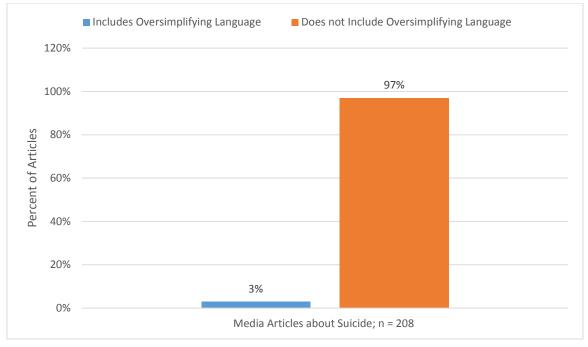


Figure 17. Percent of articles about suicide that oversimplified suicide

Although media articles that oversimplify the complexities of suicide may be harmful, only 3 percent of articles that indicate suicide included a form of oversimplification. Oversimplification was represented in a few different forms for the seven articles that included this type of language. In some cases, the suicide was described as a result of a recent diagnosis of a terminal disease or of an upcoming criminal sentencing. One article described the suicide as a solution to homelessness, while another was somehow because the individual was transgender. The pressures of the financial industry were also posited as the direct cause of one of the suicide incidents.

3.1.3.6 Obtaining an Official Determination of Cause of Death

Only a coroner or medical examiner can officially determine the cause of death for an individual. If a media outlet is reporting the cause of death before one of these official sources has made that determination, they are speculating about the potential cause of death. Many recommendations suggest waiting until an official cause of death has been announced before speculating (either that a death was or was not a suicide) about cause of death. Therefore, publicizing the incident as a suicide based on other sources such as police officials (including transit and rail police), train crew members, witnesses, or railroad officials may not be accurate and may highlight an incident as a suicide when, in fact, it will later be ruled accidental. Figure 18 shows a breakdown of who is quoted as providing the cause of death determination – note that in 10 articles multiple sources were cited.

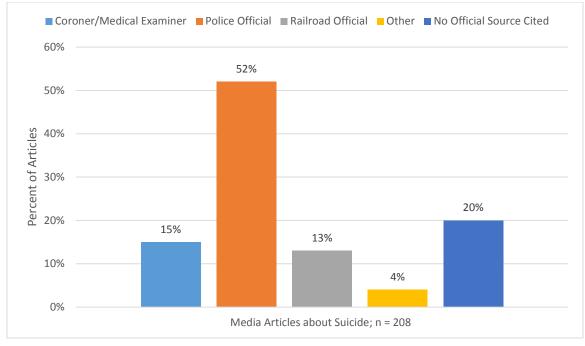


Figure 18. Percent of articles about suicide by source cited for cause of death

Of the 208 articles that indicated suicide, over half of the articles reported that the cause of death was provided by a police official, which may have been a railroad, state, or local police official (52 percent). Only 15 percent of these articles obtained the cause of death determination from a coroner or medical examiner, which is the individual who is legally responsible for this ruling. Surprisingly, 13 percent of the articles included statements from rail officials who indicated the incident was a suicide.

Looking only at FRA-Trespass articles which were reported as suicide incidents (74 articles) 45 percent (33 articles) failed to cite a source for cause of death information. Police were cited in 34 percent (25) of the articles and railroad officials were cited in 15 percent (11) of the articles. In only four articles did the reporter claim to have obtained the cause of death information from a coroner or medical examiner, perhaps resulting in these erroneous cause of death reports.

3.1.3.7 Providing Help-Seeking Information

The media is not only a potential source of negative information about suicide, but it can also be a tremendous source of positive and helpful information about suicide. Media articles that include help-seeking information can provide resources for those experiencing suicidal ideation and can also help readers identify vulnerable individuals they encounter in their lives who exhibit warning signs of suicide. Examples of help-seeking information include, providing help line services (e.g., National Suicide Prevention Lifeline, 1-800-273-TALK) or providing information on suicide warning signs (e.g., "withdrawing from activities" or "giving away possessions" – see http://afsp.org/about-suicide/risk-factors-and-warning-signs/ for more information. Figure 19 shows the percent of articles about suicide that did and did not include help-seeking information.

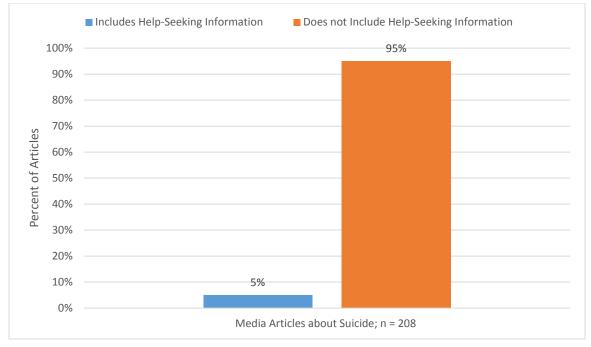


Figure 19. Percent of articles about suicide that provided help-seeking information

Only five percent (11 articles) of the total articles that mentioned suicide included some form of help seeking information, while 95 percent of these articles did not. Considering that one may expect every article that is talking about suicide to include this type of information, this represents a large discrepancy from recommendations. When help-seeking information was provided it was typically a local or national helpline that was included in the article. Only three total articles included any information about warning signs for those at risk for suicide.

3.2 General Reporting Trends

While the goal of this effort was to better understand how current media reporting practices follow existing guidelines, there are other potentially interesting findings outside of the content within the articles. In particular, the patterns of which incidents were most likely to elicit a response from the media may be telling. If there are particular times of day or days of the week that are more likely to elicit a response from online media outlets, then that may help develop mitigation strategies aimed to help encourage more responsible reporting.

This section presents, primarily, the frequency with which an FRA-reported incident elicited at least one response from an online media outlet (as determined through the search criteria for the present study). At the highest level, one can look at how often an FRA-Suicide or FRA-Trespass incident elicited a response from the media in general. These findings are presented in Figure 20, which shows that online media outlets were more likely to cover suicide incidents than they were trespass incidents.

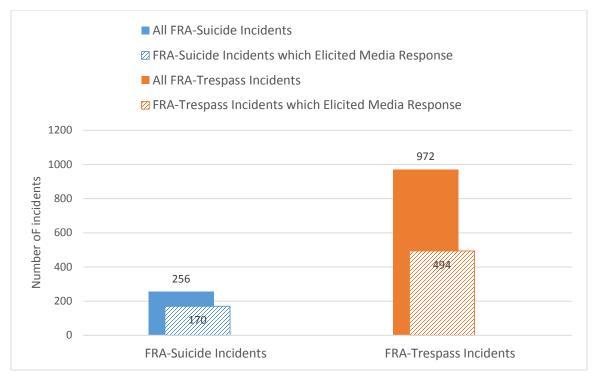


Figure 20. Number of FRA-Suicide and FRA-Trespass incidents (solid) and how many of those incidents had at least one media article (striped)

An FRA-Suicide incident elicited at least one media article 66 percent of the time (170 of the 256 casualties). FRA-reported trespass casualties elicited at least one media article 51 percent of the time (494 of the 972 casualties). While there is a large difference in the proportion of incidents that elicited a response from the media, this does appear to be primarily driven by the proportion of fatal casualties; both FRA-Suicide and FRA-Trespass incidents were more often covered by media in the case of a fatality (69 percent for suicide and 72 percent for trespass). FRA-Trespass injuries were covered less frequently (26 percent) than FRA-Suicide attempts (44 percent).

The remainder of this section further explores potential trends in results with respect to the following variables:

- 3.2.1. Time of Day
- 3.2.2. Day of the Week
- 3.2.3. Month
- 3.2.4. Age and Gender
- 3.2.5. State
- 3.2.6. Potential Impact at of Media in Selected States

For each category an analysis is provided that reviews how both FRA-Suicide and FRA-Trespass incidents were distributed across a particular category as well as what proportion of all FRA incidents were reported on in each category.

3.2.1 Time of Day

Most articles provided the time when the incident occurred as a part of their report. Not all articles were specific with the time they provided, instead saying the incident occurred "in the afternoon" or "late this morning". Those that did provide a specific time when the incident occurred may provide some insight about if certain times of day are more likely to elicit a response from the media than other times. Looking only at incidents for which a specific time of day was provided, Figure 21 provides a review of the time, in three-hour blocks, when a reported incident occurred.

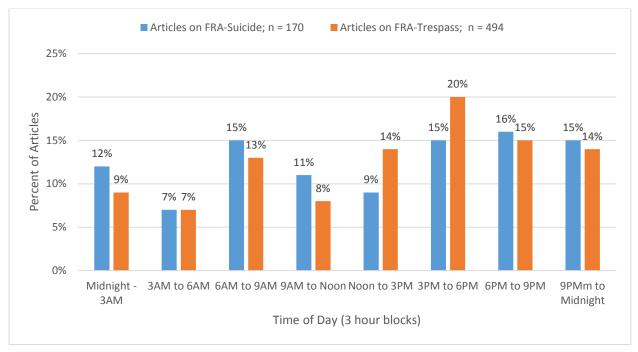


Figure 21. Percent of FRA-Suicide (blue) and FRA-Trespass (orange) articles by time of day of the incident

Articles were written least frequently about incidents that occurred between 3AM and 6AM. Additionally, articles about FRA-Suicide incidents were more often written for the morning commute, whereas articles about FRA-Trespass incidents were more often written about evening commute casualties (3PM to 6PM). However, these results may have been driven by differences in when these incidents occurred (and not necessarily on a proclivity to write about a particular type of incident during different times throughout the day). To explore this, Figure 22 shows the total number of FRA-Suicide incidents by time of day as well as the number of these incidents which elicited a response from at least one media outlet. The solid blue bars represent the total number of FRA-reported suicide incidents, while the striped blue bars represent the number of these incidents that had at least one media article (both number of incidents and proportion of incidents in that block are provided). This type of figure is provided throughout the rest of this report.

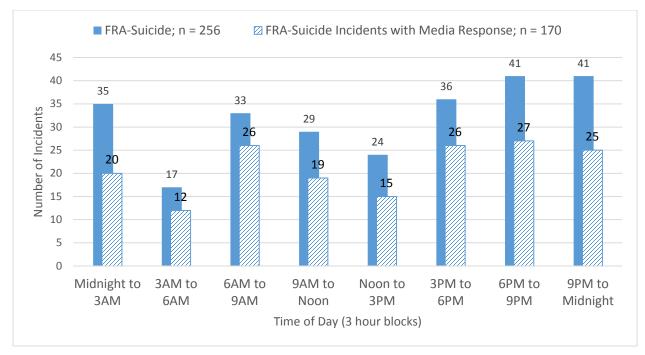


Figure 22. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by time of day

In contrast to the results in Figure 21, while incidents in the morning commute hours were reported with great frequency (79% of these incidents elicited at least one media article), this was not the time of day with the most incidents during this timeframe. The most incidents took place between 6PM and Midnight. Figure 23 shows a similar review of FRA-Trespass incidents.

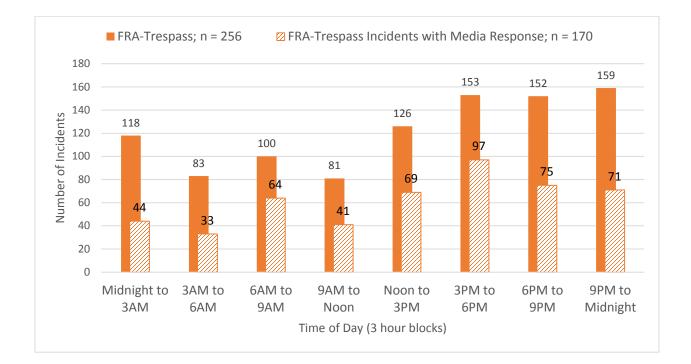


Figure 23. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by time of day

Similar to the FRA-Suicide incidents, the time of day with the highest proportion of media coverage is between 6AM and 9AM (64% elicited at least one article). Commute hour reports may be more likely to elicit a response from the media as incidents are more likely to impact those commuting to and from work. Also, similar to suicide casualties, the time periods with the lowest response from the media are between 9PM and 6AM.

3.2.2 Day of the Week

The day of the week when an article was written may also provide some insight into why a decision to report on an incident was made. Figure 24 shows the percent of each type of FRA incident (suicide or trespass) which occurred on each day of the week.

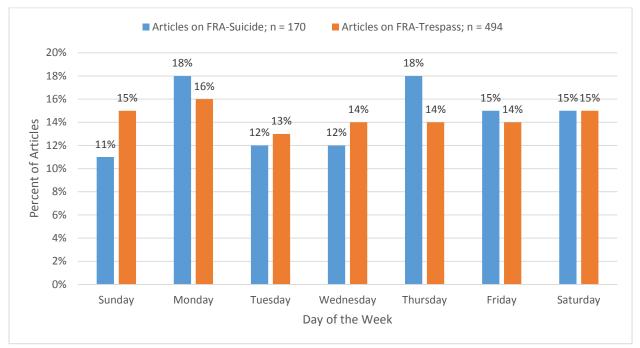


Figure 24. Percent of FRA-Suicide (blue) and FRA-Trespass (orange) articles by day of the week

Articles about FRA-Suicide incidents seemed to vary more in the proportion of articles written each day of the week. Monday and Thursday were the days with the most articles written about FRA-Suicides, Monday also being the most for FRA-Trespass. As above, these trends could be driven by overall rates of when these incidents occur. This is investigated for FRA-Suicide incidents in Figure 25.

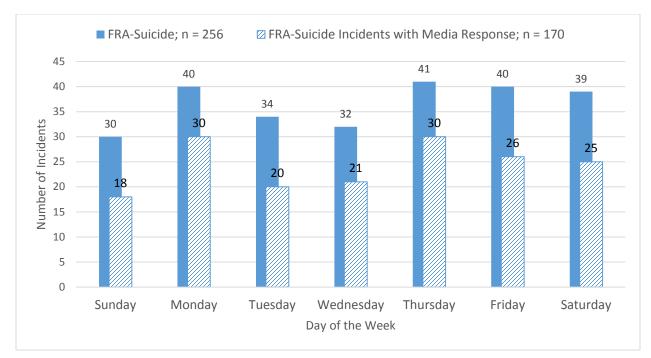


Figure 25. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by day of the week

The pattern of results for suicide are fairly consistent. A slightly higher proportion of incidents elicited a media response on Monday and Thursday, however, there was not a large difference across all days of the week. The same information is explored for FRA-Trespass in Figure 26.

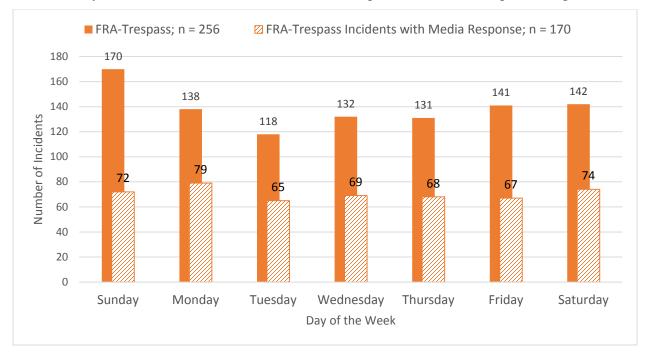
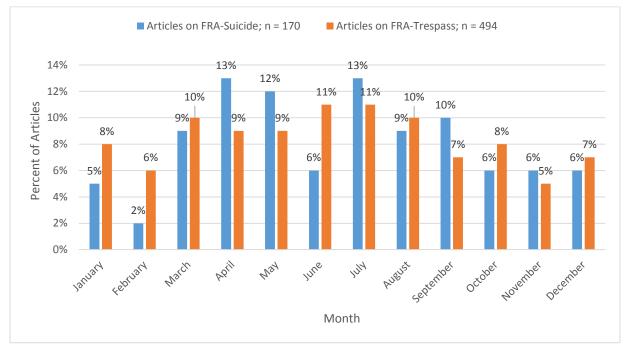


Figure 26. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by day of the week

The pattern of when incidents occurred for FRA-Trespass were somewhat different. Despite a similar amount of media coverage, there were a larger number of trespass casualties on Sunday during the study timeframe. It was not clear what drove the increase in trespass activity or the reduction in media coverage for trespass incidents that occurred on a Sunday.

3.2.3 Month

Both suicide and trespass incidents are known to vary in frequency by month. In general, warmer months in the spring and summer typically have elevated rates of suicide and these warmer months also tend to have higher trespass casualty rates, presumably because in warmer months people are outside more often. Of course, elevated suicide and trespass rates do not necessarily indicate that there will be an increase in the number of reports. Figure 27 shows the percent of articles written in each month for both FRA-Suicide and FRA-Trespass casualties.





The months with the highest proportion of articles about FRA-Suicides were April and July, followed by May - all months in which one might expect elevated rates. Also expected was the reduced rate of reporting on suicide activity early in the year (January and February). It was not expected, however, that suicide articles would have such a low proportion occurring in June, as this is a common month for increased suicide activity. Trespass had expected elevated rates between March and August, with these six months representing the highest six months in terms of percent of media articles gathered. As with the above analyses, we must also look at the overall number of incidents in each month to see if these results were driven by incident numbers. Figure 28 shows the number of suicide incidents, as well as the number of incidents that elicited at least one report.

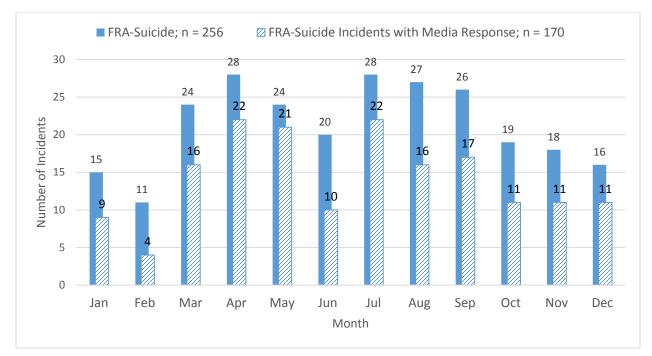


Figure 28. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by month

The pattern of suicide incidents is consistent with what one would expect based on suicide research (see Voracek, Tran, and Sonneck, 2007). Rates were highest between March and September. It is less clear why the proportion of incidents that elicited a response from the media was lower in certain months, such as February (36 percent) and June (50 percent), and higher in others, such as May (88 percent) and April (79 percent). Figure 29 shows the same information for trespass.

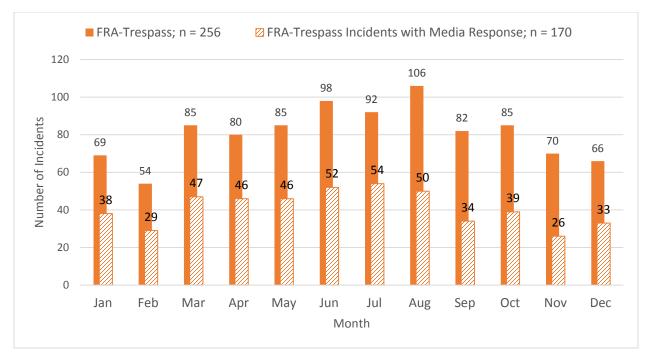


Figure 29. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by month

As with suicide incidents, trespass followed an expected trend with the highest rates of casualties from March through October. Months with the lowest rates of media attention were August (47 percent) through November (37 percent), while every other month elicited a response from at least half of the incidents. It is unclear why the media responses were somewhat depressed for trespass in these months and depressed in February and June for suicide.

3.2.4 Age and Gender

The age of the victim did not seem to have much of an effect on a media outlet's willingness to publish an article. While the average age of an individual involved in a rail suicide incident was 38.4 years the average age of the individuals for which the media reported was 37.7 years, just slightly younger. The same pattern was generally true for trespass as well; average age of trespass casualty was 37.7 years and for those that the media reported the average age was 37.6 years.

Similarly, 80% of the media articles that were gathered involved a male subject (when the gender of the individual was included in the article). Though gender information is not collected by the FRA for trespass or suicide incidents, this is in line with known facts about trespass and suicide on the rail system (e.g., Martino, Gabree, & Chase, 2013).

3.2.5 State

Another factor that may impact the amount of attention an incident gets is where it takes place. While information about the specific town or community where an incident occurred may be informative, with only one year of data it is unlikely that any reliable trends could be extracted on that precise a scale. However, it may be possible that certain States are more likely to respond to an incident than other States. These State differences may be driven by a number of factors, one of which may be a particular media outlet within a State that has a proclivity to report on these types of incidents. While this may not be directly reflective of the State, per se, it may show how tendencies to report differ across the country.

Rates of trespass and suicide on the rail system vary greatly from State to State due to a variety of factors. In many cases, the number of incidents in a State are too few to conduct any meaningful analysis, and thus in the figures below, States with relatively few incidents were removed. Figure 30 shows FRA-Suicide incidents by State (for only states with 5 or more incidents during the study) along with the number of incidents which elicited a response from the media.

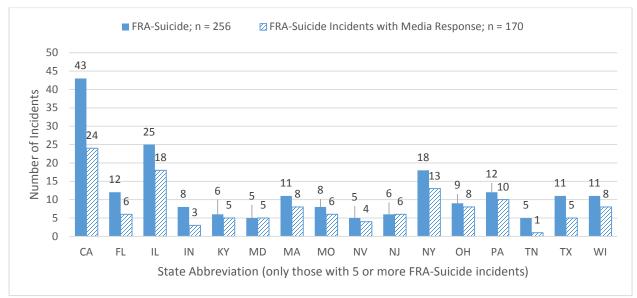


Figure 30. Number of FRA-Suicide incidents (solid blue) and how many of those incidents had at least one media article (striped blue) by State with five or more suicide casualties

California had more than double the number of incidents of any other state aside from Illinois, which is in keeping with national trends each year. States varied quite a bit in the proportion of incidents that elicited a response from at least one online media source. Some States responded to incidents around half of the time or even less often: CA (56%), TX (45%), IN (38%), and TN (20%). For other States, the proportion that elicited a response was much higher: NJ (100%), MD (100%), OH (89%), PA (83%), and KY (83%). Figure 31 shows the same information for trespass casualties (though the minimum number of incidents was set to 10 instead of 5 since the overall number of trespass incidents was higher).

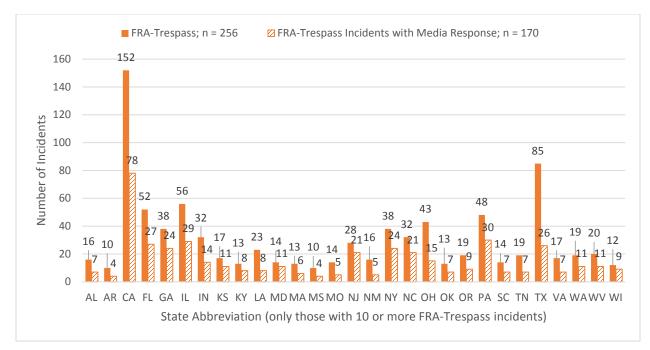


Figure 31. Number of FRA-Trespass incidents (solid orange) and how many of those incidents had at least one media article (striped orange) by State with ten or more trespass casualties

As with FRA-Suicide incidents, California had more than double the amount of trespass incidents than any other State, with the exception of Texas. The States with the next highest rates are Texas (which was tied for the sixth most for suicide) and Illinois (second most for suicide). Trespass reporting was much more consistent from State to State with approximately half of the incidents resulting in a response from online media. There were deviations from this, such as MD (79%), NJ (75%), and WI (75%) where more incidents elicited a media response, as well as TX (31%), NM (31%), LA (35%), and OH (35%) where fewer incidents elected a media response.

3.2.6 Potential Impact of Media in Selected States

During the timespan covered by this study there were a total of 256 suicide incidents. This means that every week in the US, from September 1, 2013 through August 31, 2014, approximately five individuals were struck by a train because of an act of suicide. By looking at the patterns of incidents across the year in particular States we may be able to identify articles that had the potential to result in a copycat attempt.

For example, in New Jersey there were a total of six suicide incidents during the study timeframe. If these six incidents were spread evenly throughout the year we might expect approximately one incident every two months, however, two of these six incidents occurred within one week of the previous incident. In both cases, at least one of the reports about the first incident highlighted the act of suicide by putting the term "suicide" in the headline and in several cases described the actions of the individual involved. In Figure 32, this example is illustrated where each blue bar represents an FRA-suicide as plotted on the date when the incident occurred. Orange dots represent media articles written about these FRA-Suicide incidents and grey dots represent any articles that used the term "suicide" or other language indicative of suicide in the

headline. Where orange and grey dots appear on the same date this means that the FRA-Suicide article used "suicide" in the headline. Other grey dots indicate that "suicide" or similar language was used in a headline to describe a non-suicide incident.

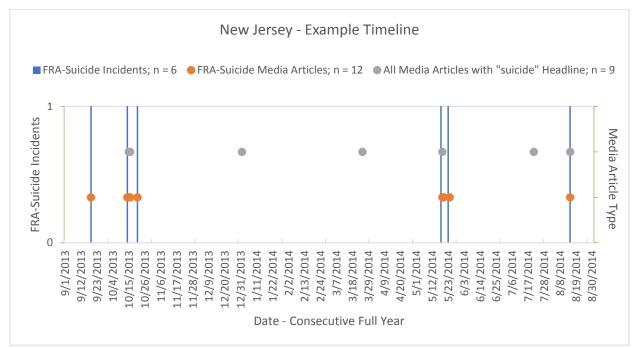


Figure 32. New Jersey Example: FRA-Suicide incidents (blue bars) that had FRA-Suicide media articles (orange dots) and all articles that included "suicide" in the headline (grey dots)

What stands out in Figure 32 is that in both of the instances where two FRA-Suicide incidents occurred in close proximity to one another (e.g., in October and May) the first incident elicited media responses that used the term "suicide" in the headline. It is not clear if the incident in August elicited a similar response as it happened so close to the end of the current data collection that this impact is clear.

Another potential incidence of contagion can be found in California. A similar style figure as was presented for New Jersey in Figure 32 is presented for California below in Figure 33. The frequency of railway suicide incidents is greater in California in general, likely due in large part to the much larger population; 38.8 million residents in California in 2014 compared with 8.9 million residents in New Jersey in 2014.

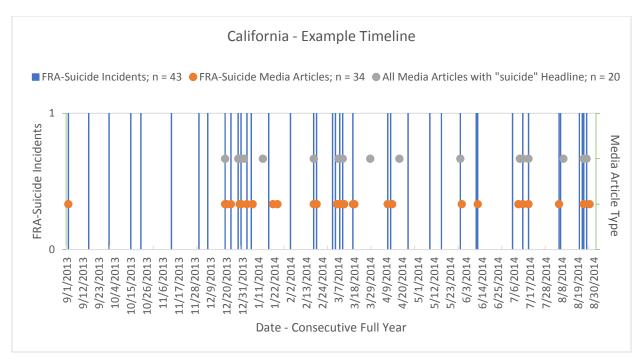


Figure 33. California Example: FRA-Suicide incidents (blue bars) that had FRA-Suicide media articles (orange dots) and all articles that included "suicide" in the headline (grey dots)

Two areas stand out when looking at Figure 33, the cluster of blue lines in late December and another cluster of lines in early March⁴. The incidents in December started with a heavily publicized suicide at a high school. Articles were frequent and in many cases used sensationalistic headlines. Within the next 17 days there were another five confirmed suicides in the state of California, including two that occurred within 10 miles in a nearby town.

The incidents in March follow a similar pattern, though the reporting is less clearly an indicator. Two incidents occurred in early March, one on March 5, which was not reported as a suicide, and another on March 7, which was reported as a suicide (though it was never ruled a suicide). Between then and March 17 there were another four suicide incidents (and one ruled trespass) in the State of California, three of which occurred in relatively close proximity to one another in northern California.

In Florida, there were a total of twelve suicide incidents during the study timeframe. Half of those incidents (six) occurred in the just over one month span between September 3 and October 8, 2013. The first of these reports used the term "suicide" in the headline and also described the act of the individual and the location where it look place.

This practice was rare during the study timeframe as it was the only article which was written with the term suicide in the headline (only one grey dot in Figure 34). It's worth noting that the first incident occurred only three days into our data collection, so it is possible that a prior incident in the days before the data collection began is not being considered.

⁴ The cluster of incidents in August are not reviewed as they occurred at the very end of the data collection and we may not have a complete understanding of the incidents during that timeframe.

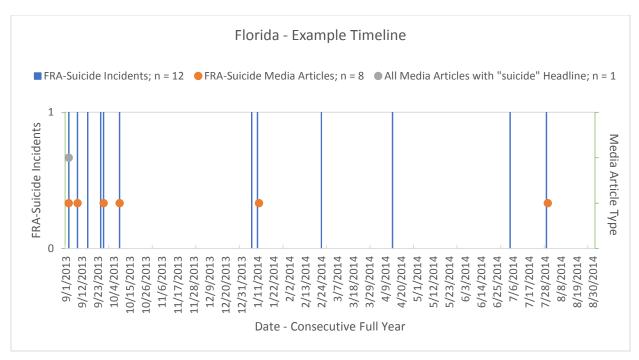


Figure 34. Florida Example: FRA-Suicide incidents (blue bars) that had FRA-Suicide media articles (orange dots) and all articles that included "suicide" in the headline (grey dots)

The only Florida article collected during the study timeframe which used the term suicide in the headline seems to be the first of several incidents in a short period of time. However, it is worth noting that the subsequent suicide incidents did not occur in close proximity to the initial incident, each other incident with a media report occurring over 150 miles away.

To draw strong conclusions from these results would be irresponsible, as there is not enough data to conclusively determine an effect for any of these cases. First, railway suicide incidents are relatively rare. While five incidents per week may seem like a large number, it is not large when you consider the size of the United States rail network. Additionally, though online media articles can be read from anywhere, the potential effects of a media article(s) are most likely to be seen in the areas near where the initial incident took place. Still, these examples are a potential starting point from which more research may be conducted on this topic.

4 Conclusion

The way that media outlets choose to report about an individual who has died by suicide may have the potential to influence others who are experiencing thoughts of suicide. For this reason, many organizations around the world have developed recommendations for how to responsibly report on a suicide incident. These recommendations, however, are for reporting on suicide in general and may not address certain concerns that are specific to the railroad environment. This research effort explored how media outlets around the United States have reported on FRA-reported suicide and trespass incidents. In total, 1,173 articles about FRA-reported suicide (FRA-Suicide) and FRA-reported trespass (FRA-Trespass) incidents were collected and coded for content.

One of the reporting recommendations that was most often ignored was to avoid using the term "suicide" in the headline of an article. Despite the possibility that using the term "suicide" in the headline may sensationalize the act of suicide or promote the concept that a suicide death may bring headline-worthy notoriety, nearly 25 percent of all articles about FRA-Suicide and, puzzlingly, 4 percent of articles about FRA-Trespass included the term in the headline of the article.

Other recommendations that were commonly ignored were to not provide details about either the location where the incident occurred or about the incident itself. In over 30 percent of articles about both FRA-Suicide and FRA-Trespass, a relatively specific location was provided, in some cases providing details down to the number of feet from a particular crossing. Additionally, over 45 percent of articles about FRA-Suicide and FRA-Trespass provided some level of detail about the actions that immediately preceded the train-person collision. Providing detailed location or behavior information may allow a vulnerable individual to more vividly imagine themselves completing this type of act, and thus may increase the odds of them acting on their suicidal ideation.

In general, media articles tended to adhere to many of the other recommendations that were reviewed, such as glamourizing or romanticizing the decedent or the act of suicide or the oversimplifying of suicide as having been the result of a single event. While there were some media outlets which violated each of the suggestions, in general the trends were to report in a relatively responsible way. However, this does not mean that there is not room to improve, as media outlets have the potential to not only increase rates of suicide, but also to help in the reduction of these rates.

Only one recommendation was nearly universally ignored, at that is one with the most potential benefit; the suggestion to include help-seeking information in any article about suicide. Only 11 articles, out of 208 which reported on an incident as a suicide, included any help-seeking information at all. Increasing the frequency with which media outlets that report on a suicide provide helpful information for those in need may have great potential for reducing the risk of suicide contagion.

Each of these findings are in line with a general trend for media articles about a suicide incident on the rail system to be reported in the manner that one may report a trespass incident. For a trespass incident it would not be irresponsible to describe the details of where an incident occurred or what led the individual to be in a situation where they were struck. It would also not be expected to include information about helpline resources or to avoid images of a train. However, suicide and trespass are different types of incidents that require a unique lens through which a story must be viewed. An article written about a different manner of suicide would not likely focus on the room in which an individual took their life or dwell on the individual's actions in their last minutes. However, the public nature of suicides on the rail system may compel media outlets to cover them in a different way that is more consistent with the messages included in other transportation articles.

A single year of data, across the entire country, does not provide enough data to conclusively determine whether there were any specific instances of contagion during our study timeframe. However, a few states did display signs that contagion may have been a factor. Specifically, in New Jersey, California, and Florida there were instances where a second (and in some cases several) suicide followed closely after a suicide that was reported with the term "suicide" in the headline. Of course, there were many instances where irresponsible reporting did not seem to elicit a suicide in close temporal and geographic proximity. More data is necessary to better understand the likelihood that these (or other) instances were potentially the result of contagion.

This research effort is intended to be the first step of a longer project to help rail carriers engage with media representatives to increase responsible reporting. While the reporting of the media in the US is generally not overly irresponsible, there are still many areas where improvements could be made. The researchers for this effort intend to work directly with rail carriers to develop a railway specific set of media recommendations that may be used to encourage responsible reporting for rail suicide and trespass incidents. These recommendations may highlight why different strategies are needed when discussing trespass and suicide. These recommendations may be useful not only for the media, but also for rail carriers or first responders who may engage with the media. The goal is to help the rail industry and the media outlets who may cover rail-related incidents to work together to help reduce the rates of suicide on the rail system in the US.

5 References

- Chen Y.Y., Liao, S.F., Teng, P.R., Tsai, C.W., Fan, H.F., Lee, W.C. (2012). The impact of media reporting of the suicide of a singer on suicide rates in Taiwan. Social Psychiatry, Psychiatric Epidemiology 47, 215-221.
- 2. Chung, W.S., Leung, C.M. (2001). Carbon monoxide poisoning as a new method of suicide in Hong Kong. Psychiatric Services 2001; *52*: 836–837
- 3. Etzersdorfer, E., Voracek, M., & Sonneck, G. (2001). A dose-response relationship of imitational suicides with newspaper distribution. Australian & New Zealand Journal of Psychiatry, 35, 251.
- 4. Gould, M. S. (2001). Suicide and the media. Annals of the New York Academy of Sciences, 932(1), 200-224.
- 5. Ladwig, K. H., Kunrath, S., Lukaschek, K., & Baumert, J. (2012). The railway suicide death of a famous German football player: impact on the subsequent frequency of railway suicide acts in Germany. Journal of affective disorders, 136(1), 194-198.
- 6. Hegerl, U., Koburger, N., Rummel-Kluge, C., Gravert, C., Walden, M., & Mergl, R. (2013). One followed by many? Long-term effects of a celebrity suicide on the number of suicidal acts on the German railway net. Journal of Affective Disorders, 146 (1), 39-44.
- 7. Huh, G.Y., Jo, G.R., Kim, K.H., Ahn, Y.W., & Lee, S.Y. (2009). Imitative suicide by burning charcoal in the southeastern region of Korea: The influence of mass media reporting. Leg. Med. (Tokyo), 11(Suppl 1), S563-S564.
- Koburger, N., Mergl, R., Rummel-Kluge, C., Ibelshauser, A., Meise, U., Postuvan, V., Roskar, S., Szekely, A., Ditta, T.M., van der Feltz-Cornelis, C., Hegerl, U. (2015). Celebrity suicide on the railway network: Can one case trigger international effect? Journal of Affective Disorders, 185, 38-46.
- 9. Kunrath, S., Baumert, J., & Ladwig, K-H. (2010). Increasing railway suicide acts after media coverage of a fatal railway accident? An ecological study of 747 suicidal acts. Journal of Epidemiological Community Health, 0.1136/jech.2009.098293.
- Niederkrotenthaler, T., & Sonneck, G. (2007). Assessing the impact of media guidelines for reporting on suicides in Austria: Interrupted time series analysis. Australian and New Zealand Journal of Psychiatry, 41, 419-428.
- Niederkrotenthaler, T., Voracek, M., Herberth, A., Till, B., Strauss, M., Etzersdorfer, E., Eisenwort, B., & Sonneck, G. (2010). Role of media reports in completed and prevented suicide: Werther v. Papageno effects. The British Journal of Psychiatry, 197, 234-243.

- 12. Phillips, D. P. (1974). The influence of suggestion on suicide: substantive and theoretical implications of the Werther effect. American Sociological Review, 39(3), 340-354.
- *13.* Sisask, M., & Värnik, A. (2012). Media roles in suicide prevention: a systematic review. International Journal of Environmental Research and Public Health; 9, 123-138.
- 14. Sonneck, G., Etzersdorfer, E., & Nagel-Kuess, S. (1994). Imitative suicide on the Viennese subway. Social Science and Medicine, 38, 453-457.
- Stack, S. (2022). Media coverage as a risk factor for suicide. Injury Prevention, 8 (suppl IV), iv-30-iv32.
- *16.* Suicide Statistics AFSP. (n.d.). Retrieved April 18, 2016, from <u>https://afsp.org/about-suicide/suicide-statistics/</u>
- 17. Voracek, M., Tran, U. S., & Sonneck, G. (2007). Facts and Myths about Seasonal Variation in Suicide. 1. Psychological reports, 100(3), 810-814.

Appendix A. Sources for Media Reporting Recommendations

There are many sources that provide recommendations for how members of the media can responsibly report on suicide. The International Association for Suicide Prevention provides a list of recommendations from 16 different countries from around the world, available here: https://www.iasp.info/media_guidelines.php. Of course, these are not the only recommendations that are available. The two tables below provide resources for recommendations from organizations in the United States (Table A.1) and organizations in other countries (Table A.2). This is not intended to represent a complete list of all recommendations or guidelines that exist. However, it does provide a wide swath of available recommendations and helped to provide insight into which themes were common across these guidelines.

Organization Name	Country	Link
211 Palm Beach	United States	http://www.211palmbeach.org/media-guidelines-for-suicide-reporting
American Foundation for Suicide Prevention (AFSP)	United States	http://afsp.org/wp-content/uploads/2016/01/recommendations.pdf
Association of State and Territorial Health Officials and the New Jersey Department of Health	United States	https://www.iasp.info/pdf/task forces/United%20States NJ Contagion Re porting.pdf
Center for Disease Control (CDC)	United States	http://www.cdc.gov/mmwr/preview/mmwrhtml/00031539.htm
Dart Center	United States	http://dartcenter.org/content/recommendations-for-reporting-on-suicide
Forefront – innovations in suicide prevention	United States	http://www.intheforefront.org/media/bestpractices
Main Suicide Prevention Program	United States	http://www.maine.gov/suicide/professionals/program/mediaschool.htm
Michigan Association for Suicide Prevention	United States	http://masponweb.org/media.htm
National Institute of Mental Health (NIMH)	United States	https://www.nimh.nih.gov/health/topics/suicide-prevention/index.shtml
National Suicide Prevention Lifeline	United States	http://www.suicidepreventionlifeline.org/about/guidelines.aspx
Pennsylvania Adult/Older Adult Suicide Prevention Coalition	United States	http://preventsuicidepa.org/guidelines-public
Poynter Institute	United States	http://www.poynter.org/2003/reporting-on-suicide/18183/
Reportingonsuicide.org	United States	www.reportingonsuicide.org
Suicide Prevention Resource Center (SPRC)	United States	http://www.sprc.org/sites/sprc.org/files/library/media_guide.pdf
Tennessee Suicide Prevention Network	United States	http://tspn.org/for-the-media

Table A.1 Domestic Sources of Reporting Recommendations

Table A.2 International Sources of Reporting Recommendations			
Organization Name	Country	Link	
Australian Press Council	Australia	http://www.presscouncil.org.au/document-search/standard-suicide- reporting/	
Lifeline	Australia	https://www.lifeline.org.au/About-Lifeline/Media-Centre/Guidelines-for- safely-speaking-about-suicide/Guidelines-for-safely-speaking-about-suicide	
Mindframe	Australia	http://www.mindframe-media.info/for-media/reporting-suicide	
One Life	Australia	http://www.onelifewa.com.au/wp-content/uploads/2014/09/Media- Guidelines-Reporting-on-suicide-and-self-harm.pdf	
Austrian Media Guidelines for the Reporting on Suicide	Austria	https://www.iasp.info/pdf/task_forces/austrian_media_guidelines.pdf	
Canadian Mental Health Association	Canada	http://toronto.cmha.ca/mental_health/suicide-responsible-media- reporting-guidelines/#.VsuF2vIVhBd	
Canadian Psychiatric Association (CPA)	Canada	http://www.cpa-apc.org/browse/documents/273	
Mindset	Canada	https://sites.google.com/a/journalismforum.ca/mindset-mediaguide- ca/suicide/historical-research and https://docs.google.com/viewerng/viewer?url=https://googledrive.com/hos t/0B1qzISHBXroQRmNZVI9ORVZwcTQ/mindset+booklet+web+version.pdf	
Ottawa Suicide Prevention	Canada	http://www.ottawasuicideprevention.com/uploads/2/5/0/2/25020004/med ia_guide_for_reporting_suicide.jpg	
Provincial Health Services Authority	Canada	http://www.bcmhsus.ca/pdfs/20151002 Media%20reporting%20on%20suic ide_guidelines%20_FINAL2.pdf	
Irish Association of Suicidology	Ireland	http://www.hse.ie/eng/services/publications/Mentalhealth/Media Guidelin es_for_the_Portrayal_of_Suicide_3.pdf	
New Zealand Ministry of Health	New Zealand	http://www.health.govt.nz/system/files/documents/publications/reporting- suicide-a-resource-for-media-dec2011.pdf	
Samaritans	United Kingdom	http://www.samaritans.org/media-centre/media-guidelines-reporting- suicide/advice-journalists-suicide-reporting-dos-and-donts	
Time to Change	United Kingdom	http://www.time-to-change.org.uk/node/75408	
World Health Organization (WHO)	Various Countries	http://www.who.int/mental_health/prevention/suicide/resource_media.pdf	

Table A.2 International Sources of Reporting Recommendations

Abbreviations and Acronyms

AFSP	American Foundation for Suicide Prevention
CDC	Center for Disease Control
CPA	Canadian Psychiatric Association
FRA	Federal Railroad Administration
SPRC	Suicide Prevention Resource Center
US	United States
WHO	World Health Organization