

Railroads: An Often-Overlooked Danger to Children

September 2019

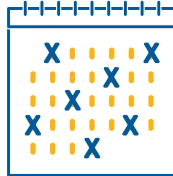


Kids and Railroad Safety



The Facts

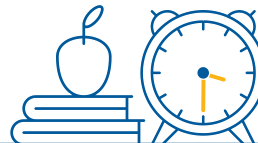
A child dies every 5 days as a result of being struck by a train. (Ages 0-19)



Teens ages 15-19 are at greatest risk of being injured or killed — nearly 4 times greater than kids ages 10-14, and nearly 6 times greater than kids ages 5-9.



Boys are nearly 3 times as likely as girls to be fatally struck by a train.



More children get hurt in the hours immediately following school dismissal and after school activities.

Despite the Facts

71% of parents are not concerned about their teen being hit by a train.



7 in 10 parents do not recognize “walking on, near, or along train tracks” as trespassing.



Half of parents admit to taking risks around railroads, such as walking along train tracks and driving around gates.



Less than half of parents (47%) have conversations with their children about rail safety.



ReTrain Your Brain

- Only cross train tracks at designated crossings.
- If lights are flashing or the gate is down at a railroad crossing, wait for the train to pass completely, for the gates to lift and for the lights to stop flashing before crossing the tracks.
- Allow enough space for your vehicle to completely clear the entire railroad crossing, not just the tracks, before you attempt to cross.
- If you are using a cell phone, headphones or playing a game on your mobile phone, remember: Heads Up, Devices Down when you cross the tracks.
- Don't walk along the train tracks. It might be a shortcut, but it is dangerous and illegal.



SAFE
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Executive Summary

Parents have no shortage of issues to worry about regarding the safety of their children, especially when it comes to dangers outside the home. As children grow to school age and become more social and active, it is only natural that parents may become more concerned with their child's safety when getting from place to place — whether it be to school, to practice, to a friend's house, or even just to spend time playing outdoors.

If you drive to work or drive your child to school every day, there's a good chance you might travel across one of the nation's 212,000 railroad crossings. Likewise, if you live in an area with railroad tracks, you may occasionally witness someone rushing to cross the tracks to beat a train, or you may notice children walking along or hanging out around the tracks. What you may not know, however, is that a child under age 19 dies every five days as a result of being struck by a train while trespassing near train tracks or crossing at a railroad crossing. Further, for every death, nearly three children suffer injuries that are often debilitating and require extensive medical treatment. What's more, the data suggest there has been little change in the rate of these incidents in the past decade.

With the support of Union Pacific, Safe Kids Worldwide sought to better understand patterns in rail-related injuries among children ages 0 to 19. Analyzing the injury data, we found that boys are at greater risk, as are teens ages 15 to 19. Children under age 10 are most often involved in railroad crossing collision incidents, while children ages 10 and older are most often involved in trespassing incidents. Alarming, more than half of all children struck by trains while trespassing are on the actual tracks when they are hit — of those, half are walking, and 1 in 4 are standing, sitting or laying on the tracks.

We also conducted a national survey of parents to gain insight into their awareness, perceptions and behaviors regarding railroad safety. In general, parents nationally indicate that railroad safety isn't a high-priority issue for them, even when it comes to their children's safety. At their current level of awareness, parents aren't overly concerned with the risk of their child being hit by a train — fewer than 4 in 10 see the issue as even somewhat of a big problem. Even for parents who live near trains or cross tracks regularly, the issue lacks importance. And this is indicated by their behavior, with half indicating they themselves engage in at least one unsafe railroad behavior, the most frequent of which is walking on or along railroad tracks.

The fact that parents aren't very concerned about railroad safety is likely due in part to a general lack of awareness around rail incidents. More than 7 out of 10 parents indicate that they do not know how many children die as a result of being struck by a train, and only 1 in 3 parents nationally have seen, heard, or read about someone getting hurt by a train. Because railroad safety isn't at the forefront of parents' minds, they aren't talking to their children about it — less than half of parents nationally (47 percent) have ever had a conversation with their children about railroad safety, and parents are unsure if their children are learning about railroad safety at school or as part of community programs.

Introduction

A pedestrian or motor vehicle occupant is involved in a collision with a train every three hours in the U.S., and 1 in 10 of these involves children ages 19 and under.^{1,2} These are primarily the result of **railroad crossing** and **trespassing** incidents. These incidents are often deadly, and most importantly are **preventable**.

Railroads are a critical component of the U.S. transportation system and economy, carrying passengers and goods across the country. Together, U.S. freight railroads form a 140,000-mile integrated system of railroads and tracks, equating to more than five trips around the earth.^{1,3} There are approximately 212,000 railroad crossings where train tracks intersect with motorists. As the demand for goods increases and the rail industry continues to grow to meet that demand, the amount of rail traffic through communities across the country is also likely to increase. This means that motorists, pedestrians, railroads, and transportation and safety agencies have a shared responsibility to ensure the safety of those living and traveling near train tracks.

With the support of Union Pacific, Safe Kids Worldwide sought to better understand patterns in rail-related injuries among children ages 0 to 19 by analyzing data available from the Federal Railroad Administration (FRA) for the years 2009 to 2018 and surveying parents with children ages 0-17 years to gain insight into their perceptions, attitudes and awareness regarding railroad safety.



How Do Rail-Related Injuries Occur?

There are two main circumstances that result in rail-related injury — collisions at railroad crossings and trespass-related incidents.

Railroad crossings (also known as “grade crossings”) refer to a location where a public or private road, street, sidewalk or pathway intersects with a railroad track at the same level.¹ Railroad crossing incidents occur when a person or vehicle occupant is struck by a train while attempting to cross at one of these locations.

Common ways *railroad crossing injuries* occur include:

- Lack of attention driving near tracks
- Stopping a vehicle on the tracks
- Texting and driving, or using other technology near tracks
- Driving or walking around the barriers
- Racing trains to cross tracks
- Aggressive driving near tracks

Trespassing is when a person is traveling on, across, or along private train tracks on railroad property without permission. Private railroad property is not limited to the train tracks and typically extends many feet on either side of the tracks. Trespassing incidents occur when a person is struck by a train or otherwise injured on or near the tracks or other railroad property. Trespassing on railroad property is illegal and is one of the leading causes of rail-related fatality in America.¹

Common ways *trespassing injuries* occur include:

- Walking or riding on or alongside the tracks
- Using tracks as a shortcut
- Wearing headphones near tracks
- Photography and “selfies” on tracks
- Horseplay, loitering or “hanging out” near tracks
- Graffiti and vandalism near tracks

What We Know About Rail Injuries Among Children

Every five days, a child 19 years or younger dies as a result of a rail-related injury while trespassing on or near train tracks or crossing at a railroad crossing.² Even when rail-related injuries aren't fatal, they are often severe and require extensive medical attention,⁴ and for every death, nearly three children are nonfatally injured. In 2018 alone, 66 children were killed and another 164 were nonfatally injured. More than 8 in 10 incidents involve a freight train, which do not travel on regular schedules like passenger trains, making them less predictable.⁵

Overall, the risk to children doesn't appear to have improved much in recent years — over the past decade, both the fatal and nonfatal injury rates have remained fairly constant, with only a slight decrease observed in the last couple of years (Figures 1 and 2).^{2, 6}

Figure 1. The overall rate of fatal rail-related injury has changed little in the past decade and was 0.08 per 100,000 children in 2018

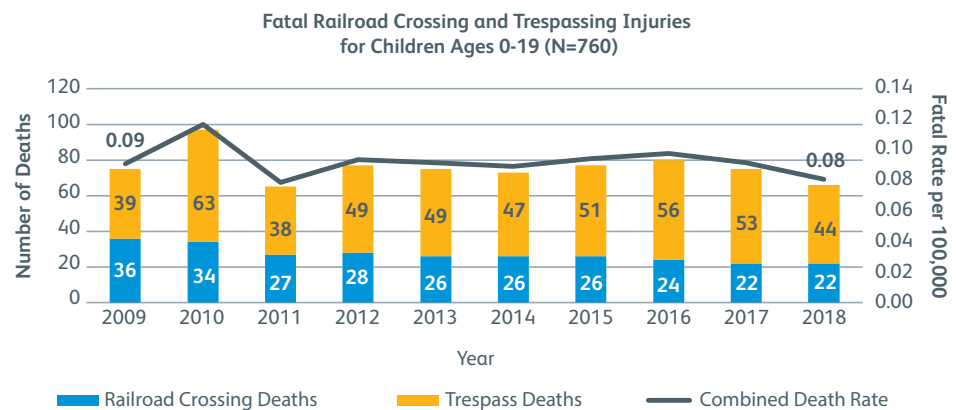
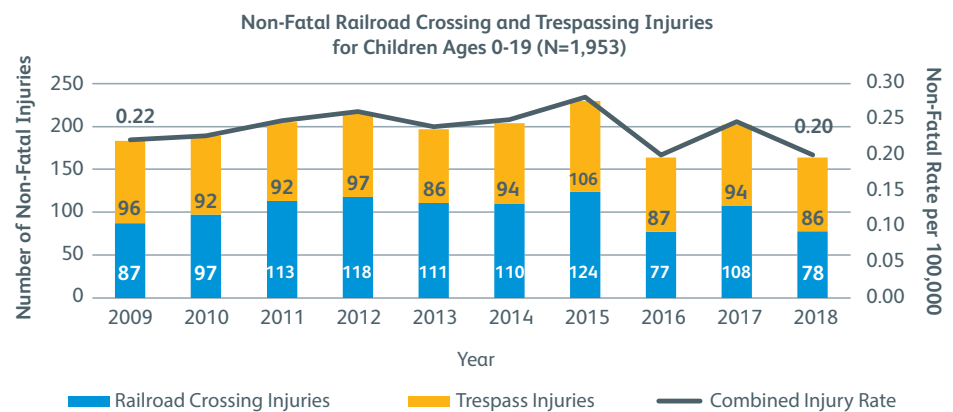


Figure 2. Similarly, the overall rate of non-fatal rail-related injury has changed little in recent years, and as of 2018 remains at more than double the rate of fatal injury



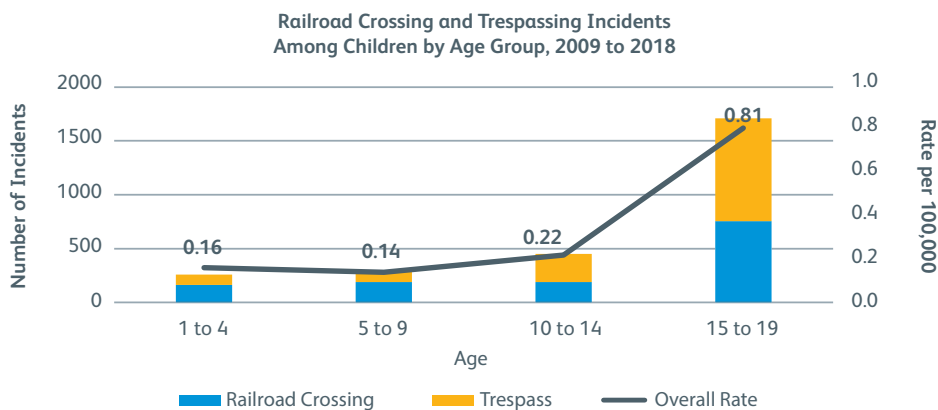
Which children are most at risk?

By Age. Older teens are at greatest risk — in 2018, teens ages 15 to 19 were nearly 4 times more likely to be fatally or nonfatally injured compared to kids ages 10 to 14, and nearly 6 times more likely than kids ages 5 to 9 (Figure 3). For the years 2009 to 2018, children ages 10 to 14 and 15 to 19 were more likely to be injured while trespassing (58 percent and 56 percent, respectively), while children ages 0 to 4 and 5 to 9 were more likely to be injured at railroad crossings (63 percent and 64 percent, respectively).²

By Gender. While the FRA data do not include information on gender, underlying cause of death data from the Center for Disease Control and Prevention (CDC) for the years 2008 to 2017 indicate that for children 0 to 19 years old, boys are nearly 3 times more likely than girls to be fatally injured — 74 percent vs. 26 percent, respectively. (2018 data not available.)⁷

By Race. Overall, data for the years 2008-2017 indicate that White non-Hispanic children ages 0 to 19 are at slightly greater risk of being fatally injured in a rail-related incident than their Black/African American and Hispanic counterparts who were equally at risk (0.08 per 100,000 vs. 0.07/100,000).⁷ The proportion of girls fatally injured is higher among White children than among Hispanic or Black/African American children (28 percent, 24 percent and 18 percent, respectively).⁷

Figure 3. Teens ages 15 to 19 are at greatest risk — they are nearly 4 times more likely to be fatally or nonfatally injured than kids ages 10 to 14, and nearly 6 times more likely than kids ages 5 to 9

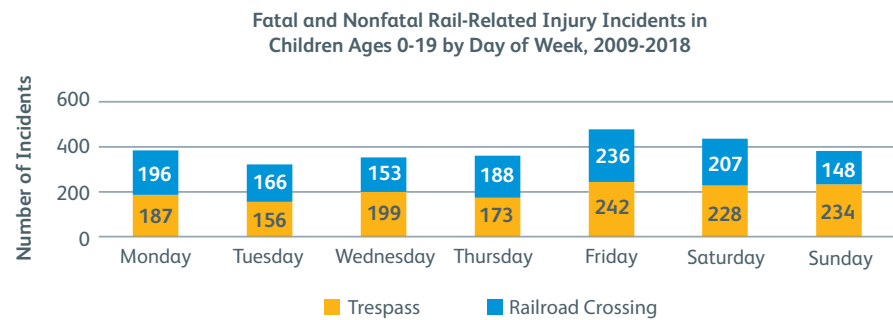


When are children getting injured?

By Month. Children may be more at risk for railroad injury during warmer months. Between 2009 and 2018, 3 in 10 of injury incidents occurred during the warmer months between June and August. June and August have the highest number of trespassing incidents (N=144 and N=145, respectively), whereas most railroad crossing incidents occurred in June and July (N=156 and N=141, respectively).²

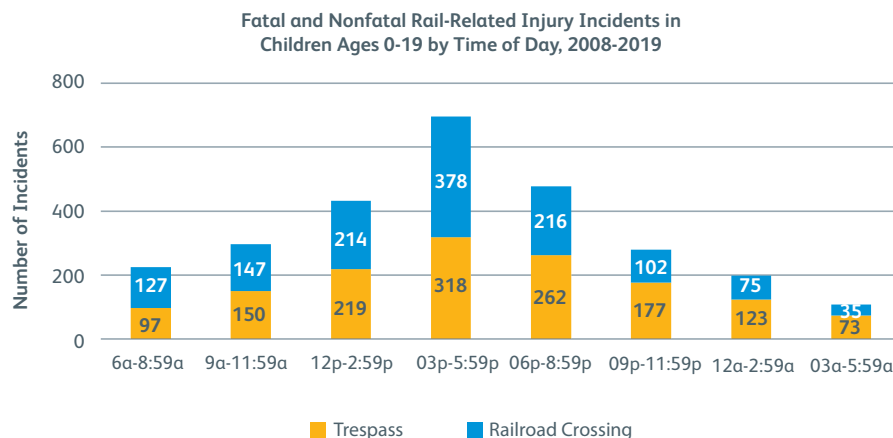
By Day of Week. Friday is the day with the highest number of injury incidents for both trespassing and collisions at railroad crossings with nearly half of all incidents (48 percent) occurring between Friday and Sunday (Figure 4).²

Figure 4. Friday is the day with the greatest number of injury incidents, with nearly half of all incidents occurring between Friday and Sunday



By Time of Day. When time of day is examined, the period with the most injury incidents is 3:00 pm to 5:59 pm (26 percent), followed by 6:00 pm to 8:59 pm (18 percent), suggesting that more children may be getting injured in the hours immediately following school dismissal and after school activities (Figure 5). The period of 3:00 pm to 5:59 pm accounts for the highest number of incidents for both months when school is typically in session (August to May) and months when schools are typically out for summer break (June and July). During school months, incidents occurring from 3:00 pm to 5:59 pm are a nearly even split between railroad crossings and trespassing (53 percent and 47 percent, respectively); however, railroad crossing incidents made up nearly two-thirds (63 percent) of incidents occurring during this same time in the summer months.²

Figure 5. One in four rail-related injury incidents occur between the hours of 3:00 pm and 5:59 pm, most of which occur at railroad crossings



What are children doing when they are injured?

By Activity. Among those who were injured in railroad crossing incidents for the years 2009 to 2018, the most frequent activities children were involved in at the time they were injured were riding in vehicles (50 percent), driving (28 percent) and sitting (6 percent). Children ages 0 to 14 injured at railroad crossings were most often riding in vehicles (81 percent), whereas children ages 15 to 19 were

more likely to be driving than riding at the time of injury (46 percent vs. 28 percent, respectively). Common railroad crossing scenarios described for years 2017 and 2018 were drivers not adhering to warning systems and barriers at the railroad crossings, as well as vehicles losing control and not being able to stop at railroad crossings.^{2†}

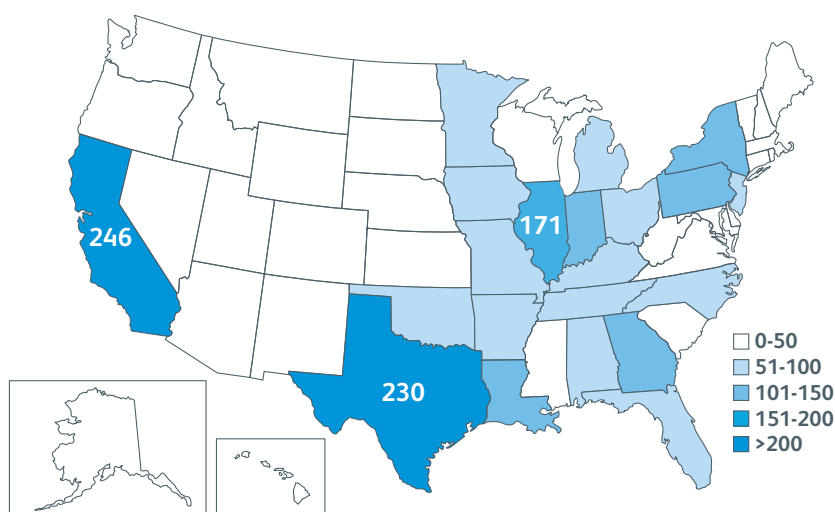
Of those who were injured in trespass incidents, 35 percent were walking, 10 percent were riding in a vehicle, and 8 percent were running. While the main activity for children in all age groups who were trespassing was walking, it was more common among children ages 10 to 14 and 15 to 19 (30 percent and 40 percent, respectively). Common trespassing scenarios described for years 2017 and 2018 were children being struck while wearing headphones and taking photos or videos near the tracks.^{2†}

By Proximity to Tracks. Of children injured while trespassing, 87 percent were struck by a train or on-track equipment and the remainder were injured when they slipped, tripped or fell on railroad property. Of those who were struck, 57 percent were on the tracks when they were struck, 16 percent were between tracks and 15 percent were beside the tracks. About 6 in 10 (61 percent) of those who were struck while on the train tracks were walking or running at the time they were hit. Another 22 percent were stationary, either laying, sitting or standing on the tracks.²

Where are children getting injured?

To examine the states which experience the greatest number of incidents we combined fatal and nonfatal injuries for both trespass and railroad crossing. For 2009 to 2018, the states with the greatest number of incidents were California, Texas and Illinois (Figure 6).² This is not entirely surprising given that these three states rank in the top 5 for both number of children ages 0 to 19 and total miles of train tracks.^{6,8}

Figure 6. California, Texas and Illinois are the states with the highest number of combined fatal and nonfatal rail-related incidents involving children



† Based on the 41 percent of cases for 2017 and 2018 where a detailed narrative was available

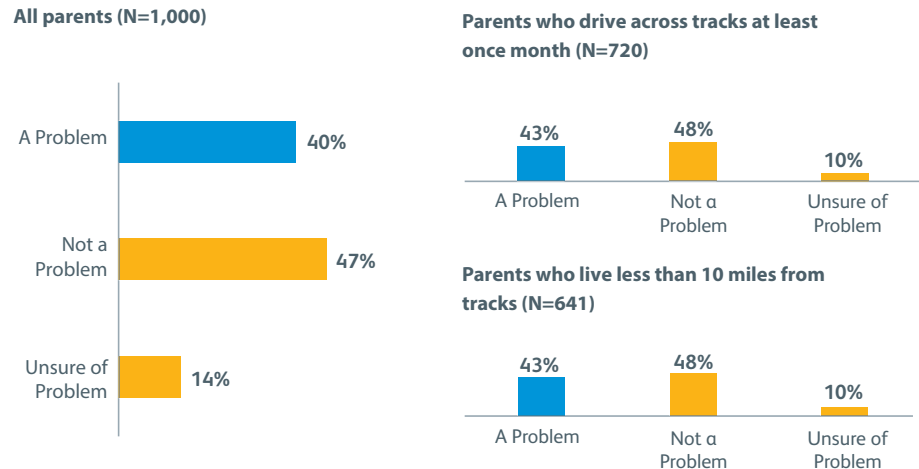
What Parents Think and Do to Keep Children Safe Around Train Tracks

In general, we know that parents have plenty to be concerned about when it comes to the safety of their children. However, little is known about where railroad safety ranks among the many safety issues that parents worry about. To better understand this, Safe Kids surveyed 1,000 parents of children under the age of 18 from across the nation about their overall awareness, knowledge and attitudes related to railroad safety and their perception of railroad safety as an issue relevant to their children. We also surveyed additional parents in San Antonio (N=300), Sacramento (N=401), and Houston (N=600) — three cities which have extensive rail systems — to capture their perspectives as well.

Railroad Safety is a Low-Priority Issue Among Parents

Even though a child dies as a result of being struck by a train every five days in the U.S., we found that parents generally do not rate the issue as a major safety concern for themselves or their child. When asked, few parents express concern about people in general or children more specifically being hit by trains (Figure 7). Parents who live near railroads or cross tracks regularly are only slightly more likely to see it as a problem.

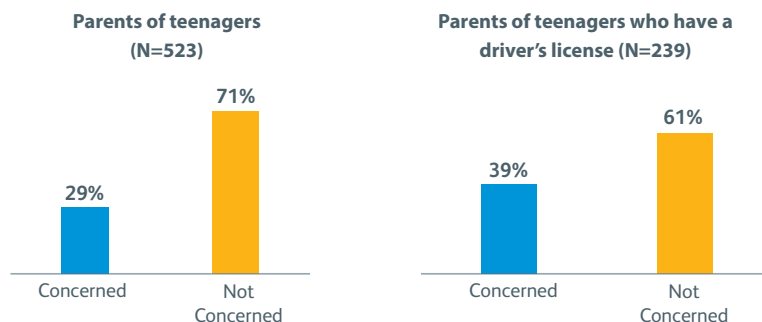
Figure 7. Nationally, parents don't view children being hit by trains as a high-priority issue — most indicate it either isn't a problem or are unsure if it is, regardless of their own exposure to train tracks



Q: How big of a problem, if at all, do you think trains hitting children or teens who are walking or driving is in the United States?

When asked, 7 in 10 parents nationally who have teen children between ages 13-17 years indicate they are not concerned about their teenager being hit by a train, with a slightly higher proportion of parents of teen drivers indicating concern (Figure 8). Even when we ask this same question of parents who live within a mile of train tracks, a similar proportion (72 percent) respond they are not concerned. A slightly higher proportion of parents of teens who live within a mile of tracks in the three cities with extensive rail systems are concerned, with 4 in 10 indicating they are concerned or very concerned.

Figure 8. Nationally, 7 in 10 parents of teens nationally indicate they are not concerned about their teen getting hit by a train, with concern being slightly higher among parents of teen drivers



Q: How concerned are you about your teen getting hit by a train?

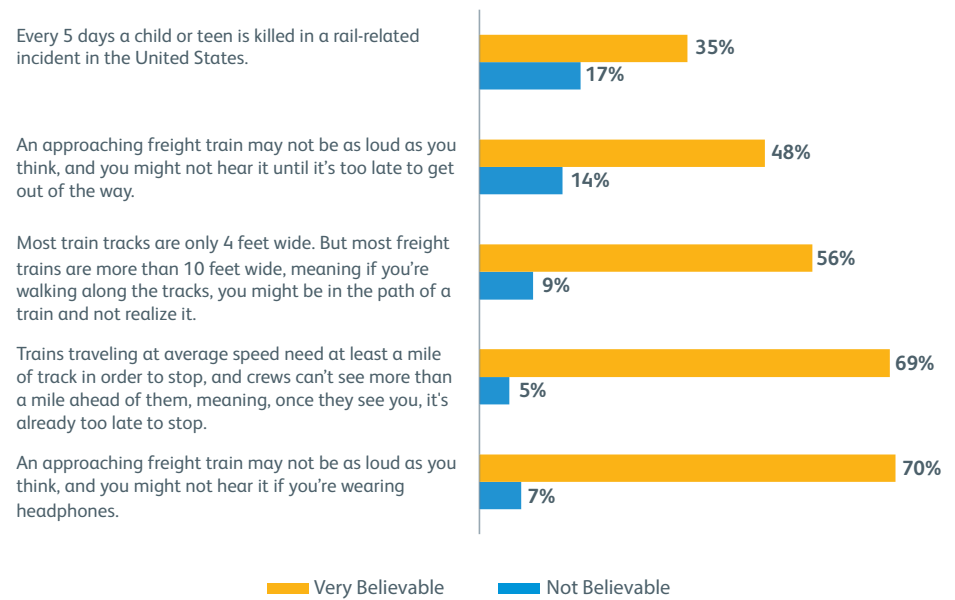
Many Parents Are Not Aware of Key Facts Related to Railroad Safety

Given how many kids are fatally and nonfatally injured by trains every year, why does railroad safety register as such a low-priority issue among parents? Part of the answer may lie in the low level of buzz around the issue and lack of awareness of, and exposure to, information about rail injury incidents. In other words, people don't know much about it, and it's not being talked about much, either. For example, nearly 8 in 10 parents surveyed indicate that they are unaware of how many children are struck and killed annually by trains.

To further explore railroad safety with parents, we presented them with five statements related to railroad safety facts and asked them how believable they thought the statements were. The statements related to how frequently a child dies as a result of a rail-related injury, how much noise an approaching train makes, how wide a train is and how long it takes a train moving at average speed to stop.

Interestingly, the statement that "Every 5 days a child or teen is killed in a rail-related incident in the U.S." is the least likely to be believed, with fewer than 4 in 10 parents indicating it is very believable and nearly 2 in 10 indicating it is not at all believable (Figure 9). While the other statements are judged to be more believable, there are still a surprising number of parents who do not seem to be aware of the facts these statements related to train size, speed and sound are based on.

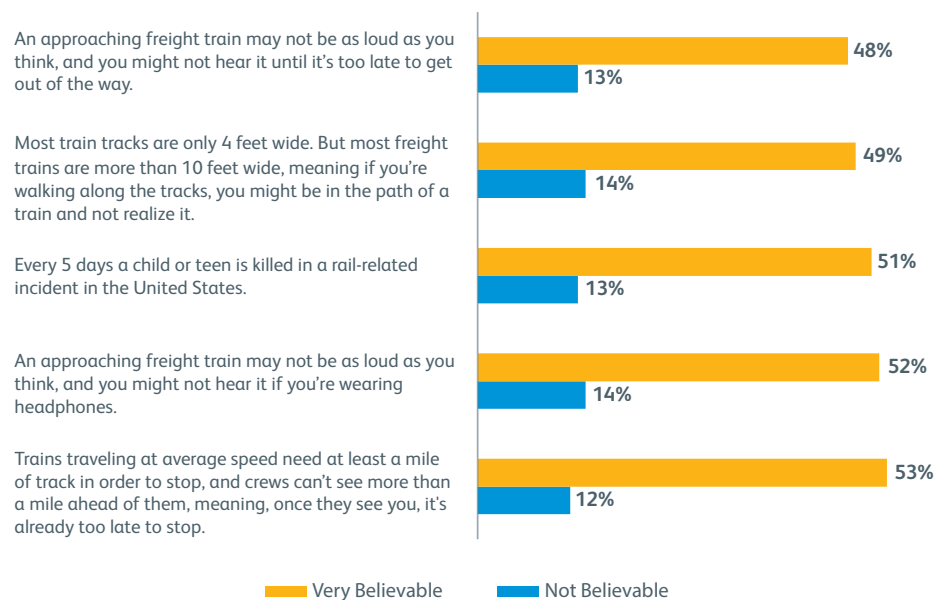
Figure 9. “Every 5 days a child or teen is killed in a rail-related incident in the U.S.” is the least-believable statement



Q: Please indicate how believable you think each of the descriptions below about trains and train tracks is.

Once we had established how believable parents thought the statements were, we asked them to assume the statements were true and indicate how that would impact how they personally think about safety near trains and train tracks. Only half of parents indicate the statements would have a major impact on their thinking, with more than 1 in 10 indicating the facts would have little or no impact (Figure 10).

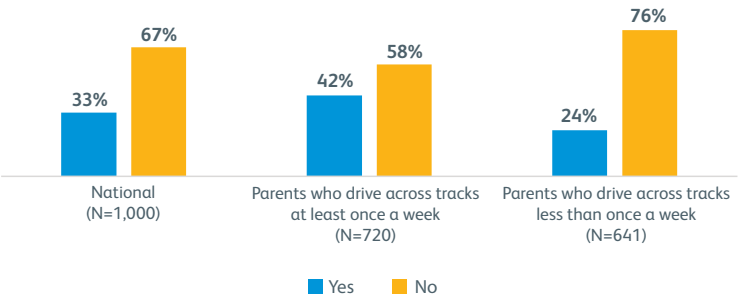
Figure 10. Only half of parents indicate the statements, if true, would have a major impact on how they think about railroad safety



Q: Assuming that each of the descriptions you read is true, how much of an impact, if any, does each have on how you personally think about safety near trains and train tracks?

The apparent lack of awareness and low perception of risk helps explain the low prioritization of railroad safety previously noted. This is further reinforced by the fact that only 1 in 3 has seen, heard, or read anything in the last six months about someone getting hit by a train while either walking or driving (Figure 11). Those who cross train tracks at least once per week are more likely to report having seen, heard, or read something than those who cross train tracks less often (42 percent vs. 24 percent, respectively), as are parents who live within 10 miles of a railroad crossing compared to those who live further away (39 percent vs. 29 percent, respectively) — still, this is a small proportion of parents who have some familiarity with the issue.

Figure 11. Parents who drive across tracks at least once per week are more likely to be aware of someone getting hit by a train in the past 6 months



Q: Have you seen, heard or read anything in the past 6 months about someone being hit by a train, while either walking or driving?

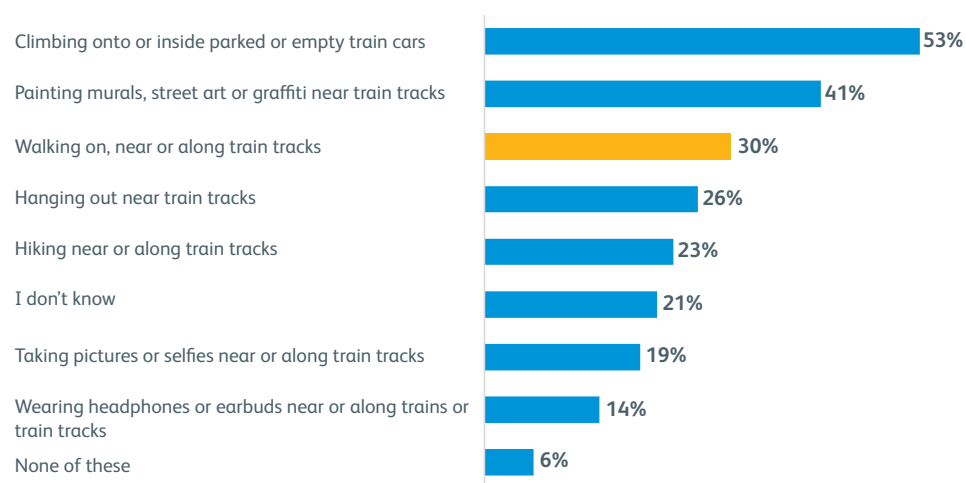


7 in 10 parents do not recognize “walking on, near, or along train tracks”— the most common form of trespassing — as trespassing.

Trespassing Behaviors May Be Seen as “Normal”

In addition to low awareness about railroad safety, parents may also have a perception that some unsafe rail behaviors are actually “normal.” Given previously conducted focus groups with parents supported this idea,⁹ we wanted to understand how readily parents could identify trespassing behaviors. Parents were shown a list of behaviors and asked to identify which they thought were trespassing. We found that obvious transgressions, like climbing on empty train cars and painting murals or graffiti near railroad tracks, are frequently identified as trespassing (53 percent and 41 percent, respectively); however, 7 in 10 parents do not recognize “walking on, near, or along train tracks” — the most common form of trespassing — as trespassing (Figure 12). This suggests that walking along tracks to get from place to place, perhaps to and from school or to a friend’s house, is not seen as trespassing and therefore may be seen as normal and perhaps even safe.

Figure 12. Fewer than 1 in 3 parents correctly identified the most common form of trespassing

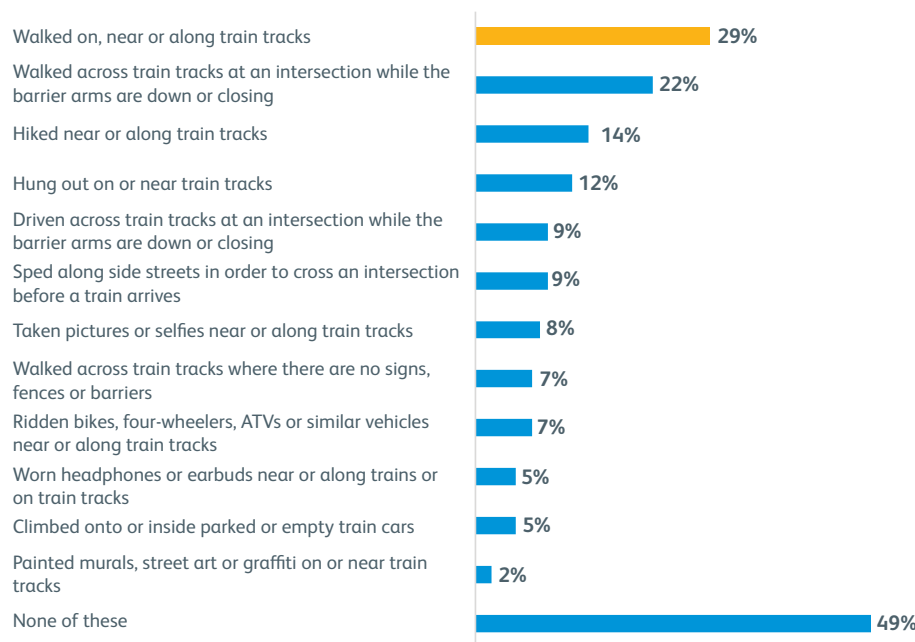


Q: Which, if any, of the following are considered trespassing?

This low recognition of what constitutes trespassing may help to explain our findings that many parents themselves engage in unsafe railroad behaviors. When given a list of unsafe railroad behaviors, half of parents indicate they have done at least one (Figure 13), with nearly 1 in 4 (23 percent) indicating they have done the behavior in the last six months.

The most common unsafe behavior parents indicate they have done is “walked on, near or along train tracks” (29 percent), which most parents had not recognized as a trespassing behavior when asked. Further, nearly 1 in 4 have walked across train tracks where there were no signs, fences or barriers in place. Nearly 7 out of 10 parents who indicate they’ve engaged in the unsafe behaviors live within five miles of train tracks, suggesting that familiarity and proximity may increase their likelihood of engaging in unsafe behaviors.

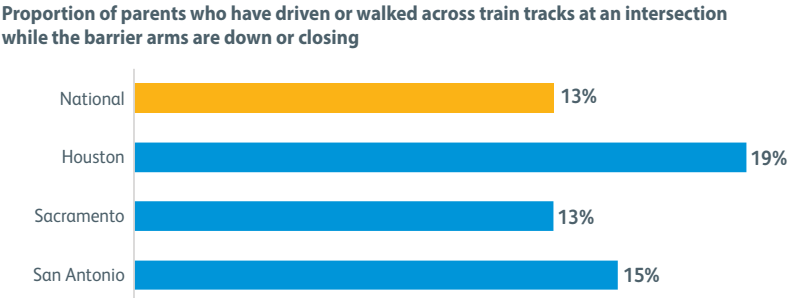
Figure 13. Half of parents indicate they have engaged in unsafe railroad behaviors, the most frequent of which is walking on, near or along train tracks



Q: Have you ever done any of the following?

Nearly 1 in 10 parents surveyed indicate that they have sped along side streets to cross an intersection before a train arrived, and 16 percent indicate they have walked or driven across tracks while the barrier arm was either down or closing. We compared the responses to this item between the national sample and parents from the three cities with extensive rail systems and found that parents in Houston and San Antonio are more likely to indicate they have engaged in these behaviors, suggesting that increased exposure to railroads may lead to increased risk taking (Figure 14). What's more, parents may actually engage in these behaviors more often than they admit, as research has shown that people tend to underreport illegal or unsafe behavior in self-reported surveys.^{10,11}

Figure 14. Parents from cities with extensive rail systems are equally likely to indicate they have crossed over tracks as the gates were down or closing



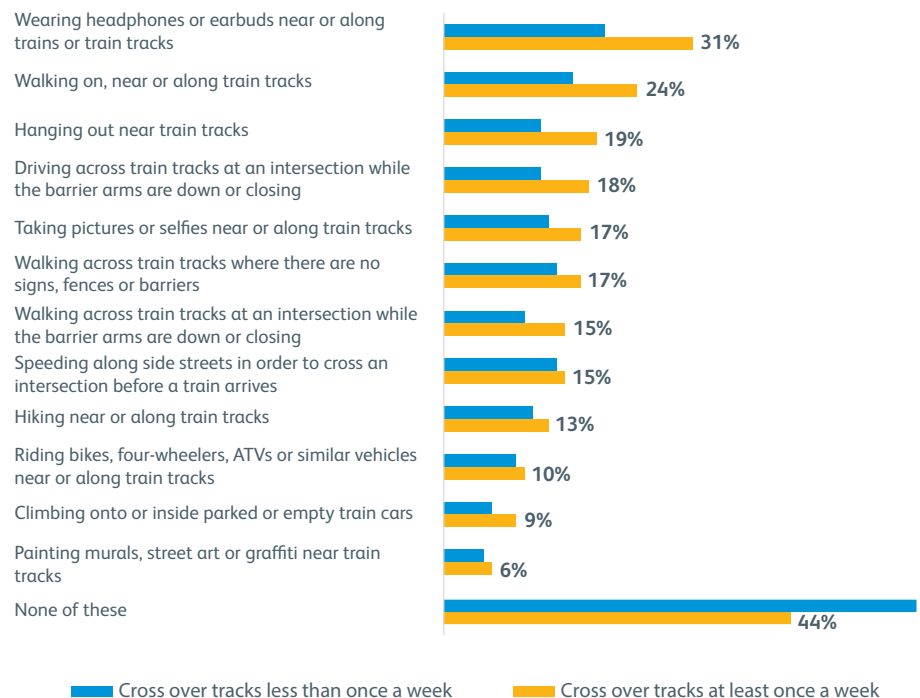
Q: Have you ever driven or walked across train tracks at an intersection while the barrier arms are down or closing?

We asked parents in both the national sample as well as the three additional cities to describe why they cross over the tracks despite the barriers being engaged. Nearly half of parents suggest inconvenience, indicating they are in a rush/running late (33 percent) or have somewhere to be (12 percent), suggesting that some parents may prioritize timeliness over railroad safety in certain circumstances. About 4 in 10 (41 percent) indicate that they cross during these times because they generally feel it is safe to do so, indicating either a disconnect between actual and perceived risk or a level of confusion as to what is required by railroad crossing warning systems.

We were curious to explore whether concern among parents was impacted by how often they personally cross tracks as well as their own history of engaging in unsafe behaviors, so we combined the national and city samples to compare 1) those who cross the tracks at least once a week with those who cross less often and 2) those who report doing at least one of the unsafe behaviors with those who report never doing any of them.

While parents overall express low concern that their children or their children's friends may engage in unsafe behaviors, the concern is higher among parents who live close to tracks or cross them frequently. Parents who report they cross train tracks at least once per week are more likely to express concern about their own child engaging in unsafe rail behaviors, such as wearing headphones near tracks, walking on or near tracks and walking across train tracks at an intersection as the arms were closed or closing, as are parents who live within five miles of train tracks (Figure 15). Further, parents who cross tracks at least once per week and who live within five miles of tracks are also more likely to be concerned with their child's friends engaging in some unsafe behaviors.

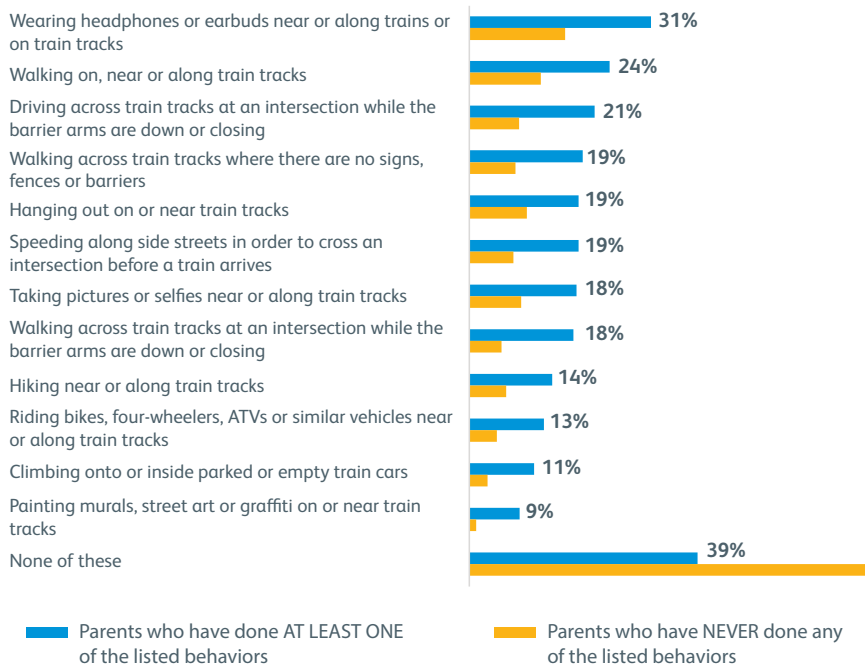
Figure 15. Parents who crossed tracks at least once per week are more likely to be concerned about their child engaging in unsafe behaviors around trains



Q: Which, if any, of the following are you concerned about your child doing?

One interesting finding in the national sample was that parents who indicate that they themselves have engaged in unsafe activity around railroads (“doers”) are more likely to be concerned about their child being unsafe around railroads than are parents who indicate they have not engaged in any of the unsafe behaviors (“non-doers”) (Figure 16). For instance, nearly 1 in 4 of doers indicate they are concerned about their child walking on, near or along train tracks, while just over 1 in 10 of non-doers are concerned. Similarly, twice as many doers are concerned about their kids wearing headphones around or near railroads relative to non-doers. In fact, doers are more likely to be concerned that their own children might also engage in all of the listed unsafe behaviors. This is perhaps not surprising given doers may have exhibited unsafe behavior in front of their kids, but speaks to the importance of the role parents play in modeling acceptable behavior.

Figure 16. Parents who indicate they have done at least one of the listed unsafe behaviors are more likely to be concerned about their child engaging in unsafe behaviors around trains



Q: Which, if any, of the following are you concerned about your child doing?



Children's Exposure to Railroad Safety

We wanted to gauge just how often parents talk to their children about railroad safety as well as their awareness of existing educational opportunities for their child to learn more about railroad safety at or outside of school. When asked, less than half (47 percent) of parents report ever having a conversation with their children about railroad safety. Of those who have, 28 percent have done so in the past six months. The likelihood that parents have ever had a conversation with their children about railroad safety is higher among parents of teens who drive or are learning to drive (67 percent), and parents who live within 1 mile of tracks (59 percent) or drive across tracks at least once per week (57 percent). However, it is clear that many parents have not raised the topic with their kids.

Nearly half (49 percent) of parents are unsure about whether their children are receiving railroad safety education at school and only about 1 in 4 (24 percent) can confirm that they are. Likewise, about the same proportion (46 percent) are unsure if there are programs for children outside of school that teach about railroad safety where they live and only 13 percent indicate they are aware of such programs. No pattern is found when looking at these questions by how close respondents live to tracks or how often they drive over them. This suggests that while living close to or frequently traveling over tracks may increase the likelihood that parents talk to their kids about railroad safety, it has little impact on their awareness of whether their children are receiving railroad safety education at school or elsewhere.



Moving Forward to Raise Awareness About Railroad Safety and to Keep Children Safe Around Railroads

The facts around railroad safety indicate that fatal and nonfatal injury incidents occur frequently enough to warrant increased awareness and attention to the issue, particularly for families that live near or regularly cross train tracks. While ensuring the safety of children around railroads is a shared responsibility between road users, railroads and transportation and safety agencies, our survey results suggest that it is a low priority issue for parents, schools and communities – possibly because the level of awareness around the risks or perceived susceptibility are also low. Addressing this deficit is an important first step in reducing the number of children injured in rail-related incidents, so education of both parents and children is key.

With support from Union Pacific, Safe Kids Worldwide is working to inform and empower parents to take steps to keep their children safe near train tracks. As part of this effort, we encourage parents and caregivers to include railroad safety when they start talking to their children about pedestrian and passenger safety and to remember that kids model their parents' behavior, so parent behavior is also part of the solution.

The key tips to railroad safety include:

- Only cross train tracks at a designated crossing. Designated crossings are marked by a sign, lights or a gate.
- If lights are flashing or the gate is down at a railroad crossing, wait for the train to pass completely, the gates to lift and the lights to stop flashing before crossing. It is never okay to rush across and try to beat the train. Trains may be closer and faster than you think.
- Allow enough space for your vehicle to completely clear the entire railroad crossing, not just the tracks, before you attempt to cross. Remember, trains are at least three feet wider than the tracks on either side, so even though you clear the tracks, you may still get hit by the train.
- If you are using a cell phone, headphones or playing a game on your mobile phone, remember: Heads Up, Devices Down when you cross the tracks. Once a train starts to brake, it can take a mile for the train to stop. So, when you see a train, it's already too late for it to stop for you. Headphones should be removed, so you can hear an approaching train.
- Don't be tempted to walk along the train tracks. It might be a shortcut, but it is dangerous and not worth the risk. It is also against the law to walk on the track and the land around it because it is private property.

Public Policy Around Railroad Safety

Support the “Stop. Trains Can’t.” Campaign: Safe Kids strongly believes that increasing awareness about risks children face at railroad crossings can promote safety and save lives. Such efforts should include awareness for parents/caregivers as well as school-based educational programs aimed at children. Congress has directed the National Highway Traffic Safety Administration (NHTSA) and Federal Railroad Administration (FRA) to take action on this. The gap Congress wants addressed can be illustrated by two facts: 1) more than half of all public crossings are now equipped with active warning devices, however 2) 68 percent of collisions occur in public crossings equipped with those devices.¹² Clearly, the existing engineering at railroad crossings alone is not enough to reduce collisions at these locations. In addition to such warning systems, efforts to increase awareness and education around behavioral risks are needed.

We appreciate how the two agencies have responded in such a vigorous way. For two years, they have worked together on the “Stop. Trains Can’t.” high visibility awareness campaign. The campaign is supported by federal funding and appears on multiple communications platforms. We support the continuation of this important initiative.

Railroad Crossings: There is a consensus in the U.S. that action is needed to improve the troubled state of our public transportation infrastructure. Railroad crossing improvements, including grade separation of public roadways, must be part of national infrastructure improvement efforts.¹³

Support National Policy on Trespassing: As discussed in this report, another significant cause of rail-related tragedies is when people suffer fatal and non-fatal injuries when traveling by foot, bike, ATV, etc. on or adjacent to train tracks. The FRA has developed a national prevention strategy on railroad trespassing and an aspect of it is to foster community awareness and engagement.¹⁴ The other elements of the program are data gathering and analysis and partnerships with stakeholders, with funding for support. Given trespass behaviors do not appear to be understood by the public as illegal or as dangerous as they actually are, Safe Kids Worldwide believes the strategy and the research underpinning it are key to addressing this issue. With our grassroots network, we look forward to being part of community-level partnerships to support local efforts as the strategy rolls out.

Methodology

Data Trends. The data on fatal and nonfatal rail-related injuries among children ages 0 to 19 used for this report come from the Federal Railroad Administration's Safety Railroad Casualties (6180.55A) database for the years 2009 to 2018, with the exception of the rail-related injury data on gender and race/ethnicity which are from publicly available data housed in the CDC WONDER database utilizing the ICD-10-CM codes V05, V15, V25, V34, V45, V55, V65, V75, V80.6, V87.6 and V88.6 for the years 2008 to 2017 (data for 2018 were not available at the time of data analysis). Population estimates used to calculate injury rates come from the U.S. Census Bureau's Current Population Survey (CPS) database. The free-text narrative field contained in the FRA data was also analyzed for the years 2017 and 2018 to gain further insight into the circumstances involved and specific activity at the time of the incident. Forty-nine percent (N=248) of the cases had a completed narrative.

Parent Surveys. Safe Kids Worldwide commissioned a national online survey of 2,301 parents of children younger than 18 years old. Participants included a nationally representative sample of 1,000 parents as well as oversampling in the following three cities with extensive rail systems: San Antonio (N=300), Sacramento (N=401) and Houston (N=600). The national data are reported in most graphs, except for Figure 14. Surveys were fielded between February and March 2019. Survey participants were asked questions regarding their overall awareness, knowledge and attitudes as they relate to railroad safety.

National Sample Distribution (N=1,000)

Parent gender	Male	38%	Marital status	Married/In Relationship	82%
	Female	62%		Unmarried	18%
Parent age	Under 35 years	16%	Income	Less than \$50,000	30%
	35-44 years	36%		\$50,000 to \$99,999	36%
	45-54 years	29%		\$100,000+	33%
	55+ years	19%			
Child age	12 years and under	66%	Education	High school graduate or less	22%
	13-17 years	52%		2-year or technical degree	18%
				Some college	13%
				College graduate or higher	48%
Race/ethnicity	White	84%			
	Black/African American	7%			
	Asian American	6%			
	Other	2%			

Percentages may not equal 100 due to rounding.

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