

Number of train derailments caused by human error, track, equipment, or other causes

## Our strategy

The Oregon Department of Transportation (ODOT) uses a combination of inspections, enforcement actions, and industry education to improve railroad safety with the goal of reducing the number of derailments and the potential for injuries and release of hazardous materials.

## About the target

The Federal Railroad Administration (FRA) defines a derailment as a type of train accident where on-track equipment leaves the rail for a reason other than a

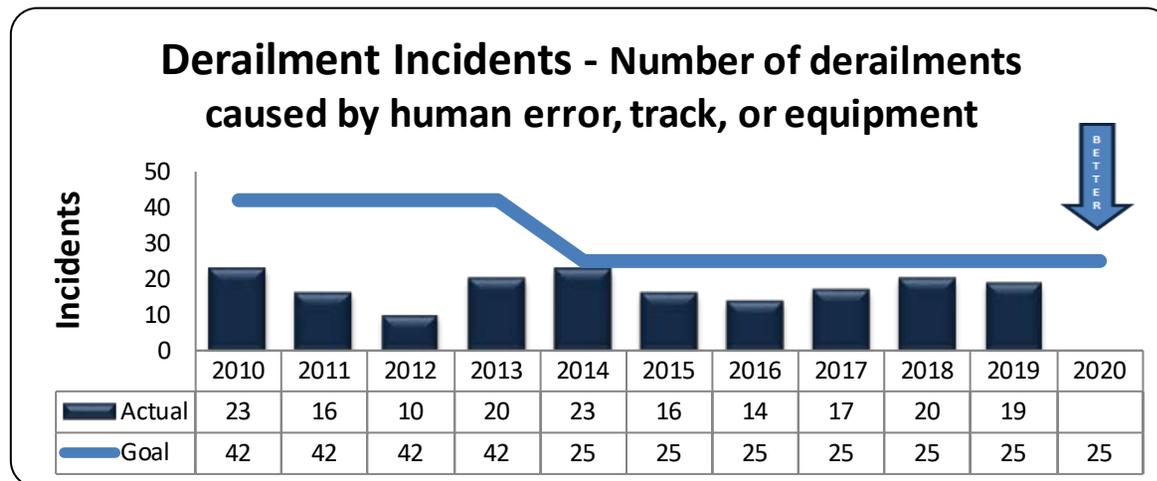
collision, explosion, or highway-rail grade crossing impact. Railroads are required to report all derailments with total reportable damages exceeding \$10,700 to the FRA. Derailments are most often caused by track conditions, human error, or mechanical defects.

In 2014, we lowered the derailment target from 42 to 25 because we felt it was too high and too easily achieved. Additionally, the number of derailments decreased from 80 in 2004 to 20 in 2013.

## How we are doing and how we compare

In 2019, there were 19 derailments reported in Oregon, a decrease of one from 20 derailments in 2018. Between 2010 and 2019, the number of derailments per year varied from a low of 10 in 2012 to a high of 23 in 2010 and 2014 with an average of 17.8 per year over that ten-year period

According to FRA's 2019 data for Oregon and its neighboring states, derailments decreased in Oregon, increased in Washington and Nevada, and remained



## Fact

The number of derailments decreased from 20 in 2018 to 19 in 2019. Over a ten-year period, the number of derailments per year averages 17.8

# Derailment Incidents, cont.

the same in California. The rail systems differ among the states with California and Washington having larger systems; while Idaho and Nevada have smaller systems making the number of derailments per state of limited value.. However, a comparison of derailments per track mile (miles of track in each state) for the 12 months ending December 31, 2019, shows Oregon with 0.0079 derailments per track mile, in the middle between Washington with 0.0110 and California with 0.0151; and Nevada with 0.0067 and Idaho with 0.0037.

## Factors affecting results and what we need to do

Many factors affect the number of train derailments. Some of these factors are outside of our control, such as the number of track miles, railroad capital improvement decisions, volume of rail traffic (i.e., number of carloads) and, to some extent, human error. The primary factor that we can affect is railroad compliance with rail safety

regulations, including track safety standards, condition of equipment, and operating practices.

We can influence this factor through inspection and enforcement of applicable regulations, therefore the number of inspection days and units inspected are important indicators of our impact. Just as important, but more



difficult to measure, is the quality of the inspections performed. The number of inspection days, units inspected, and inspection quality is proportionate to the number of certified inspectors, therefore the recruitment and retention of

qualified compliance inspectors is vital to our efforts.

Another key strategy we are employing is verifying reported causes for accidents that meet federal filing requirements reported by railroads in order to focus our inspection efforts in those areas.

## About the data

The reporting cycle is calendar year. The data is based upon reports submitted by the railroads to the FRA. Under federal regulations, railroads are required to report all derailments meeting federally mandated thresholds to the FRA.

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## Data source

ODOT Public Transportation Division