

EXECUTIVE SUMMARY

Introduction

The department for 'Traffic Safety' investigates the nature and causes of traffic accidents.

This is an exploratory visualization of the data provided by the Netherland's Department for Traffic Safety investigating the nature and causes of traffic accidents. Their general objective was to evaluate the claims filed by the insured and to investigate how to prevent traffic accidents. This report however aims to visualize the contribution of different types of offenders to the data and also investigate the possible impact of other variables in the traffic accidents recorded.

Overview of Data

The Dataset consists of 44 variables in character and numeric types on all the provinces of Netherlands. The Dataset consists of variables such as Casualties (lethal, miscellaneous injuries, hospital ending, etc), Type of Accident(Head/tail, frontal, etc), Road Situation(straight, two way crossing, bent, etc), Weather Conditions(Dry, strong wind, mist, etc), etc.

Offenders

The offenders in the dataset are classified as Pedestrians, Vans, Motor cycles, Bikes, Intoxicated, etc.

Objective

The objective of this report is to visualize the data of offenders by province using graphs and Geomaps.

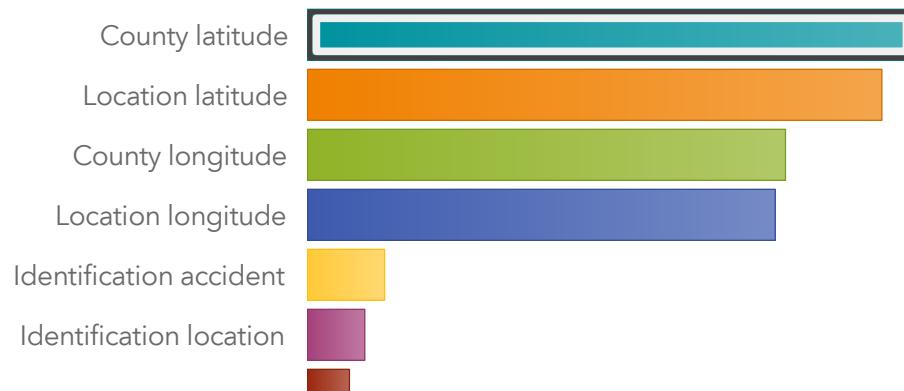
DESCRIPTION OF PROVINCE

What are the characteristics of PROVINCE?

PROVINCE has a 2.28% chance (2.8K of 125K) of being Drenthe. It's the tenth most common PROVINCE value.

Drenthe

What factors are most related to PROVINCE?



What are the groups based on County latitude by the chance of PROVINCE being Drenthe?

98.65%

If County latitude is between 53 and 53, Identification accident is less than 20B, then PROVINCE has a 98.65% chance (1.4K out of 1.4K cases) of being Drenthe.

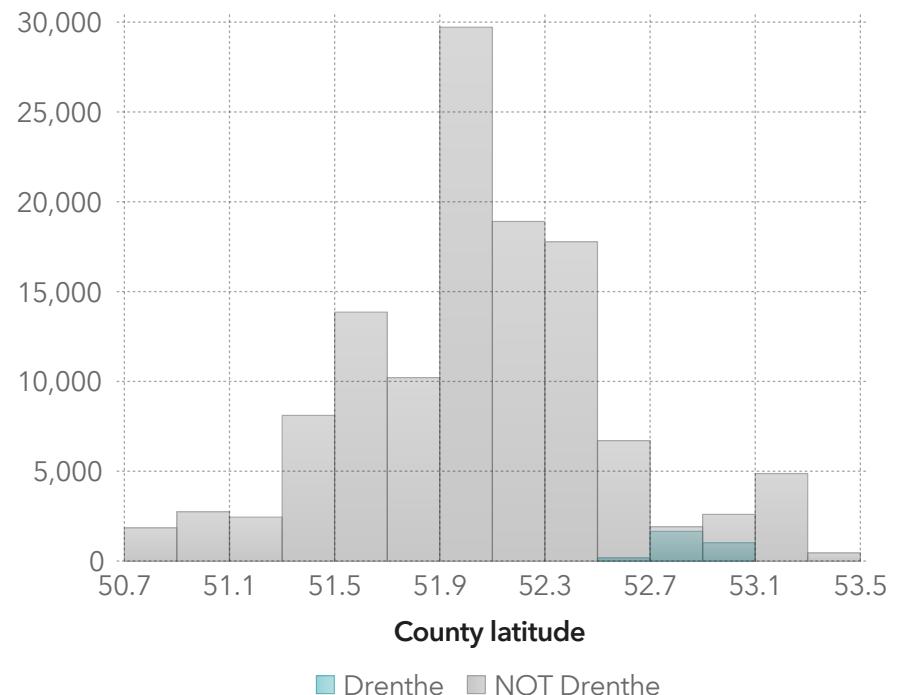
81.48%

If County latitude is between 53 and 53, then PROVINCE has a 81.48% chance (330 out of 405 cases) of being Drenthe.

80.27%

If County longitude is greater than or equal to 6, County latitude is between 53 and 53, then PROVINCE is Drenthe.

What is the relationship between PROVINCE and County latitude?

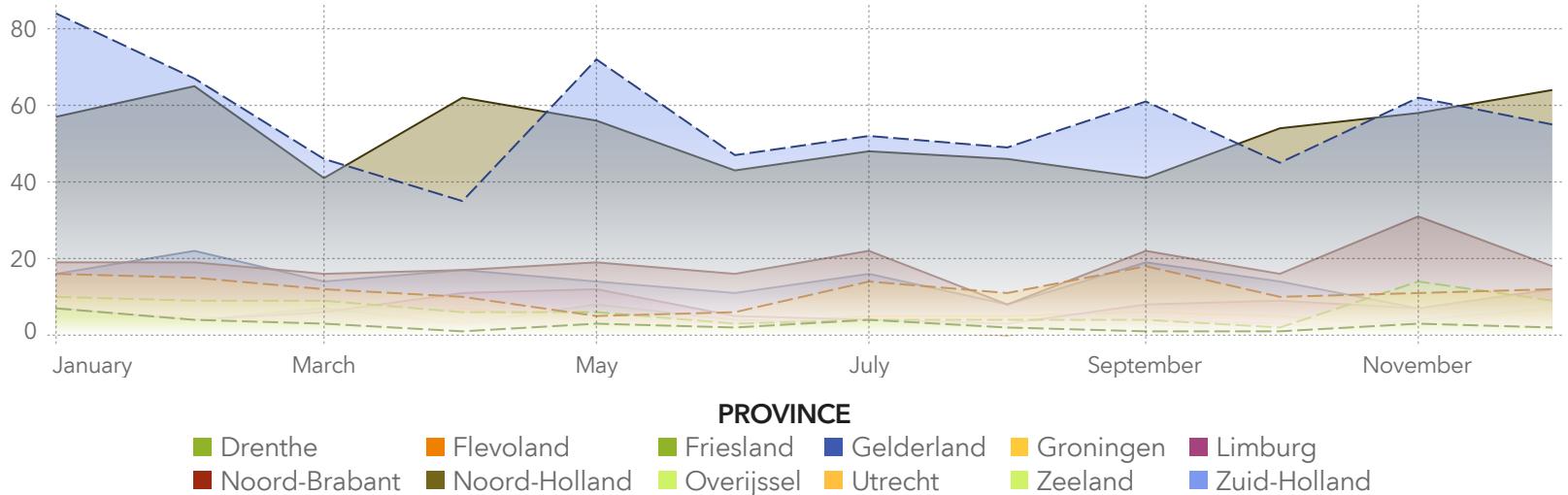


The average County latitude when PROVINCE is Drenthe is 53, with a minimum of 53 and a maximum of 53. The average County latitude when PROVINCE is NOT Drenthe is 52, with a minimum of 51 and a maximum of 53. Average County latitude is 52, and it ranges from 51 to 53.

EXAMPLE



Number pedestrians by DATE ACCIDENT NEW grouped by PROVINCE



PROVINCE	Type accident	NUMBER ACCIDENT	Number bikes	Number hit-and-run	Number intoxicated (liquor/drugs)
Zuid-Holland	Side	6,447	2684	172	115
Zuid-Holland	One-sided	1,519	561	39	38
Noord-Holland	Side	5,327	2460	81	83
Noord-Holland	One-sided	1,308	604	16	62
Zuid-Holland	Head/Tail	4,156	317	94	89

◀ Drenthe (303) | Flevoland (341) | Friesland (452) | Gelderland (2291) | Groningen (949) | Limburg (1081) | Noord-Brabant (1,081) ▶

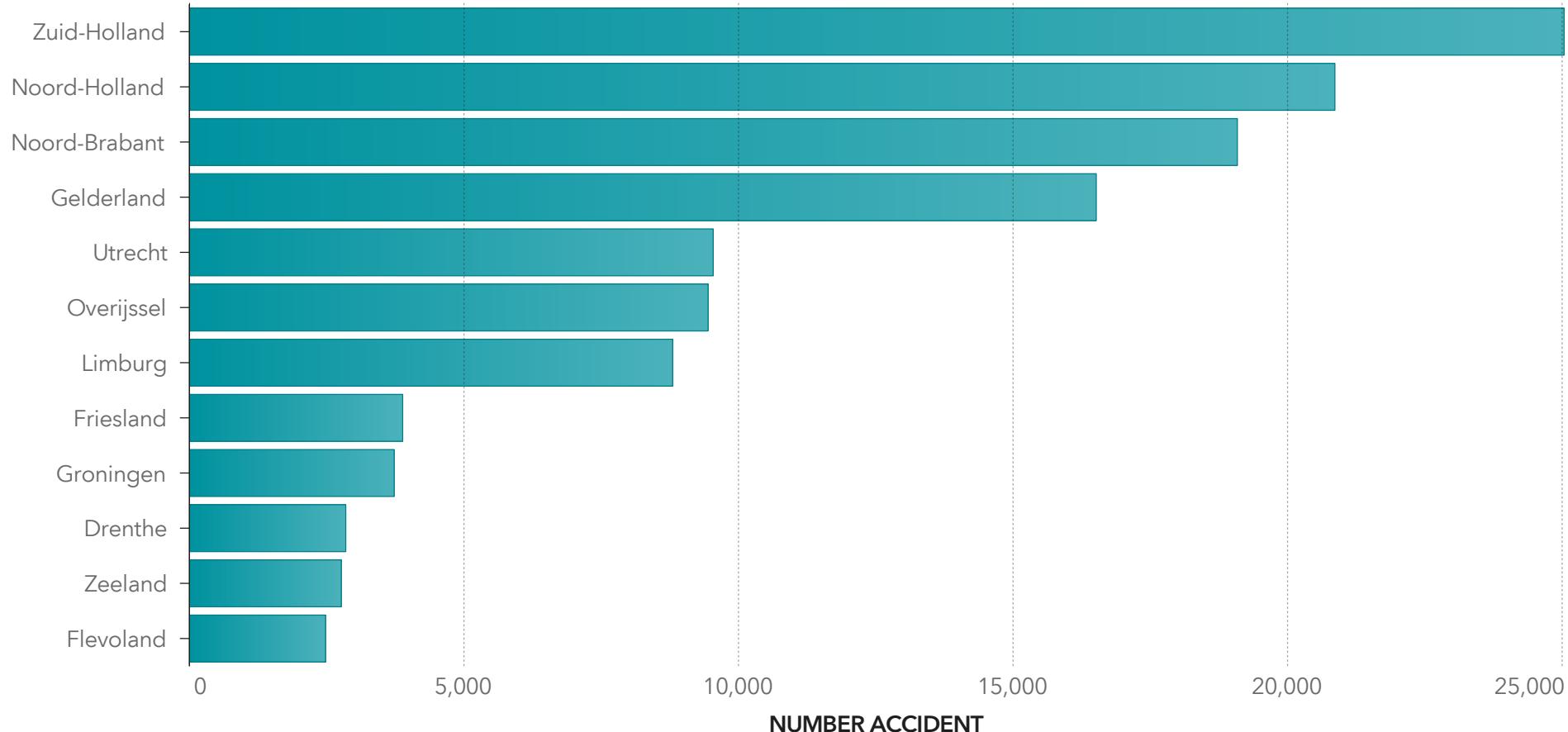
NO OF ACCIDENTS BY PROVINCE

The Bar Graph below is used to show the volume of accidents by province. The province of Zuid- Holland recorded the highest volume of accidents while Flevoland Province had the lowest record of accidents.

Graphs in the subsequent pages aim to show particular offenders and the volume of accidents attributed to them in each province.

NUMBER ACCIDENT of PROVINCE

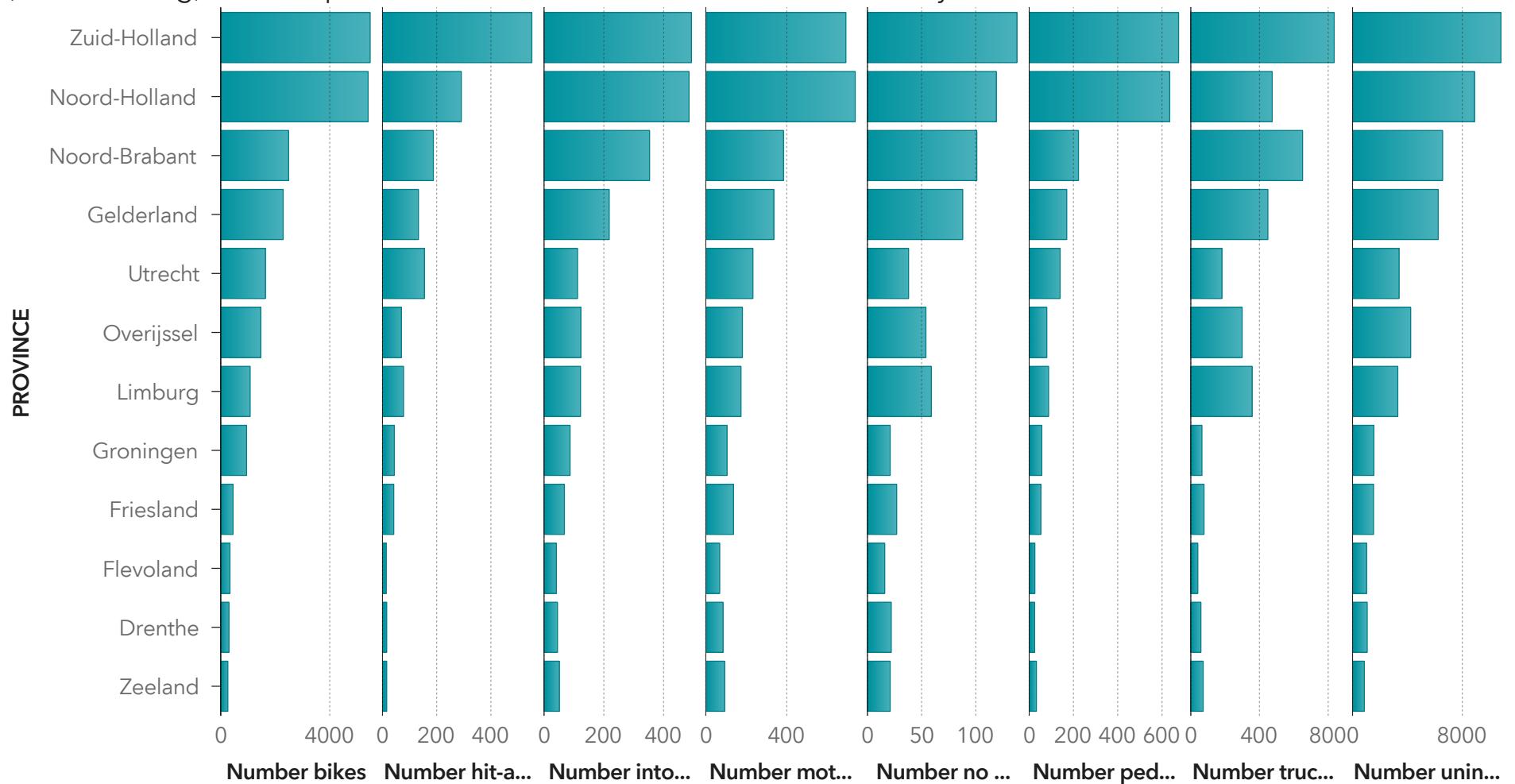
PROVINCE



OVERVIEW OF OFFENDERS BY PROVINCE

As the graph below shows, offenders were generally low in the Province of Flevoland, which recorded a total of 14 hit and run offenders. While Zuid Holland recorded a total of 551. It is advisable to explore how other variables influence the occurrence of accidents by offenders.

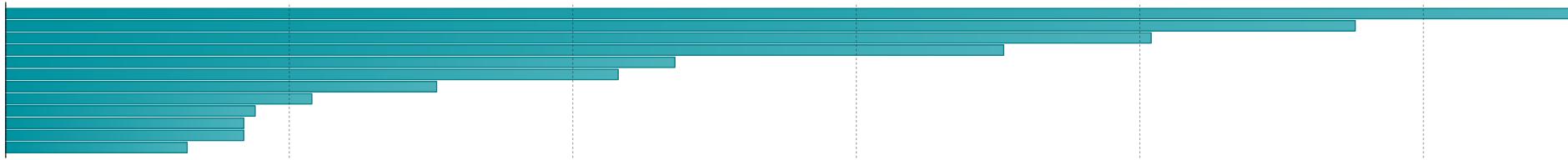
Number bikes, Number hit-and-run, Number intoxicated (liquor/drugs), Number motor cycles, Number no APK (vehicle testing), Number pedestrians, Number trucks, Number uninsured by PROVINCE



GRAPH OF OFFENDERS BY PROVINCE

The Graphs below provide a visual analyses of Offenders by province. Each graph shows the recorded accidents attributed to a type of offender by province.

Number no APK (vehicle testing) by PROVINCE



Number hit-and-run by PROVINCE



Number uninsured by PROVINCE



Number intoxicated (liquor/drugs) by PROVINCE



RELATIONSHIP BETWEEN OFFENDERS AND OTHER VARIABLES

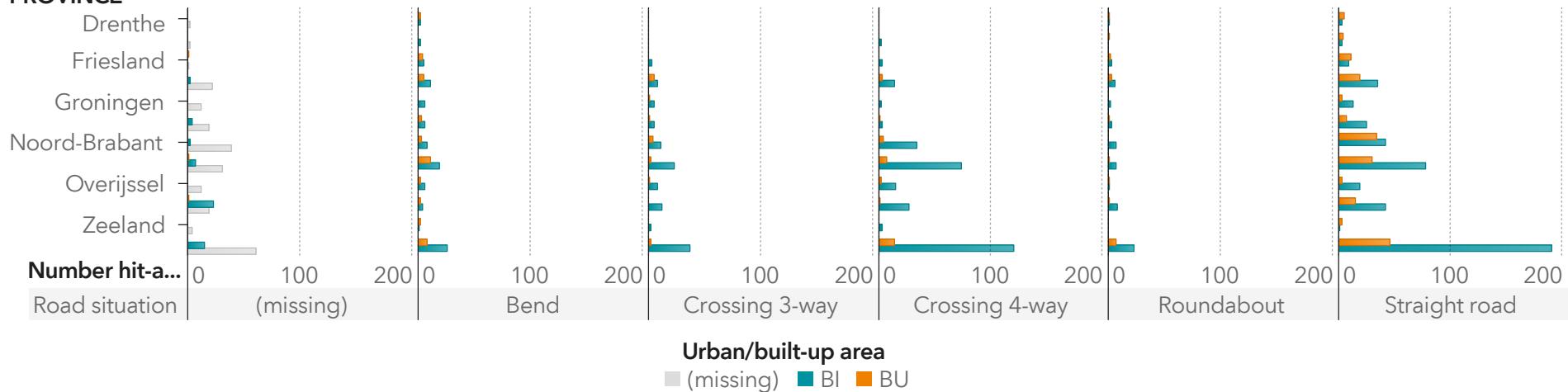
Incidences of accidents can be investigated further by grouping offenders with other variables such as road situation and weather conditions

Number hit-and-run by PROVINCE grouped by Urban/built-up area

From the graph above, we can see that the province of Zuid-Holland is more populated and built-up when compared to other provinces. This might be a reason for the higher percentage of accidents and hit and runs in the area. However, we further investigate the impact of other factors such as the road situation and weather conditions on the amount of accidents recorded. The graph below aims to show the relationship between Road Situation and Urban/built-up area on the number of hit and run.

Number hit-and-run by PROVINCE grouped by Urban/built-up area

PROVINCE

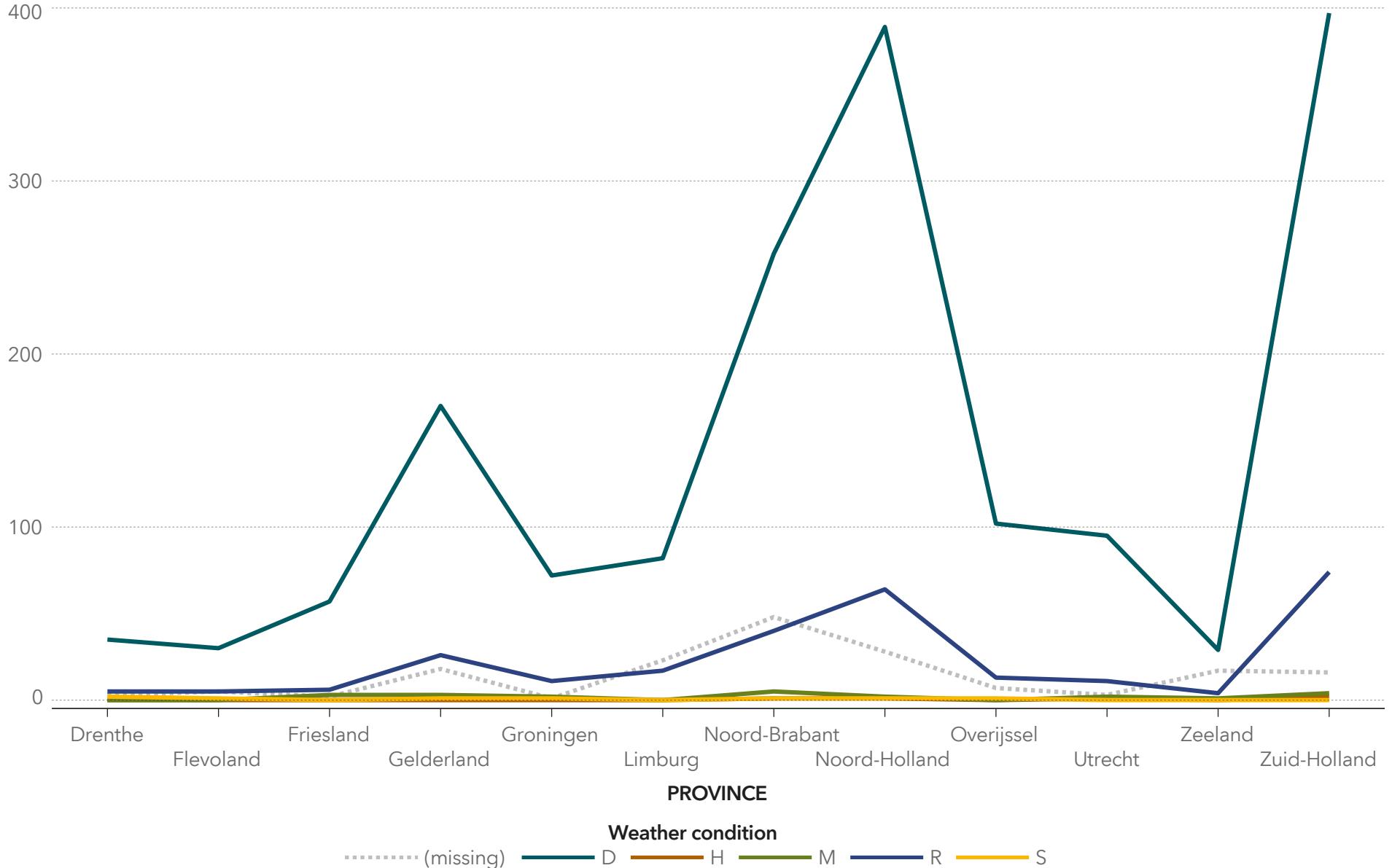


It might be assumed that the complexity of a road is a determinant in the number of accidents recorded on it, but, as the graph above shows, more of the hit and runs in Province Zuid-Holland were recorded on straight roads

CONTD.

Number intoxicated (liquor/drugs) by PROVINCE grouped by Weather condition

Number intoxicated (liquor/drugs)



GEOMAP OF OFFENDERS



Number motor cycles 🚲 NUMBER ACCIDENT

A1.1



Number pedestrians 🚶 NUMBER ACCIDENT



Number no APK (vehicle testing) 🚲 NUMBER ACCIDENT



Number hit-and-run 🚲 NUMBER ACCIDENT

Appendix

A1.1
