

HOW IS ROAD WIDTH RELATED TO HARM?







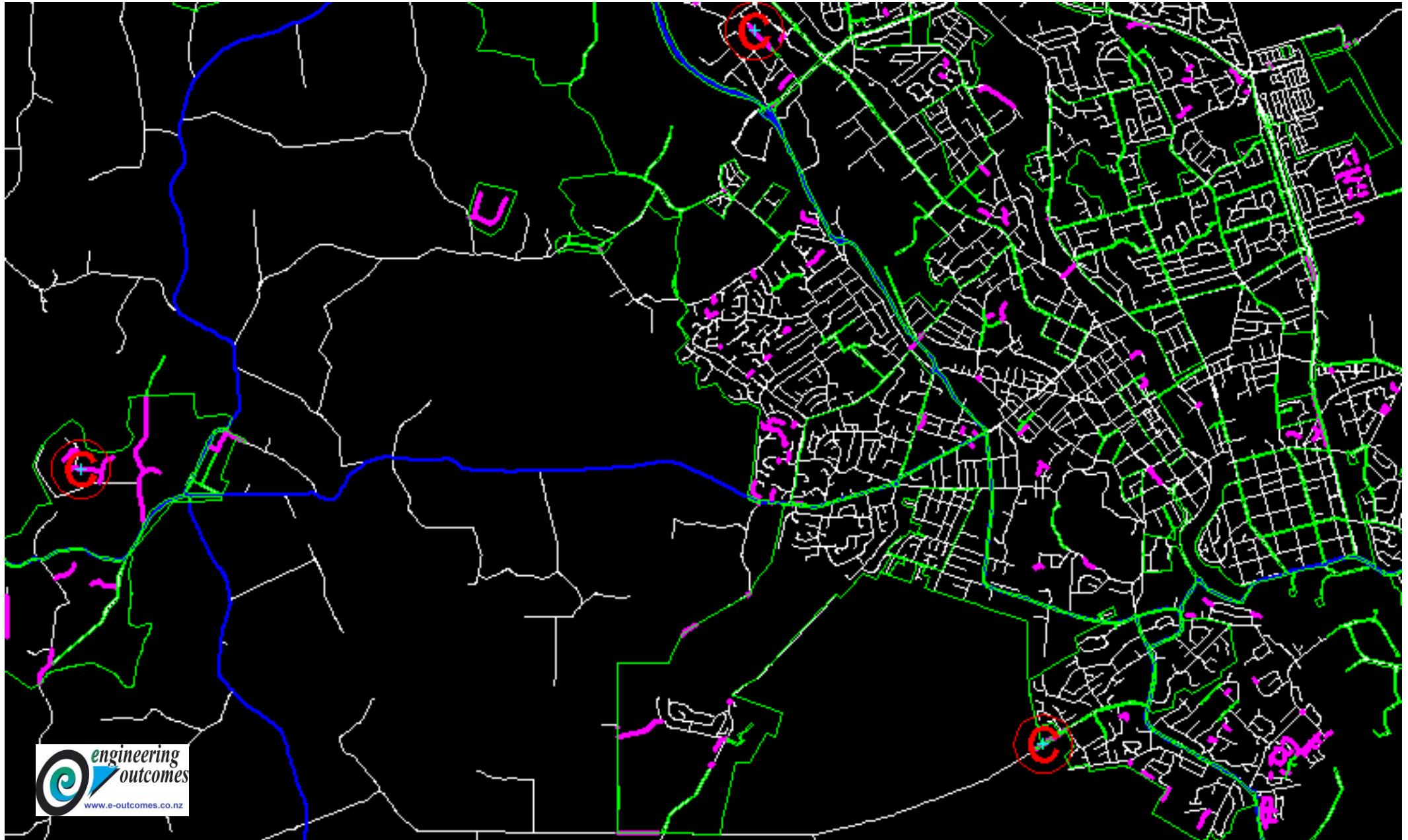
REINVENTING THE WHEEL?

CRASH ESTIMATION COMPENDIUM

New Zealand crash risk factors guideline



Other research?



ROAD METADATA

	Attribute	Type	Value
1	OBJECTID	Integer	91796
2	alphaModif	Text	2022/03/10 00:00:00.000
3	assetCarri	Integer	2355
4	assetCwayE	Text	1722911.28
5	assetCwa_1	Text	6044187.68
6	assetCwayS	Text	1722368.83
7	assetCwa_2	Text	6044404.49
8	assetRCAID	Text	Roading
9	assetRoadI	Integer	1124
10	carriagewa	Integer	3838
11	carriage_1	Integer	3261
12	changeDate	Text	
13	createdDat	Text	2016/08/04 00:00:00.000
14	endName	Text	AWAROA RIVER RD
15	fullRoadNa	Text	RIVERSIDE DR (S)
16	geomModifi	Text	2016/08/04 00:00:00.000
17	hvyVehicle	Real	610
18	hvyVehic_1	Real	3
19	ID	Integer	882348
20	ONRCClass	Text	Arterial
21	retiredDat	Text	2500/01/01 12:00:00.000
22	startName	Text	BROOK RD
23	surfaceTyp	Text	Thin Surfaced Flexible
24	trafficVol	Real	20344
25	vehicleKil	Real	11738
26	width	Real	9
27	TACode	Text	002
28	TAName	Text	Whangarei District
29	SHAPE_Leng	Real	584.20552558

HARM?

Road toll?

DSI?

Injury crashes?

“Social cost” of crashes (MBCM)? ✓

Standardised by VKT

WHAT WAS COUNTED?

Crashes of Types A, B, C, D, E, F, N, P and QE (CAS) from normal road speed.

Drivers distracted, fatigued, impaired by alcohol or drugs.

NOT:

Crashes shortly after a vehicle set off

Medical events,

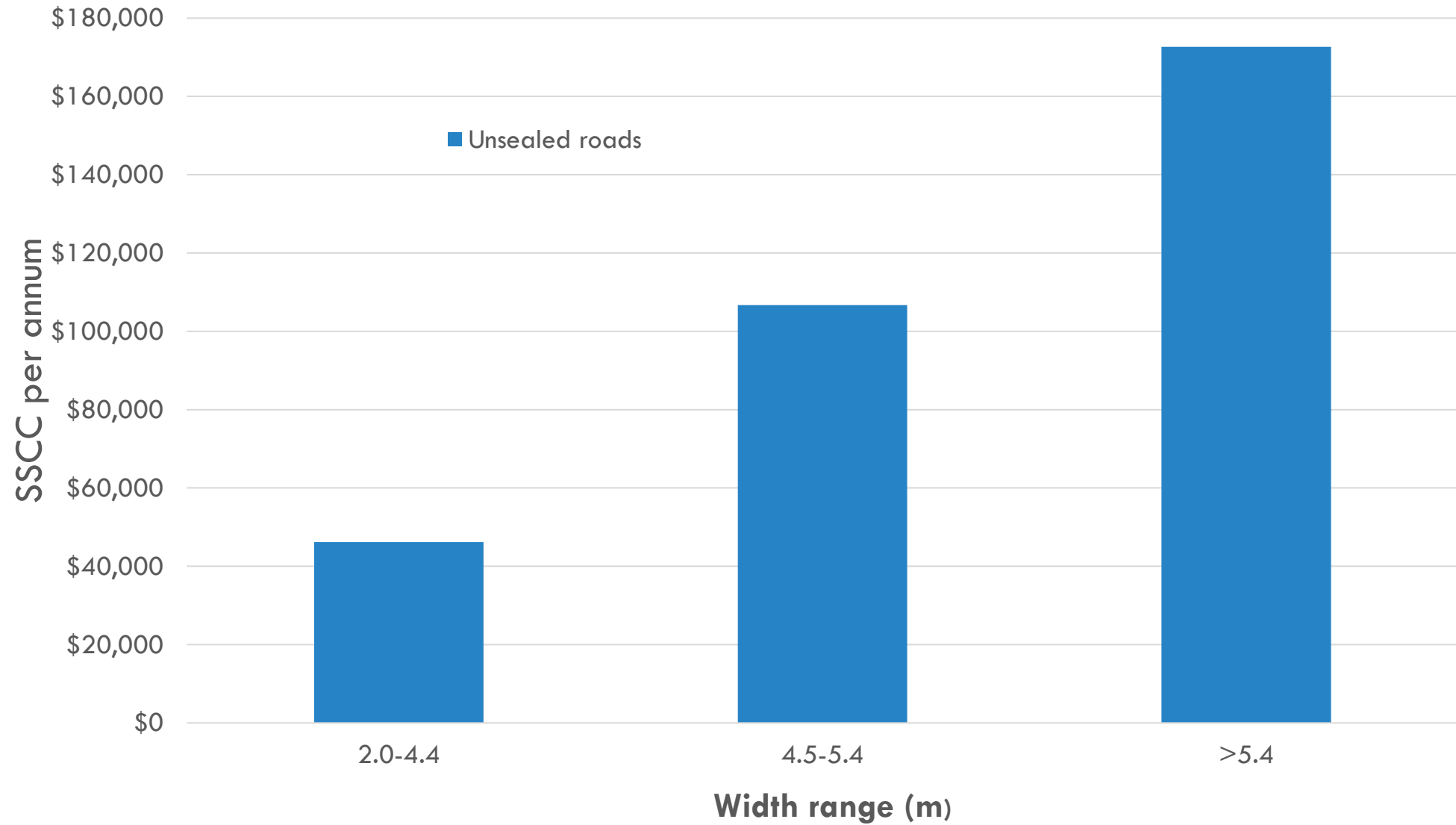
Assault with a vehicle,

Directly related to fleeing of Police and/or a pursuit.

Crashes on one-way roads

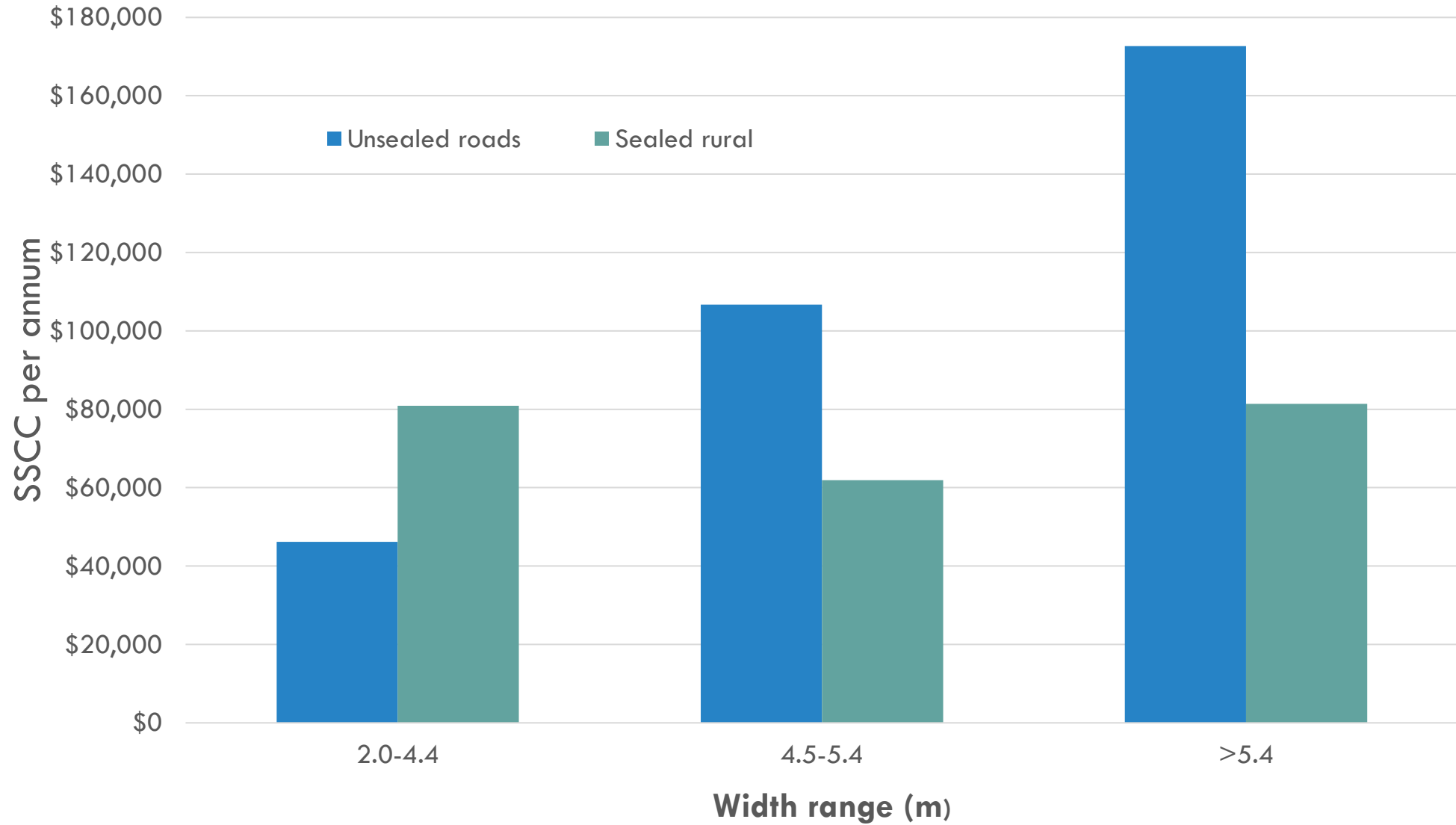
Standardised Social Cost of Crashes by Road Width

Three types of road in the North Island



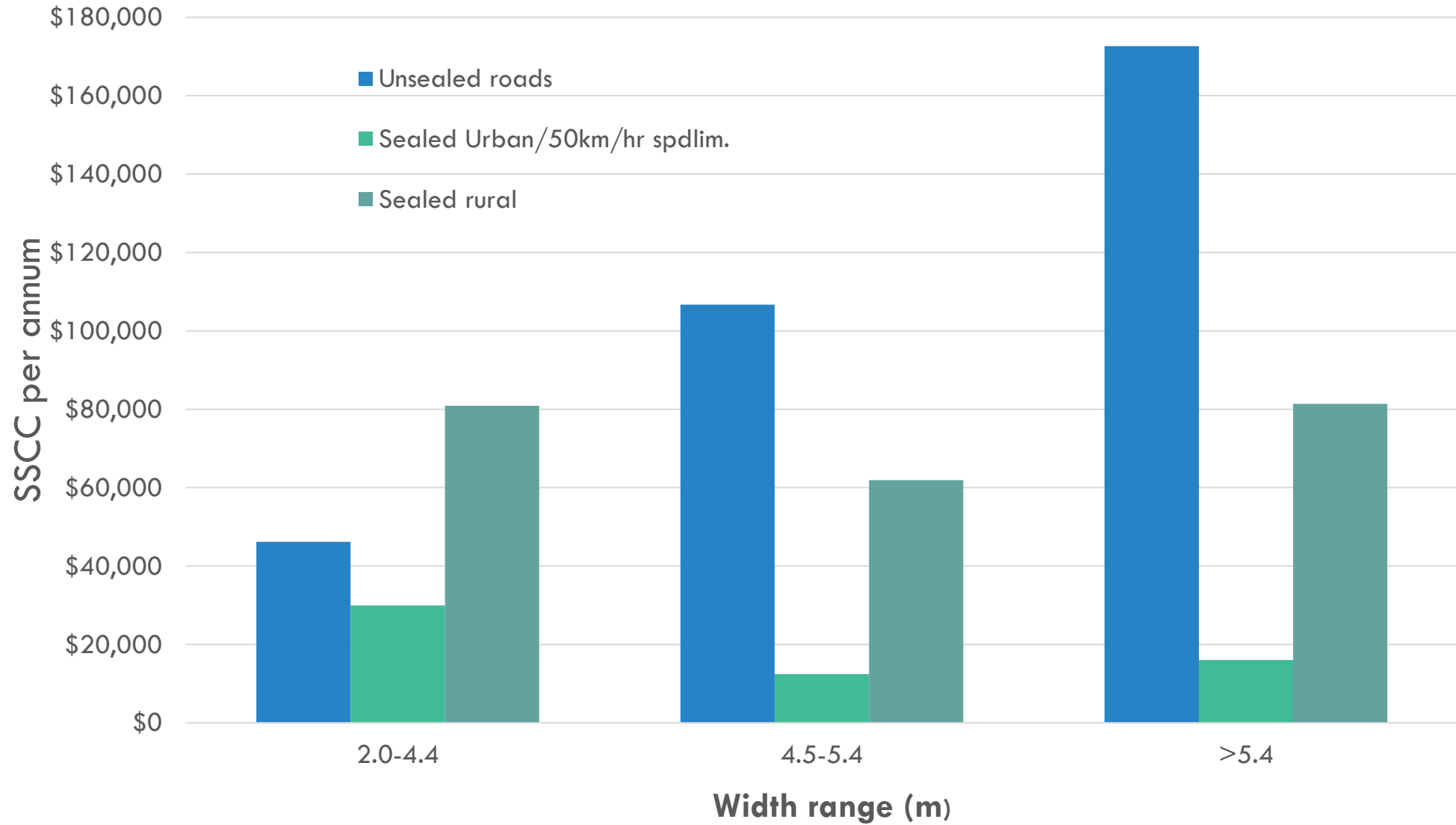
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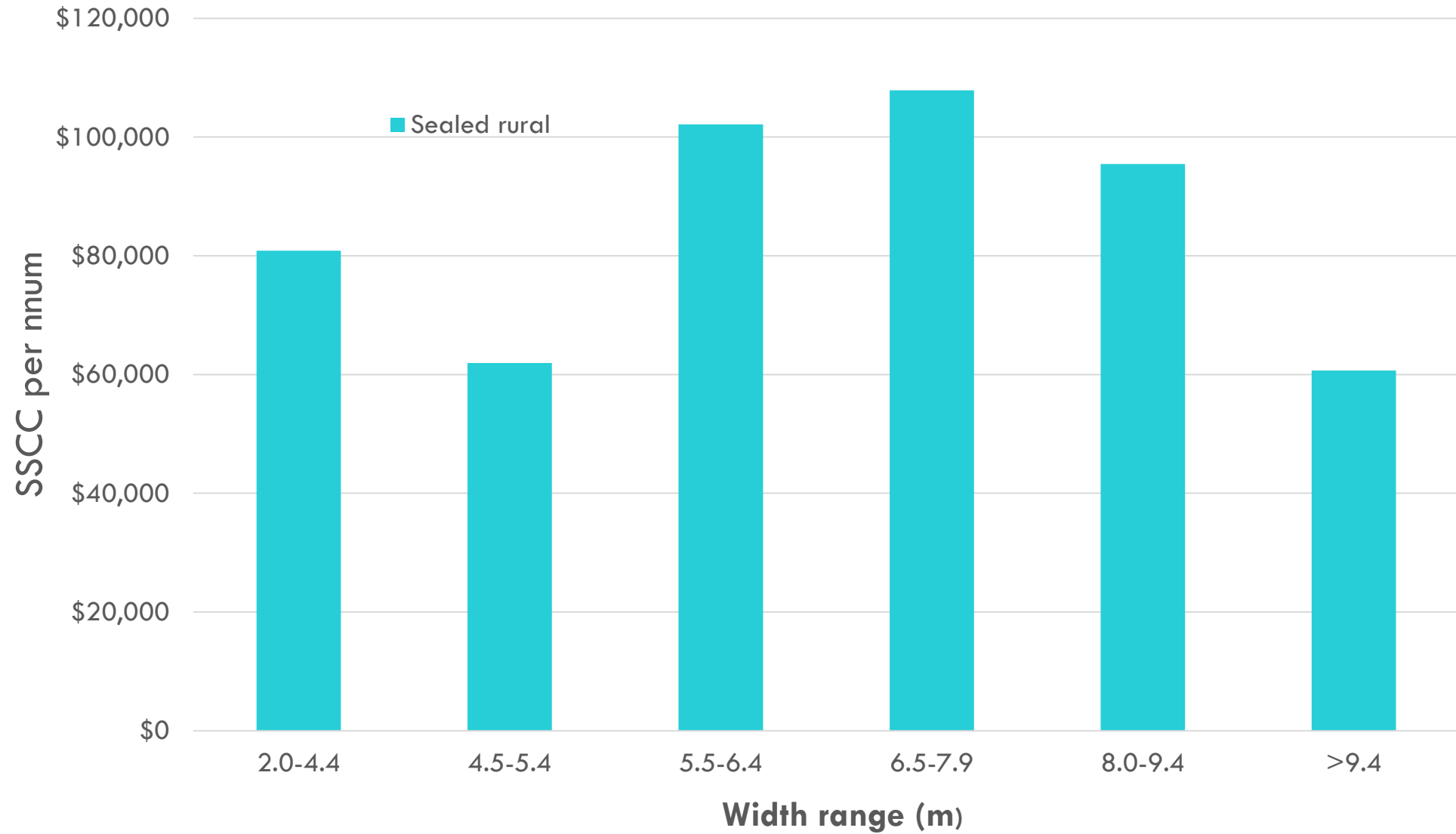
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Three types of road in the North Island



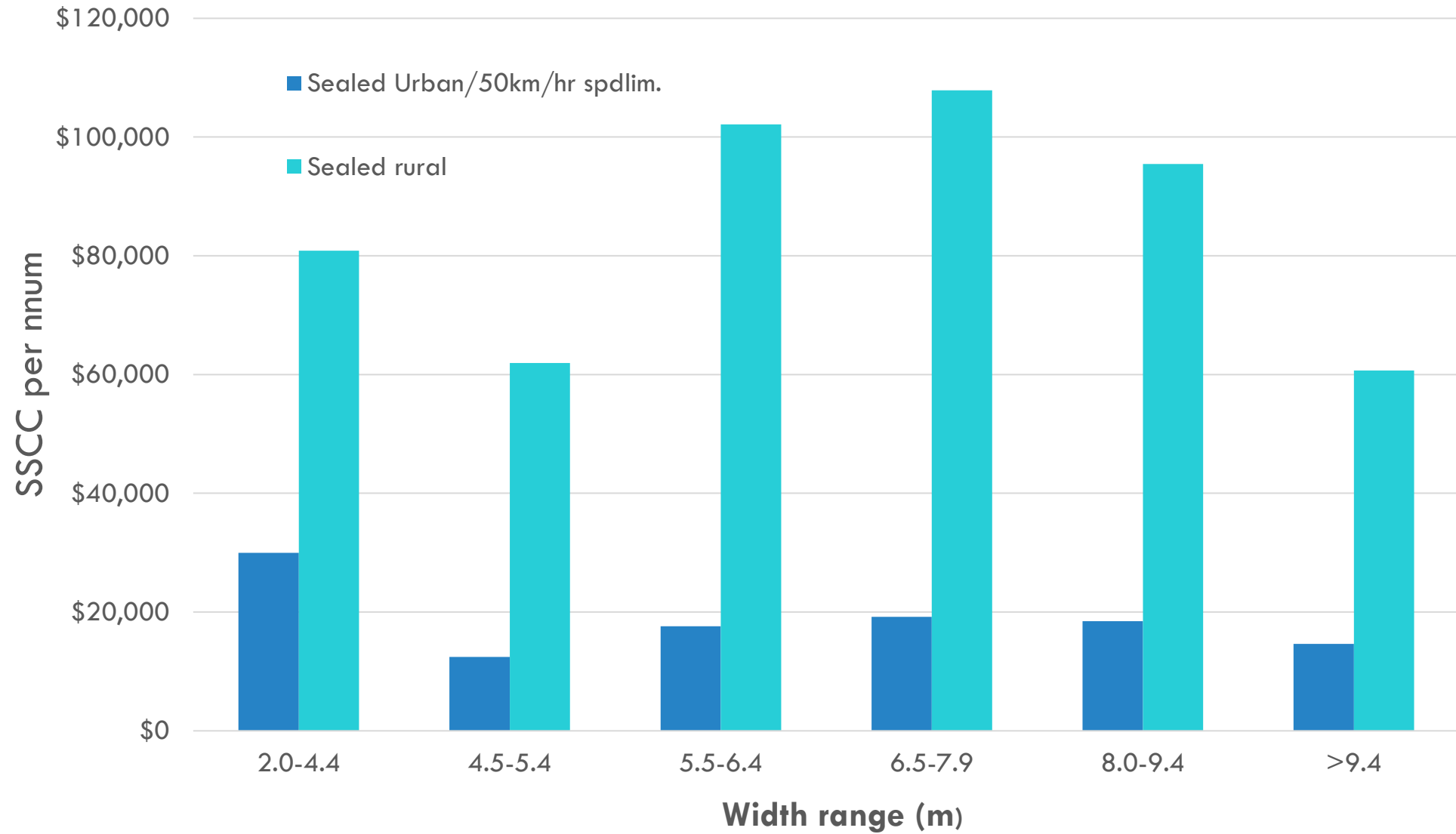
Standardised Social Cost of Crashes by Road Width

Sealed roads in the North Island



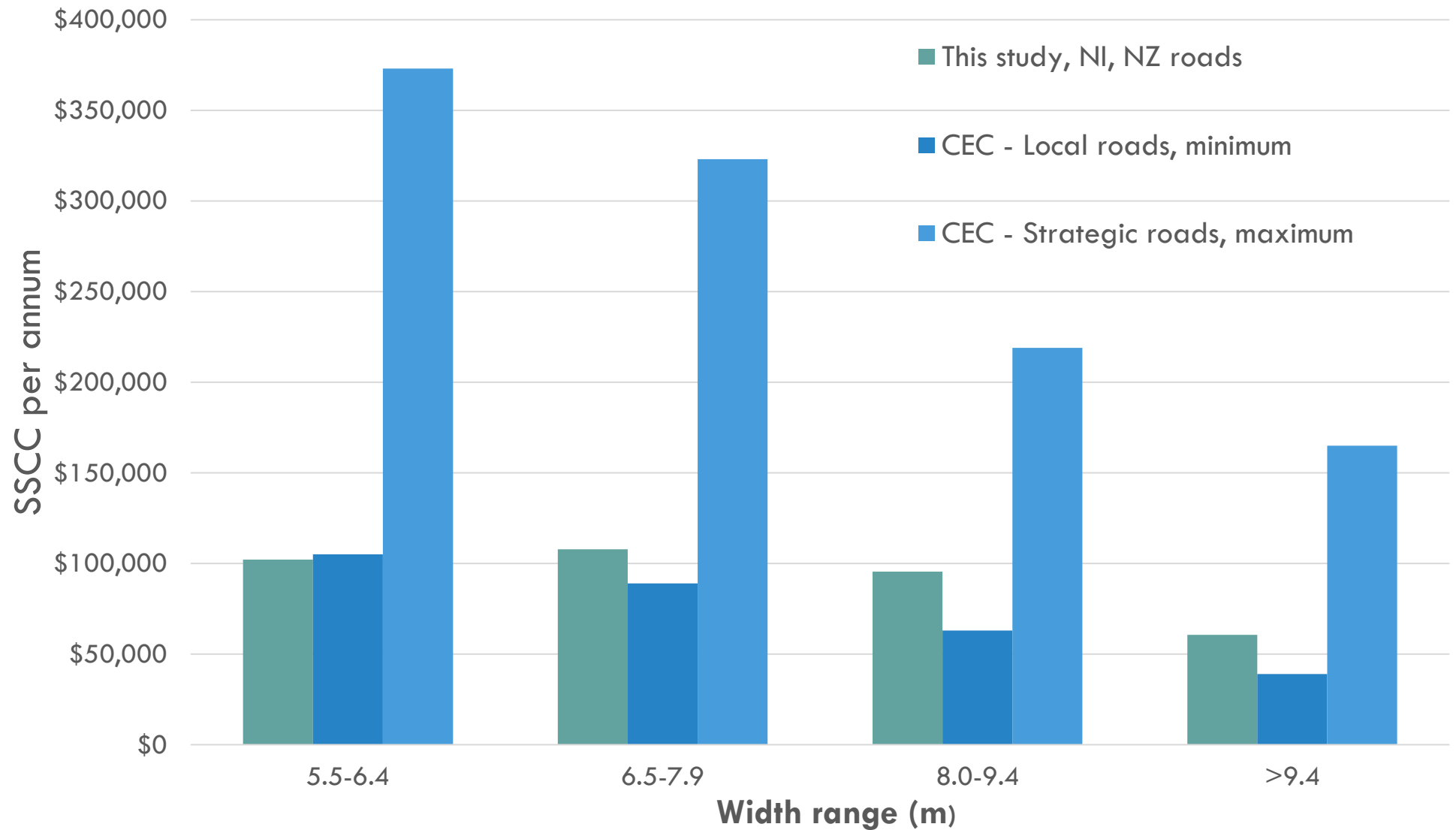
Standardised Social Cost of Crashes by Road Width

Sealed roads in the North Island

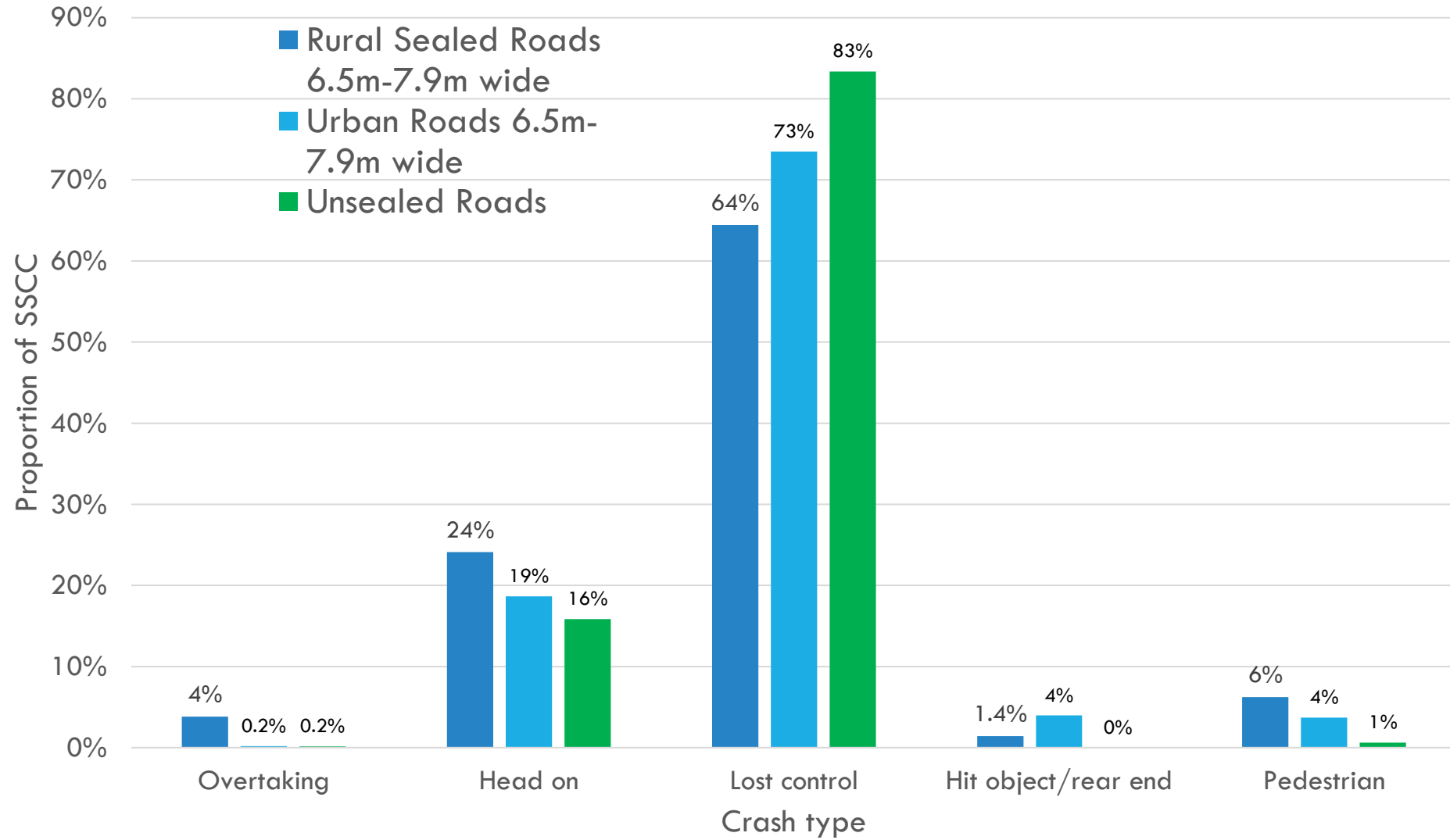


Standardised Social Cost of Crashes by Road Width - All Sealed Rural

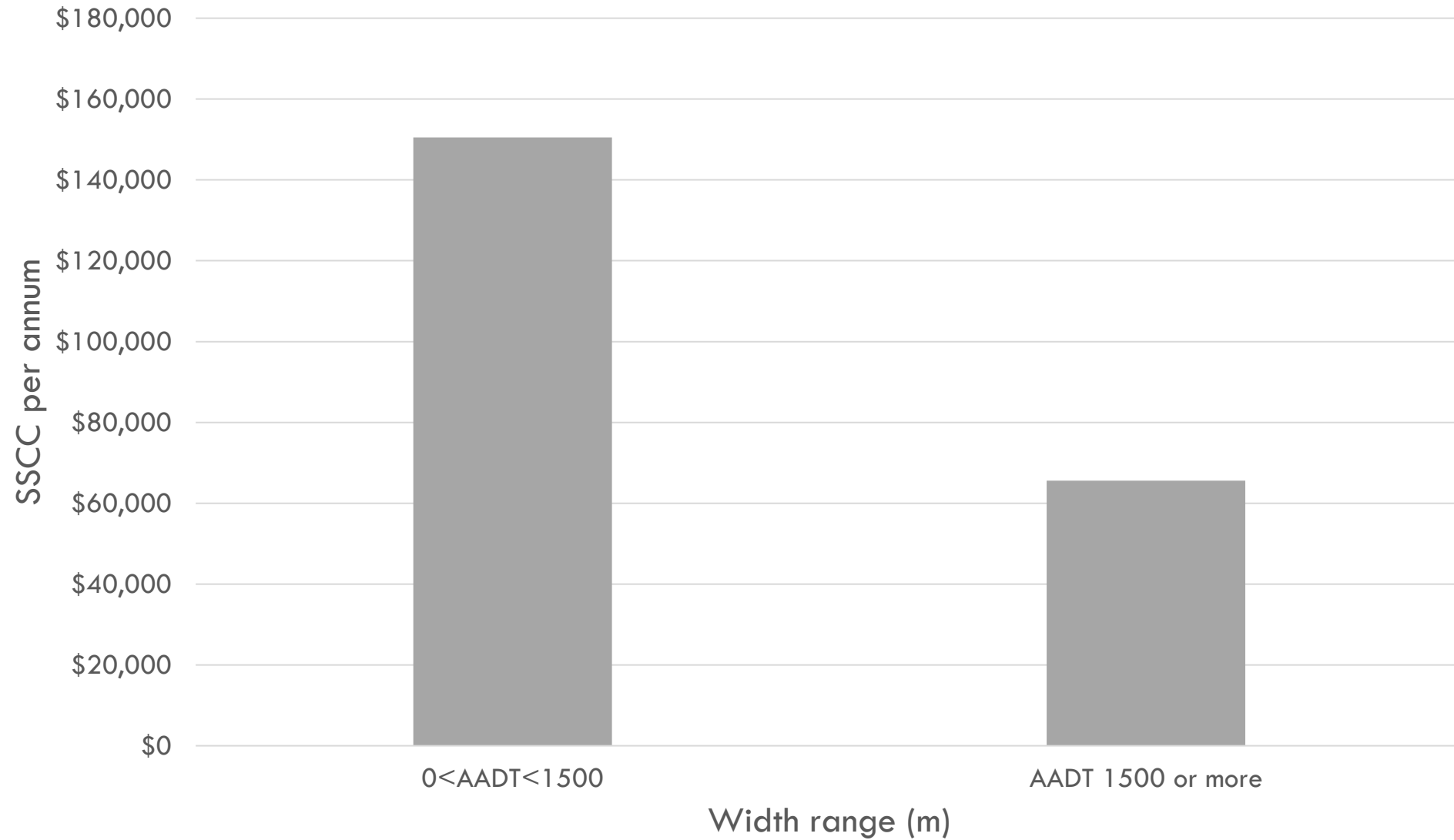
Primary Research vs NZTA Crash Estimation Compendium (CEC)



Proportion of SSCC by Crash type



Rural Sealed Roads: Annual SSCC for 6.5m < carriageway width < 8.0m By traffic volume/AADT





Should narrow unsealed roadways be widened and/or sealed?

SSCC on a narrow unsealed roadway and a typical council standard for a low-use roadway

