

SUPPLEMENTARY

Table A1 Studies reporting a safety in numbers effect in the past two decades

Study	Region	Study period	Observations	Outcome measures	Coefficients (S.D.)			Confounders controlled			
					Motor vehicles	Pedestrians	Bicyclists	Geometric design	Traffic control	Land use	Demographic patterns
Leden ³	United States	1983-1986	749 signalized approaches	Crashes between pedestrians and left-turning vehicles	1.19**	0.33**					
			126 signalized approaches	Crashes between pedestrians and right-turning vehicles	0.86**	0.48**					
Zegeer et al. ⁴	United States	1994-1998	1,000 marked crosswalks	Pedestrian-vehicle crashes	0.99(0.17)**	0.33(0.06)**		✓			
			1,000 unmarked crosswalks		0.55(0.26)**	0.64(0.13)**		✓			
Geyer et al. ⁵	United States	2000-2002	247 intersections	Pedestrian-vehicle crashes	0.15(0.12)	0.61(0.12)**		✓		✓	
Daniels et al. ⁶	Belgium	1996-2004	90 roundabouts	Crashes involving injured bicyclists	1.19**		0.24**	✓			
				Crashes involving injured pedestrians	2.77**	0.27**	✓				
Schneider et al. ⁷	United States	1998-2007	81 intersections	Pedestrian-vehicle crashes	1.50(0.43)**	0.58(0.16)**		✓	✓	✓	✓
Miranda-Moreno et al. ⁸	Canada	1999-2003	519 signalized intersections	Pedestrian-vehicle crashes	0.90**	0.26**			✓	✓	✓
Schepers et al. ⁹	Netherlands	2005-2008	490 unsignalized intersections	Through vehicle-bicycle crashes where bicyclist has right of way	0.73(0.11)**		0.48(0.13)**	✓			
			520 unsignalized intersections	Through vehicle-bicycle crashes where motorist has right of way	0.50(0.15)**		0.56(0.10)**	✓			

Elvik et al. ¹⁰	Norway	2004-2008 2006-2010	159 marked pedestrian crossings	Pedestrian-vehicle crashes	0.53(0.17)**	0.76(0.11)**	✓			
Schepers and Heinen ¹¹	Netherlands	2004-2009	387 Dutch municipalities	Bicyclist fatalities in bicycle-car crashes	0.62(0.11)**	0.26(0.10)**				✓
				Bicyclist injuries in bicycle-car crashes	0.55(0.06)**	0.44(0.05)**				✓
Strauss et al. ¹²	Canada	2003-2008	647 signalized intersections	Number of injured bicyclists	0.24(0.04)** 0.19(0.05)**	0.87(0.07)**	✓	✓	✓	✓
Nordback et al. ¹³	United States	2001-2005	105 signalized intersections	Bicycle-vehicle crashes	0.64(0.17)**	0.53(0.14)**				
		2008-2011	106 signalized intersections		0.58(0.13)**	0.65(0.11)**				
Strauss et al. ¹⁴	Canada	2003-2008	2,288 signalized intersections	Number of injured bicyclists		0.33(0.02)**	✓	✓		
			23,819 non-signalized intersection			0.39(0.01)**	✓	✓		
			14,963 segments			0.34(0.02)**	✓	✓		
Kröyer ¹⁵	Sweden	2008-2012	113 intersections	Pedestrian-vehicle crashes	0.65(0.53)	0.55 (0.27)**	✓			
				Bicycle-vehicle crashes	0.69(0.30)**	0.43(0.18)**	✓			
Yao and Becky ¹⁶	Hong Kong	2001-2003	282 Tertiary Planning Units	Crashes involving injured bicyclists	2.55(0.69)**	0.24(0.03)**	✓		✓	✓
		2010-2012			2.33(0.59)**	0.19(0.03)**	✓		✓	✓

Note: S.D. refers to the standard deviation. In [Leden³](#), [Daniels et al.⁶](#) and [Miranda-Moreno et al.⁸](#), the standard errors of the corresponding coefficients were not reported. [Strauss et al.¹²](#) used a disaggregate exposure for traffic volumes, with coefficients for motor-vehicle right and left turn flows estimated as 0.24 and 0.19, respectively. ** denotes statistical significance at the 95% confidence level.