A Stated-Preference Study on the Acceptance of 30km/h Speed Limits in Greek Cities

Paper 11

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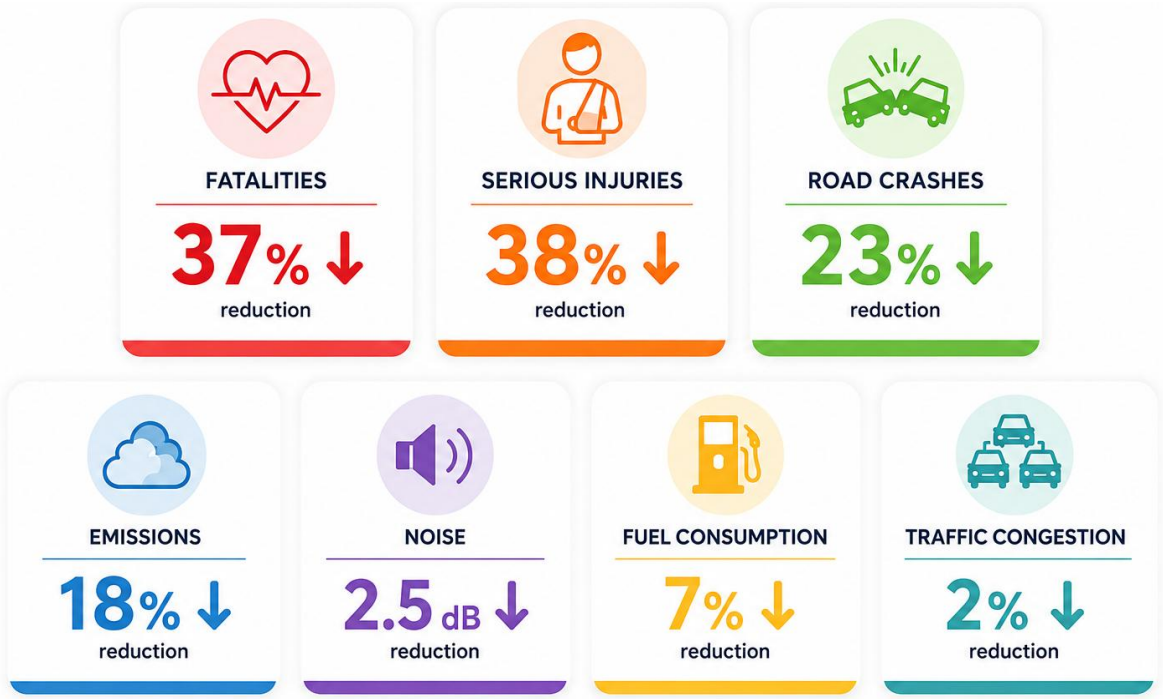
Introduction

- In recent years, city-wide 30 km/h speed limits **have gained increasing attention across Europe** as an important measure for improving road safety, enhancing urban liveability and supporting sustainable mobility
- Lower traffic speeds can **reduce both the frequency and severity of crashes**, encourage walking and cycling and create safer conditions for vulnerable road users, including pedestrians, cyclists and motorcyclists
- Following Spain's nationwide introduction of 30 km/h urban speed limits in 2021, **Greece adopted a similar policy in June 2025**, applying the limit to all single-lane urban roads and marking a significant development in national road safety policy

Background

- To date, **many cities have adopted a 30 km/h speed limit** to promote road safety and make residential streets more liveable
- Evaluation results from 17 different cities across Europe (including Paris, London, Brussels) demonstrated that the newly introduced city-wide 30 km/h speed limits have **led to significant reduction (on average):** 37% of road crash fatalities, 18% of emissions, 2.5 dB of noise pollution and 7% of fuel consumption
- Despite the aforementioned benefits, the application of the 30 km/h speed limit on urban areas is **unlikely to be well understood by all drivers**
- This **lack of understanding** may influence levels of acceptance, which is a critical factor in the successful implementation of such policies



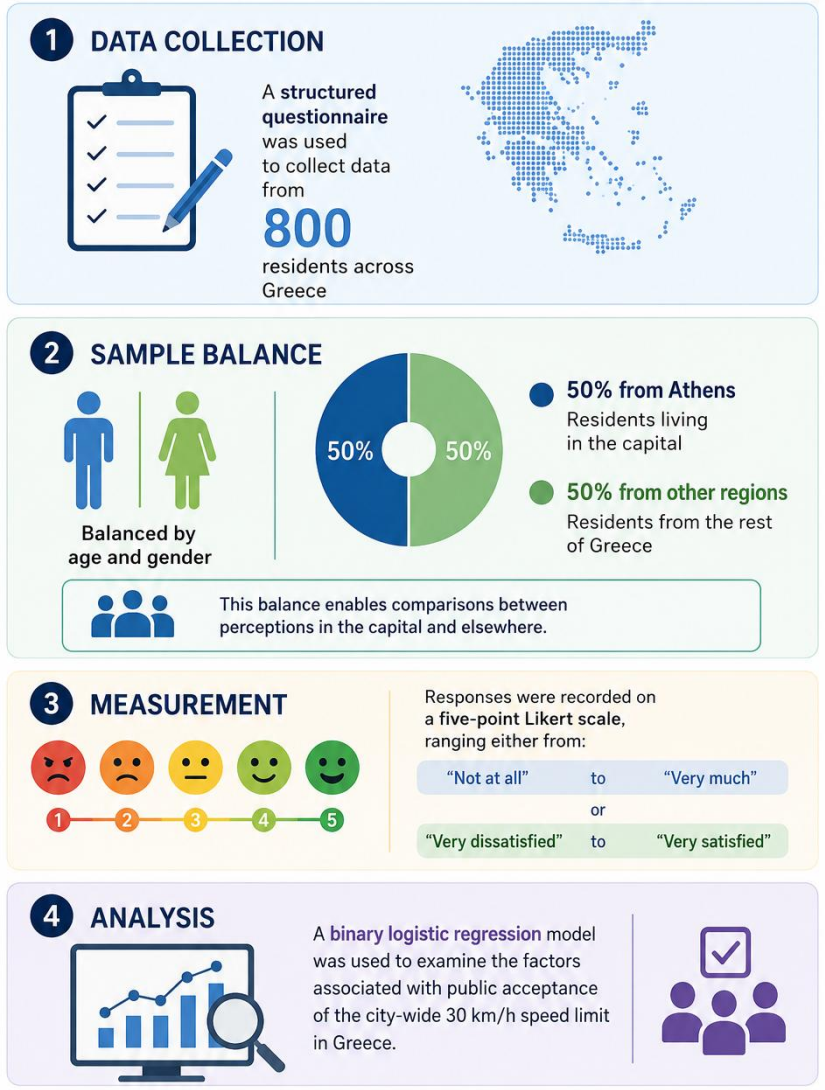
Objectives

- **Examine public attitudes and preferences** regarding the acceptance of city-wide 30 km/h speed limits in Greece

- **Investigate how acceptance** is influenced by perceptions of safety, congestion and enforcement, as well as by socio-demographic characteristics such as age and gender

Methodology

- A structured questionnaire was used to collect data from **800 residents across Greece**
- The sample was **balanced by age and gender** to reflect the wider population: half of the participants lived in Athens, while the remaining half came from other regions, enabling comparisons between perceptions in the capital and elsewhere
- Responses were recorded on a **five-point Likert scale**, ranging either from “Not at all” to “Very much” or from “Very dissatisfied” to “Very satisfied”
- A **binary logistic regression model** was used to examine the factors associated with public acceptance of the city-wide 30 km/h speed limit in Greece



Questionnaire Structure

The questionnaire included **four sections**:

- **1st section**: examined mobility habits and driving exposure, including main transport mode, trip purpose, weekly driving time
- **2nd section**: focused on attitudes toward the new Road Traffic Code, especially acceptance of the 30 km/h limit and its perceived effects on road safety, congestion and enforcement
- **3rd section**: explored wider perceptions of daily mobility, including feelings of safety or satisfaction with public transport
- **4th section**: collected demographic information, including age, gender, income, education and employment

Variables	Description	Values
HoursDrivingWeek	Approximate hours driven per week	1 = ≤1 hour; 2 = 1–3 hours; 3 = 4–9 hours; 4 = ≥10 hours; 5 = Does not drive
OffencesFrequency-Speeding	Frequency of speeding violations in the past	1 = Never; 2 = Rarely; 3 = Often; 4 = Very often; 5 = Always
30kmhSpeedLimit-Crashes	Perception of whether the 30 km/h speed limit reduces road crashes	1 = Yes; 2 = No; 3 = No effect on crashes; 4 = Not sure; 5 = Don't know / No answer
30kmhSpeedLimit-Congestion	Perception of whether the 30 km/h speed limit increases traffic congestion	1 = Yes; 2 = No; 3 = No effect on crashes; 4 = Not sure; 5 = Don't know / No answer
KOK-Newfines-SpeedingUnder30	Attitude toward the new fines for speeding more than 30 km/h over the limit	1 = Very negative; 2 = Rather negative; 3 = Neutral; 4 = Rather positive; 5 = Very positive
Gender	Respondent's gender	1 = Male; 2 = Female
Age Group	Respondent's age category	1 = 18-24; 2 = 25-34; 3 = 35-44; 4 = 45-54; 5 = 55-64

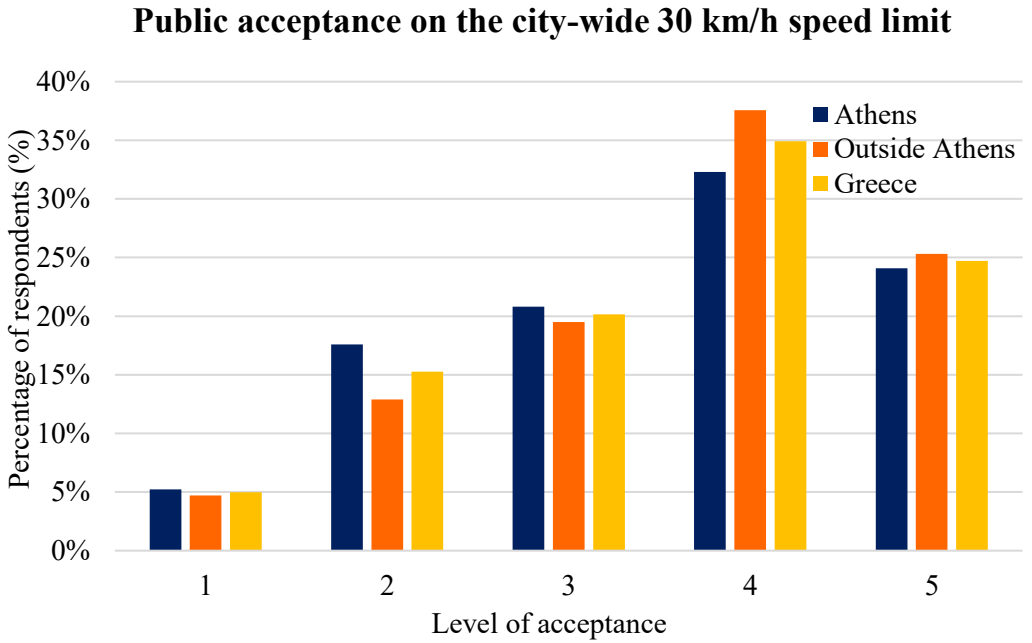
Sample Characteristics

- The sample consisted of 800 participants, with a nearly **balanced gender distribution**: 51% male and 49% female
- With respect to age, respondents were drawn from **five categories**. The largest group was individuals aged 35-44 years (30%), followed by those aged 45-54 years (25%) and 25-34 years (21%)
- Younger **participants aged 18-24 years** accounted for 12% of the sample, while 13% belonged to the 55-64 age group
- This distribution indicated that the majority of respondents were between 25 and 54 years old, representing the most **active driving and commuting population**

	Male	Female	Total	% of Sample
18-24	49	44	93	11.6%
25-34	88	79	167	20.9%
35-44	118	119	237	29.6%
45-54	100	103	203	25.4%
55-64	54	46	100	12.5%
Total	409	391	800	100%
% of Sample	51%	49%	100%	

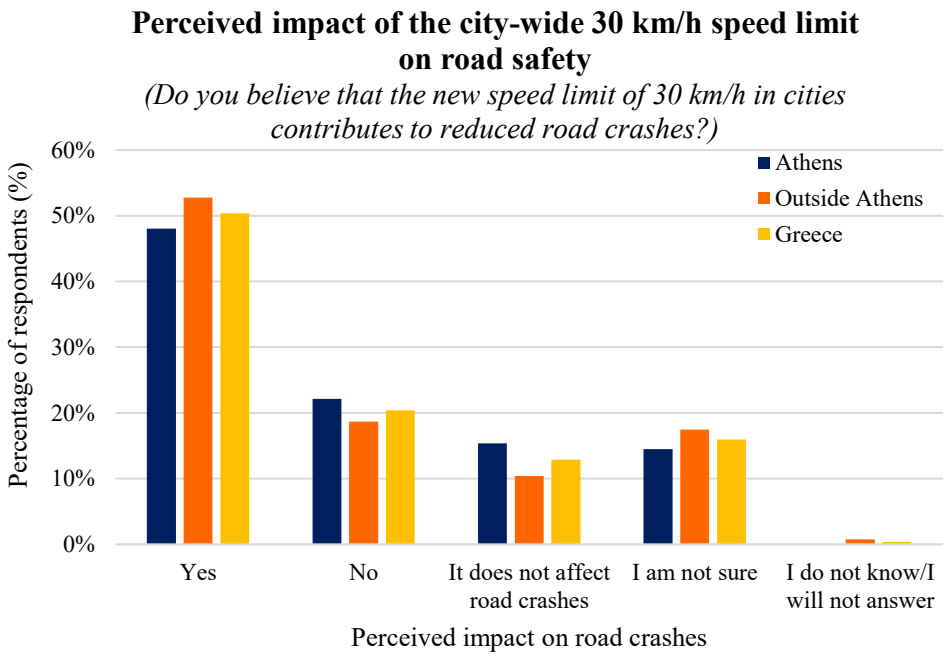
Exploratory Analysis (1/2)

- The results indicated a **generally favourable attitude** toward this policy measure
- In Greece, **60% of respondents expressed a positive view** of the measure, either somewhat or very positive. About 20% reported a negative opinion, while another 20% remained neutral, indicating that strong opposition was relatively limited
- A **similar pattern** appeared when comparing Athens with the rest of Greece. Acceptance reached 56% among respondents in Athens and 63% among those outside Athens



Exploratory Analysis (2/2)

- Overall, **50% of participants believed that the measure helps reduce road crashes**, suggesting that it is generally perceived as beneficial for safety in urban areas
- However, 20% felt that it does not contribute to crash reduction, while 13% believed it has no effect. A further 16% were unsure, indicating some **uncertainty or limited awareness** of the measure's potential benefits
- Regional **differences were small**. In Athens, 48% of respondents believed the 30 km/h limit reduces crashes, compared with 53% outside Athens



Binary Logistic Regression Analysis

- Results showed that several factors **significantly affected acceptance**
- Respondents **driving 1-3 hours per week** were more likely to support the measure than non-drivers or those driving less than one hour per week
- In contrast, **frequent speeding** before the introduction of the new Road Traffic Code was negatively associated with acceptance, indicating lower support among drivers with riskier behaviour
- Respondents who did not believe that the 30 km/h limit could reduce crashes **were significantly less likely to accept it**, confirming the central role of perceived safety benefits
- Similarly, those who believed the measure **would not increase congestion** were more supportive
- Lastly, **women were more likely than men to accept the measure**, while respondents aged 45-54 also showed higher levels of support

Variables	Estimate	Standard error	t value	p-value	Odds ratio
HoursDrivingWeek (1-3 hours)	0.749	0.307	2.442	0.015 **	2.114
OffencesFrequency-Speeding	-0.379	0.169	-2.248	0.025 *	0.684
30kmhSpeedLimit-Crashes - Yes	-1.018	0.200	-5.101	0.000 ***	0.361
30kmhSpeedLimit-Congestion - No	0.925	0.187	4.939	0.000 ***	2.521
KOK-Newfines-SpeedingUnder30	2.035	0.303	6.723	0.000 ***	7.653
Gender - Female	0.492	0.144	3.408	0.001 **	1.636
Age Group 45-54	0.497	0.238	2.085	0.037 *	1.572
Summary Statistics					
McFadden R^2	0.291				
Residual Deviance	1888.2				
AIC	1946.1				

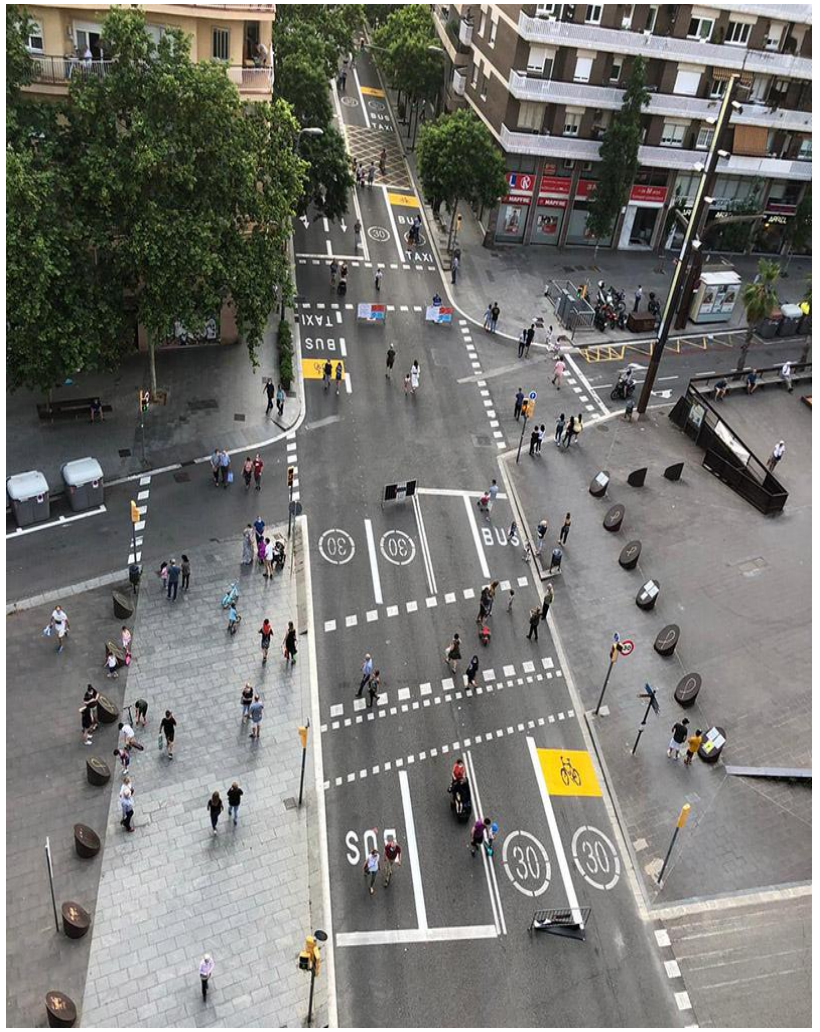
, ** and * denotes significant at 5%, 1% and 0% significance level, respectively*

Discussion

- It was revealed that **perceptions and beliefs** play a greater role than driving habits in determining acceptance of the 30 km/h speed limit
- The findings showed **generally positive attitudes**, with 60% of respondents expressing support for the measure
- Acceptance was mainly influenced by **perceived safety benefits** and concerns about congestion
- Fair and **transparent enforcement**, especially regarding speeding fines, also played an important role in strengthening acceptance
- Women, **middle-aged respondents and moderate drivers** were more supportive, while younger drivers and frequent speeders were less accepting

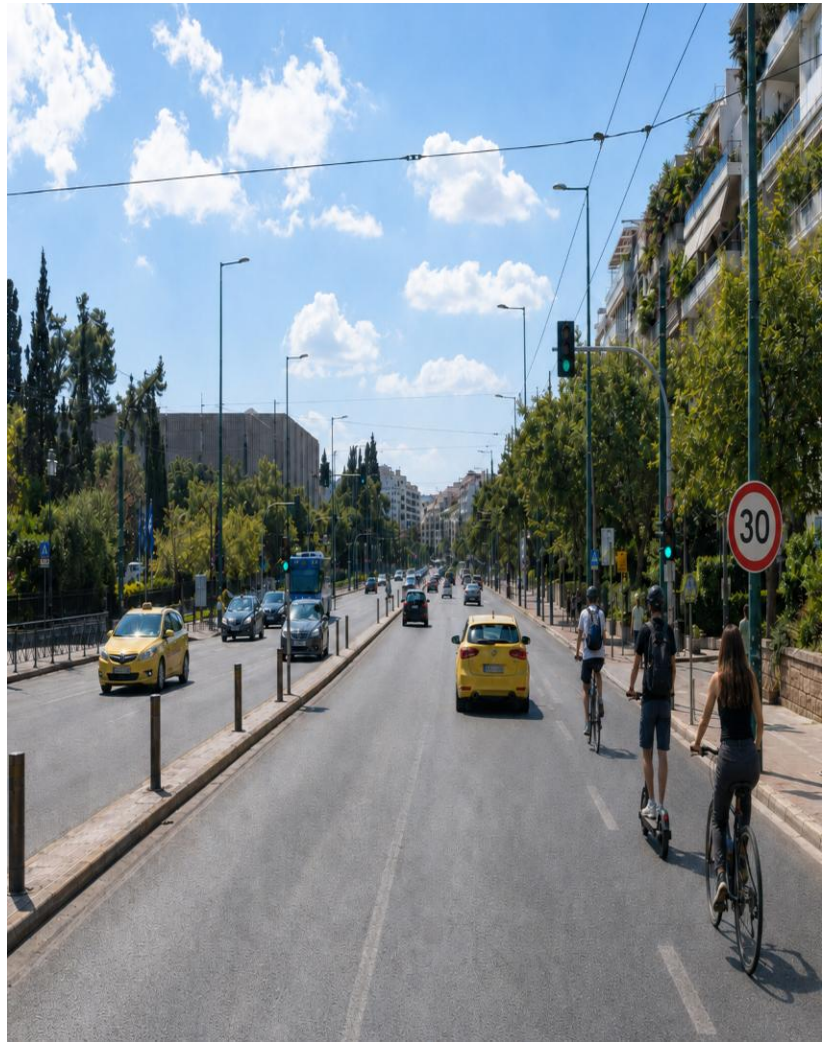
Conclusions

- It is important to **promote communication strategies** that emphasize the safety benefits of lower speed limits and address concerns about congestion
- Ensuring **fair and proportional enforcement** may also strengthen public trust and compliance
- Targeted **awareness campaigns** aimed at younger male drivers and frequent speeders could further improve long-term acceptance and policy effectiveness
- The 30 km/h policy should be presented not as an anti-car measure, but as **a low-cost intervention** that improves safety, liveability and sustainable urban mobility



Further Research Directions

- Future studies should combine **survey data with real-world evidence** collected after implementation, such as crash frequency, crash severity, traffic flow and speed data
- Further research should also **examine the role of enforcement**, including speed cameras, automated monitoring and digital fine management, as these may affect perceptions of fairness and compliance
- **Time-series analyses** would be useful to explore whether public acceptance changes over time as citizens experience the effects of the measure
- **Broader factors**, such as environmental concerns, health benefits, energy use or changes in travel behaviour could be also included



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