

**Setting One's Sights:
Exploring the Dynamics of Goal Selection in Road Safety Policy***

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Introduction

Travel by automobile is the most dangerous activity citizens of developed countries routinely undertake. Yet some governments address this risk quite differently than others. This paper compares the ways in which Canada seeks to manage risk on its roads with alternative European and American strategies, to test the hypothesis that policy goal selection is related to the levels of political legitimacy and administrative capacity that are perceived by policy actors. Road safety merits attention as a window on policy goal selection because auto transportation is both sufficiently dangerous and ubiquitous that developed nations are compelled to pursue measures to mitigate and manage this risk. In Canada, automobile accidents killed 2,778 people in 2003, and caused 222,260 serious injuries¹. For Canadian males aged 10 to 24, and females aged 10 to 29, motor vehicle accidents pose the greatest risk of death from any cause².

While such a level of risk might seem worthy of ambitious policy interventions akin to those directed to preventing aviation accidents, many have argued that cultural interpretations of risk influence societal expectations of the role of government in

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¹ Canada, Transport Canada, *Canadian Motor Vehicle Traffic Collision Statistics 2003*. Ottawa. (2004)

² Canada, Statistics Canada, *Leading Causes of Death at Different Ages, Canada*, 1999. Ottawa. (1999)

mitigating risk. Covello encapsulates this cultural understanding of risk by suggesting that Anglo-American culture tends to discount the risks associated with mundane activities and familiar technologies, which would include automobile travel, compared to the dangers arising from more exotic technologies whose failure could produce spectacular disasters, such as airplane crashes or nuclear reactor meltdowns³. Hewitt echoes this interpretation by placing Canadian traffic accidents in the category of “chronic dangers” which occur frequently but on a dispersed scale, and thus do not draw much attention⁴.

Road safety policy efforts thus tend to fall somewhere between the “zero tolerance” for accidents underlying the aviation or nuclear energy risk management paradigms, and benign neglect. The public perception of road carnage as something that happens to bad or unlucky drivers means that governments would not normally be pressed to make road safety a top priority. Yet an expectation remains that government will do something to make roads and autos safe, if for no other reason than keeping unlucky or unsafe drivers from impinging on the general population’s security. The question of how a government will act to improve road safety outcomes turns out to reveal much about how policy goals are selected, because this policy issue presents us with an active interplay of cultural, political, and administrative dynamics.

John Adams has identified “risk compensation” behaviour as a key factor influencing road safety⁵. Adams claims that such compensating behaviour is often underestimated by policy makers, leading to costly or misguided policy goals. For example, drivers can be seen to adjust their behaviour and take additional risks due to advances in vehicle safety technology (e.g., air bags, anti-lock brakes) or road infrastructure (e.g., divided, limited access highways). These safety-enhancing measures can actually stimulate an upswing in risk-taking such as driving at higher speed or traveling in poor weather conditions, because they foster the belief that technology can provide a safety net. Such perverse responses to risk mitigation mean that policy makers must take account of their

³ V. T. Covello and M. W. Merkhofer, *Risk assessment methods : approaches for assessing health and environmental risks* (New York: Plenum Press, 1993).

⁴ Kenneth Hewitt, “Safe place or 'catastrophic society'? Perspectives on hazards and disasters in Canada,” in *The Canadian Geographer*, vol. 44, issue 4, pp. 325 – 341.

⁵ John Adams, *Risk*. (London: University College London Press, 1995)

particular culture's risk "thermostat" in order to develop goals that will not be undermined by risk compensation behaviour.

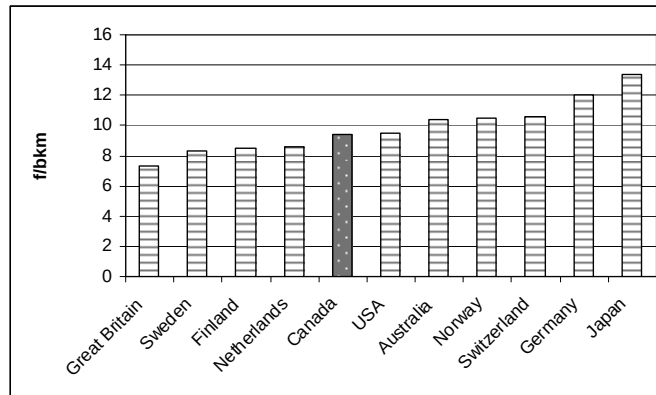
Of particular interest to students of comparative public policy is how different cultural constructions of, and cognitive responses to, risk can affect the selection of policy goals. Given the financial resources and political capital that must be spent to implement policy, the degree to which outcomes are judged susceptible to policy influence could affect the framing of goals. Some jurisdictions have embarked on road safety programs that embrace very specific goals, while others have not. This article demonstrates why governments with varying political dynamics and administrative capacity have chosen distinctively different ways of expressing their road safety policy objectives.

We hypothesize that the framing of policy goals for risk reduction are influenced by political and organizational factors along two dimensions. On the one hand, public officials' perception of political legitimacy is positively correlated with the level of ambition found in policy goals. If public support for government appears low, officials will avoid setting ambitious policy goals. On the other hand, public officials gauge their government's administrative capacity when considering how high to aim their policy goals. Agencies with a track record for effective implementation will inspire policy makers to consider more ambitious goals than those that have demonstrated problems in program delivery.

Defining the Problem: Metrics of Road Safety

No single metric can capture the full range of policy effectiveness in road safety. One of most commonly used is fatalities per billion kilometers traveled (f/bkm), which takes into account both population size and level of motorized mobility. Figure 1 below presents the fatalities per billion kilometers traveled for ten OECD nations. Canada falls squarely in the middle of this range. In theory, this position could enable lesson drawing from both "above," where options from more successful jurisdictions provide guidance on measures that could yield improved performance and from "below," where problematic policy instruments and approaches could be avoided. But in practice, it turns out that how governments are organized, and how they relate to societal interests is more important in framing road safety policy, as reflected in the goals that are set.

Figure 1:
Fatalities Per Billion Vkm, Selected OECD Countries, 2000



Source: Transport Canada. Road Safety Vision 2010, 7.

Defining the Target: Three Approaches to Selecting Policy Goals

Our comparison of road safety policies among OECD countries reveals three types of goal setting strategy. Some governments appear willing to make commitments that make it easy to hold officials accountable in the short term (e.g., within the current government's mandate). Such a design usually endorses numerical milestones whose attainment is envisioned as an important step in solving the policy problem. We label such an approach **concrete goal selection** and would expect it to occur in policy formulation around issues with a high degree of societal consensus regarding the importance of the problem *and* where government officials have an analogous level of confidence in their ability to affect solutions.

Another approach to setting policy goals can be found in the example of nations where outcomes are expressed as relationships to a particular reference point. A measure of outcomes that exist before the intended policy intervention is typically chosen as the benchmark against which progress will be made. This goal setting approach is more common when policy actors are less certain about either the legitimacy of addressing a particular policy problem or their government's administrative capacity to achieve results. We label this type of approach **relative goal selection**.

Finally, there are jurisdictions where public officials perceive mixed signals regarding either the political legitimacy of addressing a particular problem or on the administrative capacity to address that problem. Such jurisdictions will avoid setting specific

targets and frame policy objectives in more abstract terms. Here, policy goals will be expressed as a “vision” or similarly broad scenario of future outcomes. Canada fits into this approach, which we label **abstract goal selection**. A typology of policy goal selection and the key administrative and political dynamics that are associated with it is sketched out below.

The institutional configurations we summarize in Table 1 below influence the ways in which policy makers consider what to do about road safety challenges in relation to other jurisdictions’ efforts in this policy domain. In the section that follows, we present what these different approaches yield in terms that can be compared.

Setting Policy Goals for Road Safety in Ten Nations

To gain an understanding of what lies behind these three approaches to setting road safety policy goals, it is important to express anticipated outcomes in comparable terms. Table 2 depicts the number of road deaths that ten nations have considered acceptable in setting concrete, relative, and abstract safety goals. When viewed comparatively, this range of anticipated outcomes provide important information for interpreting how policy makers have chosen their goals. Constructing this estimate required some simplifying assumptions discussed in a methodological footnote⁶.

⁶ Table 2 was constructed by first determining what each nation’s road safety goal would yield in terms of projected deaths. For countries which have identified concrete goals, no calculation was required. In countries that have set relative goals, projected deaths were calculated by taking the number of fatalities during the year from which they have based their goal, and reducing it by the percentage which they have stated as their goal. Population data was gathered from the CIA database, and was then multiplied by the expected growth rate of the population, compounded year by year at the same rate up to the target year. Since population growth projections for specific years between 2005 and their target year were not available, a steady growth rate has been assumed during each year of the particular time period. The target year goal is then divided by the forecast population level to produce a death per 100,000 figure. This is the rate that would be reached in the target year selected by each nation, with no further change to policy goals between that time and 2012.

When we examine the range of results that are projected to arise from different policy goals by 2010, we see Canada maintaining its position near the median of national road safety performance. These projected outcomes appear in Figure 2 below, with nations that have set concrete policy goals indicated in horizontal lines, those with relative goals indicated in diagonal lines, and Canada's abstract goal selection identified in charcoal. These results support our hypothesis that nations choosing concrete policy goals can be found predominantly below the mean of projected fatalities while those that set relative targets are found largely above the mean.

Table 1
Policy Goal Selection and Institutional Configuration

	Jurisdictional Cohesion	Admin Cap-acity	Political Legit-imacy	Political Autonomy	Nations
Concrete Goal Selection	Unitary or Centralized Multi-Level Governance	Re-liable	Strong	If Necessary: Population Often Aligned With Leadership	Sweden Norway Nether-lands New Zealand Japan
Relative Goal Selection	Uncontested, Some Decentral-ization with Clear Articulation Mechanism	Expect-ed	Potential	If Possible: Uncertainty Among Leaders Regarding How Far to Get Ahead of Population	United States United Kingdom Denmark Austria
Abstract Goal Selection	Decentralized. Competitive and Adversarial Multi-Level Governance	Un-certain	Con-tested	Insufficient : Potential for Political Leadership Appears Low	Canada

While this research does not attempt to assign causality to the relationship between the expression of goals and anticipated policy performance, we will offer evidence that the outcomes projected in Figure 2 are more than coincidentally related to the political structure and administrative organization detailed in Table 1. We will elaborate the consistent administrative and political attributes of those nations that have set concrete road safety goals as a group, then focus the administrative and political parallels among countries that have set relative goals.

Concrete Goal Adopters

Among those nations that have adopted concrete road safety goals, Sweden has specified the most ambitious target. The goal of putting an end to deaths from motor vehicle accidents in Sweden's "Vision Zero" policy framework presents the ultimate assertion of government's confidence in its ability to resolve a policy problem, the equivalent of committing to cure cancer or to end poverty. Such a clear expression of commitment leaves little room for future backsliding – without the potential for criticism regarding policy failure.

Table 2: Road Safety Targets for Ten Nations

Country	Target Year	Projected Death Target, At Target Year	Projected Death Target, Adjusted for 2010 ⁷	2005 Population, July est (millions)	Population Growth Rate (2005) Est.	2010 Population (millions)	Deaths Per 100,000 (2010)
<i>Concrete Goal</i>							
Sweden	2007	269 ¹	269	9.0	.17%	9.1	2.96
Netherlands	2010	750	750	16.4	.53%	16.9	4.45
Norway	2012	200	223	4.6	.40%	4.7	4.97
Japan	2010	7,566 ²	7,566	127.4	.05%	127.7	5.92
New Zealand	2010	300 ³	300	4.0	.02%	4.3	7.07
<i>Relative Goal</i>							
United Kingdom	2010	2,236	2,236	60.4	.28%	61.3	3.65
Denmark	2012	299 ⁴	345	5.4	.34%	5.6	6.24
Austria	2005	577 ⁵	577	8.2	.11%	8.2	7.01
United States	2008	33,457 ⁶	31,067	295.7	.92%	309.6	10.03
<i>Abstract Goal</i>							
Canada	2010	2,076	2,076	32.8	.90%	34.3	6.05

Notes: Population, Population Growth Rates: United States, Central Intelligence Agency. *The World Fact Book*. (2005) at

<http://www.cia.gov/cia/publications/factbook/>

Target year, target information: Canada, 27-31,

¹50% reduction over 1996 levels (537 deaths) (Europa, 2002)

²Reduce fatalities by 1500 over 2000 figures by 2010 (9066) (Japan, 2005)

³No more than 300 by 2010. (New Zealand, 6, 2003)

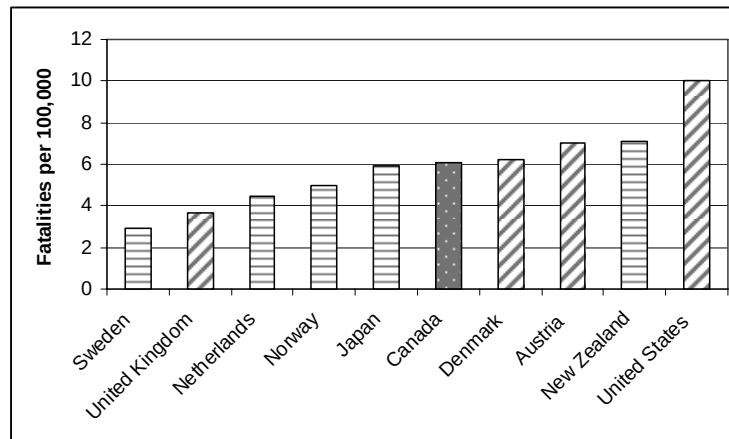
⁴40% reduction over 2000 levels (498 deaths) (Europa, 2002c)

⁵40% reduction over 1998 levels (963 deaths) (Europa, 2002b)

⁶20% reduction over 2000 levels (41,821 deaths) (United States, ii, 2001)

⁷Assuming that progress towards goal is linear, uniform, and continues after targets have been met. The two exceptions are Sweden and Austria, which as of 2004 are not likely to meet their projected goals by their target dates.

Figure 2: Projected Fatalities Per 100,000 Population, 2010



Sweden's timetable for the complete eradication of deaths on the road remains open ended – offering some political insulation for the officials making this commitment. But Sweden has identified a major milestone enroute to the eradication of road deaths, a 50% drop in the number of casualties by 2007 compared to 1996 figures⁷. Meeting this milestone would keep Sweden well ahead of other nations' road safety performance, both in the 2007 target year and afterwards. These policy ambitions are built upon a political context where risk reduction measures carry high legitimacy and a solid administrative foundation.

Sweden's National Road Administration, the authority responsible for the road transportation system, and Parliament have a long track record of work on road safety initiatives dating from the 1950s. The National Road Administration originally advanced a goal

⁷ Canada, Transport Canada, *Road Safety Vision 2010, 2002 Annual Report*. Ottawa. (2003) p 7.

of zero road deaths in 1996, and prepared a memorandum elaborating and justifying this policy in January 1997. Dr. Claes Tingvall, Director of Traffic Safety for the Swedish National Road Administration, became a high profile champion of the Vision Zero approach, drafting a memorandum that made the case for ending all road transportation deaths as a public policy goal. Sweden's parliament passed legislation in response to this memorandum in October 1997.⁸

The Netherlands has also adopted an ambitious concrete goal in road safety, without yet considering an end to automotive fatalities. The Dutch target, as established in "From A to Better: National Traffic and Transport Plan 2001-2010," is for no more than 750 deaths by 2010.⁹ This concrete goal selection builds upon previous policy initiatives that identified relative goals for road safety. In 1986, the "Second Traffic and Transport Structure Plan 1990-2010" called for a 50% reduction in death and 40% reduction in injuries over 1986 figures by 2010. The LRSP plan's death reduction target was achieved by 2000, while the target for injury reductions was not.¹⁰

In 1997, policy implementation moved into a new phase of coordination, when a covenant was signed between the Minister of Transport and a number of local authorities to jointly implement a program called "Start-Up to Sustainably Safe". This collaborative approach sought to clarify the ways in which different levels of government would pursue road safety goals by enumerating specific responsibilities. In 1998, the Dutch Parliament adopted a new Traffic and Transport Act that integrated the 1986 Long-Term Road Safety Plan into a National Traffic and Transport Plan (NTTP). The previously noted, "From A to Better: National traffic and Transport plan 2001-2010" called for no more than 750 road deaths by 2010. Dutch experience thus suggests that establishing clear roles and responsibilities for different levels of government can contribute to the shift from relative to concrete policy goals.

Norway's concrete policy goal of no more than 200 road deaths by 2012, down from 275 in 2001, leaves little room for doubt that public officials in that country are confident about continuing their achievements. Norway justifies its road safety ambitions by

⁸ Magnus Andersson, *Nollvision eller nollillusion?* (Uppsala: Cajoma Consulting, 2003)

⁹ Netherlands, Ministerie van Verkeer en Waterstaat, *NVVP 2001. From A to Better, National traffic and Transport plan 2001-2010*, in Dutch. Rotterdam. (2001)

¹⁰ Netherlands, Ministry of Transport, Public Works and Water Management. *Second transport structure plan* The Hague. (1986). p. 22.

recognizing casualties on the road as “a serious problem to society.”¹¹ Meeting this goal could put Norway ahead of the Netherlands by 2012, unless the Dutch move on to set even more ambitious goals before that time.

Japanese road safety policy goals have been expressed as concrete outcomes for quite some time. Responding to public pressure over a sharp rise in road fatalities, the government passed the “Traffic Safety Policies Law” in 1970, which established the framework for five year plans. These plans, set by the “Fundamental Traffic Safety Program,” have set concrete goals every five years since 1971. The first and second five year plans were successful; however, subsequent five year plans have not been. In fact, fatalities increased over 10,000 under the third five year plan¹². In 2003, Prime Minister Koizumi, who is the chairman of the Central Committee on Traffic Safety Measures, declared that it was “his intention to make Japan’s roads the ‘safest in the world’ by bringing the annual number of road deaths below 5,000 in a ten year period.”¹³. The Seventh Five Year Plan sets a different concrete goal, presumably en route to a goal below 5,000 for the Eighth Five Year Plan.

New Zealand is the only OECD nation in our sample with a concrete road safety goal that is above the mean expected outcomes per 100,000 population. New Zealand’s “Road Safety to 2010” document calls for no more than 300 fatalities and 4,500 hospitalizations by 2010.¹⁴ The plan sets specific goals for fatalities and hospitalizations in different regions. New Zealand’s administrative capacity is also unique because the dedicated organization responsible for road safety also has power over enforcement. The New Zealand Road Safety Authority was responsible for education and support services, as well as for allocating money for policing¹⁵. This fiscal capacity is significant.

¹¹ Norway, Ministry of Transport and Communications, *Road Safety in Norway Strategy 2002-2011*. English Summary. Oslo. (2002) p. 5

¹² Japan. Traffic Safety Policy Office Management and Coordination Agency. *White Paper on Traffic Safety in Japan '98*. Tokyo. (1998)

¹³ Japan. Directorate General for Policies on Cohesive Society, Cabinet Office, *White Paper on Traffic Safety in Japan 2004*, abridged version. Tokyo. (2004) p. 6

¹⁴ New Zealand, Ministry of Transport, *Road Safety to 2010*. Wellington. (2003) p. 5

¹⁵ New Zealand, Land Transport Safety Authority, *Community Road Safety Strategy*. Wellington. (2003) p. 19

When New Zealand added 225 police officers for highway patrol, deaths fell by 24%.¹⁶ In 2004, its power was enhanced when it was merged with the department responsible for engineering to create a new entity: Land Transport New Zealand. Another crown entity, the Road Safety Trust, enjoys enhanced legitimacy as it is funded with a portion of licensing fees. The Trust distributes money for local road safety initiatives¹⁷.

New Zealand did not have concrete road safety goals until recently, which may help to explain its position in these projected outcomes relative to other nations with concrete goals. The preceding plan, “The National Road Safety Plan 1995” had an abstract goal “aimed at achieving a level of safety consistent with the highest levels of safety experienced in the world.”¹⁸ In 1998, the Land Transport Safety Authority put out its fourth working paper entitled “Safety Directions: Setting Road Safety Targets” in which their entire target setting model was laid out. The authors differentiated between a forecast and a target – and acknowledged that the purpose of a target is to motivate progress towards a goal, as well to measure progress and assign accountability should failure occur. They identified risk as the only factor that they can affect through intervention¹⁹. In 2000, they consulted the public to determine if their target was too ambitious, not ambitious enough, or acceptable, as well as how it should be funded²⁰. Ultimately this consultative approach to risk management was implemented, and a goal was selected.

Relative Goal Adopters

Among the nations having expressed road safety policy goals in relative terms, the United Kingdom has projected the most impressive outcomes by 2010. The policy, “Tomorrow’s Roads: Safer For Everyone” calls for a 40% reduction in deaths by 2010,

¹⁶ New Zealand, Land Transport Safety Authority, *Community Road Safety Strategy*. Wellington. (2003) p. 9

¹⁷ New Zealand, Road Safety Trust [n.p.] (2005) At: [“http://www.roadsafety.govt.nz/”](http://www.roadsafety.govt.nz/)

¹⁸ New Zealand Land Transport Safety Authority, *Road Safety Strategy: Overview, A Consultation Document*. Wellington. (2000) p. 4

¹⁹ New Zealand, New Zealand Land Transport Safety Authority, *Safety Directions: Setting Road Safety Targets*. Wellington (1998) p. 3

²⁰ New Zealand Land Transport Safety Authority, *Road Safety Strategy: Overview, A Consultation Document*. Wellington. (2000) p. 4, 22.

with a 50% reduction in deaths among those under 16²¹. These results would be second only to Sweden's achievements. But the means used to attain this goal will differ from approaches taken by nations that have expressed their goals in concrete terms. Great Britain aims to make use of policy 'carrots' that encourage subordinate local governments to reach targets for the UK's relative goals. Local Public Service Agreements (LPSAs) must contain twelve goals that reflect national government policy. One of these goals has to be transportation related, and many local authorities have selected specific road safety targets. Successful local governments receive additional funding.²² For instance, the Department for Transport identified that creating 20 mile per hour zones around crossings would improve safety, and allocated £3.5 million to local authorities to implement such crossings²³. The additional advantage of a unitary state structure in England is that child education and busing initiatives, critical for reducing child road casualties, can be coordinated horizontally across one level of government, involving only two departments. This relative ease of coordination also eases the establishment of road safety goals that pertain to children.

By defining their road safety objective in relative terms, British policy makers maintain considerable political and administrative flexibility in pursuit of their goal. Successes can be highlighted through successful risk communication strategies that bolster public support for both the goal and its attainment by raising awareness of the road safety challenge. Powell and Leiss argue that there is a "...gap that separates the unfolding scientific description of risks and the public understanding of those same risks."²⁴ Leiss argues that expert assessments of risk are rarely definitive in themselves, and the gaps between expert knowledge and public perceptions can form the basis for political conflict, often between the general public and experts, over managing risk, either by advancing it, or by constraining it²⁵. Under these circumstances, advancing toward and attaining relative policy goals would generate

²¹ United Kingdom, Department for Transport, *Tomorrow's Roads: Safer for Everyone*. London. (2000)

²² United Kingdom, Department for Transport, *Child Road Safety: Achieving the 2010 Target*. London. (2002) p. 10

²³ United Kingdom, Department for Transport, *Child Road Safety: Achieving the 2010 Target*. London. (2002) p. 77

²⁴ Douglas Powell and William Leiss. *Mad Cows And Mother's Milk: The Perils of Poor Risk Communication*. (Toronto: McGill-Queen's University Press, 1997). p. 30.

²⁵ William Leiss, *In the Chamber of Risks: Understanding Risk Controversies*. (Toronto: McGill-Queen's University Press, 2001) p. 10, 103

political capital that can be leveraged to pursue subsequent goals. Blame avoidance for policy setbacks is easier when outcomes reveal a percentage shortfall rather than a specific number of deaths.

Denmark's relative goal is outlined in "Every Accident is One Too Many". The plan endorses Sweden's "Vision Zero", but identifies Denmark's goal as reducing the number of deaths and serious injuries by 40 percent by 2012 over 1998 figures²⁶. Denmark's relative goal of a 40 percent reduction in deaths and serious injuries appears to have been formulated to close the gap between Denmark's past road safety results and those nations that have been identified as appropriate peers. The current Danish road safety plan notes that "...Sweden – and to a certain extent United Kingdom and Norway – boast a level of road deaths per inhabitant which is approximately 40 percent lower than ours"²⁷. The intent is to catch up.

However, Denmark has selected the relative goal of a 40 percent fatality reduction in the past. In Denmark's 1988 "Road Safety Policy Action Plan", the goal was a similar 40 percent reduction in fatalities and injuries over the 1986-1987 average by 2000, which would have yielded no more than 427 deaths and 7,624 injuries respectively. This level was not attained, leading the government to try again, and maintain a relative target rather than staking out an exact target²⁸.

Austria's Road Safety Programme for 2002 – 2010 adopted the goal of a 40% reduction in fatalities relative to 1998. The goal was justified in economic terms, with a clear statement that "We cannot afford to continue having accident rates in Austria that result in socio-economic costs currently amounting to 3.6 billion Euro annually."²⁹ The government notes that while fatalities have fallen by nearly 40% over 1961 levels, "By European comparisons, it could be seen that, at best, Austria lies in the middle. The "best" countries have death rates nearly half [those of] Austria."³⁰ Austria's plan sets out a number of recommendations and cites past progress, noting considerable progress in reducing fatalities since 1972. But the

²⁶ Denmark, Danish Road Safety Commission, *Every Accident is One Too Many* (2000) p. 5

²⁷ Denmark, Danish Road Safety Commission, *Every Accident is One Too Many* (2000) p. 5

²⁸ Denmark, Ministry of Transport. *Report to the Danish Parliament from the Minister of Transport on the Road Safety Commissions New Objectives* (2000) p. 1

²⁹ Austria, Ministry for Transport, Innovation, and Technology, *Austrian Road Safety Programme 2002-2010*. Vienna. (2004) p. 10.

³⁰ Austria, Ministry for Transport, Innovation, and Technology, *Austrian Road Safety Programme 2002-2010*. Vienna. (2004) p. 11.

measures and milestones that are to be used in implementation remain unspecified, suggesting that political and administrative uncertainty about how far to go remains an issue.

As the world's most mobile, and most motorized, society, the United States produces an imposing number of road casualties. Critics have long noted the automobile's high death and injury levels, and even compared the carnage on America's roads (unfavourably) with wartime casualties³¹. The political controversy arising from the massive number of deaths might be sufficient to dissuade public officials from choosing concrete policy goals in road safety, and embrace the target of a 20% reduction over 2000 deaths by 2008. American transportation performance is often measured in relative terms, from energy use to environmental impact to economic output, reflecting the dominance of mobility in American society. Transportation policy goals that are defined in relative terms are seen to enable adaptation to societal demands, and mitigation of recognized risks, without challenging the leading role of mobility in America's economy and culture. Relative goals in America's road safety policy make it less likely that implementation will consider mechanisms that would seek to reduce or otherwise limit mobility.

Abstract Goal Adoption

Canada's abstract policy goal to "have the safest roads in the world" is stated in its Vision for Road Safety³². This suggests a sense of overall ambition, but also a reluctance to be pinned down regarding a target. Instead of pinpointing an aggregate outcome, Canada's policy focuses on program specific targets such as increasing seat belt use or reducing drunk driving that are identified as contributing to overall road safety. What is less clear is how Canada's national ambition will be translated into subnational actions, where much of the implementation required to advance road safety would have to occur.

If the ten countries identified in Figure 2 managed to meet their projected targets, Canada would occupy sixth place. Sweden would have the safest roads in the world with just 2.98 deaths per 100,000 people. Moreover, as Sweden's stated long term vision is to have zero deaths, Canada would eventually need to aim for road transportation that was free of fatalities. Whether such a goal could be endorsed by Canadian policy makers is unclear, given the

³¹ John Burby, *The Great American Motion Sickness, Or Why You Can't Get There From Here*. (Boston: Little Brown and Company 1971) p. 5 and Jane Holtz Kay, *Asphalt Nation: How the Automobile Took Over America and How We Can Take It Back*. (New York: Crown Publishers. 1997) p. 103

³² Canada, Transport Canada, *Road Safety Vision 2010*. Ottawa. (2002) p.2.

institutional constraints on achieving the policy interventions that would be needed.

Conclusions

When it comes to managing risk in one of the most ubiquitous, yet dangerous, daily activities in developed nations, the goals and targets that policy makers have set for road safety programs turn out to be strongly influenced by their perceptions of political legitimacy and administrative capacity. We have shown that when policy makers perceive both legitimacy and capacity to be high, road safety goals will be defined as concrete targets. When either the legitimacy of government action on a problem, or the capacity of government to address that problem, appear less certain policy makers will opt for relative goal selection. And when there appears to be conflict about the legitimacy of a policy problem and the administrative capacity to address it, policy actors seek cover for uncertain outcomes by choosing abstract goals.

In Sweden, Japan, New Zealand, Norway and the Netherlands we have identified both a political culture that supports risk reducing initiatives and an administrative capacity that inspires confidence when it comes to setting safety targets. The concrete goals that have been selected appear both popular and attainable. Even when efforts to meet them fall short, as occurred in Japan, policy actors feel comfortable in pursuing concrete targets. And in all cases except for New Zealand, the concrete goals that have been expressed reflect ambitions that are above the mean in our ten nation sample.

The United Kingdom, United States, Austria and Denmark have identified their road safety goals in relative terms, reflecting concerns about the legitimacy of this policy problem - or capacity, or both. With the exception of the U.K., these relative targets translate into anticipated outcomes that are below the mean in our ten nation sample. Policy makers in these nations may well hope to leverage success in meeting these relative goals to pursue more ambitious future outcomes.

Canada's abstract goal selection reflects a tension between the relatively high legitimacy of pursuing road safety initiatives in a safety conscious culture and the administrative constraints of multi-level governance in an adversarial federation. For instance, while automobile design safety is the sole responsibility of the federal government, the physical design of highways and roads fall to either municipal or provincial governments. Meanwhile, responsibility for enforcement varies between the federal RCMP, provincial authorities, and municipal police forces. As this assessment has shown, how a jurisdiction expresses its policy goals can make a

difference in the sights that are set, and ultimately in the results that are achieved.

