Value of a Statistical Life (VSL) in the Decision-Making of Czech Government Agencies: Transparency and Consistency in the Spotlight

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Abstract

Numerous public policies aim to reduce mortality risks. We typically encounter them in policy areas such as transportation, healthcare, and environmental protection. Efficient resource allocation requires considering of both costs and outcomes. Despite ethical controversies, assigning a monetary value to a human life is inevitable. The value of a statistical life (VSL) is often used to identify an optimal level of spending. Although VSL estimates have received considerable attention in the academic literature, far fewer studies have examined how this concept is applied in governance, where consistency, transparency, and the implementation of evidence-based policies across sectors should be ensured. Existing studies indicate significant differences in VSL estimates across contexts. They vary across countries, sectors, and valuation methods. How do government agencies work with VSL under these circumstances? To what extent are the methodologies used across different sectors aligned, and how significant are the differences in VSL values? Looking for answers, the paper provides insight from Czechia. Our case study examines how Czech government agencies approach the value of human life and compares VSL values across sectors. It analyses differences in methodologies and conceptual approaches to identify implications for transparency, consistency, and the efficiency of public decision-making, and advocates measures aimed at harmonising the VSL estimates used across sectors. We found significant differences in the VSL used by government agencies across various sectors. These differences extend to both specific methodologies and conceptual understandings of the value of human life. Only recently has a gradual shift away from the human capital approach toward more modern, less controversial approaches that utilise the concepts of willingness-to-pay and willingness-to-accept begun. Some differences can be explained by context and purpose. In certain areas, such as RIA methodology, clearer recommended procedures should be defined. Harmonising methods for determining the value of human life across sectors would contribute to more transparent and cost-effective decision-making.

Key words

Decision Making, Public Policy, QALY, Value of Statistical Life, Willingness-to-pay

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1. Introduction

Numerous public policies, projects, and regulations aim to reduce mortality risks and, ultimately, save human lives. Such measures are most often encountered in areas such as transport, healthcare, environmental protection, and safety. In these contexts, expressing the value of life is inevitable for effective resource allocation and maximising social welfare, however ethically sensitive it may appear. For these purposes, the concept of the Value of a Statistical Life (VSL), introduced by Schelling (1968), is commonly used. Viscusi defines VSL as the local trade-off rate between fatality risk and money. The VSL does not express how much life as such costs but rather reflects the marginal amount people are willing to sacrifice for a marginal increase in their security, or, conversely, the financial compensation they require to accept a slightly increased risk (Viscusi, 1992; Viscusi & Aldy, 2003). The value of life quantified in this way can serve as an input for economic evaluation, typically in the form of cost-benefit analysis (CBA), to determine whether a proposed policy is worthwhile and provides good value for money (Keller et. al., 2021).

The elicitation methods of VSL and its implementation in various sectors have received considerable attention in the academic literature. Keller et al. (2021) identified 120 relevant studies[3] published between 2009 and 2019 in their systematic review. The study found overlapping VSL ranges across sectors; however, the range of VSL estimates reported in health and labour markets studies was generally greater than that reported for other sectors. In other words, VSL estimates are significantly different across sectors (ibid). Viscusi and Aldy (2003) pointed to the income elasticity of the value of a statistical life. They emphasise the need to keep refining VSL for the specific characteristics of the affected population at risk. A recent OECD study (2025) suggests that the income elasticity of VSL can be even larger than one. Alberini and Ščasný (2021), investigate increases in VSL and income over time by comparing two identical CV surveys carried out five years apart in the Czech Republic, estimating an income elasticity of VSL of ca. 0.77.

Eliciting VSL typically involves complex research using sophisticated scientific methods. Existing studies indicate significant differences in VSL estimates across contexts. This presents obvious challenges for the implementation of this concept in the decision-making of government agencies. Ministries, public administrations, and other government agencies must ensure consistency, transparency, and evidence-based policy design across sectors. Decision-makers must draw on relevant scientific findings while minimising the evidence-to-practice gap. Far fewer studies have been devoted to this complex topic. One exception is the study by Robinson (2007). The author mentions several typical problems that (American) government agencies face. One of them is the unavailability of data to analyse the costs and benefits of some specific government regulations. In the case of smaller countries, it may not be just a lack of data. The sheer number of relevant studies and thus the areas to which they can be applied may be very limited. For example, very few studies eliciting VSL have been published in the Czech Republic (Alberini & Ščasný 2021, Klimeš et. al. 2025, Melichar et.al. 2010, Ščasný & Urban 2008, Špiroch 2006). Another issue concerns equity compliance issues and redistributive impacts. Methods of economic analysis capture economic efficiency well, but e.g. using different VSL estimations for different segments of the population (varying with age and/or income) might be questionable and politically unfeasible. As a result, federal

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agencies generally apply the same mean VSL estimates across all individuals potentially affected by their regulations (Robinson 2007).

The third issue is directly linked to our main research question. Robinson states that "use of different VSL estimates across agencies could lead to different levels of investment in life-saving regulations if the quantified estimates of benefits and costs were the only factors considered by policymakers. For example, if two agencies were each considering a regulation with identical costs and mortality risk impacts, the agency using the lower VSL estimate might select a less costly option. In theory, the risks addressed by different agencies could have different monetary values due to variation in the nature of the risks and the populations affected. In reality, the differences across agencies appear instead to reflect variation in their approaches to addressing limitations in the available VSL research" (Robinson 2007:295).

The aim of this paper is to investigate how various state authorities in the Czech Republic value human life. To what extent do the methodologies used align across different sectors, and how large are the differences in VSL values? Is there a significant risk of inefficiencies? In the background, there are normative questions: How can equal marginal benefits be achieved in reducing fatality risks across sectors? Shouldn't the state work with a uniform level of willingness to pay for the reduction of the risk of fatalities, despite the resulting inaccuracy? This paper is based on extensive and systematic desk research of relevant legislation and published methodological frameworks. In the first part, we examine how Czech government agencies approach the value of human life and compare VSL values across sectors. In the discussion, we present arguments for and against a unified VSL level. The conclusions propose modifying the current system setup to increase transparency, consistency, and accountability for decision-making outcomes.

2. VSL as a governmental bodies' agenda - Czechia Case

2.1. Methodology

For the purposes of description and comparison, we selected sectors that appear most frequently in the literature review, namely transportation, infrastructure, healthcare, and labour & social affairs. We supplemented this selection with court decisions regarding compensation for non-pecuniary damage and briefly address Regulatory Impact Assessment (RIA) as a cross-cutting tool. For each area, we first present the theoretical foundations and official methodologies, where available, and subsequently compare VSL values based on recent developments. The analysis is based on systematic desk research of publicly available sources.

2.2. VSL in decision-making by different sectors/agencies

2.2.1 Transportation

Evaluation of the economic efficiency of transport projects is an obligatory part of decision-making on their implementation. The generally accepted concept of VSL is applied here as an input for CBA. The procedure is mandated by the Departmental Methodology for the Evaluation of the Economic Efficiency of Projects issued by the State Fund for Transport Infrastructure (SFDI, 2023). The subject of the evaluation on which the methodology focuses are the construction of transport infrastructure and its parts serving road, water and rail transport. Primary

empirical research for the determination of the exact value of VSL in the conditions of the Czech Republic is provided by the Transport Research Centre (CDV).

Historically, Czech transport methodology has been strongly rooted in the modified human capital method (HCA). In 2022-2023, there was a fundamental methodological shift in the Czech Republic from a conservative human capital approach (focused primarily on productivity and GDP losses) to the modern European WTP standard. The WTP value was determined through sociological surveys using the stated-preference method to more accurately reflect the true moral value of health and the fear of suffering than earlier accounting methods (CDV, 2023). In 2022, the Transport Research Centre conducted a survey with approximately 8,000 respondents. The participants of the research took part in sixteen independent elections, in which they decided between two variants of traffic safety measures. These measures were defined by two parameters: the number of deaths or serious injuries prevented, and the financial cost that the measure would entail for the respondent's household budget. From the aggregation of these individual elections, the resulting VSL estimate, which at that time amounted to CZK 46.3 million (EUR 1.9 million), was then mathematically derived. (ibid). However, this value still represented about half of the amount of the than applicable recommended European standard (EUR 3.6 million (European Commission, 2020). In May 2025, the Methodology was updated, setting the current VSL at CZK 50.2 million (EUR 2 million).

For CBA modelling, the value of total unit socio-economic costs is used. These unit costs consist of two components. In addition to VSL, which represents non-material harm (pain, suffering and reduced quality of life), other direct and indirect costs are added: health care expenses, administration, loss of productivity or material damage. According to the current methodology, the cost per fatality is approx. 78 mil CZK (EUR 3.1 mil) (CDV, 2025).

2.2.2 Regional development

The Ministry of Regional Development (MMR) is another state body that is significantly involved in evaluating and ensuring economic efficiency. The main role of the Ministry of Regional Development is to manage regional development and administer EU funds, which, in effect, means it functions as a National Coordination Body. The valuation of human life is not an autonomous agenda of this institution. But as a common methodological requirement for approving subsidies for projects in cities and municipalities, MMR regularly must deal with it. There is an obligation to use cost-benefit analysis (CBA) for all major infrastructure investments. According to the European Commission's rules for the 2021-2027 programming period (European Commission, 2021), this analysis must include not only financial indicators, but also monetised social benefits, i.e. impacts on the health and safety of the population (e.g. averting traffic accidents, reducing accident rates). In its Methodological Guideline for Project Evaluation (MMR, 2021), the Ministry of Regional Development explicitly stipulates that when preparing a subsidy project, a quantitative assessment of the impact on the population must also be part of the socio-economic analysis. Although the Ministry of Regional Development does not define the VSL itself, it methodically requires its use through the methodologies of other ministries.

The interconnection of subsidy programs can serve as a good example. As part of the Integrated Regional Operational Programme (IROP) MMR strictly requires safety and infrastructure projects to follow the General Rules for Applicants and Beneficiaries which refer to the Departmental Methodology of the Ministry of Transport.

It contains a specific financial expression of the value of statistical life derived from the data of the Transport Research Centre - currently over CZK 50 million (see subchapter 2.2.1).

In projects where the impacts on life and health are difficult to quantify financially - for example, in IROP for projects of health infrastructure, social services or the integrated rescue system, the MMR methodology departs from the classic CBA. The full monetisation of health through indicators such as QALYs, which the Ministry of Health uses for pharmaceuticals (see 2.2.3), is methodologically too complex for the evaluation of construction investments. In these specific cases, the Ministry of Regional Development orders the use of cost-effectiveness analysis (CEA) or multi-criteria analysis (MCA) in accordance with European rules. These methods assess subsidy projects according to the costs of achieving a specific non-financial goal - for example, the cost of building capacity for one newly treated patient or shortening the arrival time of the ambulance service.

The concept of social return on investment (SROI) is also increasingly used in regional development and supplementary evaluations. As stated in the Methodology for Evaluating the Effects of Territorially Determined Projects (MMR, 2020), the impacts of interventions should be assessed not only by strict economic indicators but also by complementary social effects. These include improving health conditions, reducing the risk of accidents, increasing the sense of security and strengthening community cohesion, which cannot always be simply reduced to a single tabular value of VSL.

2.2.3 Healthcare

Decision-making in this sector involves a different situation than in previous cases. The primary goal is not to establish a general VSL to prevent sudden death. Rather, it matters whether a new treatment is objectively assessed to provide clinical benefit to patients. This benefit may include prolonging life and improving its quality. In practice, therefore, established Health Technology Assessment (HTA) procedures are used. Typical decisions focus on whether new drugs or health technologies will be covered by public health insurance. The goal is to determine whether a given treatment provides patients with benefits that justify the costs incurred. The basic legislative framework for this process is formed by Act No. 48/1997 Coll., on Public Health Insurance, and Regulation (EU) 2021/2282 on HTA. The Czech Republic does not have a single, standalone “HTA Act.” HTA procedures are integrated into the reimbursement determination system. The main executive body for HTA of medicines and medical devices is the State Institute for Drug Control (SÚKL).

In practice, SÚKL uses the Cost-Effectiveness Analysis or Cost-Utility Analysis (CEA or CUA), which work with the QALY – quality-adjusted life year indicator, when assessing new drugs. This indicator combines life expectancy and quality of life: a year of life in full health has a value of 1 QALY, while a year of life with health limitations can have a value of 0.5 QALY. A key criterion for the decision is the calculation of the ICER indicator – incremental cost-effectiveness ratio, which indicates the ratio between the additional costs of a new treatment and the benefit expressed in the QALY indicator. The procedure is described in detail in the document "SP-CAU-028 Procedure for the assessment of cost-effectiveness analysis" (SÚKL, 2022). This methodological guideline states that the assessment of cost-effectiveness also takes into account the so-called threshold value, which was previously derived from gross domestic product (GDP) per capita in accordance with the recommendation of the World Health Organization (WHO) – usually in the range of 1 to 3 times GDP per capita (WTO 2003). Neither Czech legislation nor SÚKL methodologies currently provide for any specific monetary

amount. The value of the cost-effectiveness threshold is always determined individually according to the current GDP and the context of the drug. The Czech Public Health Insurance Act (Section 39b and related provisions) specifically states that ICER is to be "similar" to already covered technologies, rather than defining a fixed limit. That is why SÚKL works more with precedent-setting decision-making practice than with a hard cutoff.

Although there is no formally defined explicit threshold in the Czech Republic, there is an implicit threshold. SÚKL states that "in accordance with the Institute's decision-making practice, the limit of CZK 1.2 million (EUR 48,000 /QALY) will continue to be applied as the normal acceptable limit when deciding on cost-effectiveness, in accordance with the provision of Section 15 (1) of the Act. 8 of the Public Health Insurance Act" (SÚKL, 2022, p.21). In addition, for innovative drugs (orphan drugs, oncological treatments, highly innovative medicinal products, etc.), the threshold is tolerated more flexibly in practice, even with a higher ICER. According to Doležal (2023), the state is willing to accept the willingness-to-pay threshold, which, according to expert estimates, can range from CZK 3 to 4 million per QALY. This approach makes valuation in the health sector highly context-dependent and marks a departure from a universal value of human life.

In current discourse, there is an ongoing debate about whether the default threshold is too high or too low, and whether it should be differentiated by disease severity, rarity, or unmet need. The study by Klimeš et al. (2025), for example, points out that the median ICER across all investigated cases was approximately EUR 72,000/QALY, based on official list prices, with 37% of cases falling below the informal threshold (EUR 48,000/QALY).

The values of the threshold used can be considered as a way expressed (or implicitly accepted) social willingness-to-pay for extending life by a year in perfect health and can be used in combination with life expectancy to some extent in estimating VSL. However, several methodological pitfalls are associated with this. Major inaccuracies would occur, especially within specific groups (people with rare diseases, etc.). In any case, VSL modelling would have to include at least: discounting future years of life, taking into account the likelihood of decreasing quality of life depending on ageing, changes in VSL related to the life cycle or ability to pay - younger people have more years of life, but older people may be more willing to pay from their savings.

Even with these limitations in mind, we will provide a model example here for a rough comparison of VSL across sectors. Let us assume a completely average Czech at the average age, i.e., approx. 43 years. He is expected to live to be 77, 62 of which he has spent in good health. For simplicity, let's assume that the quality of life deteriorates by a constant 20% after 62 years. We set the discount rate at 3%. The healthcare system successfully treated him with an innovative treatment that underwent HTA and prevented his immediate death, with an implicit threshold of 1,200,000 CZK/QALY applied. In this case, the resulting VSL value would be CZK 23.7 million (EUR 0.95 mil). The simple product of the remaining life expectancy (34 years) and the threshold would give us a value of CZK 40.8 million (EUR 1.63 million).

2.2.4 Labour and Social Affairs

In this sector, we encounter VSL in several highly heterogeneous agendas. As a result, state authorities, especially the Ministry of Labour and Social Affairs (MLSA), work with the value of life in several ways. VSL is of fundamental importance to the Ministry of Labour and Social Affairs, especially in the areas of occupational safety and social interventions. In addition, the MLSA methodically addresses cases of compensation and compensation for specific persons arising from accidents at work, occupational diseases, or fatal accidents. This different purpose

leads to the use of entirely different economic and legal instruments, which are not based on willingness to pay (WTP) but on a social agreement on an appropriate level of damages.

As far as occupational safety and health (OSH) is concerned, the State Labour Inspection Office (SÚIP) is the executive agency responsible for evaluating the benefits of new OSH regulations. If the proposed regulation increases companies' costs, it must be proved that the value of a life saved (VSL) multiplied by the estimated number of averted deaths exceeds those costs. In doing so, data from research using the hedonic wage equation and from EU-SILC are typically used. These estimates show considerable variability depending on the methodology used and the type of risk (Špiroch 2021). They range from CZK 60 million to CZK 266 million (EUR 2.4 million to EUR 10.6 million). This considerable variance is mainly due to what control variables the researchers include in the models. Higher values are usually based on models that better isolate the wage bonus purely for the risk of death from other adverse influences, such as noise, dirt or physical exertion (ibid).

In social interventions, typically prevention projects, VSL is used to quantify the social value of averted premature deaths due to social exclusion. As far as we know, in such cases, the Ministry of Labour and Social Affairs uses the Methodological Manual for the Analysis of SROI (Social Return of _Investment), published by the Ministry of Regional Development (2015).

The MLSA also addresses the issue of the value of human life in connection with compensation for accidents at work, occupational diseases and death of an employee in the course of work. Unlike economic models used in transport or healthcare, this is not a statistical expression of the value of life, but a legal-normative determination of compensation for specific damage suffered by a particular person or their survivors. The basic legal framework is the Labour Code (Act No. 262/2006 Coll.) and Government Regulation No. 276/2015 Coll., which regulates the manner and amount of compensation for accidents at work and occupational diseases. The valuation is not carried out on the basis of economic models (e.g. willingness-to-pay or QALY), but through well-defined legal claims. In the event of the death of an employee, not only the loss of life itself is compensated, but also the impact on the family. The bereaved are entitled to one-off compensation for non-material damage, reimbursement of funeral costs and reimbursement of the costs of maintenance that the deceased would have provided. These amounts are fixed and are not derived from statistical models, but from legislation and case law. According to Section 271i, in the event of the death of an employee, the survivors (spouse, partner, dependent child) are entitled to one-off compensation for non-pecuniary damage. The amount of this compensation was previously set at fixed lump sums, but recent amendments have linked this compensation to macroeconomic developments. Current legislation stipulates that the one-off compensation for the closest survivors is at least 20 times the average wage in the national economy, determined for the first to third quarters of the previous calendar year (Act No. 262/2006 Coll.). According to the Ministry of Labour and Social Affairs' Communication for 2026, the reference average wage is CZK 48,171 (MPSV 2025). The resulting one-off compensation in 2026 thus amounts to CZK 963,500 per entitled person. The total amount paid to the family, therefore, depends on the number of survivors, but in total it usually does not exceed millions of crowns. From the point of view of economic theory, it is not about valuing the lost life of the deceased himself, but about mitigating the psychological and financial damage of his surroundings. This approach reflects the philosophy of labour law, which emphasises employer responsibility and employee social security, rather than a market valuation of life.

2.2.5 Court decisions

Civil court decisions on compensation for non-pecuniary damage represent a specific case of dealing with the value of the human life.

The approach taken by the Czech judiciary differs significantly from the economic models for valuing human life used, for example, in transportation or healthcare. Like the compensation for survivors described above, it operates on the normative principle of income solidarity based on multiples of the average wage. The resulting values are therefore significantly lower than the amounts cited in academic VSL studies. However, the purpose of the two approaches is different: while VSL is primarily used to evaluate public investments and regulations, the Supreme Court's methodology is designed to provide fair and economically sustainable compensation for specific harm in civil law relationships.

According to Section 2958 of the Civil Code (Act No. 89/2012 Coll.), in cases of bodily injury, compensation is awarded for pain and suffering and impairment of social functioning (ZSU) in accordance with the principles of fairness. Following the repeal of the previous point-based decree, the Supreme Court developed a methodological framework to unify decision-making practice—the Methodology for Compensation of Non-Pecuniary Damage to Health (Supreme Court of the Czech Republic, 2014). This serves as a guideline for courts, experts, and insurance companies in determining the amount of compensation.

The methodology is based on the concept of the so-called reference value for a fully lost life, or 100% impairment of social functioning, corresponding to a person's complete exclusion from all areas of social life (e.g., a state of profound neurological impairment or a persistent vegetative state). This reference value is set at 400 times the average gross monthly nominal wage in the national economy for the year preceding the stabilisation of the injured party's health condition.

With an average wage of approximately CZK 49,215 for the year 2025, the indicative value for 2026 is roughly:

$$400 \times 49{,}215 \approx 19.7 \text{ million CZK (EUR 0.79 million)}$$

This amount does not constitute automatic compensation, but rather the starting point for calculating compensation for permanent consequences. The court may further adjust the resulting compensation on an individual basis, taking into account the circumstances of the case.

2.2.6 RIA - Regulatory Impact Assessment

According to the government resolution, lawmakers are obliged to conduct impact assessments in line with the RIA Guidelines. Impact assessments are required for every legislative intention prepared by the government as well as for any regulation where substantive costs to businesses, administrations and citizens are expected. Legislation proposed by Members of Parliament and Local & Regional Authorities is not subject to RIA yet (Government Office of the Czech Republic, n.d.).

There is no explicit VSL level for the impact assessment. The RIA methodology does not even explicitly mention VSL. The need to value life can be inferred from the fact that the methodology explicitly requires evaluating risks, assessing the probability of damage, and conducting a cost-benefit analysis, in which the monetary expression of impacts should be used where possible.

2.2.7 Comparison of elicitation practice in different sectors

Table 1 presents a summary comparison of elicitation methods and the size of VSL. It reveals differences in both the approaches taken and the values assigned to human life used by the various sectors.

Table 1: Elicitation of VSL across selected sectors in Czechia (2025/2026)

Sector	Primary purpose	Methodology	Value (millions of CZK)	Note	Elicitation agency
Transportation	Ex-ante economic efficiency of transport projects	Combined from 2 components: WTP (stated) + other direct and indirect costs (including loss <of productivity)	78	VSL interpreted as „non-material harm"- current value is 50.2 million CZK (2025 methodology)	Transport Research Centre (CDV)
Infrastructural investment and regional development	Input for CBA as a requirement for grant/subsidy proposals	No unified methodology. Compliance with relevant sector-specific methodologies (if any) is required.	NA	E.g. for infrastructure projects It adopts values from the transport sector.	Ministry for Regional Development (MMR)
Healthcare	Ex-ante allocation of limited resources for the reimbursement of new drugs and technologies	CUA / ICER (cost for 1 QALY gained) in context of the threshold value, that is determined individually according to the context	1.2/QALY (informal threshold)	In some cases, the threshold can reach more than CZK 3 million per QALY.	State Institute for Drug Control (SÚKL)
Labour and Social Affairs	Occupation health and safety projects	Hedonic-wage research data or EU_SILC used SROI Manual	60 - 266		State Labour Inspection Office (SÚIP)
	Occupational Compensations	Legal-normative approach Previously a fixed lump sum Nowadays 20 x the average wage.	0.96		Act No. 262/2006 Coll.

Sector	Primary purpose	Methodology	Value (millions of CZK)	Note	Elicitation agency
Civil Courts	Ex-post compensation for survivors	Normative principle. of income solidarity based on multiples of the average wage. 400 times average gross monthly nominal wage	19.7	Not automatically implemented - the court may further adjust the resulting compensation.	Supreme Court
RIA	Regulatory Impact Assessment	No explicit methodology.	NA	Can vary significantly	

Source: Compiled by the authors

3. Discussion - unified VSL?

In the context of decision-making by state bodies, which essentially represent one entity, the fundamental dilemma is the question: Should we expect the state to be strictly consistent across all departments in the economic evaluation of statistical life, or is it rational and correct to approach the valuation of sectors differently? Should the government work with uniform VSL or differentiated values? Harmonisation may be desirable from the perspective of consistency, but using a single standardised number can deviate from "affected individuals' preferences" (context-specific WTP) and thus from ideal welfare-theoretic BCA Robinson & Hammitt, 2011).

There are two main arguments for the use of a uniform statistical life value (VSL) throughout the state administration: The first is normative concerns about equity compliance issues and redistributive impacts. The application of differentiated VSL to different categories of citizens contradicts the fundamental principle of equality and equal rights and obligations of citizens and could easily be considered discrimination. Normative justification for harmonization is pointed out, for example: Kniesner & Viscusi (2023), who note the so-called "equitable risk tradeoffs". Methods of economic analysis capture economic efficiency well, but e.g. using different VSL estimations for different segments of the population (varying with age and/or income) might be questionable and politically impassable. As a result, federal agencies generally apply the same mean VSL estimates across all individuals potentially affected by *their* regulations (Robinson 2007), even if they have, or could have, sufficiently sophisticated evidence to use a differentiated VSL for greater accuracy. If we accept the argument that individual agencies ultimately act in the name and interest of one public corporation - the state, it seems logical not to unify the VSL only within individual formally autonomous jurisdictions, but to relate it to the allocation decisions of the state as a whole.

The second argument in favour of a unified VSL is directly related to this. From the point of view of the public finance system, opportunity costs are not confined to one sector. Inconsistent "prices for saving a life"

can push public spending toward whichever sector has the *lower* threshold rather than toward the highest social value. If the ultimate purpose of public policy, and thus the use of public expenditure, is to save lives, the principle of cost-effectiveness dictates that the option that achieves the greatest effect from a given budget should be chosen. If the state has a limited budget, it should allocate it to where the most lives can be saved for the same cost. For example, if the Ministry of Transport counts on VSL 20 million Czech crowns and the Ministry of Health on 100 million Czech crowns, saving one life in the healthcare sector may come at the expense of saving several lives elsewhere. There is a risk of inefficiencies in allocation. The state would refrain from investing in road safety measures, at the expense of financing new drugs or technologies in healthcare, even though it could save more lives by redistributing funds. This paradox of massive inefficiency in the allocation of public resources was first empirically highlighted by Tengs et al. (1995), who used data from US federal agencies to demonstrate substantial differences in the cost of saving a life across departments. On a theoretical level, Viscusi (1992) has long advocated unifying and rationalising the VSL across the state administration.

On the other hand, there are a few arguments to support differentiation and achieving the highest possible accuracy of the WTP estimation (e.g. Dekker et. al. 2011, Hammitt 2000, Keller et al. 2021). The risks are not the same, and people take different attitudes towards them. Behavioural economics shows that citizens demand a higher level of protection from the state and are willing to pay more when the risk is involuntary (e.g., air pollution, rare diseases) and less controllable than when the risk is accepted voluntarily (e.g., driving a car, a risky occupation). The foundations of this approach were laid by Starr (1969) and subsequently developed in depth by psychologist Paul Slovic (1987). The population is heterogeneous, and the target groups at risk can vary greatly. Different demographics exhibit different willingness-to-pay. For example, young people have a different WTP for risk reduction than the rest of the population, and VSL is also a pension-elastic variable – as wealth grows, the willingness to invest in security naturally increases. Differentiation by age or income allows for a more realistic assessment of the benefits of specific measures. From the point of view of welfare economics, the valuation of each case should reflect the true preferences of the individuals whose lives are at stake. The use of a single unified value (standardisation) is considered a "second-best" solution in this concept (Robinson & Hammitt, 2011), which can significantly deviate from the actual preferences of the persons concerned and thus lead to inefficient allocation of resources. Current Czech empirical studies also show that the VSL is not a fixed constant. Based on his models, Špiroch (2021) notes that using a single "average" value for statistical life can be misleading for state policy. Instead, it proposes working with differentiated values by age or income group, which would allow for a more realistic assessment of the benefits of safety and health measures. Knapec (2022) reaches a similar conclusion, finding that young people show a different willingness to pay for risk reduction than the rest of the population. Therefore, for example, in transport or health projects specifically aimed at youth, the value of the GSP should be adjusted accordingly, he says.

Robinson (2007) points out the practical complications that would arise from strictly adhering to the ideal of expressing VSP as accurately and heterogeneously as possible. According to her, federal agencies face three challenges in valuing mortality risks: they must select appropriate studies from the available literature, they must adapt the study estimates to the regulatory context, and they must combine the results into a point estimate, a range of values, or a probability distribution for use in their analyses.

The principles of transparency and accountability of public administration create the need for methodological coordination, explicitly defined procedural procedures, which necessarily limits the discretion of

government agencies. Not to mention, relevant research may not always be available. Robinson (2007) states that the most important and controversial challenge is determining how to address the differences between the types of risks studied and those addressed by federal regulations. For example, wage compensation studies look at the risk of accidental deaths in workers who are on average in their mid-thirties to late thirties. However, individuals affected by air pollution regulations are likely to be much older, may face a higher underlying risk from non-pollution-related illnesses, and may experience several years of illness (e.g., heart disease or cancer) before death.

To understand the meaning and logic of the requirement for unified (and therefore inaccurate from the point of view of WTP) VSL, it is useful to realise how we approach the valuation of other items of costs and benefits when processing CBA. Specifically, when considering tangible costs and benefits, we start with their market price. We are rectifying it to bring it as close as possible to the hypothetical ideal price in a perfect market. The resulting price can then be entered into the CBA in the same amount, in a unified manner, regardless of the context. How would this procedure hold up if we wanted to assess stated willingness-to-pay? Wouldn't we find that some groups of the population would pay more (or less) for the valued good than others if they could? The same parameters would likely play a role here as in VSL. In other words, the strict requirement to use a scientifically based method that is appropriate to the nature of the risk and the target group, expressing as precisely as possible the willingness to pay for reducing the risk of fatality in a specific situation, seems to be factually correct, but from the point of view of practical application, it is exaggerated. Decision-making practice requires and creates VSL that is differently defined, recommended, or even binding. Probably the best example is the OECD (2012; 2025) cross-sector and cross-country guidance on mortality risk valuation. OECD reports are often cited exactly for the policy governance question: how much to harmonise VSL across sectors/agencies, and what you gain/lose (consistency vs context sensitivity).

The description of current practice in eliciting VSL in the Czech Republic shows that unification is occurring within sectors. And although it is obvious that this type of "sectoral" second-best will be burdened with less error than it would be in the case of a unified VSL, this is not a fundamental difference. The question for the decision-making practice of state bodies is therefore not whether the state should work with VSL uniforms or differentiated values. The question is whether human lives should be valued differently depending on the sector in which they are threatened.

4. Policy recommendations

Considering the above arguments and being aware of existing practice, the following policy recommendations can be formulated:

1. To develop a uniform methodological standard for determining the VSL, which would be binding for all branches of state administration and would ensure transparent and fair prerequisites for cross-sectoral comparison of alternative investment or expenditure projects. This does not mean rigid unification. A uniform methodological standard would not preclude the use of transparent sectoral multipliers that adjust the default central value based on the proven nature of the risk (voluntariness, dread effect, age). The solution allows consideration of any government’s political and social preferences and values in a similar way.
2. To establish a single institutional body responsible for the entire issue of eliciting and implementing VSL into the decision-making processes. One option would be to entrust this role to the analytical department of the

Ministry of Finance as a body with cross-cutting responsibility for the overall efficiency of public budget management.

3. The VSL obtained in this way should be regularly indexed by a legally guaranteed mechanism.
4. Apply this methodology explicitly to the RIA evaluation.

5. Conclusion

Our analysis revealed significant methodological and value-based inconsistencies in the approaches taken by Czech public institutions to valuing statistical life. Individual sectors use different concepts (WTP, QALY, legally normative approaches) and procedures, leading to a wide range of resulting values. Although these differences can be justified to some extent by the specific nature of the decision-making contexts, they also undermine the transparency and comparability of public policies.

The findings suggest that a lack of coordination can lead to unequal treatment of the value of human life and, potentially, to a suboptimal allocation of public resources across sectors. The key issue, therefore, is not merely the uniformity of the VSL but primarily the differing methods used to estimate it.

Based on these findings, the article emphasises the need to strengthen methodological consistency and transparent decision-making processes. The proposed solution is to establish a unified methodological framework that would enable cross-sectoral comparisons while preserving limited scope for context-specific adjustments. At the same time, it appears desirable to institutionalise this agenda and integrate it more systematically into public policy evaluation tools, particularly RIA.

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