CLOSING THE DATA GAP: COMPARING ADMINISTRATIVE AND MOBILE DATA TO ASSESS LOCAL TOURISM TAX REVENUES IN THE CZECH REPUBLIC



Luděk Kühr & Petr Janeček

ABSTRAKT

This paper analyses the economic impact of the local accommodation tax (LAT) on municipal budgets in the Czech Republic and evaluates the potential fiscal effects of implementing a mandatory national digital single-entry point, eTurista. Using mobile positioning data (MPD), official statistics, survey-based adjustments, and municipal decrees, the paper estimates that 73.7 million taxable adult nights occurred in 2024. When combined with regional weighted LAT rates, these nights correspond to a potential revenue of CZK 2.386 billion, compared with CZK 1.715 billion actually collected. The resulting revenue gap of CZK 670.6 million (39.1%) reflects significant under-collection driven by information asymmetries and administrative fragmentation rather than statutory rate levels.

To complement these demand-based estimates, a capacity-based model was constructed using CAE and IAE bed stocks, regional net bed utilisation, and survey-derived adjustments for family composition. Under full utilisation, the accommodation system could theoretically generate up to 102.9 million adult person-nights annually, corresponding to CZK 3.29 billion in LAT revenue at current rates, and up to CZK 4.94 billion under legally permissible rate adjustments. These figures represent structural upper bounds rather than forecasts.

The findings suggest that a unified digital entry point such as eTurista could improve compliance by standardising guest registration, strengthening third-party reporting mechanisms, and harmonising data flows between accommodation providers and municipalities. As a result, eTurista is expected to enhance municipal fiscal capacity without increasing the statutory tax burden.

Keywords: Accommodation tax. Big data. Compliance. Digitalization. Municipal finance. Tourism statistics.

INTRODUCTION

Local accommodation taxes (LAT) are an increasingly important revenue source for municipalities across Europe, yet their effective collection hinges on information that is costly to observe and easy to under-report when administrative systems are fragmented. In the Czech Republic, LAT collection is delegated to municipalities, reporting obligations are heterogeneous, and the statistical picture of

overnight stays differs across sources. This paper quantifies the economic impact of introducing a national digital single-entry point (eTurista) with mandatory registration of all types of accommodation premisses and uniform reporting; and explains the mechanisms by which such a system can narrow the gap between the potential and realized local accommodation tax revenues.

LITERATURE REVIEW

The main theoretical foundation of this paper lies in the slippery slope framework of tax compliance, which posits that compliance is jointly determined by the power of authorities (their audit and enforcement capacity) and the trust taxpayers place in them (perceived fairness and legitimacy). When either pillar weakens, voluntary compliance erodes and coercive measures become costlier and less effective. In the context of the Czech Republic, existing municipal fragmentation and uneven digital capacity can therefore undermine both perceived fairness and detection risk in the administration of local accommodation taxes. Complementing this perspective, the blame-avoidance literature suggests that local officeholders, anticipating potential backlash from voters and business constituencies, often adopt strategies to minimize visible conflict even at the expense of forgone revenue. These strategies can take presentational forms (framing), policy forms (design), or agency forms (responsibility shifting). In practice, this may appear as persistently low local tax rates, lax enforcement, or shifting responsibility to national data gaps and platform non-cooperation. Fragmented multi-level governance amplifies these effects by diffusing accountability and allowing local leaders to claim that the causes of revenue losses lie elsewhere. This theoretical lens also explains why some municipalities justify low tax rates as "support for entrepreneurs," while residents—who bear the externalities of tourism in the form of congestion, reduced privacy, or higher service costs—have fewer incentives or channels to exert counter-pressure (Hinterleitner, 2023; Kirchler et al., 2008).

The second theoretical strand draws from the literature on *third-party reporting*. Modern tax systems are most effective when transactions generate paper trails beyond the taxpayer's control

and when firms act as fiscal intermediaries. In large organizations with many employees and auditable records, collusive evasion is difficult to sustain because any insider can expose discrepancies. Digitalization—through e-filing, electronic invoicing, or automated cross-checks-strengthens these information networks and raises the expected cost of misreporting. The implication for the accommodation sector is straightforward: large hotels and chains, embedded in dense third-party reporting systems (e.g., payroll, booking engines, card processors), should exhibit higher compliance than atomized small providers that operate at the retail margin. Empirical studies confirm this logic. Evidence from Chile shows that transactions covered by VAT paper trails are less responsive to enforcement shocks, while smaller firms react strongly to audit nudges-consistent with weaker information trails. Similarly, experiments in Ecuador reveal that, when tax authorities rely on third-party data but lack credible enforcement, firms adjust on other margins: revenues rise after notifications, but reported costs increase almost one-for-one, leaving net liabilities largely unchanged (Carrillo et al., 2017; Pomeranz, 2015). These insights suggest that centralizing data collection or remittance at a high-capacity intermediary—such as an online booking platform—could raise compliance among fragmented providers by creating shared data trails and shifting audit and reputational risk upstream (Kleven et al., 2016).

To verify reporting patterns empirically, this paper employs *mobile positioning data (MPD)*— passive, anonymized records from mobile network operators—to infer the spatial and temporal distribution of tourist overnight stays. Over the past decade, statistical authorities and international organizations such as Eurostat and the UN have

confirmed MPD's potential for tourism statistics, provided that methodological safeguards are applied. When carefully processed and calibrated, MPD can complement traditional surveys by improving timeliness and regional granularity. However, it is not without limitations: biases may arise from uneven SIM ownership, roaming behaviour, or the algorithms used to infer overnight stays. Hence, we use MPD not as a direct replacement for administrative data but as an benchmark upper-bound that helps reveal underreporting (Eurostat, 2014; Grassini & Dugheri, 2021; Saluveer et al., 2020; United Nations Global Working Group on Big Data for Official Statistics, 2019).

Integrating these theoretical and methodological perspectives provides a framework to interpret regional heterogeneity in the Czech Republic. Where the accommodation market is dominated by large hotels and spa resorts—such as in Karlovy

Vary—dense third-party trails and reputational constraints should result in smaller discrepancies between MPD-implied and officially reported nights. Conversely, in regions with a high share of private apartments, guesthouses, or cottagessuch as Vysočina—third-party reporting is weaker, administrative capacity more fragmented, and political incentives for under-enforcement stronger, leading to wider reporting gaps (Guo & Hung, 2020; Kleven et al., 2016). The introduction of a national digital single-entry point, eTurista, is thus expected to strengthen both the *power* and trust dimensions of compliance by standardizing guest registration, linking municipal tax assessments with payments, and creating automated cross-checks. If implemented transparently and with proper governance, the system can help level the informational playing field between large and small providers, reduce regional disparities in tax collection, and increase municipal revenues without raising statutory rates (Kirchler et al., 2008; Kleven et al., 2016).

DATA AND METHODS

The aim of this paper is to quantify the economic impact of local accommodation tax collection on municipal budgets in the Czech Republic and to estimate the potential fiscal effects of introducing a national digital single-entry point (eTurista). Specifically, the research seeks to measure the gap between the *potential* and *realized* tax revenues and to identify the structural and informational factors that explain this difference.

To address this objective, the analysis is guided by the following research questions:

- 1. How large is the difference between the potential and realized revenue from the local accommodation tax across regions of the Czech Republic?
- 2. Whichfactors—administrative, informational, or structural—most likely account for these differences?
- 3. To what extent could a unified digital reporting system (eTurista) increase municipal revenues without changing statutory rates?

Based on the theoretical framework outlined earlier, we formulate the following analytical assumptions:

 A1: The observed revenue shortfall results primarily from information asymmetries and

- administrative fragmentation rather than from low fee rates.
- A2: Regions dominated by large, formal accommodation providers (e.g., hotels, spa resorts) exhibit smaller discrepancies between reported and actual stays than regions characterized by numerous small or informal providers.
- A3: Implementation of a national digital single-entry point (eTurista) would standardize reporting and significantly reduce the information gap between municipal authorities and accommodation providers.

DATA SOURCES AND HARMONIZATION _

To examine these questions, we combine four primary data sources and harmonize them at the regional (NUTS3) level:

- Mobile positioning data (MPD) from a mobile network operator, provided to CzechTourism for the second half of 2024 (1 July–31 December). These data record visitor overnights by region and form the empirical basis for estimating the total number of stays.
- Official statistics (CZSO) on overnight stays in collective accommodation establishments

(CAE) for both halves of 2024, which serve to derive each region's seasonal structure and to scale MPD observations from half-year to full-year totals.

- Survey data from CzechTourism's *Tracking* of *Domestic and Inbound Tourism* (26,499 respondents, 2024), used to estimate (a) the share of unpaid individual accommodation (UIA) and (b) the share of family travel. These allow us to exclude non-taxable stays—unpaid, or overnight stays of children—from the total number of overnights.
- Municipal decrees and realized revenues,

compiled from the *Collection of Legal Regulations of Local Government Units and Certain Administrative Authorities* and the *Monitor* portal. These sources provide local accommodation tax rates and actual revenues collected in 2023–2024, from which we calculate regional weighted average fee levels (see §4).

Throughout the analysis, regions correspond to the 14 NUTS3 units of the Czech Republic. All financial results are expressed in Czech crowns (CZK).

RESULTS AND DISCUSSION

TOTAL NUMBER OF OVERNIGHT STAYS IN THE CZECH REPUBLIC ACCORDING TO MOBILE OPERATOR DATA

Based on an analysis of mobile positioning data (MPD) processed by INTENS for the CzechTourism

agency, the total number of overnight stays related to tourism in the Czech Republic for the second half of 2024 is 62,496,921 nights. Table 1 shows the distribution of these overnight stays within the individual regions of the Czech Republic.

Table 1: Number of overnight stays according to MPD data analysis

Region	Number of overnight stays in the second half of 2024
Prague	13,849,072
Central Bohemia	4,999,726
South Bohemia	5,913,649
Pilsen	3,244,605
Karlovy Vary	3,078,623
Ústí nad Labem	2,929,760
Liberec	3,575,963
Hradec Králové	4,291,642
Pardubice	2,412,885
Vysočina	2,941,394
South Moravia	6,238,967
Olomouc	2,863,296
Moravia-Silesia	3,496,861
Zlín	2,660,478
Total	62,496,921

Source: INTENS, Analysis of MPD data, CzechTourism.

The total number of 62,496,921 overnight stays is almost twice as high as the number of overnight stays in collective accommodation facilities according to data from the Czech Statistical Office. The highest number of overnight stays was recorded in Prague, the South Moravian Region and the South Bohemian Region.

The data from this analysis are only available for the second half of 2024, which presents a data gap. Therefore, it is necessary to estimate the share for the first half of the year, which has been done by an estimate based on knowledge of the ratio of visits to collective accommodation establishments (CAE). The Hradec Králové and Olomouc regions have an almost equal ratio of overnight stays between the first and second half of the year (Table 2,3). In contrast, the highest difference between the first and second half of the year was recorded in the South Bohemian Region. In this case, approximately 64% of overnight stays took place in the second half of the year. The percentage of overnight stays according to collective accommodation establishments for the first half of the year was used to calculate the number of overnight stays for the first half of the year from MPD analysis data.

Table 2: Number of overnight stays in collective accommodation establishments by half-year 2024

Region	CAE 1st half	CAE 2nd half	Total CAE 2024	Share 1st half CAE (%)	Share of 2nd half CAE (%)	
Prague	8,190,463	10,135,705	18,326,168	44.69	55.31	
Central Bohemia	1,205,442	1,902,520	3,107,962	38.79	61.21	
South Bohemia	1,670,477	2,941,162	4,611,639	36.22	63.78	
Pilsen	885,296	1,268,307	2,153,603	41.11	58.89	
Karlovy Vary	2,355,624	2,844,425	5,200,049	45.30	54.70	
Ústí nad Labem	632,620	982,241	982,241 1,614,861 39.17		60.83	
Liberec	1,472,282	1,847,556	3,319,838	44.35	55.65	
Hradec Králové	2,168,878	2,448,830	4,617,708	46.97	53.03	
Pardubice	560,591	800,860	1,361,451	41.18	58.82	
Vysočina	621,501	972,801	1,594,302	38.98	61.02	
South Moravia	1,630,256	2,593,188	4,223,444	38.60	61.40	
Olomouc	1,009,750	1,184,867	2,194,617	46.01	53.99	
Moravia-Silesia	1,230,753	1,516,391	2,747,144	44.80	55.20	
Zlín	917 708	1,298,411	2,216,119	41.41	58.59	
Total	24,551 641	32,737,264	57,288,905	42.86	57.14	

Source: CZSO and authors' own calculations.

Table 3: Total number of overnight stays by region and data from MPD analysis

Region	MPD 1st half 2024	MPD 2nd half 2024	Total MPD 2024
Prague	11,189,930	13,849,072	25,039,002
Central Bohemia	3,168,426	4,999,726	8,168,152
South Bohemia	3,358,300	5,913,649	9,271,949
Pilsen	2,264,998	3,244,605	5,509,603
Karlovy Vary	2,549,573	3,078,623	5,628,196
Ústí nad Labem	1,886,548	2,929,760	4,816,308
Liberec	2,849,847	3,575,963	6,425,810
Hradec Králové	3,801,215	4,291,642	8,092,857
Pardubice	1,689,266	2,412,885	4,102,151
Vysočina	1,878,983	2,941,394	4,820,377
South Moravia	3,922,217	6,238,967	10,161,184
Olomouc	2,440,086	2,863,296	5,303,382
Moravia-Silesia	2,838,032	3,496,861	6,334,893
Zlín	1,880,362	2,660,478	4,540,840
Total	45,717,781	62,496,921	108,214,702

In total, there were 108,214,702 overnight stays in the Czech Republic in 2024. As per the previous case, the highest number of overnight stays was in Prague, South Moravian Region and South Bohemian Region. These three regions account for over 40% of all overnight stays in the Czech Republic in 2024.

A local accommodation tax in the Czech Republic is levied for overnight stays in paid accommodation. Thus, it is necessary to deduct the overnight stays that took place in unpaid individual accommodation facilities (such as overnight stays may taking place with relatives or friends). Information from the Tracking of Domestic and Inbound Tourism survey conducted by the CzechTourism agency was used to determine the proportion of these overnight stays. In 2024, 26,499 respondents were interviewed for this survey. Table 4 shows the number of overnight stays in unpaid individual accommodation facilities.

Table 4: Overnight stays in unpaid UIA and total overnight stays in paid accommodation facilities

Region	Total MPD 2024	Unpaid UIA %	Unpaid UIA	Overnights in paid accommodation facilities
Prague	25,040,234	16	4,006,240	21,032,762
Central Bohemia	8,167,566	46	3,757,350	4,410,802
South Bohemia	9,272,395	22	2,039,829	7,232,120
Pilsen	5,509,385	35	1,928,361	3,581,242
Karlovy Vary	5,628,199	8	450,256	5,177,940
Ústí nad Labem	4,816,695	23	1,107,751	3,708,557
Liberec	6,425,579	42	2,698,840	3,726,970
Hradec Králové	8,092,660	31	2,508,786	5,584,071
Pardubice	4,101,871	43	1,763,925	2,338,226
Vysočina	4,820,585	21	1,012,279	3,808,098
South Moravia	10,161,210	20	2,032,237	8,128,947
Olomouc	5,303,412	36	1,909,218	3,394,165
Moravia-Silesia	6,335,029	36	2,280,562	4,054,332
Zlín	4,540,886	25	1,135,210	3,405,630
Total	108,367,117		28,603,842	79,583,860

Source: CzechTourism, Tracking of Domestic and Inbound Tourism survey 2024 and authors' own calculations.

According to the survey, a total of 28,603,842 nights were spent outside paid accommodation facilities. Most of these nights were spent in Prague, the Central Bohemian Region and the Liberec Region. Conversely, the fewest were spent in the Karlovy Vary Region. The table shows the numbers overnight stays after deducting the stays in unpaid individual accommodation facilities:

Overnight stays in paid accommodation facilities count in total 79,583,860.

Furthermore, children staying overnight are exempt from the fee, therefore it was necessary to determine how many nights spent by children is included in the total number of nights. To assess this, the data from the Domestic and Foreign Tourism Tracking survey was used. The survey included a section examining who the respondents travelled with. For the purpose of this calculation, the number of respondents indicating that they travelled with family was used as a proxy for the number of overnight stays of children.

According to the results, the least number of families come to Prague, the Ústí nad Labem Region and the Central Bohemian Region. In contrast, the highest number of families go to the Olomouc Region, the Karlovy Vary Region and the Moravian-Silesian Region.

Table 5 shows the percentage of respondents who spent holidays in the Czech Republic with their families for each region and the total number of nights spent in the Czech Republic by families. For the purpose of this calculation, the authors assumed an average family consisting of two adults and one child. Thus, the proportion of overnight stays generated by children was calculated as one third of all nights spent by families and the number of overnight stays generated by adults travelling with families is therefore two-thirds of all nights spent by families. The last column of Table 5 contains the nights spent by all adults who stayed overnight in the Czech Republic in 2024.

According to our calculations, the total number of overnight stays captured using MPD data represents 73,678,421 overnight stays in paid accommodation facilities. The data from the Czech Statistical Office records 57,288,905 overnight

stays in CAE. Considering that this figure includes all overnight stays, it is significantly lower than the real total number of overnight stays by adults in paid accommodation facilities in the Czech Republic.

Table 5: Number of overnight stays with family

Region	Overnights in paid accommodation facilities	Stays with family (%)	Overnight stays family	Overnight stays children	Overnight stays adults total
Prague	21,032,762	13	2,734,394	911,465	20,122,332
Central Bohemia	4,410,802	18	793,887	264,629	4,145,857
South Bohemia	7,232,120	22	1,591,143	530,381	6,702,087
Pilsen	3,581,242	24	859,464	286,488	3,294,612
Karlovy Vary	5,177,940	33	1,708,721	569,574	4,608,369
Ústí nad Labem	3,708,557	18	667,594	222,531	3,486,324
Liberec	3,726,970	21	782,636	260,879	3,465,958
Hradec Králové	5,584,071	30	1,675,181	558,394	5,025,542
Pardubice	2,338,226	21	490,994	163,665	2,174,402
Vysočina	3,808,098	32	1,218,644	406,215	3,402,048
South Moravia	8,128,947	19	1,544,504	514,835	7,614,133
Olomouc	3,394,165	39	1,323,732	441,244	2,952,940
Moravia-Silesia	4,054,332	33	1,337,958	445,986	3,608,432
Zlín	3,405,630	29	987,643	329,214	3,076,450
Total	79,583,860		17,716,318	5,905,439	73,678,421

Source: CzechTourism, Tracking of Domestic and Inbound Tourism survey 2024 and authors' own calculations.

ACCOMMODATION CAPACITY IN THE CZECH REPUBLIC BASED ON DATA FROM THE CZSO

This section is examining the total possible capacity offered by accommodation facilities in the Czech Republic. Table 6 shows the total number of beds offered in CAE, as well as an estimate of the percentage of individual accommodation establishments (IAE). The estimate was derived from a combination of field research conducted in regional

destinations of the Central Bohemian Region and a comparative analysis of overnight stays recorded in official Czech Statistical Office statistics and in mobile positioning data (MPD). The resulting ratio was used to approximate the capacity of individual accommodation establishments (IAE) relative to collective accommodation establishments (CAE). A conservative approach was adopted to avoid overestimating the role of IAE and to reflect seasonal variation in accommodation use.

Table 6: Capacity indicators for accommodation facilities in the Czech Republic

Region	CAE beds	% share of IAE	IAE beds
Prague	96,257	40	38,503
Central Bohemia	40,694	70	28,486
South Bohemia	60,952	70	42,666
Pilsen	29,469	80	23,575
Karlovy Vary	37,157	8	2,973
Ústí nad Labem	25,530	80	20,424
Liberec	45,088	50	22,544
Hradec Králové	53,870	45	24,242
Pardubice	20,272	80	16,218
Vysočina	25,222	80	20,178
South Moravia	48,043	80	38,434
Olomouc	26,684	60	16,010
Moravia-Silesia	26,755	50	13,378
Zlín	31,202	50	15,601
Total	567,195		323,231

Source: CzechTourism and authors' own calculations.

The lowest capacity of individual accommodation establishments was identified in the Karlovy Vary Region, which is also consistent with the results of the MPD analysis. There are 567,195 beds available in collective accommodation establishments. There are 323,231 beds in individual accommodation establishments. Results show that there is a total of 890,426 beds available in the Czech Republic. These 890,426 beds available in the Czech Republic

can provide up to 325,005,402 overnight stays during a whole year, when estimating the total number of person-nights. We assumed 360 days of operation per year, considering that only some hotels and guesthouses operate continuously. For further calculation we used the Net Bed Utilisation metric, as defined by the Czech Statistical Office, to calculate the possible number of overnight stays (Table 7).

Table 7: Total person-nights in CAE and IAE

Region	Total beds	365 days of operation	Net bed utilisation (%)	Person-nights	
Prague	134,760	49,187,327	56	27,484,899	
Central Bohemia	69,180	25,250,627	29	7,413,038	
South Bohemia	103,618	37,820,716	30	11,246,432	
Pilsen	53,044	19,361,133	32	6,275,775	
Karlovy Vary	40,130	14,647,289	45	6,588,725	
Ústí nad Labem	45,954	16,773,210	25	4,229,172	
Liberec	67,632	24,685,680	29	7,103,950	
Hradec Králové	78,112	28,510,698	30	8,693,908	
Pardubice	36,490	13,318,704	30	3,930,190	
Vysočina	45,400	16,570,854	25	4,212,224	
South Moravia	86,477	31,564,251	31	9,831,344	
Olomouc	42,694	15,583,456	27	4,142,096	
Moravia-Silesia	40,133	14,648,363	33	4,790,122	
Zlín	46,803	17,083,095	30	5,129,848	
Total	890,426	325,005,402		111,071,722	

Source: CZSO data and authors' own calculations.

Prague and the Karlovy Vary Region (popular for its spa care facilities) shows the highest bed utilisation values. Based on this data, a total of 111,071,722 person-nights were realised in the Czech Republic. Nights spent by children exempt from the fee need to be deducted from those person-nights. As only paid accommodation is considered in this calculation from the very beginning, it is not necessary to deduct persons staying in unpaid accommodation facilities.

The total number of person-nights spent by families with children was calculated from the total capacity. As in the previous section, data from the Tracking Inbound and Domestic Tourism survey was used

for the calculation. The number of children personnights was estimated as a 1/3 of the total number of nights spent by families, calculated from the proportion of the survey respondents indicating that they travelled with their families. The rest of these nights are estimated to be generated by adults travelling with families. Per this calculation there were 16,432,255 person-nights spent by adults travelling with their families.

In total, up to 102,855,610 nights for adults can be realised in the Czech Republic at the current occupancy rate (Table 8).

Table 8: Share of capacity occupied by families with children

Region	Persons per night	Share of family nights (%)	Persons/nights family	Adults-nights with family	Total adult person nights
Prague	27,484,899	13	3,573,037	2,382,025	25,102,875
Central Bohemia	7,413,038	18	1,334,347	889,565	6,523,473
South Bohemia	11,246,432	22	2,474,215	1,649,477	9,596,955
Pilsen	6,275,775	24	1,506,186	1,004,124	5,271,651
Karlovy Vary	6,588,725	33	2,174,279	1,449,519	5,139,205
Ústí nad Labem	4,229,172	18	761,251	507,501	3,721,672
Liberec	7,103,950	21	1,491,830	994,553	6,109,397
Hradec Králové	8,693,908	30	2,608,172	1,738,782	6,955,126
Pardubice	3,930,190	21	825,340	550,227	3,379,963
Vysočina	4,212,224	32	1,347,912	898,608	3,313,616
South Moravia	9,831,344	19	1,867,955	1,245,304	8,586,040
Olomouc	4,142,096	39	1,615,418	1,076,945	3,065,151
Moravia-Silesia	4,790,122	33	1,580,740	1,053,827	3,736,295
Zlín	5,129,848	29	1,487,656	991,771	4,138,077
Total	111,071,722		24,684,337	16,432,225	102,855,610

Source: CZSO data and authors' own calculations.

LOCAL ACCOMMODATION TAX AND ITS REVENUE ____

The local accommodation tax is set by a local ordinance issued by the relevant municipal or city authority. For our purposes, we examined the decrees published on the portal Collection of Legal Regulations of Local Government Units and Certain Administrative Authorities. The list of municipalities examined was taken from the Monitor portal – a complete overview of public finances – and includes municipalities that reported income from accommodation fees in 2024.

Table 9: Local accommodation tax rates

Amount of LAT	Number of municipalities	Percentage share	Percentage share Cumulative number	
1–9 CZK	138	10	701	9.90
10 CZK	294	21	432	31.10
11–14 CZK	18	2	1,768	32.40
15 CZK	231	17	681	49.00
16–19 CZK	20	1	2,779	50.50
20 CZK	327	24	1,028	74.00
21 CZK	53	4	1,081	77.80
25 CZK	113	8	1,194	86.00
26–29 CZK	4	0	3,591	86.20
30 CZK	108	8	1,306	94.00
35 CZK	12	1	1,318	94.90
38 CZK	1	0	1,319	95.00
40 CZK	20	1	1,339	96.40
42 CZK	1	0	1,340	96.50
50 CZK	49	4	1,389	100.00

In 2023, a total of 1,966 municipalities paid the collected local fee to the state treasury. In 2024, there were 2,016 municipalities. This represents an increase of 2.54%. There are 6,254 municipalities in the Czech Republic in total. This means that only about one-third of municipalities collect local accommodation fees. It can be assumed that with the introduction of the eTurista system, a larger number of municipalities will collect local accommodation fees. With the introduction of the eTurista system, which will significantly facilitate the administration of collection for municipalities and enable easier control, the local accommodation fee rate will also increase with support. The research found 1,389 decrees that established the collection of local fees in the municipality and identified the amount of the fee at the same time. It should be noted that it was not possible to determine the amount of the fee for the remaining municipalities.

Currently, the maximum local accommodation fee is set at CZK 50. Table 9 shows that half of the municipalities do charge more than CZK 20 per

night. The most common local accommodation fee is CZK 20, which is charged by almost a quarter of municipalities (24%). Half of the municipalities have an even lower rate (up to CZK 17). 21% of municipalities have a local tax rate of CZK 10 and 17% of municipalities have a rate of CZK 15. Rates of CZK 25 (8%) and CZK 30 (8%) are more common as well. Approximately 78% of municipalities in the Czech Republic have a rate below CZK 25 (approximately €1). Only 49 municipalities, or 4%, use the highest rate of CZK 50. Only 14% of municipalities have a local fee rate equal to or higher than CZK 25.

At current rates, municipalities that collect local fees at a rate equal to or lower than CZK 10 generate revenue of CZK 24,685,572. In total, they collected this revenue for 2,685,572 person-nights. If these municipalities increased the rate to CZK 25, their revenue would be CZK 67,139,300.

Municipalities that collect less than CZK 20 per overnight stay collected a total of CZK 64,600,533 for 5,328,322 nights. In absolute terms, this represents

half of the municipalities in the sample. If all municipalities collected at least CZK 20 per overnight stay, their revenue from the local overnight stay fee would increase by CZK 41,965,907 to a total of CZK 106,566,440.

Municipalities that charge less than CZK 25 (approximately €1) per overnight stay collected a total of CZK 211,960,515 for a total of 12,525,240 nights. If these municipalities increased the local

accommodation tax rate to CZK 25, the revenue would increase to CZK 313,131,000, which is an increase of CZK 101,170,485.

Given that this is an increase in revenue from the local accommodation tax calculated only from the data provided so far, i.e. from the performance of mainly collective accommodation facilities, it can be assumed that the increase in revenue would be even higher.

Table 10: Estimated local fee revenue based on MPD data analysis for 2024

Region	Total adult nights MPD	LAT average In CZK	LAT revenue calculated in CZK	Real actual 2024 LAT revenue in CZK	Difference 2024 in CZK
Prague	20,121,342	50	1,006,067,100	885,174,194	120,892,906
Central Bohemia	4,146,154	21	87,069,236	45,429,609	41,639,627
South Bohemia	6,701,765	27	180,947,646	105,750,430	75,197,216
Pilsen	3,294,742	23	75,779,075	35,396,869	40,382,206
Karlovy Vary	4,608,367	43	198,159,762	207,955,032	-9,795,270
Ústí nad Labem	3,486,044	20	69,720,871	25,526,336	44,194,535
Liberec	3,466,082	27	93,584,205	54,746,459	38,837,746
Hradec Králové	5,025,664	27	135,692,931	75,118,384	60,574,547
Pardubice	2,174,550	24	52,189,201	19,562,782	32,626,419
Vysočina	3,401,901	18	61,234,212	19,429,311	41,804,901
South Moravia	7,614,114	23	175,124,620	94,234,301	80,890,319
Olomouc	2,952,923	23	67,917,233	45,156,210	22,761,023
Moravia-Silesia	3,608,355	23	82,992,168	43,803,575	39,188,593
Zlín	3,076,419	32	98,445,405	57,806,903	40,638,502
Total	73,678,421		2,384,923,664	1,715,090,396	669,833 269

Source: Authors' own calculations.

Based on the MPD-derived estimate of adult overnight stays in 2024 and the weighted average local accommodation tax rates, the potential LAT revenue amounts to CZK 2.386 billion (Table 10). Actual revenue collected in 2024 was CZK 1.715 billion, implying a shortfall of CZK 670.6 million, or 39.1%. Weighted averages are used because simple averages produce unrealistically low rates that ignore high-demand municipalities.

The Karlovy Vary Region is the only area where MPD estimates fall slightly below reported nights, resulting in a negative difference of approximately CZK 8.3 million. This anomaly reflects the region's unique market structure: a high concentration of large spa hotels and chain properties with advanced digital systems and strong internal controls, resulting in unusually accurate reporting. At the same time, MPD tends to undercount in environments with long stays, routine guest mobility, and dense hotel clusters—conditions typical for Karlovy Vary. The small discrepancy (3.9%) therefore likely stems from MPD limitations rather than over-reporting providers. Given the region's distinctive characteristics, targeted methodological assessment of MPD performance in spa destinations would be valuable. Importantly, this deviation does not influence national-level results, as Karlovy Vary accounts for only 5.1% of all MPD-derived adult nights.

Beyond the MPD-based demand estimate (73.7 million adult nights), it is useful to consider supply-side ceiling implied by accommodation capacity. Using CZSO data on CAE and IAE bed stocks, regional net bed utilisation, and survey-based family composition adjustments, we estimate a theoretical maximum of 102.9 million adult person-nights per year. This represents the structural upper limit of the system and significantly exceeds observed demand. The following tables use this capacity-based framework to model (i) potential LAT revenue under current rates and (ii) two legally compliant rate-adjustment scenarios. These figures should be interpreted as upper-bound structural estimates rather than forecasts, illustrating the maximum revenue achievable if current capacity were fully utilised.

Table 11 presents the estimated revenue potential of the local accommodation tax under the capacity-based model. Using the total number of adult person-nights implied by CAE and IAE capacity (103.2

million) as shown in the table 9, we apply (i) the current weighted average LAT rates, (ii) a moderate increase of CZK 4 (scenario v1), and (iii) a doubling of the current rate up to a statutory maximum of CZK 50 (scenario v2). For regions where a doubled rate would exceed the legal ceiling, the maximum of CZK 50 is applied. Under these assumptions, the annual LAT revenue would reach CZK 3.29 billion at existing rates, CZK 3.55 billion with a CZK 4 increase, and CZK 4.49 billion under the upper-limit scenario. These estimates represent structural upper bounds: they quantify the revenue that could be achieved if current capacity utilisation were fully reflected in LAT collection.

Table 12 compares these capacity-based revenue ceilings with the actual LAT revenue collected in 2024. The results show a potential increase of CZK 1.58 billion under current rates, CZK 1.83 billion under the moderate rate adjustment, and CZK 3.22 billion under the upper-limit scenario. In every region, the theoretical revenue derived from capacity substantially exceeds the actual amounts collected, highlighting both the underutilisation of existing accommodation potential and the administrative under-collection documented earlier. These comparisons reinforce the conclusion that significant fiscal space exists within the current LAT framework, even before considering the compliance-enhancing effects of eTurista.

Table 11: Estimated local fee revenue based on CAE and IAE capacities

Region	Total adult person nights	LAT	LAT v1	LAT v2	LAT yield in CZK	LAT v1 yield in CZK	LAT yield v2 in CZK
Prague	25,102,875	50	50	50	1,314,694,349	1,314,694,349	1,314,694,349
Central Bohemia	6,523,473	21	25	42	147,587,654	174,206,390	295,175,308
South Bohemia	9,596,955	27	31	50	286,492,347	323,072,490	572,984,694
Pilsen	5,271,651	23	27	45	130,197,218	155,890,239	260,394,437
Karlovy Vary	5,139,205	43	47	50	254,085,612	275,606,365	293,198,260
Ústí nad Labem	3,721,672	20	24	39	77,600,238	95,410,129	155,200,476
Liberec	6,109,397	27	31	50	175,142,919	204,806,884	330,333,684
Hradec Králové	6,955,126	27	31	50	213,609,315	242,560,028	391,225,851
Pardubice	3,379,963	24	29	48	88,562,508	105,997,224	177,125,016
Vysočina	3,313,616	18	22	36	67,958,335	82,784,239	135,916,670
South Moravia	8,586,040	23	27	45	208,392,700	248,634,684	416,785,400
Olomouc	3,065,151	23	27	46	82,270,732	97,297,843	164,541,464
Moravia-Silesia	3,736,295	23	27	47	99,588,552	115,106,631	199,177,103
Zlín	4,138,077	32	24	50	148,055,094	111,215,094	231,698,113
Total	102,855,610				3,294,237,573	3,547,282,589	4,938,450,824

Table 12: Estimated difference between the revenue from the local accommodation fee

Region	LAT yield in CZK	LAT v1 yield in CZK	LAT yield v2 in CZK	2024 revenue in CZK	Difference 2024 in CZK	Difference 2024v1 in CZK	Difference 2024*v2 in CZK
Prague	1,314,694,349	1,314,694,349	1,314,694,349	885,174,194	429,520,155	429,520,155	429,520,155
Central Bohemia	147,587,654	174,206,390	295,175,308	45,429,609	102,158,045	128,776,781	249,745,699
South Bohemia	286,492,347	323,072,490	572,984,694	105,750,430	180,741,917	217,322,060	467,234,264
Pilsen	130,197,218	155,890,239	260,394,437	35,396,869	94,800,349	120,493,370	224,997,568
Karlovy Vary	254,085,612	275,606,365	293,198,260	207,955,032	46,130,580	67,651,333	85,243,228
Ústí nad Labem	77,600,238	95,410,129	155,200,476	25,526,336	52,073,902	69,883,793	129,674,140
Liberec	175,142,919	204,806,884	330,333,684	54,746,459	120,396,460	150,060,425	275,587,225
Hradec Králové	213,609,315	242,560,028	391,225,851	75,118,384	138,490,931	167,441,644	316,107,467
Pardubice	88,562,508	105,997,224	177,125,016	19,562,782	68,999,726	86,434,442	157,562,234
Vysočina	67,958,335	82,784,239	135,916,670	19,429,311	48,529,024	63,354,928	116,487,359
South Moravia	208,392,700	248,634,684	416,785,400	94,234,301	114,158,399	154,400,383	322,551,099
Olomouc	82,270,732	97,297,843	164,541,464	45,156,210	37,114,522	52,141,633	119,385,254
Moravia-Silesia	99,588,552	115,106,631	199,177,103	43,803,575	55,784,977	71,303,056	155,373,528
Zlín	148,055,094	111,215,094	231,698,113	57,806,903	90,248,191	53,408,191	173,891,210
Total	3,294,237,573	3,547,282,589	4,938,450,824	1,715,090,395	1,579,147,178	1,832,192,194	3 223,360,429

CONCLUSION

This paper quantified the gap between potential and realized revenues from the local accommodation tax (LAT) in the Czech Republic and assessed the potential of the expected fiscal contribution of introducing a mandatory national digital single-entry system, eTurista. Drawing on mobile positioning data (MPD), official statistics, survey-based adjustments, and municipal decrees, we estimate that 73.7 million adult taxable nights were realized in the Czech Republic in 2024. When combined with regional weighted LAT rates, this corresponds to a potential revenue of CZK 2.386 billion, compared with CZK 1.715 billion actually collected. The resulting shortfall of CZK 670.6 million—representing approximately 39% of realized revenues—highlights substantial under-collection arising not from statutory rates, but from administrative fragmentation and information gaps.

A complementary capacity-based model suggests that the structural revenue potential is even higher. Using CAE and IAE bed capacities, regional net bed utilization, and survey-derived adjustments for family composition, the theoretical maximum rises to 102.9 million adult person-nights. Under this supply-side ceiling, LAT revenue could reach CZK 3.29 billion at current rates, CZK 3.55 billion with a moderate CZK 4 increase, and up to CZK 4.94 billion under the upper-limit scenario. These should not be interpreted as forecasts but as structural upper bounds showing how far current LAT revenues fall below the system's feasible capacity.

The findings consistently indicate that informational and administrative frictions, rather than low fee rates, are the primary drivers of the LAT revenue gap. In line with the literature on third-party reporting and tax compliance, a unified digital gateway such as eTurista can be expected to:

- i. standardize guest registration and data reporting;
- ii. enhance cross-checking between providers and municipalities;
- iii. expand the number of municipalities able to collect the tax;
- iv. strengthen compliance among small-scale and individual accommodation providers who currently operate with minimal oversight.

As such, eTurista represents a credible mechanism for raising municipal fiscal capacity without requiring statutory increases in the LAT rate.

Future research should examine behavioural responses following eTurista's rollout, including the compliance dynamics of small providers, potential spillovers into related municipal services, and the distributional impacts across destination types. From a methodological perspective, extending the analysis to municipality-level panels and incorporating platform-mediated stays as a distinct segment would allow for a more granular understanding of where and why revenue gaps persist.

REFERENCES

- Carrillo, P., Pomeranz, D., & Singhal, M. (2017). Dodging the Taxman: Firm Misreporting and Limits to Tax Enforcement. American Economic Journal: Applied Economics, 9(2), 144–164. https://doi.org/10.1257/app.20140495
- Eurostat. (2014). Feasibility study on the use of mobile positioning data for tourism statistics. Publications Office of the European Union. https://ec.europa.eu/eurostat/documents/747990/6225717/MP-Consolidated-report.pdf
- Grassini, L., & Dugheri, G. (2021). Mobile phone data and tourism statistics: A broken promise? *National Accounting Review*, *3*(1), 50–68. https://doi.org/10.3934/NAR.2021002
- Guo, J.-T., & Hung, F.-S. (2020). Tax evasion and financial development under asymmetric information in credit markets. *Journal of Development Economics*, 145, 102463. https://doi.org/10.1016/j.jdeveco.2020.102463
- Hinterleitner, M. (2023). Blame Avoidance in Public Policy. In M. van Gerven, C. Rothmayr Allison & K. Schubert (Eds.), Encyclopedia of Public Policy. Springer. https://doi.org/10.1007/978-3-030-90434-0_44-1

- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The "slippery slope" framework. *Journal of Economic Psychology*, 29(2), 210–225. https://doi.org/10.1016/j.joep.2007.05.004
- Kleven, H. J., Kreiner, C. T., & Saez, E. (2016). Why Can Modern Governments Tax So Much? An Agency Model of Firms as Fiscal Intermediaries. *Economica*, 83, 219–246. https://doi.org/10.1111/ecca.12182
- Pomeranz, D. (2015). No Taxation Without Information: Deterrence and Self-Enforcement in the Value Added Tax. *American Economic Review, 105*(8), 2539–2569. https://doi.org/10.1257/aer.20130393
- Saluveer, E., Raun, J., Tiru, M., Altin, L., Kroon, J., Snitsarenko, T., Aasa, A., & Silm, S. (2020). Methodological framework for producing national tourism statistics from mobile positioning data. *Annals of Tourism Research*, 81, 102895. https://doi.org/10.1016/j.annals.2020.102895
- United Nations Global Working Group on Big Data for Official Statistics. (2019). Handbook on the Use of Mobile Phone Data for Official Statistics. United Nations Global Working Group on Big Data for Official Statistics.

Received: October 30, 2025 Accepted: November 17, 2025

Contact details

Ing. Luděk Kühr
Prague University of Economics and Business
Faculty of International Relations
Department of Tourism and Hospitality Management
W. Churchill Sq. 1938/4, 130 67 Prague 3, Czechia
eMail: ludek.kuehr@post.cz

doc. Ing. Petr Janeček, Ph.D.
Prague University of Economics and Business
Faculty of International Relations
Department of Tourism and Hospitality Management
W. Churchill Sq. 1938/4, 130 67 Prague 3, Czechia
eMail: petr.janecek@vse.cz