



# FACTSHEET: Government Digitization, Efficiency and Performance in the US and Estonia

→ Luukas Ilves\* → Liisi Esse† → Christopher Koopman‡ →  
Kadri Paju§ → Andrew Thompson¶

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\* Former Undersecretary for Digital Transformation, Estonia

† Stanford Libraries

‡ Abundance Institute

§ Vabamu

¶ Vabamu

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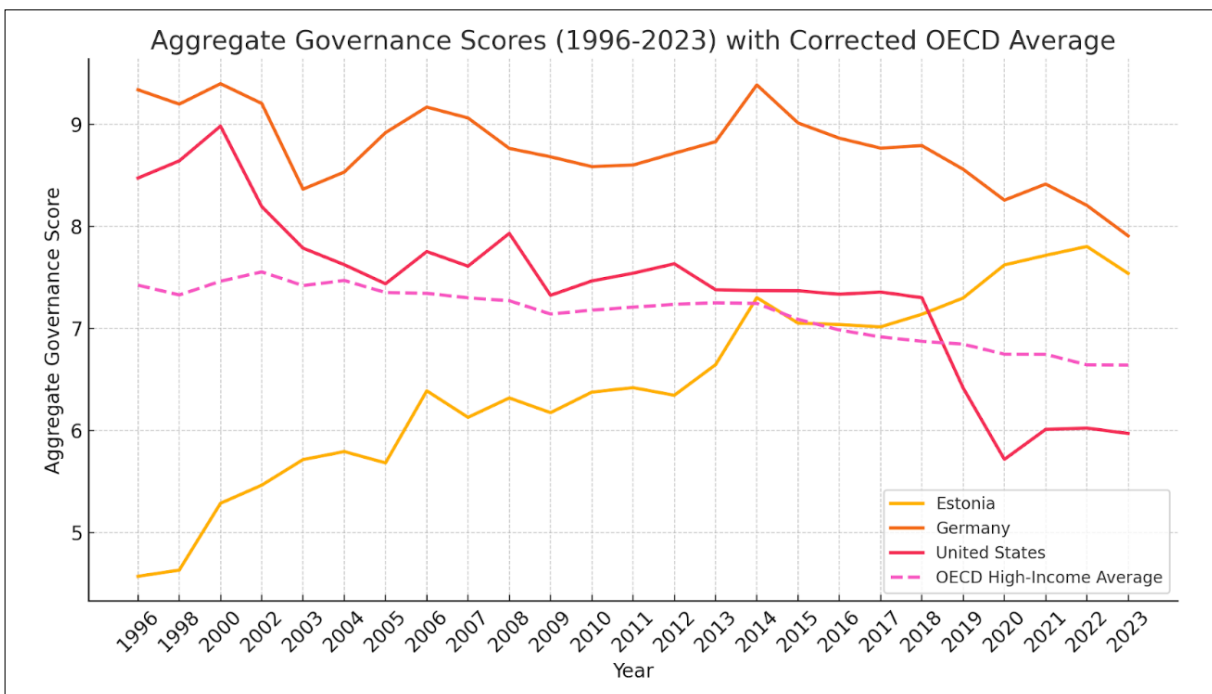
## Introduction: Benchmarking “Good Government”

While there is no universal definition of “good government”, the World Bank’s [Worldwide Governance Indicators](#) come closest.<sup>1</sup> Based on methodologically rigorous data sources from 30 international institutions and think tanks, the indicators cover government performance for over 200 economies over the period in six categories (voice and accountability, regulatory quality, rule of law, control of corruption, government effectiveness, political stability and absence of violence). Aggregated into a single composite indicator, these numbers tell a story about which countries are succeeding at delivering public goods to their citizens - and who is failing.

The world’s rich countries are not doing well. Over the past generation, there has been a secular decline in the quality of governance in OECD high income countries. The US exemplifies this trend, but it is hardly unique in this regard - other erstwhile top performers like Germany have also seen significant slides in quality of governance.

One country stands out. Over the past three decades, the title for “most-improved” wealthy economy goes to Estonia. In a generation, Estonia has risen from developing-country status (with a GDP per capita of \$1,190 in 1993) to join the club of wealthy economies (with a GDP per capita of \$31,530 today (or \$46,700 adjusted for purchasing power), overtaking Spain and Japan).<sup>2</sup>

When it comes to public sector performance, Estonia’s accomplishment is even more remarkable. Estonia today has one of the best-run, most efficient and cost-effective governments in the world, all while maintaining low levels of taxation, public spending and debt and a high degree of individual freedom.



1 World Bank (2024a). Worldwide Governance Indicators, 2024 Update. Retrieved on October 30, 2024 from <https://databank.worldbank.org/home>.

2 GDP stats from the IMF, PPP numbers from the World Bank. International Monetary Fund. (n.d.). GDP per capita, current prices (USD) – Ukraine & Estonia [Data set: IMF Data Mapper, World Economic Outlook]. International Monetary Fund. <https://www.imf.org/external/datamapper/NGDPDPC@WEO/EST> ; World Bank. (n.d.). GDP per capita, PPP (current international \$) – Estonia, United States [Data set: World Development Indicators]. World Bank. <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=EE-US>

Estonia has reached Scandinavian levels of governance at American levels of taxation while integrating an ethnically and linguistically diverse population (in 1991, at the breakup of the Soviet Union, 40% of Estonia's population were first or second generation immigrants).<sup>3</sup>

## So What Did Estonia Get Right?

1. **A Commitment to Freedom.** Having escaped Soviet Occupation, Estonians undertook to rebuild their society on the foundation of strong protections for individual rights, free markets and trade (backed up by laws that are human-readable).
2. **Capable Execution.** Estonia rebuilt its institutions and state capacity in the 1990s, just as the Internet and PC came to be wide-spread. Estonia's became the world's first "digital by default" government, with 100% of public services available online (and fully paperless). Secure digital credentials and individual transparency and control over personal data have contributed to a government whose functioning is highly automated and also highly trusted.

Today, Estonia has earned the moniker e-Estonia. This factsheet offers a blow-by-blow comparison of governance and public services in Estonia and the US across a wide variety of domains. It will help the reader move beyond abstractions like "good government" and "digital services" to understand what these terms mean in concrete practice.

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3 Puur, A. (2000). *Economic activity in transition: Population of foreign origin in Estonia in the 1990s* (RU Series B, No. 47). Estonian Interuniversity Population Research Centre. <https://www.popest.ee/file/B47.pdf>

## 1. Freedom

Good government does not mean more government, and efficient and effective government need not be opposed to freedom.

FREEDOM METRIC	ESTONIA	UNITED STATES
<b>Global Freedom Score</b> (Freedom House)	96/100 (11th)	84/100 (54th)
<b>Internet Freedom</b> (Ranking of 72 countries)	92/100 (2nd)	76/100 (13th)
<b>Press Freedom</b> (Reporters Without Borders)	86.44 / 100 (6th)	66.6 / 100 (55th)
<b>Human Freedom</b> (CATO)	8.78 / 10 (10th)	8.64 / 10 (17th)
<b>Economic Freedom</b> (Heritage Foundation)	78.9 (8th)	70.2 (26th)
<b>Religious Freedom</b> (Government Restrictions Index - Pew) Lower score is better	1.2 (22nd) - restrictions categorized "LOW"	2.7 (79th) - restrictions categorized "MODERATE"
<b>Civic Freedom</b> (CIVICUS Monitor) A measure of freedom of association, peaceful assembly and expression	91/100 (11th)	62/100 (82nd)

## 2. Digital Governance

Estonia is widely regarded as a world leader in digital government, offering near-universal online public services and digital identity to its citizens. The United States, while advanced in technology, has a more fragmented digital landscape and ranks lower in global e-government benchmarks. Estonia’s small size and early 1990s investments in IT infrastructure (“e-Estonia”) allowed it to digitize rapidly. In contrast, the U.S. faces challenges of scale and coordination across federal, state, and local levels.

DIGITAL GOVERNANCE METRIC	ESTONIA	UNITED STATES
<b><u>UN E-Government Development Index</u></b>	<i>Top tier globally.</i> Ranked among #2 in 2024.	<i>High, but not top.</i> Ranked 19th in 2024 (down from 10th in 2022).
<b>Online Public Services Availability</b>	100% of government services available online 24/7. Citizens can access nearly all services (from e-tax to e-health) digitally.	No exact figure (varies by agency). Many services online, but not nearly all – some processes still require mail or in-person steps.
<b>Online Public Services Usage</b>	94.7% of adults use an online public service	60-65% of US adults have used a government app or website in the last 12 months
<b>User satisfaction with public services</b>	83% (second best in the OECD)	~62%
<b>Digital Cabinet / Workflow</b>	<b>e-Cabinet system</b> – Cabinet meetings average just 30 minutes (down from 5 hours) due to digital prep and documents. Widespread use of digital signatures saves ~2% of GDP in staff time.	<b>Traditional workflows.</b> No equivalent national system for digital cabinet meetings. Many official documents still require ink signatures or PDFs (e-signatures useful in some agencies, but not universal), leading to slower processes.

### Note on Federal Paperwork Burden

- Annually, an estimated 9–11 billion hours are spent on federal paperwork overall,<sup>4</sup> of which 6–8 billion hours are for tax filings.<sup>5</sup> The average individual filer in the U.S. spends about 13 hours per year on tax preparation. The burden of state and local procedures is likely similar in magnitude.
- While no comparative numbers exist for Estonia, it is safe to say that (per capita) numbers are much smaller. Surveys routinely show that user satisfaction with online service for tax filing is over 90%.<sup>6</sup>

4 Carey, M. P. (2024, April 17). *The Paperwork Reduction Act and Federal Collections of Information: A Brief Overview* (CRS In Focus No. IF11837). Congressional Research Service. <https://sgp.fas.org/crs/misc/IF11837.pdf>

5 Internal Revenue Service. (2023, April). *Taxpayer Compliance Burden* (Publication 5743, Rev. 4-2023). U.S. Department of the Treasury. <https://www.irs.gov/pub/irs-pdf/p5743.pdf>

6 Estonian Tax and Customs Board press release: Maksu- ja Tolliamet. (2017, April 5). *Elektroniliste Tuludeklaratsioonide Arv Kasvas 96,3 Protsendini* [The number of electronic tax returns increased to 96.3 percent]. Estonian Tax and Customs Board. <https://www.emta.ee/uudised/elektroniliste-tuludeklaratsioonide-arv-kasvas-963-protsendini>

### 3. Public Services and Service Delivery

Estonia’s public services are highly digitized and user-centric, contributing to government efficiency and citizen satisfaction. Nearly every routine interaction – from filing taxes to getting a prescription – can be done electronically in Estonia. And Estonia’s “once-only” principle means government offices rarely re-request citizen data (and ensure that the government doesn’t make decisions based on fraudulent or erroneous data).

PUBLIC SERVICES METRIC	ESTONIA	UNITED STATES
<b>Tax Filing Convenience</b>	98% of Estonians file income tax online in 3–5 minutes.	~94% of U.S. individual returns are e-filed, but take 13 hours and \$270 on average to prepare a return.
<b>Healthcare Services Digitalization</b>	100% of medical prescriptions are electronic; health records easily accessible via e-Health portal.	<b>Partial digitalization.</b> Many providers use EHRs, but no single nationwide system; interoperability lags.
<b>Online Government Portal Usage</b>	<b>Extensive.</b> A single portal (eesti.ee) for nearly all services; heavy use of e-services.	<b>Moderate.</b> Many separate agency portals; no “one-stop” site.
<b>Service Efficiency Examples</b>	<b>Instant services</b> (company registration, prescriptions, e-voting). Saves ~2% of GDP.	<b>Mixed efficiency.</b> Some services are quick; others involve significant backlogs (e.g., paper returns at IRS).

#### The Importance of Digital Infrastructure

Estonia’s digital services are supported by two key components of digital infrastructure: a single nationwide ecosystem for online identity and digital signatures, relied on by both the public and private sectors, and a data exchange platform (X-road) used to automate data exchange both within government and between government and private sector service providers.

#### KEY STATS

- 90% of Estonian adults regularly use their electronic ID. About 1 million users give 300 million cryptographically secure digital signatures a year. More than 80% of usage is for private sector services.<sup>7</sup>
- The Estonian X-Road enables API access between 220 public and 1300 private entities, with more than 2.3 billion data transactions per year.<sup>8</sup>

7 Riigi Infosüsteemi Amet (RIA) (2024a). Valge raamat 2024. Electronic identity and trusted services in Estonia. Retrieved on December 21, 2024 from <https://www.ria.ee/sites/default/files/documents/2024-08/Identiteedihalduse-ja-eID-valge-raamat-2024.pdf>

8 X-Road EE. (2024). X-Road Factsheets. Retrieved on December 21,2024 from <https://www.x-tee.ee/factsheets/EE/#eng>

## 4. Entrepreneurship and Business Climate

Both countries have dynamic economies, but Estonia punches above its weight in startup activity per capita. Dubbed a “startup nation,” Estonia boasts the most **startups and unicorns per capita** in the world. Estonia’s simplified business environment (e.g. e-Residency program, flat corporate tax on reinvested profits) helps foster new firms, while the U.S. offers a huge market and mature financial ecosystem.

In 2012, in order to open up access to its digital ecosystem, Estonia established the e-Residency program, allowing anyone in the world to receive Estonian digital credentials and run a company based in Estonia. Today, 122,000 e-Residents have started over 33,000 companies. Over 4200 US citizens are Estonian e-residents.<sup>9</sup>

ENTREPRENEURSHIP METRIC	ESTONIA	UNITED STATES
<b>New Business Density</b> (new LLC registrations per 1,000 working-age people, 2022)	24.3 – <i>Highest in the world.</i> (Constant pro-business reforms helped Estonia achieve the world’s highest rate of new company creation.)	~7 (high-income country average ~7.3). The US is strong but closer to OECD norms in new business formation.
<b>Startups per Capita</b>	1,090 startups per 1M people – ~7.6× the European average. Estonia leads Europe in startups per capita.	(~210 per 1M people), large total given population size.
<b>Unicorn Startups</b> (startups with billion \$+ valuation)	10 unicorns founded in Estonia (7.7 unicorns per million people – #1 in Europe). Examples: Skype, Wise, Bolt, Pipedrive, etc.	730+ active unicorns as of 2024 (~2.2 unicorns per million people). The U.S. produces ~50% of the global total.
<b>Ease of Starting a Business</b>	Rank #14 globally. 3 procedures, can be done in 15 minutes (a world record).	Rank #55 globally. 6 procedures, takes one day to a few weeks.
<b>Venture Capital Investment</b>	<b>Highest per capita VC investment in the world.</b> Reflects its vibrant startup ecosystem.	<b>World’s largest VC market</b> in absolute terms, though significantly lower per capita than Estonia.

### Many US States Do Offer Expedited Registration Timelines Processes

- **Delaware:** Several business days to a week. Can be done in one business day for an additional fee.<sup>10</sup>
- **California:** 3-5 Business Days. Can be done same day for a \$750 fee.<sup>11</sup>
- **Texas:** 3–5 business days online.<sup>12</sup>

9 Enterprise Estonia (2024). e-Residency dashboard. Retrieved on December 21, 2024 from <https://www.e-resident.gov.ee/dashboard/>.

10 Stripe. (2024, June 28). *How long does it take to incorporate in Delaware?* Stripe Atlas Resource. <https://stripe.com/en-ee/resources/how-long-does-it-take-to-incorporate-in-delaware>

11 Morgan, J. (2025, March 16). *How to start an LLC in California? (6 easy steps guide).* Venture Smarter. <https://venturesmarter.com/how-long-does-it-take-to-form-an-llc/california/>

12 Massingill staff. (Nov 5, 2024). *How Long Does It Take to Get an LLC in Texas?* <https://jm.legal/articles/business/how-long-does-it-take-to-get-an-llc-in-texas/>



## 5. Transaction Costs – Real Estate Case Study

A key benefit of Estonia’s highly digital governance ecosystem is that transaction costs and friction in the economy are minimal. A good example is real estate: Estonia has the lowest overall end-to-end cost for real estate transactions in the world. Not only can all elements of a real estate transaction be completed online, but good data governance and transparent records guarantee certain ownership (reducing ownership risks and fraud).

REAL ESTATE METRIC	ESTONIA	UNITED STATES
<b>End-to-end (“roundtrip”) real estate transaction costs</b>	2.52-4.20% of total transaction value.	3.65-10.10% of total transaction value
<b>Time to complete a real estate transaction</b>	A few days to a week	44 days
<b>Cost of real estate and title fraud</b>	Near zero	FBI estimates mortgage fraud \$4-6 billion/year. Title insurance claims \$400-700 million annually.
<b>Total spend on title insurance</b>	0% = \$0/. Not necessary	0.5-1% of home’s purchase price, \$20-26 billion per year.

## 6. Taxation

Estonia and the U.S. have very different tax systems and experiences for taxpayers. Estonia is known for its flat and simple tax system (flat 22% income tax and 0% corporate tax on reinvested profits), which is administered in a highly efficient way through e-government. Estonia’s tax services are also highly efficient - Estonia has the lowest tax collection cost per \$100 of revenue of any country in the world.<sup>13</sup>

TAXATION METRIC	ESTONIA	UNITED STATES
<b><u>Ease of Paying Taxes</u></b>	Rank #12 globally; 8 payments/year and ~50 hours/year for a typical business. Online filing and unified reporting.	Rank #25 globally; ~11 payments/year and 175 hours/year for a business. Multiple layers of tax.
<b>Corporate Tax Policy</b>	<b>Reinvested profits untaxed.</b> 22% only on distributed dividends; no annual corp. income tax if profits are retained.	<b>Standard corporate tax.</b> 21% federal rate, plus ~5–10% at state level. Annual filing is required.
<b>Personal Income Tax Filing</b>	<b>Simple flat tax</b> (22%) with e-filing; 98% file online in minutes; limited deductions.	<b>Progressive system</b> with up to 37% federal + state taxes; ~13 hours average prep time.
<b><u>Total Tax Revenue (% of GDP)</u></b>	33% of GDP – near OECD average; straightforward administration with high e-filing adoption.	~25% of GDP – among the lower-tax OECD countries.

13 OECD (2024b). Tax Administration 2024: Comparative Information on OECD and other Advanced and Emerging Economies. OECD Publishing. <https://doi.org/10.1787/2d5fba9c-en>.

## 7. Healthcare

Estonia’s e-Health system integrates digital patient records, e-prescriptions, and administration (e.g., billing), ensuring efficient care and broad accessibility. Accurate medical information is available when it’s needed - even when that’s in the back of an ambulance - and administrative procedures, sick leave payments, and billing happen in the background. Patients maintain control and transparency over their data.

By streamlining information sharing and making health services more accessible, Estonia achieves better outcomes despite relatively modest funding, illustrating how robust digital infrastructure supports overall population health.

HEALTHCARE METRIC	ESTONIA	UNITED STATES
<b>Health Coverage</b>	~96% of population covered by national health insurance (EHIF).	~92% insured; ~8% (26 million) remain uninsured.
<b>Health Expenditure per Capita</b>	\$3,202 per person (7.5% of GDP). Government is the primary payer.	\$14,570 per person (~17.6% of GDP) – highest in the world.
<b>Administrative costs of the healthcare system</b>	1.5% of overall healthcare expenditure.	20-30% of overall healthcare expenditure (some estimates higher).
<b>Life Expectancy at Birth</b>	79.6 years (2024); Estonia’s life expectancy has risen sharply from a low of 66.5 years in the 1990s.	77.5 years (2024 - CDC).
<b>Maternal Mortality</b>	5 per 100,000 (lowest in the world. Some years, maternal mortality is zero).	21 per 100,000 (2020).
<b>Infant Mortality</b>	1.3 per 1,000 births (lowest in the world).	4.9 per 1,000 births.

### Additional Points

- **Medical System Errors:** In the U.S., they are the *third largest cause of death*, killing at least **250,000** Americans each year; **10–30%** of these errors are linked to poor data sharing or miscommunication.<sup>14</sup>
- **Administrative Burden:**
  - A 2020 Kaiser Family Foundation survey found **58%** of U.S. adults encountered administrative problems with their health insurance providers (such as denied claims, provider network problems, and pre-authorization problems).<sup>15</sup>
  - A 2016 study: U.S. physicians spend **2 additional hours** on EHR tasks and desk work for every hour of face-to-face clinical time.<sup>16</sup>
  - A 2019 JAMA study: billing and insurance-related activities can add **\$3,000+** per inpatient surgical episode in the U.S.<sup>17</sup>

14 Makary, M. A., & Daniel, M. (2016). Medical error—The third leading cause of death in the US. *BMJ*, 353, i2139. <https://www.bmj.com/content/353/bmj.i2139>

15 Pollitz, K., Pestaina, K., Montero, A., Lopes, L., Valdes, I., Kirzinger, A., & Brodie, M. (2023, June 15). *KFF Survey of Consumer Experiences with Health Insurance* [Poll findings report]. Kaiser Family Foundation. <https://www.kff.org/private-insurance/poll-finding/kff-survey-of-consumer-experiences-with-health-insurance/>

16 Christine Sinsky, Lacey Colligan, Ling Li, et al. *Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties*. *Ann Intern Med*.2016;165:753-760. [Epub 6 September 2016]. doi:10.7326/M16-0961

17 Xu, W., & Mishra, S. (2019). *Social determinants of health and insurance claim denials for preventive care*. *JAMA Internal Medicine*, 179(8), 1105–1112. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2750787>

## 8. Social Services

Estonia increasingly offers **proactive services** that automatically provide (or at least proactively offer) benefits to eligible citizens without requiring them to navigate multiple forms. This ensures that vulnerable groups (e.g. elderly, low-income families) do not miss out on benefits due to ignorance, confusion, or social stigma.

PROACTIVE SERVICES METRIC	ESTONIA	UNITED STATES
<b>Benefit Enrollment Approach</b>	<b>Automated</b> or proactively offered for many life events (e.g., childbirth triggers a single notification covering parental benefits, health insurance, and family allowances). Citizens simply confirm their receipt of benefits.	<b>Application-based</b> ; individuals typically must apply separately for each program (Medicaid, SNAP, TANF, etc.). Each agency conducts its own eligibility checks. Many do not realize they're eligible or are deterred by complex paperwork.
<b>Participation Rates</b>	Near-universal in certain programs (e.g., 100% of new parents receive family benefits after proactive rollout).	Varies widely. Many programs see 20–30% of eligible people unserved (e.g., TANF at ~20% participation, some seniors missing SNAP at just 30% coverage). Overall tens of billions in unclaimed benefits.
<b>Administrative Burden &amp; Costs</b>	<b>Lower</b> overhead due to “once-only” data policy and central digital infrastructure (X-Road). Staff focus on edge cases instead of routine verification.	<b>High</b> overhead; multiple agencies verifying the same info. States/federal spend tens of billions administering benefits each year. Complex rules deter many from enrolling.
<b>Unclaimed Benefits</b>	Minimal, as the government ensures eligible recipients are automatically informed or enrolled.	Estimated \$60–100B unclaimed annually across major programs (EITC, SNAP, Medicaid, TANF, etc.). Families lose aid, local economies lose stimulus, and social costs rise later.

### Additional U.S. Numbers

- An estimated **5 million** EITC-eligible households fail to claim the credit each year, leaving over **\$7 billion** in unclaimed refunds.<sup>18</sup>
- Roughly **4–5 million** people eligible for SNAP (food assistance) do not receive it, translating into **\$15–20 billion** in foregone nutritional support.<sup>19</sup>
- The majority of Medicaid and Children’s Health Insurance Plan (CHIP) eligible children remain un-enrolled and do not have health insurance.<sup>20</sup>

18 Tax Policy Center. (n.d.). *Do all people eligible for the EITC participate?* <https://taxpolicycenter.org/briefing-book/do-all-people-eligible-eitc-participate>

19 Thomas B. Foster, Brian Knop, and Renuka Bhaskar. (2021, Feb 2). *Access and Eligibility for Supplemental Nutrition Assistance Program Varies County by County*. US Census Bureau. <https://www.census.gov/library/stories/2021/02/demographic-snapshot-not-everyone-eligible-for-food-assistance-program-receives-benefits.html#:~:text=largest%20federal%20effort%20to%20reduce,not%20participate%20in%20the%20program>

20 Joan Alker, Olivia Pham. (November 2018). *Nation’s Progress on Children’s Health Coverage Reverses Course*. Georgetown University Health Policy Institute. [https://sdaho.org/wp-content/uploads/2018/12/UninsuredKids2018\\_Final\\_asof1128743pm.pdf#:~:text=Medicaid%20IT%20systems%20that%20may,sponsored](https://sdaho.org/wp-content/uploads/2018/12/UninsuredKids2018_Final_asof1128743pm.pdf#:~:text=Medicaid%20IT%20systems%20that%20may,sponsored)

## 9. Transparency and Government Integrity

Transparency and accountability in government are crucial for public trust. Estonia has made strides in reducing corruption and increasing transparency since the 1990s, ranking among the least corrupt and most transparent in the world.

TRANSPARENCY METRIC	ESTONIA	UNITED STATES
<b><u>Corruption Perceptions Index (2022)</u></b>	76/100 – Ranked 12th of 180 countries. Similar to Canada/Iceland.	69/100 – Ranked ~24th of 180, down from low-70s a decade ago.
<b>WJP Rule of Law Index (of 142 countries)</b>	0.82 (10th)	0.70 (26th)
<b>Government Transparency Initiatives</b>	Estonia is one of only two countries to practice wide-reaching <b>proactive disclosure</b> of all government documents. Little need for FOIA requests as government documents can be found through a search of public-facing document registers. Citizens have full transparency on how their data is used and shared by the government.	<b>Institutional checks</b> (FOIA, open data portals) are robust, but lobbying/secretcy issues cause concern.
<b>Open Data and Civic Tech</b>	<b>Leading in open data.</b> Most government datasets are freely available. Many non-public datasets are available via API access to qualified private entities.	<b>Significant</b> open data efforts (data.gov) but quality varies by agency; scale makes consistency a challenge.

## 10. Elections and Voting

Estonia and the United States represent two ends of the spectrum in election administration: Estonia offers **internet voting** (i-voting) nationwide, while the U.S. runs highly decentralized elections with no online voting option, reflecting cybersecurity concerns.

ELECTION METRIC	ESTONIA	UNITED STATES
<b>Voting Method</b>	<b>Internet Voting</b> (i-Voting) since 2005. In 2023, 51% of votes cast online. Paper ballots remain an option.	<b>No online voting</b> for federal elections. Voting is in-person or by mail; electronic machines vary by locality.
<b>Admin cost per vote</b>	Online: ~\$2.50 €, polling station: ~\$4.50	\$8.10 / voter on average in 2017
<b>Voter Turnout</b>	63.7% in the 2023 parliamentary election; e-voting cited as a convenience factor.	66.2% in the 2020 presidential election (highest in decades). Midterm/local turnout is often much lower.
<b>Election Results Counting</b>	<b>Fast</b> – online votes are centrally tallied within hours; final results often available on election night.	<b>Decentralized</b> – states/counties count separately; mail ballots can delay results by days/weeks in close races.
<b>Electoral Integrity and Trust</b>	<b>High</b> trust; audits have confirmed i-voting accuracy; no major fraud controversies.	Trust has been <b>challenged</b> by partisan disputes; paper-based process is fundamentally secure but slow, fueling mistrust among some.

### Additional Points

→ While about half of Estonians vote online, those casting paper ballots also benefit from the operational digitization of the entire electoral system. There are no lines at polling stations.

## 11. Government Efficiency and Effectiveness

Government efficiency encompasses how well the public sector delivers on its responsibilities – including quality of public services, regulatory effectiveness, and bureaucratic competence. Both Estonia and the United States rank highly in global governance indicators, though Estonia’s streamlined digital administration often achieves “more with less.” The U.S. manages a vastly larger system, excelling in many areas but facing complexity and scale-related challenges.

GOVERNMENT EFFICIENCY METRIC	ESTONIA	UNITED STATES
<b>World Bank Government Effectiveness</b> (percentile, 2022)	~89th percentile (~1.3 on a -2.5 to 2.5 scale), placing it ~23rd worldwide.	~88th percentile (~1.2), ~24th worldwide, still strong but not top of Western countries.
<b>Ease of Doing Business (Overall)</b>	Rank #18 (2020). Excels in registering property (#6) and starting a business (#14).	Rank #6 (2020). Strong in getting credit (#4) and resolving insolvency (#2).
<b>Regulatory Quality (WGI)</b>	~90th percentile – business-friendly, transparent licensing/permits, many processes online.	~91st percentile – highly developed regulatory system, strong property rights, slightly above Estonia.
<b>Bureaucratic Burden</b>	Lean – small government workforce, heavy automation (99% of forms online).	Large – multiple layers (federal, state, local). Paper processes still common in many areas.
<b>Public Trust in Government</b>	~38% of Estonians trust national government (2023), slightly above OECD average.	~20–30% of Americans trust the federal government (2021), near historic lows.

## 12. Improper Payments, Fraud and Identity Theft

A new area of comparison is **improper payments and fraud** in U.S. federal programs. While Estonia has minimized identity theft through its secure digital ID, the U.S. faces significant challenges across large-scale benefit programs. While comparative numbers do not exist for Estonia, the error/fraud rate is generally considered quite low.

### → Unemployment Insurance (UI) Fraud

- **Pandemic:** \$163–\$200+ billion in improper payments<sup>21</sup>
- **Pre-pandemic:** 10–14% improper payment rate (~\$5–\$10 billion/year)

### → Medicare & Medicaid

- **Medicare:** \$46 billion in improper payments (~7.5% error rate)<sup>22</sup>
- **Medicaid:** \$81 billion (~15.6% error rate)<sup>23</sup>

### → Social Security (OASDI & SSI)

- \$8.3 billion (OASDI) + \$4.6 billion (SSI) in improper payments
- \$160–\$200 million in confirmed fraud recoveries

### → SNAP (Food Stamps)

- ~6% improper payment rate (\$5 billion total), with 1–2% due to trafficking

### → US Procurement Transparency & Fraud Investigations (2023)

- Over 1,000 new federal investigations into procurement fraud<sup>24</sup>
- **\$3 billion** recovered in taxpayer funds

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21 U.S. Government Accountability Office. (2023). *Unemployment: Data indicate substantial levels of fraud during the pandemic; DOL should implement an antifraud strategy* (GAO-23-105523). U.S. GAO. <https://www.gao.gov/assets/gao-23-105523.pdf>

22 U.S. Department of Health & Human Services. (2023). *FY 2024 Annual Performance Plan and Report – Strategic Goal 5, Objective 5.2* (Medicare Fee-for-Service improper payments, FY 2022: 7.46% or \$31.46 billion) [Agency Financial Report]. HHS. <https://www.hhs.gov/about/budget/fy2024/performance/performance-plan-goal-5-objective-2/index.html>

23 U.S. House Committee on the Budget. (2023). *Biden's Budget: A Future That's Built on Government Dependence* (Fact sheet). U.S. House of Representatives. <https://budget.house.gov/press-release/7582> (Highlights Medicaid FY 2022 improper payments at 15.62%, or about \$80.6 billion)

24 Piacentile, J. (2024, August 28). *Top U.S. Government Contractors and the Risks of Procurement Fraud* [Blog post]. Whistleblowers International. <https://whistleblowersinternational.com/Blog/top-u-s-government-contractors-and-the-risks-of-procurement-fraud/> (Note: DOJ opened 1,000+ procurement-fraud investigations in 2023, recovering over \$3 billion)



## 13. Judicial System

Another point of comparison is **caseload and speed of case disposition**.

### → U.S. Federal Courts

- ~374,000 federal civil filings in FY2024
- Median **18.2 months** to disposition in Circuit and District Courts<sup>25</sup>

### → Estonia

- **28 days** average time to resolve civil cases (second fastest in Europe), enabled by near fully end-to-end digitization of e-filing, evidence management and case tracking.<sup>26</sup>

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25 Administrative Office of the U.S. Courts. (2024). *Statistical Tables for the Federal Judiciary – Table C-5* (December 31, 2024) [Court caseload data]. U.S. Courts. <https://www.uscourts.gov/data-news/data-tables/2024/12/31/statistical-tables-federal-judiciary/c-5>

26 European Commission (2024a). 2024 EU Justice Scoreboard. Retrieved on December 21, 2024 from [https://commission.europa.eu/document/download/84aa3726-82d7-4401-98c1-fee04a7d2dd6\\_en?filename=2024%20EU%20Justice%20Scoreboard.pdf](https://commission.europa.eu/document/download/84aa3726-82d7-4401-98c1-fee04a7d2dd6_en?filename=2024%20EU%20Justice%20Scoreboard.pdf).

## 14. Energy Grid Digitization

The energy sector offers a stark comparison between Estonia's fully liberalized, digitally integrated market and the more fragmented U.S. system. While certain states in the U.S. (like Texas or New York) encourage competition, many Americans are served by regulated monopolies.

By 2016, Estonia had completed a 100% roll-out of electricity smart meters. Combined with data-sharing platform (relying on X-road) Estonia enables real-time consumption data to be shared between market participants and consumers. Switching energy providers can be done online in a matter of minutes. Real-time smart grid monitoring also helps prevent more than 1000 outages every year.

ENERGY GRID METRIC	ESTONIA	UNITED STATES
<b>Smart Meter Penetration</b>	Nearly 100% by 2016, with data managed via a centralized digital platform (Estfeed).	~72% penetration overall. Data often remains siloed at local or state level; no unified national platform.
<b>Retail Market Structure</b>	<b>Fully liberalized</b> market; consumers can switch providers easily. Competition yields ~€270 in annual household savings.	The potential savings from full digitization of the U.S. electricity grid are substantial. Implementing advanced grid technologies could save consumers up to \$50 billion annually by improving efficiency, reducing operational costs, and enhancing reliability. Additionally, digital technologies could save approximately \$1.8 trillion in global grid investments through 2050 by extending the lifespan of grid infrastructure and minimizing supply interruptions.
<b>Outage Prevention &amp; Reliability</b>	Smart metering + real-time monitoring reportedly prevents ~1,000 outages/year.	Power outages cost an estimated \$150B+/year (~\$455 per capita). A <b>20%</b> reduction via improved digitization could save ~\$30B.

## Additional Comparative Insights

- Digitization has enabled **smart consolidation of public services**. To cite one examples, Estonia has a single nationwide call and dispatch center<sup>27</sup> for all emergency calls (policy/fire/rescue). The US, in contrast, has more than 6000 call centers.<sup>28</sup>
- **Cyber security** is a core enabler of Estonia's digital government efficiency, and Estonia places great emphasis on ensuring that its services are trustworthy. In recent years, less than 0.4% of Estonians refrained from using digital public services because of privacy or security concerns. In contrast, more than half of Americans have shied away from using a product or service because of privacy concerns.<sup>29</sup>
  - The Estonian government's cryptographic and data security solutions are considered so robust that they have been adopted to secure some of the U.S. Department of Defense's most critical platforms.<sup>30</sup>

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27 CGI. (n.d.). *Innovative emergency response system helps save lives* [Case study – Estonian Emergency Response Centre]. CGI Group Inc. [https://www.cgi.com/sites/default/files/files\\_ee/casestudies/cgi-case-study-innovative-emergency-response-system-helps-save-lives.pdf](https://www.cgi.com/sites/default/files/files_ee/casestudies/cgi-case-study-innovative-emergency-response-system-helps-save-lives.pdf)

28 National 911 Program (NHTSA). (n.d.). *Tour a 911 Call Center or PSAP* [Web page]. 911.gov. <https://www.911.gov/projects/tour-a-911-call-center-or-psap>

29 Perrin, A. (2020, April 14). *Half of Americans have decided not to use a product or service because of privacy concerns*. Pew Research Center. <https://www.pewresearch.org/short-reads/2020/04/14/half-of-americans-have-decided-not-to-use-a-product-or-service-because-of-privacy-concerns/>

30 For more information, see the website of Guardtime Federal <https://www.guardtime-federal.com/>.

## About Estonia

- **Population:** 1,374,687 (similar to Maine)
- **Surface Area:** 17,500 square miles (between Maryland and W Virginia)
- **Population Density:** 75 people per square mile (similar to Kansas and Nebraska)
- **GDP:** \$42,700
- **Official Language:** Estonian
- **Ethnic Breakdown:** Approximately 68% Estonians, 22% Russians, 5% Ukrainians, and 5% other ethnic groups
- **Currency:** Euro
- **Member of:** EU, NATO, OECD, CERN