



# IS YOUR STATE READY FOR DRONE COMMERCE? THE 2023 STATE-BY-STATE SCORECARD

Brent Skorup, Mercatus Center



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Brent Skorup, "Is Your State Ready for Drone Commerce? The 2023 State-by-State Scorecard" (Mercatus Special Study, Mercatus Center at George Mason University, Arlington, VA, July 2023).

## ABSTRACT

Worldwide, commercial drone services are being tested and permitted. Progress in the United States has been slow, in part because of a lack of clarity about the federal and state roles in drone and airspace management. We give scores to the 50 states and rank them using their laws and drone industry data that indicate their preparedness for commercial drones. By adopting laws that allow cities to lease the air rights above public roads, vesting property owners with air rights, and establishing avigation easements, states can facilitate future drone integration.

*JEL* codes: H77, K11, K23, L93, R48, R52

Keywords: drones, federalism, aviation, FAA, air rights, property rights, transportation, public policy, regulation

#### DISCLAIMER

This report is not legal advice and is intended solely for informational and educational purposes. Laws and legal interpretations are subject to change. Operators should consult a local licensed attorney before attempting drone operations.

## ACKNOWLEDGMENTS

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Connor Haaland coauthored an earlier version of this report. Trace Mitchell, William Gu, and Patricia Patnode also made significant contributions to this research. To contact the author about the report analysis or about omissions and updates, please email bskorup@mercatus.gmu.edu.

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his is the fourth release of the 50-state drone commerce report. This report, like its predecessors, aims to give aviation officials and representatives in the industry practical policies to consider when looking to stimulate long-term commercial investment in advanced drone services.<sup>1</sup> There are numerous commercial drone pilot programs throughout the nation, and worldwide hundreds of drone companies are testing and creating new drone services. Commercial drone companies have operated for years in countries such as China, Japan, Rwanda, and Guatemala, providing agricultural services, deliveries to rural areas, and medical shipments. In the United States, UPS, Amazon, USPS, and others also want to gain a sliver of the \$30 billion home delivery market. The Federal Aviation Administration (FAA) has authorized several drone pilot projects, including some for public safety and medical uses, but widespread deployment of commercial drones is years away.

Progress has been slow in part because of a lack of clarity about the federal and state roles in drone and airspace management. Some in Congress would like to codify state and local authority over the low-altitude airspace that drones fly in, but the technology is moving faster than federal legislation.<sup>2</sup>

## **CREATING DRONE HIGHWAYS**

Creating *drone highways*—aerial corridors above public rights-of-way—has generated industry and regulator interest in recent years.<sup>3</sup> In 2021, the Federal

<sup>1.</sup> In this report, the term *drone* refers to small commercial drones that typically fly below 400 feet altitude, not large freight and passenger drones, which typically fly at higher altitudes.

<sup>2.</sup> A few bills in Congress would codify state authority over low-altitude airspace, generally up to 200 feet above the ground. See Drone Integration and Zoning Act of 2019, S. 2607, 116th Cong. (2019); Drone Federalism Act of 2017, S. 1272, 115th Cong. (2017); and Drone Innovation Act, H.R. 2930, 115th Cong. (2017).

<sup>3.</sup> See, for example, Jack Daleo, "Drone Highways in the Sky Could Be on the Horizon," Modern Shipper, August 30, 2021: "[M]any industry advocacy groups, regulators and operators see a drone 'highway' model as the way forward."

Highway Administration discussed "potentially new opportunities with air rights" and "leasing airspace over highways" to encourage commercial drone use.<sup>4</sup> In 2022, one of the FAA's appointed aviation rulemaking committees recommended the creation of a system of drone corridors above critical infrastructure<sup>5</sup>—including up to 100 feet above utility lines, rail lines, and pipelines—as a way to expand long-distance drone services.<sup>6</sup> Former FAA deputy administrator Sandy Murdock noted that "real estate experts who can negotiate aerial easements over roads should prepare or begin to market these otherwise unmonetized incorporeal property interests" to drone companies.<sup>7</sup>

However, as pointed out in reports to Congress by the Government Accountability Office in 2020 and the US Department of Transportation Office of Inspector General in 2022,<sup>8</sup> it is unclear how federal and state governments will share authority over low-altitude airspace. This uncertainty slows technological progress.<sup>9</sup>

Perhaps in response to these reports, in April 2023 the FAA released new formal guidance that federal, state, and local authorities will work together to greenlight and restrict drone operations in low-altitude airspace. In a subsection titled "Airspace Restrictions to Flight," the FAA notes:

There can be certain local restrictions to airspace. While the FAA is designated by federal law to be the regulator of the NAS [National Airspace System], some state and local authorities may

<sup>4.</sup> The Federal Highway Administration report cites an earlier version of this drone report. Federal Highway Administration, *The Transportation Future: Trends, Transportation, and Travel* (Washington, DC: US Department of Transportation, 2021), 59.

<sup>5.</sup> The name of the committee is the Unmanned Aircraft Systems Beyond Visual Line-of-Sight Aviation Rulemaking Committee.

<sup>6.</sup> See Federal Aviation Administration, *Unmanned Aircraft Systems Beyond Visual Line-of-Sight Aviation Rulemaking Committee Final Report*, March 10, 2022, 162, https://www.faa.gov/regulations\_policies/rulemaking/committees/documents/media/UAS\_BVLOS\_ARC\_FINAL\_REPORT\_03102022.pdf.

<sup>7.</sup> Sandy Murdock, "Avigation Rights Can Create New Revenues for Pipelines, Powerlines, etc. by Establishing Them as UAS Roads," *JDA Journal*, September 13, 2021, https://web.archive.org/web/20220317214704/http:/jdasolutions.aero/blog/avigation-rights-can-create-new-revenues-for-pipelines-powerlines-etc-by-establishing-them-as-uas-roads/.

<sup>8.</sup> Federal Aviation Administration, *FAA Made Progress through Its UAS Integration Pilot Program, but FAA and Industry Challenges Remain to Achieve Full UAS Integration*, Report AV2022027, April 27, 2022, https://www.oig.dot.gov/sites/default/files/FAA%20UAS%20Integration%20Pilot%20 Program%20Final%20Report\_04-27-22.pdf.

<sup>9.</sup> Government Accountability Office, Unmanned Aircraft Systems: Current Jurisdictional, Property, and Privacy Legal Issues regarding the Commercial and Recreational Use of Drones, B-330570, September 16, 2020, https://www.gao.gov/assets/710/709370.pdf: "The legal uncertainty surround-ing these [drone federalism] issues is presenting challenges to integration of UAS [unmanned aircraft system] into the national airspace system."

also restrict access to local airspace. UAS [unmanned aircraft system] pilots should be aware of these local rules.<sup>10</sup>

Legally speaking, the FAA is recognizing there is no field preemption when it comes to low-altitude airspace restrictions. State authorities, then, should prepare to have more involvement in drone operations than they have historically had in aviation. States and cities have police powers over land use and zoning, and low-altitude airspace—where many drones will fly—is inseparable from the land beneath it.<sup>11</sup> Further, courts look to state law when determining whether approved flight paths amount to an unconstitutional taking of property.<sup>12</sup> For practical and legal reasons, then, state and city authorities will play a key role in demarcating drone highways, as well as in creating time, place, and manner restrictions such as time-of-day rules, noise maximums, and privacy protections.<sup>13</sup>

State and local leaders should coordinate with the FAA to create drone highways—which operators could use for parcel delivery, inspections, search and rescue, and other drone services—as a way to jump-start this new industry. By demarcating drone highways above roadways, regulators can avoid nuisance, trespass, and takings lawsuits from landowners.<sup>14</sup>

Leasing the aerial corridors above public roads when the industry matures in the future would allow state and local authorities to manage drone highways for safe and efficient drone services. Exercising this power would also allow many authorities to receive passive income through leasing or auction of a currently unused public resource: the public right-of-way between 50 feet and 200 feet above the ground.

## ASSESSING STATE POLICY

State laws need to accommodate drone flights from large and small operators and clarify who—whether state, local, or federal officials—can make low-altitude

<sup>10. &</sup>quot;Airspace Access for UAS," chapter 11, section 4 in the *Aeronautical Information Manual* (Washington, DC: FAA, 2023). https://www.faa.gov/air\_traffic/publications/atpubs/aim\_html/ chap11\_section\_4.html.

<sup>11.</sup> The FAA, for instance, acknowledges local authorities' police powers in five areas: land use, zoning, privacy, trespass, and law enforcement operations. Operation and Certification of Small Unmanned Aircraft Sys., 81 Fed. Reg. 42064, 42194 (June 28, 2016) (codified at 14 C.F.R. pts. 21, 43, 61, 91, 101, 107, 119, 133, 183).

<sup>12.</sup> United States v. Causby, 328 U.S. 256, 266 (1946).

See, for example, Laura K. Donohue, "Who Owns the Skies? *Ad Coelum*, Property Rights, and State Sovereignty," in *Eyes to the Sky*, ed. Matthew Feeney (Washington, DC: Cato Institute, 2021), 131–64.
For a discussion of the imprecise nature of landowners' air rights and interaction with aerial nuisance laws, see Lindsey P. Gustafson, "Arkansas Airspace Ownership and the Challenge of Drones," *University of Arkansas at Little Rock Law Review* 39 (2017): 245, 258–77.

#### TABLE 1. STATE RANKINGS

Overa	ll Rank	Overall Score	C	Overal	ll Rank	Overall
1	Arkansas	90		26	Hawaii	37
2	Oklahoma	74		26	Idaho	3
3	North Dakota	70		26	Indiana	3
4	Arizona	68		29	Tennessee	30
4	Georgia	68		30	Oregon	3
4	North Carolina	68		30	West Virginia	3
7	Minnesota	66		32	Kansas	34
8	Maryland	59		33	Alaska	3.
8	Massachusetts	59		33	New Hampshire	3.
10	New Jersey	58		35	Florida	33
11	Montana	57		35	Maine	33
11	Nevada	57		35	Pennsylvania	3:
13	Virginia	55		35	Utah	3.
14	Texas	54		39	New York	2
14	Washington	54		40	Connecticut	2
16	California	50		41	Illinois	2
17	Delaware	47		42	Alabama	1
18	Wisconsin	46		43	Kentucky	1
19	Louisiana	44		43	South Carolina	1
20	Michigan	41		45	lowa	5
20	Ohio	41		46	South Dakota	4
22	Vermont	40		47	New Mexico	3
23	Missouri	39		48	Mississippi	1
24	Colorado	38		48	Nebraska	1
24	Wyoming	38		48	Rhode Island	:

Note: Because our data source does not provide drone jobs numbers for US territories, we have omitted Puerto Rico from the rankings.

airspace available. This report scores the existing laws and policies and ranks all 50 states (see table 1). The report also identifies which states have laws and policies that show promise in creating drone highways and a statewide drone industry.

## METHODOLOGY

We give states scores based on six factors that signal a state's readiness for commercial drone services. Given the legal obstacles to creating drone highways above private property, we give the most weight to the two factors that make drone highways over public roads feasible: airspace lease law and avigation easement law. That said, the other factors are economically important and are weighed accordingly. There is necessarily some subjectivity in how to weigh each factor. Other relevant legal issues, such as state-based insurance and liability rules, will also affect the drone industry; but in our estimation, the following six factors should be the top state priorities. For a breakdown of the scores for each state, see appendix A.

## 1. Airspace Lease Law (30 points total)

For states to achieve a widespread and safe drone delivery economy, they will generally need drone highways safely separated from airports, homes, schools, and other sensitive locations, which will be demarcated by regulators. Leasing airspace above public roadways would accelerate drone services, because creating flight paths over backyards and private lands raises difficult questions about the taking of private property.<sup>15</sup>

Over one-third of states currently allow state or local authorities to lease airspace above public roads and public property. Many variations of these road airspace leasing provisions exist, but Oregon's law is a good, clear example:

Any political subdivision holding the easement or fee title to a street or highway may lease the space above or below that street or highway for private purposes.<sup>16</sup>

Although these laws were passed decades ago with real estate development in mind, they allow the creation of statewide or citywide drone delivery networks. A state law allowing authorities to lease airspace above state *and* local roads receives a full 30 points. Only seven states authorize such airspace leasing.<sup>17</sup> A state law allowing authorities to lease airspace above state roads but not local roads, or vice versa, receives 10 points. Sixteen states fall into this category.<sup>18</sup> The remaining states, which are silent on the matter, receive zero points.

<sup>15.</sup> United States v. Causby (holding that landowners have "a claim to [low-altitude airspace] and that invasions of it are in the same category as invasions of the surface").

<sup>16.</sup> Or. Rev. Stat. § 271.430 (2017).

<sup>17.</sup> These are Arkansas, New Hampshire, Oklahoma, Oregon, Texas, Virginia, and Washington.

<sup>18.</sup> These are Arizona, California, Connecticut, Florida, Georgia, Illinois, Louisiana, Maine, Massachusetts, Michigan, Minnesota, New York, Ohio, South Carolina, West Virginia, and Wisconsin.

## 2. Avigation Easement Law (25 points total)

Though many states recognize landowners' property rights in the air, they often condition those rights and allow drone (and airplane) flights over land as long as flights do not interfere with land use or disturb people on the ground. In 1922, the influential Uniform Law Commission approved a model law known as the Uniform State Law for Aeronautics.<sup>19</sup> Many states have adopted a version of the avigation easement provision from this model law:

Flight in aircraft over the lands and waters of this State is lawful, unless at such a low altitude as to interfere with the then existing use to which the land or water, or the space over the land or water, is put by the owner, or unless so conducted as to be imminently dangerous to persons or property lawfully on the land or water beneath.<sup>20</sup>

These avigation easement laws mean that drone operators can fly their drones as long as they are high enough not to bother landowners and passersby. The laws also mean that if the state or municipality does not own the aerial corridors above public roads, drones would still be able to access the aerial easements if state officials demarcated drone highways above public roads.

Nearly one-half of states have avigation easement laws and receive 25 points. The states that are silent on the matter receive zero points.

## 3. Drone Task Force or Program Office (20 points total)

For state and local authorities, widespread commercial drone services will raise novel issues related to zoning rules, such as noise limits, time-of-day restrictions, job training and education, insurance, and privacy for private dwellings. Most of these issues require evaluation and discussion by regulators, residents, researchers, and operators. States that have a statewide task force or a drone program office within their department of transportation will be ahead of the curve and can anticipate future issues before they become problems for industry and residents.

The American Bar Association established the Uniform Law Commission in the late 1800s.
Today, members of the commission are lawyers, judges, law professors, and legislators appointed by their states to draft model laws, which state legislatures are encouraged to enact.
Unif. St. L. for Aeronautics § 4 (Unif. L. Comm'n 1922).

States that have an active statewide task force or a program office dedicated to commercial drone services receive 20 points. Nineteen states fulfill this criterion.<sup>21</sup>

States that created a task force that appears to have lapsed receive 10 points. Further, states that have a legislative body that has produced a drone report receive 10 points, as it indicates growing lawmaker knowledge and prioritization of drone issues. The remaining states, which have no task force, program office, or policy reports, receive zero points.

## 4. Law Vesting Landowners with Air Rights (10 points total)

Air rights laws serve a few purposes. First, they clarify that the state is exercising its police powers and defining property rights within the state. Second, where state or local authorities own public rights-of-way, these laws recognize the authorities' property interest in the aerial corridors above public roads. Third, these laws put drone operators and residents on notice about the extent of homeowners' property rights, which reduces litigation risk for operators and homeowners alike.

One provision from the Uniform State Law for Aeronautics recognized that landowners own the low-altitude airspace above their land:

The ownership of the space above the lands and waters of this State is declared to be vested in the several owners of the surface beneath, subject to the right of flight.<sup>22</sup>

Nearly one-half of states have adopted some version of this model law; those states receive 10 points. States that are silent on the matter of air rights ownership receive zero points.

## 5. Sandbox (10 points total)

The term *sandbox* in technology policy refers to a designated place, either geographical or digital, where new technologies can be tested under liberal rules for a predetermined duration.<sup>23</sup> The policy goal is to stimulate a new industry or

<sup>21.</sup> These are Alaska, Arizona, Kansas, Louisiana, Michigan, Minnesota, Montana, Nevada, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia, Washington, and West Virginia.

<sup>22.</sup> Unif. St. L. for Aeronautics § 3 (Unif. L. Comm'n 1922).

<sup>23.</sup> See, for example, Rees Empey, "Regulatory Sandboxes," Libertas Institute, accessed March 16, 2022, https://libertas.org/outreach/sandbox/.

service by providing innovators and regulators a place to watch and learn about the new technology without a full-scale launch to the public.<sup>24</sup> A drone sandbox for our purposes has three components:

- 1. Designated airspace and facilities
- 2. Prominent, open invitation to commercial drone services companies to use the airspace and facilities
- 3. Affiliation with state transportation or economic development officials

Eight states have a drone sandbox, but their models vary. In Oklahoma, the Choctaw Nation has dedicated more than 1,000 square miles of tribal land—an aerial corridor about 25 miles long—to drone services testing, with an eye toward manufacturing and economic development.<sup>25</sup> In New York, state officials have designated a 50-mile-long corridor in a rural area for drone testing. In Ohio and Maryland, officials have repurposed an existing small airport.

We distinguish sandboxes from the dozens, perhaps hundreds, of pilot programs throughout the nation. *Drone pilot programs* are typically initiated by a single drone services company, are of short duration, and are limited to that company solely. In a drone sandbox, by contrast, airspace access is widely available and indefinite, which allows many early-stage companies to test their technology and show proof of concept to investors and regulators.

This factor requires state affiliation, because a sandbox grows the knowledge and competence of state and local transportation and economic development officials in the new area of drone commerce.<sup>26</sup>

## 6. Jobs Estimate (5 points total)

The final factor that contributes to a state's score is the estimated number of drone job openings in 2021.<sup>27</sup> We rank states by the number of drone jobs listings per 100,000 residents so that populous states are not unduly favored. Once the states are ranked, we divide them into quintiles: the top 10 states for drone jobs

<sup>24.</sup> Molly Lesher, "Bringing New Digitally Enabled Products and Services to Market: Sandboxes and the Role of Policy Experimentation," VoxEU, Centre for Policy Research, October 13, 2020; and James Czerniawski, "Utah Innovates: Regulatory Frameworks for the Future," Libertas Institute, December 2019, http://libertas.org/policy-papers/regulatory\_sandbox.pdf.

<sup>25.</sup> See, for example, Dawn Zoldi, "This High Tech Tribe Will Bring Drone Deliveries to Rural Areas," *Forbes*, August 24, 2021.

<sup>26.</sup> In a few cases, such as New Mexico and Texas, there is airspace access for drone companies but no apparent involvement with state officials.

<sup>27.</sup> See notes 29-30 for more information on ZipRecruiter drone jobs data.

listings receive the maximum five points, the next 10 states receive four points, and so on. The number of drone jobs serves as a proxy for soft factors that benefit a state, such as a university or community college system with drone programs or workers in the aerospace industry. These soft factors can position states for future jobs and services growth, much like the automotive supplies industry revolving around Detroit and the information technology industry revolving around Silicon Valley.

## ABOUT THE SOURCES

The three relevant airspace laws were found in state codes. We compiled the existence of a drone task force or program office by consulting drone experts, state law databases, and news reports. The data we used to determine drone job listings per state were provided by ZipRecruiter.<sup>28</sup> From ZipRecruiter's drone jobs listing data for 2021, we estimated the number of drone jobs per 100,000 persons in a given state.<sup>29</sup> A handful of states did not have 2021 drone job listing data, so we used the most recent data available, either 2020 or 2019.<sup>30</sup>

## CHANGES FROM THE 2022 SCORECARD

In this 2023 report, we have kept the same six factors used in our previous scorecard.<sup>31</sup> There have been several changes in scoring and state rankings. First, in some cases state laws and policies have changed or we unintentionally omitted a relevant state law or policy in an earlier release. The weights of other factors

<sup>28.</sup> ZipRecruiter, Inc., internal data, January 1, 2016, through February 2, 2022.

<sup>29.</sup> ZipRecruiter provided us with average drone job listings per 10,000 ZipRecruiter job listings. From this, we could derive the number of drone jobs per 100,000 persons in the state. The data are job postings mentioning terms strongly associated with drone operation: *drone, UAVs* (unmanned aerial vehicles), *UASs* (unmanned aircraft systems), *AUVSI* (Association for Uncrewed Vehicle Systems International), *MAV* (micro air vehicle), or *RPA* (remotely piloted aircraft). The latest available data for average ZipRecruiter total active job postings were from June 2021. "Labor Market Trends, June 2021," ZipRecruiter, July 1, 2021, https://www.ziprecruiter.com/blog/labor-market-trends-june-2021/.

<sup>30.</sup> These are Alaska, Delaware, Maine, South Dakota, Vermont, and Wyoming.

<sup>31.</sup> The 2020, 2021, and 2023 reports are available on the Mercatus Center website. See Brent Skorup and Connor Haaland, "Which States Are Prepared for the Drone Industry? A Fifty-State Report Card" (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, March 19, 2020); Brent Skorup and Connor Haaland, "Which States Are Prepared for the Drone Industry? A Fifty-State Report Card 2.0" (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, January 14, 2021); and Brent Skorup, "Is Your State Ready for Drone Commerce? The 2022 State-by-State Scorecard" (Mercatus Special Study, Mercatus Center at George Mason University, Arlington, VA, June 2022).

remain the same. For score gains and losses for each state from 2022 to 2023, see appendix B.

## CONCLUSION

Drone commerce in the United States requires collaborative action between federal, state, and local governments and within the industry. The primary challenge to growing the current pilot programs is bringing coherence and predictability to airspace access. Economist Tyler Cowen raised this question a few years ago: "How are we going to have easements in the air? Where do the property rights really lie? . . . It will take a while to untangle that mess."<sup>32</sup> This report aims to simplify some of those issues and show that a public policy priority for this young industry should be long-term access to airspace and drone highways. Parts of this report remain controversial within the industry. While the precise trajectory of federal and state drone rules is unclear, many issues are predictable and should be anticipated. This report complements other research showing how to assure safety and privacy for residents and a predictable investment climate for the industry.<sup>33</sup>

<sup>32.</sup> Brendan Fitzgerald Wallace, "My conversation with economist, author & podcaster Tyler Cowen," Facebook, January 25, 2020, https://www.facebook.com/fitzgerald.brendan.wallace / posts/10101719850747122.

<sup>33.</sup> See, for example, Brent Skorup, "Drones, Airspace Design, and Aerial Law in States and Cities," *Akron Law Review* 55, no. 1 (2022): 157–86.

		APPEN	DIX A: FULI	APPENDIX A: FULL BREAKDOWN OF 2023 SCORES	<b>NN OF 202</b>	3 SCORES		
	Airspace Lease Law (30 points)	Avigation Easement Law (25 points)	Task Force or Program Office (20 points)	Law Vesting Landowners with Air Rights (10 points)	Sandbox (10 points)	Jobs Estimate (5 points)	Overall Score, 2023	Overall Rank, 2023
Arkansas	30	25	20	10	0	ъ	06	-
Oklahoma	30	0	20	10	10	4	74	2
North Dakota	0	25	20	10	10	Ŋ	70	3
Arizona	10	25	20	10	0	З	68	4
Georgia	10	25	20	10	0	Я	68	4
North Carolina	0	25	20	10	10	м	68	4
Minnesota	10	25	20	10	0	1	66	7
Maryland	0	25	10	10	10	4	59	80
Massachusetts	10	25	20	0	0	4	59	8
New Jersey	0	25	20	10	0	3	58	10
Montana	0	25	20	10	0	2	57	11
Nevada	0	25	10	10	10	2	57	11
Virginia	30	0	20	0	0	Ŋ	55	13
Texas	30	0	20	0	0	4	54	14
Washington	30	0	20	0	0	4	54	14
California	10	25	0	10	0	IJ	50	16
Delaware	0	25	10	10	0	2	47	17
Wisconsin	10	25	0	10	0	1	46	18
Louisiana	10	0	20	10	0	4	44	19
Michigan	10	0	20	0	10	1	41	20
Ohio	10	0	20	0	10	1	41	20
Vermont	0	25	0	10	0	IJ	40	22
Missouri	0	25	0	10	0	4	39	23
Colorado	0	25	0	10	0	3	38	24
Wyoming	0	25	0	10	0	З	38	24
Hawaii	0	25	0	10	0	2	37	26
Idaho	0	25	0	10	0	2	37	26
Indiana	0	25	0	10	0	2	37	26
Tennessee	0	25	0	10	0	1	36	29
Oregon	30	0	0	0	0	CJ	35	30

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	Airspace Lease Law (30 points)	Avigation Easement Law (25 points)	Task Force or Program Office (20 points)	Law Vesting Landowners with Air Rights (10 points)	Sandbox (10 points)	Jobs Estimate (5 points)	Overall Score, 2023	Overall Rank, 2023
West Virginia	10	0	20	0	0	ъ	35	30
Kansas	0	0	20	0	10	4	34	32
Alaska	0	0	20	0	10	З	33	33
New Hampshire	30	0	0	0	0	а	33	33
Florida	10	0	20	0	0	2	32	35
Maine	10	0	20	0	0	2	32	35
Pennsylvania	0	0	20	10	0	2	32	35
Utah	0	0	20	10	0	2	32	35
New York	10	0	0	0	10	Ŋ	25	39
Connecticut	10	0	10	0	0	4	24	40
Illinois	10	0	10	0	0	3	23	41
Alabama	0	0	10	0	0	5	15	42
Kentucky	0	0	0	0	10	1	11	43
South Carolina	10	0	0	0	0	1	11	43
lowa	0	0	0	0	0	Ð	5	45
South Dakota	0	0	0	0	0	4	4	46
New Mexico	0	0	0	0	0	3	3	47
Mississippi	0	0	0	0	0	1	1	48
Nebraska	0	0	0	0	0	1	1	48
Rhode Island	0	0	0	0	0	1	1	48
Note: Our data sou	Note: Our data source does not provide drone jobs numbers for US territories, so we have omitted Puerto Rico from this table.	one jobs numbers for l	JS territories, so we ha	ve omitted Puerto Rico fi	rom this table.			

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	Overall Score 2022	Overall Score 2023	Change
Arkansas	70	90	+20
Massachusetts	39	59	+20
Florida	12	32	+20
Maine	12	32	+20
Georgia	58	68	+10
North Carolina	58	68	+10
Maryland	49	59	+10
Alaska	23	33	+10
Oklahoma	74	74	0
North Dakota	70	70	0
Arizona	68	68	0
Minnesota	66	66	0
New Jersey	58	58	0
Montana	57	57	0
Nevada	57	57	0
Virginia	55	55	0
Texas	54	54	0
Washington	54	54	0
California	50	50	0
Delaware	47	47	0
Wisconsin	46	46	0
Louisiana	44	44	0
Michigan	41	41	0
Ohio	41	41	0
Vermont	40	40	0
Missouri	39	39	0
Colorado	38	38	0
Wyoming	38	38	0
Hawaii	37	37	0
Idaho	37	37	0
Indiana	37	37	0
Tennessee	36	36	0
Oregon	35	35	0
West Virginia	35	35	0
Kansas	34	34	0
New Hampshire	33	33	0
Pennsylvania	32	32	0
Utah	32	32	0
New York	25	25	0

## APPENDIX B: SCORE GAINS AND LOSSES, 2022 TO 2023

	Overall Score 2022	Overall Score 2023	Change
Connecticut	24	24	0
Illinois	23	23	0
Alabama	15	15	0
Kentucky	11	11	0
South Carolina	11	11	0
lowa	5	5	0
South Dakota	4	4	0
New Mexico	3	3	0
Mississippi	1	1	0
Nebraska	1	1	0
Rhode Island	1	1	0

Note: Our data source does not provide drone jobs numbers for US territories, so we have omitted Puerto Rico from this table.

#### ABOUT THE AUTHOR

Brent Skorup is a senior research fellow at the Mercatus Center at George Mason University. His research areas include transportation technology, telecommunications, aviation, and wireless policy.

He serves on the Texas Department of Transportation's Connected and Autonomous Vehicle Task Force. He previously served on the Texas Urban Air Mobility Advisory Committee and as a drone law adviser to the Virginia Department of Aviation.

The White House, the FCC, the Pennsylvania Supreme Court, and a dissenting opinion at the Illinois Supreme Court have cited his research. In addition to economics and law journal publication, he has authored pieces for *National Affairs*, Reuters, *Wall Street Journal*, *New York Times*, *Wired*, *Air Traffic Management* magazine, *Regulation* magazine, and elsewhere. He's appeared as a guest for news outlets like C-SPAN, NPR, CBS News, ABC News, and CNBC Asia.

Brent has a BA in economics from Wheaton College and a law degree from the George Mason University School of Law, where he was articles editor for the *Civil Rights Law Journal*. He was a legal clerk at the FCC's Wireless Telecommunications Bureau and at the Energy and Commerce Committee in the US House of Representatives. Before joining Mercatus, he was the director of research at the Information Economy Project, a law and economics university research center.

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