



**Appendix**  
**Economic and Societal Benefits of Expanded Commercial Drone Operations**  
**Commercial Drone Alliance<sup>1</sup>**  
**February 4, 2025**

The commercial unmanned aircraft system (UAS, or drone) industry is delivering significant economic and societal benefits for all Americans. Commercial drone operations stretch across several industries, from commercial package delivery to inspections of critical infrastructure and utilities, generating millions of dollars in revenue and creating thousands of high-quality American jobs. The drone industry is projected to contribute billions of dollars to the global economy over the next decade, with some projections as high as \$90 billion by 2030.<sup>2</sup> Many of these economic benefits will flow directly to small businesses. Yet to fully achieve the economic and safety benefits of commercial drone operations, it is essential to update the outdated regulatory framework currently governing these operations.

Below are just a few examples of the economic and societal benefits of increased commercial drone operations across a variety of industries and sectors.

**Public Safety/Law Enforcement/Physical Security**

Public safety agencies are quickly integrating drones into their daily operations, greatly enhancing their operational capabilities and significantly improving the safety of communities throughout the United States. Drones provide real-time aerial intelligence,

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<sup>1</sup> The CDA is an independent non-profit organization comprised of the leaders in the commercial drone industry. The CDA brings together commercial drone end-users; manufacturers; third-party service providers; advanced air mobility (“AAM”) companies; drone security companies; and vertical markets including oil and gas, precision agriculture, construction, security, communications technology, logistics, infrastructure, newsgathering, filmmaking, and more. The CDA works with policymakers across government to craft policies for industry growth and educates the public on the safe, responsible use of commercial drones to achieve economic benefits and humanitarian gains, including the countless public benefits enabled by commercial drone beyond visual line-of-site (BVLOS) operations.

<sup>2</sup> Levitate Capital, *The Future of the Drone Economy: A Comprehensive Analysis of the Economic Potential, Market Opportunities, and Strategic Considerations in the Drone Economy 1* (Dec. 2020), <https://levitatecap.com/levitate/wp-content/uploads/2020/12/Levitate-Capital-White-Paper.pdf>.

improve law enforcement response times, and reduce risks to personnel during emergencies. Further scaling of drone operations will allow public safety agencies to cover larger areas and conduct more comprehensive surveillance with fewer personnel and equipment. This has been most effective in “Drone as First Responder” (DFR) style programs, where drones are deployed directly from rooftops in response to 911 calls and can arrive on scene within seconds, frequently beating officers to the scene. Drones can also conduct aerial monitoring in situations where it would be too costly or risky to deploy manned aircraft or human teams, such as in fire zones or in response to hazardous material spills. Widespread drone use will ultimately lead to cost savings and budget reallocations toward expanding drone fleets and services. One study estimates that police departments using drones could save approximately \$920 million annually.<sup>3</sup> Further, the increased use of drones will allow for the replacement of manned aircraft used for public safety missions and lead to cost reductions in terms of personnel, fuel, maintenance, and flight hours.

## **Agriculture**

American farmers are essential to a strong domestic economy and decreased reliance on food imports. Drones can conduct numerous agricultural tasks at a higher level of efficiency and at a decreased cost compared to conventional agricultural methods. A 2024 report by the Government Accountability Office (GAO) identified several advantages to drone precision agriculture operations including an ability to detect crop diseases with greater accuracy, targeted spraying of water and agrichemicals, and real-time analysis of soil and plant properties.<sup>4</sup> The cost savings from such technology are significant—approximately \$700 million annually.<sup>5</sup> But the current regulatory framework both prevents investment in agriculture drones and the ability for farmers to widely employ this technology. The result has been a stalemate on progress while our adversaries—China in particular—dominate the global market and employ thousands of agricultural drones on their domestic farmland.<sup>6</sup>

## **Critical Infrastructure/Utilities/Energy**

One of the most promising applications of increased drone use is in the utilities and critical infrastructure sectors, especially for routine and supplemental inspections of essential structures like bridges, railways, power lines, pipelines, and power plants. The integration of UAS into these operations provides significant economic benefits. For example, state Departments of Transportation (DOTs) could achieve potential annual

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<sup>3</sup> Levitate Capital White Paper, Enterprise Market 2020, at 6.

<sup>4</sup> Government Accountability Office, *Precision Agriculture: Benefits and Challenges for Technology Adoption and Use* 32–35, Jan. 2024, <https://www.gao.gov/products/gao-24-105962>.

<sup>5</sup> Levitate Capital White Paper at 6.

<sup>6</sup> Claris Diaz and Emilian Kavalski, *Beyond TikTok — The National Security Risks of Chinese Agricultural Drones, War on the Rocks* (Nov. 25, 2024), <https://warontherocks.com/2024/11/beyond-tiktok-the-national-security-risks-of-chinese-agricultural-drones-2/>.

savings estimated at around \$560 million on bridge inspections,<sup>7</sup> while the use of drones in utility inspections is projected to save up to \$920 million annually.<sup>8</sup> And drone inspections will decrease utility service outage times that result in economic losses estimated at approximately \$18 billion per year.<sup>9</sup> Further, the telecommunications industry stands to benefit significantly from the integration of drone technology, with potential annual savings for tower operators estimated at around \$220 million.<sup>10</sup> Beyond routine inspections, drones have proven invaluable for conducting emergency assessments in unsafe or inaccessible areas following natural disasters. For example, in the aftermath of Hurricane Milton, a Florida power provider was able to quickly deploy its drone fleet to assess damage and quickly restore power to thousands of affected customers.<sup>11</sup>

### Package Delivery/Health Care

Drone delivery has the potential to transform the way consumers receive products and expand businesses' capacity to market and distribute their goods. A 2020 Virginia Tech study of potential drone package delivery in three cities found that employing drones would eliminate 294 million driving miles and prevent 580 car crashes annually.<sup>12</sup> Consumers would benefit not only from easier access to a wide variety of products but also time savings, estimated up to \$582.5 million annually in a single U.S. metropolitan area.<sup>13</sup> Small and local businesses would also benefit immensely because of the expanded footprint of serviceable customers. The study found in some instances more than \$200,000 a year in increased business opportunities for local participating retailers and up to \$284,000 in additional sales for local restaurants.<sup>14</sup> The implementation of drone delivery in the healthcare sector is equally financially advantageous. In low-density population areas, one study estimates that drones can help approximately 1,340 people to obtain prescription medication and provide up to nearly \$59.3 million in annual healthcare benefits.<sup>15</sup> In higher density population areas,

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<sup>7</sup> Levitate Capital White Paper at 8.

<sup>8</sup> *Id.* at 9.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.* at 10.

<sup>11</sup> See Dave Berman, *FPL Deploys 17,000 for Power Restoration after Hurricane Milton Passes*, Florida Today (Oct. 9, 2024), <https://www.floridatoday.com/story/weather/hurricanes/2024/10/09/fpl-power-restoration-plan-after-hurricane-milton-includes-14500-workers/75583556007/>; see also Cody Jackson, *Florida Utility's New Drone Can Speed Hurricane Recovery*, Associated Press (Aug. 15, 2022), <https://apnews.com/article/storms-technology-hurricanes-weather-tropical-56dded8b9a5bcce327e6e819d6eb342f>.

<sup>12</sup> Sarah Lyon-Hill, et. al., *Measuring the Effects of Drone Delivery in the United States*, Virginia Tech Office of Economic Development and the Grado Department of Industrial & Systems Engineering vi (Sept. 2020), [https://cece.vt.edu/content/dam/econdev\\_vt\\_edu/projects/technology/Virginia%20Tech%20Measuring%20the%20Effects%20of%20Drone%20Delivery%20in%20the%20United%20States%20September%202020.pdf](https://cece.vt.edu/content/dam/econdev_vt_edu/projects/technology/Virginia%20Tech%20Measuring%20the%20Effects%20of%20Drone%20Delivery%20in%20the%20United%20States%20September%202020.pdf).

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at vii.

<sup>15</sup> *Id.*

these numbers increase to aiding 22,000 people to obtain medication and achieving up to \$959 million in benefits.<sup>16</sup>

### **Newsgathering/Filmmaking/Entertainment Sector**

Drones can drive market growth while cutting costs for those in the newsgathering, filmmaking, and entertainment sectors. Drone use to cover public events, such as the upcoming 2026 FIFA World Cup and the 2028 Olympic Games, could redefine live broadcasting and produce higher-quality coverage to the benefit of millions of consumers. Drone operations are also significantly less expensive than traditional aerial camera capture methods across the entertainment space. Helicopter-based filming, for instance, can cost up to \$25,000 per day, while comparable drone operations may cost only \$5,000. This represents a cost reduction of up to 80% for production companies, allowing them to reallocate budgets toward other creative or operational endeavors. These cost savings also lower the barrier to entry for aerial operations for smaller, independent production companies and newsgathering organizations, thus increasing job prospects and the economic opportunities for these businesses.

### **Third-Party Service Providers**

In addition to benefitting drone manufacturers and operators, updating the drone regulatory framework will benefit third-party service providers who support the drone industry and provide essential services such as maintenance, airspace deconfliction, weather services, software services, and other safety management. To date, the lack of clarity on UAS rules has resulted in private capital sitting on the sidelines because of undue risk. Removing over-regulation will jumpstart this sector, creating an entirely new market for potentially millions of dollars in investment and thousands of high-quality American jobs.

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<sup>16</sup> *Id.*