

## CREATING AN ENVIRONMENT FOR PERMISSIONLESS INNOVATION

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US Congress Joint Economic Committee

Hearing: Breaking through the Regulatory Barrier: What Red Tape Means for the Innovation Economy

May 22, 2018

Thank you, Chairman Paulsen, Ranking Member Heinrich, and members of the committee, for holding this hearing on this important topic.

My name is Christopher Koopman. I am senior director at the Center for Growth and Opportunity at Utah State University and a senior affiliated scholar at the Mercatus Center at George Mason University. I am grateful for the invitation to discuss opportunities and challenges facing innovators and entrepreneurs in the United States, especially the role regulation is increasingly playing in the innovation economy. This issue parallels much of my work over the past five years, as well as other research projects being pursued at both the Center for Growth and Opportunity and the Mercatus Center. Any opinions I express today are my own and do not necessarily reflect the views of my employer.

The current regulatory environment is inimical to innovation.

1. The culture of “permissionless innovation,” which was responsible for much of the economic growth associated with the growth of the internet, is now being stifled by old regulatory regimes.
2. Continuing to apply these regimes is not only discouraging innovation, but pushing innovators to pursue better regulatory climates overseas.
3. Reforming the regulatory regime is necessary to continue to reap the benefits of innovation we experienced over the past 30 years.

## PUTTING AN END TO PERMISSIONLESS INNOVATION

Over the past 30 years, the growth of the internet as a commercial platform has been marked by a culture of “permissionless innovation.” Vint Cerf, one of the “fathers of the internet,” credits this culture for the economic benefits that the internet has generated.<sup>1</sup> As an open platform, the internet has allowed entrepreneurs to try new business models and offer new services without first seeking the approval of regulators. This is no accident. Bipartisan efforts in the 1990s made it the official policy of the United States “to preserve the vibrant and competitive free market that presently exists for the Internet, unfettered by Federal or State regulation.”<sup>2</sup> This guaranteed a platform with little prior

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<sup>1</sup> Vinton G. Cerf, *Keep the Internet Open*, N.Y. TIMES, May 24, 2012, <https://www.nytimes.com/2012/05/25/opinion/keep-the-internet-open.html>.

<sup>2</sup> 47 U.S.C. § 230(b)(2) (2016).

restraint on the commercial activities undertaken through the internet. When harms or failures occurred, the country addressed them in an ex post manner.

However, as more industries have been disrupted by technology companies, the culture of permissionless innovation has met a permissioned-based, proscriptive regulatory approach. The costs of these regulatory approaches at both state and federal levels are felt more acutely today by more people because of the simple fact that the internet has made jumping into regulated professions easier than ever before. In a few clicks, one can obtain tax and legal advice,<sup>3</sup> connect with a doctor thousands of miles away,<sup>4</sup> chat with a therapist,<sup>5</sup> or find a mover.<sup>6</sup> The natural, geographical barriers to entry that might have kept someone out of these professions in the past have been virtually eliminated, meaning the artificial barriers—particularly licensing and regulatory restrictions—are sometimes all that stand in the way of this activity.

Moreover, as entrepreneurs continue to bring pre-internet practices into the internet age, they are encountering regulatory environments that were never built with smartphones, computers, and the internet in mind. Regulators have viewed these disruptions as per se illegal by the mere fact that decades-old regulations failed to foresee the future we are living in today.

One stark example of this comes in the recent response to flight-sharing platforms. For decades, general aviation pilots and passengers would look at flight plans posted on cork boards at airports to connect with one another in order to share flights. In 2013, a company called Flytenow created an app that consolidated these corkboards into a digital app. This could have revolutionized how we travel. Within two years, the platform hosted 25,000 pilots and passengers to arrange flights nationwide.

However, current FAA guidelines on flight-sharing arrangements never contemplated the information-sharing power of the internet. As a result, the FAA relied on 30-year-old guidance documents to declare pilots using the platform to be “common carriers.” This meant pilots without commercial certification were operating illegally. Private pilots could continue to connect with passengers through physical cork boards, but the Flytenow version—nothing more than a digital cork board on a smartphone—was deemed illegal. This lost opportunity is not a failure of technology but a failure of public policies to accept that the world will continue to change as we find new and better ways of creating value for others through innovation.<sup>7</sup>

## PERMISSIONLESS INNOVATION AND GLOBAL INNOVATION ARBITRAGE

Discouraging technological innovation in the United States will not prevent that innovation from happening. This theory is what my colleague Adam Thierer calls “innovation arbitrage.” Simply put, rather than fighting with regulators, innovators will simply go where they are welcome. As Thierer explains,

[I]nnovators can, and will with increasing regularity, move to those jurisdictions that provide a legal and regulatory environment more hospitable to entrepreneurial activity. Just as capital now fluidly moves around the globe seeking out more friendly regulatory treatment, the same is

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<sup>3</sup> Search Results for Legal Advice, QUORA, <https://www.quora.com/search?q=legal%20advice&type=answer> (search “Legal Advice” using the search bar at the top of the page).

<sup>4</sup> See, e.g., TELADOC, <https://www.teladoc.com> (last visited May 17, 2018).

<sup>5</sup> See, e.g., TALKSPACE, <https://www.talkspace.com> (last visited May 17, 2018).

<sup>6</sup> *Help Moving*, TASKRABBIT, <https://www.taskrabbit.com/m/help-moving-on-demand> (last visited May 17, 2018).

<sup>7</sup> Christopher Koopman, *Defining Common Carriers: Flight Sharing, the FAA, and the Future of Aviation* (Mercatus Center at George Mason University, Working Paper, 2017)

increasingly true for innovations. And this will also play out domestically as innovators seek to play state and local governments off each other in search of some sort of competitive advantage.<sup>8</sup>

While flight-sharing platforms have been grounded in the United States, they have taken off in Europe. Wingly, a European flight-sharing company, recently secured 2 million euros to expand its network across the continent.<sup>9</sup> Its online platform enables 150,000 users to hop aboard small private aircraft operated by 10,000 licensed pilots in France, Germany, and the United Kingdom.<sup>10</sup>

Instead of viewing these platforms as a threat, European Aviation Safety Agency (EASA) administrators have recognized that these platforms were simply extending existing practices by leveraging web-based tools that are already in place. EASA thus expanded its existing regulations to include these internet-based platforms,<sup>11</sup> and it has actively worked with flight-sharing platforms such as Wingly to promote safety.<sup>12</sup> Until the FAA adopts a more accommodating and innovation-friendly disposition, Europe is likely to continue outpacing the United States in this space.

Flight-sharing platforms are but one example. Innovators working on genome editing,<sup>13</sup> commercial drones,<sup>14</sup> driverless cars,<sup>15</sup> and the sharing economy are all finding more hospitable homes outside the regulatory purview of the United States.

## RECLAIMING A CULTURE OF PERMISSIONLESS INNOVATION

To ensure that the United States remains a leader in the innovation economy, our public policy must have some tolerance for mistakes, failures, and learning so that innovation can continue to move forward. We must reclaim the culture of permissionless innovation that has fueled the growth of the commercial internet and the economic benefits that it has generated. Doing so requires a technological freedom not found in many of the current regulatory approaches.<sup>16</sup>

In any number of regulatory domains, there are serious and legitimate concerns that make it tempting to require innovators to seek approval before they proceed. While regulatory approval can address many of those concerns, it is done at the expense of continued innovation and economic growth. As my colleague James Broughel explained in his recent book on regulation and economic growth, “Regulations should nurture and not stifle the factors known to be important for growth. These factors

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<sup>8</sup> Adam Thierer, *Innovation Arbitrage, Technological Civil Disobedience & Spontaneous Deregulation*, MEDIUM (Dec. 7, 2016), <https://medium.com/tech-liberation/innovation-arbitrage-technological-civil-disobedience-spontaneous-deregulation-eb90da50fle2>.

<sup>9</sup> Jonathan Keane, *Wingly Raises €2 Million for Its Carpooling for Flights Service*, TECH.EU, Mar. 5, 2018, <https://tech.eu/brief/wingly-funding/>.

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

<sup>11</sup> Letter from Patrick Ky, Exec. Dir. of EASA, to Emeric Waziers (Mar. 14, 2016), [https://fr.wingly.io/media/doc/en/EASA\\_140316.pdf](https://fr.wingly.io/media/doc/en/EASA_140316.pdf).

<sup>12</sup> WINGLY, SAFETY OF NON-COMMERCIAL GENERAL AVIATION FLIGHTS WITH LIGHT AIRCRAFT (2017).

<sup>13</sup> Christopher Koopman and Jordan Reimchisel, *Ignoring the Future Won't Forestall It*, U.S. NEWS AND WORLD REPORT, Aug. 21, 2017, <https://www.usnews.com/opinion/economic-intelligence/articles/2017-08-21/the-us-ignores-crispr-and-genetic-engineering-issues-to-its-own-detriment>.

<sup>14</sup> Jack Nicas and Greg Bensinger, *Amazon: U.S. Is Blocking Its Testing of Drones*, WALL ST. J., Dec. 8, 2014, <https://www.wsj.com/articles/amazon-warns-it-will-move-drone-research-abroad-1418076981>.

<sup>15</sup> Chunka Mui, *Singapore: The First-Mover Nation for Driverless Cars*, STRATEGY+BUSINESS, July 26, 2016, <https://www.strategy-business.com/blog/Singapore-The-First-Mover-Nation-for-Driverless-Cars>.

<sup>16</sup> See, e.g., ADAM THIENER, PERMISSIONLESS INNOVATION: THE CONTINUING CASE FOR COMPREHENSIVE TECHNOLOGICAL FREEDOM (rev. ed., 2016).

include productivity, investment, competition, human capital, institutions, and all the various forms of technological innovation.”<sup>17</sup>

## **CONCLUSION**

I thank the committee for its interest in and attention to these issues, as well as for the opportunity to testify.

Sincerely,

Christopher Koopman  
Senior Director, Center for Growth and Opportunity at Utah State University  
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## **ATTACHMENTS (2)**

“Defining Common Carriers: Flight Sharing, the FAA, and the Future of Aviation” (Mercatus Research Summary)

“Defining Common Carriers: Flight Sharing, the FAA, and the Future of Aviation” (Mercatus Working Paper)

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<sup>17</sup> JAMES BROUGHTEL, REGULATION AND ECONOMIC GROWTH: APPLYING ECONOMIC THEORY TO PUBLIC POLICY 108–9 (2017).

## RESEARCH SUMMARY

## Defining Common Carriers

### *Flight Sharing, the FAA, and the Future of Aviation*

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In January 2017, the Supreme Court of the United States declined to hear a case brought by Flytenow, an aviation startup, against the Federal Aviation Administration (FAA). While Flytenow’s legal challenge ended when the Supreme Court refused to hear the case, the company continues to have the better policy argument.

In “[Defining Common Carriers: Flight Sharing, the FAA, and the Future of Aviation](#),” Mercatus Senior Research Fellow Christopher Koopman argues that the flight-sharing industry was shut down because the FAA designated flight-sharing services as common carriers, which are subject to a higher regulatory burden than private pilots. The FAA’s definition of *common carriage* is too expansive and was implemented without oversight from Congress, which has been silent on the issue. Congress should intervene by explicitly defining *common carriage* narrowly via statute to allow flight sharing.

#### OVERVIEW AND KEY FINDINGS

Aviation innovation has a promising future, but the FAA has effectively shut down continued innovation in flight-sharing arrangements. This policy is foreclosing opportunities for both pilots and passengers to connect with one another and create value by providing more options and opportunities within American aviation.

*Cost-sharing is a decades-old practice among private pilots.* Private pilots traditionally have had a right to share costs, but several times the FAA has sought to stop this practice.

- The cost-sharing system is important to private pilots because aviation is an expensive hobby. A pilot may pay as much as \$33,750 to achieve 250 hours of flight time needed to carry passengers.
- The cost-sharing system allows pilots to recoup thousands of dollars as they pursue their hobby or work toward professional licensure.

*Flytenow’s innovative cost-sharing platform attempted to comply with the FAA’s rules.* Like ridesharing companies Uber and Lyft, Flytenow provided a platform for potential passengers to find someone willing to transport them, with pilots receiving only a prorated share of the expenses of a flight from each passenger.

- Flytenow structured its operations to comply with the FAA’s regulations on private pilot privileges and limitations, as well as agency guidance and interpretations. A critical objective of this business model was to avoid being designated as a common carrier.
- If flights on Flytenow’s platform were ruled to be common carriage, pilots would need to obtain several certificates and operate according to commercial rules. Essentially, the pilots using Flytenow would need to become full-fledged air taxis, defeating the purpose of the platform.

*The FAA has broadly redefined common carriage and found that Flytenow’s pilots are common carriers.* The term *common carrier* in aviation is defined neither in federal statute nor in the Code of Federal Regulations. Instead, the current definition is promulgated in an FAA advisory circular from 1986. The advisory circular notes four elements of common carriage: “(1) a holding out of a willingness to (2) transport persons or property (3) from place to place (4) for compensation.”

- Despite Flytenow’s significant attempts to comply with the law, the FAA found that Flytenow’s cost-sharing system constituted “compensation” that rendered the platform a common carrier.
- The FAA also found that the firm’s efforts to avoid “holding itself out” as a common carrier were insufficient. Federal courts subsequently upheld the FAA’s interpretation and ruled that Flytenow pilots were common carriers.

*Common law conflicts with the FAA’s interpretation.* Historically, the purpose of common carriage is to establish a reasonable set of defaults that prevail in the absence of a contract. However, airlines have been allowed to contract out of common carriage rules before, and the same principle should apply to flight sharing.

## **PROPOSED SOLUTION AND CONCLUSION**

As Congress is currently evaluating reauthorization of the FAA, it can implement reforms to prevent future problems with aviation innovations like Flytenow. Congress could fix confusion in common carriage and remove the FAA’s authority to continually reinterpret its definition by writing a definition into the Federal Aviation Act.

- Allowing flight-sharing arrangements would give consumers more options and cheaper alternatives beyond commercial flight.
- Defining *common carrier* more narrowly in statute would more clearly align with the purpose of common carriage as conceived under the common law.

# Defining Common Carriers

## Flight Sharing, the FAA, and the Future of Aviation

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Christopher Koopman

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Christopher Koopman. “Defining Common Carriers: Flight Sharing, the FAA, and the Future of Aviation.” *Mercatus Working Paper*, Mercatus Center at George Mason University, Arlington, VA, 2017.

## **Abstract**

In January 2017, the Supreme Court of the United States declined to hear a case brought by Flytenow, a flight-sharing startup, against the Federal Aviation Administration (FAA). While Flytenow’s legal challenge ended when the Supreme Court refused to hear the case, on policy grounds the company continues to have the better argument. Ultimately, the flight-sharing industry was shut down because the FAA can define *common carriage* expansively in its guidance and interpret that definition without oversight. Congress should intervene by explicitly defining *common carriage* narrowly in statute. This paper discusses private pilots’ traditional right to share costs and why such cost-sharing matters for general aviation. Next, the paper shows that Flytenow tried to comply with this traditional framework and previous interpretations of aviation law, and it discusses the company’s legal travails. There is a possible remedy: Congress could unwind the FAA’s confused flight-sharing rulings by simply defining *common carrier* more narrowly in statute. The FAA’s current definition undermines the purpose of common carriage as conceived under the common law. This paper proposes some elements that Congress should consider as it formulates an appropriate definition. Finally, the paper addresses some objections.

*JEL* codes: K0, K2, O38, R40

Keywords: Federal Aviation Administration, FAA, Flytenow, flight sharing, sharing economy, aviation, regulation, federal aviation regulations, common carriage

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## **Acknowledgements**

I am grateful for the very helpful comments from Michael Wilt, Andrea Castillo, Christina Behe, and two anonymous reviewers. I am also grateful for the research support from Anne Philpot and Michael Kotrous. Their input was invaluable. All errors are my own.

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# Defining Common Carriers: Flight Sharing, the FAA, and the Future of Aviation

Christopher Koopman<sup>1</sup>

## Introduction

In January 2017, the Supreme Court of the United States declined to hear a case against the Federal Aviation Administration (FAA) brought by aviation startup Flytenow.<sup>2</sup> Like ridesharing companies Uber and Lyft, Flytenow provided a platform for potential passengers to find someone willing to transport them. But while Uber and Lyft connect passengers with drivers, Flytenow connected passengers with FAA-licensed pilots operating on a strictly not-for-profit basis in small, two- or four-seat airplanes.

Like many startups, Flytenow built its entire platform around the existing legal framework.<sup>3</sup> To comply with existing FAA regulations and legal interpretations, pilots using Flytenow did not profit from flights. Instead, they received only a prorated share of flight costs from each passenger. This mirrored an FAA-approved practice that has existed for decades—using bulletin boards at local airports to post information about potential shared flights.<sup>4</sup> The FAA also allows posting on Facebook.<sup>5</sup> Nevertheless, in 2014 the FAA issued an interpretation of its regulations that rendered Flytenow’s business model illegal.<sup>6</sup> The company put all operations on hold as it fought its way through the courts.

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<sup>1</sup> This paper was originally coauthored with former senior research fellow and director of the Technology Policy Program Eli Dourado.

<sup>2</sup> *Flytenow, Inc. v. Fed. Aviation Admin.*, 808 F.3d 882 (D.C. Cir. 2015), *cert. denied*, 580 U.S. \_\_\_ (U.S. Jan. 9, 2017) (No. 16-14).

<sup>3</sup> *See, e.g.*, 14 C.F.R. § 61.113 (2017).

<sup>4</sup> *See* FAA Legal Interpretation from Kenneth Geier, Regional Counsel, to Paul Ware (Feb. 13, 1976).

<sup>5</sup> FAA Legal Interpretation from Rebecca B. MacPherson, Assistant Chief Counsel for Regulations, to Mark Haberkorn (Oct. 3, 2011).

<sup>6</sup> FAA Legal Interpretation from Mark Bury, Acting Assistant Chief Counsel for International Law, Legislation, and Regulations Division, to Rebecca B. MacPherson (Aug. 13, 2014); FAA Legal Interpretation from Mark Bury, Acting Assistant Chief Counsel for International Law, Legislation, and Regulations Division, to Gregory Winston (Aug. 14, 2014).

Although Flytenow's legal challenge ended when the Supreme Court refused to hear the case, the company continues to have the better argument on policy grounds. Ultimately, the flight-sharing industry was shut down because the FAA can define *common carriage* expansively in its guidance and interpret that definition without congressional oversight. However, Congress can and should intervene by explicitly defining *common carriage* narrowly in statute.

This paper discusses private pilots' traditional right to share costs and why this traditional legal framework matters for general aviation. Flytenow tried to comply with this traditional framework and previous interpretations from the FAA. This paper discusses the company's legal travails, as well as a possible remedy: Congress could untangle the FAA's confused flight-sharing rulings by simply defining the term *common carrier* more narrowly in statute. The FAA's definition undermines the purpose of common carriage as conceived under the common law. This paper proposes some elements that Congress should consider as it formulates an appropriate definition. Finally, the paper addresses some safety-related objections.

### **Cost-Sharing in General Aviation**

Anyone who wishes to fly a manned aircraft in the United States must have a pilot certificate issued by the FAA. Student pilot certificates require only a written examination and a driver's license. The requirements for a sport pilot certificate add 20 hours of flight experience as a student. Neither of these certificates authorizes the pilot to carry passengers.

The next step up, the private pilot certificate, does allow the pilot to transport passengers. However, private pilots have only a restricted ability to receive payment for transportation of passengers or cargo. Title 14 of the Code of Federal Regulations (CFR) enumerates the limited set of conditions under which a payment may be made. Paragraph (c) of subsection 61.113

specifically allows pilots to be compensated for a prorated portion of the costs they incur from transporting passengers.

History suggests that the FAA would prefer not to allow even this limited form of compensation.<sup>7</sup> Cost-sharing is a decades-old practice among private pilots who have commonly used bulletin boards at local airports to advertise upcoming flights. In 1950, the Civil Aeronautics Board instituted a rule attempting to end this practice, and in 1963, the Federal Aviation Agency, a predecessor of today's FAA, promulgated a draft rule to disallow cost-sharing for private pilots. On both occasions, the outcry from private pilots around the country was so great that the agencies reversed their decisions.<sup>8</sup>

The cost-sharing rule is important to private pilots because aviation is an expensive hobby. For example, the Aircraft Owners and Pilots Association (AOPA) estimates that after tallying loan payments, insurance, fuel, oil, landing fees, hangar fees, maintenance, and other expenses, the total annual cost for a pilot to own and operate a 1975 Cessna 172M Skyhawk, a small four-seat airplane, for 100 hours is \$22,530.<sup>9</sup> To put it another way, for a pilot who flies 100 hours a year, this cost amounts to \$225.30 per hour. Renting a plane, while slightly less costly, is still expensive: AOPA estimates this cost to be around \$135 per hour. Larger aircraft cost significantly more to operate.

Pilots who want to carry passengers must keep their certifications current. That is, by law, they must log at least three takeoffs and landings every 90 days. For safety reasons, it is advisable for pilots to fly even more often so they can remain proficient. In addition, logging

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<sup>7</sup> See Brief for Petitioner at 33, *Flytenow, Inc. v. Fed. Aviation Admin.*, No. 14-1168 (D.C. Cir. Aug. 14, 2014).

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

<sup>9</sup> *Hypothetical Operating Cost Calculation*, AIRCRAFT OWNERS AND PILOTS ASSOCIATION, <https://www.aopa.org/go-fly/aircraft-and-ownership/buying-an-aircraft/tips-on-buying-used-aircraft/hypothetical-operating-cost-calculation> (last visited June 7, 2017).

flight time is a critical component of earning an instrument rating. Once an instrument rating is earned, additional requirements to remain current come into effect. Finally, gaining flight time as a private pilot is important for pilots working toward a commercial pilot's license, which allows pilots to carry passengers for profit. Commercially rated pilots flying single-engine planes must log 250 hours of flight time, including 100 hours of pilot-in-command flight time, 10 hours of additional instrument training, 10 hours in an aircraft with retractable landing gear and flaps, 5 hours of night flying, 10 hours solo, and several multi-hour cross-country flights with specific distance ranges.<sup>10</sup> Multiengine ratings require additional flight hours with extra takeoffs and landings. Using AOPA's rental estimate, a pilot using his own plane will have to pay approximately \$33,750 to achieve the 250 hours of flight time needed to carry passengers. The cost-sharing rule is popular with pilots for the obvious reason that it allows them to recoup thousands of dollars as they pursue their hobby or work toward professional licensure.

Even before the present debate over Internet-enabled cost-sharing, high costs were taking a toll on the general aviation industry. The FAA estimates that there are 201,100 active general aviation aircraft in the United States as of 2015, and 63,633 inactive aircraft (see figure 1).<sup>11</sup> In other words, 24 percent of general aviation aircraft sat idle all year long. General aviation aircraft flew an estimated 20,576,000 hours in 2015, for an average of 77.7 hours per aircraft, or 102.3 hours per active aircraft (figure 2 and figure 3).<sup>12</sup> By comparison, the air taxi, air tours, and air medical industries, which operate under 14 CFR § 135, logged about 400 hours per aircraft in 2015.<sup>13</sup> There is a great deal of idle capital in general aviation.

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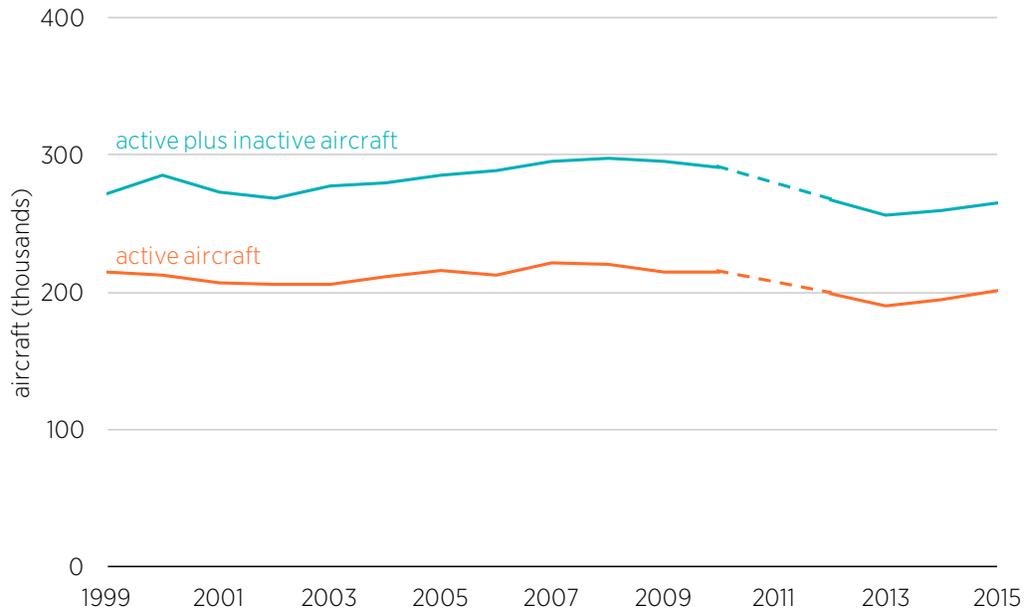
<sup>10</sup> 14 C.F.R. § 61.129(a) (2017).

<sup>11</sup> *General Aviation and Part 135 Activity Surveys - CY 2015*, FEDERAL AVIATION ADMINISTRATION, [https://www.faa.gov/data\\_research/aviation\\_data\\_statistics/general\\_aviation/CY2015/](https://www.faa.gov/data_research/aviation_data_statistics/general_aviation/CY2015/) (last visited Feb. 24, 2017).

<sup>12</sup> *Id.*

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

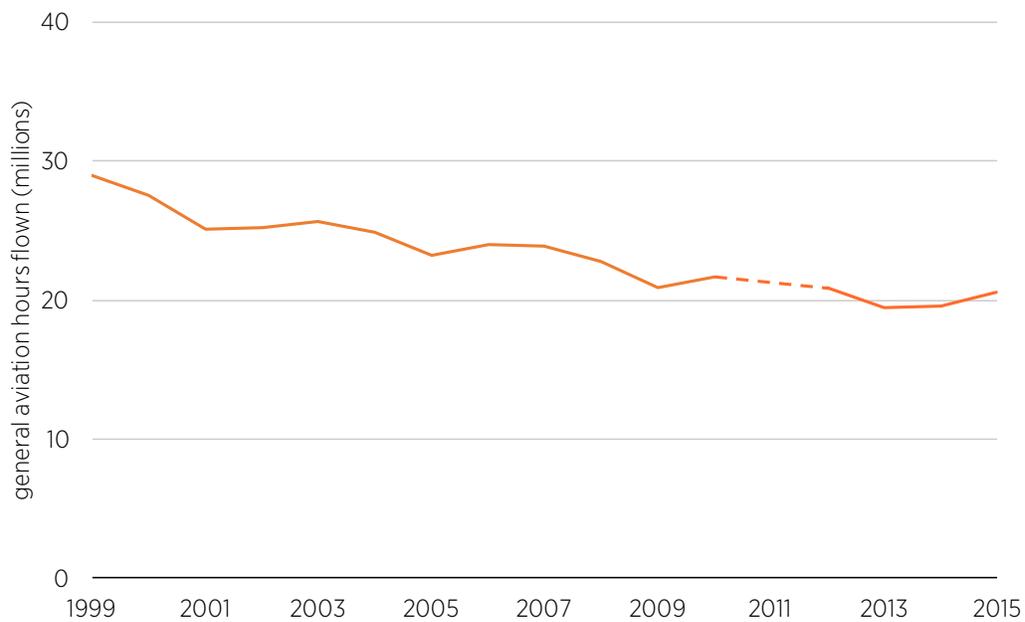
**Figure 1. General Aviation Fleet, Excluding Air Taxis**



Note: The FAA did not publish its General Aviation Survey in 2011.

Source: Christopher Koopman and Eli Dourado; data are from the FAA General Aviation Survey.

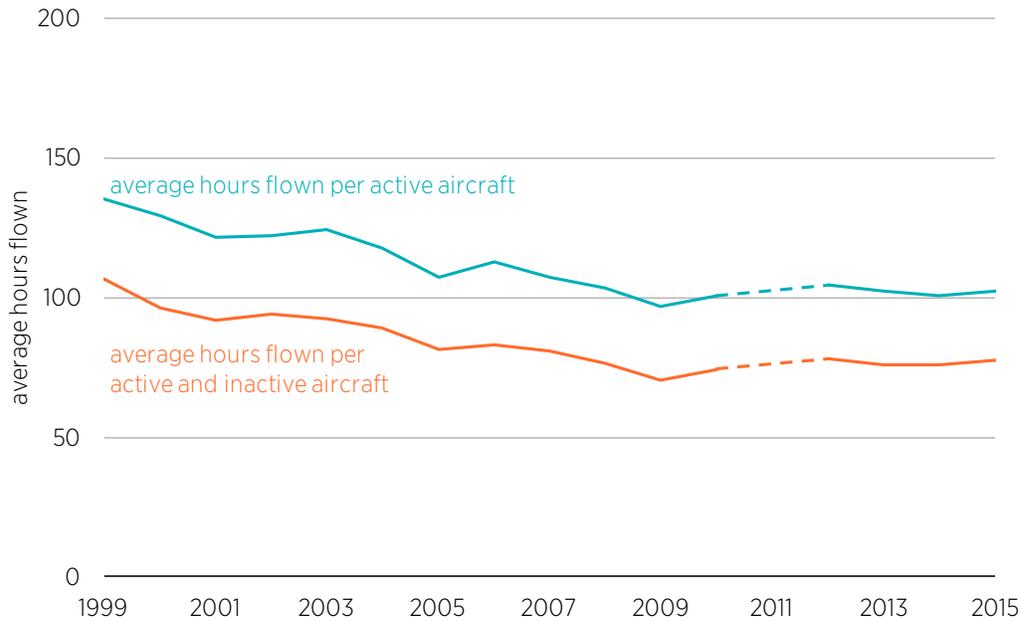
**Figure 2. General Aviation Hours Flown**



Note: The FAA did not publish its General Aviation Survey in 2011.

Source: Christopher Koopman and Eli Dourado; data are from the FAA General Aviation Survey.

**Figure 3. Average Hours Flown per General Aviation Aircraft**



Note: The FAA did not publish its General Aviation Survey in 2011.

Source: Christopher Koopman and Eli Dourado; data are from the FAA General Aviation Survey.

The high cost of flying and low rate of use among general aviation aircraft also harm the market for new aircraft. The average general aviation aircraft was manufactured 40 years ago in 1977.<sup>14</sup> The small market for new aircraft means that the industry can only advance slowly and incrementally. There simply isn't enough of a market to produce rapid innovation if costs remain high. While the new Part 23 rules set to take effect in 2017 will likely mitigate some of this stagnation, it is difficult to expect general aviation to truly flourish without reducing the cost of flying.

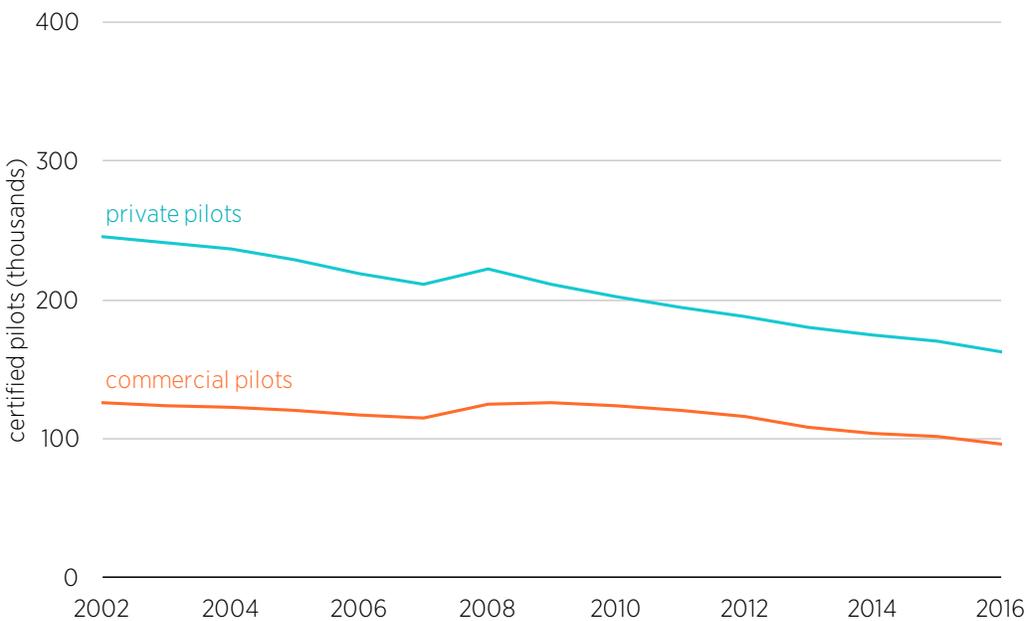
The high cost of general aviation as a hobby has also led to a decline in the number of certified pilots. In 2016, there were 162,313 private airplane pilots in the United States, down

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

from 245,230 in 2002—a decline of 34 percent in 14 years (see figure 4).<sup>15</sup> The number of pilots with a commercial certificate has also decreased, from 125,920 in 2002 to 96,081 in 2016, a decline of 24 percent.<sup>16</sup> This is unsurprising since commercial pilots typically come from the pool of private pilots.

**Figure 4. Number of Certified Pilots**



Note: The FAA did not publish its General Aviation Survey in 2011.

Source: Christopher Koopman and Eli Dourado; data are from the FAA General Aviation Survey.

Taking the traditional practice of cost-sharing and bringing it to the Internet, as Flytenow and other flight-sharing firms proposed, not only is a potential boon for pilots but could also reinvigorate the entire general aviation industry. If the costs of flying are defrayed by sharing

<sup>15</sup> *U.S. Civil Airmen Statistics*, FEDERAL AVIATION ADMINISTRATION, [https://www.faa.gov/data\\_research/aviation\\_data\\_statistics/civil\\_airmen\\_statistics/](https://www.faa.gov/data_research/aviation_data_statistics/civil_airmen_statistics/) (last visited Feb. 24, 2017).

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

expenses with passengers, more people will become pilots, more new aircraft will be manufactured, and pilots will be able to fly their aircraft more often. In short, putting pilot convenience aside, the efficient use of billions of dollars' worth of physical and human capital is at stake.

### **Bringing Cost-Sharing into the Internet Age**

Flytenow structured its operations to comply with the regulations on private pilot privileges and limitations as well as with agency guidance and interpretations. A critical objective was to avoid the FAA designating operators of shared flights as common carriers. If flights on Flytenow's platform were ruled to be common carriage, those using it would be subject to a much higher regulatory burden. Pilots would need commercial certificates, operators would need a Part 119 certificate, and flights would need to be operated according to Part 135 rules. Essentially, the pilots using Flytenow would need to become full-fledged air taxis, defeating the purpose of the platform.

*Common carrier* in aviation is defined neither in federal statute nor in the Code of Federal Regulations. Instead, the current definition is promulgated in an FAA advisory circular from 1986.<sup>17</sup> Because the term comes from agency guidance rather than a formal regulation, it has never gone through administrative procedures that serve to protect affected parties from agency overreach—in particular, the public notice-and-comment process.

According to the advisory circular, the four elements of common carriage include “(1) a holding out of a willingness to (2) transport persons or property (3) from place to place (4) for compensation.”<sup>18</sup> Flytenow's attempt to avoid getting captured under this definition was twofold.

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<sup>17</sup> FED. AVIATION ADMIN., ADVISORY CIRCULAR NO. 120-12A: PRIVATE CARRIAGE VERSUS COMMON CARRIAGE OF PERSONS OR PROPERTY (Apr. 24, 1986).

<sup>18</sup> *Id.* ¶ 4.

First, addressing point number four, it facilitated payments only for prorated shares of flight costs—compensation that was, as already noted, explicitly authorized for private pilots under the Code of Federal Regulations.

Second, addressing point number one, Flytenow took numerous steps to avoid pilots’ “holding out” to the general public in a way that implied common carriage. The Flytenow platform itself was an exclusive, nonpublic network only available to those who had been accepted as members. Flights were not available to be indexed by search engines such as Google. To post a flight, the pilot was required to include the specific date and time, the points of operation, and a stated purpose of the flight. Members could not request itineraries directly; they could only join posted flights. Neither passengers nor Flytenow had control over flights, and pilots could accept or reject any member’s request to join any planned flight, at any time, and for any (or no) reason.

Despite these steps to comply with the law, shortly after the site launched in January 2014, FAA Flight Standards District Offices began notifying pilots who used the platform that they were operating illegally.<sup>19</sup> In an attempt to clear up the matter, Flytenow and AirPooler, a similar platform facing the same issue, separately asked the FAA’s Office of the Chief Counsel for a formal legal interpretation.

The FAA responded with a letter indicating that, for purposes of determining whether common carriage is present, the cost-sharing system of Flytenow’s pilots counted as compensation. The FAA further stated that the firms’ efforts to avoid “holding out” were insufficient. Therefore, pilots using Flytenow and AirPooler were operating illegally if they did not hold a Part 119 certificate and, at minimum, a commercial pilot’s license. When Flytenow

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<sup>19</sup> Petition for Writ of Certiorari at 5, *Flytenow, Inc. v. Fed. Aviation Admin.*, No. 16-14 (U.S. Jan. 9, 2017).

appealed to the DC Circuit Court of Appeals, the court sided with the FAA, and in January 2017, the US Supreme Court denied certiorari.

As a result, the FAA has imposed a significant limitation on the right of private pilots to engage in cost-sharing to which they would otherwise be entitled under 14 CFR § 61.113. It has done so without any public notice and comment from private pilots or others in the general aviation industry. As discussed above, this limitation has significant consequences for the general aviation industry as well as for pilots who seek higher certification or who simply wish to remain current and proficient. On legal grounds, Flytenow’s case against the FAA may be closed, but on policy grounds, flight-sharing firms still have the better argument.

### **Defining Common Carriage in Statute**

The FAA has been able to create and interpret its own definition of *common carrier*—and thus to shut down web-based flight-sharing services—because Congress never defined the term. The Federal Aviation Act of 1958 and subsequent amendments define numerous terms in aviation. Throughout the Federal Aviation Act,<sup>20</sup> Congress defines 47 separate aviation-related terms, including terms as basic as *aircraft* and *aircraft engine*. Many of these definitions even include the phrase *common carrier*. Three of the definitions in the Act, for *foreign air transportation*, *interstate air transportation*, and *intrastate air transportation*, contain the term *common carrier*. But a definition for *common carrier* is conspicuously missing. The term has been left to the FAA to define (and redefine) over the past 59 years.

To resolve this, Congress should amend 49 USC § 40102 to define *common carrier* more broadly than the FAA does and return to the traditional common law approach to common

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<sup>20</sup> 49 U.S.C. § 40102(a) *et seq.* (2017).

carriage. A more flexible definition of *common carrier*—one that allows more private carriage operations—would increase innovation in the aviation industry. At the very least, it would allow innovative flight-sharing services such as Flytenow to resume operation. Perhaps more importantly, it would allow new service models to be tested without the costs currently associated with operating a common carrier and without the risk of FAA intervention.

A definition in statute is also good for the rule of law. Because *common carrier* is at present defined only in an advisory circular, which the FAA can amend in any way and at any time without public notice and comment, the agency can arbitrarily change the substance of regulations at any time with little recourse for those affected. Although likely a fanciful example, the agency could theoretically abolish general aviation at any time by ruling that all pilots are common carriers. This legal change might face challenge in the courts, but it would not be subject to notice and comment before it took effect.

In the remainder of this section, this paper examines the purpose of common carriage under the common law and discusses how to formulate a potential statutory definition in a way that conforms to this purpose and allows flight sharing to proceed.

### ***What Is the Purpose of Common Carriage under the Common Law?***

Common carriage is not a new concept but, under English common law, goes back at least to the Humber Ferryman's case of 1348, *Bukton v. Tounesende*.<sup>21</sup> In that case, a ferryman (Tounesende) transported a load of horses across the Humber, a large tidal estuary. He overloaded the ferry, and as a result, a horse belonging to Bukton perished, presumably by drowning. Although the two parties had no prior contract specifying which of them should bear

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<sup>21</sup> *Bukton v. Tounesende*, (1348) 22 Lib. Ass. 94 (K.B.) (Eng.).

the loss of the horse, the court decided that no evidence of a contract was necessary to find that Tounesende had a duty to transport the horse safely.

The Ferryman case is considered a foundational precedent in the common law of common carriage. It shows that for centuries, the purpose of common carriage has been to establish a reasonable set of default rules that prevail in the absence of a contract. Without the expectations generated by a well-tailored common carriage standard, parties would need to engage in the haggling, execution, and other transaction costs associated with signing a contract every time they got on a bus, boarded an airplane, or put their horse on a ferry.

This understanding of common carriage as a set of default rules yields a critical point: under the common law, the reasonable defaults implied by common carriage are generally nonbinding. Except in some limited circumstances, parties can contract around any implied obligations under the common law. Over the last two centuries, courts in common law jurisdictions, namely Canada<sup>22</sup> and England,<sup>23</sup> have held that airlines can contract out of the default rules implied by common carriage. The Supreme Court of the United States has also held, as far back as 1848, that common carriers may limit common-law liability through contract.<sup>24</sup>

Perhaps, for example, a ferryman is only willing to transport horses across a river if their owners agree to hold the ferryman harmless should the horses not survive the crossing. If the owners are willing to accept this risk, they can sign a contract specifying the terms that override the common carriage defaults. Without this possibility of circumventing the defaults through contract, the only way to get the horses across the river would be to pay the ferryman so much money that he is willing to bear the risk of dead horses, which is an inefficient distortion of the market.

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<sup>22</sup> Ludditt v. Ginger Coote Airways Ltd., [1942] S.C.R. 406 (Can.).

<sup>23</sup> Ingate v. Christie, (1850) 3 Car. & K. 61 (Eng.).

<sup>24</sup> New Jersey Steam Navigation Co. v. Merchants' Bank, 47 U.S. 344 (1848).

Such contractual limitations are not completely unrestrained. Courts have put limits on the ability of parties to go beyond what may be deemed just and reasonable. For instance, the Supreme Court has held that a common carrier may not contractually limit responsibility for negligence.<sup>25</sup> What has resulted is a flexible standard that lets parties decide for themselves, within reason, how they structure their relationship.

In the hands of federal regulators, however, this critical element of common carriage jurisprudence has been all but lost. While courts continue to recognize contractual limitations on liability, the FAA has built a regulatory framework around whether or not a carrier is a common carrier. As a result, the FAA has discarded the flexibility afforded common carriers under the common law and provides no way to escape the defaults of common carriage regulation via contract—if a pilot merely “holds out” a willingness to transport persons or property from place to place for compensation, that pilot is a common carrier and subject to the FAA’s rules and regulations as such. In its advisory circular, the FAA contemplated the fact that carriers could use traditional contracts to sidestep this designation. “[T]ransportation pursuant to separately negotiated contracts,” the FAA concluded, “[is not] conclusive proof that the carrier is not a common carrier.”<sup>26</sup> Instead, the surrounding circumstances, regardless of how the parties choose to designate their transaction, are what the FAA bases its decision on. As noted above, the FAA created a four-part test that looks at whether a pilot is (1) holding out a willingness (2) to transport persons or property (3) from place to place (4) for compensation.<sup>27</sup> If a carrier meets these criteria, then, regardless of other circumstances, the FAA will find it to be engaged in common carriage.

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<sup>25</sup> *New York Cent. R.R. Co. v. Lockwood*, 84 U.S. 357 (1873).

<sup>26</sup> FED. AVIATION ADMIN., ADVISORY CIRCULAR NO. 120-12A: PRIVATE CARRIAGE VERSUS COMMON CARRIAGE OF PERSONS OR PROPERTY at ¶ 4 (Apr. 24, 1986).

<sup>27</sup> *Id.*

While the common law created a reasonable set of flexible default rules, the FAA has transformed common carriage into something else—a set of inalterable requirements. In order to provide clarity, reclaim the original purpose of the common carriage framework, and create a more innovative market for aviation services, Congress should define *common carrier* on its own.

### ***How Should Congress Redefine Common Carriage?***

If operators and customers agree that a flight should not be bound by the FAA’s common carriage regulations, then Congress should ensure that those regulations are not applied.

Therefore, Congress should define *common carriage* such that it provides a set of defaults in the absence of other contractual terms. When customers and operators agree to air transportation on terms other than common carriage, then the operators should be considered private carriers.

One way to write this feature into the law would be to first define the term *private carrier* as a person providing air transportation (1) without compensation exceeding what is allowable under 14 CFR § 61.113 or (2) on contractual terms that differ from what is prescribed by law for common carriers. A *common carrier* could then be defined as a person providing air transportation from place to place under the common law’s default rules, not as a private carrier.

These two definitions would place operators using web-based flight-sharing platforms such as Flytenow firmly in the private-carrier category. Further they would unwind the FAA’s rulings and opinion on the matter and allow these flight-sharing services to return. In addition, this approach would restore the original purpose of common carriage as a set of defaults that can be nullified through contractual agreement. They would generate considerable convenience for passengers and stimulate the market for general aviation.

## **What about Safety?**

The FAA's primary mandate is safety, and it takes a strong position against needless risk. General aviation is commonly regarded as less safe than more regulated categories of air transportation, so it is worth addressing the safety concerns associated with flight sharing.

First, flight sharing could improve general aviation safety by allowing private pilots a way to cheaply remain current and gain proficiency. With more pilots able to fly routinely, general aviation safety could improve rather than deteriorate simply because pilots would be less likely to let their skills lapse.

Second, the prohibition on flight sharing affects more than just private pilots with relatively low skill levels. The prohibition also affects commercial pilots and even airline transport pilots operating in their spare time. In order to comply with the FAA's interpretation of the common carrier rule, these seasoned pilots, some of whom have thousands of hours of flight experience, may need to also apply for a Part 119 certificate for their recreational operations. Such a broad prohibition on flight sharing does not seem to be based on safety concerns.

Third, it is worth noting that the European Aviation Safety Agency (EASA) has already given flight-sharing startups the green light. Like the FAA, EASA has historically allowed cost-sharing in private flying. Unlike the FAA, EASA was open to innovation within aviation and encouraged startups to improve cost-sharing arrangements.<sup>28</sup>

As flight sharing grew in Europe, EASA recognized that platforms were simply extending existing practices by leveraging the Internet. EASA thus expanded its existing cost-splitting regulations to these Internet-based platforms. The EU allows for the online services to operate "on the condition that the direct cost is shared by all the occupants of the aircraft, pilot

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<sup>28</sup> Letter from Patrick Ky, Exec. Dir. of EASA, to Emeric Waziers (Mar. 14, 2016) ([https://fr.wingly.io/media/doc/en/EASA\\_140316.pdf](https://fr.wingly.io/media/doc/en/EASA_140316.pdf)).

included, and the number of persons sharing the direct costs is limited to six.”<sup>29</sup> It approved this direct cost-sharing in 2016. In doing so, it opened the entirety of Europe for flight sharing.<sup>30</sup>

So far, European flight sharing has seen more than 1,000 bookings and involves more than 10,000 users, including around 2,000 pilots.<sup>31</sup> It has been notably safe—no accidents or fatalities have been reported. The fact that flight sharing is finding a robust market in Europe suggests that any safety concerns are outweighed by the benefits of flight sharing.

Interestingly, EASA has actively worked with flight-sharing platforms like Wingly to promote safety.<sup>32</sup> To accomplish this, Wingly recently published a pilot checklist to ensure safety before and during flights.<sup>33</sup> Moreover, Wingly has taken active steps to develop tools to empower passengers to make better decisions about their own safety. It has adopted a user rating system similar to Uber’s that allows passengers to give low ratings to pilots who do not appear to be operating safely. By increasing the amount of information passengers have about potential pilots, this one innovation may produce greater safety than numerous regulatory requirements.<sup>34</sup>

Finally, over the past several years the FAA has increasingly adopted a philosophy of a “safety continuum;” that is, the FAA is recognizing that one level of safety is not appropriate for all aviation. This philosophy informed the recent Part 23 rewrite, which will take effect in late 2017.<sup>35</sup> Virtually all pilots and passengers know that general aviation is not nearly as safe as Part

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<sup>29</sup> Commission Regulation 965/2012, art. 6 § 4a (EU).

<sup>30</sup> Brief for Southeastern Legal Foundation et al. as Amici Curiae Supporting Petitioner at 21–22, *Flytenow, Inc. v. Fed. Aviation Admin.*, 580 U.S. \_\_ (U.S. Jan. 9, 2017) (No. 16-14).

<sup>31</sup> Press Release, Wingly, Wingly Closes an Angel Round of Funding to Develop Flight Sharing in Europe (Jun. 6, 2016) ([https://en.wingly.io/media/press/Wingly\\_06062016\\_PR-EN.pdf](https://en.wingly.io/media/press/Wingly_06062016_PR-EN.pdf)).

<sup>32</sup> *Safety of Non-Commercial General Aviation Flights with Light Aircraft*, WINGLY (2017), <https://en.wingly.io/media/doc/easa/pdf/easa-charter.pdf>.

<sup>33</sup> *Pilot Check List for Wingly Passenger Handling*, WINGLY (2017), <https://en.wingly.io/media/doc/easa/pdf/EASA-Pilot-Checklist-en-GB.pdf>.

<sup>34</sup> Adam D. Thierer et al., *How the Internet, the Sharing Economy, and Reputational Feedback Mechanisms Solve the “Lemons Problem,”* 70 U. MIAMI L. REV. 830 (2016).

<sup>35</sup> FAA Revision of Airworthiness Standards for Normal, Utility, Acrobatic, and Commuter Category Airplanes, 81 Fed. Reg. 96,572 (Dec. 30, 2016) (to be codified at 14 C.F.R. pts. 21, 23, 35, 43, 91, 121, and 135).

125 airline service. Yet demand persists, both for general aviation broadly and for flight sharing specifically. Individuals are qualified to assess the risks of flight sharing for themselves and participate or not, as they choose. Even if the FAA's current policy results in higher levels of safety, it sacrifices other values such as individual liberty to achieve that small measure of safety.

## **Conclusion**

Flight-sharing platforms are an exciting innovation that promises to bring convenience and efficiency. However, the FAA prohibits pilots and passengers from using flight-sharing platforms like Flytenow. This stands in marked contrast to the role EASA has played in Europe's acceptance of flight sharing. While others in the global community have embraced this technology, the FAA restricts pilots in the United States to pre-Internet methods of communication. This restriction does not forestall the future; rather, it ensures that the future will be shaped by innovators, companies, and policymakers outside the United States.

The FAA's approach undermines not only the continued implementation of new technology and innovation in flight-sharing arrangements, but also six centuries of legal understanding concerning common carriage. Fortunately, as outlined above, this problem can be solved by relatively simple congressional action. While writing a statutory definition would provide the most clarity and certainty, Congress could at the very least require the FAA to publish clearer standards on what constitutes common carriage. The world has changed dramatically since 1986, and allowing the FAA to continue to freshen up its decades-old advisory circular through ad hoc opinion letters provides no clear guidance to those hoping to operate in the aviation space.

Ultimately, a clear statutory definition for *common carriers* will accomplish two goals. First, it will re-establish long-held legal principles concerning the differences between common and private carriers. Second, it will cement the rule of law at the FAA, reducing the agency's inconsistent interpretations as aviation continues to change and providing a level of predictability to innovators, pilots, and passengers.