June 29, 2023

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Office of Science and Technology Policy
Washington, DC 20500

Re: Request for Information: "Automated Worker Surveillance and Management" (88 FR 27932)

Flex respectfully submits these comments in response to the White House Office of Science and Technology Policy's ("OSTP") Request for Information ("RFI") issued on May 1, 2023.

I. Introduction

Flex represents America's app-based rideshare and delivery platforms and the people who use them. Nearly 23 million people have turned to app-based platforms to create opportunities to live, work, and run their businesses on their own terms. App-based work provides individuals with the means to determine where, when, how often—and with which platforms—they want to earn income. This premise has drawn a diverse array of people to our members' platforms—including parents, caregivers, veterans, students, and entrepreneurs.

At the same time, the app-based economy supports economic growth in communities across the United States and has become crucial in meeting important community needs by facilitating reliable transportation options, supporting individuals with disabilities or illnesses, and providing access to food and other essentials.

Technological innovation has made flexible, independent work available to more people than ever before and has transformed the way consumers secure goods and services. Workers have unparalleled freedom and control over the time they choose to spend earning on and across platforms—autonomy that is distinct from the close and deliberate management associated with the traditional employer-employee relationship.

Therefore, it is important that OSTP distinguish between the ways in which traditional employers are deploying automated technologies to monitor employees' working habits, processes, and productivity levels as a tool to manage and control the employment relationship versus how app-based platforms deploy automated technologies to maximize app-based workers' earnings opportunities, unlock new innovations that improve safety and enhance the experience for all users, and increase choice and transparency for app-based workers.

Further, just as millions leverage app-based platforms to unlock income earning opportunities in ways that make sense for them, millions more count on these platforms to better meet the demands and responsibilities of their lives. App-based platforms have proven to be key tools for providing access to reliable transportation, supporting individuals with disabilities or illnesses, and increasing access to food and other essential goods.

Examples also abound of app-based platforms helping communities tackle food insecurity,[1] aid food banks,[2] provide more equitable healthcare,[3] and recover from natural disasters.[4] In addition, the nature of the app-based economy has yielded important data points that are valuable to public decision makers, particularly at the state and local level. App-based platforms engage in information-sharing partnerships with states and municipalities geared toward enhancing key aspects of community infrastructure.[5]

Technological innovations have facilitated the economic and community benefits outlined above. App-based platforms deploy data-driven automated technologies to facilitate a safe, reliable, and efficient experience for the entire ecosystem of their users—including earners, consumers, and businesses—at scale. These are tools and systems that drive and enhance the safe operation of these platforms while preserving worker autonomy and a marketplace that provides value to its entire user community.

Therefore, we appreciate OSTP's RFI and attention to this important issue. These technologies contain great potential—some of which is already being realized. We also agree that fostering trust and protecting privacy are key goals in an era where digital technologies are enabling and transforming the economic landscape. To that end, we believe that it is critical that policymakers approach this issue in an even-handed way that reflects deep and thoughtful engagement with all elements and stakeholders.

Flex appreciates the opportunity to submit the following comments to help inform policymakers about the ways in which automated technologies are utilized across app-based platforms to the benefit of consumers, communities, earners, and businesses across the U.S.

II. App-Based Platforms Deploy Automated Technologies as Tools to Benefit Workers and Consumers

OSTP's RFI focuses in large part on the ways in which traditional employers are using a range of technologies to monitor, manage, and evaluate their workers, often for the purpose of increasing

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[1] See David Downey, California city first in US to partner with DoorDash to deliver food to hungry households, The Mercury News (Nov. 3, 2022). Available at: https://www.mercurynews.com/2022/11/03/riverside-joins-with-doordash-to-deliver-food-to-hungry-households/.

[2] See Instacart, Instacart Launches Community Carts, Enabling Online Grocery Donations to Food Banks Nationwide in Just a Few Taps (Nov. 29, 2022). Available at: https://www.prnewswire.com/news-releases/instacart-launches-community-carts-enabling-online-grocery-donations-to-food-banks-nationwide-in-just-a-few-taps-301688299.html.

[3] See Walgreens, Partners with DoorDash and Uber Health to Provide Free Paxlovid Delivery (Oct. 25, 2022). Available at: https://news.walgreens.com/press-center/news/walgreens-partners-with-doordash-and-uber-health-to-provide-free-paxlovid-delivery.html (noting that "[f]ree delivery will help accelerate access to COVID-19 treatment for communities across America with a focus on underserved populations.").

[4] See Lyft, Disaster Response (September 30, 2022). Available at: https://www.lyft.com/blog/posts/help-after-hurricane-ian (noting Lyft is providing "access to free and discounted rides to help those affected [by Hurricane Ian] in Florida move to designated shelters and critical resources.').

[5] Discussed in greater detail below.

control over their employees. Flex represents app-based platforms that match consumers with independent contractors who can provide services to the consumer. As such, the individuals who choose to provide services on app-based platforms do so with true autonomy—defined by the ability to determine when, where, how, over what duration, and with which platforms they choose to pursue income and work opportunities. This is distinct from the close and direct supervision that employers exert over the workers with whom they engage under a traditional employment relationship.

App-based platforms leverage automated technologies to process information—a foundational element to any technology platform. These technologies have allowed app-based platforms to create efficient marketplaces at scale while helping enhance the safety of these marketplaces for their entire user communities. As we detail below, app-based platforms are using automated technologies to:

- create and maximize earner opportunity and consumer value;
- advance the safety of earners and consumers;
- provide transparency and support earner and consumer decision making; and
- produce data insights that benefit cities and communities.

A. Automated Technologies Help Create, Scale, and Maximize Worker Opportunity and Consumer Value

Automated technologies have enabled app-based platforms to deliver a new service model to communities across the country and scale their respective business operations, connecting millions of people across their networks at any given moment. Over the past 15 years, this innovation has challenged the status quo and the market structures that have defined the provision of transportation and delivery services. The growth of two- and three-sided online marketplaces via app-based platforms has increased access to mobility and goods for millions of people—and at scales and speeds unimaginable even a generation ago.[6]

This type of technological advancement has delivered immense benefit. App-based platforms have created earnings opportunities for millions of Americans, including those that have historically been left on the economic sidelines.[7] At the same time, platforms have connected

[6] For example, in 2023, the Uber platform was available in over 70 countries and connected consumers with over 7.6 billion trips. (See Uber, 2023 Environmental, Social, and Governance Report. Available at: https://s23.q4cdn.com/407969754/files/doc_downloads/2023/04/Uber-2023-Environmental-Social-and-Governance-Report.pdf?uclick_id=6f5ec9dd-5105-4dce-b643-6af81e45e7b2). Meanwhile, Shipt's platform is available in 5,000 cities across over 130 retailers. In 2022, Shipt added nearly 1,000 new merchant partners that will allow an additional 2 million households to access the platform. (See, Shipt, Delivering Results: A Shipt Business Snapshot (2021). Available at: https://corporate.shipt.com/getmedia/019d0783-9ae6-4e1a-9b08-b17ebd7b2f59/FINAL_Shipt-Business-Report-Brief_2021.pdf).

[7] App-based platforms provide opportunities for individuals who are precluded from traditional W-2 employment (whether that be attributable to chronic illness, disabilities, caregiving or parental responsibilities, or other realities) to earn income. A recent study estimates that there are approximately 1.52 million people who choose independent contractor work for this reason. See Shapiro, Robert and Stuttgen, Luke, The Many Ways Americans Work and the Costs of Treating Independent Contractors as Employees (April 2022). Available at:

consumers with reliable transportation options and access to a broader universe of goods and services. This type of network has proved itself as a boon to the entire fabric of a community—from the small businesses that make up a local economy to the neighborhoods they inhabit.

1. *Automated technologies process complex, hyper-local data sets, which can increase workers' earning potential while delivering an efficient consumer experience*.

At a basic level, data-driven automated technologies are what make these platforms capable of operating. App-based platforms are powered by the automated technologies that process an underlying data set required to match an app-based worker with the consumer. By processing and considering data points such as traffic, location, geographical factors, and other complex market nuances, automated technologies have made it possible to match earners with a trip or delivery in an efficient and reliable manner. Matching technologies are deployed to streamline the user experience for those working on a platform at any given moment as well as the consumer seeking service. For an app-based worker, these technologies are designed to maximize earning potential by matching an individual with a trip or delivery that they are well-positioned to complete—and to do so safely. In doing so, workers avoid unnecessary wait times, which results in greater earning opportunities as well as an efficient service experience for the customer.

For example, delivery platforms use technology models to estimate the duration of every leg of a given delivery, considering specifics pertaining to merchant partner, time of day, geographic and local realities, and traffic. Automated technologies can process real-time and historical data to estimate the duration of a delivery from start to finish, as well as the duration of every sub-milestone of that delivery (*e.g.*, time it takes a driver to travel to a restaurant, pick up an order, and travel to the customer). This model allows platforms to account for variables including restaurant preparation speed, restaurant location relative to a potential worker, and on the ground traffic patterns. These calculations help match workers with a delivery that represents the most efficient use of their time. In turn, this minimizes the time a worker spends waiting for an order which allows them to spend more time earning. It also provides customers with an accurate estimation of delivery and facilitates quick service provision. At the same time, use of automated traffic data improves worker safety by providing realistic delivery timeframes that reflect real-time road conditions and the other variables that impact delivery duration.

Some delivery platforms use location information as a tool for businesses, workers, and consumers. By leveraging such location information, from restaurant pick-up to customer drop-off, the platforms help drivers ensure they are in the right location and restaurants are able to time preparation more accurately. At the same time, this information may be used to help an app-

https://progresschamber.org/wp-content/uploads/2022/04/The-Many-Ways-Americans-Work-Chamber-of-Progress-Shapiro-Sonecon.pdf.

based worker quickly and safely communicate with a restaurant to notify the business of their anticipated arrival.[8]

Rideshare platforms deploy these technologies to consider an array of inputs that aim to decrease time between rides for drivers and reduce wait times for riders. With millions of people—drivers and users alike—accessing a rideshare platform at any given moment, there are countless possible matches between riders and drivers. This reality becomes increasingly complex when considering the external factors—traffic jams, rush hour times, construction, and other congestion patterns—that impact transit daily. Automated technologies allow rideshare platforms to consider the array of real-time, on-the-ground realities at a hyper local level to match riders and drivers as efficiently as possible, at a scale far greater than the historical analog equivalent (if there was such an equivalent).[9]

The process of matching a driver to a rider has evolved over time. In the early years of app-based platforms, riders and drivers were matched based on the closest available driver. However, two things became clear: 1) while this approach worked well for most, some users experienced longer wait times, and 2) the closest did not always mean the most efficient.[10,11] In response, rideshare platforms have deployed automated technologies to flexibly assess underlying data such as location, road and infrastructure traits, and traffic patterns to match riders with the most suited driver.[12] This model has resulted in a user experience that allows drivers to earn more by minimizing the wait time between rides[13] while maximizing the ability to serve all riders in a given area with a streamlined and reliable service option.[14]

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[8] See DoorDash, Making deliveries more accurate with improved location information (May 15, 2017). Available at: https://medium.com/@DoorDash/making-deliveries-more-accurate-with-improved-location-information-36abed547377.

[9] For example, a consumer's ability to access a taxi was historically dependent upon being in a location near taxis in transit and/or knowing the telephone number of a local taxi company. The latter variable was further complicated by the reality that there may not have been a service provider at the time and place needed, requiring the taxi service to dispatch a driver via radio or some other means of communication.

[10] See Uber, How does Uber match riders with drivers (hereinafter "Uber, Marketplace matching"). Available at: https://www.uber.com/us/en/marketplace/matching/?uclick_id=6f5ec9dd-5105-4dce-b643-6af81e45e7b2.

[11] For example, the driver physically closest may have faced a route riddled with congestion or a traffic jam. Additionally, matching drivers and riders based on one characteristic alone failed to consider the reality of a local area's entire demand, which inevitably left some consumers with longer wait times.

[12] See Douriez, Marie and Murphy, James and Staley, Kerrick, Lyft Engineering, A new Real-Time Map-Matching Algorithm at Lyft (August 11, 2020). Available at: https://eng.lyft.com/a-new-real-time-map-matching-algorithm-at-lyft-da593ab7b006.

[13] This model also helps workers select a location or general directional route, discussed below.

[14] See Uber, Marketplace matching.

2. *App-based platforms deploy automated technologies to serve the needs of communities, expanding access to services and opportunities*.

In addition to being foundational to the underlying network element of app-based platforms, automated technologies have made platforms accessible to a broader community of workers and consumers. For example, thousands of Deaf or hard of hearing workers earn on app-based platforms thanks to features built into an app that provide added capabilities for these individuals. Drivers are able to request flashing trip request notifications in addition to the existing audio notification. Riders can be automatically notified when their driver is Deaf or hard of hearing and directed to deliver messages via text should they need to communicate.[15]

Additionally, one platform has partnered with groups like the National Association of the Deaf to explore app improvements that increase accessibility for this community. Another platform has provided riders with the option to review American Sign Language (ASL) basics in the app should they want to communicate with a driver who uses ASL. These inclusive features are possible at scale thanks to data-informed automated technologies.

B. Automated Technologies Advance the Safety of Earners and Consumers

Automated technologies can help prioritize the safety of the workers and consumers who use app-based platforms, as well as the communities in which they live. These technologies can both help protect communities from bad behavior and facilitate public safety objectives while proactively driving innovative advancements in safety.

1. *Automated technologies help protect communities from bad behavior while providing rapid user access to professional support and emergency assistance*.

App-based workers have options to implement various tools or supports designed to help protect their safety during their time spent on a platform. For example, rideshare drivers may opt to integrate a dashcam and/or utilize audio recording that captures the entirety of the service provision. Documentation of a safety incident may then be shared via a security report and used to assist with investigations or shared with authorities.

Platforms have additionally adopted technologies that can help detect usage of inappropriate or offensive language in the chat function of an app. If such behavior is detected, the consumer will be warned of potential consequences. Importantly, the worker will be automatically given the option to unassign from the service provision in question.[16]

Several app-based platforms have also entered into partnerships with ADT, a home security brand, to provide workers with the option of receiving live help from a safety agent. If workers feel concerned or uncomfortable on a trip, they may contact a safety agent in the app and receive

[15] See Lyft, Empowering Lyft's Deaf and Hard-of-Hearing Community (January 29, 2020). Available at: https://www.lyft.com/blog/posts/empowering-lyfts-hard-of-hearing; See Uber, Sign hello to your next driver who is Deaf or Hard of Hearing (September 28, 2017). Available at: https://www.uber.com/newsroom/signhello/; See Uber, Using the app for deaf and HOH partners. Available at: https://help.uber.com/en-GB/driving-and-delivering/article/using-the-app-for-deaf-and-hoh-partners?nodeId=d1d88d1f-0dcf-4ce8-a3a9-c3955d14c2ff.

[16] See DoorDash, Safechat. Available at: https://help.doordash.com/dashers/s/article/SafeChat?language=en_US.

help from a trained professional via phone or silently via text. That safety agent may call 911 for the worker should a situation reach a point of escalation.[17] Additionally, app-based delivery platforms have partnered with samdesk, a global crisis detection platform, to roll out real-time safety alerts that quickly alert workers, customers, and merchants about an emergency or disaster in an impacted area. In the event of an alert, the platform can suspend operations in the area, including canceling any active services so that workers are able to get—and stay—out of harm's way. To date, these alerts have been used in response to active shootings, bomb threats, and building fires across the country.[18]

Automated technologies also provide a means by which workers and consumers can help guard their safety and seek assistance immediately in the case of an emergency. For example, rideshare platforms monitor for instances of unusual activities, such as long stops and route abnormalities. A rider and driver will receive an automatic message should either of these be detected, which will inquire whether help is needed. Riders and drivers can also use an in-app emergency button to call authorities in the event of an emergency, which will allow for sharing of location and trip details. Drivers and riders alike may also allow friends and families to follow their route remotely for an added layer of peace of mind (or just to follow along with their trip).[19] Data-driven automated technologies let platforms unlock these benefits at scale.

2. *App-based platforms are deploying automated technologies to drive promising innovations in public safety.*

App-based platforms are committed to the safety of the entire traveling public—a community that extends beyond motor vehicle users and into and across the multimodal transportation network. Flex members believe that there is an opportunity to make our roads safer through encouraging safer behavior by all who utilize a platform to get from point A to point B.

As discussed above, automated technologies are core to prioritizing the foundational safety of app-based workers and consumers at scale. At the same time, platforms are at the forefront of deploying exciting innovations that will advance not only the safety of their entire user communities, but the traveling public as well. With more than 40,000 deaths and millions of

[17] See Uber, Drive with Confidence (hereinafter "Uber, Drive with Confidence"). Available at: https://www.uber.com/us/en/drive/safety/?uclick_id=6f5ec9dd-5105-4dce-b643-6af81e45e7b2; See DoorDash, DoorDash Launches SafeDash™: New technology for Dasher Safety and Peace of Mind (November 3, 2021). Available at: https://doordash.news/dasher/doordash-launches-safedash/.

[18] See DoorDash, How We're Making Dashing Even Safer (November 14, 2022), Available at: https://doordash.news/safety/how-were-making-dashing-even-safer/; See Instacart, Introducing New Safety Features to Support Shoppers (November 17, 2021). Available at: https://www.instacart.com/company/shopper-community/introducing-new-safety-features-to-support-shoppers/.

[19] See Uber, Drive with Confidence.

injuries on U.S. roadways in 2021 alone,[20] these technologies are poised to have a real impact on our country's road safety crisis.

Advanced telematics is one example of the technologies that fall under this umbrella. Research indicates that telematics-produced insights help encourage safer driving behaviors.[21] As such, platforms are beginning to pilot advanced telematics to facilitate greater safety for workers. App-based workers on one delivery service platform are now able to choose to participate in a pilot to better understand and learn from their own driving behaviors to stay safer while driving. Workers participating in the pilot will receive key insights about their driving behavior, including speed, distance traveled, and braking. The objective is not to surveil or control how workers' driving, but to increase community safety by providing helpful takeaways about their driving. The pilot was launched at the end of 2022 and thousands of workers are participating. The platform will evaluate feedback regarding the pilot to help explore and inform how telematics can be deployed in the future as a tool that meets the needs of app-based workers.[22]

Another app platform recently launched a program that provides weekly reports to drivers choosing to participate to help inform them of their driving behavior across several areas, including braking, phone positioning, and turning. The program has produced early results that indicate these insights have helped participating drivers in making better informed decisions on the road that advance their safety.[23]

As communities are increasingly utilizing alternate modes of transport—such as bikes and scooters—app-based platforms are leveraging technology to prioritize safety across the multimodal transit network. For example, some platforms have deployed automated technologies to launch bike lane alerts that remind riders to look for bikes before opening a door when their drop off point is near a bike lane or along a bike route.[24] Additionally, rideshare drivers have the option to display real-time speed limit alerts that inform an individual via a visual alert when they have exceeded the speed limit.

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[20] See National Highway Traffic Safety Administration, Newly Released Estimates Show Traffic Fatalities Reached a 16-Year High in 2021 (May 17, 2022). Available at: https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities.

[21] See Cambridge Mobile Telematics, Cambridge Mobile Telematics Launches Solution to Reduce Crash Frequency (September 20, 2022). Available at: https://www.cmtelematics.com/news/cambridge-mobile-telematics-launches-solution-to-reduce-crash-frequency/.

[22] See DoorDash, Helping Dashers stay safe and focused on the road (February 9, 2023). Available at: https://doordash.news/safety/helping-dashers-stay-safe-and-focused-on-the-road/.

[23] In 2022, a 10% decrease in hand-held phone use was observed. See Lyft, Lyft's Impact on Road Safety (February 7, 2023). Available at: https://www.lyft.com/blog/posts/lyfts-impact-on-road-safety.

[24] See Lyft, Lyft's Commitment to Sharing the Road (April 17, 2019). Available at: https://www.lyft.com/blog/posts/lyfts-commitment-to-sharing-the-road; See Uber, Uber Signs on as a First Mover of USDOT's Call to Action for Road Safety (February 3, 2023). Available at: https://www.uber.com/newsroom/uber-partners-with-usdot-on-road-safety.

3. *App-based platforms are partnering with federal, state, and local governments to advance public safety objectives via insights gleaned from data-driven automated systems*.

Flex is encouraged that the U.S. Department of Transportation recently endorsed some of the safety innovations discussed above as part of its Call to Action Campaign to eliminate roadway fatalities. Secretary Pete Buttigieg launched the campaign to invite stakeholders to share how they are embracing the National Roadway Safety Strategy's vision for safer roads. Secretary Buttigieg is correct in saying that we need "to harness better technology" to address the public safety challenge that exists on our country's roads and streets.[25] Several Flex members are proud supporters of the campaign and appreciate the Department's leadership, as well as its acknowledgement that technology—including some of the examples discussed above—has the potential to play a transformative role in advancing road safety and eliminating fatalities.

Additional examples of Flex members partnering with the public sector to advance safety and infrastructure solutions are provided in Section II.D below.

C. Automated Technologies Facilitate Transparency and Reliability to Support Earner and Consumer Decision Making

Automated technologies are central to an app-based platform's ability to sustain an efficient and reliable experience for independent workers and consumers. At the same time, by supporting the processing of real-time data, these technologies connect workers and consumers with the tools they need to make choices about platform use and consider where, when, and how to use the network. Indeed, as one study noted, "[w]hile markets in general tend to suffer from information asymmetry, many digital platforms appear to have design features than can enhance market transparency … often in the form of new technologies and incentive systems."[26] App-based workers have unprecedented freedom and control over their working lives, and the automated technologies deployed on platforms provide individuals with the means to maximize that autonomy.

1. *App-based platforms deploy automated technologies to create a reliable and consistent marketplace for workers and consumers*.

Automated technologies allow a platform to consider a range of factors—including real time supply and demand—to create more opportunities for earners and increase service access for consumers. By processing this information, platforms are able to better maintain a balanced marketplace characterized by steady supply and demand. This type of dynamic model helps the network work for all users by sustaining greater opportunities for workers and increasing access for consumers.

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[25] See U.S. Department of Transportation, Secretary Pete Buttigieg, National Roadway Safety Strategy Call to Action. Available at: https://www.youtube.com/watch?v=NAXMeLex9LU.

[26] See Liu, Meng and Brynjolfsson, Erik and Dowlatabadi, Jason, Do Digital Platforms Reduce Moral Hazard? The Case of Uber and Taxis (May 19, 2020) (hereinafter "Moral Hazard Study"). Available at SSRN: https://ssrn.com/abstract=3239763.

For example, when demand spikes in a given area, price adjustments are designed to attract more drivers[27] to meet that increased demand quickly and restore the market's balance to ensure consistent supply and demand. Some riders may pay a premium, and others may choose to wait for demand (and prices) to fall. This approach provides immediate incentives for drivers in the short term but helps maintain equilibrium across a market in the long term. But because rider demand eventually goes down in the midst of a surge, ensuring that the market balance is restored and maintained in the longer term is in the interest of drivers and riders. Platforms aim to strike this complex balance via their respective automated technologies that are able to capture and assess the complex and fluid supply and demand equation, and ultimately produce a more reliable earning experience for drivers and an overall more responsible and positive experience for app users.[28]

Furthermore, studies have found that the use of these data-driven technologies yield tangible efficiency gains for digital platform workers and consumers. For instance, one study found that "taxi drivers route longer in distance than matched Uber drivers on metered airport routes by an average of 8%, with non-local passengers on airport routes experiencing even longer routing … [and] [w]e observe significant routing efficiency improvement after taxi drivers became Uber drivers."[29] In other words, data-driven automated technologies such as these likely result in significant savings in consumer expenditure and time—fewer missed flights and appointments. And it suggests that these automated technologies have helped app-based earners become more efficient in their routes as they were provided with the information that enabled them to choose more optimal, pro-consumer routes.

2. *Automated technologies provide app-based workers with visibility into market conditions*.

Many app-based workers continue to choose to earn on Flex members' platforms because of the ability to choose when and where they work, as well as the ability to determine the duration of their decision to do so.[30] Automated technologies provide workers with visibility into the current market demand at any given moment—a valuable tool that helps workers form an accurate expectation of what to expect should they choose to log on to the app. For example, rideshare drivers can access information via in-app tools that provide "heat maps" or other means to illustrate where a demand hotspot exists in a given market. These tools also forecast future demand periods in a given area. In this way, automated technologies create a form of network and market transparency that workers can leverage to inform their decisions regarding when, where, and how they choose to utilize an app—and thus help them maximize their earnings.[31]

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[27] This can include generally funding driver incentives.

[28] See Uber, What is the right balance? Available at: https://www.uber.com/us/en/marketplace/open-marketplace/marketplace-health/?uclick_id=6f5ec9dd-5105-4dce-b643-6af81e45e7b2.

[29] Moral Hazard Study.

[30] According to a 2022 Morning Consult survey, the overwhelming majority of app-based workers (77%) prefer to remain independent contractors and maintain this flexibility. See Flex and Morning Consult, Worker Survey (September 2022). Available at: https://www.flexassociation.org/workersurvey.

[31] See Lyft, the Driver's Guide to Pay. Available at: https://www.lyft.com/driver/pay#earn.

A particularly compelling example of how this technology is used to improve the worker and consumer experience is evidenced at one of the busiest travel hubs in any city: an airport. The nature of an airport makes balancing the supply and demand equation, along with mitigating worker and consumer wait times, increasingly complex. However, a rideshare platform is able to leverage automated technologies to forecast supply balance and optimize driver allocation by considering data points ranging from weather conditions, distribution of arriving flights, and other temporal considerations. Using this model, a platform can produce an estimation of how long a driver would have to wait before receiving a trip request. This gives drivers the information they need to decide whether they would prefer to seek an airport trip or reposition themselves for accepting another ride after completing an airport drop-off. Likewise, providing drivers visibility into periods of low demand may help them decide to stay in a city to optimize their earning time.[32]

3. *Automated technologies allow workers to choose, control, and direct where and when they earn on app-based platforms*.

Automated technologies also empower app-based workers to deploy precision with respect to where they are interested in working during a given period should they wish to stay within a given radius or pursue a trip or delivery as they travel to another area. Application of technology in this way serves as an efficiency tool for workers to utilize if and when they choose, providing greater opportunities for individuals to flexibly earn on platforms in ways that make sense for the demands of their personal lives. For example, if an app-based delivery worker wishes to use their commute home from another job to pick up a delivery trip, they can select an end location. The platform will then seek to connect the individual with a delivery trip along that route.[33] Indeed, survey data suggest this is a frequent use-case for workers.[34]

These technologies create similar options for rideshare drivers. A driver can use location filters to set preferred arrival times, specify a destination and only receive ride requests in that direction, and set a radius around a given location on a map.[35] This is all made possible due to data at scale filtered through automated technologies and systems.

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[32] See Uber Engineering Blog, Demand and ETR Forecasting at Airports (March 23, 2023). Available at: https://www.uber.com/blog/demand-and-etr-forecasting-at-airports/.

[33] See DoorDash, Dash Along the Way. Available at: https://help.doordash.com/consumers/s/article/Dasher-Commute-Tools?language=en_US.

[34] For example, DoorDash shares that 52% of workers using the app "choose when they dash around their other responsibilities, like between classes or after work." Additionally, 60% of workers using the DoorDash app reported that they "combine dashing with a range of their other responsibilities," including picking up groceries or conducting errands, commuting or traveling, or dropping off or picking up their children. See DoorDash, Delivering the Goods: The Impact of DoorDash in the United States (2022). Available at: https://downloads.ctfassets.net/trvmqu12jq2l/6zLcMwJ9xOG7CtnYyovCMo/b87905ee2ee48b90abe7b471f4eabbc2/DoorDash-EIR-2022.pdf.

[35] See Lyft, Using location filters. Available at: https://help.lyft.com/hc/ru/all/articles/115013081128-Using-location-filters.

D. Automated Technologies Produce Data Insights That Benefit Cities and Communities

Furthermore, app-based platforms are leveraging automated technologies for additional purposes that extend beyond their virtual marketplaces. Automated technologies facilitate data aggregation across a given network that platforms are increasingly utilizing to produce and share insights with leaders at the local level in service of addressing community needs and improving cities. In this way, these technologies generate aggregated information that help to inform important public decisions.

— Preparing the Power Grid for Electric Vehicles (EVs): As EV sales continue to grow and as the Biden administration continues to take steps to build a national network of 500,000 electric vehicle chargers to confront the climate crisis,[36] policymakers at the local, state, and federal levels are faced with important considerations around vehicle charging infrastructure and underlying power grid operation. Utility providers and energy organizations are gathering data that analyze charging trends so that they understand when demand is likely to be highest—information that is needed to prepare in ways that mitigate blackouts or brownouts across their electrical networks. However, they have struggled to find a data set of EV driver behavior that is large enough to derive meaningful results. Flexdrive, an independently managed subsidiary of Lyft that supplies drivers with vehicles to rent through Lyft's Express Drive program, partnered with Peninsula Clean Energy to help advance this data set. Peninsula Clean Energy subsidizes the cost of 100 rental EVs from Flexdrive available to drivers on the Lyft platform. In exchange, Flexdrive provides the utility with data on when and where the EVs charge, how long each charging session lasts, and what types of chargers the drivers use.[37]

— Valencia Street Safety Pilot: San Francisco's Valencia Street is a famous, bustling neighborhood and commercial corridor. It is heavily trafficked by bicyclists, commercial delivery vehicles, passenger vehicles, and pedestrians on foot. As a result, the corridor has experienced growing safety concerns and community organizers have advocated for a redesign. Encouraged by the San Francisco Municipal Transportation Agency's initial steps to address these concerns, Lyft leveraged their technology to help provide a solution. Through analyzing ride activity throughout the corridor to ascertain high volume pick-up and drop-off locations, Lyft found that limited curb space was a central challenge for the corridor. The company hypothesized that improvements to the Lyft app could help create a better transit experience for riders and drivers while advancing safety. As a result, Lyft established a pilot that designated pick-up and drop-off locations along side streets to address curb space limitations. In evaluating the pilot, Lyft also gleaned additional insights from these datasets

[36] See The White House, Fact Sheet: Biden-Harris Administration Announces New Standards and Major Progress for Made-in-America National Network of Electric Vehicle Chargers (February 15, 2023). Available at: https://www.whitehouse.gov/briefing-room/statements-releases/2023/02/15/fact-sheet-biden-harris-administration-announces-new-standards-and-major-progress-for-a-made-in-america-national-network-of-electric-vehicle-chargers/.

[37] See Lyft, How rideshare data is preparing the power grid for EVs (March 22, 2023). Available at: https://www.lyft.com/rev/posts/how-rideshare-data-is-preparing-the-power-grid-for-evs.

that have been shared with city officials. These range from the need for more loading zones, protected bike lanes that offer physical separation from motor vehicle traffic, a comprehensive curb space management strategy, and clearer wayfinding and signage to direct passengers and riders more efficiently.[38]

— Cincinnati Mobility Lab: Uber and the City of Cincinnati created the Cincinnati Mobility Lab, a multi-year partnership seeking to develop innovative transportation strategies across the city, local transit, and local business organizations. Like Valencia, curb space in Cincinnati is a resource that multiple transportation modes compete for on a daily basis. Uber commissioned a study[39] that analyzed rideshare pick-up and drop-off activity data, traffic count data, video documentation, and in-person observations to identify potential improvements to curb space allocation and traffic management for city leaders to consider.[40]

III. Looking Ahead and Conclusion

The use of automated technologies across app-based platforms is not new. These technologies are what has allowed platforms to scale their operations safely, efficiently, and in ways that have unlocked tremendous value for independent workers, consumers, and communities. Platforms have gleaned insights from the data points that these technologies capture, along with feedback from the individuals that use their networks to earn income or secure transportation or delivery services. Over time, these combined learnings have prompted platforms to deploy automated technologies in new ways, delivering tools to the entire user community that advance safety, efficiency and opportunity, marketplace transparency, and choice.

As OSTP notes, many of the technologies and systems at the center of the RFI's focus have developed over recent years and across a variety of contexts. It is important that OSTP distinguish between the ways in which employers are deploying automated technologies to monitor employees' working habits, processes, and productivity levels as a tool to manage and control the employment relationship versus how automated technologies are utilized in the platform economy.

App-based workers choose to earn on Flex members' platforms because it provides them the unparalleled ability to secure income on their own terms and with the autonomy to select where, when, how often, and with which platforms they choose to work. Automated technologies have made this type of work accessible at scale while providing a suite of tools that app-based workers may choose to utilize as they seek to optimize their earning experience. While there are differences across platforms, in general, app-based workers enjoy autonomy and control over

[38] See Lyft, Creating a Safer Valencia Street (August 22, 2018). Available at: https://medium.com/sharing-the-ride-with-lyft/creating-a-safer-valencia-street-54c25a75b753.

[39] See Fehr and Peers, Cincinnati Curb Study (January 2019). Available at: https://www.fehrandpeers.com/curbs-of-the-future/.

[40] See Uber, Cincinnati's Curb of the Future (January 28, 2019). Available at: https://medium.com/uber-under-the-hood/cincinnatis-curb-of-the-future-44d952458751.

their working lives that is distinct from the close and deliberate management that employers exert over their employees, whether that be through the use of technology or otherwise.

Flex acknowledges that there are many emerging applications of automated technologies that carry tremendous potential across the economy and society at large. At the same time, the advent of these innovations, like any other technological advancement, requires all stakeholders across business, academia, the consumer base, and government, to think critically about responsible development, deployment, and oversight. Flex represents companies that are beginning to develop governance frameworks focused on the emerging technological landscape that take into consideration potential use cases and benefits, ethical and risk concerns, and other policies and processes.[41]

Flex stands ready to work with OSTP and other policymakers as they continue to examine the many technologies at the focus of this RFI. Government must commit to deep, thoughtful, and sustained engagement with all stakeholders as it seeks to understand the varied and evolving use cases of these technologies. Such technologies have the potential to unlock societal benefits that deliver greater economic outcomes, advance safety objectives, improve healthcare and medicine, and achieve climate and sustainability goals, and policymakers must take care to avoid hampering innovation or having a chilling effect on economic development and U.S. competitiveness.

Thank you for the opportunity to submit comments in response to this RFI.

Sincerely,

Kristin Sharp
CEO, Flex Association

[41] See Field, Tom, Bank Info Security, The Challenges and Opportunities of Artificial Intelligence (May 2, 2023). Available at: https://www.bankinfosecurity.com/challenges-opportunities-artificial-intelligence-a-21768.