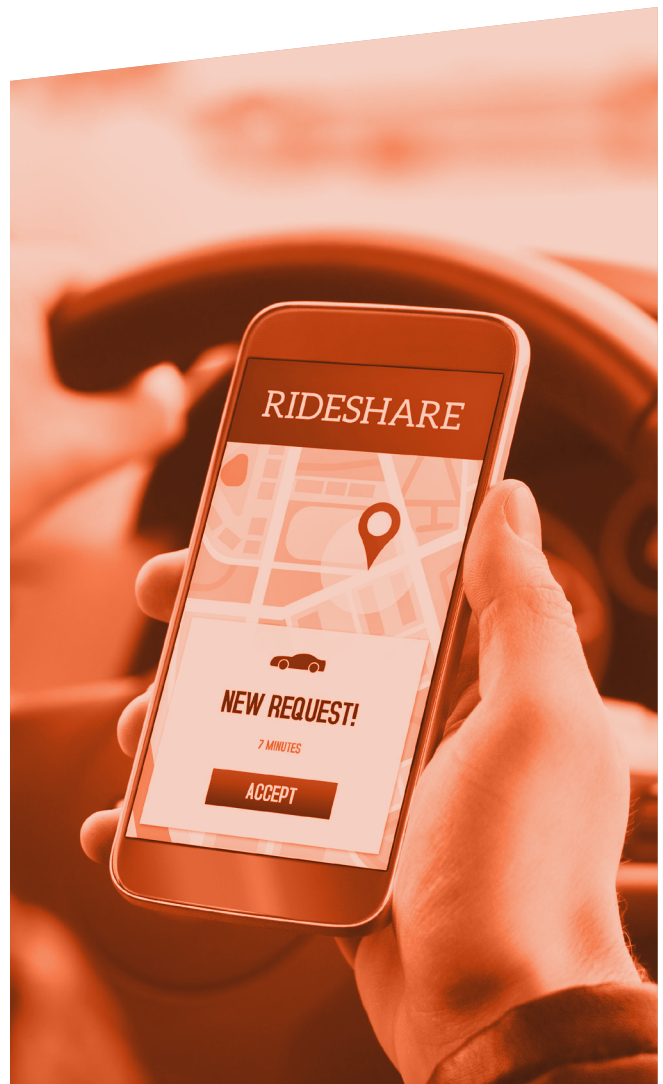


Surveilled and Directed

ALGORITHMIC MANAGEMENT AND CONTROL IN NEW YORK'S GIG ECONOMY

RACHEL SWANER



Surveilled and Directed: Algorithmic Management and Control in New York's Gig Economy

ABOUT THE AUTHOR

RACHEL SWANER is the Vice President of Policy, Research, and Advocacy at the Community Service Society of New York. Her work explores interpersonal, community, and systemic trauma; resistance, resilience, and healing; and root causes of poverty, inequality, and system involvement. She has a PhD in Sociology from the CUNY Graduate Center and an MPA from NYU. She teaches courses in research methods and participatory policymaking at New York University and Columbia.

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And finally, thanks to the 763 gig workers across New York State who participated in this survey. We hope this report helps ensure that their experiences are reflected in policy discussions about the future of work.

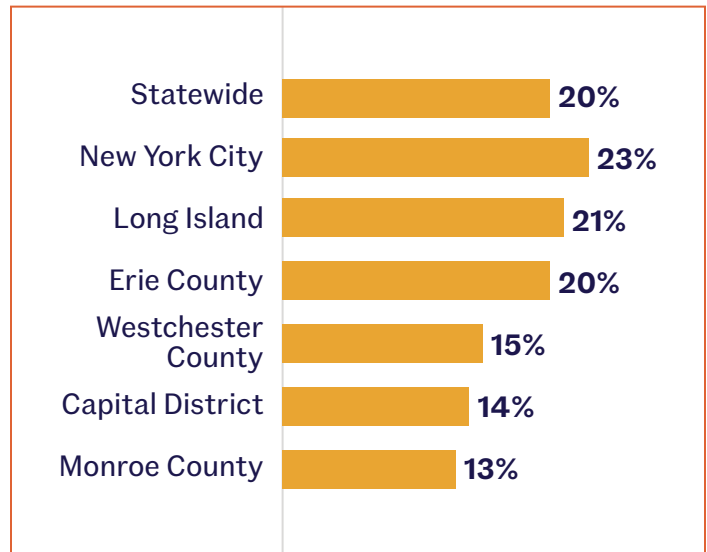


The Community Service Society of New York (CSS) has worked with and for New Yorkers since 1843 to promote economic opportunity and champion an equitable city and state. We power change through a strategic combination of research, services, and advocacy to make New York more livable for people facing economic insecurity. By expanding access to health care, affordable housing, employment, opportunities for individuals with conviction histories, debt assistance, and more, we make a tangible difference in the lives of millions. Join us at www.cssny.org.

Gig work has become a significant feature of New York’s labor market, raising important questions about how digital platforms govern work. In September and October 2025, the Community Service Society of New York surveyed 4,000 state residents as part of our Annual Survey of Housing and Economic Security, including questions about work and financial security. Twenty percent of respondents reported earning money through gig work platforms in the past year.

Across the state, gig work has become a mainstream economic survival strategy, from New York City (23 percent) to Erie County (20 percent). For half of gig workers (51 percent), platform work is their main source of income.

FIGURE 1. ONE IN FIVE NEW YORKERS ARE GIG WORKERS



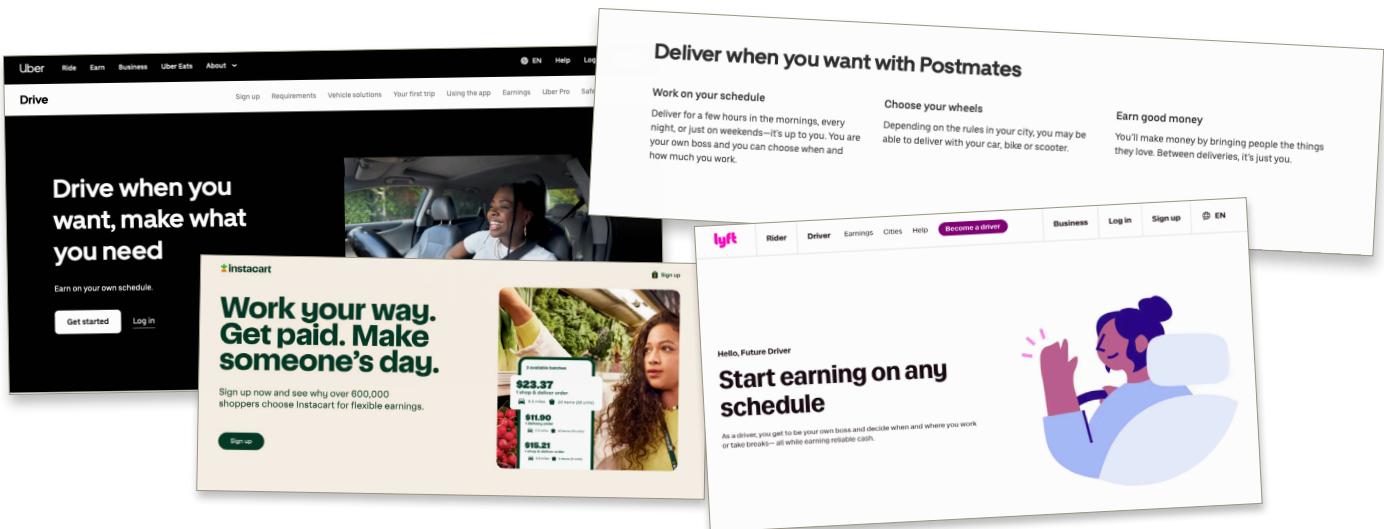
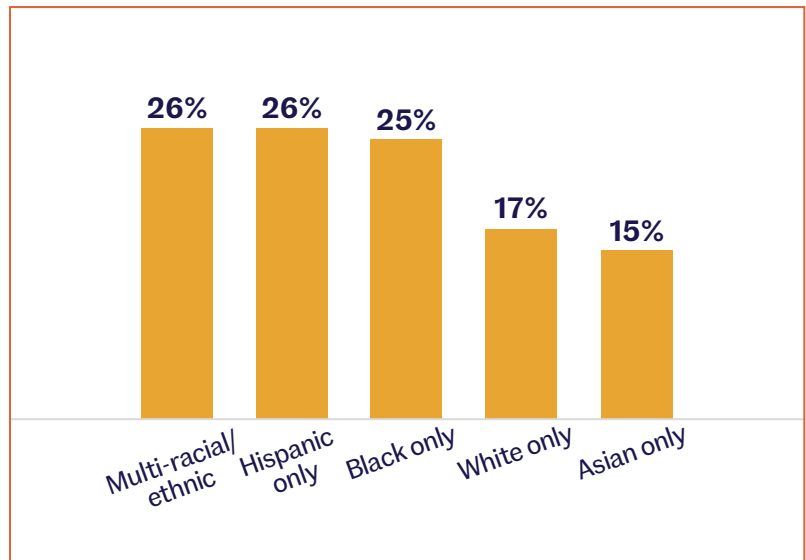
How we defined “gig work”

Some people earn money by taking jobs or tasks through websites or mobile apps run by private companies. These platforms connect workers with people or businesses who need service—like rides, deliveries, home tasks, or online work—and handle payment after the job is done. In the past 12 months, have you earned money through this type of website or app?



As shown in Figure 2, workers of color are significantly more likely to work in the gig economy than white workers. This pattern mirrors broader labor market inequalities, in which Black and Latino New Yorkers experience persistently higher rates of unemployment and underemployment.¹

FIGURE 2. PEOPLE OF COLOR ARE MORE LIKELY TO DO GIG WORK



Platform companies promise flexibility and entrepreneurship. But when we asked gig workers about their actual experiences, a different reality emerged: intensive algorithmic management. Workers face constant surveillance, personalized wage incentives to work longer and at specific times, and discipline mediated through customer ratings. Our survey reveals that workers who depend on platforms as their

main income source experience this control more intensely than those doing gig work for supplemental income. Yet across both groups, workers overwhelmingly want government intervention.

Before turning to key findings on how algorithmic management operates, it is important to understand the economic conditions under which gig work takes place.

Economic Insecurity Among New York Gig Workers

Compared to those who do not participate in the gig economy, gig workers report significantly higher levels of economic insecurity. Gig workers are more likely to be unable to make ends meet or be barely managing to get by and are substantially more reliant on short-term debt—such as credit cards, buy-now-pay-later services, payday loans, or borrowing from friends and family—to cover basic expenses. They are also more likely to carry credit card debt and to rely on public benefits to make ends meet.

Economic insecurity becomes especially visible when workers face unexpected expenses. Only about a third of gig workers reported confidence that they could cover a \$400 emergency expense, compared to nearly half of those not engaged in gig work.

These disparities matter not simply as indicators of hardship, but because they potentially shape how gig workers experience platform management. Financial precarity creates conditions in which algorithmic incentives, penalties, and surveillance carry greater force—particularly for workers who rely on

TABLE 1. GIG WORKERS REPORT GREATER ECONOMIC INSECURITY THAN NON-GIG WORKERS

	Report earning money through gig work	Do not report earning money through gig work
Have credit card debt	74%	57%**
Can't make ends meet or barely managing to get by	45%	33%**
Rely on short-term debt to help cover expenses	48%	33%**
Rely on public benefits to help cover expenses	41%	31%**
Certain could come up with \$400 unexpected expense	35%	49%**

**p<.01

Note: The number of valid responses for gig workers varied between 717 and 763. The number of valid responses for those who did not engage in gig work varied between 2,925 and 3,054.

platforms as their primary source of income. Against this backdrop, the findings that follow examine gig workers' experiences with platform management.

Key Finding #1: Many New York gig workers report understanding platform rules.

New York gig workers report understanding how platforms work: 85 percent felt the app's rules and systems were easy to understand, and 84 percent said they understood how the app calculated pay and bonuses. This high level of reported understanding holds across both main-income and supplemental-income gig

workers and is notable given the complexity of algorithmic systems. Research shows, however, that platform "transparency" typically provides workers with surface-level metrics while the underlying algorithmic decision-making remains hidden behind a veneer of openness.²

This survey was offered in English, Spanish, Chinese, Russian, and Haitian Creole, and gig workers who speak other languages are not represented in these findings. Organizers working with app-based delivery workers report that many workers are from

Central America and primarily speak Indigenous languages³, which can create significant language and literacy barriers in understanding platform rules, particularly because platform companies typically provide instructions and policy updates in English and Spanish.

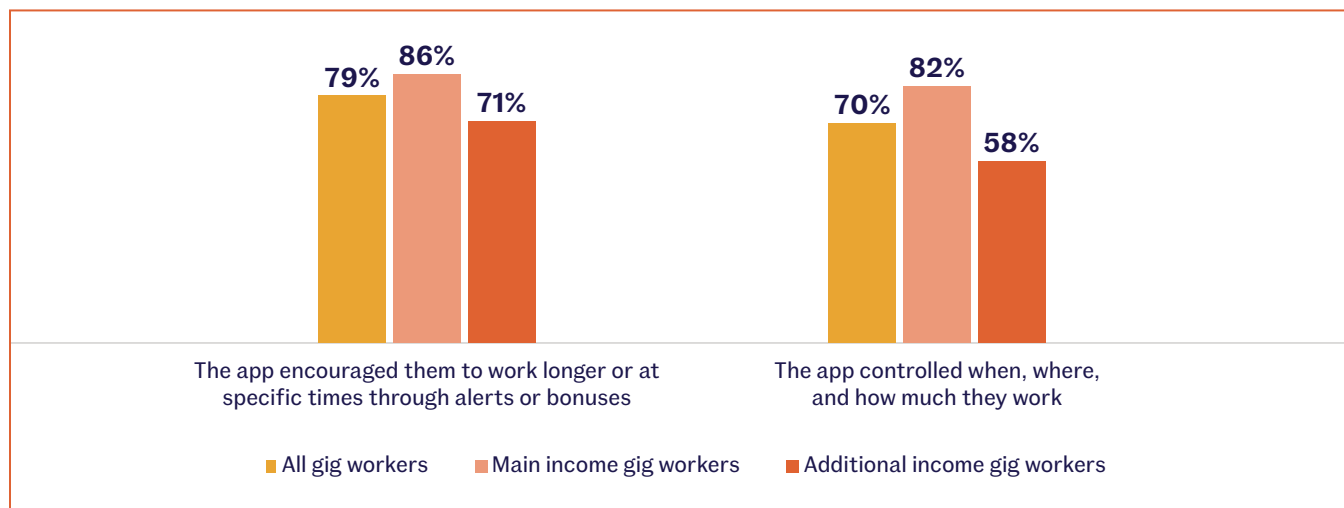
Key Finding #2: New York gig workers report algorithmic pressure and control, especially those dependent on platform income.

Nearly four-in-five gig workers report that apps encourage them to work longer or at specific times through alerts or bonuses, and 70 percent said that the app controls when, where, and how much they work.

Gig workers who depend on platforms as their main income source report notably higher levels of both algorithmic pressure and control—with gaps of 15 and 24 percentage points, respectively, compared to workers using platforms

for supplemental income. Scholars have described similar dynamics as “algorithmic wage discrimination,” in which platforms use individual worker data to personalize incentives and pressure based on predictions about a worker’s economic need.⁴ The higher rates among main-income workers suggest that algorithmic systems may intensify control based on worker dependency, functioning as mechanisms of labor management rather than neutral tools.

FIGURE 3. ALGORITHMIC PRESSURE AND CONTROL



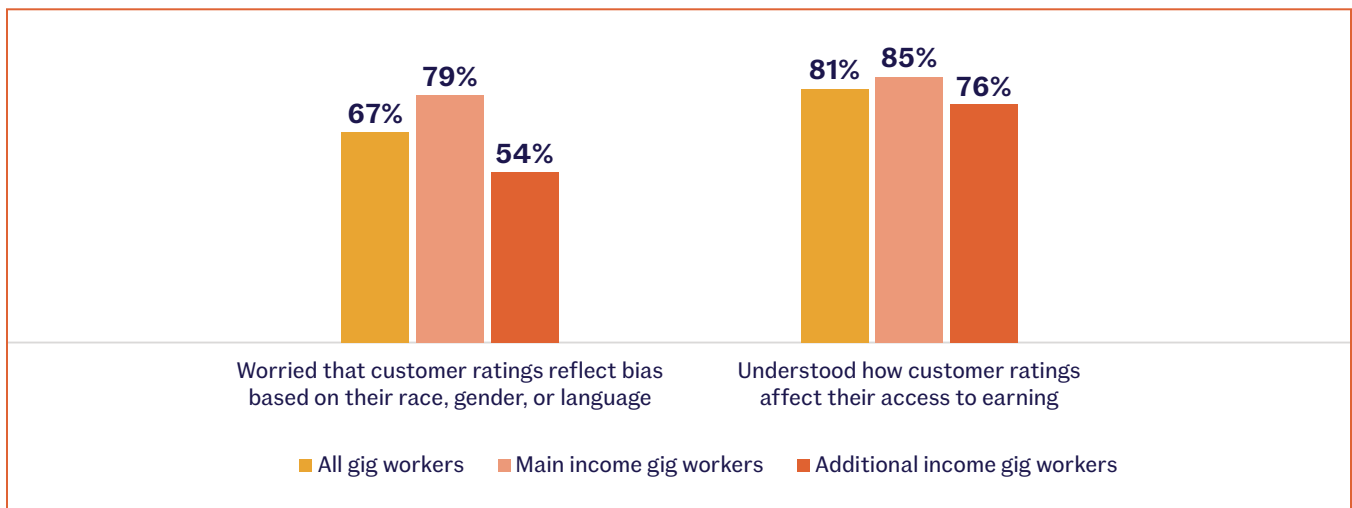
Key Finding #3: New York gig workers—particularly those reliant on platform income—worry customer ratings reflect bias.

Platform companies use customer service rating systems for algorithmic management—as a tool for quality control and disciplinary action. Two-thirds of gig workers express concern that customer ratings reflect bias based on race, gender, or language, and most understand that these ratings directly affect their access to earnings. Since workers of color make up a disproportionate share of the gig workforce (see Figure 2), racialized ratings bias compounds existing labor market inequalities. Additionally, workers

who depend on platforms as their main source of income are more worried about discriminatory ratings than those using platforms for supplemental income.

This dynamic has been described as platforms outsourcing discipline to customers, where lower ratings mean fewer high-value assignments, potential deactivation, and diminished earning power.⁵ The algorithm effectively privatizes discrimination with customer prejudice directly impacting pay and opportunity.

FIGURE 4. CONCERNS OF BIAS IN CUSTOMER RATINGS



Key Finding #4: New York gig workers feel constantly monitored, with higher rates among platform-dependent workers.

The majority of gig workers (69 percent) report feeling the app constantly monitors and watches them. Workers who rely on platforms as their main source of income report this at even higher rates (79 percent,

versus 59 percent for supplemental income gig workers). This surveillance operates through GPS tracking, customer ratings, acceptance rates, and other algorithmic monitoring systems.

Key Finding #5: There is strong consensus across New York gig workers for government regulation of platforms.

Despite different levels of income dependence and varying experiences of algorithmic control, gig workers show strong consensus on wanting government intervention. Over three-quarters (76 percent) said they would feel more secure if the government set rules about how apps treat workers. Of workers who rely on platforms as their main income source, 80 percent want government labor regulation of platforms. Even among gig workers doing platform work for additional income, 72 percent support such state action.



Implications for policy and governance

The findings in this brief complicate the idea that gig work is primarily defined by flexibility and worker choice. New York gig workers report widespread monitoring, behavioral and temporal direction through incentives and penalties, and discipline mediated through customer ratings. These are features of algorithmic management that intensify for workers who depend on platforms as their primary income source.

Support for government regulation of labor platform work is strong across both main-income and supplemental-income workers. Much of the policy debate surrounding gig work has focused on whether workers should be classified as employees or independent contractors.⁶ The data suggest that employment classification alone cannot account for the dynamics documented here. Algorithmic management is a form of economic power that operates through opacity, data extraction, and asymmetric control over access to work—exerting

greater leverage over workers with fewer economic alternatives. The issue is algorithmic control itself: a digital panopticon designed to extract more work under conditions of insecurity. And it is not unique to gig workers; warehouse employees, call center workers, and other traditionally employed workers face similar monitoring systems.⁷

New York State's policy response must therefore address algorithmic management directly. While classification remains important for wage and benefit protections, it does not resolve the core problem documented here: the privatization of labor governance through algorithms that determine pay, discipline, and opportunity without meaningful transparency or accountability.

Gig workers' experiences of algorithmic monitoring, pressure and control, and rating-based discipline are systemic features of platform management that warrant targeted state regulation in five areas:

1. **Algorithmic Wage-Setting and Pay Transparency.** New York City has shown that platform pay systems can be regulated.⁸ New York State should extend this logic statewide by requiring disclosure of pay calculations, advance notice of material pay changes, and regulatory authority to review algorithmic compensation systems. It should also establish safeguards to ensure that dispatch and assignment systems do not undermine established pay standards.

2. **Limits on Surveillance and Data Use.** While New York requires employers to notify employees of electronic monitoring, no comparable limits govern platform surveillance of gig workers. The State should establish enforceable standards governing the scope, duration, and permissible uses of worker location and performance data, including restrictions on the use of such data in compensation or disciplinary decisions.

3. **Oversight of Rating and Assignment Systems.** Existing civil rights laws prohibit employment discrimination, and New York City requires bias audits in automated hiring tools. But no law addresses customer rating systems and algorithmic assignment tools that shape gig workers' earnings, hours, and working conditions. The State should mandate bias audits, transparency in rating impacts, and meaningful appeals processes.

4. **Due Process in Deactivation and Adverse Decisions.** We did not directly survey gig workers about

deactivation experiences, but the concerns about ratings bias and constant monitoring—both directly related to deactivation—suggest the need for procedural protections when platforms remove workers' access to earnings. New York City recently enacted legislation requiring app-based delivery platforms to provide notice, a stated reason, and an opportunity to appeal before permanent deactivation.⁹ New York State should extend similar protections statewide for any algorithmic decisions affecting access to work.

5. **Worker Representation and Ongoing Oversight.** Because algorithmic systems evolve rapidly—and because platforms can adjust dispatch, access, and compensation systems in response to new rules or pay standards—oversight cannot rely solely on transparency, disclosure, and audits. New York State should establish formal mechanisms for worker representation to monitor and govern platform labor practices over time, ensuring that regulatory standards remain effective as platform systems change.

New York City has taken limited but important steps to regulate app-based delivery work, including minimum pay standards and procedural protections in deactivation. However, no statewide framework addresses algorithmic management itself. New York State should ensure that the systems governing pay, discipline, and access to work are subject to enforceable standards of transparency, fairness, and accountability.

Endnotes

1. In New York State, see, for example, Economic Policy Institute. (2025). State Unemployment by Race and Ethnicity. Available at: <https://www.epi.org/indicators/state-unemployment-by-race-and-ethnicity/>; U.S. Bureau of Labor Statistics. (2025). Local Area Unemployment Statistics. Available at: <https://www.bls.gov/lau/ptable14full2025.htm>. In New York City, see, for example, New York City. (2025). Mayor's Management Report, Fiscal 2025. Available at: https://www.nyc.gov/assets/operations/downloads/pdf/mmr2025/2025_mmr.pdf; New York City Comptroller. (2025). The State of the City's Economy and Finances. Available at: https://comptroller.nyc.gov/wp-content/uploads/documents/The-State-of-the-Citys-Economy-and-Finances_2025.pdf; Office of the New York State Comptroller. (2025). New York City's Uneven Recovery: Youth Labor Force Update. Available at: <https://www.osc.ny.gov/files/reports/pdf/report-5-2026.pdf>.
2. Human Rights Watch. (2025). The Gig Trap: Algorithmic, Wage and Labor Exploitation in Platform Work in the US. Available at: https://www.hrw.org/sites/default/files/media_2025/05/us_gigeconomy0525web_0.pdf; Veena Dubal. (2023). "The House Always Wins: The Algorithmic Gambification of Work." LPE Blog. Available at: <https://lpeproject.org/blog/the-house-always-wins-the-algorithmic-gambification-of-work/>; Alex Rosenblat. (2018). *Uberland: How Algorithms Are Rewriting the Rules of Work*. University of California Press.
3. Maria Figueroa, Ligia Gualpa, Andrew Wolf, Glendy Tsitouras, and Hildalyn Colón Hernández. (2021). *Essential but Unprotected: App-based Food Couriers in New York City*. Los Deliveristas/Workers Justice Project. Available at: <https://static1.squarespace.com/static/651571ae4b60961776b44c4b/t/6602d1db94a4251f8b5d7917/1711460843421/EssentialUnprotected-Sep-2021.pdf>
4. Veena Dubal. (2023). "On Algorithmic Wage Discrimination." *Columbia Law Review*, 123(7): 1929-1992. Available at: <https://columbialawreview.org/wp-content/uploads/2023/11/Dubal-On-Algorithmic-Wage-discrimination.pdf>.
5. Alex Rosenblat. (2018). *Uberland: How Algorithms Are Rewriting the Rules of Work*. University of California Press.
6. See, for example, Aubree Walton and Krystal L. Brue. (2019). "Worker Classification Standards in the Gig Economy: Do Businesses Pass the Test?" *Journal of Human Resources Education*, 13(1).
7. Veena Dubal. (2025). "Data Laws at Work." *The Yale Journal Forum*. 405-447. Available at: https://yalelawjournal.org/pdf/DubalYLJForumEssay_hrh14dd.pdf; Mohammad Hossein Jarrahi, Gemma Newlands, Min Kyung Lee, Christine T. Wolf, Eliscia Kinder and Will Sutherland. (2019). "Algorithmic Management in a Work Context." *Big Data and Society*, 8(2), <https://journals.sagepub.com/doi/10.1177/20539517211020332>; Greg Bensinger. (2019). "'MissionRacer': How Amazon turned the tedium of

warehouse work into a game.” The Washington Post, 21 May 2019. Available at: <https://www.washingtonpost.com/technology/2019/05/21/missionracer-how-amazon-turned-tedium-warehouse-work-into-game/>.

8. See, for example, regulations that went into effect in January 2026: <https://www.nyc.gov/site/dca/news/009-26/major-victory-nyc-delivery-workers-landmark-protections-take-effect-today>.
9. New York City Council, Intro 1332, enacted January 17, 2026. <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=7480055&GUID=265DOED3-FB2F-48B9-AF70-79973B11E094>

Survey Methodology: For more than 20 years, the Community Service Society of New York has surveyed New Yorkers on housing, employment, benefits, finances, and policy views. The 2025 Annual Survey of Housing and Economic Security surveyed 4,000 adults statewide between September 9 and October 2, 2025. Surveys were offered in English, Spanish, Chinese, Russian, and Haitian Creole via online panels, email, phone, and text recruitment. The survey included residents from New York City

(2,000), Long Island (400), Westchester (400), the Capital District (400), Erie County (400), and Monroe County (400). Results were weighted by region to reflect the demographic composition of New York State adults. The margin of error is ± 1.55 percentage points. Throughout this brief, we excluded the five percent of respondents who said they did not know if they had done gig work in the past year; the total gig worker sample was 763, and the sample of those not engaged in gig work was 3,054.

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