

INTRODUCTION AND PRINCIPAL FINDINGS

AKRF, Inc. (AKRF) was retained by the Five Borough Jobs Campaign to evaluate the potential economic, traffic, and equity impacts of Intro 518 (2026). This briefing summarizes AKRF’s preliminary findings on how Intro 518 could affect last-mile delivery service levels and delivery costs for New York City residents and businesses. Across a range of plausible industry responses, AKRF’s initial analyses indicate that Intro 518 would likely raise delivery costs and slow service for many New Yorkers, with outer-borough communities facing disproportionately greater impacts than Manhattan due to differences in delivery models and operating conditions.

AKRF’s preliminary quantified findings focus on potential changes in delivery efficiency, costs, and customer impacts resulting from Intro 518 requirements under a realistic industry-response condition where a portion of New York City’s overall package throughput would be redistributed to facilities outside the City.¹ To evaluate the cost and service implications associated with rerouted throughput, AKRF modeled two bounding, hypothetical scenarios in which last-mile package throughput delivered by contracted operators relocate facilities outside of the City to avoid Intro 518 mandates. The first scenario holds their operating costs at current levels, with operators accommodating relocation-related constraints through reduced service quality, such as longer delivery times or decreased reliability. The second scenario assumes that existing service levels are maintained, with operators absorbing the additional operational constraints associated with relocation, resulting in increased costs to preserve delivery performance.

Table 1 and Table 2 summarize the modeled impacts of a relocation of contracted last-mile delivery facilities under these two alternative scenarios. When service levels are held constant, rerouted packages would experience an average cost increase of 265.2 percent, rising from \$2.65 per package to \$9.67, while the market-wide average cost would increase by 95.7 percent, from \$2.65 to \$5.18 per package. Conversely, when costs are held constant and service is allowed to degrade, rerouted throughput would see an average decline of 10.1 percent in service success rates—calculated across on-time delivery, same-day delivery, next-day delivery, and first-attempt delivery—while the market-wide decrease would be 3.6 percent. These results illustrate the range of potential outcomes, with actual impacts expected to fall between these extremes.

Table 1
Preliminary Service Impacts Under Contracted Relocation (Cost Held Constant)

Throughput Geography	Service Success Rate Baseline	Avg. Service Success Rate Post-Relocation	Increment (%)
Rerouted Throughput	88.7%	78.6%	-10.1%
Market Wide	88.7%	85.1%	-3.6%

Notes: Incremental changes represent the degradation of service required to adjust to relocation scenario and allow delivery costs to remain the same.

Sources: AKRF, Inc. AKRFs study employs Monte Carlo simulations (a form of stochastic modeling) to estimate the effects of relocation on delivery costs and service reliability across the New York City market. The analysis uses parallel simulations designed to separately isolate the cost and service channels, capturing the likelihood of a range of potential outcomes under alternative operational assumptions.

¹ Not all existing throughput is assumed to relocate (approximately one-third of average daily volume under this scenario); variations in operational models, including different employment models, would result in a share of package volume remaining at current locations. Consequently, total throughput would be partially rerouted, while a portion would continue to be processed within the remaining facility network.

Table 2

Preliminary Cost Impacts Under Contracted Relocation (Service Held Constant)

Throughput Geography	Avg. Delivery Cost per Package Baseline	Avg. Delivery Cost per Package Post-Relocation	Increment (%)
Rerouted Throughput	\$2.65	\$9.67	+265.2%
Market Wide	\$2.65	\$5.18	+95.7%
Notes: Incremental changes represent the increase of delivery cost required to adjust to relocation scenario and allow service quality and expectations to remain the same.			
Sources: AKRF, Inc. AKRFs study employs Monte Carlo simulations (a form of stochastic modeling) to estimate the effects of relocation on delivery costs and service reliability across the New York City market. The analysis uses parallel simulations designed to separately isolate the cost and service channels, capturing the likelihood of a range of potential outcomes under alternative operational assumptions.			

Preliminary modeling indicates that under this relocation scenario, the impacts on New York City households vary depending on how operators manage costs and service. If incremental delivery costs required to maintain existing service levels were fully distributed across all households within the City, each household would face an average annual increase of approximately \$664. Alternatively, if delivery costs were held constant and service quality was allowed to degrade, households would experience an average of nine additional late deliveries per year. Across the City, this would mean that roughly 109 million packages, about 12 percent of all deliveries, arrive late.

These scenarios represent analytical extremes; actual market behavior would likely reflect a hybrid outcome, balancing cost increases with some degree of service degradation. AKRF is continuing to assess a variety of likely industry scenarios that will be part of full reporting expected in May 2026.

CURRENT LAST-MILE DELIVERY MODEL IN NYC (PRE-INTRO 518)

New York City’s last-mile delivery network today is highly decentralized, with numerous small warehouses and courier depots spread across all five boroughs. Major e-commerce and parcel companies (Amazon, UPS, FedEx, etc.) strategically position these local facilities in or near the neighborhoods they serve. When a package arrives in the City, it is typically sorted at a nearby hub in the same borough or even the same neighborhood as its final destination. Drivers can then make many deliveries within a compact area rather than crisscrossing the City. This localization of last-mile routes allows carriers to maximize delivery density and efficiency, minimize driving time and fuel use, and offer fast shipping times at relatively low cost. For example, Amazon operates over 10 delivery stations across NYC (in addition to its larger regional fulfillment centers like the Staten Island warehouse) so that packages can enter the local area close to the customer, often enabling same-day or next-day deliveries. UPS and FedEx similarly use borough-based distribution hubs (including large facilities in Queens and Brooklyn) that inject parcels directly into the surrounding communities via local drivers or contractors. By keeping last-mile distances short, this model lets each courier complete more stops per hour and spend less “deadhead” or “windshield time” (driving without making deliveries), which has been critical to meeting New Yorkers’ high demand for rapid e-commerce deliveries.

Manhattan’s dense urban core has prompted a unique adaptation: “walker” couriers and cargo bikes are used extensively for final-leg deliveries. In congested areas where truck access and parking are difficult, carriers often deploy foot-based delivery teams and pedal-assisted cargo cycles to cover the last few blocks to customers. For instance, Amazon’s walker system involves a truck bringing a batch of parcels to a central drop-off point (e.g. a street corner in Midtown), where on-foot couriers then fan out to deliver in nearby buildings. UPS and FedEx, which have large package centers just outside Manhattan, also employ strategies like parking a delivery van once and having the driver walk carts of packages to multiple addresses, or contracting cycle couriers to handle loops that are faster by bike. These methods take advantage of Manhattan’s high address density: a single parked truck can supply dozens of deliveries within a radius of a few blocks, reducing the need for a permanent warehouse right in that neighborhood. This approach allows carriers to maintain fast, reliable service in Manhattan despite its traffic and curbside constraints. Whether by vans in outer boroughs or walkers in Midtown, proximity is the common thread in all of NYC’s last-mile operations, and it underpins both the speed and the cost-effectiveness of current delivery services.

INDUSTRY RESPONSE TO INTRO 518 – OPERATIONAL CHANGES EXPECTED

Facing Intro 518's proposed direct-hire mandate and facility licensing rules, delivery companies indicate they could make major changes to their City operations to control costs and maintain service. A likely response is the relocation of some last-mile facilities outside the City. Firms that rely on independent contractors and small urban depots, such as Amazon's Delivery Service Partners or FedEx Ground's local service providers, could shut down their NYC-based sites and shift operations to nearby areas like New Jersey, Long Island, or Westchester County. By operating just over the City line, these companies could avoid the bill's direct-hiring mandate and new licensing requirements, which bring added compliance costs and administrative burdens (for example, facilities would have to obtain City licenses and meet bonding and reporting rules). UPS, on the other hand, already uses a unionized direct-employment model and thus would be less affected by the labor provision. UPS might choose to keep its existing New York hubs and comply with licensing, potentially even expanding its business if competing contractors retreat, since it can spread higher labor costs over its large network.

Another expected adjustment is consolidation of operations and longer delivery routes. To reduce the number of sites subject to licensing, some operators may merge multiple smaller City stations into a single larger facility (either within the City or just outside it). This consolidation means each remaining hub must serve a broader area, sacrificing the proximity advantages of the current model. Whether by consolidation or outright relocation, the loss of local depot coverage would force drivers to start their shifts farther from many customers. Routes would lengthen significantly: a driver who used to load packages in Brooklyn or the Bronx might instead depart from a mega-hub in New Jersey, spending a substantial part of the day just traveling to and from the City. With those extra "deadhead" miles at the start and end of each route, couriers would have less time for actual deliveries, and each driver could complete fewer stops per day. In effect, the industry would be trading off shorter, dense routes for longer, sparser ones, which is inherently less efficient. Carriers have warned that this change could delay deliveries, reduce overall throughput, affecting ability to provide same-day and next-day services at the same volumes and/or over the same geographies.

To adapt in Manhattan and other dense districts, companies may also increase their use of foot couriers, bike deliveries, and mobile distribution tactics. Since Intro 518's facility licensing most practically applies to fixed warehouse sites, a carrier could station a truck at a curb or lot (which is not a permanent "facility") and have couriers deliver from that vehicle as a makeshift base. Amazon already does this with its walker program in Manhattan; under the new law, it might lean more on that model in certain neighborhoods to avoid needing as many licensed brick-and-mortar locations. Other firms could similarly deploy "pop-up" delivery points or parcel lockers in central areas as alternatives to traditional depots. These strategies can help maintain service levels in high-density zones without a licensed facility, but they are limited in scale. On-foot and cargo bike deliveries only work for relatively small package volumes and short distances, so they are not a complete solution for the City's broader delivery needs. Overall, the industry's expected response to Intro 518 would involve a significant reconfiguration of the last-mile network, with many contractor-based delivery operations pulling back from many current in-City sites, concentrating operations in a smaller number of large hubs (often outside NYC), and adjusting delivery methods and labor models to keep serving customers. These changes point toward a leaner but less locally rooted system, with a few big providers playing larger roles (e.g. UPS or DHL expanding their footprint, and Amazon possibly partnering more with the Postal Service or others) as many smaller contractors exit. The net effect could be a less convenient and potentially less resilient delivery network in New York City.

IMPACTS ON DELIVERY SERVICE: RELIABILITY, SPEED, AND COVERAGE

If last-mile facilities relocate or consolidate in response to Intro 518, New Yorkers would likely experience more delays and less reliable delivery schedules. With some neighborhood depots shuttered or downsized, drivers must travel longer distances at the start of each route, reducing the time they can spend making deliveries. One operator estimated that a 30-minute increase in the distance to a route's first stop could force a driver to skip 20 or more deliveries that day; packages that would have to be deferred to the next delivery cycle. Multiplied across hundreds of routes Citywide, this implies thousands of packages delayed daily that would otherwise arrive on time. Carriers warn that on-time performance will suffer: customers may wait longer on average for their orders, and it will become harder to meet tight delivery windows (like overnight or same-day service) in many areas. The high-speed, high-reliability system that New Yorkers now enjoy, where ordering in the evening can realistically mean a delivery on your doorstep the next

morning, may give way to longer delivery windows and more frequent delays. Even routine deliveries could become less predictable, since extended supply lines create additional points of potential breakdown (traffic hold-ups, missed sorting connections, etc.). In short, delivery speed would decrease and reliability would decline compared to the pre-Intro 518 baseline, especially in parts of the City that are hardest to serve from afar.

Geographic coverage of premium services is also expected to shrink. With companies optimizing their routes for efficiency, they may prioritize the busiest, most central neighborhoods for the fastest delivery options. Areas that are less dense or farther from the remaining hubs could see reduced service offerings. For example, many outer-borough neighborhoods might lose access to same-day delivery or see next-day delivery commitments relaxed, as carriers focus limited resources on Manhattan and immediate inner-ring locations. Some lower-volume zones could even experience cutbacks in delivery frequency (e.g. fewer trucks dispatched per day), increasing the likelihood that a package scheduled “for Wednesday” doesn’t actually arrive until Thursday or later. These service reductions in harder-to-reach areas would contrast with Manhattan, where high-density routes and alternative modes (walkers, bikes) can still support faster delivery cycles. Overall, the coverage of the quickest delivery services would become less uniform, and the gap between well-served and lesser-served neighborhoods could widen. Additionally, with a leaner delivery network, peak demand periods would pose greater challenges. Carriers today can hire extra subcontractors or make additional micro-trips to clear backlogs, but under a constrained direct-employment model with longer routes, they may struggle to scale up quickly, resulting in more frequent backlogs and longer recovery times after storms or seasonal surges. All of these factors suggest potential declines in the customary reliability and speed of deliveries that households and businesses in New York City currently count on.

IMPACTS ON DELIVERY COSTS FOR RESIDENTS & BUSINESSES

Intro 518’s operational ripple effects are expected to raise the underlying cost of last-mile delivery in New York City, and those increases would almost certainly be passed on to customers rather than absorbed by industry. By requiring higher-cost employment models and prompting less efficient operations through consolidations and relocations, the legislation would raise the per-package cost of doing business in NYC’s last-mile sector. In a highly competitive market, carriers typically operate on thin margins and are not expected to simply absorb new expenses; instead, they would adjust pricing and service terms to compensate. For example, parcel carriers could introduce fuel or distance-based surcharges for in-City deliveries, higher base shipping rates, or stricter rules for free shipping eligibility (such as raising minimum order values or eliminating certain expedited shipping guarantees). E-commerce retailers might add an “NYC regulatory fee” at checkout to offset the extra handling costs within the City. As a result, New Yorkers would likely start paying more for many delivery services that are currently discounted or free. This could mean that optional services like same-day or one-hour deliveries carry significant fees, or that free next-day shipping, now common for many online purchases, could be scaled back unless customers pay a premium.

Small businesses would face cost pressures both as consumers of delivery services and as shippers of goods. Companies that rely on fast, frequent supply deliveries (restaurants, independent retailers, neighborhood pharmacies, etc.) might see surcharges on their orders and shipments, raising operating costs. They could respond by ordering inventory less frequently (tying up more cash in stock) or by paying extra for rush deliveries when urgently needed; either way, their business expenses would rise. Meanwhile, local enterprises that ship products to customers (from boutiques to start-ups using e-commerce) would pay higher courier and parcel rates to send out orders. Because smaller businesses have less bargaining power and fewer logistics alternatives than large firms, these cost increases could hit them especially hard. Ultimately, many businesses would have little choice but to pass on the added costs to their own customers through higher prices or service fees.

Over time, this dynamic could be felt widely: the prices of consumer goods and services (from groceries to home goods to professional services that depend on deliveries) could inched upward as businesses adjust to more expensive logistics. Intro 518 may lead to a modest but broad-based increase in the cost of living and cost of doing business in NYC, as the expenses of last-mile distribution are redistributed to consumers. This burden would be most acute for price-sensitive households and small businesses, for whom even small delivery fee hikes can strain budgets or thin profit margins. Larger corporations might find creative

ways to mitigate these costs (for instance, leveraging their own logistics networks or negotiating volume discounts with carriers), but the typical consumer and small business is likely to pay more out-of-pocket for the convenience of delivery.

EQUITY IMPACTS: MANHATTAN VS. OUTER BOROUGHS

The operational changes introduced by Intro 518 would not affect all parts of New York City equally, raising significant equity concerns. Manhattan is likely to see relatively limited disruption, while many outer-borough communities could face disproportionate negative impacts. Manhattan’s last-mile network already relies heavily on foot couriers, bike deliveries, and nearby New Jersey warehouses, which is a model that can continue with relatively minor adjustments under Intro 518. Carriers can still treat Manhattan as a dense “delivery zone” served by trucks and vans entering from outside the City and handing off to walkers and cargo-bike routes.

Outer-borough neighborhoods, by contrast, currently depend on dozens of local delivery facilities and depot yards that enable fast, frequent service. If these sites close or shrink, residents in the Bronx, Queens, Brooklyn, and Staten Island are far more likely to experience delivery delays and reduced service quality. A Manhattan customer may still receive a package within 24 hours from a nearby drop-off point, while households in Eastern Queens or the North Bronx could find that one-day delivery is no longer reliable and that packages routinely take two to three days as distribution shifts to New Jersey or Westchester. Same-day delivery would likely concentrate in Manhattan and a few central areas, becoming rare or unavailable farther out. In effect, the convenience of quick delivery could increasingly depend on where one lives or works.

Cost impacts would follow a similar pattern. Any Citywide increase in delivery fees or surcharges would be felt everywhere, but the burden would fall more heavily on lower-income outer-borough communities. Wealthier Manhattan residents may absorb a \$5 surcharge or higher free-shipping threshold with less difficulty, while budget-conscious households in the Bronx, Brooklyn, Staten Island, and Queens would feel the strain more acutely. Companies may also tailor services by geography, maintaining free or fast delivery in dense, high-margin areas while reducing speed or availability elsewhere. In that scenario, outer-borough residents would pay more and still receive slower service.

Beyond service and cost, the outer boroughs also stand to lose a substantial share of the jobs and economic activity tied to last-mile logistics. Most of the City’s last-mile facilities and the roughly 50,000 jobs they support are located in outer-borough industrial areas, many in or near communities of color and lower-income neighborhoods. These facilities provide accessible employment and support faster deliveries for local residents and businesses. If they close or relocate, these same communities would bear the brunt of job losses and diminished service.

Altogether, the potential for slower deliveries, higher costs, and job dislocation would fall most heavily on the outer boroughs, while Manhattan’s central districts remain comparatively insulated. This uneven outcome runs counter to the City’s equity goals, as the residents most affected are those in less affluent, underserved areas.

CONCLUSION

Intro 518 presents a clear policy trade-off: it seeks to improve labor conditions in the last-mile delivery sector, but it could also disrupt a system that currently provides fast, low-cost service and substantial employment in the outer boroughs. AKRF’s preliminary analysis indicates that the bill’s requirements would raise operating costs for many delivery firms and prompt some to scale back or relocate their local facilities. In a worst-case scenario, numerous neighborhood hubs could close, with operations consolidated in larger sites outside the City. If that occurs, New Yorkers would likely face slower deliveries, less reliable schedules, reduced access to expedited services, and higher fees. Outer-borough communities would be hit hardest, experiencing slower service, higher costs, and potential job losses, while Manhattan and other central areas could remain relatively insulated due to existing workarounds like foot-courier networks. These outcomes are not guaranteed, but they reflect plausible industry responses based on stakeholder input.

For policymakers, the implication is that Intro 518’s benefits and drawbacks must be weighed carefully. The bill addresses legitimate concerns about labor standards and oversight, but its potential unintended consequences—higher consumer costs, diminished service quality, and concentrated impacts on certain

neighborhoods—could undermine the City’s equity and mobility goals. Carrier responses will vary: some may fully relocate, others may pursue partial compliance or technological adjustments. The scale of impacts on prices, speed, and employment will depend on these choices, which are difficult to predict precisely. What is clear is that the regulatory approach carries significant disruptive risk.

About AKRF’s Study

AKRF, Inc. (AKRF) is a multidisciplinary consulting firm specializing in environmental, planning, and engineering services for public and private sector clients. Its Economic and Real Estate Advisory Services group provides data-driven analysis to support land use, infrastructure, and policy decisions, with a focus on understanding how regulatory, market, and operational factors influence investment, employment, and service delivery. Drawing on expertise in urban economics, real estate development, and transportation systems, the group helps stakeholders evaluate the real-world impacts of proposed legislation and development strategies, ensuring that policy decisions are grounded in practical, place-based insights.

AKRF was retained by the Five Borough Jobs Campaign to AKRF to assess potential economic, operational, employment, equity, and transportation impacts associated with changes in delivery-sector requirements under Intro 518. Specifically, the study is:

- **Quantifying economic effects**, including potential changes in delivery costs for households and small businesses, and the implications for operators under different response scenarios.
- **Assessing operational and service impacts**, such as delivery times, reliability, geographic coverage, and the ability of operators to meet peak demand.
- **Evaluating employment and equity considerations**, including potential shifts in job location, workforce composition, and service outcomes across neighborhoods.
- **Examining transportation and traffic effects**, including changes in travel distance, vehicle miles traveled, congestion, and the potential need for larger trucks or altered routing patterns resulting from consolidation, relocation, or other operational restructuring.

The analysis focuses on identifying the range and likelihood of plausible outcomes, recognizing that actual responses will vary across operators, facility types, and market conditions. A final reporting of AKRF’s findings is expected in May 2026.
