

Welfare Payment Timing and Property Crime

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Abstract

Financial desperation among impoverished individuals is a well-documented driver of property-related offenses. Social safety net programs, such as SNAP and TANF in the United States and provincial income-assistance benefits in Canada, aim to support individuals and families experiencing economic hardship. The timing of these transfers, not just their size, is an important feature of assistance programs, with real implications for their effectiveness. We study the role that the timing of welfare payments plays in reducing or exacerbating property crime using British Columbia's social assistance programs, where payment disbursement day shifts from month to month, typically occurring on the third or fourth Wednesday of the month (known as "Welfare Wednesday"). This variation allows us to trace both the relationship between property crime and the time elapsed since welfare payment and the effect of misalignment between payday and major recurring expenses due at the start of the month. Using daily Vancouver Police Department data from 2003 through June 2026, we find that reported property crime decreases by 19.6 percent immediately after a welfare payment is disbursed and rises steadily thereafter, and that each additional week of misalignment between payday and the first of the month increases property-related crime by 3.5 percent. Our results imply that a nontrivial share of property crime could be prevented by shifting welfare payments to the last business day of the month, as many social safety net programs already do, suggesting that the causal effect of transfer timing on crime deserves attention from policymakers.

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1. Introduction

Survey evidence indicates that a majority of individuals have committed a property offense at some point in their lives, and property crime remains, by a wide margin, the most common form of criminal victimization (McCurley, 2006; Tapp and Coen, 2025). Economic conditions and incentives have long occupied a central place in explanations of property crime, and a large literature demonstrates a causal connection between income and property offending (see Ludwig and Schnepel, 2025; Ferraz et al., 2022, for recent reviews). Social safety net programs can alleviate short-term financial distress by helping households meet basic needs, reducing the immediate economic pressures that contribute to property crime.

The timing of transfers is an important feature of any assistance program, not just their amount. Spending spikes when payments are received and then declines precipitously, leaving lower consumption and higher food insecurity toward the end of each monthly cycle (Stephens, 2003; Shapiro, 2005; Hastings and Washington, 2010; Hastings and Shapiro, 2018). These periods of heightened financial distress are, in turn, linked to higher rates of property, or financially motivated, crime (Foley, 2011; Carr and Packham, 2019; Stam et al., 2024). Transfers are often scheduled on or just before the first of the month so that recipients can cover bills that cluster at the start of each month, such as rent and utilities, but no existing evidence speaks to whether this alignment between payday and major expenses itself affects financially motivated crime.

The Ministry of Social Development and Poverty Reduction in British Columbia (BC) provides income assistance on a Wednesday (“Welfare Wednesday”) before the beginning of the month for which the assistance is intended, timed so that recipients can pay rent before the first of that month. Payments are also scheduled so that at least three banking days remain in the month, a rule that creates substantial variation in the time between receipt of assistance and the first of the following month. In fact, only about one-third of payments (35 percent) are made on the calendar’s actual last Wednesday of the month, and recipients typically have more than an entire week between receiving assistance and when their bills are likely due.

The scheduling of payments in BC, together with daily reports of property crime in Vancouver from January 2003 through June 2026, let us contribute to the understanding of the relationship between income assistance and property crime in a few key ways. First, this setting lets us precisely

estimate the causal relationship between elapsed time since a payment and reported financially motivated crime. We find that property crime falls sharply at payday, with city-wide levels just over 19 percent below their level in the middle of an assistance cycle, followed by a steady rise that peaks nearly 10 percent above that baseline in the final week of a cycle before receding again in anticipation of the next payment. This pattern is consistent with continued depletion of a fixed monthly amount. It echoes prior findings from the United States (Foley, 2011; Carr and Packham, 2019) and the Netherlands (Stam et al., 2024), but our estimates are considerably more precise since BC’s payday is not tied to a fixed day of the calendar month and instead drifts from month to month. Because payments always fall on a Wednesday, the interval between consecutive payments oscillates mechanically between 28 days (four weeks) and 35 days (five weeks), a pattern documented in a very different setting by Baugh and Correia (2022) and Baugh and Wang (2018), who show that pay-cycle length affects within-month financial distress. Compared to the shorter four-week cycles, we find a continuation of the same rising pattern of property crime into the extra week in the longer five-week cycles.

This setting further lets us document novel evidence on a second, independent dimension of month-to-month financial stress: not how long recipients must wait for their next payment, but how well the timing of a given payment lines up with major, first-of-the-month expenses. There exists strong demand in many settings to defer income so that it is better aligned with lumpy expenditures (Brune et al., 2021), consistent with the idea that misalignment between income and expense timing carries real economic costs. We find that an extra week between payday and the first of the month raises property crime by 3.5 percent on average over the entire cycle, a gap that is typical rather than exceptional since the average BC recipient already waits 8.9 days past payday before the following first-of-the-month despite the Ministry’s stated intention to schedule assistance close to the first of the month. This misalignment effect is, if anything, larger for more serious break-ins and vehicle theft (5.2 percent per week) than for less serious offenses (2.8 percent), suggesting that the added financial strain from a poorly timed payment is not confined to opportunistic, low-stakes theft. The closest prior evidence on this dimension specifically is Baugh and Wang (2018), who show that U.S. Social Security recipients experience significantly more overdrafts, bounced checks, and payday loans as the gap between their benefit’s payday and major bill due dates widens. To our knowledge, however, no existing evidence speaks to the criminal consequences of payment-to-

expense misalignment, nor to its effect on the financial stress of means-tested welfare recipients specifically.

While we also examine effects on other types of reported incidents that plausibly carry a higher social cost, including offenses against a person, our analysis centers on the relationship between financial stress and financially motivated crime. We view this outcome as the first-order criminal consequence of financial stress for economically disadvantaged populations, on both theoretical and empirical grounds. Prior studies document increases in substance use and violent activity around assistance paydays more generally (Watson et al., 2020; Hsu, 2017; Carr and Packham, 2021).² In our setting, the category of crime capturing most violent offenses in the VPD data (“offense against a person”) shows no statistically significant relationship with days since payment, and no relationship with the degree of misalignment between payment and the first of the month.³ While the social gatherings and substance use that often accompany payday likely influence property crime around payday, it is unlikely to explain property crime patterns in the weeks following payday or the relationship between misalignment and property crime.

Our analysis quantifies the effect of assistance payment timing on community-level property crime, not individual offending, using over 23 years of crime reported to the Vancouver Police Department. We find the largest effects, especially for those from time since payment, concentrated in less serious property crimes, such as theft from vehicles, that are among the least likely to result in an arrest or criminal charge. These offenses have especially low clearance rates, which measure the share of reported offenses that law enforcement agencies consider solved or closed, typically through

²The “payday effect” in general has been linked to a wide variety of outcomes and settings. The days following wage and transfer disbursements are characterized by increased mortality risk across many settings including SSI (disability) recipients in California (Dobkin and Puller, 2007), Social Security and military pay in the United States (Evans and Moore, 2011, 2012), public-sector wages in Sweden (Andersson et al., 2015), and wage allowances in Brazil (Castro and Corbi, 2026), with the earliest evidence dating to Phillips et al. (1999). Several studies document increased substance use around Welfare Wednesday in BC: Riddell and Riddell (2006) find that welfare checks increase drug consumption and worsen health among Vancouver injection drug users; Zlotorzynska et al. (2014) find that overdose risk at a Vancouver supervised injection facility roughly doubles in the three days beginning with cheque day; Krebs et al. (2016) find that drug use frequency rises with income assistance receipt; and Otterstatter et al. (2016) find approximately 40 percent more illicit drug overdose deaths province-wide during income assistance payment weeks than other weeks. Paydays can also shape psychological state and decision-making directly: low-income individuals relying on social security become more risk tolerant in the days before payday, a pattern documented among recipients in both the United States and Japan (Akesaka et al., 2023).

³This “offense against a person” category also includes robbery, a property crime involving a threat to the victim, so a null or offsetting result here cannot definitively rule out any effect of payment timing on interpersonal violence that has no financial motivation.

an arrest or a formal charge: in the United States, law enforcement agencies cleared 17.4 percent of reported property crimes in 2025, compared to 47.4 percent of reported violent crimes; in Canada, the 2025 clearance rate was 17.5 percent for property crimes and 56.1 percent for violent crimes. Clearance rates for the specific, less serious property offenses on which we find our largest effects are lower still: in Canada, only 2.8 percent of thefts from a motor vehicle were cleared in 2025, compared to 19.9 percent for breaking and entering.⁴ If we instead relied on individual-level arrest data, effects on these low-level, high-volume offenses that are most sensitive to payment timing would be hard to detect since the vast majority are never cleared by an arrest. We also view this focus as the most policy-relevant lens on any system-wide change to payment scheduling, since such a change affects total community crime rather than any single recipient’s behavior.

Our results suggest that modifications to the assistance payment schedule could have significant impacts on property crimes in Vancouver. We simulate what property crime in Vancouver would have looked like from 2003 through June 2026 had BC instead paid income assistance on the last business day of the month, as Ontario does, rather than on a Wednesday. Under this alternative rule, misalignment shrinks to near zero and the 35-day outlier cycles disappear entirely, predicting a 4.2 percent reduction in property crime, or roughly 30,700 fewer reported offenses over the sample period. Most of this reduction (3.8 of 4.2 percentage points, or about 27,500 offenses) is attributable to the misalignment channel rather than to cycle length. This is almost certainly an undercount of the true effect on offending, since a large share of property crime is never reported to police in the first place: in Statistics Canada’s most recent victimization survey, only 29 percent of criminal incidents were reported to police overall; in the United States, the National Crime Victimization Survey shows that in 2024 only 25 percent of “other theft” incidents were reported to police (Cotter, 2021; Tapp and Coen, 2025). We next turn to the institutional details of BC’s Income Assistance program that generate this variation, before describing our data, empirical strategy, and results.

⁴Federal Bureau of Investigation, *UCR Summary of Reported Crimes in the Nation, 2025*; Statistics Canada, Table 35-10-0177-01, “Incident-based crime statistics, by detailed violations,” total incidents cleared as a share of actual incidents, Canada, 2025.

2. Institutional Setting

Income Assistance (IA) is the largest social safety net program in BC and is administered by the Ministry of Social Development and Poverty Reduction. The program combines disability assistance for adults with a Person with Disabilities designation with temporary assistance for individuals who are unemployed or not earning enough to cover basic needs. Benefits are delivered as a monthly cash transfer with an unconditional support allowance and a shelter allowance.⁵ More than 25,000 Vancouver residents receive IA in a typical month, down from more than 33,000 (5.7 percent of the city’s population) in January 2003, and disability payments account for the majority of total assistance dollars disbursed. The average recipient receives around \$1,000 per month.⁶

Payments are always issued on a Wednesday, a day known locally as “Welfare Wednesday” or “Cheque Day.” According to the Ministry, the overall intention is to provide clients with enough time to receive their payment or cash their cheque to pay their rent before the first day of the following month.⁷ In practice, however, the Ministry’s scheduling rules, ensuring at least three banking days remain in the month after payday, avoiding statutory holidays, avoiding more than one five-week gap in a row, and avoiding a payday landing in the week the month ends on a Friday or Saturday, mean that only about one-third of payments (35 percent) actually fall on the calendar’s last Wednesday. The remaining payments arrive anywhere from a few days to more than two weeks before the first of the month. This schedule creates plausibly exogenous variation (conditional on calendar controls described in the next section) in how far in advance of major monthly expenses

⁵The shelter allowance for a single individual has been \$375 per month since April 2007 (\$325 before then); the remainder of the monthly payment is the unconditional support allowance. In 2019, more than half of Vancouver recipients had their shelter allowance paid directly to a landlord or public housing authority, up from around 40 percent in 2003, leveling off around 2013. Monthly assistance participant and benefit totals, including the share of recipients with direct rent payments, were obtained through a public records request to the BC Ministry of Social Development and Poverty Reduction (file MSD-2020-01770).

⁶The nominal Income Assistance rate for a single employable individual was \$510 per month at the start of our sample in 2003, rising to \$610 in April 2007, where it remained frozen in nominal terms for a decade until October 2017, when it rose to \$710, then \$760 in April 2019, \$935 in April 2021, and \$1,060 in August 2023, unchanged through the end of our sample in June 2026. The disability assistance rate moved in parallel over the same set of dates, from \$786 in 2003 to \$1,484 by August 2023. As with the figures above, the 2003-2019 totals were obtained through the same public records request to the BC Ministry of Social Development and Poverty Reduction (file MSD-2020-01770); the 2019-2026 totals are from BC Ministry rate tables (see Figure 4 notes).

⁷In response to our inquiry about the scheduling of payments, the Correspondence Unit of the Ministry of Social Development and Poverty Reduction informed us that “Payments are typically issued on the last Wednesday of the month and are meant to cover expenses for the following month. The overall intention is to provide clients with enough time to receive their payment or cash their cheque to pay their rent before the first day of the following month.”

recipients receive their assistance. We refer to this gap, measured in weeks, as “misalignment”.

Because payments always fall on a Wednesday and months do not divide evenly into seven-day weeks, the interval between successive payments is not fixed at 28 days. A substantial share of payment cycles instead run 35 days, an entire extra week during which the same monthly benefit amount must be stretched to cover the same monthly expenses. A cycle’s length and its degree of misalignment are related but distinct: a cycle can be long (35 days) yet well aligned if the following payment happens to land close to its own first of the month, or short (28 days) yet poorly aligned. Families may additionally receive the federal Canada Child Benefit (CCB) and the BC Family Benefit, which is deposited alongside it on the same date, generally around the 20th of each month. Because this combined payment does not follow IA’s Wednesday rule, we control flexibly for days since CCB/BC Family Benefit receipt throughout.⁸

3. Data

We combine several sources of daily data spanning January 2003 through June 2026. Income assistance payment dates for Vancouver were obtained from the BC Ministry of Social Development; the full schedule of payment dates used in our sample is reported in Appendix Table A6.⁹ Reported crime incidents are drawn from the Vancouver Police Department’s public open data portal, which records the type, date, and city-block location of every reported offense.¹⁰ We classify incidents as property crime (break and enter, commercial and residential; theft of and from vehicles; theft of bicycles; other theft) and, separately, as one of three non-property categories available in the same

⁸Recipients may also draw on other federal transfers that we do not separately control for. The GST/HST credit (rebranded the Canada Groceries and Essentials Benefit as of a January 2026 federal announcement) is paid quarterly rather than monthly, so it does not track our payment-cycle framework. The federal Canada Disability Benefit, a new program providing up to \$200 per month to low-income persons with disabilities aged 18-64, began issuing payments in July 2025; BC exempted this benefit from clawback against provincial disability assistance starting June 2025, so eligible recipients keep the full amount (BC Ministry of Social Development and Poverty Reduction, *2025/26 Annual Service Plan Report*, p. 9-10). This overlaps with the final eleven months of our sample; restricting the sample to end before 2025 leaves the days 0-3 and misalignment estimates for total property crime essentially unchanged (-19.5 versus -19.6 percent, and 3.8 versus 3.5 percent per week, respectively), so this omission does not appear to materially affect our results. Old Age Security (OAS) and the Canada Pension Plan (CPP) are paid together on the third-last business day of each month, but these are retirement-age programs relevant only to the small share of IA recipients who are also seniors.

⁹Current payment schedules are published online (<https://www2.gov.bc.ca/gov/content/family-social-supports/income-assistance/payment-dates>); historical schedules were obtained through the Internet Archive’s Wayback Machine (<https://web.archive.org>) and, for years not available there, through a public information request filed with the Ministry.

¹⁰Data were accessed via the VPD’s public open data portal (<https://geodash.vpd.ca/opendata/>), which is updated on a weekly basis.

portal: offenses against a person, mischief, and traffic collisions. We further split property crime into a *less serious* category (theft of bicycles, theft from vehicles, and other non-vehicle theft) and a *more serious* category (commercial and residential break-ins and vehicle theft). Daily weather data (maximum and minimum temperature, maximum wind speed, precipitation) and the schedule of federal and provincial holidays and CCB/BC Family Benefit payment dates round out the control set.¹¹ We additionally flag extraordinary local events: the 2011 Stanley Cup playoff period, which culminated in a riot in downtown Vancouver, the 2010 Winter Olympics, and BC’s “circuit breaker” COVID-19 public health restrictions in spring 2021.¹²

For a placebo exercise described below, we use the same VPD-style open crime data for the City of Toronto from 2014 through 2026, the years for which comparably detailed Toronto incident data are available.¹³ Ontario’s provincial social assistance program pays recipients on the last business day of each month rather than following BC’s three-banking-day rule, so imposing BC’s payment calendar on Toronto crime provides a test of whether the patterns documented below reflect something specific to the BC payment rule or instead some more general, unobserved correlate of the calendar.

4. Empirical Strategy

We estimate variants of the following regression using daily data:

$$\ln(\text{Crime}_t) = \sum_d \beta_d D_t^d + \gamma \text{Misalignment}_c + X_t' \alpha + \varepsilon_t \quad (1)$$

where Crime_t is the count of reported incidents of a given type on day t ; D_t^d is a set of indicators for the position of day t within its payment cycle c , grouped into days 0-3 (the payment Wednesday through the following Saturday), days 4-6, days 7-13, days 21-27 (days 21-24 for 28-day cycles),

¹¹Weather data are from <https://vancouver.weatherstats.ca>.

¹²The Stanley Cup indicator equals one for June 11-17, 2011, the calendar week spanning the Vancouver Canucks’ Game 7 loss and the ensuing riot in downtown Vancouver. The Winter Olympics indicator equals one for February 10-28, 2010, spanning the Games’ opening ceremony through closing. Effective March 30, 2021 through May 24, 2021, the COVID-era province-wide orders suspended indoor dining, indoor group fitness, indoor worship services, and other indoor gatherings in response to a third wave of COVID-19 cases; restrictions were lifted starting May 25, 2021 under the province’s four-phase restart plan (BC Ministry of Health, news release 2021PREM0023-000578).

¹³Toronto crime data were obtained from the Toronto Police Service’s public open data portal (<https://data.tps.ca/>), drawing on its Auto Theft, Bicycle Thefts, Break and Enter, Theft from Motor Vehicle, and Theft Over datasets.

an indicator for the final one to three days before the next payment (“anticipation”), and, only for 35-day cycles, days 28-31; days 14-20 is the omitted reference category. In some of the results below, we instead replace these day-groups with a fully saturated set of indicators for every individual day since payment, tracing out the shape of the payment cycle without imposing this six-group structure. Misalignment_{*c*} is the number of weeks between payday and the following first-of-the-month for cycle *c* (e.g., a payment eight days before the first-of-the-month takes a value of $8/7 \approx 1.14$). Because misalignment varies across cycles independently of a day’s position within its cycle, the two sets of coefficients are separately identified in the same regression: β_d traces out the shape of the assistance cycle net of the average degree of misalignment, while γ captures the causal effect of a one-week increase in the gap between payday and major monthly expenses, holding fixed how many days have elapsed since payment.

Other controls in the vector, X_t , include: year and month $\times$ day-of-month fixed effects (e.g., indicators for January 1st, January 2nd, ... June 15th,... etc.), day-of-week indicators¹⁴, holiday indicators, indicators for days since the CCB payment, indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions, and the four weather controls (maximum and minimum temperature, maximum wind speed, precipitation). Standard errors are clustered by payment cycle throughout. Our preferred specification estimates equation (1) by OLS with the natural log of daily counts as the dependent variable; property crime is never zero on any day in our sample, so no adjustment for zero counts is needed for the main outcome.¹⁵ Appendix Table A1 shows that results are also robust to a Poisson pseudo-maximum-likelihood estimator (Correia et al., 2020) and to using a population-adjusted property crime rate as a dependent variable rather than the natural log of the count of crimes.

Identification requires that, conditional on X_t , the residual variation in days since payment

¹⁴Although payday always falls on a Wednesday, so that any given day since payment corresponds to exactly one day of the week, day-of-week effects remain separately identified because the omitted reference category, days 14-20, spans a full calendar week. Within that week every day of the week occurs once while every days-since-payment indicator is simultaneously held at its reference value, so any remaining variation in outcomes across those seven days must reflect day-of-week rather than elapsed time since payment. The same logic identifies day-of-week effects in the fully saturated, one-indicator-per-day event-study specification underlying Figure 2 and the counterfactual simulation, which likewise treats a full week as the omitted reference.

¹⁵Appendix Table A3, which disaggregates property crime into six narrower offense types, and Appendix Table A2, which reports the three non-property outcomes (offenses against a person, mischief, and collisions), instead estimate equation (1) by PPML throughout, since several of these categories have a non-trivial share of zero-count days.

and misalignment is uncorrelated with other determinants of crime. Since the year and month $\times$ day-of-month fixed effects absorb any systematic seasonal or calendar-specific pattern in crime, the identifying variation is plausibly as good as random. We provide direct evidence for this assumption with a placebo test that imposes BC’s payment schedule onto Toronto, Ontario, where the provincial assistance program follows a different payment rule entirely; because Toronto crime is subject to the same fixed-effect structure but not BC’s specific institutional rule, any resulting pattern there would have to reflect some more general calendar regularity rather than something specific to BC’s payment schedule.

5. Results

Figure 1 documents the institutional variation underlying our analysis. Panel A shows the timing and length of every payment cycle in our sample, plotted by year; there is substantial variation across years in both the payment date and the cycle length for any given point in the calendar. Panel B shows the distribution of payment dates for each calendar month in a box-and-whisker plot, making clear that how closely payment arrives to the first of the month it is intended to cover varies within a month across years in our sample. This same variation underlies both sets of results below: the days-since-payment effects in Section 5.1 and the misalignment effects in Section 5.2.

5.1. *The Effect of Days Since Payment*

Figure 2 shows the resulting crime cycle. Panel A plots average daily property crime (and average daily non-property crime for comparison, which includes offenses against a person and mischief combined) by day since payment, unconditional on any other controls; the property crime series exhibits a sharp decline at payday followed by a steady rise, a pattern that is largely absent from the non-property series. Panel B plots the event-study coefficients, β_d , from a fully saturated version of equation (1) (indicators for every day since payment rather than the day-group bins used in Table 1), with property crime falling sharply on and immediately after payday and rising steadily thereafter.

Table 1 reports estimates from our primary specification. Property crime is 19.6 percent lower on days 0-3 of the payment cycle than during the reference period (days 14-20), 9.5 percent lower on days 4-6, and 4.0 percent lower on days 7-13; it is 3.8 percent higher in the final days of a

typical 28-day cycle (days 21-27, or 21-24 for four-week cycles) and, notably, an additional 9.6 percent higher during the extra days that exist only in five-week cycles (days 28-31). The pattern is similar in direction across the less serious and more serious property crime categories, and somewhat larger in magnitude for less serious offenses (columns 2 and 3).¹⁶ Crime in the one to three days immediately preceding the next payment falls back toward the days 14-20 baseline, consistent with an anticipation effect once relief is imminent.

The days-since-payment effect is strongest for theft of bicycles and theft from vehicles (22.5 and 20.7 percent lower on days 0-3, respectively; Appendix Table A3) and is not shared by non-property crime: mischief falls modestly (4.3 percent) but offenses against a person shows no comparable decline (Appendix Table A2). Moreover, we also evaluate the days since payment pattern for vehicle collisions reported to the VPD. This category also does not show any detectable relationship with the payment schedule. A placebo test that imposes BC's calendar on Toronto shows no comparable days-since-payment pattern there (Appendix Table A4), and the days since payment estimates are stable, across a sequence of increasingly saturated fixed-effect specifications and under a Poisson pseudo-maximum-likelihood estimator (Appendix Table A1).

5.2. *The Effect of Misalignment*

The misalignment coefficient in Table 1 implies that a one-week increase in the distance between payday and the first of the month raises total property crime by 3.5 percent (column 1), an effect that is somewhat larger for more serious break-ins and vehicle theft (5.2 percent; column 3) than for less serious property offenses (2.8 percent; column 2). Figure 3 presents this same relationship non-parametrically in two complementary ways. Panels A and C index by days since payment: Panel A plots where the first-of-the-month falls, in days since payment, for each cycle type, and Panel C plots the misalignment slope, the effect of a one-week increase in misalignment, separately for each day since payment in four-week and five-week cycles; both series rise over the first two to three weeks of the cycle before leveling off, consistent with misalignment increasing financial strain in the first few weeks of the cycle. Panels B and D instead index by calendar distance to the first of the month rather than by days since payment. Panel B plots differences in property crime based on

¹⁶Appendix Figure A3 plots the same Figure 2 Panel B event-study specification separately for each of these two categories.

distance from the first of the month, showing that property crime rises toward the end of a calendar month.¹⁷ Panel D interacts a measure of cycle misalignment with these calendar-date indicators to assess whether the impact of misalignment varies as the expense deadline gets closer.¹⁸ This pattern is consistent with the causal impact of an additional week of misalignment being greatest close to the rent deadline itself.¹⁹

The misalignment effect on property crime is strongest among more serious offenses: theft of vehicles rises 6.1 percent per week, and commercial break-ins show a similarly large, though not statistically significant, 3.9 percent increase (Appendix Table A3), reinforcing the pattern in Table 1 that more serious crime responds more strongly to misalignment than less serious crime. Theft from vehicles, a less serious offense, also shows a sizable 5.1 percent effect, and none of the three non-property categories shows a statistically significant misalignment coefficient (Appendix Table A2). The Toronto placebo again shows no comparable pattern (Appendix Table A4), and the misalignment effect remains similar in magnitude under PPML (2.7 percent) and the population-rate specification (2.9 percent) (Appendix Table A1).

5.3. *Heterogeneity by Time Period and Benefit Generosity*

Figure 4 examines whether the day-group and misalignment effects on property crime vary by decade (Panel A) and by IA policy regime (Panel B), estimating equation (1) separately on each subsample rather than a different specification.

The general pattern of increasing crime over the payment cycle is consistent across time periods in Panel A, though the effects at the points of greatest financial strain, the extra days in five-week cycles and the misalignment coefficient, are both noticeably larger in the two more recent decades than before 2010: the days 28-31 effect rises from 1.7 percent in the pre-2010 period to 9.2 and

¹⁷This panel estimates $\ln(\text{Crime}_t) = \sum_k \beta_k \text{CalDist}_t^k + X_t' \alpha + \varepsilon_t$, where CalDist_t^k are indicators for each day's calendar distance to the first-of-the-month (negative values before, positive after; $\text{CalDist} = +15$, roughly mid-month, is the omitted reference category), with year, month, and day-of-week fixed effects and the same weather and holiday controls as equation (1).

¹⁸This panel adds interactions between each calendar-distance indicator and Misalignment_c to the Panel B specification and plots the coefficients on those interaction terms.

¹⁹To further assess whether the marginal effect of misalignment is constant across its range, we also estimate a version of equation (1) that replaces the single misalignment slope with two slopes: one applying to cycles paid within 7 days of the following first-of-the-month, and one applying to cycles paid 8 or more days before it, holding the day-group indicators fixed. Appendix Table A5 reports these estimates. For total property crime, the near-deadline slope is larger (5.2 percent per week) than the far slope (2.9 percent per week), and the gap is widest for less serious property crime (4.7 percent within 7 days versus a statistically insignificant 2.3 percent farther out).

11.2 percent in 2010-2019 and 2020-2026, respectively, and the misalignment effect moves from a statistically insignificant -1.4 percent before 2010 to a significant 5.8 percent in 2010-2019 and 5.0 percent in 2020-2026. This pattern is consistent with the rising cost of living discussed below making a poorly timed payment bind more tightly in recent years than in the early 2000s.²⁰

Panel B breaks the sample into six finer periods, one for each verified change in the combined income assistance rate for a single employable individual (see Figure 4 notes). The days-since-payment pattern is qualitatively similar across all six periods. The initial drop in property crime is generally larger in the more recent, higher-rate periods, though not monotonically so. The misalignment coefficient is of a similar magnitude in most periods but is statistically significant only in the longest window, the 2007-2017 rate-freeze period (Section 2); this period alone spans a decade of data, giving it substantially more precision than the shorter, more recent windows, some of which cover as little as 1.5 years.

Other factors also change over these time periods that could affect the estimated effects. Given our identification strategy, we interpret differences in effects across time periods cautiously. The fact that we find similar impacts across periods is reassuring that our results are not driven by any single period.

6. Discussion and Conclusion

Using daily reported property crime in Vancouver from January 2003 through June 2026, we find a systematic cycle tied to the timing of British Columbia’s income assistance payments. Property crime falls 19.6 percent in the days immediately following payment relative to the mid-cycle baseline, then rises steadily over the following weeks before receding again just before the next payment arrives. Independent of this within-cycle pattern, a one-week increase in the gap between payday and the following first-of-the-month, when major recurring expenses such as rent typically come due, raises property crime by an additional 3.5 percent, an effect concentrated in more serious offenses such as break-ins and vehicle theft. Both patterns are specific to property crime: offenses against a person, mischief, and vehicle collisions show no comparable relationship with either days since

²⁰Vancouver’s all-items Consumer Price Index rose approximately 64 percent from June 2003 to June 2026, while its shelter component rose approximately 71 percent over the same period (Statistics Canada, Table 18-10-0004-01, “Consumer Price Index, monthly, not seasonally adjusted”).

payment or misalignment, and a placebo test that imposes BC’s payment calendar onto Toronto, where provincial assistance follows an entirely different schedule, shows no similar pattern there. The results are robust to a range of alternative specifications, fixed-effect structures, and estimators.

A growing literature documents that paydays alter behavior in ways that could plausibly affect property crime independent of financial need: recipients of income assistance and other transfers exhibit predictable changes in substance use, spending, and social activity in the days immediately following disbursement (Watson et al., 2020; Hsu, 2017; Carr and Packham, 2021; Akesaka et al., 2023). If these behavioral responses, rather than financial strain itself, drove the property crime cycle we document, we would expect to see effects flatten out after the first few days following payment. The fact that property crime specifically rises through the weeks following payment, and rises further still when payment falls further from the first of the month, when major bills such as rent typically come due, points to resource depletion and the timing of major expenses as the mechanism at work. To our knowledge, this paper is the first to document the effect of misaligned transfers on crime, and it provides the cleanest evidence to date on the shape of property crime over the assistance payment cycle.

Our results suggest that a low-cost, budget-neutral change to the payment schedule, moving payday closer to the first of the month, could meaningfully reduce property crime. Our counterfactual simulation, detailed in the Online Appendix, finds that had BC paid income assistance on the last business day of the month throughout our sample period, as Ontario currently does, property crime in Vancouver would have been 4.2 percent lower, or roughly 30,700 fewer reported offenses, with the large majority of this reduction attributable to reduced misalignment rather than to the accompanying elimination of the longer five-week cycle. This estimate speaks only to the specific channels we study; we cannot rule out that moving payday to a different day of the week, rather than simply a different Wednesday, would introduce its own effects on crime, independent of misalignment.²¹

²¹Stam et al. (2024) find that weekend disbursement specifically raises both DUI crime (18 percent) and public order offenses (10 percent) in the Netherlands, consistent with a story in which “weekend disbursement stimulates consumption complementary to criminal behavior, both in the form of the consumption of (il)licit substances, as well as certain leisure activities (e.g., committing public disorder in nightlife areas)” (Stam et al., 2024). This is in line with prior evidence that food stamp benefits disbursed on a weekend are associated with increased alcohol purchases (Castellari et al., 2015, 2017). Our simulated schedule change moves payday to the last business day of the month, which by construction excludes weekends, so this specific mechanism would not itself apply to the policy we simulate; day-of-week effects nonetheless remain a real, undemonstrated consideration for any change to a transfer program’s

Several recent studies evaluate alternative approaches to transfer scheduling more broadly. A number of studies examine staggered disbursement of SNAP benefits across recipients within a state (Carr and Packham, 2019, 2021; Xu, 2026), and a randomized trial evaluates alternative income assistance schedules in BC itself (Richardson et al., 2021). Because transfers have historically clustered around the beginning of the month, staggering disbursement across recipients typically moves receipt away from the first of the month for at least some of them, increasing exactly the kind of misalignment we study here; our results suggest this could raise property crime among those affected. But staggered designs also introduce mechanisms absent from our own setting, most notably the ability to smooth resources within a household or community when different members receive transfers on different days, which has been found to reduce food insecurity and financial strain toward the end of the month (Cotti et al., 2021). Richardson et al. (2021)’s randomized trial of alternative BC assistance schedules illustrates both the promise and the risk of this kind of intervention: desynchronizing payments across individuals, or splitting them into smaller installments, reduced drug-use escalations around payday but increased participants’ exposure to violence, plausibly because desynchronization left some recipients visibly holding cash while others in their social network did not. The policy change we simulate here differs since it shifts the shared Wednesday payday closer to the first of the month without desynchronizing it across recipients, and so would not introduce the same differential-visibility channel. A change in when income assistance is paid, without changing how much or introducing new inequality in its timing across recipients, could offer a rare policy lever for reducing property crime that comes at limited fiscal cost.

payment schedule.

Figures and Tables

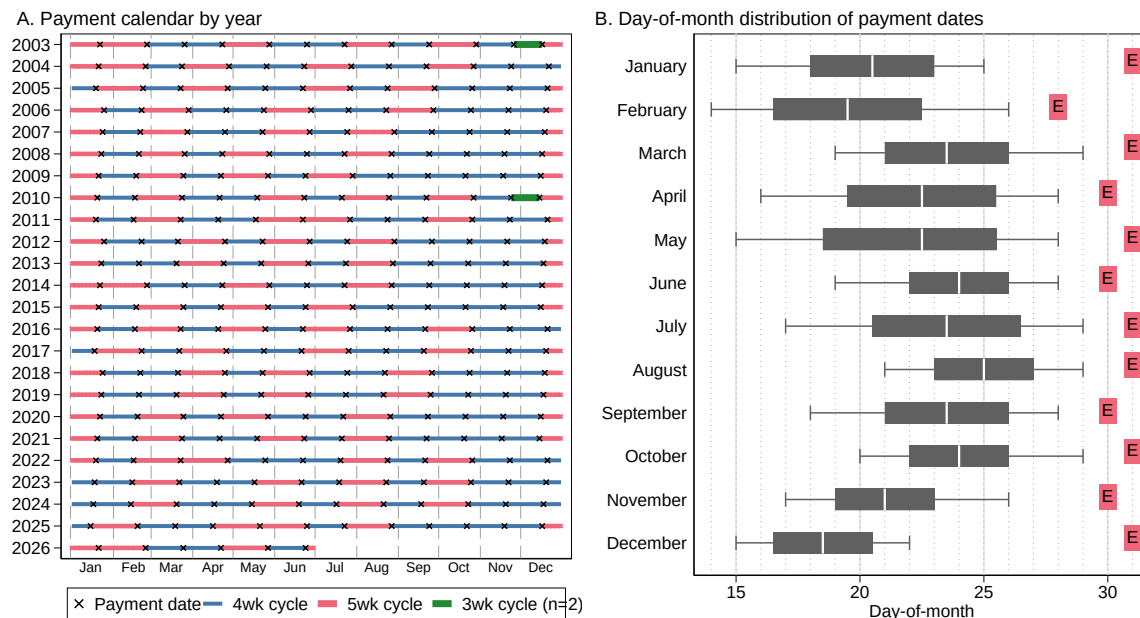


Figure 1: Institutional Variation in Payment Timing. Panel A plots the timing and length of every payment cycle from 2003 through 2026, one row per year: horizontal segments trace each cycle from one payday to the next, distinguishing 4-week (28-day) from 5-week (35-day) cycles, with payment dates themselves marked separately. Two cycles, one in 2003 and one in 2010, run just 21 days (three weeks) instead of the usual 28 or 35, marked in green. Panel B plots the day-of-month on which payment fell, grouped by the calendar month in which the payment was made (since payments are made near the end of a month to cover the following month's expenses, the box for a given month reflects payments intended for the month after it), as a box-and-whisker plot: the box spans the interquartile range (25th to 75th percentile) with a line at the median, whiskers extend to the most extreme day-of-month values. The marker above each box denotes that month's actual last calendar day (28 for February, 30 for April, June, September, and November, and 31 otherwise), for comparison against the payment-date distribution.

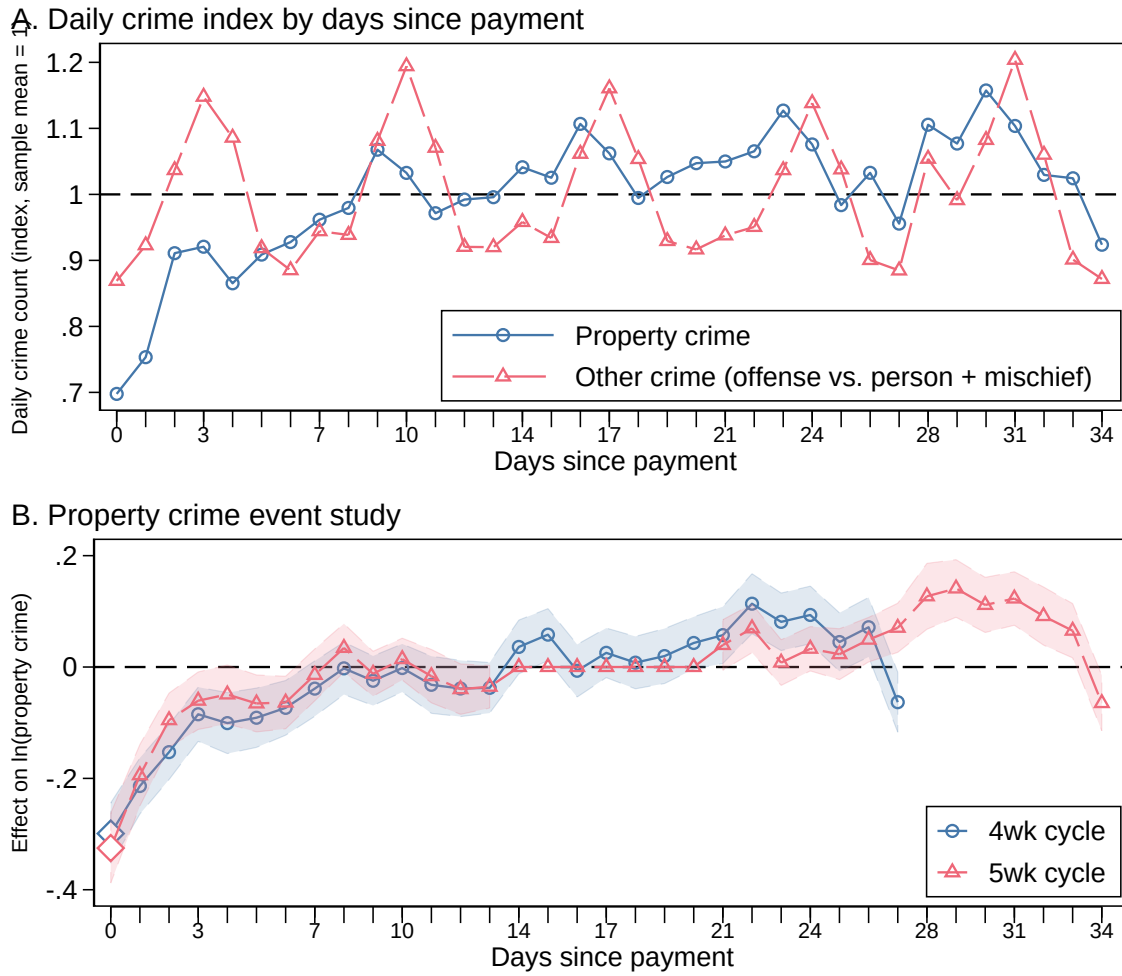


Figure 2: Property Crime over the Payment Cycle. Panel A plots average daily property and non-property crime by day since payment. Panel B plots event-study coefficients (and 95% confidence intervals) from a fully saturated version of equation (1) for total property crime; days 14-20 is the omitted reference category. Controls include weather (maximum and minimum temperature, maximum wind speed, precipitation), holiday indicators, day-of-week indicators, indicators for days since the Canada Child Benefit payment, and indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions; year and month by day-of-month fixed effects are absorbed.

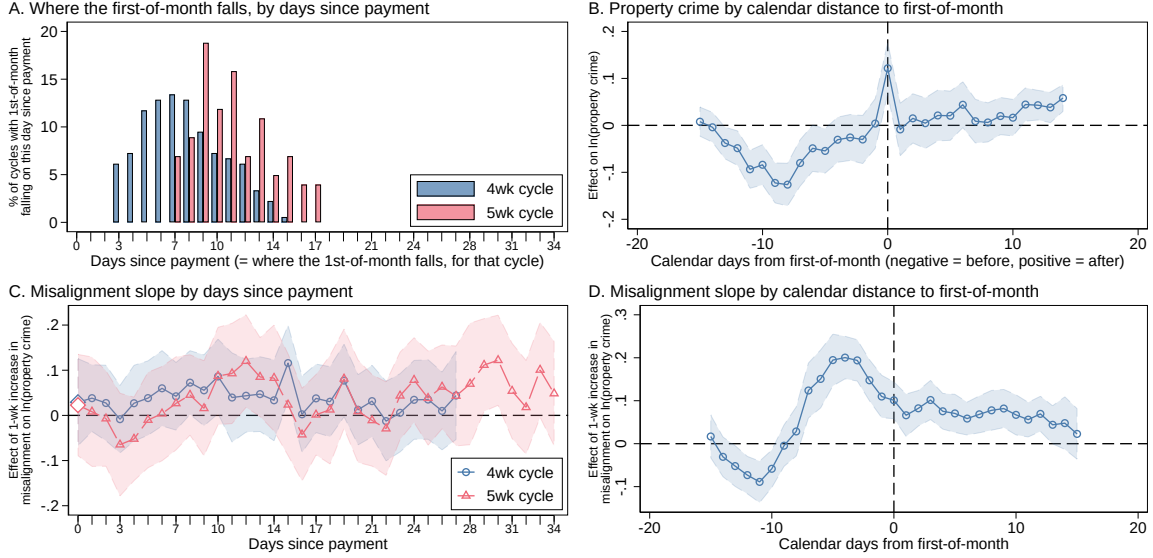
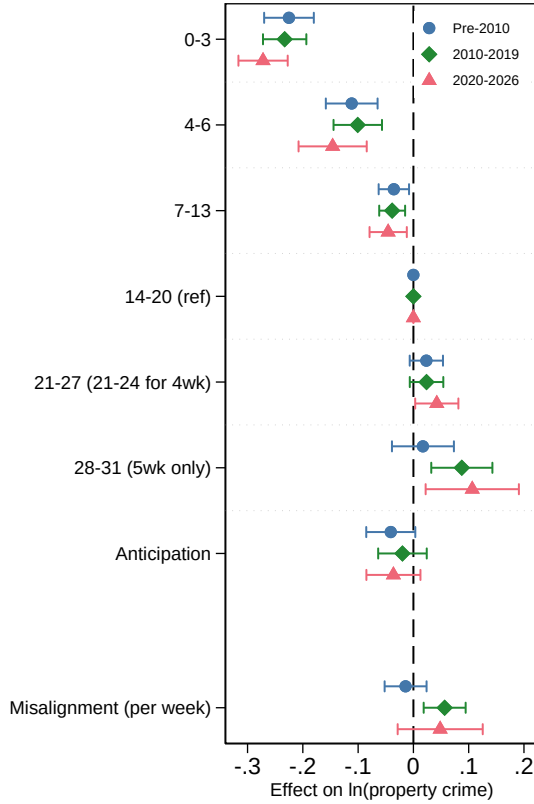


Figure 3: Property Crime by Degree of Misalignment. Panels A and C index by days since payment: Panel A plots where the first-of-the-month falls (in days since payment) for each cycle type; Panel C plots the misalignment slope (effect of a one-week increase in misalignment) by day since payment, separately for 4-week and 5-week cycles. Panels B and D instead index by calendar distance to the first-of-the-month, independent of payment timing: Panel B plots property crime levels by calendar distance to the first; Panel D plots the misalignment slope by calendar distance to the first. Panel B estimates $\ln(\text{Crime}_t) = \sum_k \beta_k \text{CalDist}_t^k + X_t' \alpha + \varepsilon_t$, where CalDist_t^k are indicators for each day's calendar distance to the first-of-the-month (negative values before, positive after; $\text{CalDist} = +15$, roughly mid-month, is the omitted reference category), with year, month, and day-of-week fixed effects and the same weather and holiday controls as equation (1). Panel D adds interactions between each CalDist_t^k indicator and Misalignment_t to the Panel B specification and plots the coefficients on those interaction terms.

A. Heterogeneity by decade



B. Heterogeneity by IA policy regime

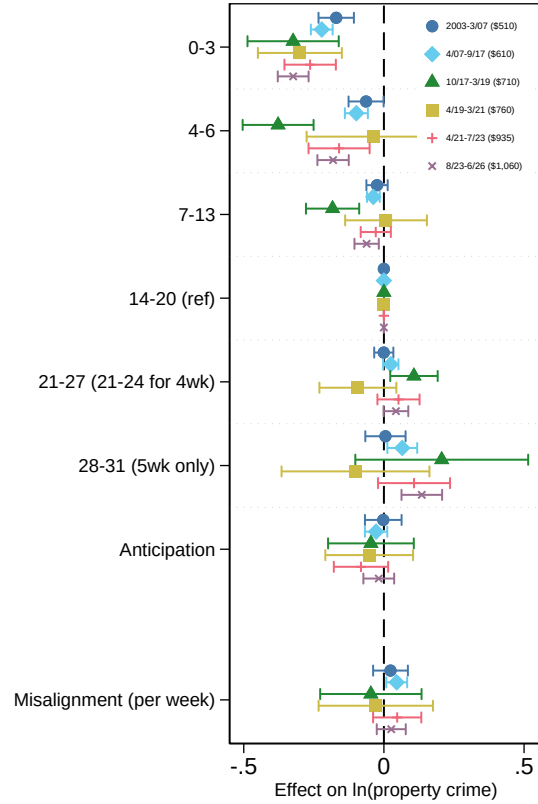


Figure 4: Heterogeneity by Decade and by IA Policy Regime. This figure plots estimated effects of the payment cycle and misalignment on property crime separately by decade (Panel A) and by IA policy regime (Panel B), estimating the same model (Section 4) on each subsample rather than a different specification. Panel B's six periods are bounded by every verified change in the combined support allowance plus maximum shelter allowance for a single employable individual on income assistance, shown in the legend: \$510 (2003–March 2007), \$610 (April 2007–September 2017), \$710 (October 2017–March 2019), \$760 (April 2019–March 2021), \$935 (April 2021–July 2023), and \$1,060 (August 2023–June 2026). Rates are drawn from BC Ministry of Social Development and Poverty Reduction rate tables (2019–2026) and from the Ministry's historical rate data for 2003–2019 (Section 2). The combined support-plus-maximum-shelter rate for a single person on disability assistance changed on the same dates throughout: \$786 (2003–March 2007), \$906 (April 2007–September 2017), \$1,133 (October 2017–March 2019), \$1,183 (April 2019–March 2021), \$1,358 (April 2021–July 2023), and \$1,484 (August 2023–June 2026).

Table 1: Income assistance payment timing and property crime

	(1) Total property	(2) Less serious	(3) More serious
<i>Days since payment</i>			
Days 0-3	-0.218*** (0.011)	-0.232*** (0.011)	-0.177*** (0.023)
Days 4-6	-0.100*** (0.013)	-0.109*** (0.013)	-0.088*** (0.025)
Days 7-13	-0.041*** (0.007)	-0.048*** (0.008)	-0.023 (0.016)
Days 21-27 (21-24 for 4wk)	0.037*** (0.008)	0.038*** (0.009)	0.034** (0.015)
Days 28-31 (5wk only)	0.092*** (0.016)	0.094*** (0.017)	0.075*** (0.028)
Anticipation (last 1-3 days)	0.000 (0.012)	-0.003 (0.012)	-0.004 (0.022)
Misalignment (per week)	0.034** (0.014)	0.028* (0.014)	0.051*** (0.019)
Observations	8,540	8,540	8,540

Days 14-20 is the omitted reference category. Standard errors clustered by payment cycle in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Controls include weather (max/min temperature, max wind speed, precipitation), holiday indicators, day-of-week indicators, days since Canada Child Benefit payment, and indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions; year and month x day-of-month fixed effects are absorbed. Less serious property crime includes theft from vehicles, theft of bicycles, and other non-vehicle theft; more serious property crime includes commercial and residential break-ins and vehicle theft.

Declaration of Generative AI and AI-Assisted Technologies in the Manuscript Preparation Process

During the preparation of this work, the author(s) used Claude (Anthropic) to assist with editing manuscript text and code for analysis and figure and table generation in Stata. After using this tool, the authors reviewed and edited the content and take full responsibility for the content of the published article.

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Online Appendix

A. Supplemental Figures and Tables

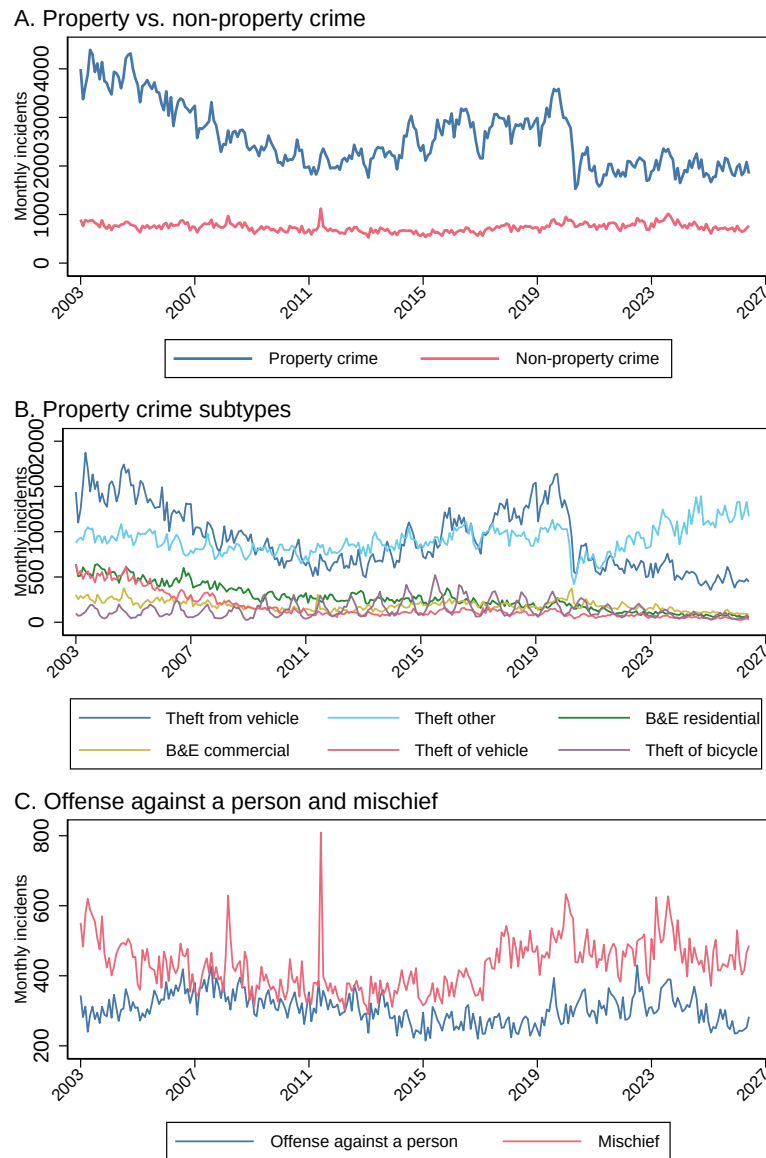
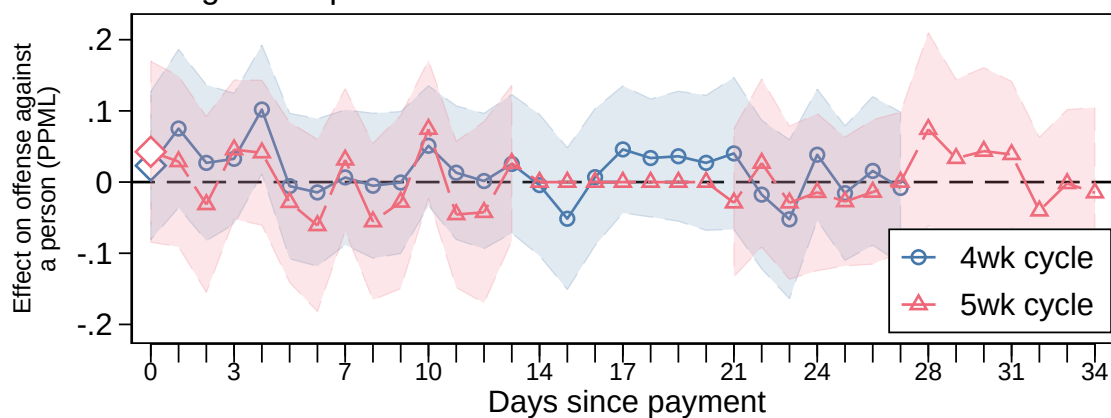
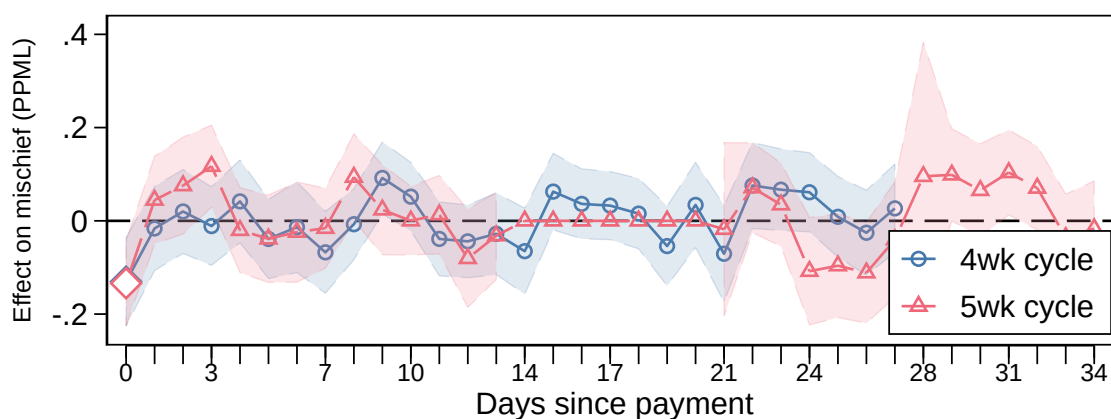


Figure A1: Monthly Time Series by Crime Category, 2003–2026. Panel A plots monthly totals of property crime versus other crimes reported to VPD (offenses against a person, and mischief combined). Panel B plots monthly totals for the six property crime subtypes. Panel C plots monthly totals for offenses against a person and mischief specifically.

A. Offense against a person



B. Mischief



C. Vehicle collisions

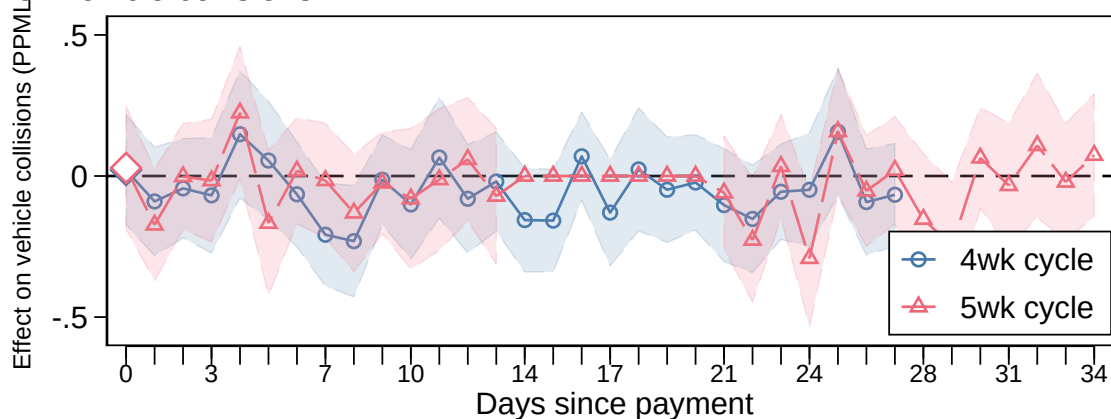
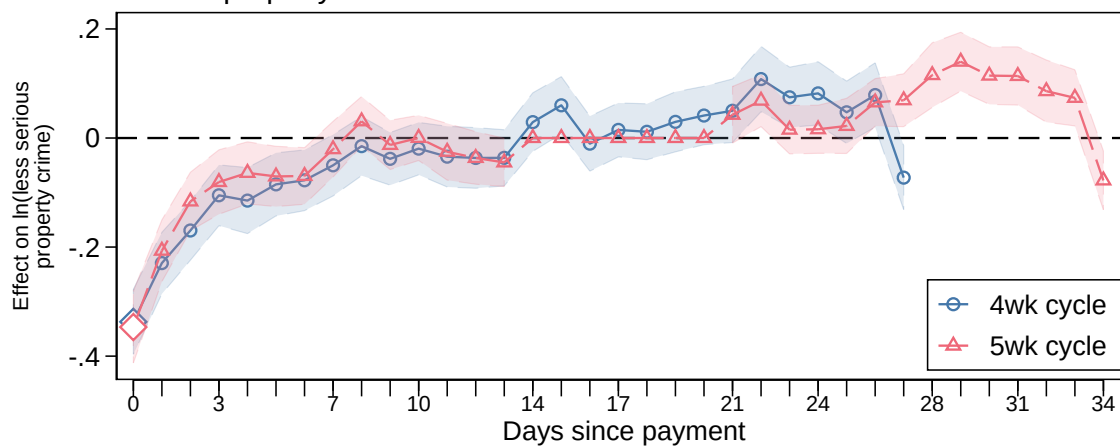


Figure A2: Event-Study Estimates for Non-Property Incidents. This figure plots event-study coefficients (with 95% confidence intervals) for offenses against a person, mischief, and traffic collisions, estimated by PPML as in Appendix Table A2 and corresponding to the regressions reported there.

A. Less serious property crime



B. More serious property crime

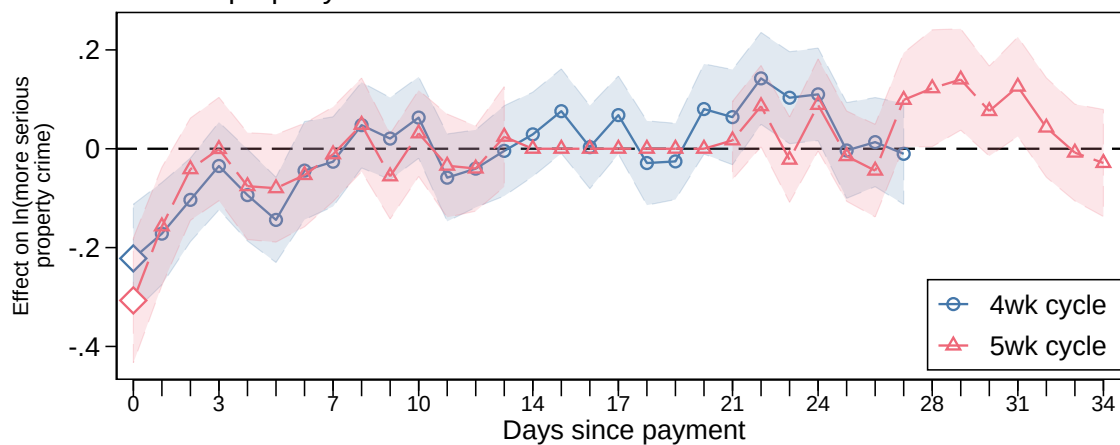


Figure A3: Event-Study Estimates for Less Serious versus More Serious Property Crime. This figure plots event-study coefficients (with 95% confidence intervals) separately for the less serious and more serious property crime categories used in Table 1.

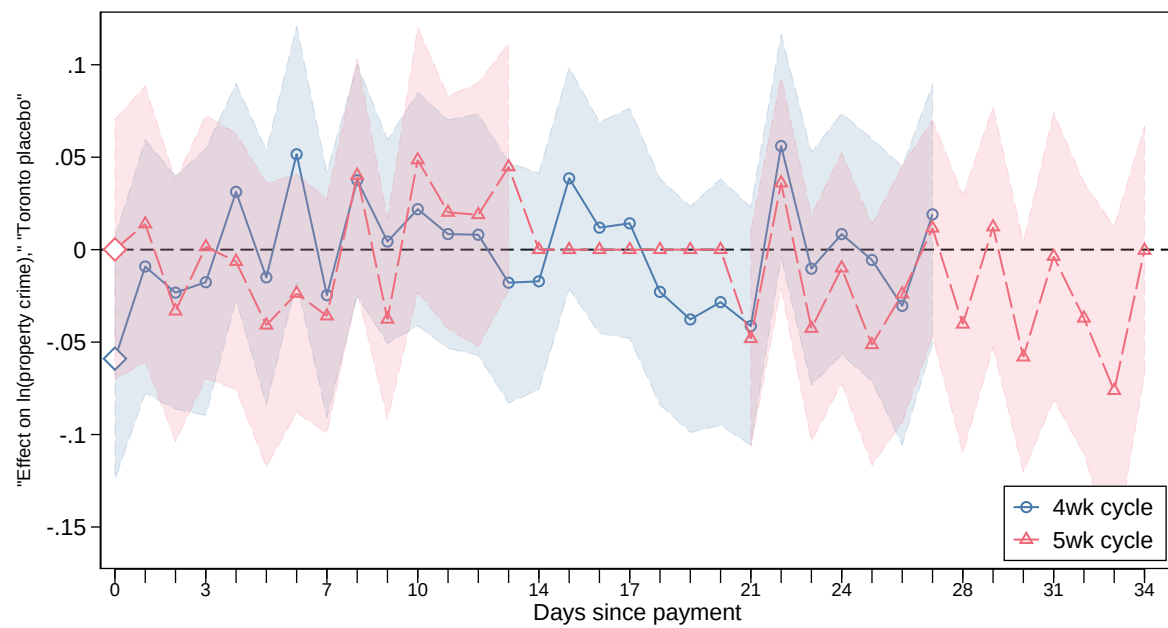


Figure A4: Toronto Placebo Event Study. This figure plots event-study coefficients for property crime in Toronto, separately for 4-week and 5-week cycles, estimated by imposing BC's income assistance payment calendar on Toronto's own crime data, corresponding to Appendix Table A4.

Table A1: Robustness: incremental fixed effects

	(1)	(2)	(3)	(4)	(5)	(6)
	Year+month +dow FE	+ day-of- month FE	+ weather	+ month-by-day- of-month FE (primary spec)	PPML	OLS, rate per 100k
<i>Days since payment</i>						
Days 0-3	-0.231*** (0.010)	-0.220*** (0.011)	-0.221*** (0.010)	-0.218*** (0.011)	-0.207*** (0.010)	-2.627*** (0.139)
Days 4-6	-0.125*** (0.012)	-0.108*** (0.012)	-0.107*** (0.012)	-0.100*** (0.013)	-0.096*** (0.012)	-1.025*** (0.165)
Days 7-13	-0.049*** (0.007)	-0.045*** (0.007)	-0.046*** (0.007)	-0.041*** (0.007)	-0.039*** (0.007)	-0.327*** (0.100)
Days 21-27 (21-24 for 4wk)	0.043*** (0.008)	0.038*** (0.008)	0.039*** (0.008)	0.037*** (0.008)	0.032*** (0.008)	0.151 (0.108)
Days 28-31 (5wk only)	0.085*** (0.016)	0.094*** (0.016)	0.093*** (0.016)	0.092*** (0.016)	0.083*** (0.015)	0.660*** (0.215)
Anticipation (last 1-3 days)	-0.017 (0.011)	-0.007 (0.011)	-0.007 (0.011)	0.000 (0.012)	0.004 (0.011)	-0.263* (0.148)
Misalignment (per week)	0.016 (0.013)	0.021 (0.013)	0.023* (0.013)	0.034** (0.014)	0.027** (0.013)	0.386** (0.165)
Observations	8,540	8,540	8,540	8,540	8,540	8,540
Mean of outcome (daily rate)						13.13

Days 14-20 is the omitted reference category. Standard errors clustered by payment cycle in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All columns include holiday and CCB payment-date controls, not reported. Columns 1-4 use OLS on $\ln(\text{property crime})$, the paper's primary specification; column 5 uses PPML (property crime in levels) at the column 4 fixed-effect structure, as an alternative-estimator check; column 6 uses OLS in levels on the population-adjusted property crime rate (per 100,000 Vancouver residents), same fixed-effect structure – the coefficient there is a direct level effect on the rate, not a semi-elasticity. Column 1: year, month, and day-of-week fixed effects (no day-of-month, no weather). Column 2 adds day-of-month fixed effects (separate from month, not interacted). Column 3 adds weather controls to column 2. Column 4 (primary specification) replaces separate month and day-of-month fixed effects with their interaction, matching the main text's fixed-effect structure; day-of-week stays absorbed as a fixed effect here rather than entered as controls, as in Table 1. Column 6's population estimates are from BC Stats (City of Vancouver, July 1 municipal estimates); 2026 carries forward the 2025 figure since no official estimate is available yet.

Table A2: Payment timing and non-property incidents (appendix)

	(1) Offense against a person	(2) Mischief	(3) Collisions
<i>Days since payment</i>			
Days 0-3	0.024 (0.023)	-0.044** (0.020)	0.010 (0.038)
Days 4-6	0.013 (0.025)	0.010 (0.026)	-0.001 (0.050)
Days 7-13	0.004 (0.019)	-0.004 (0.015)	-0.046 (0.032)
Days 21-27 (21-24 for 4wk)	-0.019 (0.015)	-0.027 (0.022)	-0.015 (0.032)
Days 28-31 (5wk only)	0.040 (0.027)	0.052 (0.036)	-0.037 (0.050)
Anticipation (last 1-3 days)	-0.020 (0.025)	0.019 (0.025)	-0.019 (0.046)
Misalignment (per week)	0.016 (0.014)	-0.006 (0.016)	0.013 (0.028)
Observations	8,540	8,540	8,540

Days 14-20 is the omitted reference category. Standard errors clustered by payment cycle in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimated by PPML (Poisson pseudo-maximum likelihood), property crime in levels, as in Table 1 column 5: collisions have a non-trivial share of zero-count days (26.9 percent), and offenses against a person have a small share (0.05 percent). Controls include weather (max/min temperature, max wind speed, precipitation), holiday indicators, day-of-week indicators, days since Canada Child Benefit payment, and indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions; year and month x day-of-month fixed effects are absorbed. Category definitions follow the VPD OpenData Crime Incidents Description: offense against a person is an attack on a person causing harm that may include use of a weapon, encompassing violent incidents such as robbery, assault, sexual assault, and domestic assault, but excluding assaults against police; mischief is willfully causing malicious destruction, damage, or defacement of property, including public mischief directed at another person; collisions combines the VPD's vehicle collision or pedestrian/cyclist struck categories, with injury and with fatality.

Table A3: Payment timing and property crime subtypes (appendix)

	(1)	(2)	(3)	(4)	(5)	(6)
	B&E commercial	B&E residential	Theft from vehicle	Theft of bicycle	Theft of vehicle	Theft other
<i>Days since payment</i>						
Days 0-3	-0.208*** (0.033)	-0.195*** (0.026)	-0.232*** (0.017)	-0.255*** (0.038)	-0.078** (0.033)	-0.207*** (0.014)
Days 4-6	-0.080* (0.042)	-0.095*** (0.029)	-0.087*** (0.020)	-0.159*** (0.039)	-0.009 (0.039)	-0.114*** (0.014)
Days 7-13	-0.041* (0.024)	-0.015 (0.019)	-0.042*** (0.013)	-0.078*** (0.026)	0.006 (0.025)	-0.045*** (0.010)
Days 21-27 (21-24 for 4wk)	0.028 (0.027)	0.019 (0.019)	0.024* (0.014)	0.062*** (0.024)	0.019 (0.026)	0.036*** (0.010)
Days 28-31 (5wk only)	0.142*** (0.048)	0.034 (0.030)	0.077*** (0.024)	0.081* (0.046)	-0.011 (0.043)	0.097*** (0.019)
Anticipation (last 1-3 days)	0.068* (0.035)	-0.021 (0.024)	0.010 (0.018)	-0.057 (0.037)	-0.038 (0.038)	0.001 (0.014)
Misalignment (per week)	0.038 (0.027)	0.018 (0.021)	0.050** (0.023)	-0.055 (0.034)	0.059** (0.030)	0.015 (0.013)
Observations	8,540	8,540	8,540	8,540	8,540	8,540

Days 14-20 is the omitted reference category. Standard errors clustered by payment cycle in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimated by PPML (Poisson pseudo-maximum likelihood), property crime in levels, as in Table 1 column 5: several of these outcomes have a non-trivial share of zero-count days, including B&E commercial, B&E residential, theft of bicycle, and theft of vehicle. Controls include weather (max/min temperature, max wind speed, precipitation), holiday indicators, day-of-week indicators, days since Canada Child Benefit payment, and indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions; year and month x day-of-month fixed effects are absorbed.

Table A4: Toronto placebo: property crime under BC's payment calendar

	(1)	(2)
	Vancouver (2014-2026)	Toronto (placebo)
<i>Days since payment</i>		
Days 0-3	-0.257*** (0.015)	-0.014 (0.015)
Days 4-6	-0.124*** (0.019)	0.022 (0.016)
Days 7-13	-0.038*** (0.011)	0.009 (0.010)
Days 21-27 (21-24 for 4wk)	0.032*** (0.012)	-0.004 (0.011)
Days 28-31 (5wk only)	0.098*** (0.023)	-0.022 (0.019)
Anticipation (last 1-3 days)	-0.007 (0.016)	0.001 (0.017)
Misalignment (per week)	0.055** (0.021)	-0.022 (0.017)
Observations	4,564	4,546

Days 14-20 is the omitted reference category. Standard errors clustered by payment cycle in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Controls include weather (max/min temperature, max wind speed, precipitation), holiday indicators, day-of-week indicators, days since Canada Child Benefit payment, and indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions; year and month x day-of-month fixed effects are absorbed. Both columns restricted to 2014-2026, the window with dense Toronto crime coverage. Toronto placebo imposes BC's payment calendar on Toronto's own property crime and weather.

Table A5: Misalignment split by proximity to the first-of-the-month

	(1)	(2)	(3)
	Total property	Less serious	More serious
<i>Days since payment</i>			
Days 0-3	-0.208*** (0.012)	-0.222*** (0.014)	-0.172*** (0.024)
Days 4-6	-0.097*** (0.013)	-0.105*** (0.014)	-0.086*** (0.025)
Days 7-13	-0.044*** (0.008)	-0.050*** (0.008)	-0.024 (0.016)
Days 21-27 (21-24 for 4wk)	0.041*** (0.008)	0.042*** (0.009)	0.036** (0.015)
Days 28-31 (5wk only)	0.100*** (0.016)	0.102*** (0.017)	0.078*** (0.029)
Anticipation (last 1-3 days)	0.006 (0.012)	0.004 (0.012)	-0.002 (0.022)
<i>Cycle payment relative to first-of-the-month</i>			
Within 7 days of the 1st (per week)	0.051*** (0.019)	0.046** (0.020)	0.059** (0.029)
8+ days from the 1st (per week)	0.029** (0.014)	0.023 (0.015)	0.049** (0.020)
Observations	8,540	8,540	8,540

Days 14-20 is the omitted reference category. Standard errors clustered by payment cycle in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Controls include weather (max/min temperature, max wind speed, precipitation), holiday indicators, day-of-week indicators, days since Canada Child Benefit payment, and indicators for the Stanley Cup riot week, the Winter Olympics, and COVID-era restrictions; year and month x day-of-month fixed effects are absorbed. Splits the pooled misalignment slope reported in Table 1 into a component within 7 days of the following first-of-month and a component 8 or more days away.

Table A6: Income Assistance Payment Dates, 2003–2026

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	22	26	26	23	28	25	23	27	24	29	26	17
2004	21	25	24	28	26	23	28	25	22	27	24	22
2005	19	23	23	27	25	22	27	24	28	26	23	21
2006	25	22	29	26	24	28	26	23	27	25	22	20
2007	24	21	28	25	23	27	25	29	26	24	21	19
2008	23	20	26	23	28	25	23	27	24	22	19	17
2009	21	18	25	22	27	24	29	26	23	21	18	16
2010	20	17	24	21	19	23	21	25	22	27	24	15
2011	19	16	23	20	18	22	27	24	21	26	23	21
2012	25	22	21	25	23	27	25	29	26	24	21	19
2013	23	20	20	24	22	26	24	28	25	23	20	18
2014	22	26	26	23	28	25	23	27	24	22	19	17
2015	21	18	25	22	27	24	29	26	23	21	18	16
2016	20	17	23	20	25	22	27	24	21	26	23	21
2017	18	22	22	26	24	21	26	23	20	25	22	20
2018	24	21	21	25	23	27	25	22	26	24	21	19
2019	23	20	20	24	22	26	24	21	25	23	20	18
2020	22	19	25	22	27	24	22	26	23	21	18	16
2021	20	17	24	21	19	23	21	25	22	20	17	15
2022	19	16	23	27	25	22	20	24	21	26	23	21
2023	18	15	22	19	17	21	19	23	20	25	22	20
2024	17	14	20	17	15	19	17	21	18	23	20	18
2025	15	19	19	16	21	25	23	27	24	22	19	17
2026	21	25	25	22	27	24	—	—	—	—	—	—

Each cell reports the day of the month on which BC Income Assistance was disbursed in Vancouver, for the month heading that column. Blank cells (2026 only) fall after the end of the sample (June 2026). Payment for a given calendar month generally arrives near the end of the prior month; see Section 2 for details. Compiled from the BC Ministry of Social Development’s published payment schedules and, for years not available there, the Internet Archive’s Wayback Machine and a public information request filed with the Ministry.

B. Counterfactual Simulation: Paying on the Last Business Day of the Month

To gauge the potential scale of moving the payment date, we simulate what property crime in Vancouver would have looked like had BC instead paid income assistance on the last business day of each month, the rule Ontario currently uses, rather than on a Wednesday with at least three banking days remaining in the month. This alternative rule changes two things relative to the actual schedule: payday moves to within a day or two of the following first-of-the-month for every cycle, so misalignment shrinks to near zero, and the payment cycle becomes a smooth 28 to 31 days rather than mechanically alternating between 28 and 35 days.

We first estimate a fully flexible version of equation (1): rather than the six day-group indicators used in Table 1, we include a separate indicator for every individual day since payment (0 through 27 for four-week cycles, 0 through 34 for five-week cycles), together with the same linear misalignment slope and the same controls and fixed effects as our main specification. This gives us a day-specific effect for every point in the actual payment cycle, along with a single estimated misalignment slope.

We then construct a counterfactual payment calendar covering the same sample period, in which payday for each month falls on that month’s last business day (the last calendar day, or the preceding Friday if the last day is a Saturday or Sunday). For every day in our sample, this counterfactual calendar implies a hypothetical days-since-payment value and a hypothetical misalignment value, which we compare to the day’s actual values. Because our model is estimated in logs, we predict counterfactual crime on day t as

$$\widehat{\text{Crime}}_t^{CF} = \text{Crime}_t \times \exp \left[(\hat{\beta}_{d^{CF}(t)} - \hat{\beta}_{d(t)}) + \hat{\gamma}(\text{Misalignment}_t^{CF} - \text{Misalignment}_t) \right], \quad (2)$$

where Crime_t is the day’s actual reported property crime count; $\hat{\beta}_{d(t)}$ and $\hat{\beta}_{d^{CF}(t)}$ are the estimated day-specific effects at day t ’s actual and counterfactual positions in the payment cycle; $\hat{\gamma}$ is the estimated misalignment slope; and Misalignment_t and $\text{Misalignment}_t^{CF}$ are day t ’s actual and counterfactual misalignment values. The bracketed term is just the change in the two payment-timing components of equation (1) alone, so equation (2) rescales each day’s actual crime count by the predicted proportional effect of moving only its payment-cycle position, holding fixed everything else: weather, holidays, day-of-week, and the year and month by day-of-month fixed effects all stay at their true, observed values, since none of these change under the counterfactual. One complication: since real payment cycles are always exactly 28 or 35 days, a few of the counterfactual calendar’s smoother cycle lengths, such as 30 or 31 days, have no exact real-world counterpart late in the cycle. For example, a 31-day counterfactual cycle’s day 28, still three days from the next payment, is matched directly to the same day-since-payment value observed in actual five-week cycles, which run all the way through day 34. A 30-day counterfactual cycle’s day 29, only one day from the next payment, is instead matched to the estimated effect one day before payment in actual cycles, averaged across four-week and five-week cycles, since real cycles of either length agree closely that close to payday. This way, every counterfactual day is matched to a genuinely observed point in the payment cycle rather than an extrapolation.

Summing $\widehat{\text{Crime}}_t^{CF}$ and Crime_t separately across all days in the sample implies that moving payday to the last business day of the month would have reduced property crime in Vancouver by 4.2 percent, or roughly 30,700 offenses, over 2003 through June 2026. We can further separate this into the two channels described above by holding one fixed at its actual value while letting the other move to its counterfactual value. Almost all of the reduction, 3.8 of the 4.2 percentage points (about 27,500 offenses), comes from closing the gap between payday and the first of the month; eliminating the longer five-week cycle on its own accounts for a much smaller reduction, about 0.5

percentage points (roughly 3,300 offenses).

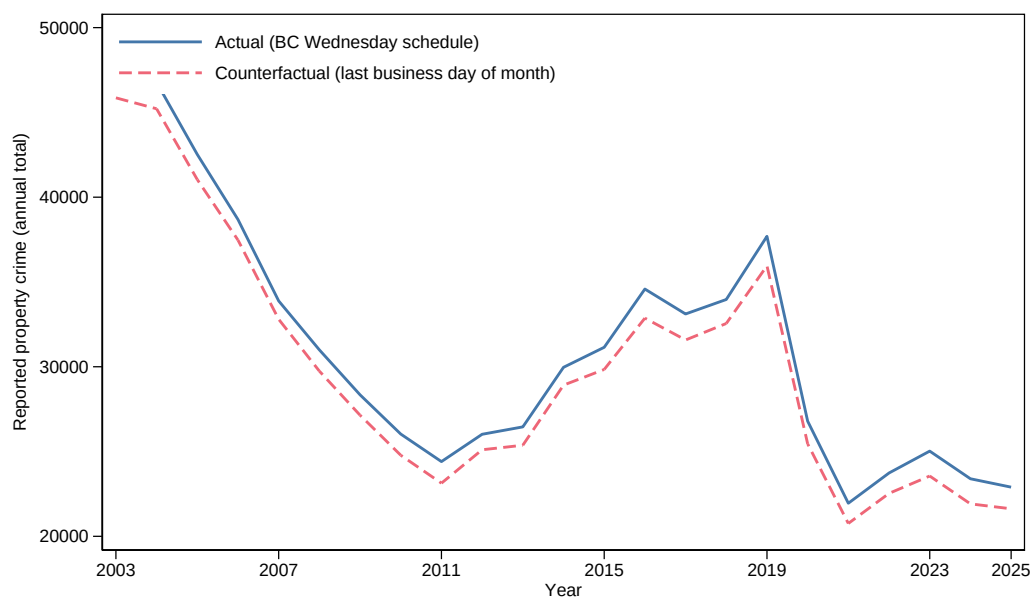


Figure B1: Actual versus Counterfactual Property Crime by Year, 2003–2025. This figure plots annual totals of reported property crime under the actual BC Wednesday payment schedule against the predicted counterfactual totals under a last-business-day-of-the-month schedule, obtained by summing Crime_t and $\widehat{\text{Crime}}_t^{CF}$ from equation (2) within each calendar year. 2026 is excluded since the sample ends in June and so does not cover a full calendar year.