Minnesota's Driver's License Suspension Pilot

Impact Evaluation Report

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Acknowledgements

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Executive Summary

Nearly 30% of children in Minnesota live in single-parent households and reliable child support payments can be an important source of income, particularly for those living in poverty. Many noncustodial parents make consistent child support payments, but some do not or cannot meet their financial obligations. When they do not pay what they owe, the child support agency may take punitive actions including suspending the noncustodial parent's driver's license. Given existing inequities in income, these punitive approaches disproportionately affect parents of color. In recent years, policymakers, child support staff, and families have questioned the effectiveness of this approach in motivating payment, especially among noncustodial parents who may be willing, but unable, to pay.

In 2021, Minnesota's Child Support Division launched a 6-month pilot program in 12 counties to reform the driver's license suspension process. It aimed to improve customer service and reduce license suspensions when they were unlikely to motivate payments or were inappropriate for the case. If county child support workers determined that a license suspension would be inappropriate, they could take other approaches to non-payment. These included more flexible options, working with noncustodial parents to identify barriers to payment, and connecting them to supports that could help bring them into compliance over time.

In this evaluation, we examined the impact of the pilot program by comparing noncustodial parents who received pilot services to similar parents who did not. The analysis followed parents for 12 months after the pilot to test for differences in outcomes between the pilot and business-as-usual groups. We found that:

- The pilot temporarily increased communication between child support workers and noncustodial parents.
- The rate of license suspensions decreased by 12 percentage points in the pilot group, relative to business-as-usual; in other words, for every eight noncustodial parents in the pilot, one license suspension was prevented.
- Pilot workers reviewed the individual circumstances of each case, which resulted in a 25 percentage point increase in administratively stopping the suspension process before it went through.
- The pilot produced a 4 percentage point reduction in payment compliance during the first six months; this effect was lessened by 12 months. The change in the average amount of money paid between the pilot and business-as-usual groups was not statistically significant.
- Noncustodial parents in the pilot group were more likely to receive arrears management (a form of debt forgiveness), but no more likely to have their child support order reviewed for a possible modification.
- The pilot appeared to reduce disparities in some outcomes for African Americans compared with White noncustodial parents, including license suspensions and the use of payment agreements and arrears management.

The results point to the pilot's success in achieving the goals of improved customer service and reduced suspensions, as well as closing some of the disparities between White and African American parents. At the same time, it had a small negative impact on payment compliance. This information can be used to inform policy and practice changes and suggests that more intensive services may be needed to improve child support payments, especially among disadvantaged populations.

Introduction

In 2022, 27% of children in Minnesota lived with a single parent (The Annie E. Casey Foundation). Child support payments can be an important source of income for these families, particularly those living in poverty (Grall, 2020). Most noncustodial parents (NCPs) pay their child support consistently, however, many do not or cannot pay. When NCPs do not meet their obligations, child support programs have several approaches that they can use to induce payments, including tax refund interceptions, court hearings, or driver's license suspensions. Recently, policymakers, child support staff, and families have questioned the effectiveness of these actions in increasing payments, particularly among NCPs who may be willing to pay, but unable due to low income (Selekman & Johnson, 2019).

One common tool to induce payment is driver's license suspension (DLS). For some NCPs, this may be counterproductive to motivating payments. An analysis by Meyer et al. (2020) examined correlations between different types of child support enforcement tools and payments. Their analysis showed that some actions, like warning letters, court hearings, and being found in contempt were associated with future payments; however, while the threat of a license suspension was often followed by a payment, it did not have lasting effects. Further, following through on suspending an NCP's license was associated with a *lower* likelihood of beginning to pay. This could be evidence of a license suspension limiting the NCP's ability to maintain employment. Indeed, NCPs say that transportation issues are a major barrier to employment and paying child support (Berger et al., 2021) and it could be particularly salient in rural areas (Cadigan & Kirk, 2020).

A recent review of disproportionalities and disparities in child support concluded that the "race neutral" policies that many child support agencies adopt ignore the vastly disparate historical and economic realities that BIPOC NCPs face (Kim, Liptrot-Ploch, & Meyer, 2023). Low-income NCPs, especially Black and other NCPs of color, are more likely to have difficulty meeting their child support obligations and face punitive enforcement actions as a result, such as a license suspension or even incarceration (Brinig, 2017). These child support policies and discrimination in other domains of life can compound challenges for BIPOC NCPs, further impacting their ability to comply with their financial obligation.

In Minnesota, roughly 1 in 5 NCPs with a child support obligation have a license suspended for non-payment. A report from the current project found that only about half of NCPs whose licenses were suspended actually possessed valid licenses to begin with, making the threat of suspension unlikely to effectively motivate payment (Solmeyer et al., 2023).[1] In addition, an internal analysis from early 2020 showed that DLS was much more common among American Indian (42%) and African American (29%) NCPs compared to white NCPs (18%). Given these disparities, along with the uncertainty about whether license suspensions result in increased payments, Minnesota's Child Support Division (CSD) implemented and evaluated a pilot program to change the DLS process using a procedural justice-informed approach.

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[1] In 2023, the state legislature revised state statute so that starting in 2026, license suspensions will only be done in instances where the NCP has a valid license to suspend (Minnesota Statutes 2023, section 518A.65 [https://www.revisor.mn.gov/statutes/2023/cite/518A.65]).

Procedural justice and social services programs

Peoples' experiences with government services can be frustrating – there may be a lack of transparency in the process, a perception that decisions are arbitrary or unfair, or a need for more support in completing complicated tasks. One of the priorities in the Walz-Flannagan Administration's One Minnesota Plan is to [improve customer experience](https://mn.gov/mmb/one-mn-plan/measurable-goals/customer-experience.jsp) (https://mn.gov/mmb/one-mn-plan/measurable-goals/customer-experience.jsp) with services offered by the State of Minnesota, reducing complexity, improving satisfaction in the state, and, ultimately, improving equitable provision of services.

One approach to improving people's interactions with government is incorporating procedural justice principles. This involves adjusting processes so that residents feel respected, understood, that they have a voice, that decisions are made in a neutral way, and that staff are helpful (Rodney, 2019). In theory, when individuals perceive that the process was fair, they are more likely to comply with the outcome whether it is favorable for them or not. These principles have been tested in different settings, but with an emphasis on civil or criminal justice processes (Farley et al., 2014; Tyler 2007; Gold, 2013). The results have been mixed, with some findings suggesting that perceptions of fairness predict better compliance, and others finding no association.

Recently, researchers have begun studying the impact of procedural justice principles in child support settings. The Procedural Justice-Informed Alternatives to Contempt (PJAC) demonstration was developed by the federal Office of Child Support Services (OCSS) and included six child support agencies from across the country. It focused on NCPs who had been identified as "able to pay" their child support but were not compliant and had been referred for civil contempt. Civil contempt proceedings can be expensive, create barriers to employment, and are often counterproductive to the goals of the child support program. In PJAC, specially trained child support staff conducted intensive casework and planning to help NCPs address the underlying reasons for non-payment and connect them to services and supports, rather than filing for civil contempt. The goal was to increase child support payments and consistency through a more fair and effective approach. Although PJAC did reduce contempt filings, it did not have the desired effect on payments; instead, payments decreased, with NCPs who received the procedural justice-informed services paying about $159 less in one year (a decrease of 2.3% in compliance) in contrast to the business-as-usual group (Skemer, 2023).

Another national evaluation, the Child Support Noncustodial Parent Employment Demonstration (CSPED), tested the effectiveness of enhanced child support services on increasing NCP compliance. Although these services were not specifically informed by procedural justice principles, they aimed to reduce punitive enforcement actions and increase supportive actions, such as expedited review of child support orders, employment services, and parenting classes. A randomized control trial in eight states found that, although the enhanced services led to an increase in NCP satisfaction with child support agencies and a sense of responsibility for their children, it did not have an effect on payments or employment outcomes (Cancian, Meyer, & Wood, 2022).

Other studies, however, have found evidence to suggest that similar programs do result in higher payments. In Iowa, frontline child support staff were trained to proactively reach out to NCPs and engage in positive communication with them. They were encouraged to use phone and email scripts and to tailor options and resources to an NCP's specific situation, with the end goal of increasing payments among NCPs who consistently paid some, but not all, of their child support obligation. NCPs who received the enhanced services paid on

average $25 more per month (a 6% increase in compliance), compared to NCPs who were not assigned to the trained child support staff (Lee et al., 2020).

Taken together, these studies present a mixed picture of the potential impacts of practices that are designed to be less punitive and more focused on supporting NCPs to increase their ability to meet their child support obligations. Moreover, only one examined differences by NCP race/ethnicity and found similar effects across White, Black, and Hispanic NCPs (Skemer, 2023).

Building on the PJAC demonstration, OCSS invited states to apply to become peer learning sites; Minnesota's CSD was selected for the program. To evaluate the pilot program, CSD partnered with Minnesota Management & Budget's Impact Evaluation Unit. This report presents findings from that impact evaluation.

Minnesota's procedural justice pilot for driver's license suspension

In designing the procedural justice pilot program, CSD decided to focus on NCPs at risk of having their license suspended. (Counties also worked with NCPs who already had licenses suspended but that was not part of this evaluation.) CSD aimed to improve the customer service that NCPs received from county child support agencies and reduce license suspensions in cases when it was not appropriate. While increasing child support payments was not a goal of the pilot, CSD wanted to understand the impact the changes had on child support payment and order compliance. Minnesota began the 6-month pilot program in October 2021. Twelve pilot counties (see Figure 1) adapted their standard DLS processes using procedural justice principles, with a goal of increasing trust, respect, fairness, and understanding around systems and processes.

Figure 1 Counties that participated in the pilot
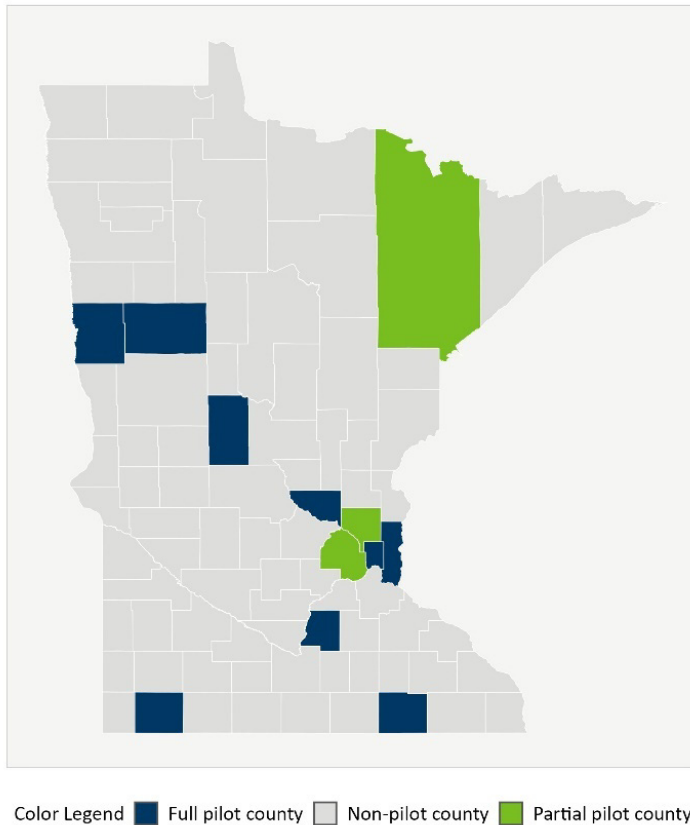
The DLS process in Minnesota is highly automated and is shown in Figure 2. It begins with a case becoming "selected" when it meets criteria for a possible suspension – when the NCP is at least $500 in arrears and has accrued arrears of at least three times the monthly obligation.[2] When a case is selected, the county child support worker is alerted to review the case to determine if it is appropriate to proceed to the next stage. After 30 days in the selected stage, a case moves to being "noticed" for a license suspension if it still meets criteria for suspension. At this point, the agency mails a written notice to the last known address on file informing the NCP that, unless they act in the next 90 days, their license will be suspended. The pilot program focused on this approximately 100-day period between when a case was selected for a DLS and when the license was sent to the Department of Public Safety for suspension.

Before the pilot began, pilot workers participated in trainings on intercultural competence and procedural justice. They implemented new protocols to proactively reach out to NCPs at risk of license suspensions during the selected or noticed stage. Pilot counties also redesigned their written and verbal messages to make the process more transparent and provide workers with flexible options. Nine counties[3] trained all staff to use the

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[2] Minnesota Statutes 2023, section 518A.65 (https://www.revisor.mn.gov/statutes/cite/518A.65). There are additional programming and technical criteria that are taken into consideration as well.
[3] Becker, Clay, Le Sueur, Mower, Nobles, Ramsey, Sherburne, Todd, and Washington Counties

new pilot procedures; the remaining three (Anoka, Hennepin, and St. Louis) trained a subset of workers. In those three counties, only the cases that were assigned to the trained pilot workers received the pilot treatment. See Solmeyer and colleagues (2023) for more details on the pilot procedures and implementation.

A critical component of the new pilot processes was the case assessment, when workers gained a holistic understanding of the NCP using case history data and conversations with the NCP to determine whether a license suspension was appropriate (*i.e.*, if it would be likely to motivate compliance), or if it could have a harmful effect on the NCP and/or their children. Completing a case assessment was a significant change to business-as-usual (BAU) practices and required additional staff time to review the case circumstances and reach out to NCPs. If a worker determined that a license suspension could be harmful, they worked with NCPs to find alternative solutions.

If a license suspension was not appropriate, one alternative was working out a payment agreement, which is a plan that considers the NCP's obligation and their financial circumstances.[4] In the BAU processes, a payment agreement often requires a "good faith" payment up front; this expectation was removed from the pilot. Pilot workers were also encouraged to use graduated payment agreements, which allow the NCP to work up to paying the full amount owed over time. If the monthly obligation amount seemed too high for the NCP's ability to pay, workers could initiate a case review, the first step toward an order modification aimed to ensure "right-sized" child support orders. They were also encouraged to check the NCP's eligibility for arrears management, which can reduce debt owed to Minnesota for public assistance[5], and less commonly, arrears owed to custodial parents (this requires agreement from the custodial parent). Case workers could also connect NCPs to supports such as SNAP, disability services, and referrals to employment services.

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[4] Minnesota Statutes 2023, section 518A.69 (https://www.revisor.mn.gov/statutes/cite/518A.69)
[5] Minnesota Statutes 2023, section 518A.62 (https://www.revisor.mn.gov/statutes/cite/518A.62)

Figure 2 Driver's license suspension process for business-as-usual (in blue) and pilot (in red/underlined)

Case selected

- 3x monthly obligation and at least $500 in arrears, NCP is not in compliance with written payment agreement, and payments are not being made through income withholding or unemployment
- Automated selection, workers get alert to review case

30 days

Notice of intent mailed

- NCP informed that license will be suspended unless they a) Pay off all arrears, b) Request a court hearing within 30 days, or c) Enter a payment agreement

Case assessment*

- Worker reviews case information; proactively reaches out to NCP to discuss their options and barriers to payment
- NCP is mailed a procedural justice-informed outreach letter to engage them around the license suspension
- Worker connects NCP with available services (e.g., arrears management)
- Worker determines whether a license suspension is appropriate; if not, stops the process

90 days

Outcome

- Not suspended if a), b), or c) is done; in the pilot, payment agreements did not require the usual "good faith" payment up front and workers received additional training on graduated payment agreements
- If nothing is done, even if payments resume, license will be suspended within 100 days of notice
- Workers can use a "stop" remedy option in limited instances; in the pilot, more training, flexibility, and guidance on this

Note: NCP, noncustodial parent. * The case assessment could happen at any point during the selected or noticed stage.

Based on the case assessment, child support workers could also stop the suspension from occurring if certain conditions were met; this is known as a "suppression." For example, if they saw that the NCP had made three consecutive full payments, or if there was evidence that recent payments had come through income withholding. These would both indicate that the NCP was likely to continue paying after a temporary delay; for example, if they started a new job and income withholding was in process. Although options for suppression were also available in the BAU approach, they were more limited in scope and therefore rarely used. The pilot created guidelines for child support workers to use when suppressing a DLS, provided training, and made suppression more broadly accessible.

A descriptive study (Solmeyer et al., 2023) provided analysis on the pilot implementation, showing that child support workers completed case assessments for roughly half of the NCPs who were identified for the pilot; the remaining half did not have case assessments recorded. Of the cases with assessments, workers determined that suspensions were not appropriate in roughly 1/3 of the cases simply by reviewing the information they already had access to in the case file; the remaining 2/3 of cases required a conversation between the worker and the NCP. Pilot workers were able to reach nearly half of the NCPs that they attempted to contact, which was a success story in the pilot implementation.

An examination of race and ethnicity differences showed that the pilot was implemented similarly across all race and ethnic groups, except for the final step in the pilot process. It required workers to attempt to contact some NCPs at least twice through different modes of communication. They were most successful at making contact with White NCPs, and least successful contacting Asian NCPs and NCPs whose race was unknown.

Research questions

This study builds on the initial descriptive analysis to test whether the pilot program resulted in the changes it aimed to make. The evaluation examines differences between NCPs who received the pilot program and similar NCPs who did not receive the program. The primary outcomes of interest are the amount of contact between NCPs and child support workers, license suspensions, and the effects of pilot processes on child support payments and order compliance. If the pilot has its intended effects, we would expect to see that NCPs who received the pilot program have more contact with child support workers and a lower likelihood of having their driver's license suspended, without negatively impacting child support payments. These were identified as primary outcomes because they were the main things that CSD aimed to change with the pilot.

We also examined the pilot's impact on several secondary outcomes, which were not final outcomes of the pilot, but rather help explain how the pilot worked. First, we looked at whether pilot workers were more likely to suppress a license suspension before it went into effect. We also tested indicators that the pilot resulted in workers exploring other options in lieu of license suspensions, including payment agreements, and other services in addition to addressing driver's license suspension, such as arrears management and initiating a case review for a potential order modification. Finally, we examined whether there were changes in NCP and custodial parent (CP) receipt of public assistance as a measure of workers helping to connect parents to services for which they were eligible.

We conducted a race analysis that tested whether any of these primary or secondary outcomes varied between White and African American NCPs. This was an exploratory analysis to shed light on whether or how observed racial disparities changed for NCPs who received the pilot program.

Methods and data

Study design

This evaluation is an observational, retrospective matched-cohort study comparing outcomes among NCPs selected for DLS who received a case assessment by a pilot child support worker (we call these the "pilot NCPs"),

to NCPs selected for DLS whose cases were not part of the pilot ("business-as-usual (BAU) NCPs"). BAU NCPs could have cases managed by non-pilot counties, or, in Anoka, Hennepin, and St. Louis County, by child support workers who were not part of the pilot. We matched each pilot NCP with up to two BAU NCPs who were similarly situated at the time they were selected for DLS (see Appendix A). All study aims, hypotheses, and analytic methods were pre-registered with Open Science Framework (https://osf.io/d39hb).

Each NCP in both the pilot and BAU groups was assigned a "selection date," the date that they were selected for a DLS and included in the study. The selection dates ranged from July 17, 2021 through March 19, 2022. The baseline and follow-up time periods are centered around each individual's selection date (see Figure 3). The baseline period was 24 months prior to the person's selection date and the follow-up period was 12 months after the person's selection date. Data was aggregated into 6-month periods, for a total of four baseline periods (19-24 months, 13-18 months, 7-12 months, and 1-6 months prior to the selection date) and two follow-up periods (1-6 months and 7-12 months after the selection date). The earliest baseline period began in July 2019 and the latest baseline period began in March 2020[6]; the earliest follow-up period began in July 2021 and the latest follow-up period began in March 2022.

Figure 3 Study timeline showing baseline and follow-up periods for three theoretical noncustodial parents

	July19-Dec19	Jan20-June20	July20-Dec20	Jan21-June21	July21-Dec21	Jan22-June22	July22-Dec22	Jan23-June23
NCP 1	-4	-3	-2	-1	1	2		
NCP 2		-4	-3	-2	-1	1	2	
NCP 3			-4	-3	-2	-1	1	2
		COVID WAIVERS						

Note: Gray boxes indicate baseline periods, purple boxes with dots and stripes indicate follow-up periods. The bold red line indicates when the NCP was selected for a potential license suspension and entered the study. NCP, noncustodial parent.

Data sources

The primary data source for this study was PRISM, the state's child support data system that allows state and county workers to enforce child support orders and includes records of child support obligations, payments, enforcement actions, and demographic information.[7] We used the case assessment forms that pilot workers completed to identify which NCPs were assessed and received the pilot treatment. We used MAXIS (the state's data system used to determine eligibility for public assistance and health care) to identify NCPs and CPs who

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[6] The baseline period spans the state's peacetime emergency for the COVID pandemic, which began on March 20, 2020 and ended on July 1, 2021. During that time, the Department of Human Services commissioner authorized a waiver that directed counties to stop, or suppress, all new driver's license suspensions (along with some other enforcement actions). When the waiver expired, counties were told to remove the suppressions. After the suppression ended, cases that continued to meet the criteria for license suspensions would subsequently be selected for a DLS.

[7] A data sharing agreement between DHS and MMB allows secure sharing between the two agencies.

were receiving public assistance. Data from the U.S. Census Bureau was also matched with home address from PRISM to identify the Social Vulnerability Index (CDC, 2022), a measure of socioeconomic context, for each NCP.

Participants

To be included in the study, NCPs must have been selected for a DLS between July 2021 and March 2022. The state CSD sent pilot counties a list of cases each month that were newly selected or noticed that month for a DLS, and the NCP had at least one type of current contact information in PRISM. To identify a similar group of BAU NCPs, we began by finding NCPs in the remaining 65 non-pilot counties[8] who were selected for a DLS in the same time frame and had current contact information on file. We also included BAU NCPs who had cases that were selected for DLS in the three partial pilot counties (Anoka, Hennepin, and St. Louis) but were *not* assigned to workers trained in pilot procedures. Appendix B includes a chart showing the flow of participants through the eligibility criteria and how we arrived at the final sample, which included 722 NCPs in the pilot group and 1,440 in the BAU group.

Outcome measures

Outcomes were aggregated into six-month summary periods, with four periods before the DLS selection date and two periods after, described above. These summaries were either cumulative (number of contacts between NCP and child support worker, payment compliance, number of months with any payment, amount paid, and public assistance benefits received) or indicated if the event ever happened in the six-month period (DLS, payment agreement entered, suppression of DLS, case review initiated, and arrears management). All outcomes were measured at the person level, meaning that if a person had more than one active case the outcomes were measured across all the active cases. For example, compliance with the NCP's child support order was calculated as the total payment on any active case divided by the total order summed across all active cases. Outcomes are listed in Table 1 (see Appendix C for details on how communication and arrears management were coded).

Statistical models

To address our research questions, we used generalized linear models with generalized estimating equations (GEE). These models estimate the main effects of interest – the average effect of the pilot on NCP outcomes during the two follow-up periods – following a differences-in-differences methodology. This method compares the changes in the pilot NCPs, relative to their outcomes at baseline, to the changes in the BAU NCPs over the same time period. GEE models account for correlations in data (due to repeated observations of individuals and the selection of matched clusters) by adjusting the standard errors (a measure of statistical variation) of the parameter (effect) estimates.

For the race analysis, we estimated whether the effect was different for White NCPs than it was for African American NCPs. This analysis is referred to as a "difference-in-difference-in-differences" (DDD) model. This method estimates whether the treatment had different effects and in which direction those differences were,

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[8] There are 87 counties in MN; some have shared human services departments. There are a total of 77 unique counties/groups of counties.

rather than whether the treatment was effective in any given group. We limited the formal statistical tests to comparing the effects for White and African American NCPs, because the other race and ethnicity groups were not large enough in the sample to produce reliable estimates. We do report the average outcomes for all race and ethnicity groups in the Appendix.[9]

Table 1. Outcome measures

Primary outcomes	
Outcome measure	**Coding**
Communication between noncustodial parents (NCPs) and child support workers	Count, number days with any attempted or completed communication instances via email, phone, text, letter, or in-person (excluding automated or system-generated communications)
Driver's license suspension (DLS)	1 = Any suspension during period; 0 = No suspension during period
Compliance with child support order (%)	Total current payment / Total current obligation (current support obligation + monthly obligation on arrears), capped at 100%
Number of months with any child support payment	Count, 0 to 6
Payment amount	Cumulative payment over 6 months across all cases
Secondary outcomes	
Outcome measure	**Coding**
Payment agreement entered	1 = Yes; 0 = No
License suspension "suppressed" because worker determined it was not appropriate	1 = Yes; 0 = No
Started case review for potential support order modification	1 = Yes; 0 = No
Arrears management	1 = Yes; 0 = No
Amount of public assistance noncustodial parent (NCP)/Custodial parent (CP) received[10]	Cumulative public assistance amount over 6 months

Results

Participants

The final sample included 722 pilot NCPs and 1,440 matched BAU NCPs. Table 2 shows the baseline characteristics for NCPs in the pilot and matched BAU groups (demographic information about the CPs

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[9] The data also includes "Other" and "Unknown" race categories; we do not report these because it is difficult to draw conclusions about these groups.

[10] For this analysis, public assistance included any public benefits that are available in MAXIS; the vast majority of assistance in this analysis comes through SNAP and MFIP. Other programs in the MAXIS system used by NCPs and CPs included IV-E foster care, Diversionary Work Program, Emergency Assistance, General Assistance, Group Residential Housing, and Minnesota Supplemental Aid. SNAP and MFIP made up 88% of MAXIS approvals for NCPs and 94% for CPs.

associated with NCPs in the study can be found in Appendix D). Forty two percent of NCPs in each group were White, 28% were Black/African American, and race was unknown or "other" for 20%. The remainder of the sample was approximately evenly split among Hispanic, Asian/Pacific Islander, and American Indians. The vast majority (93%) were male and the average age was 37 years. A little over half lived in the metro area (37% from Hennepin and Ramsey Counties and 17% from other metro counties). Slightly more than one third lived in Greater MN.

Table 2. Baseline characteristics (current as of selection date) of noncustodial parents in the pilot and matched business-as-usual groups

Characteristic	Pilot Group (N = 722)	Matched BAU Group (N = 1,440)
Race, N (%)		
White	306 (42%)	611 (42%)
Black/African American	199 (28%)	401 (28%)
Other/Unknown	142 (20%)	269 (19%)
Hispanic/Latina/o/x	27 (4%)	68 (5%)
Asian/Pacific Islander	24 (3%)	55 (4%)
American Indian/Alaskan Native	24 (3%)	36 (3%)
Male, N (%)	668 (93%)	1,324 (92%)
Age, mean (SD)	37.4 (8.2)	37.4 (8.5)
Geographic region, N (%)		
Metro core[a]	264 (37%)	516 (36%)
Central MN	167 (23%)	333 (23%)
Metro collar[b]	121 (17%)	240 (17%)
Northern MN	50 (7%)	106 (7%)
Southern MN	49 (7%)	115 (8%)
Midwest outside MN	28 (4%)	54 (4%)
Other USA	26 (4%)	45 (3%)
Unknown	17 (2%)	31 (2%)
# of children, mean (SD)	2.1 (1.4)	2.1 (1.4)
Age of youngest child, mean (SD)	9.1 (5.5)	9.2 (5.7)
# of cases, N (%)		
1	498 (69%)	991 (69%)
2 or more	224 (31%)	449 (31%)
# of months since oldest open case was established, mean (SD)	105 (70.8)	107 (73.2)
NCPs whose case(s) was arrears-only, N (%)	11 (2%)	25 (2%)
Total obligation (current support obligation + monthly obligation on arrears) past 6 months, mean (SD)	$2,892 ($2,713)	$2,852 ($2,630)
Total amount paid in past 6 months, mean (SD)	$1,129 ($1,984)	$1,082 ($1,431)

Note: Race and other variables with multiple categories are ordered by the number of people in each group. NCP, noncustodial parent. BAU, business-as-usual. SD, standard deviation.

[a] Hennepin and Ramsey Counties. [b] Anoka, Carver, Dakota, Scott, and Washington Counties.

Roughly two-thirds of the NCPs had one open child support case, while one-third had two or more. NCPs' oldest open cases had been established between eight and nine years earlier, on average. Almost all NCPs had a monthly child support obligation; just 2% had only arrears to pay. On average, NCPs owed a total of almost $2,900 in their monthly support amount[11] over the six months prior to being selected for a DLS and paid about $1,100 of the owed amount (38% of the obligation). On average, they had made a payment of any amount in two of the previous six months. The average amount of cumulative arrears per NCP on the date of their DLS selection was approximately $9,300 and the median was $2,004.

There were no statistically significant differences between the pilot and matched BAU groups at baseline for measured demographic or outcome variables.

Main impact analyses

Primary outcomes

The results for the primary outcomes are presented in Appendix E (tables) and in the figures in the following pages. The results tables present the mean outcome in each group at each time, as well as the estimated effect of being part of the pilot program. Table 3 presents an overview of pilot program effects compared with BAU over 12 months of follow-up.

Table 3. Summary of pilot program effects during the 12-month follow-up compared to business-as-usual.

Outcome	Result for pilot group
Communication between noncustodial parents (NCPs) and child support workers	Increase
License suspensions	Decrease
Use of options instead of license suspension	
Payment agreements entered	Increase
License suspension "suppressed" (stopped)	Increase
Connections to other supports	
Arrears management	Increase
Started case review for potential support order modification	No change
Amount of public assistance received	No change
Child support payments	
Payment amount	No change
% compliance with ordered amount	Decrease
# of months with any payment	Decrease

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[11] This includes the current support obligation and monthly obligation on arrears.

The pilot temporarily increased contact between child support staff and NCPs (Figure 4B). In the six months before their selected date, NCPs in both groups had communication with child support staff on an average of 1.7 days. For pilot NCPs, communication increased to 4.6 days (95% confidence interval [CI], 4.4 to 4.8) in the first follow-up period, compared with 3.2 days for BAU NCPs (95% CI, 3.0 to 3.3). The pilot increased communication by an average of 1.5 days compared with BAU (95% CI, 1.2 to 1.7). In the second follow-up period, NCPs in both groups had an average of 2.5 days of contact with child support workers, with no significant increase among pilot NCPs.

Figure 4 Pilot and business-as-usual NCP license suspension and contact with child support workers over 36 months.
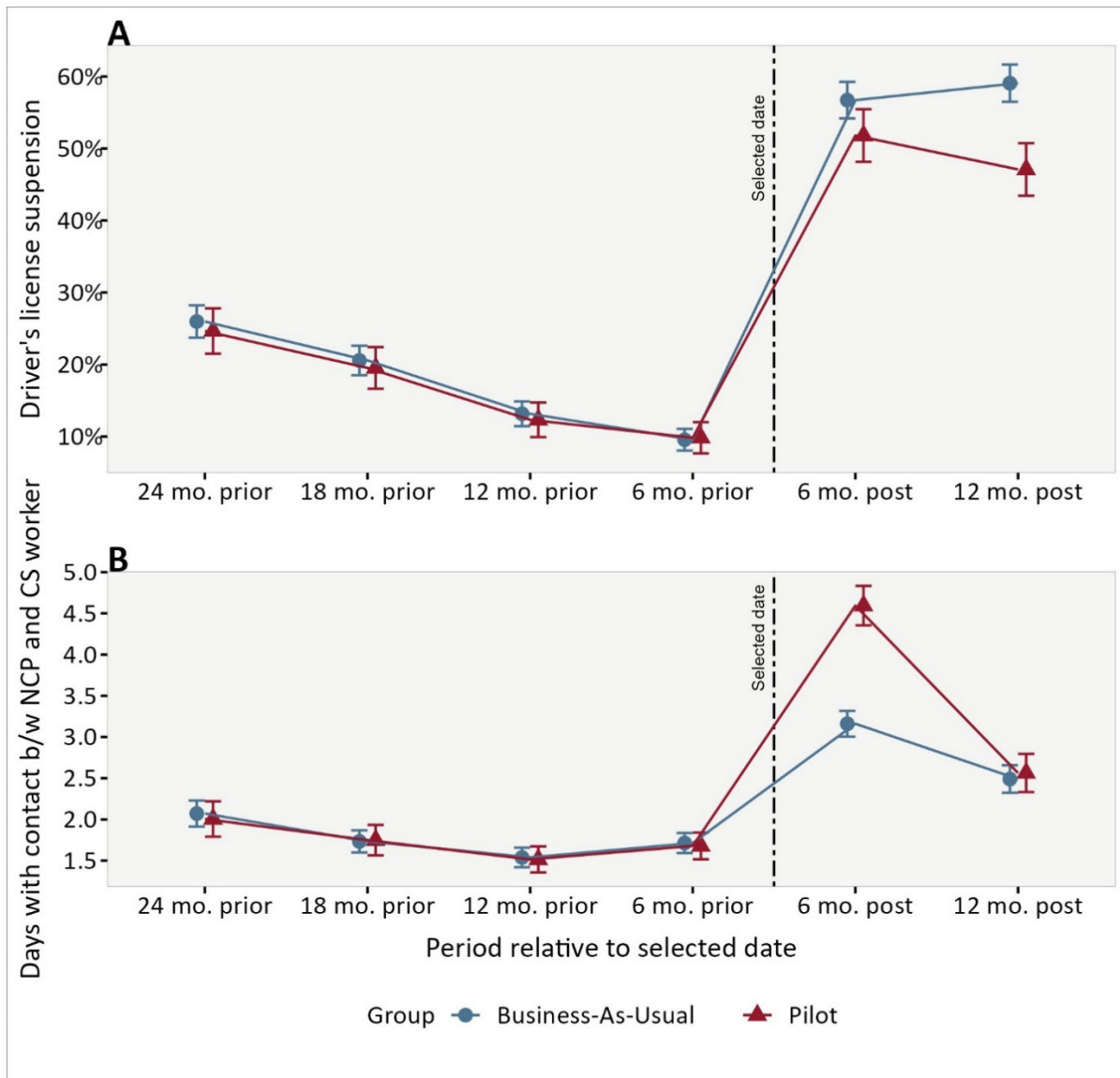
As hypothesized, the pilot significantly reduced driver's license suspensions (Figure 4A and Figure 5). In the six months before being selected, less than 10% of NCPs in both groups had an active license suspension. In the six months after selection, 51.8% of pilot NCPs had a suspension (95% CI, 48.2 to 55.4), compared with 56.7% of

BAU NCPs (95% CI, 54.2 to 59.2). We estimate that pilot participation reduced DLS rates by 5.2 percentage points (95% CI, -10.0 to -0.44). In the second follow-up period, the DLS reduction was even larger, at 12.3 percentage points[12] (95% CI, -17.2 to -7.3).

Figure 5 Approximately 59% of business-as-usual NCPs had a driver's license suspension in the second follow-up period, compared with 47% of pilot NCPs, a difference of 12 percentage points.
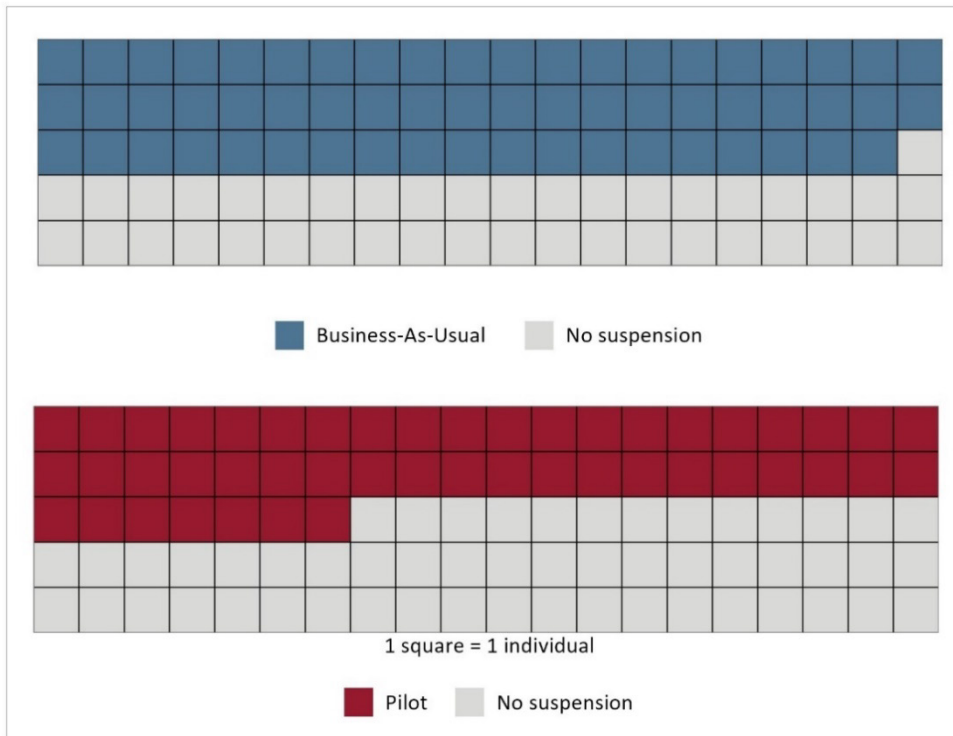

The pilot was associated with a decrease in compliance with child support orders (measured as the percentage paid out of the total amount due) and a decrease in the number of months with any payment in the first six-month follow-up period. During the baseline period, payment compliance for NCPs in the pilot and BAU groups fell to 34%, 6 months before their selected date (Figure 6A). Six months after being selected for DLS, NCPs in both groups increased their compliance, but pilot NCPs increased by 5 percentage points, to 39.0% (95% CI, 36.1 to 42.0); while BAU NCPs increased compliance more, by 9.5 percentage points to 43.5% (95% CI, 41.2 to 45.8). We estimate that the pilot reduced compliance by 4.2 percentage points (95% CI, -8.4 to -.09) in the first six-month follow-up period. In the second follow-up period, compliance was 2.7 percentage points lower among pilot NCPs, which was not statistically significantly different than BAU (95% CI, -6.9 to 1.5). Similarly, we estimate that the pilot reduced the number of months with any amount of child support paid by 0.2 months in the first follow-up (95% CI, -.42 to -.04); there was not a statistically significant difference in the second follow-up (Figure

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[12] Change in "percentage points" means the difference between two percentages of the outcome. In this case, a difference of 12.3 percentage points means that approximately 59 out of every 100 BAU NCPs had a license suspended versus approximately 47 out of every 100 pilot NCPs (Figure 5). Therefore, the pilot avoided suspensions for approximately 12 of 100 pilot NCPs who would otherwise have been expected to have a suspension under BAU.

6B). The difference between pilot and BAU total payment amount over six months was not statistically significant in either follow-up period (Figure 6C).

Figure 6 Pilot and business-as-usual NCP payment outcomes over 36 months
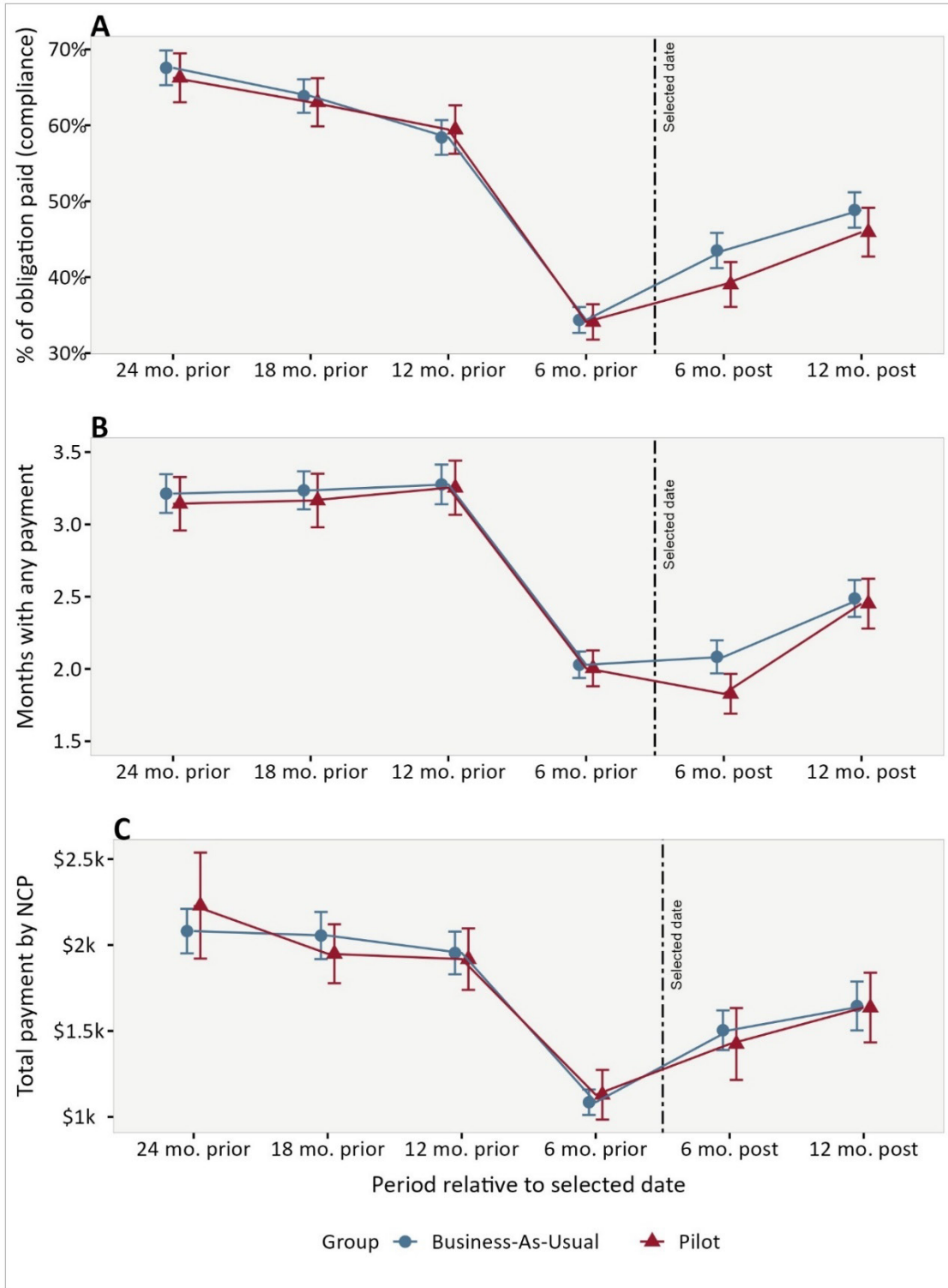
Secondary outcomes

The results for the secondary outcomes are presented in Appendix E (tables) and in the figures in the following pages. Secondary outcomes provide visibility on the ways the pilot workers used other responses to non-payment instead of license suspension (payment agreements, administrative suppressions) and connected NCPs with services and programs that could potentially improve their ability to pay (arrears management, case review for order modification, and public assistance).

Few NCPs in either group (3.7%) had entered into a payment agreement in the six months before their selected date (Figure 7A). In the first six months after selection, 16.6% of pilot NCPs (95% CI, 13.9 to 19.3) had entered a payment agreement, compared with 13.0% of BAU NCPs (95% CI, 11.2 to 14.7). We estimate that there was a 3.9 percentage point increase in payment agreements due to the pilot (95% CI, 0.8 to 7.0). By the second follow-up period there was no significant difference between pilot and BAU NCPs.

Over the two years preceding their selected date, during the COVID waiver period, having a license suspension suppressed increased in each group from approximately 20% to nearly 50% of NCPs (Figure 7B). Suppressions remained stable among pilot NCPs during the two follow-up periods, with 48.1% having a suppression in the first six months (95% CI, 44.4 to 51.7) and 48.2% in the second six months (95% CI, 44.6 to 51.8). Meanwhile, suppressions fell to 26.5% of BAU NCPs in the first six months (95% CI, 24.3 to 28.8) and 23.7% of BAU NCPs in the second six months (95% CI, 21.5 to 25.9). We estimate that the pilot increased suppressions by 22.0 percentage points (95% CI, 16.1 to 28.0) and 25.0 percentage points (95% CI, 19.1 to 30.9) over the two follow-up periods.

Initiating a case review for a possible support order modification was relatively rare in both groups in the six months before the DLS selection date (4.2% overall; Figure 8A). In the first six months of follow-up, workers started a support order review for 7.9% of pilot NCPs (95% CI, 5.9 to 9.9) while workers did the same for 6.2% of BAU NCPs (95% CI, 4.9 to 7.4). In the second follow-up period, reviews were started for 5.3% of pilot NCPs and 5.2% of comparison NCPs. The overall pilot effect was not statistically significant in either time period.

Less than 2% of NCPs in either group had arrears management in the six months before their DLS selection (Figure 8B). There was a slight increase to 2.5% for pilot NCPs (95% CI, 1.4 to 3.6) in the first six months after selection and a larger increase to 7.6% (95% CI, 5.7 to 9.6) in the second six months. Among BAU NCPs, arrears management held steady at 1.8% in the first six months (95% CI, 1.1 to 2.5) with a slight increase to 2.9% in the second follow-up period (95% CI, 2.1 to 3.8). The pilot increased arrears management by 1.1 percentage points in the first follow-up (95% CI, -0.41 to 2.6) and 5.1 percentage points in the second follow-up (95% CI, 2.8 to 7.4) relative to the BAU group.

There was not a statistically significant impact of the pilot on the total amount of public assistance benefits that NCPs or CPs received (Figure 9). The public assistance benefit received by BAU NCPs decreased by $28, from $623 in the six months prior to selection to $595, in the second six-month follow-up period. Meanwhile public assistance received by pilot NCPs increased by $50, from $648 to $702, over the same period. For CPs, the public assistance benefit decreased for both the pilot group (-$617) and BAU group (-$552), between the six months prior to selection and 12 months after selection. The differences between the BAU and pilot groups were small and not statistically significantly different for either NCPs or CPs.

Figure 7. Pilot and business-as-usual NCP payment agreements and suppressions over 36 months.
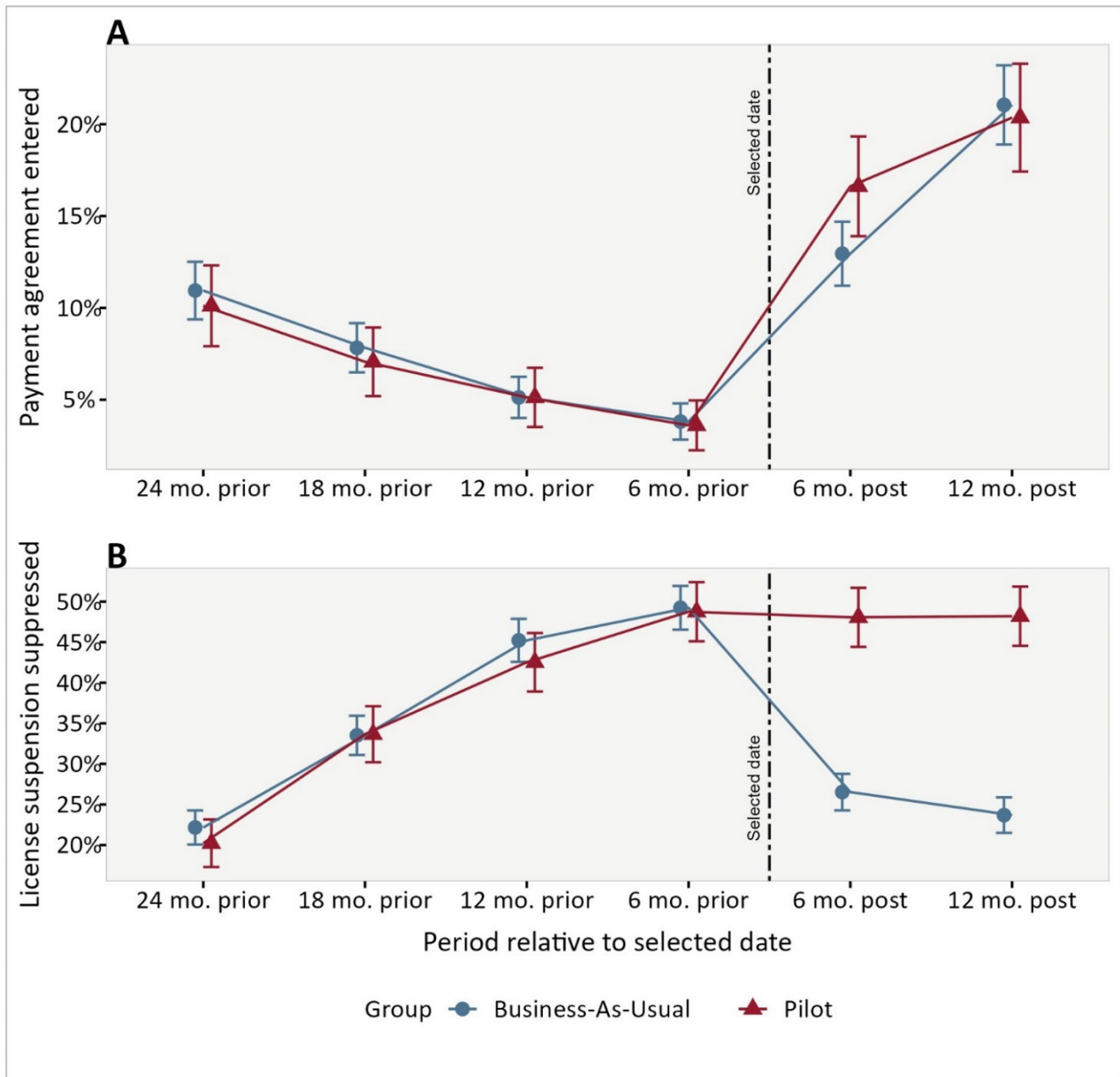
Figure 8. Pilot and business-as-usual NCP case reviews and arrears management over 36 months.
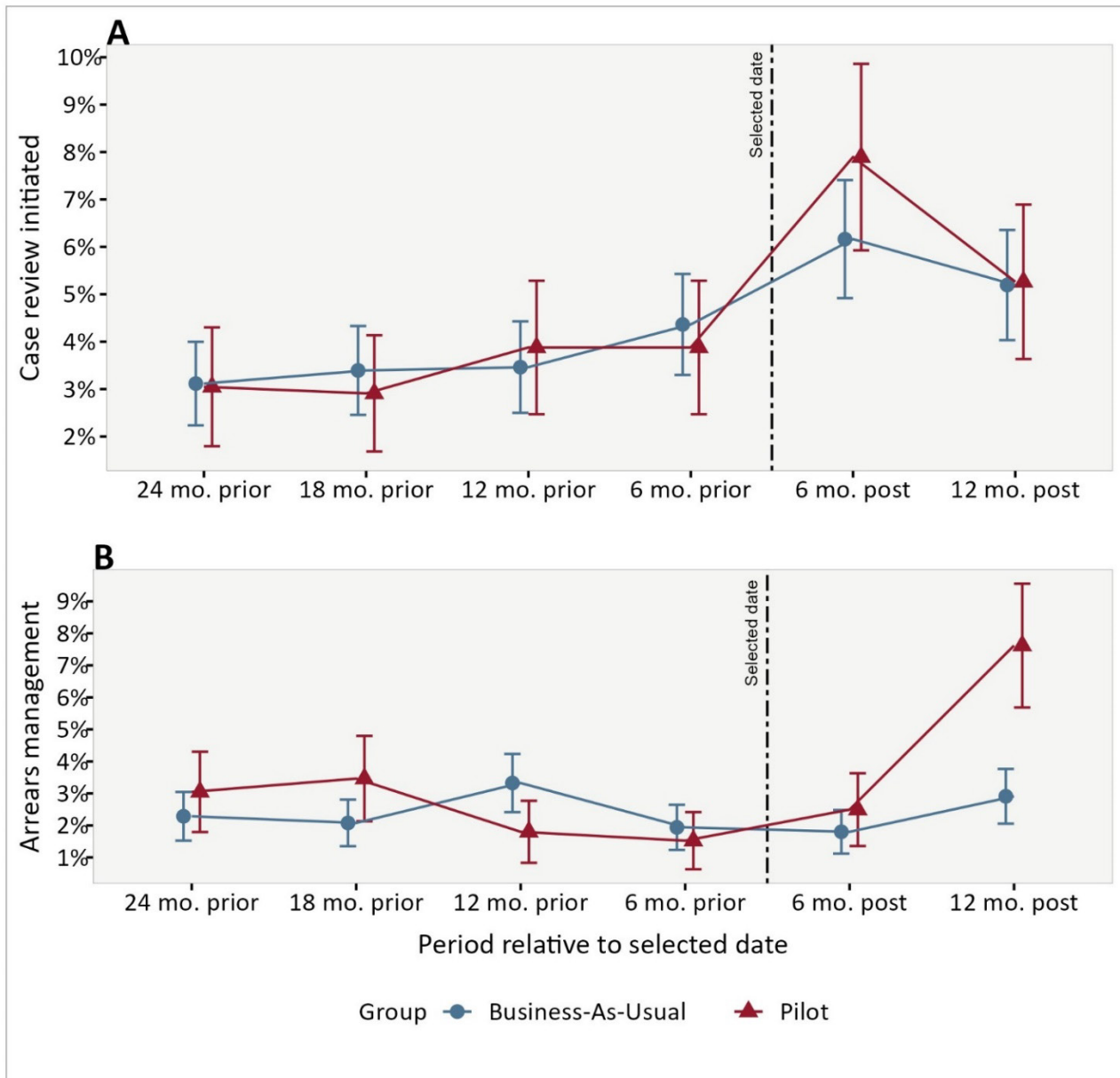
Figure 9. Pilot and business-as-usual NCP and CP public assistance receipt over 36 months.
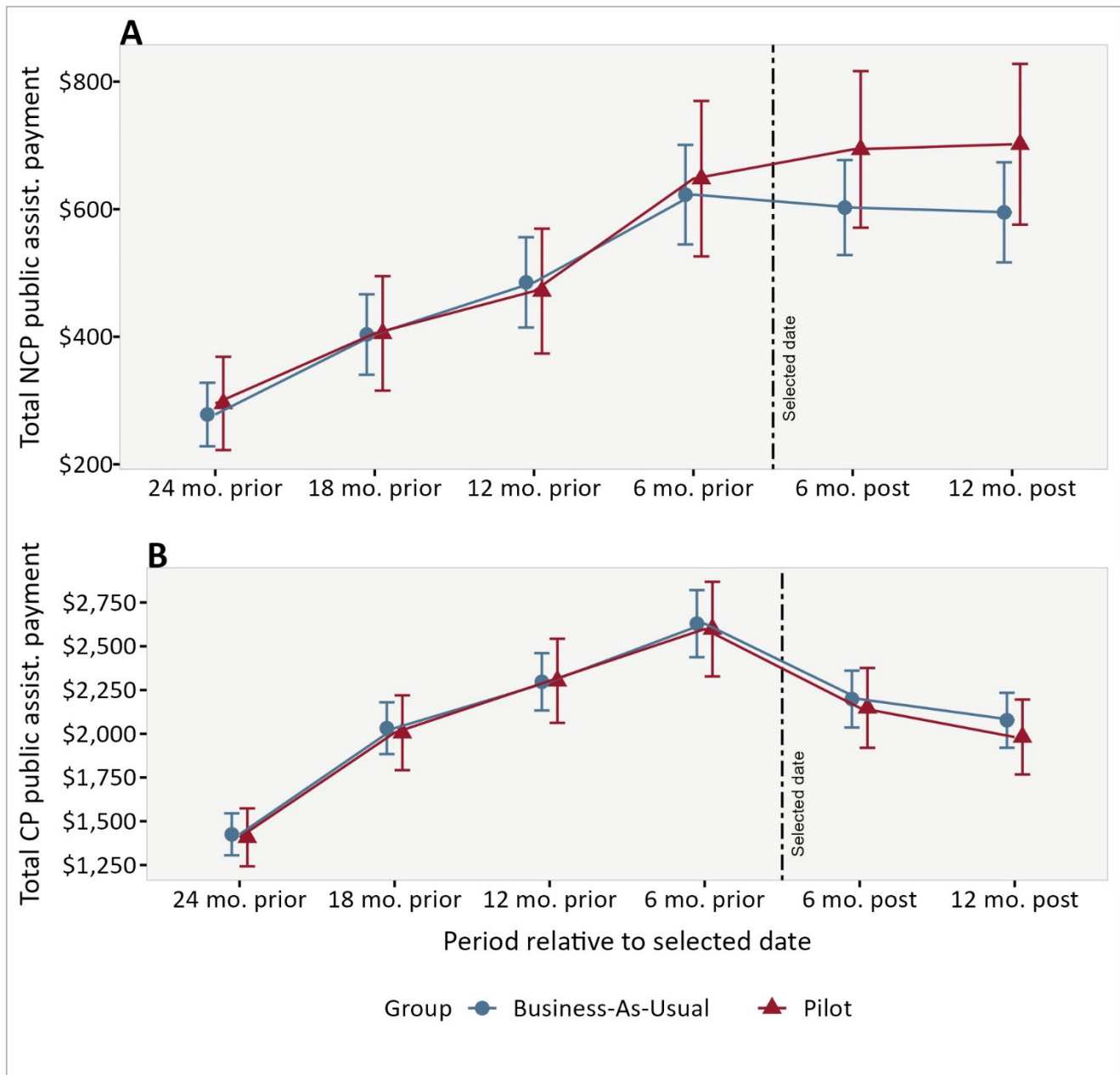
Race analysis

The results for the race analyses are presented in Appendix F (tables) and Appendix G (figures). We include figures for two outcomes (license suspensions and payment compliance) in the following pages as illustrative examples. The results tables present the mean outcome in each racial or ethnic group at each time, as well as estimates of the difference in effect of the pilot for African American NCPs compared to White NCPs. Due to both the smaller size of individual racial groups compared to the full population, and the increase in imprecision from testing differences in effects (as opposed to testing the average effect), estimates of racial differences of

effect are less precise than the estimates of the overall effect. In addition, we limited our formal statistical tests to comparing the effects for White and African American NCPs, because the other race and ethnicity groups were not large enough in the sample to produce reliable estimates. Table 4 summarizes overall differences in pilot program effects for African American and White NCPs.

Table 4. Summary of differences in pilot program effects for African American NCPs, compared to effects for White NCPs.

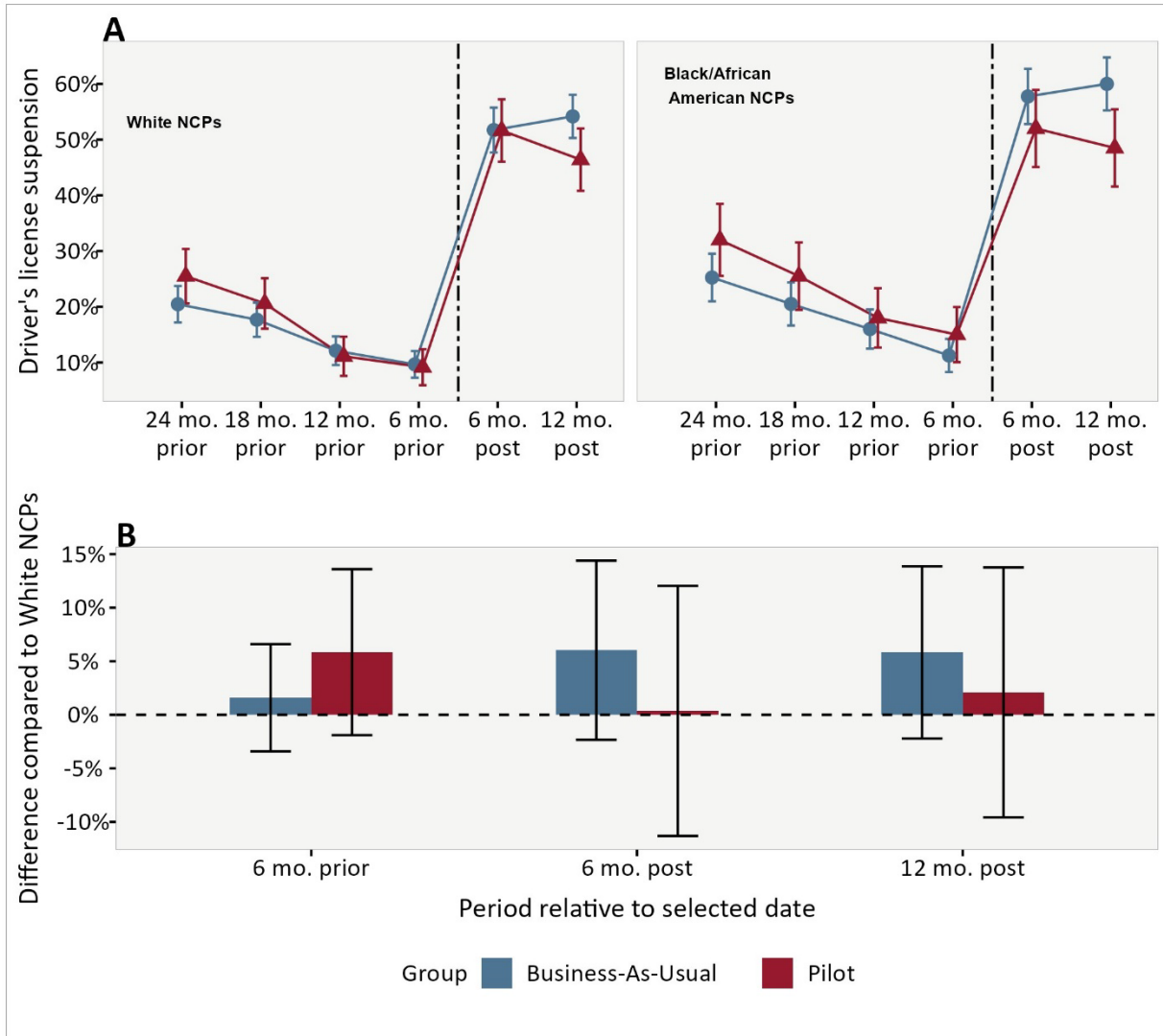| Outcome	Difference in effect between White and African American NCPs
Communication between noncustodial parents (NCPs) and child support workers	No difference
License suspensions	Greater reduction for African American NCPs
Use of options instead of suspension	
Payment agreements entered	Greater increase for African American NCPs
License suspension "suppressed" (stopped)	Greater increase for African American NCPs
Connections to other supports	
Arrears management	Greater increase for African American NCPs
Started case review for potential support order modification	No difference
Amount of public assistance received by NCP	No difference
Amount of public assistance received by CP	No difference
Child support payments	
Payment amount	No difference
% compliance with ordered amount	Lower for White NCPs
# of months with any payment	Lower for White NCPs

Note: DLS, driver's license suspension; NCP, noncustodial parent.

The pilot resulted in a greater decrease in license suspensions for African American NCPs than it did for White NCPs. At baseline, African American pilot NCPs had a somewhat higher probability of driver's license suspension (15.0%) than African American BAU NCPs (11.3%), or White pilot NCPs (9.2%) or White BAU NCPs (9.7%). At the first follow-up, the probability of having a DLS was the same for White BAU and pilot NCPs (51.7% and 51.6%, respectively), while African American NCPs in the pilot had a lower probability of suspension (52.0%) than African American NCPs in BAU (57.8%). Compared to the change among White NCPs, African American pilot NCPs had an additional 9.9 percentage point reduction in DLS (95% CI, -21.3 to 1.4). By the second follow-up period, both African American and White pilot NCPs had fewer suspensions than those in the BAU group, but African American NCPs had an additional 8-percentage point reduction in suspensions relative to White NCPs (95% CI, -19.4 to 3.4). Figure 10A shows time trends in each group, and Figure 10B shows that racial differences in DLS grew somewhat for the BAU NCPs while shrinking for pilot NCPs.

Figure 10. White and African American pilot and business-as-usual NCP driver's license suspensions over 36 months (A) and differences between races in suspensions before and after the NCP's selected date (B).

Note: The dashed horizontal line in Panel B indicates no difference between White and African American NCPs. Bars above the line indicate that the outcome is higher for African American NCPs and bars below the line indicate the outcome is higher for White NCPs.

While White pilot NCPs had a persistent decrease in compliance with support orders compared with BAU, African American pilot NCPs had no comparable change in compliance. During the two-year period before the selection dates, compliance fell for all groups of NCPs (Figure 11A), to a low of 37.1% for White pilot NCPs and 31.8% for African American pilot NCPs. In the first follow-up period, White BAU compliance increased by 8.9 percentage points; while White pilot compliance increased by just 1.3 percentage points. At the same time, African American BAU and pilot compliance increased by 7.5 and 6.0 percentage points, respectively. Therefore, African American pilot NCPs had compliance that was 6.1 percentage points (95% CI, -4.3 to 16.5) greater than if the pilot had the same effect as among White NCPs. In the second follow-up period, African American pilot NCP

compliance was 12.2 percentage points higher (95% CI, 1.5 to 22.9) than if they had had the same change as White pilot NCPs. The pilot appears to have reduced compliance for White NCPs relative to BAU but did not have that effect for African American NCPs.

Figure 11. White and African American pilot and business-as-usual NCP compliance with payment orders over 36 months (A) and differences between races in compliance before and after the NCP's selected date (B).
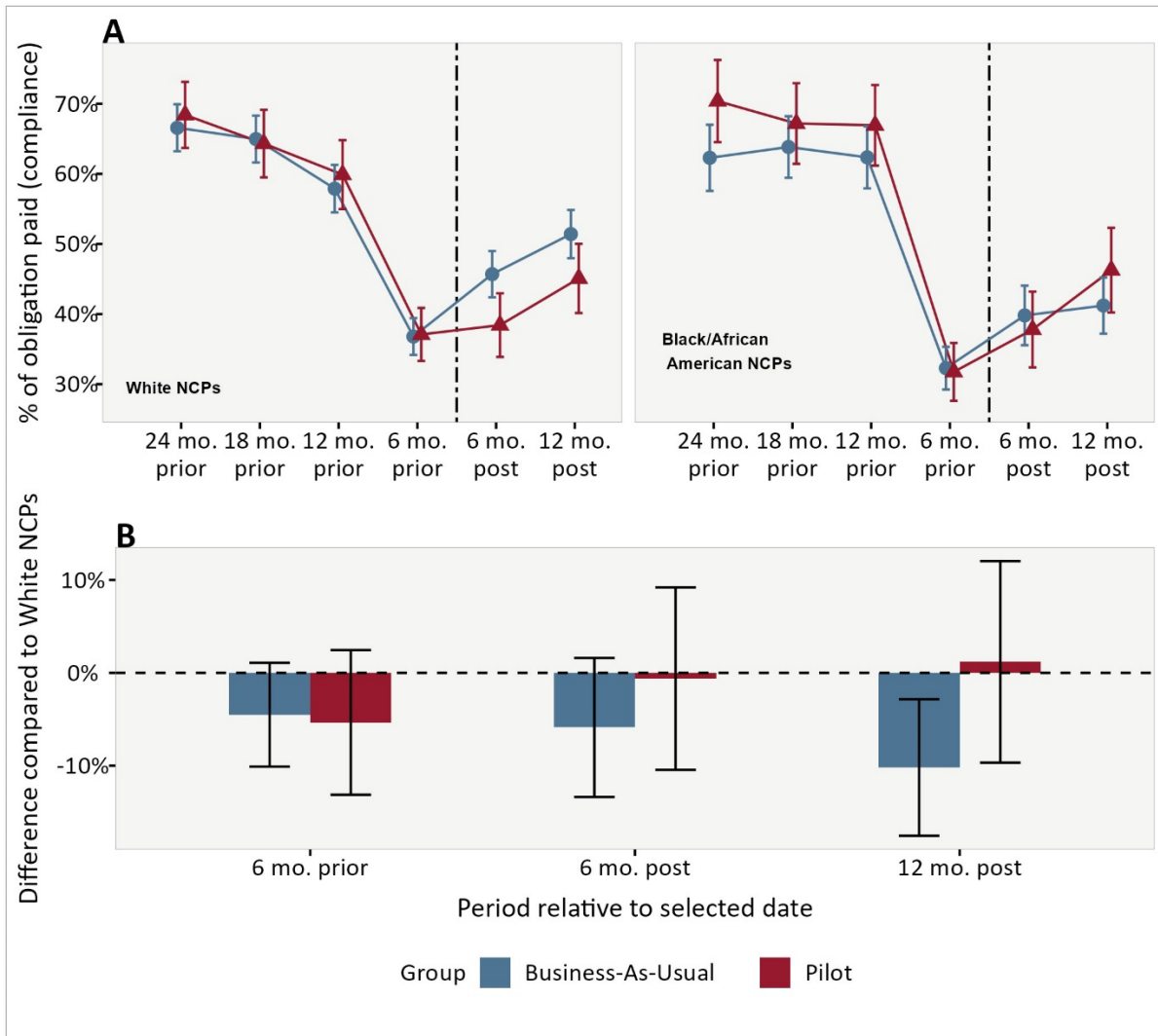

Note: The dashed horizontal line in Panel B indicates no difference between White and African American NCPs. Bars above the line indicate that the outcome is higher for African American NCPs and bars below the line indicate the outcome is higher for White NCPs.

African American pilot NCPs had a greater increase in payment agreements compared to BAU than did White pilot NCPs. Payment agreements were rare in the baseline period for NCPs, although they were more common for White NCPs than African American NCPs. In the six months after being selected for DLS, payment agreements grew for White NCPs (19.6% of pilot NCPs and 15.7% of BAU) but grew more for African American pilot NCPs (16.5%) than BAU NCPs (9.8%). In the second follow-up period, payment agreements increased to 23.1% of White BAU and 22.2% of White pilot NCPs, while increasing by a similar amount for African American

pilot NCPs (22.0%) but by a lesser amount for African American BAU NCPs (14.5%). Consequently, payment agreements increased 3.3 percentage points more (95% CI, -4.4, 10.9) for African American NCPs, compared with White, in the first follow-up period, and 8.8 percentage points more (95% CI, -0.2 to 17.8) in the second follow-up period.

The pilot was associated with a substantially greater increase in DLS suppression for African American NCPs than for White NCPs. Suppression of DLS was common in the period before NCPs were selected for DLS, likely due to waivers during the COVID-19 peacetime emergency, though they were less prevalent among African American than White pilot (31.2% and 48.1%, respectively) and BAU NCPs (45.9% and 53.9%, respectively) in the six months before being selected for DLS. In the first six-month follow-up period, suppressions fell by 22.9 percentage points to 31.0% of White BAU NCPs, and by 10.0 percentage points to 48.1% of White pilot NCPs. Suppressions also fell by 10.5 percentage points to 35.4% of African American BAU NCPs. However, suppressions increased by 18.9% to 50.1% of African American pilot NCPs. The increase in suppressions for African American pilot NCPs was 16.6 percentage points greater (95% CI, 2.7 to 30.5) than the increase among White pilot NCPs. It was sustained as a 16.4 percentage point greater benefit (95% CI, 2.5 to 30.2) in the second follow-up period.

African American pilot NCPs had a greater increase in arrears management relative to BAU than did White pilot NCPs. Arrears management was very rare regardless of group in the baseline period, in place for only 1.0% to 2.0% of NCPs regardless of race or group. While there was a slight increase in arrears management for African American pilot NCPs in the first follow-up period, there was a substantial increase in the second follow-up period to 11.5% of African American pilot NCPs. At the same time, workers used arrears management for 5.6% of White pilot NCPs, 3.0% of African American BAU NCPs and 3.8% of White BAU NCPs. We estimate the effect of the pilot on arrears management was 5.2 percentage points greater (95% CI, -0.8 to 11.2) for African American NCPs than for White NCPs in the second follow-up period.

There were no significant race differences in the pilot's impact on the amount of contact between NCPs and child support workers, number of months with any payment, total payment amount, initiating a support order review for a possible modification, or NCP or CP public assistance benefits.

Discussion

This analysis finds the pilot achieved many, but not all, of the goals articulated by CSD and county partners. Consistent with prior research, we found that the pilot led to changes in most of the process-related outcomes as expected – communication between workers and noncustodial parents (NCPs) increased and license suspensions decreased. While suspensions decreased, other approaches increased, including payment agreements, suppressions, and NCPs' use of programs to help address their barriers to payment (e.g., arrears management). While the pilot was not designed to increase compliance relative to BAU, payment compliance and payment frequency decreased in the pilot.

Pilot program impacts

A critical component of the pilot was increasing communication between child support workers and NCPs. Workers were asked to reach out proactively to learn about NCPs' barriers to payment and identify other

approaches that might be more effective than suspension. As hypothesized, the results showed that pilot NCPs communicated with their workers on average 1.5 more days than NCPs in the business-as-usual (BAU) group.

The pilot case assessment process created an opportunity for workers to more carefully consider whether a license suspension was likely to motivate payment. The results show that pilot workers determined that at least some of the suspensions were not appropriate – at one year after the pilot, the suspension rate among pilot NCPs was 12 percentage points lower than BAU NCPs (47 vs. 59%). This suggests that when workers looked at NCPs' case(s) more holistically and adopted an approach tailored to their circumstances, the use of punitive remedies, like license suspensions, was reduced.

When pilot workers chose not to suspend a license, other approaches were used to address their non-payment. One such approach is for the NCP to enter a payment agreement with the child support agency. Figure 7A shows that while NCPs in both conditions were more likely to have a payment agreement in place in the follow-up period, pilot NCPs were nearly 4 percentage points more likely than BAU NCPs to enter a payment agreement at six months after being selected for a DLS. This is likely due to the pilot procedures that made payment agreements more attainable, such as not requiring "good faith" payments and the possibility to structure the agreement in a way that gradually increased the payment amount to the full obligation over time.[13]

Pilot workers were also more likely to stop the automated suspension before it went into effect (also known as a "suppression"). Figure 7B shows that suppressions increased during the baseline period, which coincided with a COVID waiver preventing all new license suspensions until July 2021. When the waiver ended, workers removed the COVID waiver suppressions. After the suppression was removed, cases that continued to meet the criteria for license suspension would begin the DLS process again, starting with being "selected" for a license suspension. The end of the COVID waiver can be seen in the drastic 25 percentage point decrease in suppressions for NCPs in the BAU group between the last baseline and first follow-up periods. In contrast, the pilot NCPs that met criteria for a suspension continued to maintain the relatively high level of suppressions, even after the waiver was lifted.

Pilot workers were also encouraged to identify other ways to promote compliance with child support orders. The findings showed positive impacts on arrears management; pilot workers were 5 percentage points more likely to enroll NCPs in arrears management than the BAU workers. Arrears management can help NCPs make progress on their debts and leaves more income for paying child support obligations. We did not see significant impacts on the other two approaches that could provide financial support and eventually result in higher payments: connections to public assistance or initiating a case review for a possible order modification. In theory, connecting parents with public assistance could help them establish financial stability, and eventually lead to increased income that would result in more financial resources to pay child support. An order review could result in a modification that "right-sizes" the order to an amount that is feasible for the NCP to pay. Our

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[13] This timing coincides with a policy clarification that the state made, making it possible to submit a payment agreement *without* a signature from the NCP. In the past, the signature posed a barrier for many people, and removing it likely led to a higher rate of payment agreements, overall.

analysis, however, showed that the pilot did not increase connections to public assistance or lead to significantly more order reviews, relative to the BAU group.

One of the main purposes of the child support program is to collect payments from NCPs to provide for the financial needs of their children for whom they owe support. The pilot program aimed to increase NCPs' sense of fairness in the process and work with them to address barriers to payment, which in theory could improve compliance. Similar to prior work, our results suggest that although the pilot increased communication between workers and NCPs and decreased license suspensions, this was accompanied by a decrease in payments. Payment compliance in the pilot group decreased by 4 percentage points, and the number of months with a payment of any amount also decreased by 0.2 months (out of 6) in the first follow-up period. The effect on compliance was driven by lower compliance among White NCPs in the pilot group, which persisted during both follow-up periods. There were no differences in compliance between pilot and BAU African American groups. This suggests that the pilot led to lower compliance among White NCPs (see below).

Race analysis

One of the explicit aims of the DLS pilot was to reduce existing racial disparities in driver's license suspensions. Data from PRISM includes the following racial categories: American Indian, Asian/Pacific Islander, Black/African American, Hispanic, White, Other, and Unknown.[14] In our analysis, data constraints allowed us only to focus on differences between White and African American NCPs. The other groups were quite small (see Table 2), and it goes against best practices to use statistical tests that rely on larger, representative samples to detect important changes in outcomes. It is imperative to note that this evaluation was not designed to determine why White and African American NCPs had different outcomes of the pilot (Rahimi & Nazari, 2021). There are several possible explanations, some of which can be addressed directly by child support administration (e.g. equitable treatment of NCPs) while others are not able to be addressed by this policy (e.g. systemic racial differences in a third variable that affects outcomes, such as income, geography, age, or case history). More systematic participatory research alongside NCPs and their families could help to shed light on the role of race and its intersection with other systematic inequities in child support experiences and outcomes.

For two of the outcomes, the pilot was associated with reductions in disparities between White and African American NCPs: payment agreements and license suspensions. For these outcomes, African American NCPs in the pilot fared similarly to White NCPs in both the pilot and BAU groups. In contrast, African American NCPs in the BAU had a lower likelihood of entering into payment agreements, and a higher likelihood of license suspension during the follow-up period. More concretely, in the absence of the pilot, African American NCPs would have entered 8.8% fewer payment agreements and had 9.9% more license suspensions.

In the case of arrears management, while there was an overall increase for the pilot group, the race analysis revealed that the effect was driven by a large increase among African American NCPs in the pilot. Twelve months after the pilot began, 5.5% more African American NCPs had received arrears management than would be expected under BAU, almost double the rate among White NCPs. This could reflect a race difference in

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[14] We do not report data for "Other" and "Unknown" race categories because it is difficult to draw conclusions about these groups.

eligibility rates for public assistance arrears forgiveness, if a larger proportion of African American NCPs owe support for children who are receiving public assistance than White NCPs. However, it generally suggests that pilot workers reviewed NCPs' eligibility for arrears management and implemented the strategy when appropriate, particularly for African American NCPs.

As described above, payment compliance *increased* among White NCPs in the BAU and remained low among White pilot NCPs (see Figure 11). One possible explanation could be in these populations' ability to pay. A potential license suspension may motivate an unwilling, but able, NCP to begin complying with their child support order. In the pilot, NCPs were less likely to have their licenses suspended and more likely to receive alternative approaches like payment agreements that did not require a lump sum payment, or suppressions to stop the suspension, which could have resulted in lower payment compliance for these NCPs.

By comparison, compliance did not decrease among African American NCPs in the pilot group. One possible explanation is that African American NCPs, on average, may have had a lower ability to pay, even when notified that they are at risk of a license suspension. Importantly, we could not study this directly with the available data or methods, and this is just one possible explanation. One piece of evidence is that African American NCPs utilized public assistance at a similar rate in the last baseline period (25.5% of pilot NCPs and 34.0% of BAU NCPs) as White NCPs (28.8% of pilot NCPs and 29.3% of BAU NCPs). This suggests that difficult economic circumstances were similarly prevalent for White and African American NCPs. Moreover, although compliance was higher for NCPs who never received SNAP or MFIP payments, the decrease in compliance associated with the pilot was similar regardless of whether the NCP had received these benefits (adjunct analysis available upon request). Therefore, although ability to pay is an important predictor of compliance, it does not appear to be the reason we found lower compliance in the pilot group. However, even public assistance utilization is only a proxy for ability to pay; a frequently updated, well-measured source of income data would have provided the best information but was not available for this study.

We did not find substantive differences between White and African American NCPs on the other outcomes (contact with child support workers, number of months with any payment, total payment amount, case reviews, or amount of public assistance received). This suggests the pilot had similar effects for both groups on these outcomes.

Policy and practice implications

The findings suggest that the pilot program was able to achieve some of the intended effects, particularly changes to child support practices; it also resulted in a decrease in order compliance in the first six-month follow-up period, though the difference between BAU and pilot compliance was smaller 12 months after selection. Some of the pilot practices have already been codified in state legislation that passed in 2023. Those changes have two effective dates. The first change went into effect July 1, 2023, and allows counties to use similar criteria to the pilot to determine whether a suspension is likely to motivate payment, and if not, to intervene before it goes into effect.[15] It also allows workers to administratively stop the license suspension process if the NCP already resumed paying, remedying a problem with the previous version of the statute.

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[15] Minnesota Statutes 2023, section 518A.65 (https://www.revisor.mn.gov/statutes/2023/cite/518A.65)

Rolling these policies out statewide has the potential to reproduce the impacts that we found in this study. Indeed, early analysis by CSD found that in the two years before the COVID pandemic (2018-2019), workers sent an average of 1,065 licenses per month for suspension; in the 10 months after the new legislation passed (July 2023-April 2024), that number had decreased to an average of 707 per month, a reduction of 33%.

The second part of the legislative change will go into effect by January 1, 2026. Previously, an NCP could be selected and noticed for the DLS process, even if there was no known mailing address on file (the notice was mailed to the last known address for the NCP). The new change will require that the NCP have a current address before they can be selected. This is more consistent with how compliance tools are meant to work, by creating disincentives or "pain points" for not complying. If the NCP never receives the mailed notice of the adverse action, it no longer functions as a disincentive to noncompliance but instead, acts like a punishment, which is not the goal of DLS in the child support context. The other change that will be effective in January 2026 is that a case can only be selected for DLS if the NCP has a valid license. This eliminates cases where the NCP already has a license canceled, revoked, or suspended for some other reason (which is roughly half of NCPs selected for DLS; Solmeyer et al., 2023). This change helps focus the use of the tool on NCPs who will be more likely to respond to the threat of a driver's license suspension.

The increase in communication between child support workers and NCPs was an important finding from this study. Based on conversations with staff and prior literature, we interpret this as an indication of improved customer service and a reduction in administrative burden on parents. After the short-term uptick in communication around the DLS process, contact remained slightly above baseline levels but was no different in the pilot than BAU. Counties did not receive additional funding to implement the pilot, and pilot workers only had capacity to complete case assessment for about half of the cases that were eligible for the pilot (Solmeyer et al., 2023). Pilot counties expressed an inability to maintain an ongoing level of contact with NCPs due to workload constraints. Some counties also experienced staff turnover during the pilot, which further impacted their ability to do the extra work required in the pilot.

To maintain higher levels of contact and build a lasting rapport between NCPs and child support agencies, several supports are needed. In addition to more staff and lower caseloads, guidance around best practices for communicating with NCPs more broadly (beyond the DLS process) would be beneficial. Technology upgrades are needed to enable more efficient and modern communication methods (e.g., texting) and materials. The revised written materials that were designed for the pilot could be made broadly available to all counties, to assist them with communicating clearly and transparently with NCPs about a potential license suspension. It takes two years to adequately train a new child support worker, which further complicates efforts to do more proactive engagement with families. Resources that could address staff turnover, reduce the complexity of the program, and speed up training could assist counties in making longer-term efforts to keep up a high level of proactive outreach and customer engagement.

Another approach would be to reduce staff effort by automating some of the decision points on when to suspend or not suspend a license that were codified in state statute in 2023. For example, the new statute indicates that a license should not be suspended if an income withholding notice has been sent to the NCP's employer, or if the full obligation amount has been paid for at least one month. This information is available in PRISM, and theoretically could be used to stop a DLS without worker involvement before it goes into effect. This

raises a tension, however, between automation (which reduces staff time) and worker discretion using an approach based on a more holistic understanding of the NCP's circumstances.

As in previous research, the DLS pilot program resulted in a short-term decrease in payment compliance and frequency, principally among White NCPs. These reductions were modest (reduction in compliance of 4 percentage points overall, and 7.5 percentage points among White NCPs, in the first six months), but statistically significant. Importantly, the pilot program allowed more flexibility in payments, including eliminating the requirement for a "good faith" payment when entering a payment agreement. This could account for the decrease in compliance in the pilot group; however, that is potentially at odds with our findings that the pilot increased payment agreements more for African American NCPs, while decreasing payment compliance among White NCPs.

More detailed research would help illuminate the case and NCP characteristics that are most likely to respond to DLS by increasing their payments. This would allow Minnesota's child support program to further tailor use of the tool to the most appropriate cases and NCPs. For example, are there NCPs for whom requiring a payment agreement to avoid a DLS is effective? Are there certain groups of NCPs, such as those with minimum support obligations, for which DLS is less effective? Should the threshold at which the DLS process starts be higher? Should the way the PRISM selection process works be changed so there is less churn of cases going in and out of the selected, noticed, and suspended stages over time? What else needs to be done to eliminate the racial disparities in DLS, and how might the lessons from DLS be applied to other enforcement remedies? Additional resources would be needed to accomplish this, such as analyzing the pilot case assessment forms and looking at case trajectories over time.

As suggested by others (Herd & Moynihan, 2018; Skemer, 2023), a relatively light-touch intervention that focused on procedural justice may not be the right tool to increase payments or compliance, especially among this population. It is likely that many (though not all) NCPs who are at risk for a license suspension are low-income and do not have the financial ability to pay their child support obligations. In this situation, more intensive services to increase ability to pay are likely needed to boost the NCP's wages or income. The CSPED demonstration tested this approach by providing employment services to low-income NCPs,[16] but found that those services did not lead to changes in employment, earnings, or child support compliance (Cancian, Meyer, & Wood, 2019). The authors suggest that even these enhanced services may not have been intensive enough for such disadvantaged NCPs; more robust approaches may be needed.

Limitations

As with every study, there were limitations to our analysis. First, this was an observational study, which always carries the risk of unrepresentative selection. In this case, one source of bias could be in the fact that the 12 counties volunteered to be part of the pilot program. These counties may be different from the non-pilot counties in unmeasured ways; for example, pilot counties may be more interested in changing DLS processes or could already be implementing their own strategies to reduce inappropriate DLS. If this is the case, the impacts

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[16] On average, NCPs in the treatment group received 14 extra hours of employment services over a one-year period, compared to NCPs in the BAU group.

we observed could be inflated due to differences between the pilot and non-pilot counties that are related to the key outcomes in the study. We attempted to correct for bias due to measured differences through the matching process, but there is always a possibility that there were unobserved county- or NCP-level differences that we could not capture.

We did not have a direct measure of most NCP's income or wages, a characteristic that likely plays an important role in the amount of child support that the NCP pays. In the absence of an individual-level measure of income, we attempted to account for it indirectly by including Social Vulnerability Index data from each NCP's census tract as well as their obligation amount and public assistance utilization. Although this is an imperfect measure of an individual's income, we included it in the matching process to create groups with similar socioeconomic status. Having a better measure of individual income would give us more confidence in the results and would provide valuable information about an NCP's ability to pay.

Our approach emulated a "treatment on the treated" analysis that examined pilot effects on only the NCPs who received the pilot treatment. We do not have a way to know how workers decided which cases to assess and which to not assess; this could also be a source of selection bias. For example, if workers chose more straightforward cases from their lists, the pilot group would be composed of easier-to-serve NCPs who could potentially respond better to pilot processes than the broader population of NCPs.

As an impact evaluation, this report is able to answer questions about how outcomes change over time in the pilot and BAU groups, but it does not include a formal process evaluation to shed light on the ways the pilot produced the changes we observed. We partnered closely with CSD and the pilot counties to understand their perspective on the effects we observed and why. The combination of a quantitative approach with subject matter expert interpretation is useful, however, it does not substitute for systematic qualitative and participatory research.

The temporary policy changes that were put in place during the state's peacetime emergency for the COVID pandemic presented challenges for analysis. The pilot began three months after the peacetime emergency ended, meaning that a large portion of the baseline period occurred while the COVID waivers were in place, and a large portion of the follow-up period occurred while county child support agencies were unwinding the COVID waivers. Although this was the same in both the pilot and BAU groups (and should affect them in similar ways), it did make establishing baseline trends and interpreting results a bit more complicated, particularly because the waivers temporarily halted all new license suspensions. Additionally, baseline rates of outcomes during the peacetime emergency may not reflect the expected rates in future years. Continued analysis of the 2023 child support legislation will help to further establish the "new normal" after COVID.

Finally, an important motivation for this study was to test whether the pilot was able to close existing race disparities in license suspensions, which are disproportionately high among American Indian and African American NCPs. Ideally, we would have liked to examine variation among all BIPOC groups represented in the child support system. The small size of some of these groups, in combination with the relatively low prevalence of some outcomes (*e.g.,* arrears management, entering payment agreements) did not allow for a representative sample of all race groups that would be needed for reliable statistical analysis. Future analysis could examine the experiences of all racial groups more closely, including more qualitative work to understand how they interact with the child support system and the root causes of disparities.

Conclusions

Enhancing customer service is crucial to ensuring that a broader range of eligible individuals and families can access vital government supports. This helps to advance fairness and equity, particularly for historically marginalized communities. The driver's license suspension pilot program aligns with these goals. It was designed to make government processes more transparent and be more responsive to NCP's individual circumstances. Our analysis showed that NCPs who received the pilot treatment engaged in more communication with the child support agency and were more likely to receive services tailored to their situations. The pilot also reduced some outcome disparities for African American NCPs. However, the analysis did find pilot participation was associated with decreased payment compliance for some NCPs.

Despite some mixed results, the findings show the potential for targeted interventions to enhance the customer service experience and address the underlying causes of child support non-payment. To achieve lasting improvements, more comprehensive and intensive support services may be necessary. Ultimately, this program shows the potential, and some limitations, of using low-touch, procedural justice-informed approaches to enhance access to resources for families in child support programs, and more broadly, for all Minnesotans interacting with their government.

This work also underscores the critical importance of ongoing evaluation to assess the effectiveness of our programs. In doing so, we can identify and work to improve programs where outcomes are falling short of our expectations, while expanding those that prove successful. Undertaking that introspection helps ensure that public investments are directed towards programs that deliver meaningful results and enhance the wellbeing of our communities.

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Appendix A: Matching procedures to create like comparisons

To estimate the effect of being selected for the driver's license suspension (DLS) pilot, an important step in our analysis was to choose business-as-usual (BAU) noncustodial parents (NCPs) who were as similar as possible to pilot NCPs on their DLS selection date, on the characteristics that we believed could differ between NCPs and would be linked to differences in the outcomes. Matches were identified using propensity scores, which estimate the probability that, within the sample of all eligible NCPs (both pilot and BAU), an NCP with a given set of characteristics came from the pilot condition. We selected up to two BAU NCPs for each pilot NCP, to increase our power to detect a change in the outcomes.

We performed propensity score matching using the "matchit" package in R (Ho et al., 2011). The variables listed in Table 1A were used to construct propensity scores used to match BAU and pilot NCPs. Non-time varying matching variables were measured as of the day before the NCP was selected for DLS. Time-varying matching variables were measured over four six-month periods covering the 24 months prior to NCP's selected date.

We used the "nearest neighbor" method to select the two BAU NCPs with the closest propensity scores to the pilot NCP, within a limited boundary (0.2 standard deviations of the logit of the propensity score; Austin, 2011). When only one BAU NCP was matched, the BAU NCP and the pilot NCP each received an analysis weight of 1. When two BAU NCPs were matched, the BAU NCPs each received a weight of 0.5 and the pilot NCP received a weight of 1. If no BAU NCP fell within the boundary, the pilot NCP was excluded from the final analytic sample (N=3).

For our race analysis, we matched within levels of NCP race/ethnicity (as recorded in PRISM). Due to smaller numbers of NCPs in each group, especially for American Indian, Asian/Pacific Islander, and Hispanic NCPs, we used Random Forest estimation, rather than linear modeling, to estimate propensity scores within each race/ethnicity. Random Forest is a machine learning technique to identify which variables are the most important to the propensity score. These matches were also selected in a two to one ratio using the "nearest neighbor" method.

Table A1. Variables used to construct propensity scores

Matching variable	Coding	Data source	Time-Varying?
Sex of NCP, CP	Male, Female	PRISM	No
Race/ethnicity of NCP, CP	African American, American Indian, Asian/Pacific Islander, Hispanic, Other, Unknown, White	PRISM	No
Age of NCP, CP	Quintiles	PRISM	No
Region	North, Central, South, Metro Core, Metro Suburban, Midwest outside MN, Rest of United States, Unknown	PRISM	No
Social Vulnerability Index	Quintiles, Unknown	Census	No
Number of children on open cases	1, 2, 3, 4, 5-7, 8+	PRISM	No
Number of open child support cases with orders	1, 2-3, 4-5, 6+	PRISM	No
Age of youngest child	0-5, 6-10, 11-14, 15-18, 19-21, 22+	PRISM	No
Age of oldest child	0-5, 6-10, 11-14, 15-18, 19-21, 22+	PRISM	No
Length of longest active child support order	Quintiles	PRISM	No
Highest monthly income reported in court order within 2 years [17]	$1 to $999, $1000 to $1499, $1500 to $1999, $2000 to $2499, $2500 to $3499, $3500 to $4999, $5000 to $9999, $10000+, Unknown	PRISM	No
Amount of arrears owed	$0, $1-$1000, $1001-$2000, $2001-$5000, $5001-$10000, $10001-$20000, $20001-$50000, $50001-$100000, $100001+	PRISM	No

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[17] Income data was taken from information in the court order for the child support obligation. This data was available for less than 25% of the sample, as it is an optional data field that is often left blank. Income was reported by the child support worker, and in some cases may reflect estimated income rather than actual income.

Table A1. Variables used to construct propensity scores (continued)

Matching variable	Coding	Data source	Time-Varying?
Child support payment order per six months across all cases	$0, $1-$200, $201-$500, $501-$1000, $1001-$1500, $1501-$2000, $2001-$3000, $3001-$4000, $4001-$5000, $5001-$7500, $7501-$10000, $10001+	PRISM	Yes
Amount paid per six months across all cases	$0, $1-$200, $201-$500, $501-$1000, $1001-$1500, $1501-$2000, $2001-$3000, $3001-$4000, $4001-$5000, $5001-$7500, $7501-$10000, $10001+	PRISM	Yes
Number of months (per six months) with any child support payments	0, 1, 2-3, 4-5, 6	PRISM	Yes
Number of days with contact with child support worker per six months	0, 1, 2, 3, 4-5, 6+	PRISM	Yes
Current license suspension	0 – No license suspension 1 – Any license suspension	PRISM	Yes
DLS suppression	0 - No DLS suppression 1 – Any DLS suppression	PRISM	Yes
Case review for child support order modification	0 – No case review for support order modification 1 – Began case review for support order modification	PRISM	Yes
Total NCP, CP SNAP benefit over 6 months	$0, $1 to $249, $250-$499, $500+	MAXIS	Yes
Total NCP, CP MFIP benefit over 6 months	$0, $1 to $749, $750-$1249, $1250+	MAXIS	Yes

Note: NCP, noncustodial parent. CP, custodial parent. "Unknown" indicates that the variable was missing for at least one person.

Appendix B: Participant flow diagram

Figure B1. Participant flow diagram

Pilot Sample

1,748 NCPs on monthly lists for pilot counties

→ 9 NCPs removed because cases with matching selection dates for license suspension were not found in PRISM

1,739 NCPs with license suspension selection dates in range

→ 1,005 NCPs removed because they a) did not receive pilot treatment or b) were not eligible

734 NCPs received pilot treatment

→ 8 NCPs removed because child was in foster care

726 NCPs reviewed for matching

→ 4 NCPs removed because no matches were found

722 NCPs in final matched sample

Business-As-Usual Sample

12,618 NCPs selected for license suspension in the study timeframe

→ 893 NCPs removed because they had more than one case AND one of their cases was either a) in the pilot group (112 NCPs) or b) in a pilot county, but the case was not flagged for the pilot (781 NCPs)

11,725 NCPs without a case in pilot counties

→ 514 NCPs removed because case was moving out of MN

11,211 NCPs with cases staying in MN

→ 27 NCPs removed because license suspension was already in process

11,184 NCPs with suspension not yet in process

→ 263 NCPs removed because child was in foster care

10,921 NCPs with children living with CP

→ 81 NCPs removed because no obligation or arrears due in 6 months prior to selection date

10,840 NCPs with current orders and/or arrears due

→ 26 NCPs removed because a) monthly income was an extreme outlier (>$10,000, 20 NCPs) or b) there were other data issues (6 NCPs)

10,814 NCPs without data concerns

→ 9,374 NCPs not matched with pilot NCPs

1,440 NCPs in final matched sample

Appendix C: Case Activity Detail codes (CAAD codes) used in outcome measures

Table C1. Arrears management CAAD codes

Code	Description
E9865	NPA CP APPROVED ARREARS MANAGEMENT STRATEGY
E9870	ARREARS MANAGEMENT ADJUSTMENT

Table C2. Contact between NCPs and child support worker CAAD codes

Code	Description	Code	Description
D0701	F0701 – PAYMENT PLAN TO PREVENT ENFORCEMENT ACTION	M1034	NCP ENTERED INSTITUTION
D0919	NOTICE OF DLS PAYMENT AGREEMENT NON-COMPLIANCE	M1114	NCP PA STATUS CHANGED TO NO
D1465	F0465 LOCATE INFORMATION REQUESTED FROM NCP	M1502	NCP REQ RESCHEDULE OF INTERVIEW
D5622	F0622 F0032 - REVIEW REQUEST CREATED - NCP	M1503	NCP SHOWED FOR INTERVIEW
E3985	DLS PILOT: NCP ACCEPTS	M1504	NCP NO SHOW FOR INTERVIEW
E3986	DLS PILOT: NCP DECLINES-NO INTEREST	M1505	NCP INTERVIEW CANCELED
E3987	DLS PILOT: NCP DECLINES-REPORTS OTHER VIOLATIONS	M2122	LETTER RECEIVED FROM NCP
E3988	DLS PILOT: NCP NO RESPONSE	M2127	NCP PRIVATE DATA REQUEST RECE
E3989	DLS PILOT: NCP TERMINATES PARTICIPATION	M2128	NCP PRIVATE DATA REQUEST COMPLETED
E4000	DLS REINSTATEMENT REQUESTED	M3911	INTERVIEW WITH NCP
E4001	CASE SUPPRESSED FOR DLS	M9010	NCP DEATH
E4003	PAY PLAN ENTERED SUPPRESSION UPDATED FOR DLS REMEDY	M9020	NCP TOTALLY & PERMANENTLY DISABLED
E4004	CASE SUPPRESSION PENDING FOR DL HEARING	M9210	CHILD DEATH
E4006	DL SUSPENSION REQEUST SENT TO DPS	M9999	CASE CLOSED
E4210	DLS PAY PLAN NEWLY DELINQUENT	O0061	NCP REQUESTED SIX MONTH REVIEW HEARING
E4211	DLS PAY PLAN NCP CONTINUED DELINQUENT	O0066	NCP REQUESTED PAYMENT HISTORY
E4212	DLS PAY PLAN NCP IS COMPLIANT	O1038	WRITTEN REQUEST FOR INFORMATION FROM NCP
E4213	DLS PAY PLAN TERMINATED – SUDE HAS P	O1040	REQUESTED INFORMATION SENT TO NCP

Table C2. Contact between NCPs and child support worker CAAD codes (continued)

Code	Description	Code	Description
E4214	DLS NEW PAY PLAN ADDED	O2506	NCP AFFIDAVIT OF FINANCIAL INFORMATION RECEIVED
E8900	PI ADMIN RVW REQUESTED BY NCP	O4201	SUPPORT ORDER REVIEW REQUESTED – NCP
E9428	CRB ADMIN RVW REQUESTED BY NCP	O4235	ELECTRONIC REQUEST FOR REVIEW RECEIVED
E9439	CRB DIRECT DISPUTE RECEIVED BY CSD FROM NCP	O4239	NCP SUBMITS ONLINE FS
E9618	NCP REQUEST TO BEGIN INCOME WITHHOLDING RECEIVED	O4361	NCP REQUEST RECEIVED FOR CONTEST OF REDIRECTION
E9650	RR ADMIN RVW REQUESTED BY NCP	O5103	NCP RETURNED FINANCIAL STATEMENT
E9684	VOLUNTARY IW FORM RECEIVED FROM NCP	O5131	NCP RETURNED AGREEMENT
F3002	FINANCIAL IRREGULARITY CONTACT FROM NCP	O5157	NCP REQUESTED REGISTRATION FOR ENFORCEMENT
G0008	GRANT: CONTACT WITH NCP	O5161	NCP REQUESTED REGISTRATION FOR MODIFICATION
G0016	GRANT: INITIAL CONTACT WITH NCP	O5166	NCP CONTACT REGARDING LEGAL ACTION
G0214	TXT GRANT: SENT NCP A TEXT RE: DL SUSPENDED	O5201	NCP REQUESTED HEARING
G0215	TXT GRANT: SENT NCP A TEXT RE: DLS NOTICE	T0055	PHONE CALL TO NCP
G0216	TXT GRANT: SENT NCP A TEXT RE: PAYMENT REMINDER	T0056	PHONE CALL FROM NCP
G0217	TXT GRANT: SENT NCP A TEXT RE: APPOINTMENT REMINDER	T0057	PHONE CALL RET TO NCP
G0225	TXT GRANT: SENT NCP A TEXT RE: EDUCATIONAL MSG	T0058	PHONE CALL RET FR NCP
G0228	TXT GRANT: SENT NCP A TEXT RE: MCSO	T0059	PHONE CALL ATMPT TO RET TO NCP
G0231	TXT GRANT: COUNTY SENT NCP A TEXT	T0071	NCP CONTACT GENERATED FROM WEB
G0233	TXT GRANT: RECEIVED TEXT FROM NCP	T1116	COUNTY SENT NCP A TEXT
G0235	TXT GRANT: SENT A TEXT RE: PAYMENT REMINDER	T1118	RECEIVED TEXT FROM NCP
L1463	NCP RESPONDED TO LETTER FOR INOF-NEW INFO PROVIDED	T1121	SENT EMAIL TO NCP
L1467	NCP RESPONDED TO LETTER FOR INFO – NO NEW INFO	T1123	RECEIVED EMAIL FROM NCP
L1468	NCP FAILED TO RESPOND TO LETTER FOR INFO	W0046	WEB MESSAGE SENT TO NCP
M0412	NCP REPORTS THAT CHILD CARE IS SUSPENDING	W0056	WEB MESSAGE FROM NCP
M0416	NCP REPORTED THAT CHILD CARE IS RESUMING	W0057	COMPLETED – RESPONSE SENT TO NCP
M1014	NCP ON PUBLIC ASSISTANCE	W0058	COMPLETED – RESPONDED BY OTHER MEANS TO NCP

Appendix D: Demographic information for custodial parents

Table D1. Custodial parent demographics

Characteristic	CPs Associated with NCPs in Pilot Group (N = 722)	CPs Associated with NCPs in Matched BAU Group (N = 1,440)
Race, N (%)		
White	371 (51.4%)	739 (51.2%)
Black/African American	171 (23.7%)	331 (23.0%)
Other/Unknown	118 (16.3%)	229 (15.9%)
Asian/Pacific Islander	32 (4.4%)	70 (4.9%)
American Indian/Alaskan Native	28 (3.9%)	67 (4.7%)
Hispanic/Latina/o/x	2 (0.3%)	4 (0.3%)
Male, N (%)	45 (6.2%)	96 (6.7%)
Age, mean (SD)	36.6 (9.0)	36.7 (9.5)

Note: Race is ordered by the number of people in each group. CP, custodial parent. NCP, noncustodial parent. BAU, business-as-usual. SD, standard deviation.

Appendix E: Main impact analysis tables

Table E1. Primary outcomes

Estimated mean (95% Confidence Interval)							
	Baseline period				Follow-up period 1		Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	*P* value	2	*P* value
Number of contacts (count per 6 months)								
Pilot	2.01 (1.79 to 2.22)	1.75 (1.57 to 1.93)	1.52 (1.36 to 1.67)	1.68 (1.52 to 1.84)	4.59 (4.36 to 4.83)		2.56 (2.33 to 2.80)	
Business-as-usual	2.07 (1.91 to 2.23)	1.73 (1.60 to 1.87)	1.54 (1.42 to 1.66)	1.71 (1.59 to 1.84)	3.16 (3.00 to 3.32)		2.49 (2.32 to 2.66)	
Difference-in-difference	-0.03 (-0.31 to 0.25)	0.05 (-0.20 to 0.30)	0.01 (-0.20 to 0.23)	Reference	1.47 (1.20 to 1.74)	< .001	0.11 (-0.18 to 0.40)	0.47
Driver's license suspended (%)								
Pilot	24.7 (21.5 to 27.8)	19.5 (16.6 to 22.4)	12.3 (9.9 to 14.7)	9.8 (7.7 to 12.0)	51.8 (48.2 to 55.4)		47.1 (43.5 to 50.7)	
Business-as-usual	26.0 (23.7 to 28.2)	20.6 (18.5 to 22.6)	13.2 (11.4 to 14.9)	9.6 (8.0 to 11.1)	56.7 (54.2 to 59.2)		59.1 (56.5 to 61.7)	
Difference-in-difference	-1.6 (-5.0 to 1.8)	-1.3 (-4.2 to 1.5)	-1.1 (-2.9 to 0.6)	Reference	-5.2 (-10.0 to -0.4)	0.03	-12.3 (-17.2 to -7.3)	< .001
Payment compliance (% of order paid)								
Pilot	66.3 (63.0 to 69.5)	63.0 (59.9 to 66.2)	59.4 (56.3 to 62.6)	34.1 (31.8 to 36.4)	39.0 (36.1 to 42.0)		45.9 (42.7 to 49.1)	
Business-as-usual	67.6 (65.2 to 69.9)	63.9 (61.6 to 66.1)	58.4 (56.1 to 60.7)	34.3 (32.7 to 36.1)	43.5 (41.2 to 45.8)		48.9 (46.5 to 51.2)	
Difference-in-difference	-1.1 (-5.2 to 3.1)	-0.6 (-4.6 to 3.4)	1.3 (-2.5 to 5.1)	Reference	-4.2 (-8.4 to -0.1)	0.05	-2.7 (-6.9 to 1.5)	0.21
Months with any payment (count, 0-6)								
Pilot	3.14 (2.96 to 3.33)	3.16 (2.98 to 3.35)	3.25 (3.07 to 3.44)	2.00 (1.88 to 2.13)	1.83 (1.69 to 1.97)		2.45 (2.28 to 2.62)	
Business-as-usual	3.21 (3.08 to 3.35)	3.24 (3.10 to 3.37)	3.28 (3.14 to 3.41)	2.03 (1.94 to 2.12)	2.08 (1.97 to 2.20)		2.49 (2.36 to 2.62)	
Difference-in-difference	-0.05 (-0.27 to 0.18)	-0.05 (-0.25 to 0.16)	0.002 (-0.18 to 0.18)	Reference	-0.23 (-0.42 to -0.04)	0.02	-0.01 (-0.23 to 0.21)	0.92

Table E2. Primary outcomes (continued)

	Estimated mean (95% Confidence Interval)							
	Baseline period				Follow-up period 1		Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	*P* value	2	*P* value
Average payment amount ($ per 6 months)								
Pilot	2,229 (1,921 to 2,538)	1,949 (1,778 to 2,121)	1,948 (1,739 to 2,097)	1,129 (984 to 1,273)	1,424 (1,215 to 1,633)		1,636 (1,433 to 1,839)	
Business-as-usual	2,081 (1,952 to 2,211)	2,055 (1,918 to 2,193)	1,954 (1,830 to 2,078)	1,085 (1,011 to 1,159)	1,504 (1,389 to 1,620)		1,644 (1,502 to 1,786)	
Difference-in-difference	105 (-225 to 434)	-150 (-366 to 66)	-80 (-281 to 122)	Reference	-124 (-353 to 106)	0.29	-52 (-280 to 176)	0.66

Table E2. Secondary outcomes

	Estimated mean (95% Confidence Interval)							
	Baseline period				Follow-up period 1		Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	*P* value	2	*P* value
Payment agreement (%)								
Pilot	10.1 (7.9 to 12.3)	7.1 (5.2 to 8.9)	5.1 (3.5 to 6.7)	3.6 (2.2 to 5.0)	16.6 (13.9 to 19.3)		20.4 (17.4 to 23.3)	
Business-as-usual	10.9 (9.4 to 12.5)	7.8 (6.5 to 9.2)	5.1 (4.0 to 6.2)	3.8 (2.8 to 4.8)	13.0 (11.2 to 14.7)		21.1 (18.9 to 23.2)	
Difference-in-difference	-0.62 (-3.0 to 1.7)	-0.55 (-2.3 to 1.2)	0.21 (-0.9 to 1.3)	Reference	3.9 (0.8 to 7.0)	0.01	-0.49 (-4.0 to 3.1)	0.79
DLS suppression (%)								
Pilot	20.2 (17.3 to 23.2)	33.7 (30.2 to 37.1)	42.5 (38.9 to 46.1)	48.8 (45.1 to 52.4)	48.1 (44.4 to 51.7)		48.2 (44.6 to 51.8)	
Business-as-usual	22.2 (20.1 to 24.3)	33.5 (31.1 to 35.9)	45.2 (42.6 to 47.9)	49.2 (46.5 to 51.9)	26.5 (24.3 to 28.8)		23.7 (21.5 to 25.9)	
Difference-in-difference	-1.5 (-5.9 to 3.0)	0.62 (-3.1 to 4.4)	-2.2 (-4.7 to 0.3)	Reference	22.0 (16.1 to 28.0)	< .001	25.0 (19.1 to 30.9)	< .001
Arrears management (%)								
Pilot	3.0 (1.8 to 4.3)	3.5 (2.1 to 4.8)	1.8 (0.83 to 2.8)	1.5 (0.63 to 2.4)	2.5 (1.4 to 3.6)		7.6 (5.7 to 9.6)	
Business-as-usual	2.3 (1.5 to 3.0)	2.1 (1.4 to 2.8)	3.3 (2.4 to 4.2)	1.9 (1.2 to 2.6)	1.8 (1.1 to 2.5)		2.9 (2.1 to 3.8)	
Difference-in-difference	1.2 (-0.61 to 3.0)	1.8 (-0.02 to 3.6)	-1.1 (-2.6 to 0.41)	Reference	1.1 (-0.41 to 2.6)	0.15	5.1 (2.8 to 7.4)	< .001
Case review initiated (%)								
Pilot	3.0 (1.8 to 4.3)	2.9 (1.7 to 4.1)	3.9 (2.5 to 5.3)	3.9 (2.5 to 5.3)	7.9 (5.9 to 9.9)		5.3 (3.6 to 6.9)	
Business-as-usual	3.1 (2.2 to 4.0)	3.4 (2.5 to 4.3)	3.5 (2.5 to 4.4)	4.4 (3.3 to 5.4)	6.2 (4.9 to 7.4)		5.2 (4.0 to 6.4)	
Difference-in-difference	0.42 (-1.8 to 2.7)	0 (-2.2 to 2.2)	0.9 (-1.5 to 5.0)	Reference	2.2 (-0.59 to 5.0)	0.12	0.56 (-2.0 to 3.1)	0.66

Table E2. Secondary outcomes (continued)

	Estimated mean (95% Confidence Interval)							
	Baseline period				Follow-up period 1		Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	*P* value	2	*P* value
NCP public assistance amount ($)								
Pilot	295 (222 to 369)	405 (316 to 495)	472 (374 to 569)	648 (526 to 770)	694 (571 to 816)		702 (576 to 828)	
Business-as-usual	278 (228 to 328)	404 (341 to 467)	485 (415 to 556)	623 (545 to 701)	603 (528 to 677)		595 (517 to 673)	
Difference-in-difference	-8 (-143 to 128)	-23 (-149 to 103)	-39 (-134 to 56)	Reference	66 (-41 to 173)	0.23	82 (-60 to 224)	0.26
CP public assistance amount ($)								
Pilot	1,408 (1,243 to 1,574)	2,006 (1,792 to 2,220)	2,302 (2,062 to 2,543)	2,598 (2,328 to 2,869)	2,148 (1,920 to 2,376)		1,981 (1,767 to 2,195)	
Business-as-usual	1,425 (1,305 to 1,545)	2,032 (1,884 to 2,179)	2,297 (2,133 to 2,460)	2,629 (2,438 to 2,821)	2,198 (2,035 to 2,361)		2,077 (1,920 to 2,234)	
Difference-in-difference	14 (-226 to 254)	5 (-209 to 219)	37 (-131 to 204)	Reference	-19 (-191 to 153)	0.83	-65 (-292 to 162)	0.58

Note: DLS, driver's license suspension. NCP, noncustodial parent. CP, custodial parent.

Appendix F: Race analysis tables

Table F1. Race analysis – Primary outcomes

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Number of contacts (count per 6 months)						
White - Pilot	2.29 (1.95 to 2.63)	1.83 (1.53 to 2.12)	1.58 (1.32 to 1.83)	1.74 (1.48 to 1.99)	4.72 (4.33 to 5.11)	2.75 (2.4 to 3.11)
White - BAU	1.99 (1.73 to 2.24)	1.82 (1.61 to 2.02)	1.71 (1.52 to 1.91)	1.97 (1.75 to 2.19)	3.36 (3.11 to 3.61)	2.78 (2.48 to 3.09)
Black/Afr. Am. – Pilot	2.08 (1.63 to 2.52)	1.78 (1.41 to 2.14)	1.55 (1.24 to 1.86)	1.52 (1.22 to 1.81)	4.43 (4.00 to 4.85)	2.28 (1.90 to 2.66)
Black/Afr. Am. – BAU	2.19 (1.88 to 2.51)	1.95 (1.66 to 2.23)	1.79 (1.51 to 2.06)	2.03 (1.75 to 2.31)	3.35 (3.08 to 3.62)	2.58 (2.28 to 2.89)
Difference-in-difference (Black/Afr. Am. compared to White)	-0.14 (-0.87 to 0.59)	0.10 (-0.55 to 0.76)	0.19 (-0.37 to 0.74)	Reference	0.00 (-0.69 to 0.69)	0.01 (-0.73 to 0.74)
Hisp./Latina/o/x – Pilot	1.37 (0.57 to 2.17)	2.00 (1.07 to 2.93)	2.00 (1.19 to 2.81)	2.07 (1.38 to 2.77)	3.70 (2.83 to 4.58)	1.96 (0.93 to 2.99)
Hisp./Latino/a/x – BAU	2.00 (1.07 to 2.93)	2.96 (1.76 to 4.16)	2.57 (1.59 to 3.56)	2.41 (1.52 to 3.29)	3.78 (2.57 to 4.99)	2.81 (1.92 to 3.71)
Asian/Pacific Isl. – Pilot	1.54 (0.56 to 2.52)	1.85 (0.67 to 3.02)	1.15 (0.58 to 1.72)	1.77 (0.44 to 3.1)	4.81 (3.75 to 5.87)	2.15 (1.19 to 3.12)
Asian/Pacific Isl. – BAU	2.42 (1.52 to 3.33)	2.58 (1.64 to 3.51)	1.75 (1.04 to 2.46)	2.00 (1.42 to 2.58)	2.87 (1.96 to 3.77)	2.54 (1.67 to 3.41)
Am. Indian/Al. Native – Pilot	0.83 (0.15 to 1.51)	1.13 (0.41 to 1.84)	1.63 (0.92 to 2.33)	1.04 (0.52 to 1.56)	3.38 (2.81 to 3.94)	1.96 (1.02 to 2.90)
Am. Indian/Al. Native – BAU	1.96 (1.32 to 2.59)	1.35 (0.83 to 1.88)	1.06 (0.62 to 1.50)	1.54 (0.84 to 2.24)	2.71 (2.13 to 3.29)	1.63 (0.90 to 2.35)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Table F1. Race analysis – Primary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Driver's license suspended (%)						
White - Pilot	25.5 (20.6 to 30.4)	20.6 (16.1 to 25.1)	11.1 (7.6 to 14.6)	9.2 (5.9 to 12.4)	51.6 (46 to 57.2)	46.4 (40.8 to 52.0)
White - BAU	20.5 (17.2 to 23.7)	17.7 (14.6 to 20.7)	12.1 (9.5 to 14.7)	9.66 (7.3 to 12.0)	51.7 (47.7 to 55.7)	54.2 (50.3 to 58.1)
Black/Afr. Am. – Pilot	32 (25.5 to 38.5)	25.5 (19.5 to 31.5)	18 (12.7 to 23.3)	15 (10.1 to 19.9)	52 (45.1 to 58.9)	48.5 (41.6 to 55.4)
Black/Afr. Am. – BAU	25.3 (21.0 to 29.5)	20.5 (16.6 to 24.4)	16.0 (12.5 to 19.5)	11.3 (8.3 to 14.2)	57.8 (52.8 to 62.7)	60.0 (55.2 to 64.8)
Difference-in-difference (Black/Afr. Am. compared to White)	-2.5 (-11.1 to 6.0)	-2.2 (-9.1 to 4.8)	-1.3 (-5.9 to 3.4)	Reference	-9.9† (-21.3 to 1.4)	-8.0 (-19.4 to 3.4)
Hisp./Latina/o/x – Pilot	18.5 (3.9 to 33.2)	14.8 (1.4 to 28.2)	11.1 (-0.74 to 23)	7.4 (-2.5 to 17.3)	37.0 (18.8 to 55.3)	44.4 (25.7 to 63.2)
Hisp./Latino/a/x – BAU	20.4 (11.1 to 29.6)	16.7 (7.8 to 25.6)	14.8 (6.2 to 23.4)	11.1 (3.3 to 19.0)	53.7 (40.2 to 67.2)	57.4 (45.1 to 69.7)
Am. Indian/Al. Native – Pilot	29.2 (11.0 to 47.4)	29.2 (11.0 to 47.4)	25.0 (7.7 to 42.3)	20.8 (4.6 to 37.1)	62.5 (43.1 to 81.9)	45.8 (25.9 to 65.8)
Am. Indian/Al. Native – BAU	37.5 (24.3 to 50.7)	31.3 (18.6 to 43.9)	22.9 (11.4 to 34.4)	25.0 (13.5 to 36.5)	75.0 (65.0 to 85.0)	62.5 (50.6 to 74.4)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001). Asian/Pacific Islander/Native Hawai'i subgroup not displayed due to lack of outcomes in the reference period.*

Table F1. Race analysis – Primary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Payment compliance (% of order paid)						
White - Pilot	68.4 (63.7 to 73.1)	64.3 (59.5 to 69.1)	59.9 (55.0 to 64.8)	37.1 (33.3 to 40.9)	38.4 (33.9 to 43)	45.1 (40.2 to 50.0)
White - BAU	66.6 (63.2 to 69.9)	65.0 (61.6 to 68.3)	57.9 (54.5 to 61.3)	36.8 (34.2 to 39.4)	45.7 (42.4 to 49.0)	51.4 (48.0 to 54.8)
Black/Afr. Am. – Pilot	70.4 (64.5 to 76.2)	67.2 (61.4 to 72.9)	66.9 (61.2 to 72.7)	31.8 (27.6 to 35.9)	37.8 (32.4 to 43.2)	46.3 (40.2 to 52.3)
Black/Afr. Am. – BAU	62.3 (57.6 to 67.0)	63.8 (59.4 to 68.2)	62.4 (57.9 to 66.8)	32.3 (29.2 to 35.3)	39.8 (35.6 to 44.1)	41.2 (37.2 to 45.2)
Difference-in-difference (Black/Afr. Am. compared to White)	7.1 (-2.9 to 17.1)	4.8 (-5 to 14.6)	3.4 (-5.4 to 12.2)	Reference	6.1 (-4.3 to 16.5)	12.2* (1.5 to 22.9)
Hisp./Latina/o/x – Pilot	58.0 (42.9 to 73.0)	54.0 (38.3 to 69.8)	53.7 (37.9 to 69.5)	35.7 (22.6 to 48.9)	46.3 (29.9 to 62.7)	56.5 (40.3 to 72.6)
Hisp./Latino/a/x – BAU	58.4 (46.6 to 70.2)	64.0 (53.1 to 74.8)	56.5 (45.0 to 68)	35.9 (27.4 to 44.4)	45.9 (34.2 to 57.6)	50.7 (40.1 to 61.2)
Asian/Pacific Isl. – Pilot	71.9 (56.4 to 87.4)	72.2 (56.3 to 88)	68.6 (53.5 to 83.7)	37.5 (24.6 to 50.4)	52.3 (35.8 to 68.7)	49.3 (33.3 to 65.3)
Asian/Pacific Isl. – BAU	62.0 (50.6 to 73.4)	57.5 (45.7 to 69.2)	52.9 (41.9 to 63.9)	34.7 (24.3 to 45.1)	43.6 (31.3 to 56.0)	37.5 (26.5 to 48.4)
Am. Indian/Al. Native – Pilot	40.1 (19.3 to 60.8)	44.9 (24.6 to 65.2)	15.2 (2.0 to 28.3)	14.8 (4.7 to 24.9)	29.4 (13.5 to 45.3)	30.1 (14.2 to 46.0)
Am. Indian/Al. Native – BAU	56.1 (40.7 to 71.4)	42.9 (28.5 to 57.3)	47.5 (34.6 to 60.5)	32.6 (24.7 to 40.5)	37.4 (24.6 to 50.2)	37.8 (26.1 to 49.5)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Table F1. Race analysis – Primary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Months with any payment (count, 0-6)						
White - Pilot	3.27 (2.99 to 3.55)	3.23 (2.95 to 3.51)	3.16 (2.87 to 3.45)	2.04 (1.84 to 2.24)	1.85 (1.64 to 2.06)	2.44 (2.18 to 2.71)
White - BAU	3.13 (2.93 to 3.32)	3.22 (3.03 to 3.42)	3.14 (2.95 to 3.34)	2.11 (1.98 to 2.25)	2.22 (2.06 to 2.38)	2.56 (2.37 to 2.74)
Black/Afr. Am. – Pilot	3.45 (3.10 to 3.80)	3.50 (3.14 to 3.86)	3.76 (3.42 to 4.1)	2.04 (1.81 to 2.26)	1.85 (1.59 to 2.10)	2.42 (2.09 to 2.74)
Black/Afr. Am. – BAU	2.99 (2.72 to 3.25)	3.30 (3.03 to 3.56)	3.47 (3.2 to 3.73)	2.00 (1.83 to 2.17)	1.90 (1.69 to 2.10)	2.21 (1.99 to 2.42)
Difference-in-difference (Black/Afr. Am. compared to White)	0.21 (-0.30 to 0.72)	0.09 (-0.37 to 0.55)	0.17 (-0.22 to 0.56)	Reference	0.21 (-0.27 to 0.68)	0.21 (-0.33 to 0.75)
Hisp./Latina/o/x – Pilot	3.30 (2.38 to 4.21)	3.59 (2.7 to 4.48)	3.59 (2.65 to 4.53)	2.52 (1.78 to 3.25)	2.63 (1.69 to 3.57)	3.07 (2.17 to 3.97)
Hisp./Latino/a/x – BAU	3.22 (2.5 to 3.94)	3.39 (2.67 to 4.11)	3.37 (2.68 to 4.06)	2.24 (1.78 to 2.7)	2.56 (1.94 to 3.17)	2.89 (2.29 to 3.48)
Asian/Pacific Isl. – Pilot	3.04 (2.12 to 3.95)	3.35 (2.35 to 4.35)	3.50 (2.54 to 4.46)	1.77 (1.24 to 2.29)	1.85 (1.22 to 2.47)	2.58 (1.63 to 3.52)
Asian/Pacific Isl. – BAU	3.12 (2.45 to 3.78)	2.87 (2.21 to 3.52)	2.96 (2.35 to 3.57)	1.77 (1.26 to 2.28)	1.90 (1.33 to 2.48)	1.96 (1.38 to 2.55)
Am. Indian/Al. Native – Pilot	1.46 (0.56 to 2.35)	1.21 (0.43 to 1.98)	0.71 (0.04 to 1.38)	0.83 (0.35 to 1.32)	0.96 (0.44 to 1.48)	1.46 (0.70 to 2.22)
Am. Indian/Al. Native – BAU	2.15 (1.55 to 2.74)	2.10 (1.37 to 2.83)	2.67 (1.89 to 3.44)	1.92 (1.43 to 2.4)	1.88 (1.24 to 2.51)	2.08 (1.42 to 2.75)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Table F1. Race analysis – Primary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Average payment amount ($, per 6 months)						
White - Pilot	2,456 (1,917 to 2,996)	2,172 (1,892 to 2,452)	2,047 (1,746 to 2,347)	1,203 (1,029 to 1608)	1,367 (1,125 to 1,608)	1,626 (1,337 to 1,916)
White - BAU	2,131 (1,945 to 2,318)	2,127 (1,940 to 2,314)	2,042 (1,860 to 2,224)	1,245 (1,124 to 1365)	1,677 (1,494 to 1,860)	1,731 (1,549 to 1,912)
Black/Afr. Am. – Pilot	1,992 (1,683 to 2,300)	1,692 (1,425 to 1,959)	1,818 (1,532 to 2,104)	1,101 (693 to 1,509)	1,148 (874 to 1,422)	1,596 (1,156 to 2,037)
Black/Afr. Am. – BAU	1735 (1,504 to 1,966)	1734 (1,533 to 1,935)	1662 (1,478 to 1,847)	951 (811 to 1,092)	1266 (1,064 to 1,468)	1515 (1,077 to 1,953)
Difference-in-difference (Black/Afr. Am. compared to White)	-259 (-965 to 446)	-277 (-788 to 233)	-40 (-563 to 483)	Reference	1 (-474 to 476)	-5 (-610 to 600)
Hisp./Latina/o/x – Pilot	1,999 (1,085 to 2,913)	2,299 (1,286 to 3,313)	2,059 (1,180 to 2,939)	1,294 (717 to 1,870)	1,787 (949 to 2,625)	2,607 (1,295 to 3,919)
Hisp./Latino/a/x – BAU	2,239 (1,480 to 2,998)	2,380 (1,715 to 3,046)	1,944 (1,434 to 2,453)	1,364 (1,003 to 1,724)	1,638 (1,155 to 2,121)	1,763 (1,288 to 2,237)
Asian/Pacific Isl. – Pilot	4,293 (-155 to 8,740)	1,631 (9,79 to 2,282)	1,908 (1,103 to 2,713)	1,072 (461 to 1,683)	1,479 (795 to 2,162)	1,197 (537 to 1,857)
Asian/Pacific Isl. – BAU	2,123 (1,497 to 2,749)	1,909 (1,306 to 2,513)	1,946 (1,393 to 2,499)	1,477 (984 to 1,970)	2,395 (1,072 to 3,718)	2,316 (513 to 4,119)
Am. Indian/Al. Native – Pilot	1,175 (-86 to 2,437)	1,022 (228 to 1,816)	407 (31 to 783)	290 (102 to 479)	1,372 (168 to 2,576)	965 (-217 to 2,148)
Am. Indian/Al. Native – BAU	1,140 (627 to 1,653)	1,207 (662 to 1,751)	1,498 (792 to 2,204)	844 (530 to 1,158)	1,124 (618 to 1,629)	930 (545 to 1,315)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Table F2. Race analysis – Secondary outcomes

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Payment agreement (%)						
White - Pilot	14.7 (10.7 to 18.7)	10.1 (6.7 to 13.5)	7.5 (4.6 to 10.5)	5.2 (2.7 to 7.7)	19.6 (15.2 to 24.1)	22.2 (17.6 to 26.9)
White - BAU	9.7 (7.3 to 12)	8.0 (5.8 to 10.2)	6.2 (4.3 to 8.2)	5.6 (3.7 to 7.4)	15.7 (13 to 18.4)	23.1 (19.7 to 26.5)
Black/Afr. Am. – Pilot	9.0 (5.0 to 13.0)	6.5 (3.1 to 9.9)	4.0 (1.3 to 6.7)	3.0 (0.6 to 5.4)	16.5 (11.4 to 21.6)	22.0 (16.3 to 27.7)
Black/Afr. Am. – BAU	7.5 (4.8 to 10.2)	6.3 (3.9 to 8.6)	5.8 (3.5 to 8.0)	3.8 (1.9 to 5.6)	9.8 (6.9 to 12.6)	14.5 (11.2 to 17.8)
Difference-in-difference (Black/Afr. Am. compared to White)	-3.1 (-8.6 to 2.4)	-1.4 (-5.9 to 3)	-2.6 (-5.5 to 0.2)	Reference	3.3 (-4.4 to 10.9)	8.8† (-0.2 to 17.8)

Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001). Hispanic/Latino/a/x, Asian/Pacific Islander/Native Hawai'i, and American Indian/Alaskan Native subgroups not displayed due to lack of outcomes in the reference period.

Table F2. Race analysis – Secondary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
DLS suppression (%)						
White - Pilot	21.9 (17.3 to 26.6)	39.7 (34.3 to 45.1)	49.6 (4.1 to 55.2)	58.1 (52.7 to 63.6)	48.1 (42.4 to 53.7)	49.0 (43.4 to 54.7)
White - BAU	21.8 (18.5 to 25.1)	37.0 (33.3 to 40.8)	49.4 (45.4 to 53.4)	53.9 (49.9 to 57.8)	31.0 (27.3 to 34.7)	27.1 (23.4 to 30.7)
Black/Afr. Am. – Pilot	17.3 (12.2 to 22.3)	23.2 (17.5 to 28.9)	28.6 (22.5 to 34.7)	31.2 (24.9 to 37.5)	50.1 (43.2 to 57.0)	50.6 (43.7 to 57.5)
Black/Afr. Am. – BAU	28.7 (24.2 to 33.3)	37.2 (32.2 to 42.3)	43.2 (37.8 to 48.5)	45.9 (40.5 to 51.3)	35.4 (30.6 to 40.1)	31.2 (26.7 to 35.7)
Difference-in-difference (Black/Afr. Am. compared to White)	7.3 (-2.6 to 17.2)	2.2 (-6.2 to 10.7)	4.1 (-2.0 to 10.2)	Reference	16.6* (2.7 to 30.5)	16.4* (2.5 to 30.2)
Hisp./Latina/o/x – Pilot	25.5 (8.9 to 42)	40.1 (21.6 to 58.7)	54.9 (36.3 to 73.5)	62.2 (44 to 80.5)	51.2 (32.2 to 70.2)	40.0 (21.6 to 58.5)
Hisp./Latino/a/x – BAU	16.2 (4.6 to 27.7)	36.2 (25.1 to 47.3)	47.2 (33.2 to 61.1)	60.3 (45.0 to 75.6)	18.2 (7.8 to 28.7)	15.9 (6.2 to 25.5)
Asian/Pacific Isl. – Pilot	19.5 (3.8 to 35.1)	27.6 (9.7 to 45.6)	30.6 (12.6 to 48.7)	34.3 (15.8 to 52.8)	38.8 (19.2 to 58.4)	35.5 (16.0 to 54.9)
Asian/Pacific Isl. – BAU	21.1 (10.9 to 31.3)	42.2 (31 to 53.3)	56.2 (44.4 to 68)	58.3 (46.2 to 70.4)	24.5 (10.3 to 38.7)	24.3 (12.6 to 35.9)
Am. Indian/Al. Native – Pilot	20.0 (3.2 to 36.8)	39.9 (20.4 to 59.5)	60.6 (41.1 to 80.2)	69.1 (50.9 to 87.3)	48.3 (28.4 to 68.2)	48.4 (28.6 to 68.1)
Am. Indian/Al. Native – BAU	40.1 (24.7 to 55.6)	54.6 (39.3 to 69.8)	62.9 (47.4 to 78.4)	67.8 (53.4 to 82.3)	42.3 (28.5 to 56.1)	34.0 (21.4 to 46.7)

*Note. Race ordered based on size of sub-population. DLS, driver's license suspension. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Table F2. Race analysis – Secondary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Arrears management (%)						
White - Pilot	3.6 (1.5 to 5.7)	4.6 (2.2 to 6.9)	2.6 (0.8 to 4.4)	1.0 (-0.1 to 2.1)	2.6 (0.8 to 4.4)	5.6 (3.0 to 8.1)
White - BAU	1.8 (0.8 to 2.8)	2.5 (1.2 to 3.7)	2.6 (1.4 to 3.9)	2.0 (0.9 to 3.1)	2.6 (1.4 to 3.9)	3.8 (2.2 to 5.3)
Black/Afr. Am. – Pilot	3.0 (0.6 to 5.4)	4.5 (1.6 to 7.4)	2.0 (0.1 to 3.9)	2.0 (0.1 to 3.9)	3.5 (1.0 to 6.0)	11.5 (7.1 to 15.9)
Black/Afr. Am. – BAU	1.5 (0.3 to 2.7)	0.8 (-0.1 to 1.6)	2.3 (0.8 to 3.7)	1.5 (0.3 to 2.7)	1.0 (0.0 to 2.0)	3.0 (1.4 to 4.6)
Difference-in-difference (Black/Afr. Am. compared to White)	-1.8 (-6.1 to 2.5)	0.1 (-4.5 to 4.8)	-1.7 (-5.3 to 1.9)	Reference	1.0 (-2.9 to 4.9)	5.2† (-0.8 to 11.2)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001).*
Hispanic/Latino/a/x, Asian/Pacific Islander/Native Hawai'i, and American Indian/Alaskan Native subgroups not displayed due to lack of outcomes in the reference period.

Table F2. Race analysis – Secondary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
Case review initiated (%)						
White - Pilot	2.6 (0.8 to 4.4)	3.9 (1.7 to 6.1)	5.2 (2.7 to 7.7)	4.9 (2.5 to 7.3)	8.2 (5.1 to 11.2)	5.9 (3.2 to 8.5)
White - BAU	5.6 (3.7 to 7.4)	6.5 (4.7 to 8.4)	6.4 (4.5 to 8.3)	7.5 (5.4 to 9.7)	8.5 (6.3 to 10.8)	6.9 (4.9 to 8.8)
Black/Afr. Am. – Pilot	3.0 (0.6 to 5.4)	0.5 (-0.5 to 1.5)	2.5 (0.3 to 4.7)	3.5 (1.0 to 6.0)	5.5 (2.3 to 8.7)	4.0 (1.3 to 6.7)
Black/Afr. Am. – BAU	3.5 (1.7 to 5.3)	3.8 (1.9 to 5.6)	4.0 (2.1 to 5.9)	4.8 (2.6 to 6.9)	5.5 (3.3 to 7.7)	4.5 (2.5 to 6.5)
Difference-in-difference (Black/Afr. Am. compared to White)	1.1 (-4.8 to 7.0)	-2.0 (-7.5 to 3.5)	-1.7 (-8 to 4.5)	Reference	-1.0 (-7.8 to 5.7)	-0.9 (-7.3 to 5.6)

*Note. Race ordered based on size of sub-population. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001). Hispanic/Latino/a/x, Asian/Pacific Islander/Native Hawai'i, and American Indian/Alaskan Native subgroups not displayed due to lack of outcomes in the reference period.*

Table F2. Race analysis – Secondary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
NCP public assistance benefit ($)						
White - Pilot	296 (202 to 391)	419 (284 to 553)	555 (386 to 724)	734 (536 to 931)	861 (658 to 1,065)	827 (622 to 1,032)
White - BAU	357 (272 to 441)	488 (385 to 591)	630 (507 to 752)	747 (609 to 885)	704 (576 to 831)	640 (512 to 767)
Black/Afr. Am. – Pilot	326 (170 to 482)	514 (301 to 726)	488 (300 to 675)	687 (445 to 929)	621 (379 to 862)	760 (496 to 1,023)
Black/Afr. Am. – BAU	515 (373 to 657)	758 (575 to 941)	827 (628 to 1,026)	973 (770 to 1,175)	925 (736 to 1,114)	931 (737 to 1,125)
Difference-in-difference (Black/Afr. Am. compared to White)	143 (-223 to 510)	97 (-244 to 437)	7 (-246 to 260)	Reference	-191 (-465 to 84)	-87 (-453 to 279)
Hisp./Latina/o/x – Pilot	298 (-67 to 664)	346 (-127 to 819)	161 (-149 to 472)	130 (-103 to 363)	235 (-64 to 533)	121 (-42 to 285)
Hisp./Latino/a/x – BAU	276 (-39 to 591)	332 (35 to 629)	327 (47 to 607)	503 (108 to 897)	383 (65 to 701)	279 (32 to 526)
Asian/Pacific Isl. – Pilot	263 (-242 to 769)	480 (-59 to 1,020)	224 (-107 to 554)	260 (-29 to 550)	345 (-53 to 743)	343 (-36 to 721)
Asian/Pacific Isl. – BAU	411 (78 to 744)	596 (196 to 996)	574 (185 to 963)	1,067 (374 to 1,761)	734 (269 to 1,199)	634 (223 to 1,044)
Am. Indian/Al. Native – Pilot	790 (-82 to 1,662)	428 (67 to 788)	953 (167 to 1,738)	1,309 (346 to 2,272)	1,618 (693 to 2,543)	1,701 (648 to 2,754)
Am. Indian/Al. Native – BAU	455 (139 to 770)	755 (187 to 1,322)	621 (274 to 968)	716 (284 to 1,149)	560 (203 to 918)	719 (362 to 1,075)

*Note. Race ordered based on size of sub-population. NCP, noncustodial parent. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Table F2. Race analysis – Secondary outcomes (continued)

	Estimated mean (95% Confidence Interval)					
	Baseline period				Follow-up period 2	
Relative 6-month period	-4	-3	-2	-1	1	2
CP public assistance benefit ($)						
White - Pilot	941 (725 to 1,157)	1,377 (1,096 to 1,658)	1,693 (1,368 to 2,018)	1,972 (1,598 to 2,346)	1,668 (1,352 to 1,984)	1,588 (1,288 to 1,889)
White - BAU	907 (762 to 1,051)	1,270 (1,089 to 1,451)	1,485 (1,283 to 1,688)	1,649 (1,424 to 1,873)	1,342 (1,156 to 1,528)	1,337 (1,147 to 1,527)
Black/Afr. Am. – Pilot	2,103 (1,754 to 2,452)	2,974 (2,519 to 3,430)	3,111 (2,645 to 3,578)	3,586 (3,032 to 4,139)	2,993 (2,520 to 3,465)	2,666 (2,229 to 3,103)
Black/Afr. Am. – BAU	2,102 (1,831 to 2,373)	2,832 (2,525 to 3,139)	3,153 (2,820 to 3,486)	3,704 (3,304 to 4,104)	3,344 (2,989 to 3,698)	3,081 (2,739 to 3,422)
Difference-in-difference (Black/Afr. Am. compared to White)	408 (-176 to 993)	477 (-67 to 1,021)	192 (-235 to 620)	Reference	-235 (-686 to 216)	-224 (-781 to 333)
Hisp./Latina/o/x – Pilot	2,032 (1,044 to 3,021)	2,454 (1,324 to 3,585)	2,978 (1,600 to 4,356)	2,987 (1,686 to 4,288)	2,458 (1,370 to 3,547)	2,330 (1,343 to 3,317)
Hisp./Latino/a/x – BAU	1,599 (830 to 2,368)	2,151 (1,267 to 3,034)	2,475 (1,514 to 3,436)	3,279 (2,028 to 4,530)	2,602 (1,640 to 3,565)	2,090 (1,288 to 2,892)
Asian/Pacific Isl. – Pilot	924 (374 to 1,474)	1,744 (676 to 2,812)	2,200 (994 to 3,407)	2,244 (1,194 to 3,293)	2,342 (1,286 to 3,398)	2,089 (992 to 3,185)
Asian/Pacific Isl. – BAU	1,274 (749 to 1,798)	1,747 (1,129 to 2,366)	1,848 (1,189 to 2,507)	2,156 (1,287 to 3,024)	1,860 (1,106 to 2,614)	1,701 (985 to 2,418)
Am. Indian/Al. Native – Pilot	2,251 (1,035 to 3,466)	2,984 (1,559 to 4,408)	4,066 (2,222 to 5,911)	4,297 (2,169 to 6,424)	3,257 (1,525 to 4,989)	2,999 (1,421 to 4,578)
Am. Indian/Al. Native – BAU	1,845 (1,034 to 2,655)	2,677 (1,778 to 3,577)	2,832 (1,919 to 3,745)	3,671 (2,473 to 4,869)	3,194 (2,227 to 4,162)	2,720 (1,600 to 3,841)

*Note. Race ordered based on size of sub-population. CP, custodial parent. BAU, business-as-usual. Afr. Am., African American. P-value key († p < .10, * p < .05, ** p < .01, *** p < .001)*

Appendix G: Race analysis figures

Note on reading Panel B: The dashed horizontal line in Panel B indicates no difference between White and African American noncustodial parents. Bars above the line indicate that the outcome is higher for African American noncustodial parents and bars below the line indicate the outcome is higher for White noncustodial parents.

Figure G1. White and African American pilot and business-as-usual NCP contacts with child support workers over 36 months (A) and differences between races in contacts before and after the NCP's selected date (B).
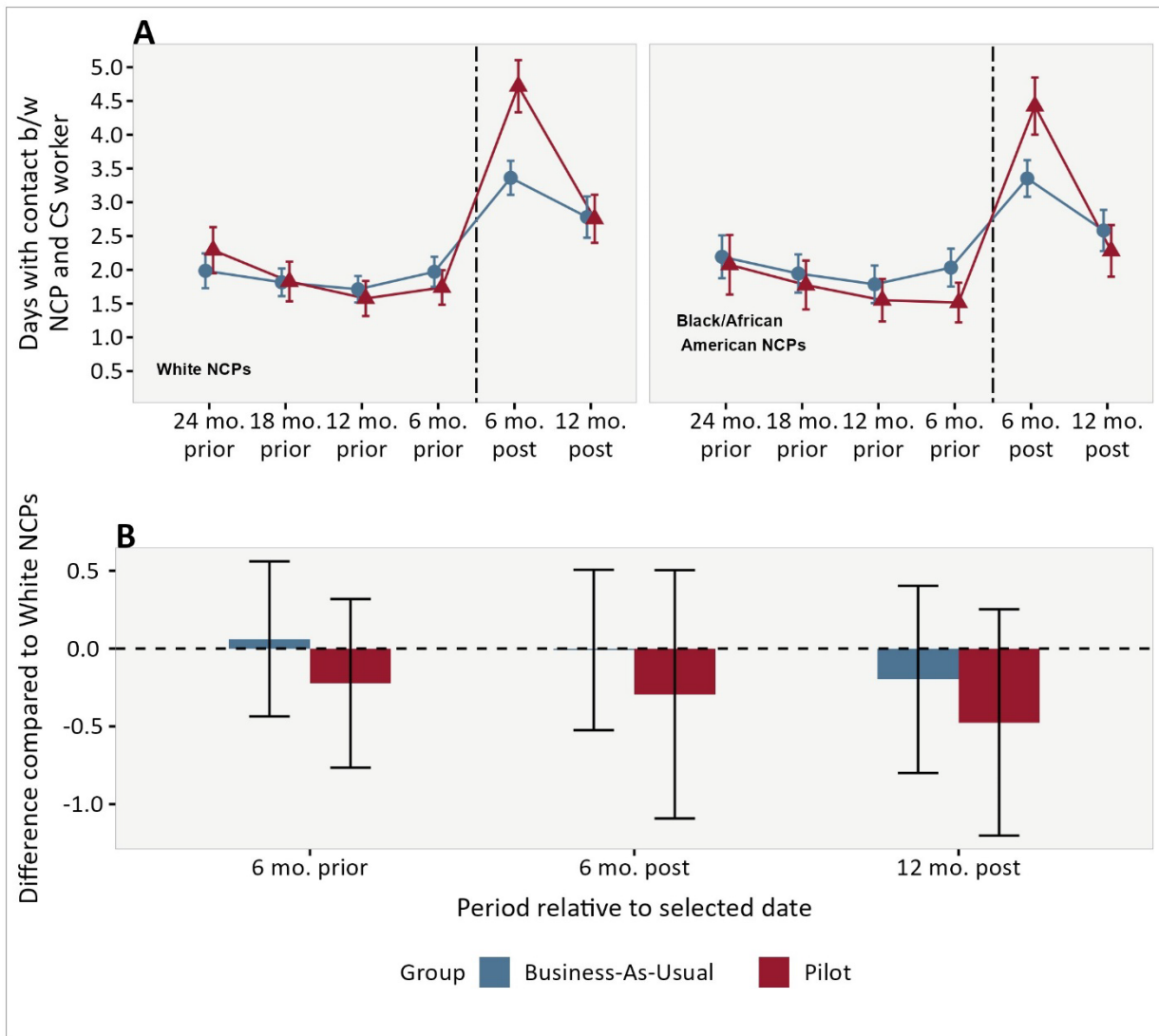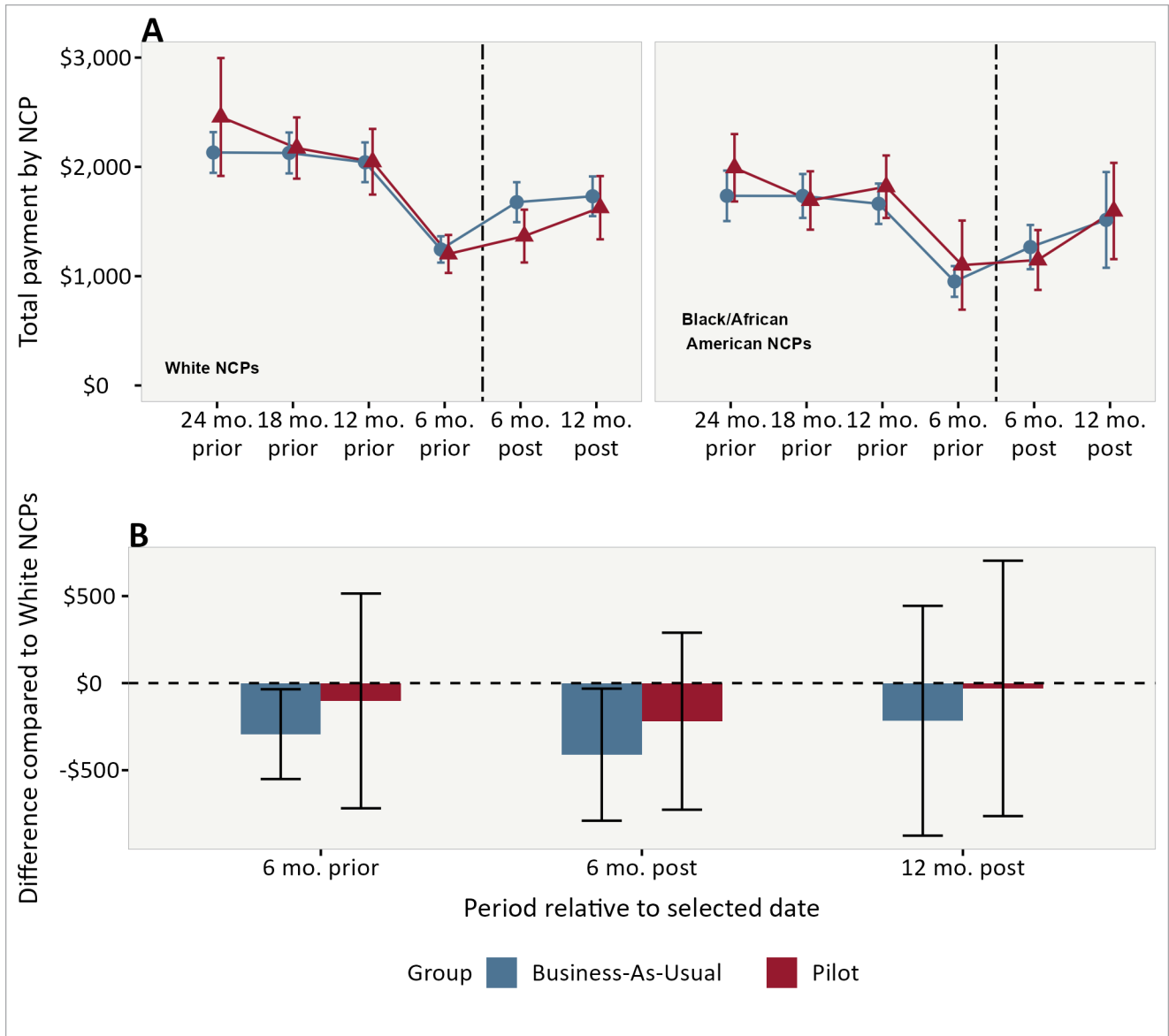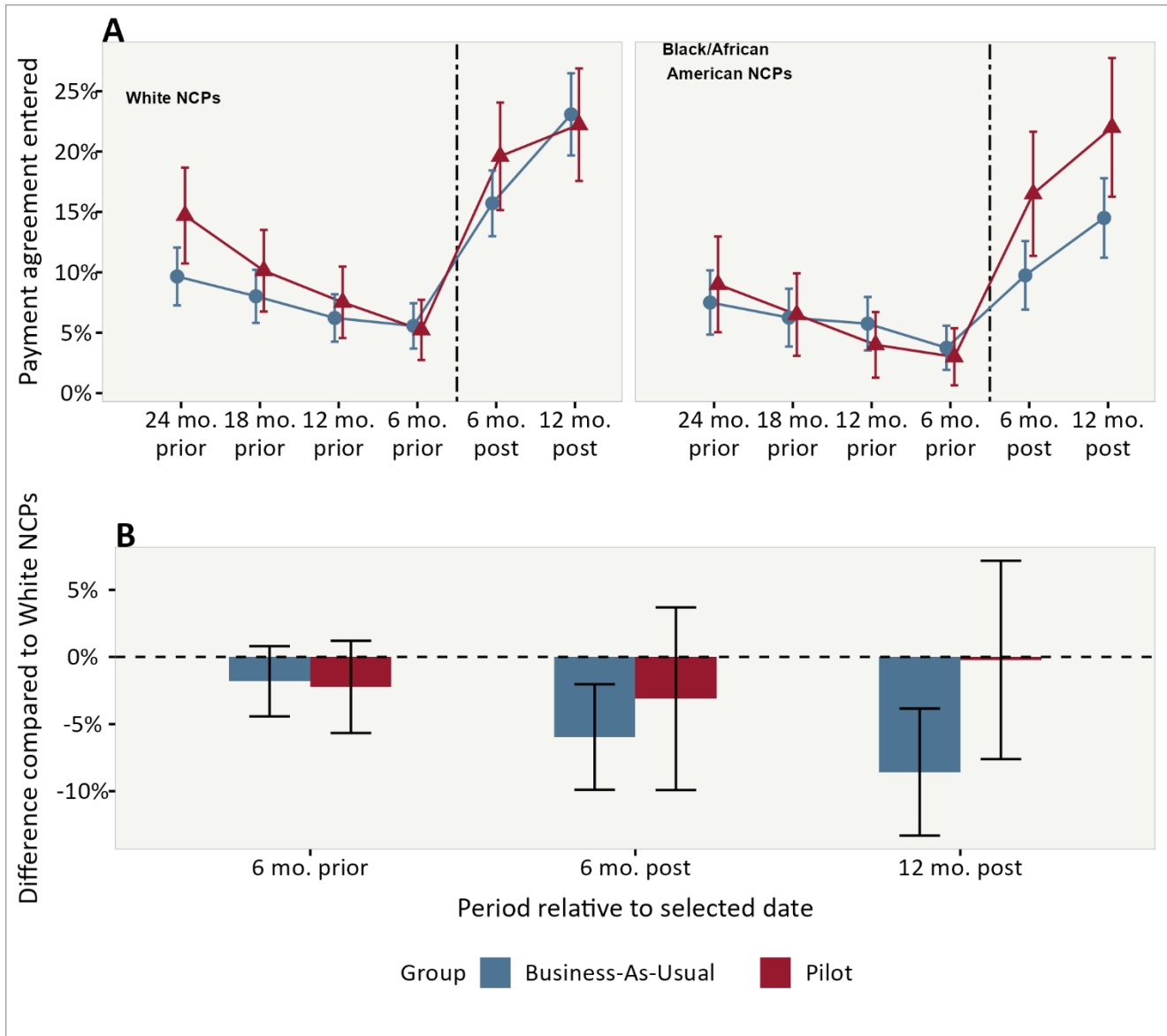
Figure G2. White and African American pilot and business-as-usual NCP driver's license suspensions over 36 months (A) and differences between races in contacts before and after the NCP's selected date (B).
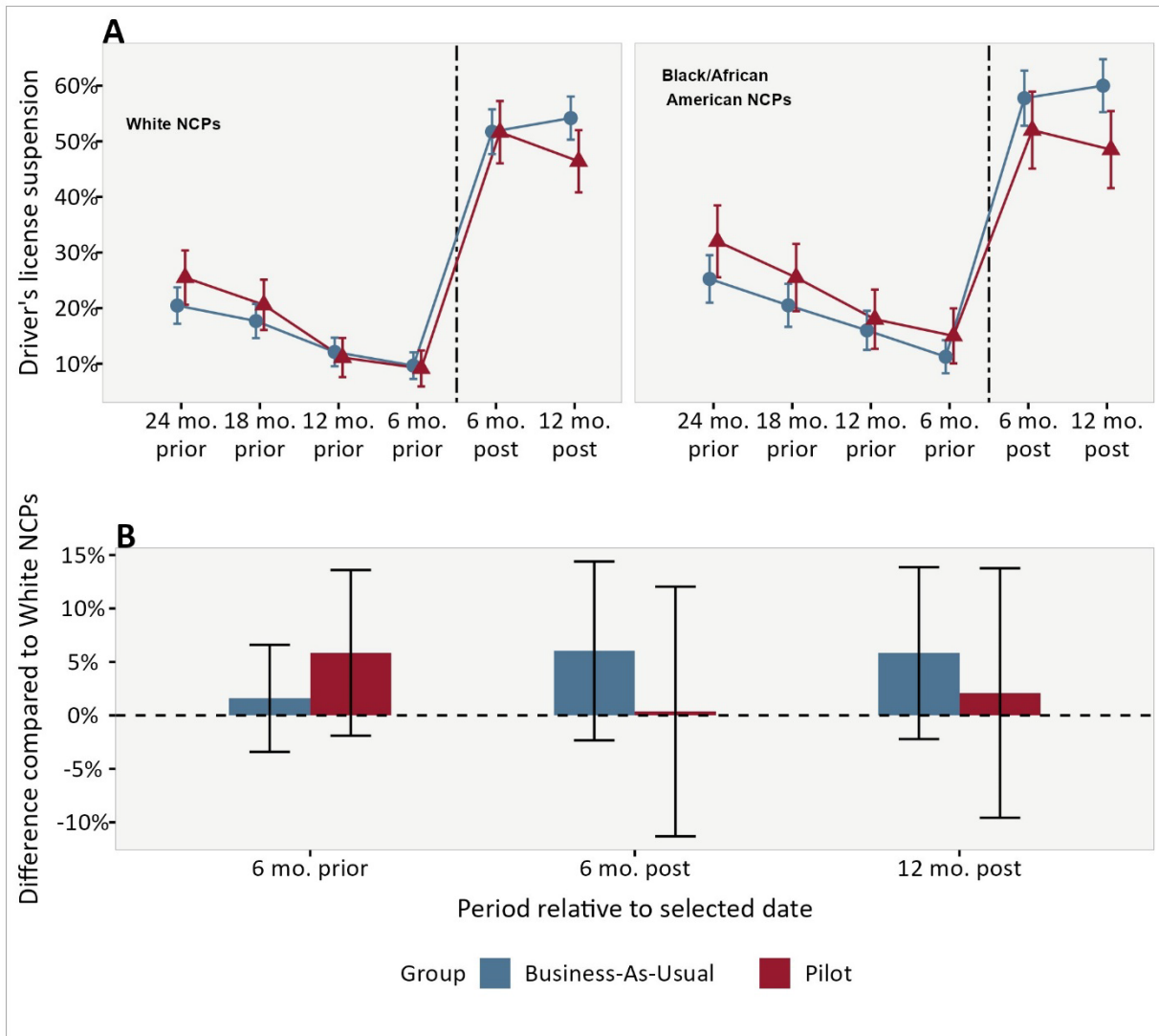
Figure G3. White and African American pilot and business-as-usual NCP compliance with payment orders over 36 months (A) and differences between races in compliance before and after the NCP's selected date (B).
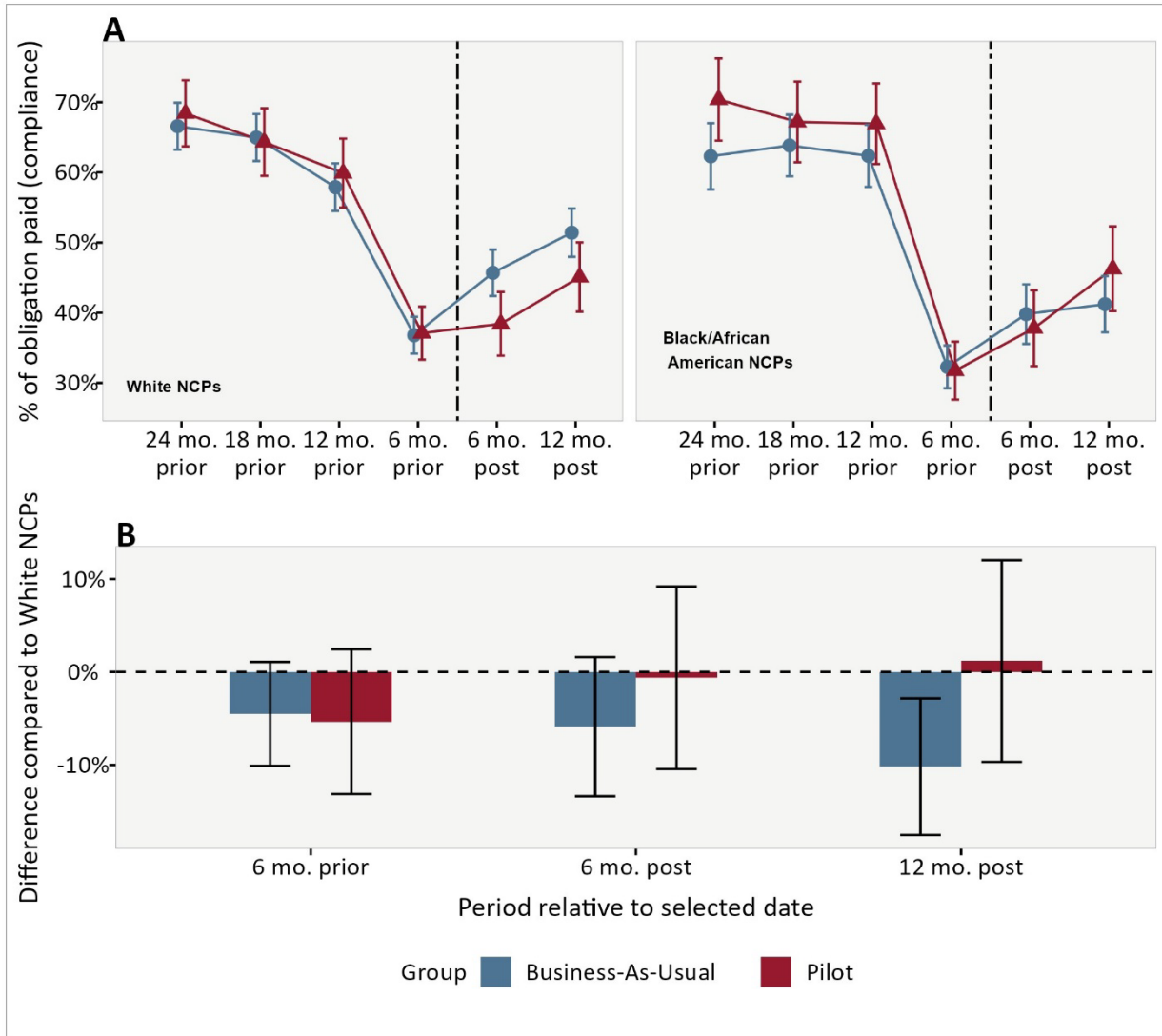
Figure G4. White and African American pilot and business-as-usual NCP payment frequency per period, over 36 months (A) and differences between races in payment frequency before and after the NCP's selected date (B).
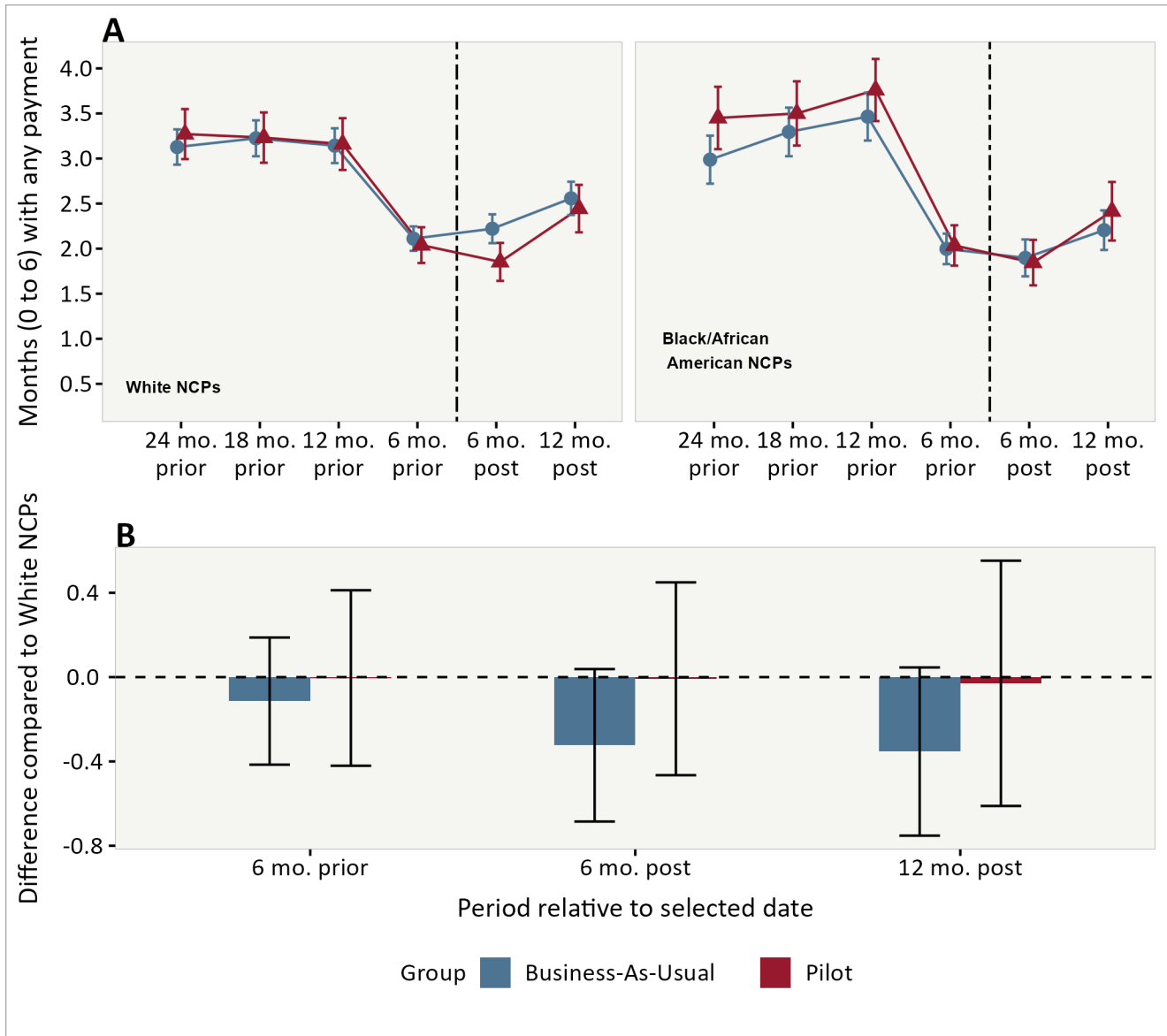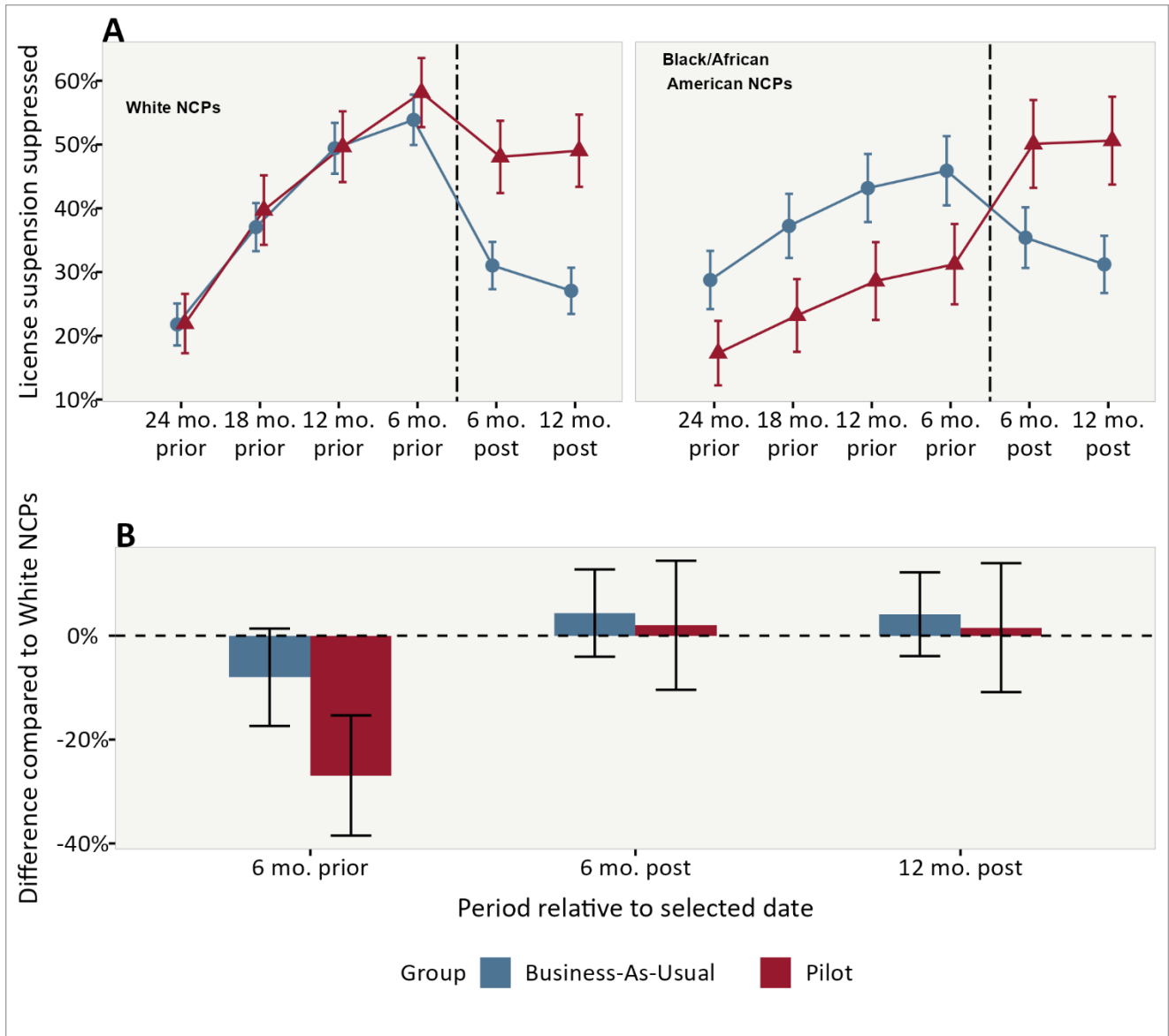
Figure G5. White and African American pilot and business-as-usual NCP payment amount over 36 months (A) and differences between races in payment amount before and after the NCP's selected date (B).

Figure G6. White and African American pilot and business-as-usual NCP entry into payment agreements over 36 months (A) and differences between races in payment agreements before and after the NCP's selected date (B).

Figure G7. White and African American pilot and business-as-usual NCP suppression of driver's license suspensions over 36 months (A) and differences between races in suppressions before and after the NCP's selected date (B).

Figure G8. White and African American pilot and business-as-usual NCP arrears management over 36 months (A) and differences between races in arrears management before and after the NCP's selected date (B).
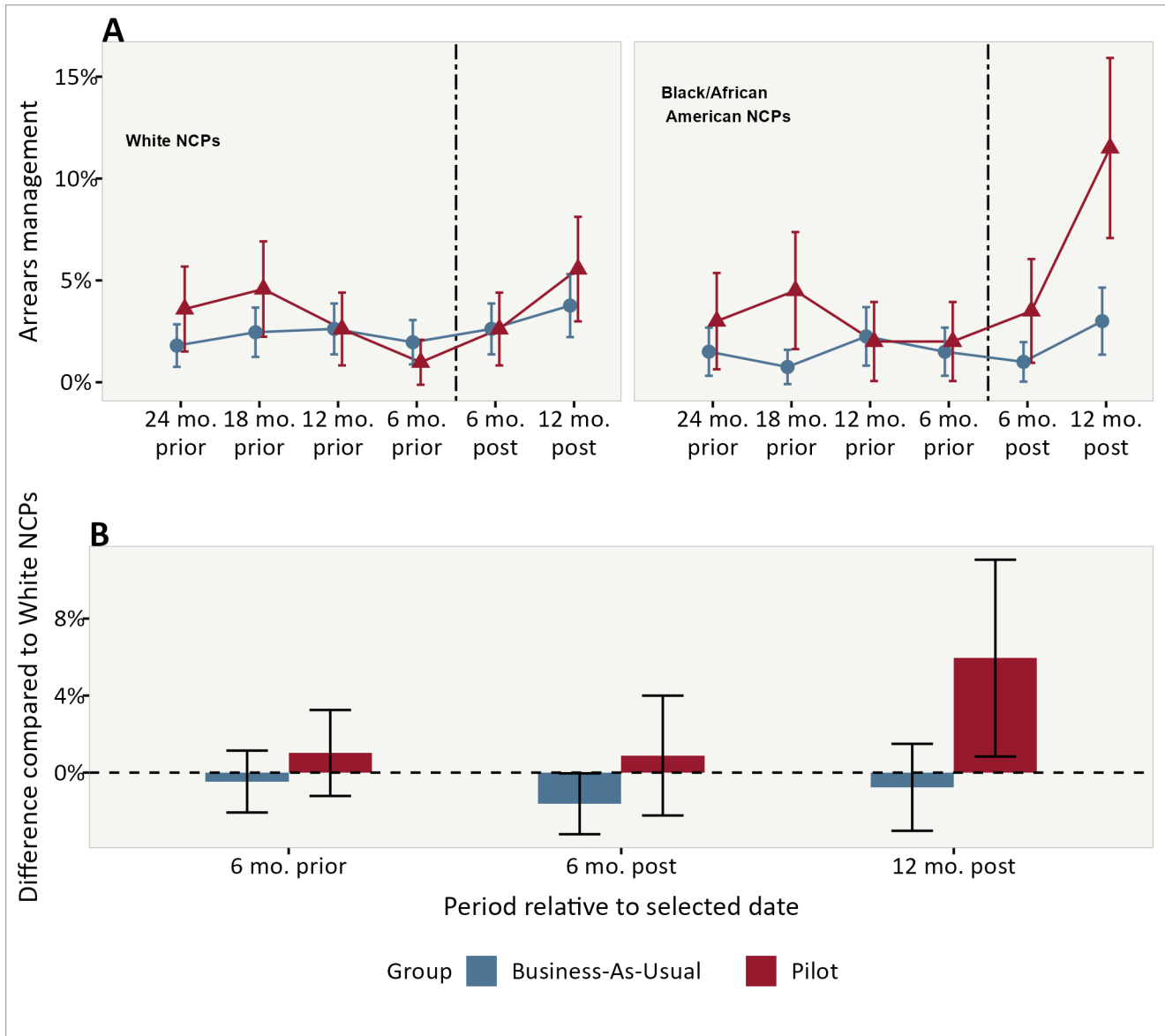
Figure G9. White and African American pilot and business-as-usual NCP case reviews initiated over 36 months (A) and differences between races in case reviews before and after the NCP's selected date (B).
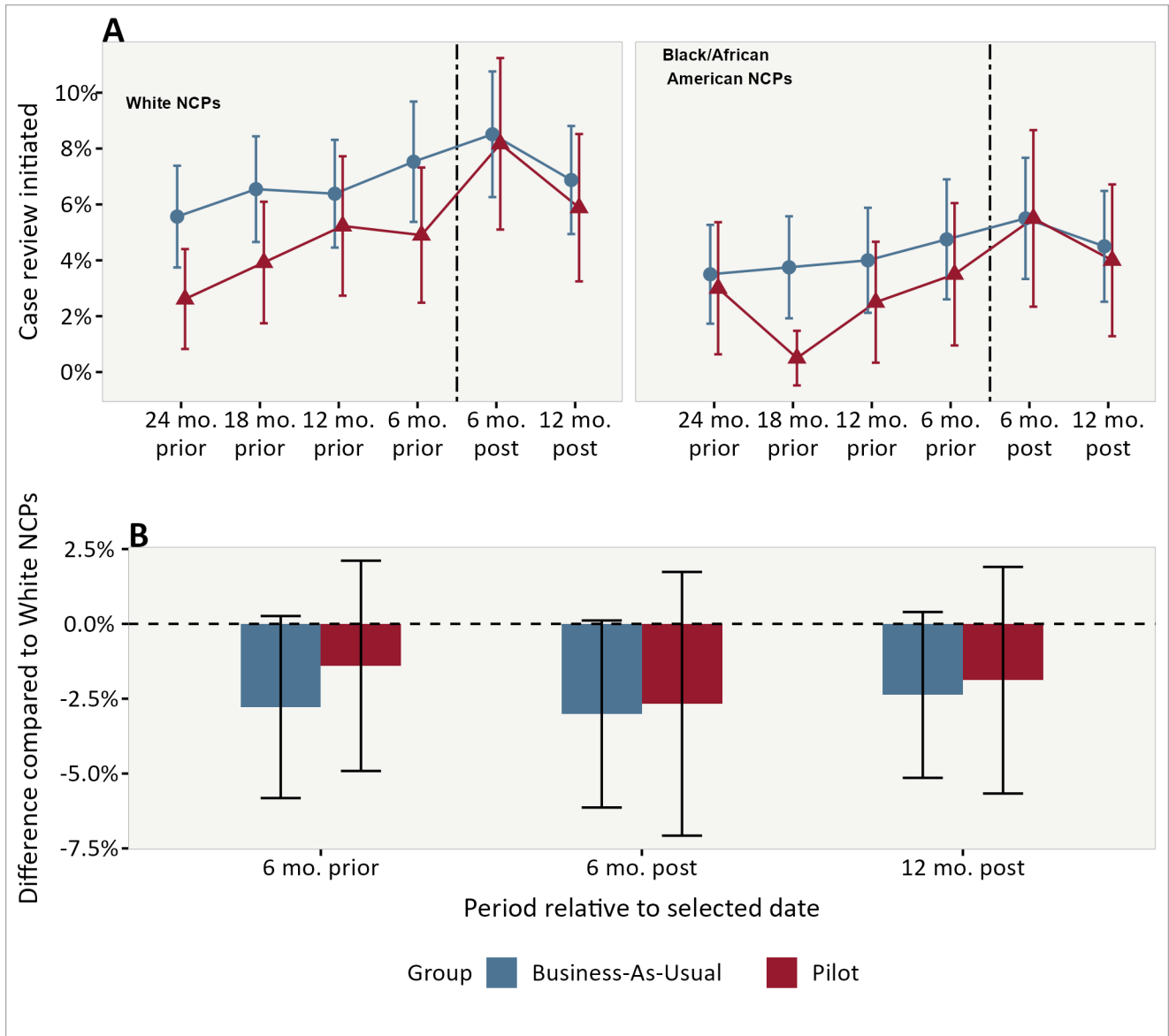
Figure G10. White and African American pilot and business-as-usual NCP public assistance benefits over 36 months (A) and differences between races in public assistance benefits before and after the NCP's selected date (B).
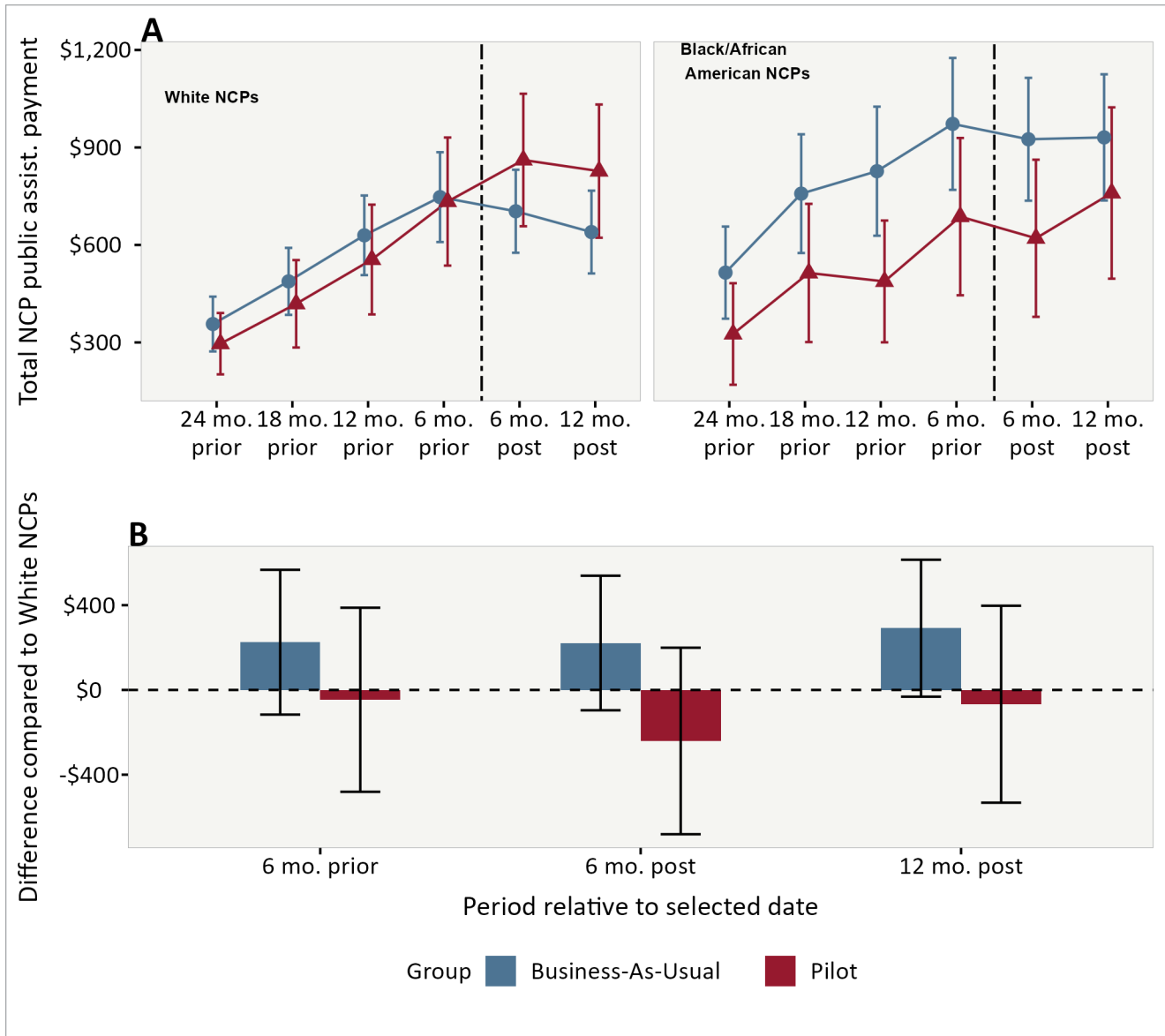
Figure G11. Custodial parents' (CP) public assistance benefits on cases with White and African American pilot and business-as-usual NCPs over 36 months (A) and differences between races in CP public assistance benefits before and after the NCP's selected date (B).