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EFFECTS OF UNIVERSAL AND UNCONDITIONAL CASH TRANSFERS ON CHILD
ABUSE AND NEGLECT

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ABSTRACT

We estimate the effects of cash transfers on a severe measure of child welfare: maltreatment. To do so, we leverage year-to-year household variation from a universal and unconditional cash transfer, the Alaska Permanent Fund Dividend (PFD). Using linked individual-level administrative data on PFD payments and child maltreatment referrals, we show that an additional \$1,000 to families in the first few months of a child's life reduces the likelihood that a child is referred to Child Protective Services by age three by 2.0 percentage points, or 10 percent, on average. Estimates indicate that additional cash transfers also reduce child mortality.

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I. INTRODUCTION

In recent years, cash transfers have gained popularity as a way to reduce income inequality, with some proponents arguing that universal transfers should replace existing welfare programs. Given that public investments in early life yield the largest societal benefits, one way to evaluate whether an unconditional cash transfer program would increase total social welfare in a cost-effective way is to test whether such programs positively impact child health and well-being ([Hendren and Sprung-Keyser, 2020](#)). Indeed, there is a body of evidence showing that means-tested cash transfers like the earned Income Tax Credit (EITC) and child tax credit (CTC) in the United States (US) reduce child poverty, increase birth outcomes, and improve test scores, school performance, and later life outcomes for children ([Eissa and Hoynes, 2006](#); [Dahl and Lochner, 2012](#); [Hoynes, Miller, and Simon, 2015](#); [Bastian and Micheltore, 2018](#); [Borra, Costa-Ramon, González, and Sevilla-Sanz, 2021](#)). Despite this fact, the EITC and CTC are conditional on employment and tax filing and do not reach many households in need. For example, only 80 percent of eligible households received the EITC in 2016 ([Tax Policy Center, 2020](#)).

In this paper, we test whether more universal cash transfers could improve both minor and severe outcomes of child well-being and help to further improve children's lives. In particular, preventing harmful behavior and maltreatment for children before they reach school age is of critical importance for their economic trajectories and for society as a whole. To address this, we ask: how much can unconditional and universal cash transfers affect child health and well-being in terms of children's probability of maltreatment, home environment, and family structure? We address this question in the context of an existing universal basic income program, the Alaska Permanent Fund Dividend (PFD).

The Alaska PFD provides annual, individual payments to each Alaska resident, regardless of immigration status, income, or wealth. Historically, the PFD averages \$1,600, although payment generosity varies from year to year. Unlike other cash transfer programs, including Temporary Assistance for Needy Families (TANF), the EITC and CTC, the Alaska PFD is not dependent on

employment or household income. Moreover, existing evidence indicates that the PFD indeed does not affect aggregate labor supply (Jones and Marinescu, 2022; Bibler, Guettabi, and Reimer, 2023); therefore, the Alaska PFD serves as a true unconditional and universal cash transfer program.

Using administrative data on PFD payments as well as longitudinal birth cohort data from the Pregnancy Risk Assessment Monitoring System (PRAMS) linked to individual-level child maltreatment referral data from the Alaska Office of Children’s Services (OCS) from 2009–2021, we exploit variation in both the date-of-birth PFD eligibility cutoffs for infants, and the annual PFD payment amounts to estimate the marginal effects of universal and unconditional cash transfers on child neglect and physical abuse. In other words, since all Alaskan residents are eligible to receive a cash payment each year, we use data on cumulative PFD payments and receipt to test whether changes in transfer amounts affect child outcomes, including child maltreatment and child mortality, between birth and age three.¹ To estimate causal effects, we use a fixed effects approach akin to comparing infants born within the same 12-month period in otherwise-similar families, where some households receive an additional PFD payment within the first year of their child’s life and some households do not.

We find that, on average, a cumulative \$1,000 in early childhood reduces referrals for child neglect and physical abuse by age three by 10 and 30 percent, respectively, and provide evidence that this is not driven by seasonality of births or changes in reporting. We also study a more severe outcome that is less likely to be systematically underreported—child mortality—and show that an additional \$1,000 in PFD funding in the early months of a child’s life reduces the likelihood of a child death by age five by about 30 percent. Effects are largest for children under the age of 4. These findings on physical abuse and mortality suggest that additional cash transfers to families do not reduce maltreatment through merely a mechanical reduction in neglect via purchasing food or other resources. Our findings also show that preventing maltreatment in the first year of a child’s life has persistent effects on maltreatment in the longer term.

To further investigate potential mechanisms driving our effects, we use 3-year follow-up re-

¹Our main results are up to age three due to the data available to examine mechanisms, but we also show results up to age five in the appendix.

sponses in the Alaska Childhood Understanding Behaviors Survey (CUBS) linked with the administrative OCS referral data. These data allow us to estimate the extent to which marginal increases in PFD payments affect several variables that serve as a proxy for household environment, parental time investments, safety net participation, and family stability.

When investigating potential mechanisms, we find that families receiving an additional \$1,000 in PFD funds early in a child's life leads to a more stable household environment by age three, including a higher likelihood that a child still lives with its mother and a lower likelihood of moving. Although we do not detect any meaningful effects on changes in children attending daycare, we find that additional PFD funding increases the likelihood that a child is more often cared for by a parent or a relative. This finding is consistent with existing evidence that additional PFD funds lead to changes in hours worked for some women, suggesting that mothers spend more time at home as a result (Bibler, Guettabi, and Reimer, 2023). Therefore, we show that the PFD may reduce maltreatment through the channel of more parental and/or relative caregiving. We posit that these effects may also be partially driven by a reduction in financial stress, leading to a healthier household environment.

Our findings introduce new contributions to a large literature on cash transfers and family well-being and have several important policy implications. First, by estimating the reduced-form effects of marginal changes in PFD payments, we isolate the effects of a cash transfer not tied to employment or tax filing. This distinction allows us to disentangle how cash—not changes in taxes or wages—drives changes in child outcomes. This feature is especially important given that prior research indicates that income increases from child support pass-throughs, higher minimum wages, a more generous EITC, and other tax benefits reduce involvement with the child welfare system (Cancian, Yang, and Slack, 2013; Raissian and Bullinger, 2017; Biehl and Hill, 2018; Berger, Font, Slack, and Waldfogel, 2017; Rittenhouse, 2023; Schneider, Bullinger, and Raissian, 2022; Kovski, Hill, Mooney, Rivara, Morgan, and Rowhani-Rahbar, 2022; Bullinger and Boy, 2023).

In particular, Rittenhouse (2023) finds that an additional \$1,000 of EITC benefits reduces child maltreatment by 3 percent. While our estimate magnitudes are generally aligned with this

finding, we note that our larger coefficients imply that expanding such benefits to everyone while not imposing work requirements can reduce child maltreatment even further. Moreover, because we are able to observe how much families receive, and because the payment schedule varies substantially across our sample period, we are able to observe how the estimates change in higher versus lower PFD payment years. Consequently, we can address whether child maltreatment also responds linearly to injections of cash within the household.

Second, we analyze the impacts of universal and unconditional cash transfers on child maltreatment, a critical measure of child well-being. In doing so, we expand on work showing that families use cash transfers to invest within the household. For example, research from a randomized control trial (i.e., the Baby's First Years study) from 2019–2021 shows that an unconditional cash transfer of \$333 per month to mothers in their infant's first year of life, as compared to only \$20, increased spending on child-specific items such as books, toys, diapers, and clothing (Gennetian, Duncan, Fox, Magnuson, Halpern-Meekin, Noble, and Yoshikawa, 2022). This cash transfer also increased the amount of time mothers spent in early learning such as reading books, telling stories, and playing with their infant and had no significant effect on maternal substance use (Troller-Renfree, Hart, Sperber, Fox, and Noble, 2022; Yoo, G.J. Duncan, and Magnuson, 2022). We note that we build on this literature by using individual-level data and a natural experiment to study families for a longer sample period (2009–2021), and in a non-pandemic, real-world context, which has implications for external validity.

Lastly, our findings that cash transfers can reduce child maltreatment and mortality have important policy implications for broadening cash transfer programs. Importantly, we shed new light on how universal transfers may be able to better reach a vulnerable population: children in poverty. Given that the vast majority of children in the bottom income decile of the US do not qualify for other transfers, like the CTC, and other programs, like TANF, maintain lifetime participation limits, our findings have implications for expanding the scope of existing programs to children in households that have little income from employment but may still be at risk of maltreatment (Goldin and Michelmore, 2022).

II. BACKGROUND

II.1. Child Protective Services and the Office of Child Welfare

Child Protective Services (CPS) is the government agency responsible for the assessment, investigation and intervention regarding cases of child abuse and neglect. Suspected maltreatment cases are typically collected using a hotline, maintained by the state agency, where calls are screened and then forwarded for further consideration. Once a report is made and meets the inclusion criteria, CPS is required to investigate the allegation of abuse, usually within 24 hours, depending on the case severity, although there is no mandate to thoroughly investigate each case. Once investigated, cases will be categorized as either “substantiated” or “unsubstantiated,” based on the outcome of the investigation and whether the reported maltreatment reaches a threshold, as defined by state law. Substantiated cases make up only approximately 13 percent of all investigated cases. However, even in instances in which a case is not substantiated, children in such households may still be at risk of maltreatment (Kohl, Jonson-Reid, and Drake, 2009).

Importantly, while a main stated goal of CPS is to refer families to community resources, CPS does not itself provide financial support or services directly to families.² Above all, CPS values permanency in a safe environment. As a result, the agency is primarily responsible for ensuring the safety of the child and, when necessary, initiating legal interventions and placing children into foster care or other longer-term, safe housing solutions.

II.2. The Alaska Permanent Fund Dividend (PFD)

The Alaska PFD is a sovereign wealth fund, consisting of a portion of the state’s oil royalties. Since 1982, a portion of the Alaska Permanent Fund has been distributed to all Alaskan residents in the form of the PFD. The PFD is calculated per resident, and every individual resident in Alaska

²The occasional exception is substance use services. Specifically, The Family First Prevention Services Act of 2018 provides states the option to use funds for prevention services and programs, including substance use, mental health, and parental skill training, to families at risk of entering the child welfare system, with the goal of keeping children in their homes. Alaska has submitted its prevention plan but it had not yet been approved during our study period.

receives the same amount as everyone else in a given year. There are no work conditions or requirements for the PFD, other than Alaska residency. Alaskan residents can apply online or via mail for the PFD each year between January and March, with disbursement typically in October. Take-up is over 92 percent statewide, and eligible take-up is nearly 100 percent.

The PFD payment amount varies from year to year according to the investment earnings of the Permanent Fund, and there is substantial variation in this amount over time. Figure 1 documents the amount of the PFD in 2016 dollars from 2000 to 2016. While the PFD was only \$878 in 2012, it ranged from over \$1,800 to nearly \$2,100 in 2014 and 2015, respectively. We note that the PFD does not systematically correlate with unemployment rate or child maltreatment referrals, providing some assurance that marginal changes in PFD amounts could exogenously affect within-household behavior.^{3,4}

Across households, PFD payments are dependent on the number of children living in the household in the previous calendar year. To be eligible for the fall payment, a child must have been born before December 31 of the prior year. In other words, families with children born in January will not receive the PFD payment for that child until the child is approximately 22 months old. In contrast, a child born in December will be eligible for payment at 10 months of age.

We use this variation in the PFD amounts across otherwise-similar households to test the effects of an unconditional cash transfer on child well-being. The PFD has been shown to influence Alaskan residents in ways that could be connected to child maltreatment. For example, one study, [Watson, Guettabi, and Reimer \(2020\)](#), estimates the short-term effects on crime in the days and weeks following the annual disbursement of the PFD. They find that the PFD increases substance abuse-related crimes but reduces property crimes. Importantly, this provides some support for the idea that the PFD could actually *increase* violence against children, if substance-abuse related

³For visual evidence on the relationship between yearly PFD payments, unemployment rates, and OCS referrals, see Figure A1.

⁴We note, as shown in Figure A1, the increase in referrals between 2016–2018 follows a nationwide upward trend in child maltreatment reports. Moreover, in mid-2016, Alaska centralized its intake of referrals, later rolling out a toll-free number for all geographic areas, making it easier for reporters to call in. Beginning in July 2017, Alaska’s OCS implemented a more streamlined documentation process, which included an emphasis on voice dictation to help case worker’s meet deadlines. We further discuss how this could play a role in our empirical approach below.

crimes are tied to child maltreatment.

Generally, the labor market effects of the PFD have been shown to be minimal, although there is some evidence that mothers of young children reduce the number of hours worked in the short term (Jones and Marinescu, 2022; Bibler, Guettabi, and Reimer, 2023). While additional time spent at home could reduce maltreatment from non-parent perpetrators, this may also increase maltreatment opportunities from mothers. On the other hand, reducing stress from work may be one channel in which the PFD could improve child welfare.

Finally, recent work shows that the PFD, similar to other cash transfers in the US, allows for greater household investments for children, which can improve child well-being. For example, Amorim (2022) finds that, compared to households with children in other states, Alaskan households increase spending on children's clothes, equipment for infants, and electronics in the months following the PFD disbursement. Moreover, Watson, Guettabi, and Reimer (2019) additionally document reductions in children's body mass index (BMI) as a result of the child's PFD eligibility due to date of birth cutoffs, implying potential investments in healthier foods. Overall, while the above studies provide evidence on how the PFD can affect labor market participation and child health, there is little to no evidence on whether the PFD affects more severe outcomes for children.

III. DATA

We use four main sources of data for this analysis, including a novel pairing of administrative and survey data, made possible by the ALCANlink project. ALCANLink integrates the Pregnancy Risk Assessment Monitoring System (PRAMS), Alaska Childhood Understanding Behaviors Survey (CUBS), PFD payments, Office of Child Welfare records, and Vital Records data. These data sets provide relational tables which allow us to connect and construct the linked data for this study.⁵ Data for individuals in our main sample is from the PRAMS survey 2009–2018 cohorts. The PRAMS data survey approximately one-sixth of all mothers in the two-to-six months following birth. The

⁵For more information on the ALCANlink Project, see Parrish, Shanahan, Schnitzer, Lanier, Daniels, and Marshall (2017).

survey oversamples mothers who are Alaska Native and mothers delivering a low-birth-weight baby.

We link these survey data to individual-level administrative data on PFD payments. Information on PFD payments is from the Alaska Department of Revenue. These data span 2009–2021 and document the number of PFDs received at a particular address. We observe whether the child’s household received a PFD that year and the number of PFDs received by the household, allowing us to track the years in which families receive funds and measure how these funds vary from year to year.⁶ These data also include the child’s date of birth, according to government records.

To estimate the effects of unconditional and universal cash on child maltreatment, we then link the PRAMS data with child maltreatment referral data from the Alaska Office of Children’s Services (OCS). These case-level data include the date of the alleged incident, date of referral, type of maltreatment alleged, assessment determination (substantiated or not), relationship to the perpetrator, and response priority time. No demographic data on the child (e.g., gender or race/ethnicity) are available to us.

Our main outcomes of interest are the likelihood of a child maltreatment referral, split by maltreatment type and assessment determination (i.e., substantiated or unsubstantiated). Separating total referrals by maltreatment type helps us to better understand potential mechanisms. Substantiated referrals are screened-in calls for which a case worker performed an investigation the case presented sufficient evidence to confirm the alleged abuse or neglect. Although the substantiated referrals seem as though they might better measure “true” maltreatment, unsubstantiated cases and substantiated cases have been previously shown to demonstrate similar risk levels (Kohl, Jonson-Reid, and Drake, 2009). In other words, although we additionally present results for substantiated cases, we prefer to include unsubstantiated cases because cases that get substantiated are sometimes due to agency capacity, not due to the details of the case.⁷

⁶Although we cannot track PFD assignments by name, we assume that each unique PFD address represents a household. In later analyses, we omit PFD addresses with a large number of recipients to avoid estimating effects for group homes where we may be unable to pick up effects for a single child.

⁷One major advantage of our data is that we are able to observe all types of referrals, including calls that were “screened-out,” implying that OCS did not move forward with investigation. In our definition of unsubstantiated calls, we include both screened-in and screened-out calls. Substantiated referrals include no screened-out cases, by definition.

Furthermore, we examine referrals by response priority time (a proxy for severity) and the alleged perpetrator. We also study whether the number of referrals is affected by the PFD, conditional on exposure to the child welfare system (i.e., the intensive margin). Lastly, these data contain a child's date of death, if applicable. Although we cannot determine the cause of death directly, we are able to additionally focus on children with previous interactions with the child welfare system and ask whether unconditional income from the PFD affects child mortality more broadly.⁸

These data have several advantages over previously used child maltreatment data, as we are able to see both unsubstantiated and screened-out reports, which are typically missing in standard datasets. However, we note that we are unable to observe siblings to determine within-household shocks that affect another child, and we do not have information on reporters. Therefore, while we can estimate effects by perpetrator type, we cannot see if who is reporting maltreatment changes over time.

Lastly, we link the PRAMS data to its 3-year follow up, the CUBS from 2012–2021.⁹ Together, the PRAMS and CUBS data consist of a sample of children born between January 2009 and December 2018 (observed in the PRAMS), followed up in the CUBS (between 2012 and 2021). CUBS is an Alaska-specific program developed as a 3-year follow-up survey to the PRAMS survey to better understand early child behaviors and outcomes. It is administered two months after a child's third birthday to all PRAMS survey respondents who remain in-state. These data provide additional information about household environment and parental behaviors like parental incarceration, food insecurity, and caregiving at age three, allowing us to address potential mechanisms.

We address potential changes in reporting due to the PFD in a number of ways. First, we note that although child maltreatment has been shown to be systematically underreported, estimates for physical abuse and mortality may be less likely than neglect to be underreported due to the clinical attention required. Second, we note that the proportion of substantiated cases to total cases does not change over time, suggesting that the volume of cases is not reacting to PFD variation. Third,

⁸We note that, because the PRAMS oversamples low birth weight infants, estimates may be biased upwards. We account for this possibility in greater detail below.

⁹For our sample, CUBS contains about half of the mothers identified in the PRAMS.

as described in more detail below, our empirical approach compares children born in the same year, which helps us to mitigate effects driven by macro trends in crime or reporting.

Summary statistics are shown in Table 1. On average, households receive PFD payments of \$1,217 for the first year after a child’s birth, and \$2,446 afterwards. Approximately 21 percent of children experience a child maltreatment referral before age three, with neglect constituting the majority of these accounts. The majority of perpetrators are parents of their victims.

IV. EMPIRICAL APPROACH

In our main analysis, we leverage variation in yearly PFD benefit amounts and date-of-birth eligibility cutoffs. One way to estimate a causal effect of the PFD on child maltreatment we would exploit the discontinuity in the January 1 cutoff for PFD eligibility and calculate a local average treatment effect. However, we note that this cutoff is also applicable for child-related tax benefits, and that there is evidence that socioeconomic status is tied to birth timing (Buckles and Hungerman, 2013; Rittenhouse, 2023). Therefore, in an effort to make use of the full range of the data, and to better estimate effects for children in otherwise-similar households, we begin by considering a model of the following form:

$$y_i = \beta_0 + \beta_1 PFD_i + \lambda_c + X_i + u_i \tag{1}$$

where y represents whether child i was ever referred to OCS for child abuse or neglect during the study period by the time the child reaches age three. The variable of interest, PFD , is a variable equal to the cumulative, or lifetime, PFD benefit amount received for child i by age three. Because we have linked follow-up survey data with reported outcomes for children at birth and again at age three, our main results document effects through age three. However, we also show separate effects of lifetime PFD amount on child maltreatment referrals by the time a child reaches ages 2, 4, and 5 in the appendix.

In our main specifications, we additionally include X_i which contains the following character-

istics of the mother, all measured at childbirth: education level, marital status, insurance status, and age. We also include whether the child is the mother’s first birth, and the number of people dependent upon the household income at birth (i.e. household size).¹⁰

Finally, to appropriately compare children born around the date-of-birth eligibility cutoff, we include a PFD cohort year fixed effect, λ_c . In our tightest bandwidth, this fixed effect compares children born within the December-January continuum. In our largest bandwidth, t , this fixed effect allows for comparison of children born between July of calendar year t with children born through June of calendar year $t + 1$. Put simply, our main empirical approach compares children born in the six months prior to the eligibility cutoff for an additional household PFD payment, December 31, to those born in the six months afterwards. We weight estimates by the PRAMS sampling weights.

This specification allows us to estimate how changes in PFD amount differentially affect two children of the same age born within 12 months of each other, where one household received an additional PFD in the first year of the child’s life. For example, date of birth dictates the time until the first PFD payment. Year of birth dictates the amount of the first PFD payment. So, due to differences in the month of birth, year of birth, and variation in the annual amount of PFD, by age three, a child born in December 2013 would have received two PFD payments totaling \$3,956 whereas a child born in January 2014 would have received just 1, totaling \$2,072— a difference of \$1,884. Note that this difference also varies across years due to annual changes in the amount of the PFD.

Because PFD amounts vary across years and within years across households, causal identification in this context relies on comparisons between children born across different PFD payout years of birth (e.g., December 2013 compared to January 2014) with different lifetime household transfer amounts due to the amount of the PFD and the child’s birthdate relative to the eligibility threshold. Our approach implies that there is as-good-as-random variation in the amount of cash a family receives in a given year based on Alaska investments and whether a child was born by the end of the previous calendar year (i.e., December 31). Below, we show that births in the latter half versus

¹⁰We also present results from specifications accounting for month-of-birth fixed effects.

earlier half of the year are not systematically different on a number of observable characteristics. Next, in Section VI, we discuss this idea further and provide additional tests to support the validity of our identification assumption and show that neither birth seasonality nor selection drive our main results.

V. RESULTS

In this section, we provide primary evidence that our empirical approach provides as-good-as-random variation in marginal cash transfer amounts by household. We then present results from the empirical approach described above for child maltreatment reports and child mortality.

V.1. Effects of the PFD on Child Maltreatment

First, in Table 2, we present evidence to support the identification assumption; namely, that the children in our sample born in the earlier half of the following year provide a good counterfactual for children in our sample born in the latter half of the year. To do so, we test whether birth parity or mother characteristics vary systematically across the treatment and control groups. Importantly, birth characteristics of these two groups are statistically similar, including first born status, mother's education, mother's insured status and mother's marital status, on average. This provides additional support for the idea that birth seasonality is not the main driver of any estimated effects of the PFD on maltreatment.¹¹

Next, in Table 3 we present the effects of a \$1,000 cumulative household increase in the unconditional income from PFD on child maltreatment reports. We display estimates and their corresponding standard errors for unsubstantiated referrals in the top panel and substantiated referrals in the bottom panel. Column 1 displays estimates for the likelihood of receiving any child maltreatment referral, while Columns 2 through 5 split total referrals into referrals for neglect,

¹¹We additionally provide t-tests for differences in infant and mother characteristics using a broader set of U.S. Natality data and present these estimates in Table A1. Notably, children born in the earlier half of the year have a slightly higher birthweight of 3 grams, but similar APGAR scores and number of prenatal visits. Moreover, mothers in the earlier half and latter half of the year are nearly identical in terms of marital status and Medicaid take-up, on average.

physical abuse, sexual abuse, and emotional abuse separately, respectively.

Estimates in Column 1 indicate that an additional \$1,000 in lifetime unconditional cash leads to a 2.0 percentage point (9.6 percent) reduction in the likelihood of a child experiencing an unsubstantiated child maltreatment referral by age three. As shown in Columns 2 and 3, these effects are driven largely by neglect (10 percent decline) and physical abuse (30 percent decline). Estimates for sexual abuse and emotional abuse are negative and statistically insignificant.

For substantiated reports, shown in the bottom panel of Table 3, estimates indicate similar reductions of the PFD on child maltreatment. Specifically, we find an additional \$1,000 in lifetime PFD reduces the likelihood of a child experiencing a substantiated referral by age three by 1 percentage point– a roughly 15 percent reduction. This effect is largely driven by fewer neglect referrals.^{12,13} Estimates in Column 1 of Table 3 indicate that an additional \$1,000 transfer to households in the first year of a child’s life leads to 180 fewer referrals to OCS for kids under the age of 3, or 90 fewer substantiated cases, over our sample period.

In Table 4, we separately analyze which types of referrals are most likely to respond to higher PFD payments. We do so to test whether a change in transfer amounts affects the most vulnerable children and/or whether the payments are affecting violence within the household. In Columns 1–3 we estimate effects by response priority type: “high,” “medium,” or “regular” priority.¹⁴ Importantly, the average reduction in reports is largest for cases that are considered higher priority (i.e., generate an OCS response within 24 hours), although declines in referrals holds across all priority types.

¹²As shown in Appendix Table A2 and Appendix Table A3 these effects are consistent across early childhood. Specifically, the decline is largest for children under the age of 2 but effects persist through age four. For children aged five, estimates for total referrals are statistically insignificant; however, reductions in substantiated claims remain significant.

¹³We have also tested whether there is a differential effect across the years in which PFD payments were larger, and find no systematic relationship between expectation of a larger payment nor “large” payment years having compounded effects. For example, estimates indicate a statistically significant and similar drop in referrals by age three in both the year with the highest payment amount (2015) as well as in the following year, when PFD payments were cut in half. For all years, effects are generally similar in magnitude to the main results, although, when cutting the sample, estimates for some PFD cohort years are not statistically significant at conventional levels. See Appendix Table A4. Moreover, Table A4 provides evidence that our estimate are not sensitive to the changes made to Alaska’s intake service in 2017 and increase in total referrals from 2016–2018.

¹⁴In particular, “high priority” requires a response within 24 hours, “medium priority” requires a response within 4 days, and “regular” priority requires a response within 1 week.

Furthermore, in Table 4 Columns 4 and 5 we present estimates by perpetrator type, split by parent and non-parent. We find that the previously reported declines in child maltreatment referrals are driven nearly exclusively by parent perpetrators. This finding may be unsurprising, given that we focus on children that are less than five years old and likely have not yet entered school. Nevertheless, estimates in Table 4 support the notion that cash transfers to parents can help to reduce financial stress in the household that leads to family violence.

Thus far, we have shown that an additional \$1,000 of PFD funding affects the extensive margin of maltreatment (i.e., whether a child is ever referred to OCS). Next, in Table 5, we consider effects on the intensive margin and examine whether the PFD affects the *number* of referrals. This is especially important given that many children have multiple interactions with the Alaska OCS, and these children may be the most vulnerable. Because of previous referrals to OCS, these are also children who are likely to be more closely monitored by the state, which could reduce reporting bias. Estimates in Table 5 Columns 1–3 indicate that larger PFD payments lead to fewer future referrals for physical abuse and neglect, conditional on already having a referral, implying that the PFD has both extensive and intensive margin effects on child maltreatment.¹⁵

V.2. Effects of the PFD on Child Mortality

We show above that an additional \$1,000 in PFD payments to a household early in a child’s life can lead to a reduction in referrals to OCS for both neglect and physical abuse, and that the total number of substantiated cases also falls with additional cash transfers. However, given that these outcomes may still be subject to underreporting bias, we also consider an even more severe outcome that is less likely to be underreported: child mortality.

In Table 6 we present results for whether a child died before age 2, 3, 4, or 5. We limit our sample to individuals with previous interactions with the Alaska OCS to get a better sense of mortality that may most likely be related to maltreatment.¹⁶ Because of the nature of the data—namely, that

¹⁵We have also considered heterogeneous effects based on maternal characteristics. Estimates indicate no statistically significant differences in the reductions in reports when separately analyzing effects by marital status, mother’s education, or mother’s age.

¹⁶We acknowledge that medically vulnerable children may also be more likely to be involved in the child welfare

these data include counts with many zeroes—we present estimates from our standard OLS model in Column 1 and also estimates from the corresponding Probit model in Column 2. Because we believe that OLS is less reliable for this outcome because of the weight it gives to households for which the outcome variable is disproportionately affected by any ad hoc solution to addressing cells with zero deaths, we primarily focus on Probit estimates for this outcome. Notably, we consider all causes of death to analyze a broader measure of child well-being and also avoid any systematic underreporting issues in child maltreatment reports.

Estimates in Table 6 do not indicate a statistically significant decrease in the likelihood of dying before age two. However, when observing effects on mortality by age three, estimates are negative. These effects grow over time. We find that an additional \$1,000 in PFD funds by age four reduces childhood mortality by approximately 30 percent. These effects persist through age five, corresponding to approximately 3 fewer child deaths over our sample period.

We note that these findings are especially relevant given that 6 children in Alaska died in 2021 from maltreatment-related causes ([U.S. Department of Health and Human Services, 2022](#)). Indeed, the magnitude of these estimates are about one-third of the size of our estimates for physical abuse referrals, suggesting that reducing physical abuse could be a main channel in preventing child deaths. Because children referred to OCS for physical abuse and neglect by age two are very likely to be referred again to OCS before age five, we note that these findings also speak to the potential of early life cash payments to prevent severe outcomes that result from persistent violence. We also note that these mortality findings provide some support for the idea that increases in PFD payments do not themselves lead to changes in maltreatment reporting.

VI. TESTING THE SENSITIVITY OF THE ESTIMATES

In this section, we explore the sensitivity of our estimates to functional form and various threats to identification. First, we provide evidence that our estimates are not sensitive to various functional

system, which may bias our results upwards. We note that our estimates are not sensitive to this restriction; when analyzing the full sample we estimate that an additional \$1,000 of cumulative PFD payments leads to a 21.2 percent reduction in mortality by age three which grows to 27.3 percent by age five.

forms in Appendix Table A5. Estimates from Probit models are similar to the main results and indicate reductions in child maltreatment referrals by age three by roughly 8–10 percent.¹⁷

Next, we show that our results are not sensitive to changes in sample period or outliers. We drop referrals from 2020–2021 due to the documented declines in child maltreatment reporting and various employment and income shocks that occurred during the COVID-19 pandemic. Our main estimates are nearly identical to those in Table 3 and are shown in Table A7. Moreover, estimates are not sensitive to the omission of households with large numbers of PFD recipients, such as group homes.¹⁸ Screened-out referrals are currently included in our analysis. Although these referrals indicate some level of perceived risk for maltreatment by someone, they are screened out due to not reaching the legal definition instigating an investigation by child welfare in Alaska. When we remove screened-out reports (Table A9), the estimates are slightly larger in magnitude, indicating that an additional \$1,000 in lifetime PFD income leads to a 2.2 percentage point reduction in total child maltreatment referrals and a 1.0 percentage point reduction in substantiated reports.

We then omit referrals that occurred before each child received their first PFD payment. In other words, for children born in December, for example, we drop referrals that occurred in the first approximately 10 months of their lives. For children born in January, we drop referrals that occurred in the first 22 months. Appendix Table A10 reports results that are smaller in magnitude, and less precisely estimated, but largely consistent with our main results.

Some research has documented the importance of the environment in the first year of a child's life relative to later years in early childhood (Almond and Currie, 2010). In our main models, we measure the cumulative lifetime amount of PFD a child receives, noting that any differences in total payments is derived from the first year of life, based on birth eligibility. To more directly test whether the first payment is responsible for the persistent effects on child maltreatment, in Appendix Table A11, we show only the PFD income from the first PFD payment. Estimates in Columns 1–3 for both panels are statistically similar to our main results in Table 3, suggesting that

¹⁷Moreover, in Table A6 we show that including birth month fixed effects yields a similar decrease in child maltreatment, further indicating that the PFD amount is largely responsible for the main results.

¹⁸See Table A8. To test whether estimates are sensitive to omitting group homes, we drop physical addresses that receive 19 or more PFD transfers per year.

the effects are indeed driven by the earliest PFD income received.

To further build on this finding, in Figure A2, we provide a figure to show that effects are not driven only by very short-run changes in household behavior due to the disbursement date, followed by reversion to the mean. Figure A2 displays the average number of referrals, by month, for our full sample period. Referrals fall in the summer months, and are highest in April and in October, the month of PFD disbursement. This implies that PFD disbursement does not itself lead to immediate reductions in child maltreatment.¹⁹

Moreover, in an effort to exploit birth eligibility cutoffs of the PFD, our empirical approach compares children born in the latter half of the year to children born in the earlier half of the following year. However, it is well-documented that due to the larger financial incentives of timing births in December rather than January, more births occur in the last week of December than in the first week of January.²⁰ Although above we show that there is little to no change in the composition of births for these two groups, in Appendix Table A12 we test the sensitivity of our results to dropping children with birthdays between December 24 and January 8 (a two-week period). The results are similar in sign and magnitude to our main results.

Finally, in our main models, we include births spanning the entire calendar year. To remove any potential seasonality, we present results that limit the analysis to births *only* in January and December, while omitting those with birthdays between December 24 and January 8 and present these estimates in Appendix Table A13. This approach is akin to other papers that similarly use the December 31 cutoff to identify effects, eliminating a donut of observations near the threshold (Rittenhouse, 2023). These results imply larger reductions in referrals with estimates indicating a 6.1 percentage point decrease in the likelihood of an unsubstantiated referral, although estimates are less precise for substantiated referrals. Table A14 show that reductions in unsubstantiated referrals

¹⁹We have also considered a model that more directly estimates a short-run effect of total referrals and substantiated referrals, based on the date of PFD disbursement, which changes year-to-year. Estimates from this event-study approach indicate no differential effects on referrals in the eight weeks leading up to or six weeks after statewide PFD disbursement, even accounting for year, month, day-of-week fixed effects. This provides further support for the notion that changes in referrals from additional cash transfers early in a child's life are not simply short-lived, but are persistent, echoing the nature of child maltreatment itself.

²⁰To show this birth bunching at the end of the year, we plot the weekly number of births in our sample relative to the December 31 cutoff in Figure A3.

from this approach are similar and persistent across ages two, four, and five.

VII. POTENTIAL MECHANISMS

Our above results imply that receiving an additional \$1,000 from the PFD leads to reductions in child maltreatment referrals, including reductions in physical abuse and neglect. In this section, we explore potential mechanisms that could explain these effects. To do so, we use a subsample of the PRAMS cohorts (2009–2018) linked to CUBS, which include interview follow-ups around a child’s third birthday. While each mechanism described below cannot alone justify the entirety of our findings, each analysis can help us better understand how cash transfer payments affect behavior within the household.

VII.1. Within-Household Conditions

We first address whether changes in lifetime PFD amounts can alter household living conditions, including moving frequently, parental incarceration, or the introduction of abusive partners. We do so given the recent evidence that increasing benefit amounts for conditional cash transfers leads to fewer divorces and fewer instances of intimate partner violence (Hsu, 2016; Lindo, Krishna, and Swensen, 2022). More generally, income supports could relax resource constraints that cause undue stress in relationships.

We present estimates for various household living conditions in Table 7 Panel A. Overall, estimates indicate that increases in PFD payments lead to improvements in family stability. In particular, we find that an additional \$1,000 implies that the child’s birth mother is less likely to have moved since the child’s birth.²¹ We also find that the child is more likely to still be living with their mother at age three, which suggests that additional cash payments can help to mitigate later enrollment of vulnerable children into foster care or other care arrangements away from their mothers.

²¹CUBS only measures moving within Alaska. Anyone who responded to PRAMS and moved out of Alaska is not included in CUBS. About 20 percent of PRAMS respondents leave the state before their child turns three.

VII.2. Food Security

Next, we analyze whether the PFD can help families better smooth consumption and increase food intake at home. Importantly, child neglect has been shown to be strongly correlated with food insecurity (Kim, Gundersen, and Windsor, 2023). Therefore, we estimate effects on nutritional assistance participation in an attempt to better understand the relationship between PFD payments and neglect.

Based on linked PRAMS and CUBS data, a majority of children participate in the nutritional assistance program, Women, Infants, and Children (WIC). In Table 7 Panel B we show that larger PFD payments lead to reductions in WIC enrollment at age three, although we find no changes in enrollment for the federally funded program, Supplemental Nutritional Assistance Program (SNAP), or food pantry usage. We note that this may be unsurprising for two reasons. First, WIC in Alaska considers PFD payments for means-testing, while the Alaska SNAP office does not. Second, WIC is a more restrictive program than SNAP with information barriers on what items are covered by the program funds, implying that with more household income, individuals are less likely to participate. Nonetheless, these findings suggest that the PFD does not have meaningful effects on household food insecurity.

VII.3. Childcare Arrangements

Finally, because increases in PFD amounts could affect labor force participation decisions as well as childcare decisions, we analyze effects on reported caregivers and time spent in daycare. We do so given that non-relatives may be riskier caregivers, increasing the likelihood of maltreatment. Moreover, there exists evidence that changes in employment affect child maltreatment, especially for fathers (Lindo, Schaller, and Hansen, 2018). Since estimates in Table 7 Panel A indicate that children are more likely to stay living with their mothers, we may expect that childcare arrangements change as a result.

Estimates in Panel C of Table 7 indicates that an additional \$1,000 of PFD increases the likelihood that a child is regularly in childcare at their mother's home with a relative or at a

relative's home. Moreover, the PFD does not change the time spent in daycare. These findings reinforce those from Section VII.1 showing that the PFD increases the stability surrounding the child's environment.

VIII. DISCUSSION AND CONCLUSION

In this paper, we analyze the effects of the Alaska PFD on child welfare involvement and overall child well-being. We find that transferring an additional \$1,000 to families in the early months of a child's life reduces the likelihood that a child is referred to Children's Services by 2.0 percentage points and reduces the probability of child mortality. These effects persist up to age five. We also show that these additional, unconditional funds reduce the probability of moving and increase the likelihood that a child will still be living with their mother by age three. As a result, we provide new evidence that cash payments to families affect child maltreatment and family stability.

Given that the PFD supports fewer than 200,000 children each year, our findings on child physical abuse and mortality suggest that the benefits of sending families an additional \$1,000 far outweigh the costs. To put our estimates into context, we find that larger PFD transfers reduce substantiated child maltreatment cases by children aged 0–3 by 90 cases over our sample period. Based on the CDC calculations estimating that the lifetime costs for each victim of child maltreatment is \$210,012, we estimate that the lifetime costs avoided by the additional \$1,000 cumulative household income early in a child's life is approximately \$18.9 million (Fang, Brown, Florence, and Mercy, 2012). In comparison, providing an additional \$1,000 to the treated households in our sample (i.e., about half of the mothers in our PRAMS data) cost approximately \$4.5 million.²²

Our results have implications for long-run outcomes, such as labor market outcomes, as well. For example, a recent paper—using a similar date of birth cutoff strategy—shows that a roughly \$1,300 transfer in the form of tax refunds for parents when their children are infants increased

²²This is based on the estimate in Panel B of Column 1 in Table 3, showing a 1 percentage point (14.9 percent) drop in substantiated cases as a result of a household receiving an additional \$1,000 of PFD funds. Approximately 600 individuals in our panel have a substantiated referral before age three. Taking into account the 186-case drop in total number of referrals shown in Table 3 and/or the drop in mortality by age five, the social benefits would be even larger.

young adult earnings by 1–2 percent (Barr, Eggleston, and Smite, 2022). Since child maltreatment has been shown to lead to worse economic outcomes in adulthood (Currie and Tekin, 2012; Currie and Spatz Widom, 2010), our results may document an important mechanism by which income transfers during early childhood affect long-run labor market outcomes.

Lastly, we note that our findings have important policy implications for broadening cash transfer programs. Although universal cash programs are relatively costly and may be less efficient at achieving any one particular policy goal, unconditional cash transfer programs are less discriminatory and can create fewer poverty gaps than piecemeal safety net programs (Banerjee, Niehaus, and Suri, 2019). We also note that we show the effects of universal cash transfers in the presence of child tax credits and other means-tested safety net programs. Our results thus speak to the marginal effects of expanding cash transfers without simultaneously reducing support for other services. Altogether, our findings indicate that cash flows to households early on in a child’s life have large benefits for both children and society, suggesting that cash may be one policy lever to reduce child maltreatment and child mortality.

REFERENCES

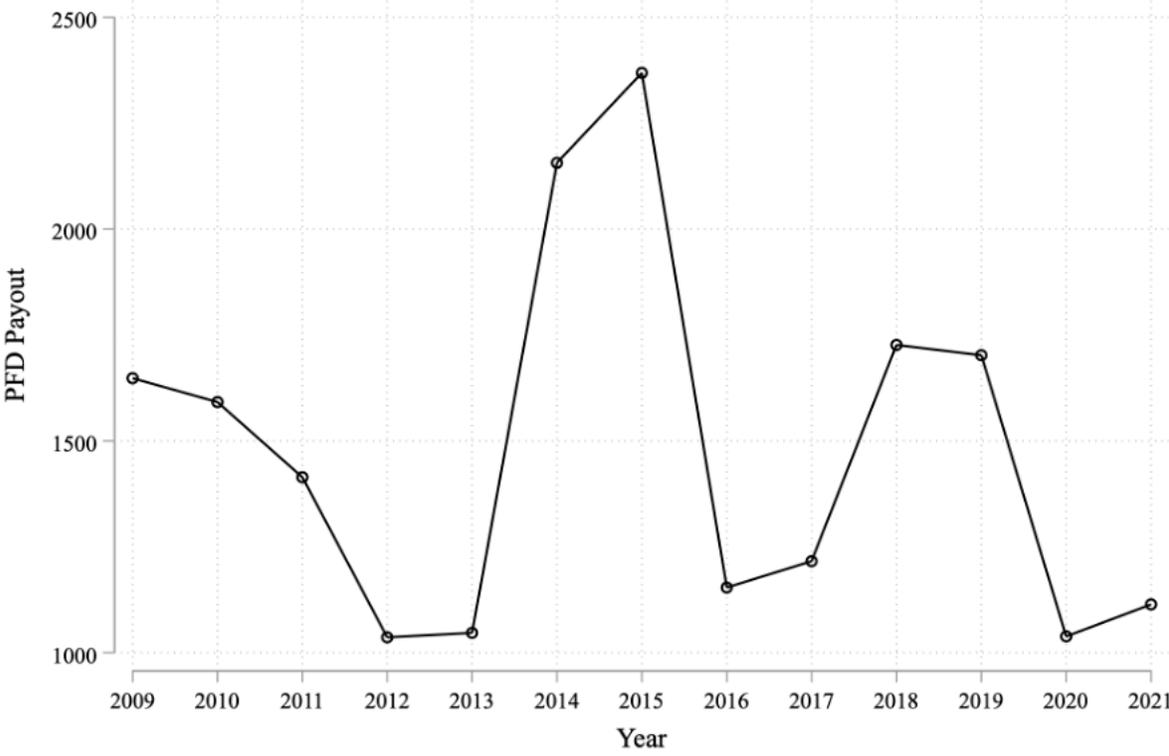
- Almond, D., and J. Currie (2010): “Human Capital Development Before Age Five,” Working Paper 15827, National Bureau of Economic Research.
- Amorim, M. (2022): “Socioeconomic Disparities in Parental Spending after Universal Cash Transfers: The Case of the Alaska Dividend,” *Social Forces*, 101(1), 252–280.
- Banerjee, A., P. Niehaus, and T. Suri (2019): “Universal Basic Income in the Developing World,” Working Paper 25598, National Bureau of Economic Research.
- Barr, A., J. Eggleston, and A. A. Smite (2022): “Investing in Infants: The Lasting Effects of Cash Transfers to New Families,” *The Quarterly Journal of Economics*, 137(4), 2539—2583.
- Bastian, J., and K. Michelmore (2018): “The Long-Term Impact of the Earned Income Tax Credit on Children’s Education and Employment Outcomes,” *Journal of Labor Economics*, 36(4), 1127–1163.
- Berger, L., S. Font, K. Slack, and J. Waldfogel (2017): “Income and Child Maltreatment in Unmarried Families: Evidence from the Earned Income Tax Credit,” *Review of Economics of the Household*, 15(4), 1345–1372.
- Bibler, A., M. Guettabi, and M. N. Reimer (2023): “Universal Cash Transfers and Labor Market Outcomes,” *Journal of Policy Analysis and Management*, 42(1), 198–224.
- Biehl, A., and B. Hill (2018): “Foster care and the earned income tax credit,” *Review of Economics of the Household*, 16(3), 661–680.
- Borra, C., A. Costa-Ramon, L. González, and A. Sevilla-Sanz (2021): “The Causal Effect of an Income Shock on Children’s Human Capital,” Working Paper 1272, Barcelona School of Economics.
- Buckles, K. S., and D. M. Hungerman (2013): “Season of Birth and Later Outcomes: Old Questions, New Answers,” *Review of Economics and Statistics*, 95(3), 711–724.
- Bullinger, L. R., and A. Boy (2023): “Association of Expanded Child Tax Credit Payments With Child Abuse and Neglect Emergency Department Visits,” *JAMA Network Open*, 6(2), 1–11.
- Cancian, M., M.-Y. Yang, and K. Slack (2013): “The Effect of Additional Child Support Income on the Risk of Child Maltreatment,” *Social Service Review*, *Children and Youth Services Review*, 87, 417–437.
- Currie, J., and C. Spatz Widom (2010): “Long-Term Consequences of Child Abuse and Neglect on Adult Economic Well-Being,” *Child Maltreatment*, 15(2), 111–120.
- Currie, J., and E. Tekin (2012): “Understanding the Cycle: Childhood Maltreatment and Future Crime,” *Journal of Human Resources*, 47(2), 509–549.
- Dahl, G. B., and L. Lochner (2012): “The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit,” *American Economic Review*, 102(5), 1927–56.

- Eissa, N., and H. Hoynes (2006): “Behavioral Responses to Taxes: Lessons from the EITC and Labor Supply,” *Tax Policy and the Economy*, 20, 73–110.
- Fang, X., D. S. Brown, C. S. Florence, and J. A. Mercy (2012): “The Economic Burden of Child Maltreatment in the United States and Implications for Prevention,” *Child Abuse & Neglect*, 36(2), 156–165.
- Gennetian, L. A., G. Duncan, N. A. Fox, K. Magnuson, S. Halpern-Meekin, K. G. Noble, and H. Yoshikawa (2022): “Unconditional Cash and Family Investments in Infants: Evidence from a Large-Scale Cash Transfer Experiment in the U.S.,” Working Paper 30379, National Bureau of Economic Research.
- Goldin, J., and K. Michelmore (2022): “Who Benefits from the Child Tax Credit?,” *National Tax Journal*, 75(1), 123–147.
- Hendren, N., and B. Sprung-Keyser (2020): “A Unified Welfare Analysis of Government Policies,” *Quarterly Journal of Economics*, 135(3), 1209–1318.
- Hoynes, H., D. Miller, and D. Simon (2015): “Income, the Earned Income Tax Credit, and Infant Health,” *American Economic Journal: Economic Policy*, 7(1), 172–211.
- Hsu, L.-C. (2016): “The Timing of Welfare Payments and Intimate Partner Violence,” *Economic Inquiry*, 55(2), 1017–1031.
- Jones, D., and I. Marinescu (2022): “The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence from the Alaska Permanent Fund,” *American Economic Journal: Economic Policy*, 14(2), 315–340.
- Kim, H., C. Gundersen, and L. Windsor (2023): “Community Food Insecurity and Child Maltreatment Reports: County-Level Analysis of U.S. National Data From 2009 to 2018,” *Journal of Interpersonal Violence*, 38(1–2), NP262–NP287.
- Kohl, P., M. Jonson-Reid, and B. Drake (2009): “Time to Leave Substantiation Behind: Findings from a National Probability Study,” *Child Maltreatment*, 14(1), 17–26.
- Kovski, N., H. Hill, S. Mooney, F. Rivara, E. Morgan, and A. Rowhani-Rahbar (2022): “Association of State-Level Earned Income Tax Credits With Rates of Reported Child Maltreatment, 2004–2017,” *Child Maltreatment*, 27(3), 325–333.
- Lindo, J. M., R. Krishna, and I. Swensen (2022): “Stable Income, Stable Family,” Discussion paper, Available at <https://www.nber.org/papers/w27753>.
- Lindo, J. M., J. Schaller, and B. Hansen (2018): “Caution! Men *not* at work: Gender-Specific Labor Market Conditions and Child Maltreatment,” *Journal of Public Economics*, 163, 77–98.
- Parrish, J. W., M. E. Shanahan, P. G. Schnitzer, P. Lanier, J. L. Daniels, and S. W. Marshall (2017): “Quantifying Sources of Bias in Longitudinal Data Linkage Studies of Child Abuse and Neglect: Measuring Impact of Outcome Specification, Linkage Error, and Partial Cohort Follow-Up,” *Injury Epidemiology*, 4(1), 23.

- Raissian, K., and L. R. Bullinger (2017): “Money Matters: Does the Minimum Wage Affect Child Maltreatment Rates,” *Children and Youth Services Review*, 72, 60–70.
- Rittenhouse, K. (2023): “Income and Child Maltreatment: Evidence from a Discontinuity in Tax Benefits,” *Working Paper*, Retrieved from https://krittenh.github.io/katherine-rittenhouse.com/RittenhouseJMP_current.pdf.
- Schneider, W., L. Bullinger, and K. Raissian (2022): “How does the Minimum Wage Affect Child Maltreatment and Parenting Behaviors? An Analysis of the Mechanisms,” *Review of Economics of the Household*, 20(4), 1119–1154.
- Tax Policy Center (2020): “Tax Policy Center Briefing Book,” Discussion paper, Urban-Brookings Tax Policy Center.
- Troller-Renfree, S. V., E. R. Hart, J. F. Sperber, N. A. Fox, and K. G. Noble (2022): “Associations Among Stress and Language and Socioemotional Development in a Low-Income Sample,” *Development and Psychopathology*, 34(2), 597—605.
- U.S. Department of Health and Human Services (2022): “Child Welfare Outcomes 2021: Report to Congress,” Discussion paper, Administration for Children & Families.
- Watson, B., M. Guettabi, and M. Reimer (2019): “Universal Cash Transfers Reduce Childhood Obesity Rates,” Discussion paper, Available at SSRN: <https://ssrn.com/abstract=3380033>.
- (2020): “Universal Cash and Crime,” *The Review of Economics and Statistics*, 102(4), 678–689.
- Yoo, P., G. G.J. Duncan, and K. Magnuson (2022): “Unconditional Cash Transfers and Maternal Substance Use: Findings from a Randomized Control Trial of Low-Income Mothers with Infants in the U.S.,” *BMC Public Health*, 22(897), 1–11.

A. FIGURES AND TABLES

FIGURE 1 — Alaska PFD Individual Payout by Year



Notes: Data on the individual PFD payout for 2009–2021 is from the Alaska Department of Revenue.

TABLE 1 — Means for Variables of Interest

Maltreatment Unsubstantiated Referral by Age 3		PFD Amounts	
Any Unsubstantiated Referral	0.207	PFD Amount Year 1 (in thousands \$)	1.217
Neglect Referral	0.183	PFD Amount Years 1-2 (in thousands \$)	2.446
Physical Abuse Referral	0.037		
Sexual Abuse Referral	0.017	Covariates	
Emotional Abuse Referral	0.081	Child is First Born	0.366
Parent Perpetrator Referral	0.150	Mother Married at Birth	0.638
Non-Parent Perpetrator Referral	0.031	Mother Education < High School at Birth	0.440
		Mother Education Some College at Birth	0.297
		Mother Insured by Medicaid at Birth	0.234
		Mother Uninsured at Birth	0.171
		Mother's Age at Birth	28.5
Maltreatment Substantiated Referral by Age 3			
Any Substantiated Referral	0.067		
Neglect Referral	0.060		
Physical Abuse Referral	0.008		
Sexual Abuse Referral	0.001		
Emotional Abuse Referral	0.015		
Parent Perpetrator Referral	0.065		
Non-Parent Perpetrator Referral	0.007		
Child Mortality	0.002		

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children's Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). Sample includes PRAMS respondent children linked with household PFD payments during the study period. $N = 8,968$

TABLE 2 — Balance Test: Means for Treated Vs. Untreated Births

	Month of Birth		p-value of difference
	July-December	January-June	
Covariates			
Child is First Born	0.375	0.356	0.152
Mother Married	0.646	0.630	0.205
Mother Education: < High School	0.436	0.444	0.548
Mother Education: Some College	0.290	0.305	0.223
Mother Insured by Medicaid at Birth	0.232	0.237	0.654
Mother Uninsured	0.166	0.176	0.305
Mother's Age	28.3	28.7	0.027**

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample includes households participating in the ALCANLink that received the PFD during the study period. The first column shows means for babies born in “earlier” birth months of a PFD cohort, i.e. those born before the December 31 eligibility cutoff, which we define as “Treated Births”. The second column presents means for untreated infants, i.e. those that are born in the earlier months of the following calendar year, which we define as “Untreated Births”. The third column displays p-values for the differences in means. $N = 8,968$

TABLE 3 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, by Maltreatment Type

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.020*** (0.007)	-0.019*** (0.006)	-0.011*** (0.003)	-0.001 (0.002)	-0.006 (0.005)
Mean Y	0.207	0.183	0.037	0.017	0.081
N	8968	8968	8968	8968	8968
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.010*** (0.004)	-0.010*** (0.003)	-0.002 (0.001)	-0.001 (0.001)	-0.003* (0.002)
Mean Y	0.067	0.060	0.008	0.001	0.015
N	8968	8968	8968	8968	8968

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

* p<0.10, ** p<0.05, *** p<0.01

TABLE 4 — Effect of PFD on Likelihood of Child Maltreatment Referrals by Age 3, by Response Time and Perpetrator

	(1) High Priority	(2) Medium Priority	(3) Regular Priority	(4) Parent Perpetrator	(5) Non-Parent Perpetrator
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.009*** (0.003)	-0.005 (0.004)	-0.016*** (0.006)	-0.019*** (0.006)	-0.002 (0.003)
Mean Y	0.044	0.042	0.119	0.150	0.031
N	8968	8968	8968	8968	8968
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.007** (0.003)	-0.003 (0.002)	-0.002 (0.002)	-0.010*** (0.004)	-0.001 (0.001)
Mean Y	0.032	0.017	0.031	0.065	0.007
N	8968	8968	8968	8968	8968

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

p<0.10, ** p<0.05, *** p<0.01

TABLE 5 — Effect of PFD on Number of Child Maltreatment Referrals by Age 3, by Maltreatment Type

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.158*** (0.043)	-0.161*** (0.049)	-0.313*** (0.086)	0.002 (0.150)	-0.118* (0.071)
Mean Y	0.789	0.552	0.055	0.024	0.158
N	3053	3053	3053	3053	3053
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.287*** (0.070)	-0.273*** (0.077)	-0.214 (0.177)	-0.768** (0.364)	-0.335*** (0.111)
Mean Y	0.146	0.113	0.010	0.001	0.022
N	3053	3053	3053	3053	3053

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. The outcome variable is the number of total child maltreatment referrals to OCS by age three. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE 6 — Effect of PFD on Child Mortality Among the Child Welfare Involved Population

	Probability of Dying by Age 2	
\$1,000 Lifetime PFD Amount	0.002** (0.050)	0.385 (0.158)
Mean Y	0.003	0.003
N	3053	1971
	Probability of Dying by Age 3	
\$1,000 Lifetime PFD Amount	-0.001 (0.386)	-0.170 (0.193)
Mean Y	0.004	0.004
N	3053	2220
	Probability of Dying by Age 4	
\$1,000 Lifetime PFD Amount	-0.005** (0.027)	-0.303*** (0.000)
Mean Y	0.005	0.005
N	2880	2220
	Probability of Dying by Age 5	
\$1,000 Lifetime PFD Amount	-0.005** (0.014)	-0.370*** (0.000)
Mean Y	0.005	0.005
N	2655	1971
Model	OLS	Probit

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on PFD payments from the Alaska Department of Revenue (2009–2021) and child mortality data from the Alaska Office of Children’s Services. The sample is limited to households that have received the PFD during the study period and were involved with the child welfare system. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Column 1 shows estimates from an OLS model. Column 2 reports estimates from a Probit model. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE 7 — Effect of PFD on Household Conditions at Age 3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A. Household Living Conditions									
	Living with Mother	Moved Since Child was Born	Marital Status Changed	Partner or Mother Went to Jail	Substance Problem Nearby	Mental Illness Nearby	Partner Control (Past 12 Months)	Partner Abuse (Past 12 Months)	Well Child Visits
\$1,000 Lifetime PFD Amount	0.019*** (0.005)	-0.068*** (0.000)	0.007 (0.442)	-0.007 (0.291)	0.003 (0.781)	0.002 (0.847)	0.002 (0.760)	0.002 (0.606)	0.003 (0.771)
Mean Y	0.975	0.462	0.136	0.072	0.167	0.165	0.040	0.031	0.875
N	4434	4432	4414	4425	4424	4428	4417	4418	4326
Panel B. Food Security - Past 3 Months									
	SNAP	Food Pantry	School Lunch	WIC (Current)	WIC (Ever)				
\$1,000 Lifetime PFD Amount	0.003 (0.783)	-0.010 (0.264)	0.012 (0.223)	-0.028** (0.029)	-0.050*** (0.000)				
Mean Y	0.256	0.075	0.173	0.319	0.531				
N	4360	4306	4307	4409	4323				
Panel C. Regular Childcare Arrangements									
	Childcare Center	Mother's Home Non-Relative	Mother's Home Relative	Non-Relative's Home	Relative's Home	Other			
\$1,000 Lifetime PFD Amount	-0.003 (0.902)	-0.002 (0.920)	0.035** (0.042)	-0.002 (0.926)	0.072*** (0.000)	-0.001 (0.882)			
Mean Y	0.527	0.120	0.275	0.236	0.281	0.049			
N	1969	1972	1326	1970	1970	1970			

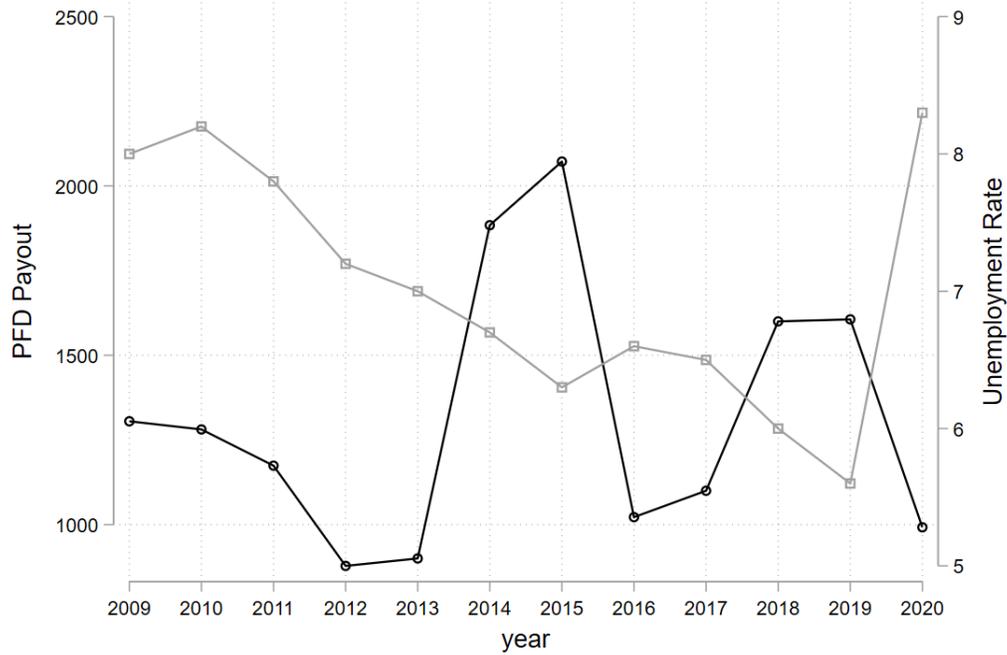
Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on PFD payments from the Alaska Department of Revenue (2009–2021), and the Alaska Childhood Understanding Behaviors Survey (CUBS) Cohorts 2012–2021. Regressions are weighted by sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother's first live birth, maternal marital status at birth, mother's education level at birth, mother's insurance status at birth, mother's age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

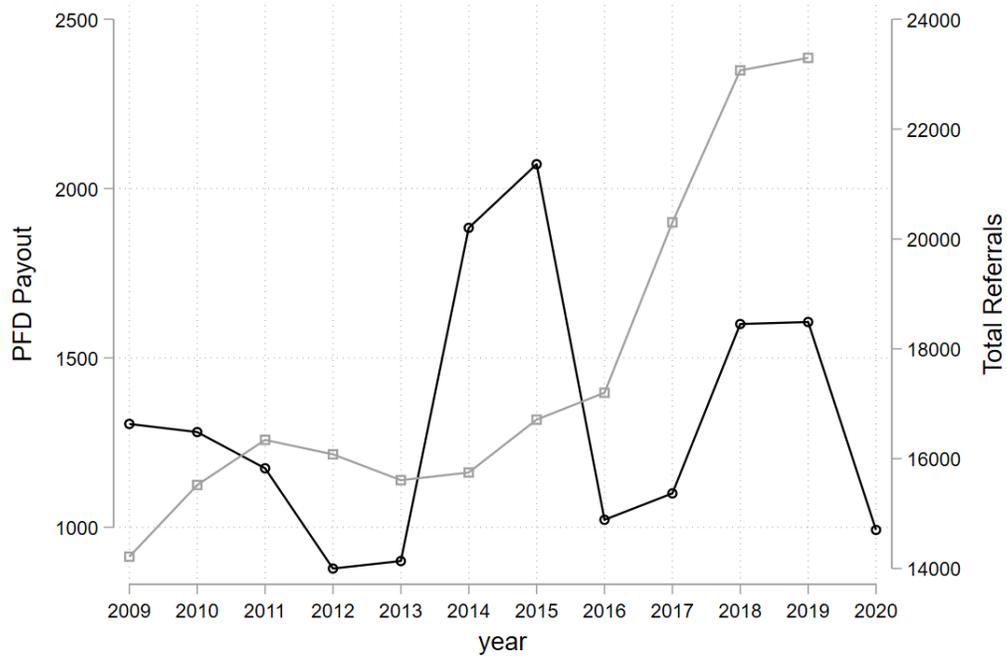
APPENDIX

FIGURE A1 — Alaska PFD Individual Payout by Year and Total Referrals

Panel A. PFD Payments and Unemployment Rate

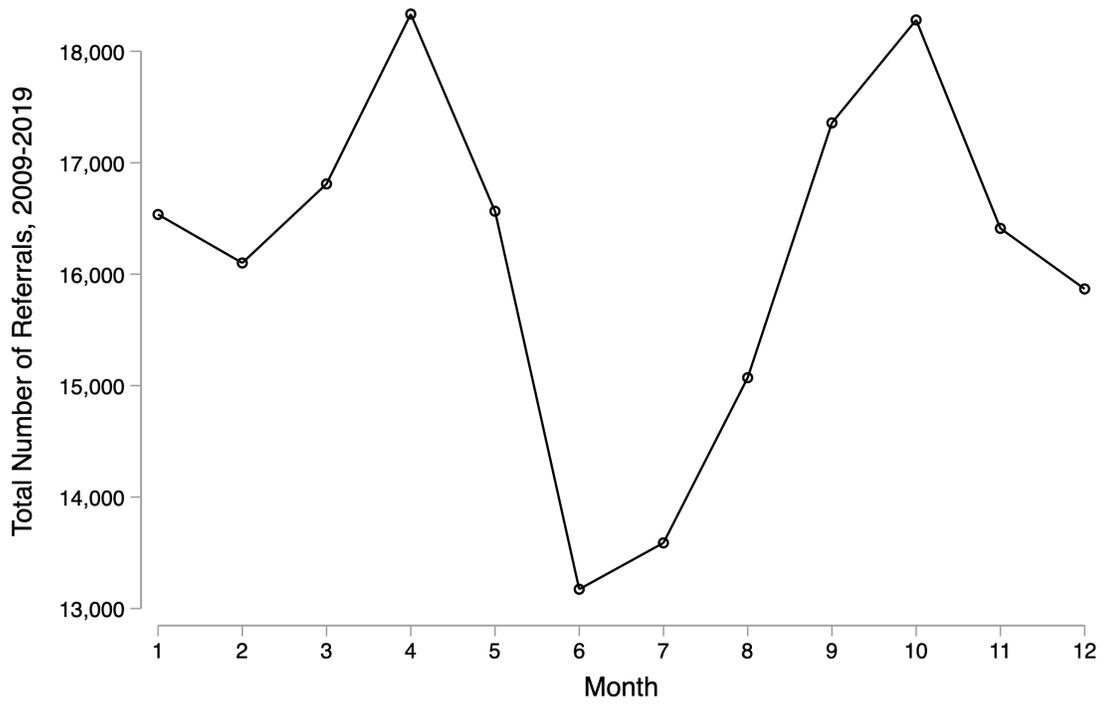


Panel B. PFD Payments and Total Child Maltreatment Referrals



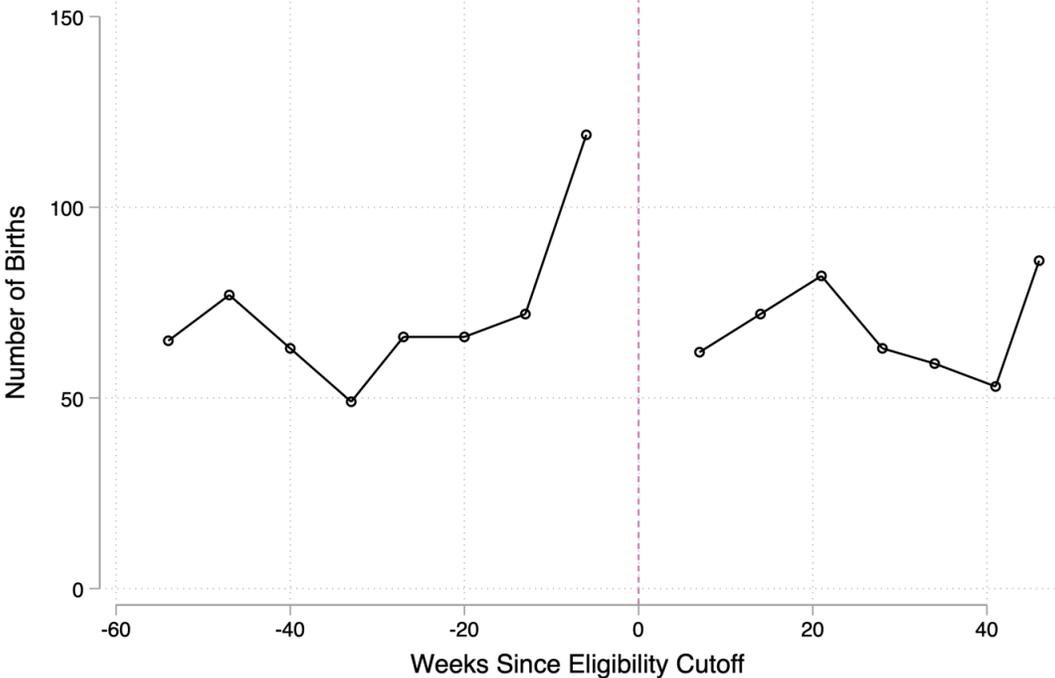
Notes: Author’s calculations of the annual individual PFD payout for 2009–2021 from the Alaska Department of Revenue and total number of referrals by year using data from the Alaska Office of Children’s Services (OCS) from 2009 to 2019. The top panel presents time series plots for the Alaska unemployment rate and the Alaska yearly PFD payment while the bottom panel presents time series plots for the total number of OCS referrals and the Alaska yearly PFD payment.

FIGURE A2 — Monthly Trends in Total Referrals



Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The figure plots average child maltreatment referrals to the Alaska OCS office, by month.

FIGURE A3 — Weekly Birth Counts in Alaska



Notes: Author's calculations on weekly counts of births based on natality data from ALCANLink (PRAMS Birth Cohorts 2009-2017).

TABLE A1 — Balance Test: Mother and Infant Descriptives, Using U.S. Natality Data

	Mean	Std. dev.	Earlier vs. Later Births		
			Jul-Dec	Jan-Jun	Difference
	(1)	(2)	(3)	(4)	(5)
Age (years)	28.20	5.98	28.22	28.18	-0.040***
Black	0.14	0.35	0.14	0.14	-0.004***
Married	0.60	0.49	0.60	0.60	0.006***
Medicaid	0.38	0.49	0.39	0.38	-0.008***
Number Prenatal Visits	13.70	15.01	13.68	13.72	0.040***
Male	0.51	0.50	0.51	0.51	0.001***
APGAR Score	4.97	0.29	4.97	4.97	-0.001***
Birthweight in Grams	3273.15	628.68	3271.72	3274.67	2.948***
Low Birthweight	0.08	0.27	0.08	0.08	0.000**

Notes: Publicly available natality data is from the CDC Wonder database. Descriptive statistics include the means and standard deviations for the listed outcomes for all mothers and infants born between 2009–2019. Columns (1) and (2) present means and standard errors for all births, respectively, while Columns (3) and (4) present means for infants born between July 1–December 31 and January 1–June 30 separately. In Column (5), we provide the difference in means of the respective variable between these two groups, according to a two-sample t test.

TABLE A2 — Effect of PFD on Likelihood of Unsubstantiated Child Maltreatment Referrals, Other Ages

	(1)	(2)	(3)	(4)	(5)
	Total	Neglect	Physical Abuse	Sexual Abuse	Emotional Abuse
Probability of Having a Child Maltreatment Referral by Age 2					
\$1,000 Lifetime PFD Amount	-0.020**	-0.017**	-0.009**	-0.006*	-0.005
	(0.008)	(0.008)	(0.003)	(0.003)	(0.005)
Mean Y	0.164	0.145	0.023	0.010	0.058
N	8968	8968	8968	8968	8968
Probability of Having a Child Maltreatment Referral by Age 4					
\$1,000 Lifetime PFD Amount	-0.016***	-0.016***	-0.010***	-0.002	-0.007*
	(0.005)	(0.005)	(0.003)	(0.002)	(0.004)
Mean Y	0.242	0.214	0.051	0.028	0.100
N	8162	8162	8162	8162	8162
Probability of Having a Child Maltreatment Referral by Age 5					
\$1,000 Lifetime PFD Amount	-0.001	-0.005	-0.002	0.001	-0.000
	(0.004)	(0.004)	(0.002)	(0.001)	(0.003)
Mean Y	0.269	0.237	0.062	0.037	0.115
N	7338	7338	7338	7338	7338

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. The top, middle, and bottom panels present estimates for the likelihood of receiving an unsubstantiated child maltreatment referral by ages two, four, and five, respectively. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A3 — Effect of PFD on Likelihood of Substantiated Child Maltreatment Referrals, Other Ages

	Total	Neglect	Physical Abuse	Sexual Abuse	Emotional Abuse
Probability of Having a Child Maltreatment Referral by Age 2					
\$1,000 Lifetime PFD Amount	-0.010** (0.005)	-0.009** (0.004)	-0.001 (0.002)	-0.001 (0.001)	-0.004** (0.002)
Mean Y	0.053	0.047	0.006	0.000	0.010
N	8968	8968	8968	8968	8968
Probability of Having a Child Maltreatment Referral by Age 4					
\$1,000 Lifetime PFD Amount	-0.011*** (0.003)	-0.011*** (0.003)	-0.000 (0.001)	-0.000 (0.000)	-0.004* (0.002)
Mean Y	0.082	0.073	0.010	0.002	0.020
N	8162	8162	8162	8162	8162
Probability of Having a Child Maltreatment Referral by Age 5					
\$1,000 Lifetime PFD Amount	-0.005** (0.002)	-0.006*** (0.002)	0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Mean Y	0.095	0.083	0.013	0.003	0.025
N	7338	7338	7338	7338	7338

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all-cause child mortality reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. The top, middle, and bottom panels present estimates for the likelihood of receiving a substantiated child maltreatment referral by ages two, four, and five, respectively. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A4 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, by PFD Year

	(1)	(2)	(3)
	Unsubstantiated Referrals	Substantiated Referrals	Death
July 2009-June 2010 Births (2010 PFD: \$1,281)			
\$1,000 Lifetime PFD Amount	-0.011	0.010	-0.000
	(0.029)	(0.010)	(0.004)
N	915	915	915
July 2010-June 2011 Births (2011 PFD: \$1,174)			
\$1,000 Lifetime PFD Amount	-0.093***	-0.043**	0.000
	(0.034)	(0.022)	(0.000)
N	901	901	901
July 2011-June 2012 Births (2012 PFD: \$878)			
\$1,000 Lifetime PFD Amount	-0.034	-0.021*	-0.001
	(0.021)	(0.012)	(0.001)
N	591	591	591
July 2012-June 2013 Births (2013 PFD: \$900)			
\$1,000 Lifetime PFD Amount	-0.008	-0.005	-0.001
	(0.015)	(0.008)	(0.001)
N	1051	1051	1051
July 2013-June 2014 Births (2014 PFD: \$1,884)			
\$1,000 Lifetime PFD Amount	0.015	0.000	0.002
	(0.014)	(0.008)	(0.002)
N	999	999	999
July 2014-June 2015 Births (2015 PFD: \$2,072)			
\$1,000 Lifetime PFD Amount	-0.034*	-0.012	-0.002
	(0.019)	(0.010)	(0.002)
N	977	977	977
July 2015-June 2016 Births (2016 PFD: \$1,022)			
\$1,000 Lifetime PFD Amount	-0.041*	-0.014	-0.003
	(0.023)	(0.014)	(0.003)
N	960	960	960
July 2016-June 2017 Births (2017 PFD: \$1,100)			
\$1,000 Lifetime PFD Amount	-0.046**	-0.028**	0.001
	(0.023)	(0.013)	(0.001)
N	884	884	884
July 2017-June 2018 Births (2018 PFD: \$1,600)			
\$1,000 Lifetime PFD Amount	-0.005	-0.016	0.000
	(0.031)	(0.019)	(.)
N	811	811	811

Source: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

* p<0.10, ** p<0.05, *** p<0.01

TABLE A5 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, Probit

	(1)	(2)	(3)	(4)	(5)
	Total	Neglect	Physical Abuse	Sexual Abuse	Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.083***	-0.088***	-0.152***	-0.009	-0.045
	(0.031)	(0.031)	(0.046)	(0.062)	(0.038)
Mean Y	0.207	0.183	0.037	0.017	0.081
N	8968	8968	8968	8968	8968
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.109***	-0.119***	-0.119*	-0.315**	-0.107*
	(0.039)	(0.041)	(0.066)	(0.158)	(0.057)
Mean Y	0.067	0.060	0.008	0.001	0.015
N	8968	8968	8968	8968	8968

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A6 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, Including Month Fixed Effects

	(1)	(2)	(3)	(4)	(5)
	Total	Neglect	Physical Abuse	Sexual Abuse	Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.019***	-0.018***	-0.011***	-0.001	-0.006
	(0.007)	(0.006)	(0.003)	(0.002)	(0.005)
Mean Y	0.207	0.183	0.037	0.017	0.081
N	8968	8968	8968	8968	8968
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.010***	-0.010***	-0.002	-0.001	-0.003*
	(0.004)	(0.003)	(0.001)	(0.001)	(0.002)
Mean Y	0.067	0.060	0.008	0.001	0.015
N	8968	8968	8968	8968	8968

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for month-of-birth and PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A7 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, Sensitivity Analysis: Dropping 2020 or Later

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.020*** (0.007)	-0.021*** (0.007)	-0.010*** (0.003)	0.000 (0.002)	-0.005 (0.005)
Mean Y	0.203	0.181	0.034	0.016	0.076
N	7338	7338	7338	7338	7338
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.009** (0.004)	-0.009** (0.004)	-0.001 (0.001)	-0.001 (0.001)	-0.002 (0.002)
Mean Y	0.066	0.059	0.007	0.001	0.014
N	7338	7338	7338	7338	7338

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A8 — Effect of PFD on Likelihood of an Unsubstantiated Child Maltreatment Referral by Age 3, Sensitivity Analysis: Dropping Top 1% of PFD Address Receivers

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.025*** (0.003)	-0.023*** (0.003)	-0.012*** (0.005)	-0.002 (0.438)	-0.002 (0.686)
N	6660	6660	6660	6660	6660
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.012** (0.011)	-0.010** (0.020)	-0.001 (0.544)	-0.001 (0.367)	-0.005** (0.043)
N	6660	6660	6660	6660	6660

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample limited to households that have received the PFD during the study period. We omit the top one percent of PFD receivers. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses

*p<0.10, **p<0.05, ***p<0.01

TABLE A9 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, Sensitivity Analysis: Dropping Screened Out Reports

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.022*** (0.000)	-0.018*** (0.002)	-0.008*** (0.007)	-0.001 (0.624)	-0.007 (0.107)
Mean Y	0.157	0.135	0.028	0.011	0.064
N	8968	8968	8968	8968	8968
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.010*** (0.006)	-0.010*** (0.004)	-0.002 (0.129)	-0.001 (0.159)	-0.003* (0.094)
Mean Y	0.067	0.060	0.008	0.001	0.015
N	8968	8968	8968	8968	8968

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. We omit screened out child maltreatment reports. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A10 — Effect of PFD on Child Maltreatment Referrals, Sensitivity Analysis: Dropping Pre-1st PFD Disbursement Referrals

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.008 (0.006)	-0.008 (0.005)	-0.008** (0.003)	0.001 (0.002)	-0.005 (0.004)
Mean Y	0.133	0.113	0.024	0.013	0.049
N	8953	8953	8953	8953	8953
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.006** (0.003)	-0.006** (0.003)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)
Mean Y	0.033	0.029	0.004	0.001	0.009
N	8953	8953	8953	8953	8953

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. We omit referrals that occurred before a household’s first PFD disbursement. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A11 — Effect of 1st Year PFD on Likelihood of a Child Maltreatment Referral by Age 3, by Maltreatment Types

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 in 1st Year PFD Amount	-0.020** (0.009)	-0.017* (0.009)	-0.017*** (0.005)	-0.006 (0.003)	-0.006 (0.006)
Mean Y	0.207	0.183	0.037	0.017	0.081
N	8968	8968	8968	8968	8968
Substantiated Referrals					
\$1,000 in 1st Year PFD Amount	-0.012** (0.005)	-0.011** (0.005)	-0.001 (0.002)	-0.001 (0.001)	-0.006** (0.003)
Mean Y	0.067	0.060	0.008	0.001	0.015
N	8968	8968	8968	8968	8968

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period. We include only PFD amounts for a child’s first PFD. Regressions are weighted by sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A12 — Effect of PFD on Likelihood of a Child Maltreatment Referral by Age 3, Sensitivity Analysis: Dropping Children born Between December 24 and January 8

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.018*** (0.007)	-0.018*** (0.006)	-0.011*** (0.003)	-0.001 (0.002)	-0.006 (0.005)
Mean Y	0.206	0.182	0.037	0.017	0.082
N	8603	8603	8603	8603	8603
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.010*** (0.004)	-0.010*** (0.003)	-0.001 (0.001)	-0.001 (0.001)	-0.003* (0.002)
Mean Y	0.066	0.059	0.008	0.001	0.014
N	8603	8603	8603	8603	8603

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period and have birthdays outside of December 24–January 8. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A13 — Effect of PFD on Child Maltreatment Referrals, Sensitivity Analysis: January and December Birthdates Only, Dropping December 24-January 8

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Unsubstantiated Referrals					
\$1,000 Lifetime PFD Amount	-0.061*** (0.022)	-0.062*** (0.022)	0.002 (0.007)	0.000 (0.003)	-0.018 (0.015)
Mean Y	0.217	0.193	0.031	0.014	0.090
N	1125	1125	1125	1125	1125
Substantiated Referrals					
\$1,000 Lifetime PFD Amount	0.001 (0.009)	0.005 (0.008)	-0.004 (0.003)	-0.000 (0.000)	-0.005 (0.004)
Mean Y	0.066	0.058	0.008	0.002	0.014
N	1125	1125	1125	1125	1125

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period and birthdays outside of December 24-January 8. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01

TABLE A14 — Effect of PFD on Child Maltreatment Unsubstantiated Referrals, Sensitivity Analysis: January and December Only, Dropping December 24-January 8, Other Ages

	(1) Total	(2) Neglect	(3) Physical Abuse	(4) Sexual Abuse	(5) Emotional Abuse
Probability of Having a Child Maltreatment Referral by Age 2					
\$1,000 in Lifetime PFD Amount	-0.051** (0.025)	-0.060** (0.024)	-0.002 (0.009)	-0.003 (0.005)	-0.007 (0.011)
Mean Y	0.174	0.152	0.023	0.008	0.062
N	1125	1125	1125	1125	1125
Probability of Having a Child Maltreatment Referral by Age 4					
\$1,000 in Lifetime PFD Amount	-0.049*** (0.018)	-0.040** (0.017)	-0.014 (0.012)	-0.007 (0.006)	-0.018 (0.015)
Mean Y	0.253	0.227	0.046	0.025	0.109
N	1030	1030	1030	1030	1030
Probability of Having a Child Maltreatment Referral by Age 5					
\$1,000 in Lifetime PFD Amount	-0.023* (0.014)	-0.017 (0.013)	-0.001 (0.008)	-0.004 (0.004)	-0.006 (0.011)
Mean Y	0.281	0.254	0.057	0.033	0.119
N	916	916	916	916	916

Notes: Data is from PRAMS Birth Cohorts 2009–2018, linked with administrative data on all child maltreatment reports from the Alaska Office of Children’s Services (2009–2021) and data on PFD payments from the Alaska Department of Revenue (2009–2021). The sample is limited to households that have received the PFD during the study period and were born in December or January, outside of December 24-January 8. Regressions are weighted by PRAMS sampling weights and adjust for PFD cohort fixed effects and the following child/mother-level demographics: whether the focal child is the mother’s first live birth, maternal marital status at birth, mother’s education level at birth, mother’s insurance status at birth, mother’s age at birth, and number of people dependent upon income at birth. Robust standard errors are in parentheses.

*p<0.10, **p<0.05, ***p<0.01