# Crime Victims' Children*

Paul Bingley[†] Lorenzo Cappellari[‡] Marco Ovidi[‡] Matteo Sandi[§]

February 2026

**Abstract**

We study the effects of parental criminal victimization on children's human capital development using Danish registry data from 2001-2023. Leveraging a Difference-in-Differences design that compares children exposed to parental victimization against a matched control group, we find that parental violent victimization reduces a child's end-of-school achievement by 0.02-0.03 standard deviations. These penalties are driven by victimization occurring during early childhood (0.05 standard deviations) and are more pronounced for paternal victimization and male children. We identify parental criminal behavior, particularly fathers perpetrating violence, as a key mechanism, alongside reduced family stability and parental labor market detachment. In contrast, property crime victimization shows no detectable spillovers. These findings suggest that crime victimization is an underappreciated driver of intergenerational inequality.

*We thank participants at the Rockwool Foundation in Copenhagen, the CLEAN 2025 Workshop at Università Bocconi and the Danish Criminology Forum 2026 at the University of Southern Denmark. We are grateful for funding from the Independent Research Fund Denmark | Social Sciences (Award 5282-00126). All errors are the responsibility of the authors. Corresponding author: Paul Bingley (pab@vive.dk).

[†]VIVE, Copenhagen

[‡]Università Cattolica del Sacro Cuore

[§]Università Cattolica del Sacro Cuore and CEP, LSE

# 1 Introduction

Crime imposes substantial direct and indirect costs on society (Heaton, 2010; Chalfin, 2015; Soares, 2015; Machin and Sandi, 2025). Direct costs include the administration of policing, courts, and sanctions, which are relatively straightforward to measure. Indirect costs, encompassing the long-term trajectories of both offenders and victims, are more elusive but potentially far larger. The economic literature has devoted considerable attention to offenders, building on the seminal work of Becker (1968), who formalized criminal decision-making as a rational choice problem weighing expected costs against benefits. Subsequent research has documented the substantial consequences of criminal involvement for offenders themselves, including reduced employment prospects, diminished earnings, elevated recidivism rates, and spillovers onto their families (Nagin, 2013; Draca and Machin, 2015; Chalfin and McCrary, 2017; Britto, Pinotti and Sampaio, 2022).

In contrast, significantly less is known about crime victims and their outcomes (Bindler, Ketel and Hjalmarsson, 2020). Recent empirical work has begun to fill this gap, documenting substantial "scarring" effects of victimization on victims' labor market outcomes, earnings, and health (Bindler and Ketel, 2022; Dustmann and Mertz, 2025). Evidence from diverse contexts shows that crime victimization affects working times (Hamermesh, 1999), spatial mobility (Dugan, 1999), avoidance behavior and time allocation (Braakmann, 2012), physical activity (Janke, Propper and Shields, 2016), mental health (Cornaglia, Feldman and Leigh, 2014; Dustmann and Fasani, 2016), well-being and life satisfaction (Cohen, 2008; Johnston, Shields and Suziedelyte, 2018), and birth outcomes (Koppensteiner and Menezes, 2020; Currie, Mueller-Smith and Rossin-Slater, 2022).

While these studies establish profound direct effects on victims, the potential for intergenerational spillovers remains largely unexplored. Omitting to account for the potential intergenerational effects of crime victimization may systematically underestimate the true social costs of crime and the extent to which crime victimization may perpetuate - or even exacerbate - socio-economic deprivation across generations. Given the documented impacts of parental shocks on children's development, a natural question to ask is whether

parental victimization may harm the next generation. On the offender side, parental incarceration has been shown to negatively affect children's outcomes (Norris, Pecenco and Weaver, 2021). Research on domestic violence has demonstrated that children whose mothers suffer abuse experience mental health deterioration and lower achievement, particularly when the violence occurs proximate to critical periods such as examinations (Bhuller et al., 2023).

A substantial body of research emphasizes that early life stages are crucial for children's human capital formation (Cunha and Heckman, 2006; Almond and Currie, 2011). The timing of parental inputs may matter above and beyond the level of resources invested (Caucutt and Lochner, 2020). However, precisely which "early stages" matter most remains an open question (Almond, Currie and Duque, 2018), with recent evidence suggesting there may be specific "windows of opportunity" for interventions to be most effective (Attanasio et al., 2022). Understanding whether and when parental victimization affects children is therefore important not only for assessing the full costs of crime but also for designing targeted support policies.

This paper goes beyond the consequences of crime for immediate victims and explores the intergenerational impact of parental victimization on the accumulation of human capital of "secondary victims," defined as children of crime victims (Jenkins, 2013). Our central research question is therefore how criminal victimization affects the accumulation of human capital and the schooling trajectories of victims' children. While much attention has been given to the direct consequences of crime on victims, and studies of indirect repercussions on family members have predominantly focused on domestic violence, we broaden this scope by exploring the impacts of parental victimization from non-domestic violent and property crimes.

Theoretical frameworks from psychology, sociology, and economics help illuminate this relationship. Attachment theory emphasizes how victimization affects parents' emotional availability, potentially disrupting the secure attachment crucial for children's development (Spencer, Keilholtz and Stith, 2021). Social learning theory posits that children may adopt maladaptive behaviors modeled by victimized parents (Gagnon, 2018). Fam-

ily stress models emphasize how crime-induced strain on parental relationships reduces emotional support available to children (Gonggrijp et al., 2023). Most centrally for our analysis, human capital theory posits that parental victimization reduces both financial resources and parental involvement, adversely affecting investments in children's education (Bindler and Ketel, 2022).

Using comprehensive Danish registry data from 2001 to 2023, we implement a matched Difference-in-Differences design (Hilger, 2016; Goodman-Bacon, 2021) that compares children exposed to parental victimization against carefully selected control children with similar observable characteristics. By examining variation in the timing of exposure across different childhood stages (Carneiro, Loken and Salvanes, 2021), we estimate causal effects while accounting for selection into treatment. We focus on the first instance of non-domestic parental victimization among parents without prior criminal records, thereby isolating the impact of victimization from confounding factors related to criminal involvement.

Our findings reveal that parental violent victimization reduces a child's end-of-school achievement by 0.02 to 0.03 standard deviations, with effects concentrated among children exposed during early childhood (0.05 standard deviations). Property crime victimization shows no detectable spillovers. The effects are more pronounced for paternal victimization and among male children. We identify several mechanisms through which these effects operate, including changes in parental criminal behavior (particularly fathers perpetrating violence post-victimization), increased healthcare utilization by both parents and children, lasting decreases in parental employment and earnings, increased residential mobility, and elevated rates of parental divorce.

These findings have important implications for understanding the full social costs of crime and for designing policies to support crime victims and their families. By documenting substantial intergenerational spillovers from parental victimization, we show that crime victimization represents an underappreciated driver of intergenerational inequality in human capital formation. The concentration of effects in early childhood suggests that interventions targeting families with young children may be particularly valuable. More-

over, the finding that victimized parents, especially fathers, are more likely to engage in subsequent criminal behavior highlights potential channels through which crime perpetuates across generations, suggesting that comprehensive victim support services could have benefits that extend well beyond the immediate victims themselves. The remainder of the paper is structured as follows. Section 2 describes the data and empirical framework underlying our analysis as well as our empirical design. Section 3 presents our results, and Section 4 examines what mechanisms might be at play. Section 5 concludes.

# 2 Data and Empirical Design

## 2.1 Data Sources

Our analysis is based on population-wide Danish administrative registers that we link at the individual level using unique personal identifiers. The core input is the universe of police-recorded criminal victimisations between 2001 and 2023, obtained from national police records. These data contain precise information on the timing, location, and legal classification of each offence, as well as a victim identifier. We restrict attention to offences that involve an identifiable victim and distinguish between violent and property crimes based on the official penal code categories. Victimless offences (such as traffic violations) and cases with incomplete identifiers are excluded from the analysis.

We link victims to their families using the Danish Civil Registration System, which provides longitudinal information on vital events and family relationships (Pedersen, 2011). This register allows us to identify all children of each victimised adult, to follow children and parents over time, and to determine the child's age at the time of parental victimisation. We construct our study population by selecting cohorts of children who can be observed both during the exposure risk period and at the time of end-of-compulsory-school achievement, and then classifying them as exposed or unexposed based on whether any parent experiences a qualifying victimisation event.

To measure educational outcomes, we use national education registers that contain end-of-school (9th grade) examination results for the entire student population (Jensen

and Rasmussen, 2011). These data provide teacher-assessed and exam-based grades in mathematics and other subjects, which we convert into standardised scores by cohort. Our main outcomes are the standardised teacher assessment in mathematics and an aggregate GPA measure across subjects at the end of compulsory schooling.

We complement these educational data with information on health, labour-market attachment, and local context. Health outcomes are constructed from registers covering non-hospital contacts with the healthcare system, including general practitioners and mental health providers, for both children and parents. Labour market variables come from matched employer–employee registers and include annual employment indicators and earnings for each parent. Together, these linked registers provide a rich longitudinal picture of children's family circumstances before and after parental victimisation, which we exploit in our research design and mechanism analysis.

## 2.2 Empirical Design

We build a quasi-experimental research design to estimate the causal impact of parental criminal victimization. While victimization is at least partly random, the likelihood of being subjected to violent or property crimes varies by context, it is spatially concentrated and in turn it might carry a socio-economic component. To address this, we employ a matched Difference-in-Differences (DiD) design. Closely related studies, namely Bindler and Ketel (2022) and Dustmann and Mertz (2025), quantify the direct cost of own criminal victimization for victims by comparing the time-varying professional and socio-economic trajectories of individuals victimised a few years apart during the time window that separates earlier victims (i.e., treated individuals) from later victims (i.e., control individuals). Unlike Bindler and Ketel (2022) and Dustmann and Mertz (2025), the outcome of interest in this study is measured only at one point in time, i.e., at age 16 when pupils sit end-of-school (9th grade) exams. Moreover, comparing observations victimised only a few years apart on either side of the time window around end-of-school (9th grade) exams would not enable us to test whether parental victimisation might hurt the most during early childhood vis-à-vis at later stages of childhood. For these reasons,

the econometric approach adopted in this study differs from these closely related studies.

First, we match children exposed to parental victimization with unexposed peers sharing key observable characteristics. These include year of birth, age, own and victimized parent's gender, and parental labor market history. This 1:1 matching without replacement ensures we compare observationally similar families. Table 1 presents descriptive statistics for the raw treated and untreated groups, confirming that observable characteristics, such as parental education and income, appear unbalanced between treated pupils and the average Danish population prior to the shock and suggesting that criminal victimization is not randomly distributed. However, Table 2 presents descriptive statistics for the *matched* treated and control groups, showing that the matching algorithm successfully balances most of these characteristics between treated and control families.

Second, to address selection on unobservable traits, which Bindler and Ketel (2022) and Dustmann and Mertz (2025) address by comparing individuals victimised only a few years apart, we exploit the observation of children who have already completed compulsory schooling at the time of parental victimization (i.e., exposed after age 16). In particular, pupils exposed to parental victimisation after age 16 are included in the analysis, matched to untreated pupils exactly as for the pupils exposed to treatment at younger ages, and the estimated effect for them is interpreted as the selection into the treatment. Because parental victimization cannot impact outcomes that are already realized, any difference in end-of-school outcomes between children exposed or not exposed to parental victimization beyond age 16 can be attributed to selection into the treatment. Under the assumption of age-invariant selection into treatment, once selection into parental victimisation has been accounted for, any additional effect among pupils exposed to parental victimization before age 16 can be interpreted as the treatment effect of interest.

We estimate the impact on child $i$'s outcome $Y_i$ (standardized test scores) using the following specification:

$$Y_i = \delta_0 + \delta_1 T_i + \sum_{s \in \{E,M,L\}} \delta_s T_i \times \mathbf{1}[a_i \in s] + \phi_{a(i)} + \psi X_i' + \eta_i, \tag{1}$$

where $T_i$ is the treatment indicator, and the treatment is interacted with the stage of

childhood: Early ($E$, ages 0 to 5), Mid ($M$, ages 6 to 11), and Adolescence ($L$, ages 12 to 16).

We rely on the assumption of age-invariant selection into treatment. Our estimates represent the causal effect of parental victimization if, in the absence of treatment, any systematic differences in end-of-school outcomes with the control group would have remained constant across children treated at different ages. We indirectly test this assumption through a nonparametric specification that estimates age-at-victimisation-specific treatment effects:

$$Y_i = \gamma_0 + \gamma_1 T_i + \sum_{k=0}^{22} \lambda_k T_i \cdot 1[a(i) = k] + \phi_{a(i)} + X_i'\nu \ + \epsilon_i, \tag{2}$$

where coefficients $\lambda_k$ are normalized relative to $a(i) = 17$, the earliest age at which parental victimization cannot affect end-of-school outcomes. Under our identifying assumption, the estimates for $\lambda_{18}, \ldots, \lambda_{22}$ should be statistically indistinguishable from zero. We report supportive evidence for this restriction in the next section.

# 3 Results

This section presents the main empirical results on how parental criminal victimisation affects children's educational achievement. We begin in Subsection 3.1 by documenting the average impacts of violent and property crime victimisation on end-of-school teacher assessments in mathematics and GPA, and by examining how these effects vary with the age at which children are exposed. Subsection 3.2 then explores heterogeneity in the estimated effects across key family dimensions, focusing in particular on differences by the gender of the victimised parent and of the child. Together, these results provide the reduced-form evidence that motivates the subsequent analysis of mechanisms in Section 4.

## 3.1 Main Effects on Human Capital

Our baseline results on educational achievement are summarised in Table 3 and Figures 1 and 2. Table 3 reports parametric difference-in-differences estimates from Equa-

tion (1) that group ages into early childhood (0–5), mid-childhood (6–11), and adolescence (12–16), while Figures 1 and 2 plot non-parametric estimates of the effect of parental violent and property crime victimisation by the age at which children are exposed on maths and GPA (Overall) assessments, respectively. Across specifications, the dependent variable in Panel A of Table 3 is the standardised teacher assessment in mathematics at the end of compulsory schooling, while Panel B of Table 3 presents analogous results for the overall GPA.

The estimates point to three main findings. First, parental violent victimisation leads to a statistically and economically significant reduction in children's achievement. The average effect across childhood, captured by the "Treated × Exposed" coefficient, implies a decline in maths scores of around 0.02–0.03 standard deviations, depending on the specification. This magnitude is comparable to the impact of sizeable changes in school quality or class size documented in the education literature, indicating that victimisation constitutes a meaningful shock to the production of human capital. In contrast, the corresponding coefficients for parental property crime victimisation are small and imprecisely estimated, suggesting that property crimes do not generate detectable spillovers on children's educational outcomes. The property offences studied in this setting primarily comprise non-violent thefts. Since these are typically covered by insurance in Denmark and their direct impact on victims is likely smaller compared with violent offences, this finding appears plausible.

Second, the timing of exposure matters greatly. When we decompose the effect by childhood stage, we uncover a steep gradient in the impact of violent victimisation. Children exposed in early childhood (ages 0–5) experience the largest penalties, with effect sizes of approximately 0.05 standard deviations in maths, roughly twice the average effect across all ages. The estimated impacts for mid-childhood (6–11) and adolescent (12–16) exposure are smaller in magnitude and often not statistically significant. The age profiles in Figures 1 and 2 mirror this pattern: the coefficients are close to zero for children whose parents are victimised after age 16—by construction, a placebo group for whom end-of-school achievement is already realised—while the largest deviations from zero occur for

exposure in the earliest years of life. This is consistent with models of skill formation that emphasise dynamic complementarity, whereby shocks in early childhood have persistent consequences that later investments can only partially offset, and supports the hypothesis that early childhood is a critical window for parental inputs (Caucutt and Lochner, 2020).

Third, the results are robust across a range of specifications that progressively tighten our control for confounding factors. Columns (1) and (4) of Table 3 include only age-at-exposure, cohort, and calendar-year dummies, while columns (2) and (5) add rich parental and child covariates measured in the base year, and columns (3) and (6) further control for parish fixed effects, i.e., a very granular spatial unit. The point estimates for violent victimisation are remarkably stable across these specifications, and the precision of the estimates increases as we absorb additional residual variation. This stability suggests that our matched difference-in-differences design is effective at addressing selection on observables, and that the remaining identifying variation is not driven by compositional changes correlated with parental victimisation.

Taken together, the main results establish that violent victimisation of previously non-criminal parents has a persistent and age-dependent negative impact on their children's human capital, while property crime victimisation does not. The concentration of effects in early childhood provides strong evidence that the home environment during the first years of life plays a critical role in mediating the consequences of parental shocks. In the next subsection, we examine how these patterns vary by parent and child gender, and Section 4 then explores the behavioural, health, and economic channels that underlie these reduced-form effects.

## 3.2 Heterogeneity by Parent and Child Gender

The average effects in Table 3 mask substantial heterogeneity across families. We first explore how the impact of parental violent victimisation varies by the gender of the victimised parent and of the child. Table 4 reports estimates from specifications that allow treatment effects to differ between fathers and mothers and between sons and daughters, while Table 5 further disaggregates by parent–child gender pairs. Across all panels, the

dependent variable is the standardised teacher assessment in mathematics at the end of compulsory schooling.

Panel A of Table 4 shows that, when pooling boys and girls, victimisation of fathers is associated with markedly larger penalties in children's achievement than victimisation of mothers. The interaction coefficients for "Treated × Exposed" and for early-childhood exposure are roughly twice as large in magnitude for paternal victimisation as for maternal victimisation, with the gap particularly pronounced for exposure between ages 0 and 5. This pattern suggests that shocks to fathers' well-being and behaviour have especially detrimental consequences for the production of children's human capital, which is consistent with the strong changes in paternal criminal behaviour documented in Figure 3 and with the larger labour market losses for fathers in Figure 6.

Panels B and C of Table 4 turn to heterogeneity by child gender. The estimates indicate that boys suffer substantially larger penalties than girls when a parent is victimised. For boys, the coefficients on exposure in early childhood are sizeable and precisely estimated, while the corresponding coefficients for girls are smaller and often statistically indistinguishable from zero. This divergence is again most pronounced for exposure between ages 0 and 5, pointing to early childhood as a particularly sensitive period for the formation of boys' skills. One interpretation is that boys are more behaviourally responsive to the deterioration in family environment documented in Section 4, and therefore more likely to translate parental shocks into disruptive schooling trajectories.

Table 5 combines these two dimensions by separately estimating the effects of paternal and maternal victimisation on sons and daughters. The results reveal a clear asymmetry. Sons of victimised fathers exhibit the largest achievement losses, with early-childhood exposure associated with penalties that are roughly twice as large as those for sons of victimised mothers. In contrast, daughters show much smaller and more homogeneous effects irrespective of whether the victimised parent is the mother or the father, and several of the age-specific coefficients are close to zero. The father–son pairing thus appears to be the key locus of intergenerational transmission for educational outcomes.

This pattern of heterogeneity aligns closely with the mechanisms documented in Sec-

tion 4. Fathers experience stronger increases in violent offending after victimisation than mothers (Figure 3), larger and more persistent earnings losses (Figure 6), and pronounced increases in family instability (Figure 8). If sons are more likely than daughters to identify with and emulate paternal behaviour, or to be exposed to conflictual interactions with fathers, these shocks may depress their achievement more strongly. At the same time, boys may be more sensitive to changes in school and residential environments following victimisation-induced moves (Figure 7), amplifying the negative consequences of paternal shocks.

From a policy perspective, the heterogeneity documented in Tables 4 and 5 suggests that interventions targeted at families where fathers have been victimised, and in particular at young sons in such families, may yield especially high returns. The concentration of effects among boys exposed in early childhood implies that timely support, such as parenting programmes, mental health services, and stable, high-quality childcare, could play an important role in preventing the emergence of large and persistent gender gaps in educational achievement. More broadly, the heterogeneity analysis highlights that the social costs of crime are not evenly distributed: they fall disproportionately on children in specific family configurations, reinforcing existing lines of disadvantage.

# 4 Mechanisms

The results in Section 3.1 show that parental violent victimisation reduces children's educational achievement, with effects that are concentrated in early childhood and disproportionately large for sons and for children of victimised fathers. While these reduced-form estimates establish that parental victimisation acts as a sizeable shock to the production of human capital, they are silent on the underlying mechanisms. In this section, we open up the black box by tracing how victimisation reshapes parental behaviour, family resources, and the broader environment in which children grow up.

Our approach is guided by the conceptual framework discussed in Section 2.2. Parental victimisation may affect children through at least three channels. First, it can alter parents' own behaviour and exposure to crime, for example, if victims become more likely to

perpetrate violence themselves. Second, it can deteriorate the physical and mental health of both parents and children, thereby lowering the effectiveness of time and monetary investments in human capital. Third, it can weaken the family's economic and relational infrastructure by reducing labour-market attachment, increasing residential instability, and increasing the probability of separation or divorce. Each of these channels has been highlighted in prior work on job loss, domestic violence, and parental incarceration, but little is known about their relative importance in the context of non-domestic criminal victimisation.

Empirically, we study these mechanisms using an event-study design that parallels our main difference-in-differences specification. For each child, we follow parents and the child in the years before and after the parental victimisation event and estimate dynamic responses in a range of outcomes, including parental offending, healthcare utilisation, labour market attachment, migration, and family structure. The identifying variation comes from comparing treated children to their matched control peers over event time, controlling for child fixed effects and common time shocks. This design allows us to separate pre-trends from post-victimisation adjustments and to assess whether the timing of parental victimisation coincides with discrete breaks in trajectories.

Formally, we characterise these responses by estimating a series of event studies around parental victimisation using the following specification:

$$Y_{it} = \theta_0 + \theta_1 T_i + \sum_{l=-6}^{10} \alpha_l T_i \cdot 1[t = t_i^* + 1 + l] + \sum_{l=-6}^{10} \mu_l \cdot 1[t = t_i^* + 1 + l] + \psi_i + \psi_t + \zeta_{it}, \quad (3)$$

where $Y_{it}$ denotes a parental outcome for child $i$ in year $t$. We normalize event time such that $l = 0$ corresponds to the year of parental victimisation ($t_i^* + 1$), and we estimate the coefficients $\alpha_l$ relative to the base year $l = -1$ ($t_i^* - 2$). By leveraging the panel structure of our data, we include child fixed effects ($\psi_i$), paralleling the standard worker-fixed effects approach in the literature on job loss (e.g., Bertheau et al., 2022). The coefficients $\alpha_l$ thus capture the dynamic causal impact of criminal victimisation on parental trajectories relative to the control group. We estimate this model separately by childhood developmental stage and gender of the victimised parent.

We organise the analysis into three parts. Section 4.1 examines changes in parental and child crime outcomes, focusing on whether victimisation triggers a behavioural cycle of violence and increased exposure of offspring to crime. Section 4.2 considers the health dimension, documenting how parental victimisation affects mental and physical healthcare use for both children and parents. Section 4.3 then turns to economic and relational mechanisms, studying labour market outcomes, residential mobility, and family stability. Taken together, these event studies provide a comprehensive picture of how parental victimisation reverberates through the family environment and help explain why the educational impacts are so persistent and strongly patterned by age at exposure and gender.

## 4.1 Parental and Child Crime Outcomes

A striking finding is the change in parental behaviour following victimisation. Figure 3 shows that fathers who are victims of violent crime become substantially more likely to be charged with a violent offence in subsequent years, with the increase emerging immediately after the incident and persisting throughout the event window. This finding suggests a behavioral cycle consistent with Gagnon (2018), where victimization begets aggression. By contrast, mothers exhibit a much more muted response, with only small and imprecisely estimated changes in violent offending. This pattern points to a gendered behavioural cycle of violence, consistent with theories in which victimisation begets aggression and normalises the use of violence as a coping strategy.

We next examine whether this shift in parental criminal behaviour translates into higher criminal involvement among their children. Table 6 reports estimates for two child outcomes by the end of compulsory schooling: being charged with a violent crime and being recorded as a victim of violent crime. The coefficients on the treatment indicators are small and statistically insignificant for charges, indicating that parental violent victimisation does not measurably increase the likelihood that children themselves become violent offenders during adolescence. This null effect is precisely estimated around zero across childhood exposure windows, suggesting that any offender-side transmission channel is

limited over the horizon we observe.

In contrast, we find evidence of heightened victimisation risk among children. As shown in Table 6, teenagers exposed to parental violent victimisation are more likely to be recorded as victims of violent crime, with the increase concentrated among those exposed in mid-childhood and adolescence. These effects are modest in magnitude but robust across specifications, implying that parental victimisation shifts children from being purely secondary victims within the family to becoming direct victims in their own right. Taken together with the parental event studies in Figure 3, these results suggest a transmission mechanism operating primarily through the environment of violence and instability created by victimised fathers rather than through increased juvenile offending.

Overall, the evidence in this subsection highlights an asymmetric crime-related channel. Parental violent victimisation triggers a substantial and persistent escalation in fathers' own violent behaviour, while leaving children's propensity to offend largely unchanged in the short to medium run. However, children become more exposed to violence as victims, both within and outside the household. This reinforces our interpretation of parental victimisation as a shock that amplifies the intensity of violence in the family environment, thereby contributing to the observed deterioration in children's mental health and educational achievement documented elsewhere in the paper.

## 4.2 Health and Mental Well-being

Both children and parents record increased access to non-hospital mental and physical healthcare following a violent victimisation event. Figure 4 shows that children exposed to parental violent victimisation experience a pronounced and persistent increase in non-hospital healthcare use, with clear spikes in contacts related to mental health around the time of the shock. The rise is already visible in the year of the crime and remains elevated for several years, indicating that the consequences for child well-being are not confined to a short-lived crisis response.

As shown in Figure 5, parents themselves display a similar pattern. We observe a sharp uptake in non-hospital mental-health-related healthcare utilisation immediately

after victimisation, especially for fathers, followed by a slow reversion that never fully returns to pre-crime levels. This is consistent with the view that violent victimisation generates long-lasting psychological stress and trauma within the household, in line with evidence on mental health responses to domestic violence and other parental shocks (e.g. Bhuller et al., 2023). Together, the child and parental health responses suggest that victimisation deteriorates the emotional climate of the family and increases the need for external support services.

The health mechanisms documented in Figures 4 and 5 provide a plausible channel through which parental victimisation translates into lower educational achievement. Elevated child mental health needs are likely to interfere with learning, concentration, and school attendance, while parental mental health problems may crowd out time and attention devoted to supporting the child's schooling. In this sense, the health responses reinforce our interpretation of the main results in Table 3 as reflecting not only resource losses but also increased psychological strain that impairs the production of human capital.

### 4.3 Family Stability, Migration, and Economic Resources

We next examine how parental victimisation reshapes the broader family environment through changes in economic resources, residential stability, and household structure. Figure 6 shows that parental labour market attachment deteriorates markedly after violent victimisation, with sustained declines in both the probability of positive earnings and real annual earnings. The fall in employment is immediate and remains sizeable throughout the event window, while earnings display a persistent downward shift rather than a temporary dip. Consistent with Bindler and Ketel (2022), these estimates indicate that victimisation constitutes a substantial and lasting labour-market shock.

Residential stability is also adversely affected. Figure 7 documents that the likelihood that the child moves to a different parish rises sharply in the years following parental victimisation. This pattern is suggestive of forced or distressed moves, for instance, due to financial strain, relationship breakdown, or a desire to relocate away from the crime scene.

Such moves are likely to disrupt peer networks and school continuity, particularly for children exposed in mid-childhood and adolescence, when school changes can be especially costly.

Finally, Figure 8 shows that victimisation undermines family stability. We find sustained increases in the probability of parental divorce and of the child no longer residing with the mother. These effects emerge quickly after the crime and do not dissipate over the medium run, indicating that victimisation frequently triggers permanent changes to household structure. Taken together with labour market and migration responses, this points to a compounding mechanism: victimised families face simultaneous shocks to income, location, and parental co-residence.

Taken together, the evidence in Figures 6–8 highlights a set of mutually reinforcing mechanisms that can help explain the sizeable and age-dependent penalties in educational achievement documented in Section 3.1. Reduced parental earnings and employment weaken the material resources available for educational investments, while increased residential and family instability disrupts schooling trajectories and the provision of stable parental inputs. When viewed alongside the health responses in Figure 4, these results suggest that parental victimisation deteriorates multiple dimensions of the child's developmental environment at once, generating cumulative disadvantages that are particularly damaging when the shock occurs in early childhood.

# 5 Conclusion

This paper provides the first comprehensive causal evidence on the intergenerational spillovers of criminal victimisation outside the domestic sphere. By linking the universe of Danish police records to administrative data on families and educational outcomes, we document that the social costs of crime do not remain confined to the immediate victim but ripple through to the next generation, significantly impeding human capital accumulation. We introduce the concept of "secondary victims", well-established in victimology but absent from the economic analysis of human capital, to quantify the hidden costs of crime, demonstrating that children of victimised parents suffer educational penalties

comparable to those associated with significant reductions in school quality or teacher effectiveness.

Our results reveal that parental violent victimisation reduces a child's end-of-school achievement by an average of 0.02-0.03 standard deviations. However, this aggregate effect masks critical heterogeneity regarding the timing of exposure. Consistent with models of skill formation emphasising dynamic complementarity (Cunha and Heckman, 2006; Almond and Currie, 2011), we find that the penalty is doubled ($0.05\sigma$) when victimisation occurs during early childhood. This finding challenges the presumption that very young children are shielded from external shocks to their parents. Instead, our evidence suggests that disruptions to the home environment during these formative years, a period when parental inputs are most essential, leave permanent scars on children's cognitive development that schooling alone cannot remediate.

We identify two distinct classes of mechanisms driving these results: resource constraints and behavioural responses. First, consistent with the scarring effects on victims documented by Bindler and Ketel (2022), we find that victimisation acts as a profound economic shock. It triggers lasting parental labour market detachment and earnings losses, while simultaneously increasing the probability of family instability, divorce, and residential dislocation. These factors, taken together, degrade the bundle of resources available for investment in the child.

Second, and perhaps most strikingly, we uncover a behavioural "cycle of violence" that offers a novel perspective on the victim-offender overlap. We find that fathers who are victims of violent crime are significantly more likely to become perpetrators of violence themselves in subsequent years. This transmission channel, where victimisation begets aggression, suggests that the psychological toll on parents creates a negative feedback loop within the household. This mechanism appears particularly salient for sons, who we find are more adversely affected by paternal victimisation than daughters. This gendered transmission suggests that the shock operates not only through resource deprivation but also through the disruption of male role models and the normalisation of aggressive behaviours within the family unit.

These findings necessitate a re-evaluation of both the cost-benefit analysis of crime control and the design of victim support policies. Current estimates of the "cost of crime" that ignore these intergenerational spillovers significantly undervalue the social returns to crime reduction. Furthermore, our results highlight a gap in the social safety net: victim support services typically focus on the legal and medical needs of the immediate adult victim. Our evidence suggests that these services must adopt a family-centric approach, explicitly screening for the presence of young children.

From a policy perspective, the concentration of negative effects in early childhood suggests that timely interventions, such as targeted access to high-quality childcare or family counselling, could mitigate the damage before it crystallises into permanent educational deficits. By treating the family unit rather than the individual victim, policymakers may be able to interrupt the transmission of disadvantage. Ultimately, viewing crime prevention as an instrument of social mobility reveals a "double dividend": protecting the current generation from harm while safeguarding the human capital potential of the next.

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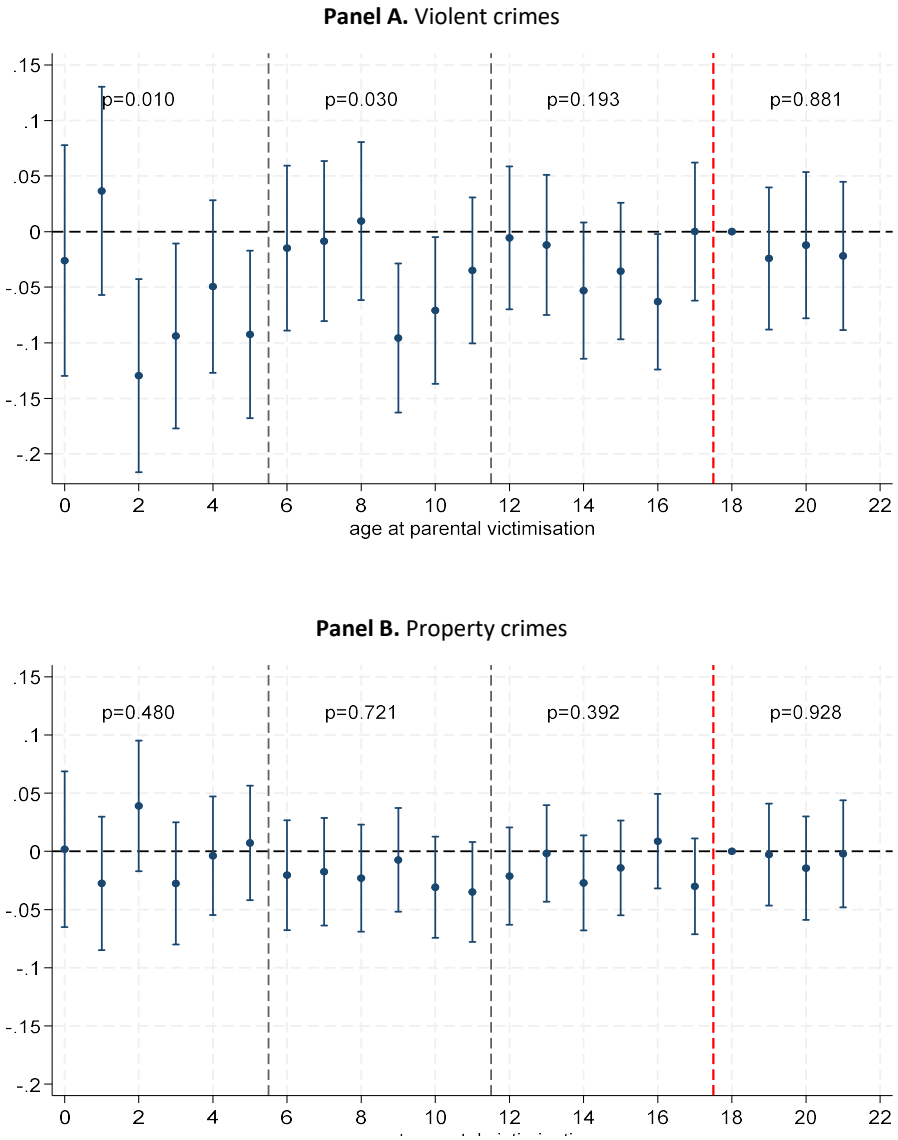
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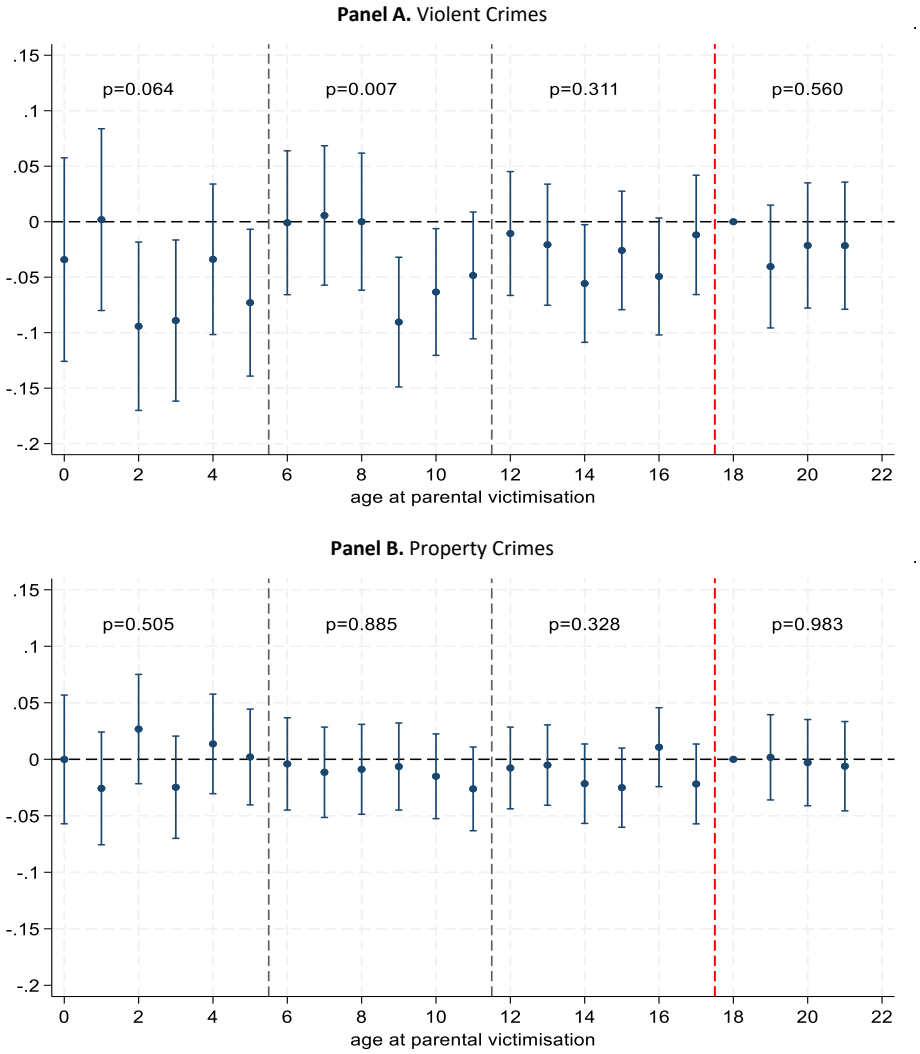
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Figure 1: Impact of Parental Victimization on Math Assessments



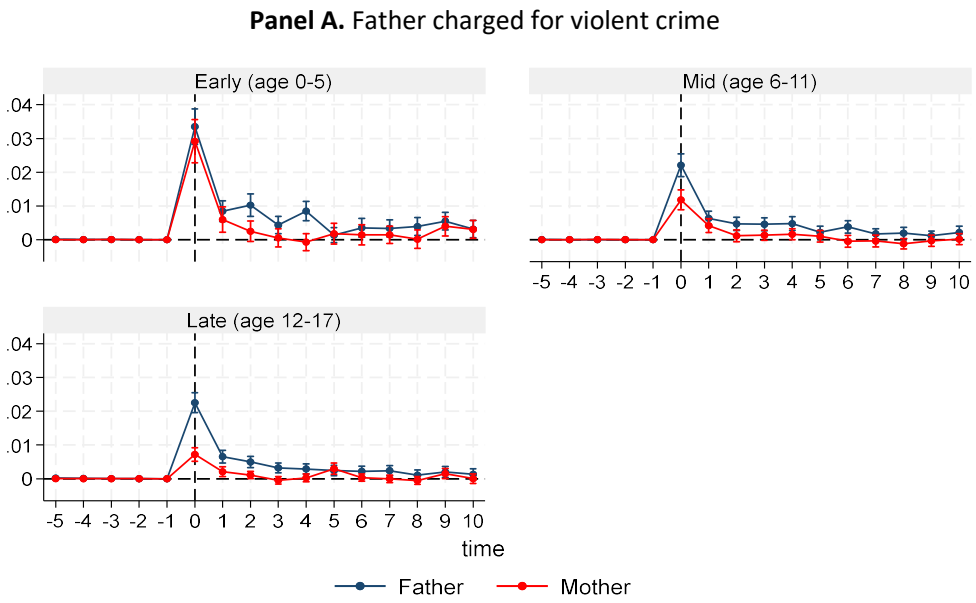

**Note.** The figure plots estimates of $\lambda_k$ coefficients in Equation (2) on end-of-school (age 16) teacher assessment in mathematics. Panel A and Panel B consider children exposed to parental victimisation for violent and property crimes, respectively, and their matched control peers. The x-axis represents age at real or placebo parental victimisation. Childhood stages are visually separated by dotted vertical lines, with red lines separating causal effects of parental victimisation from placebo effects on children exposed after mathematics achievement is realised. Spikes around point estimates represent the 95% confidence interval.

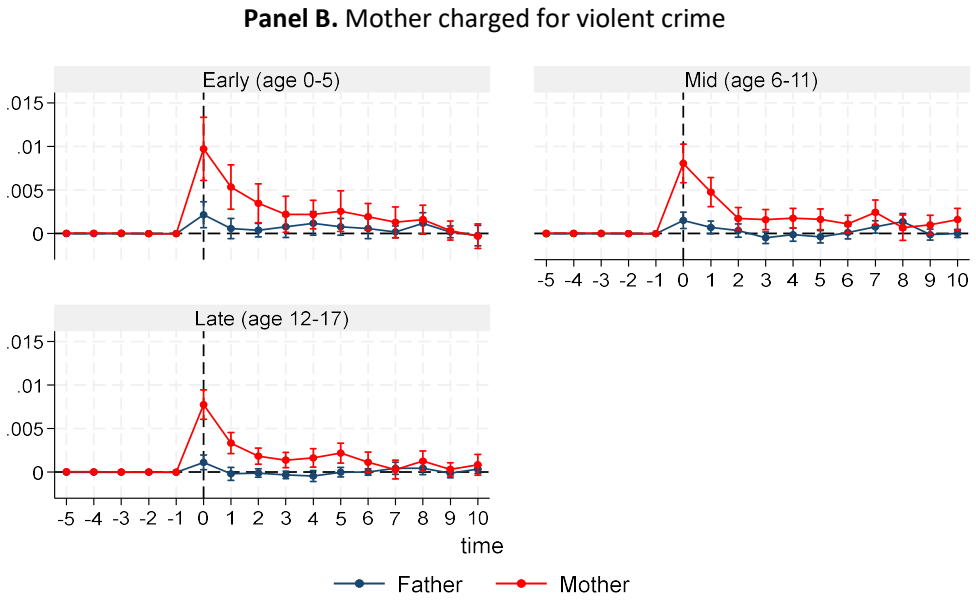
Figure 2: Impact of Parental Victimization on GPA (Overall) Assessments




**Note.** The figure plots estimates of $\lambda_k$ coefficients in Equation (2) on end-of-school (age 16) teacher assessment in GPA (Overall). Panel A and Panel B consider children exposed to parental victimisation for violent and property crimes, respectively, and their matched control peers. The x-axis represents age at real or placebo parental victimisation. Childhood stages are visually separated by dotted vertical lines, with red lines separating causal effects of parental victimisation from placebo effects on children exposed after mathematics achievement is realised. Spikes around point estimates represent the 95% confidence interval.

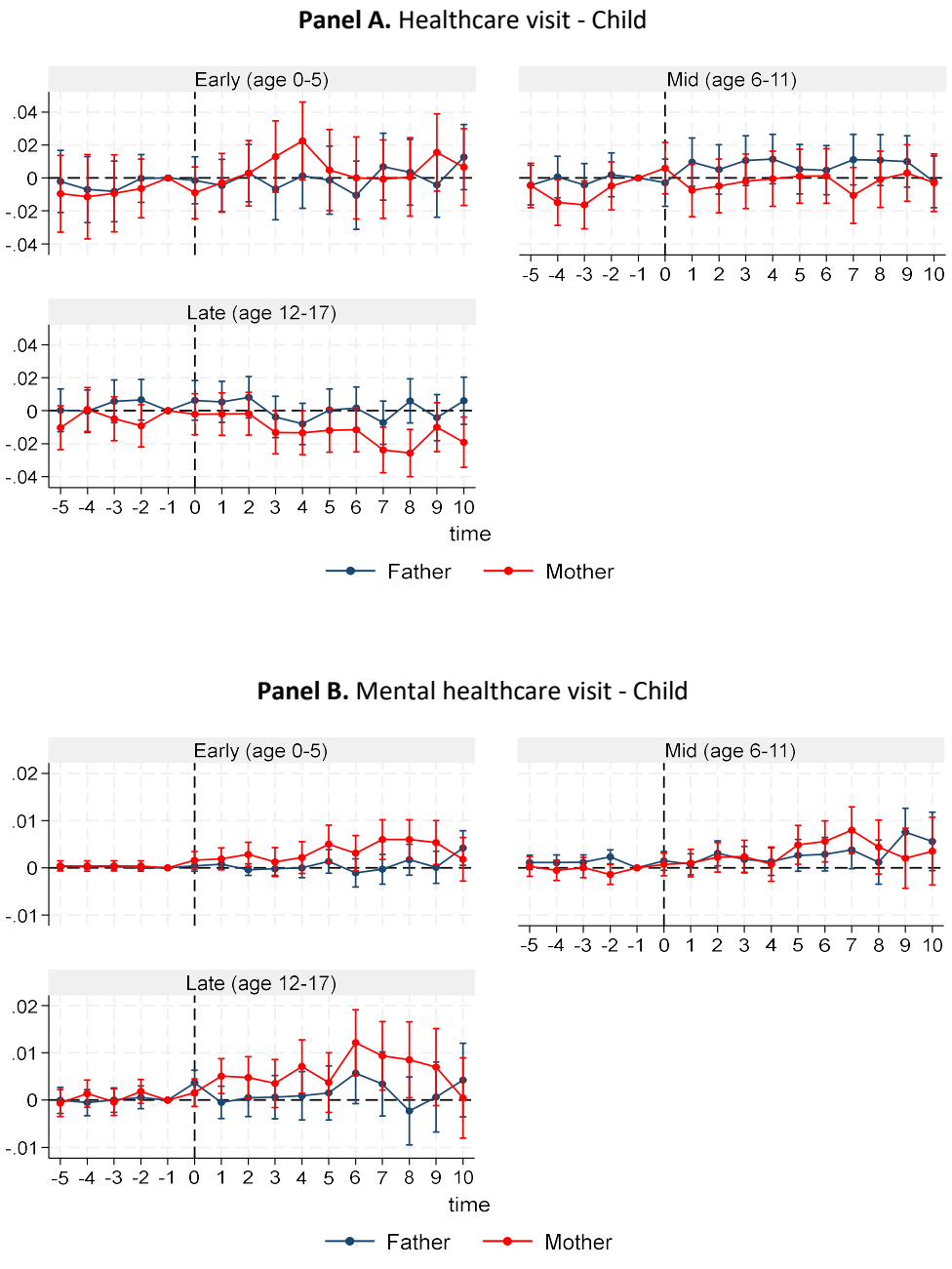
Figure 3: Mechanisms: Parental Crime Outcomes



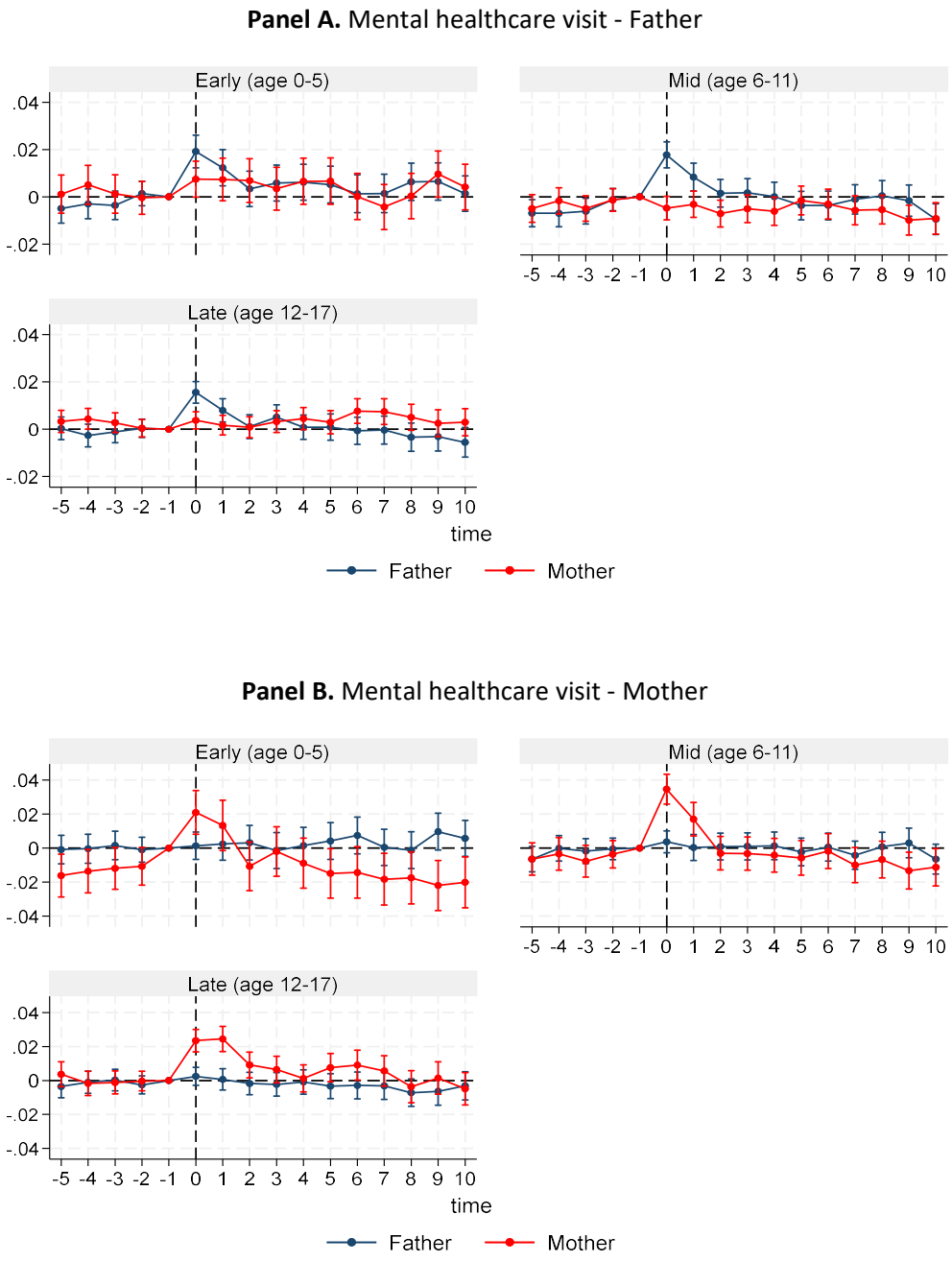

**Note.** The figure plots estimates of $\alpha_l$ coefficients in Equation (3) on parental crime outcomes. The outcomes in Panel A and Panel B are dummies indicating, respectively, father's and mother's charge for a violent crime in the considered year. Separate estimates are plotted by childhood stage (subpanels) and by victimised parent's gender (father for blue lines, mother for red lines). Spikes around point estimates represent the 95% confidence interval. The x-axis represents time relative to treatment, normalised to equal 0 in the year of parental victimisation.

Figure 4: Mechanisms: Child Health Outcomes



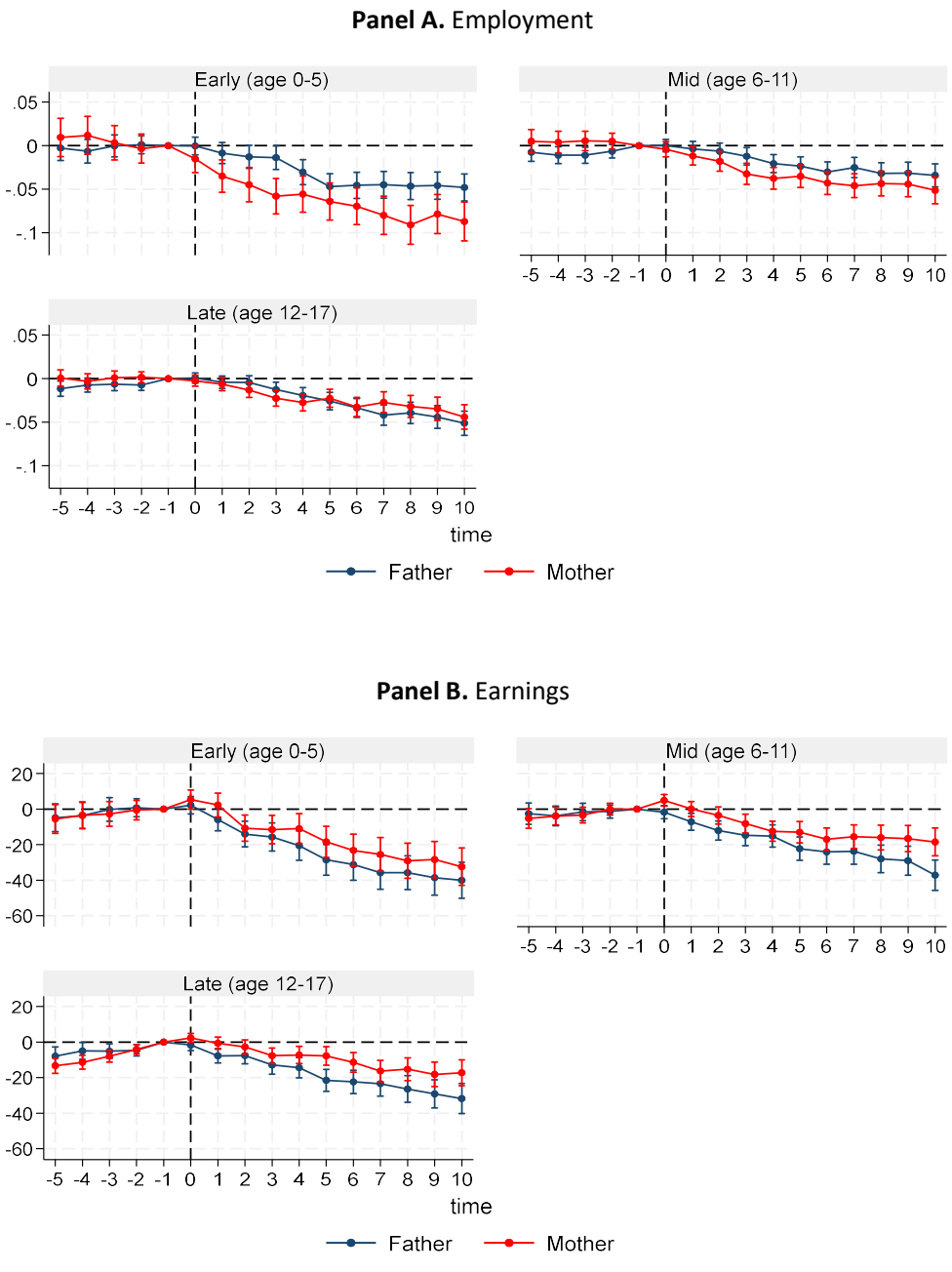

**Note.** The figure plots estimates of $\alpha_l$ coefficients in Equation (3) on child health outcomes. The outcomes in Panel A and Panel B are dummies indicating, respectively, child's non-hospital healthcare access for any reason and for reasons related to mental health in the considered year. Estimation and figure structure are analogous to Figure 3.

Figure 5: Mechanisms: Parental Health Outcomes



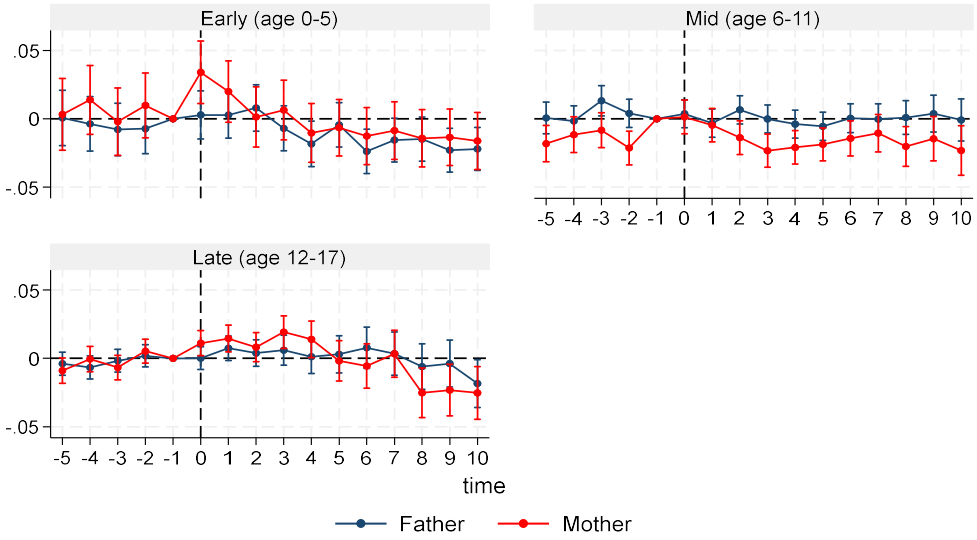

**Note.** The figure plots estimates of $\alpha_l$ coefficients in Equation (3) on parental health outcomes. The outcomes in Panel A and Panel B are dummies indicating, respectively, father's and mother's non-hospital healthcare access for reasons related to mental health in the considered year. Estimation and figure structure are analogous to Figure 3.

Figure 6: Mechanisms: Labour Market Outcomes



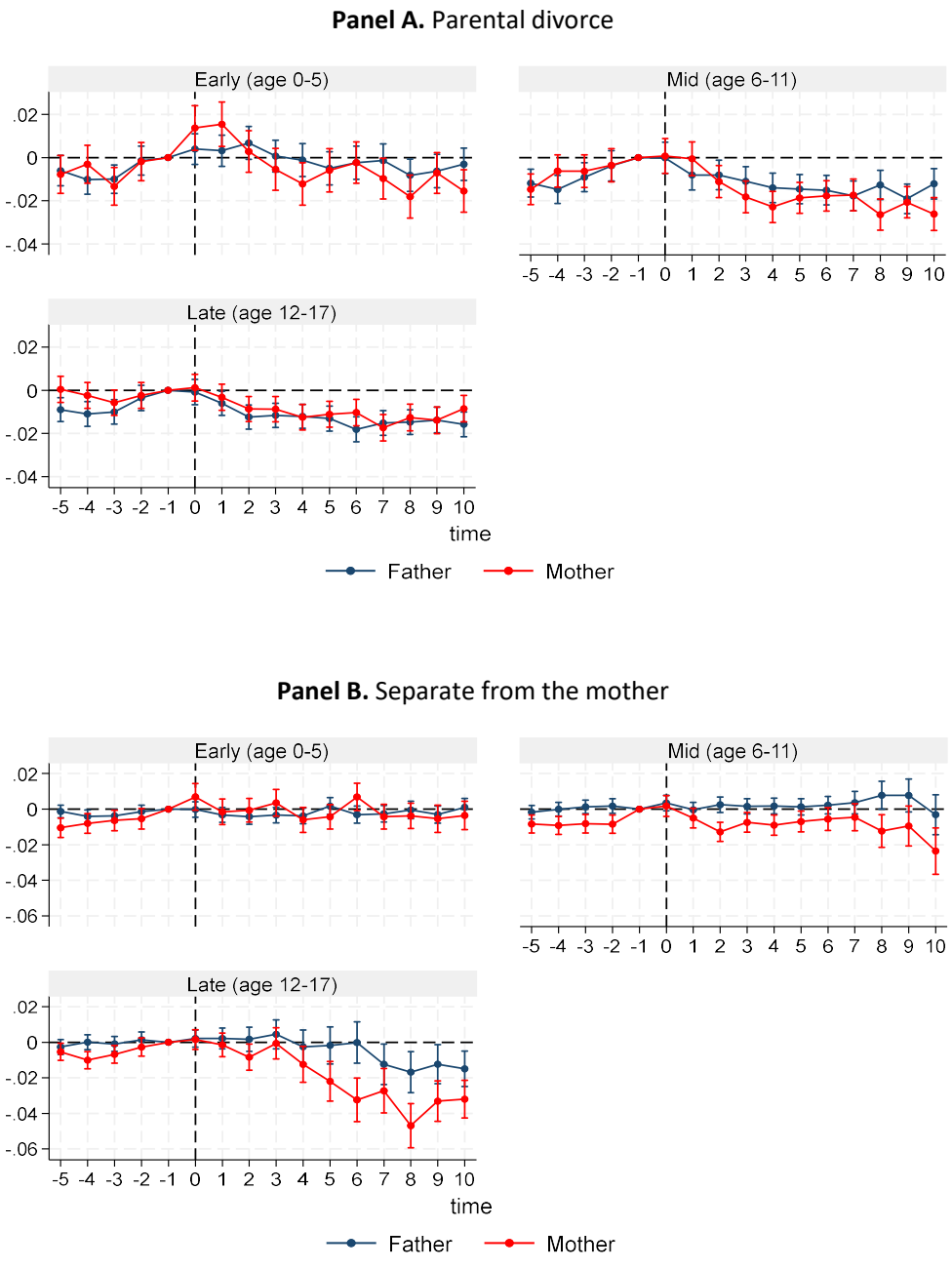

**Note.** The figure plots estimates of $\alpha_l$ coefficients in Equation (3) on parental labour market outcomes. The outcomes in Panel A and Panel B are, respectively, a dummy indicating positive earnings ("employment") and real earnings in DKK thousands in the considered year. Estimation and figure structure are analogous to Figure 3.

Figure 7: Mechanisms: Migration




**Note.** The figure plots estimates of $\alpha_l$ coefficients in Equation (3) on child's migration. The outcome is a dummy indicating that child has moved to a different parish in the considered year. Estimation and figure structure are analogous to Figure 3.

Figure 8: Mechanisms: Family stability




**Note.** The figure plots estimates of $\alpha_l$ coefficients in Equation (3) on family stability outcomes. The outcomes in Panel A and Panel B are dummies indicating, respectively, parental divorce and separate residence with respect to the mother's in the considered year. Estimation and figure structure are analogous to Figure 3.

Table 1: Descriptive Statistics on Treated and Untreated Children

| | Treated | | Untreated | | T-U | |
|---|---|---|---|---|---|---|
| | Mean (1) | SD (2) | Mean (3) | SD (4) | diff (5) | p-value (6) |
| | | | **Panel A.** Violent crimes | | | |
| Age | 11.864 | 5.759 | 10.518 | 6.159 | 1.346 | 0.000 |
| Female | 0.490 | 0.500 | 0.487 | 0.500 | 0.003 | 0.153 |
| Danish | 0.901 | 0.299 | 0.929 | 0.257 | -0.028 | 0.000 |
| Maths grade | -0.095 | 0.990 | 0.135 | 0.964 | -0.230 | 0.000 |
| GPA | -0.064 | 0.886 | 0.114 | 0.861 | -0.178 | 0.000 |
| Father danish | 0.814 | 0.389 | 0.847 | 0.360 | -0.034 | 0.000 |
| Mother danish | 0.865 | 0.342 | 0.901 | 0.299 | -0.036 | 0.000 |
| Father months of education | 148.410 | 47.711 | 150.645 | 49.672 | -2.235 | 0.000 |
| Mother months of education | 159.121 | 32.124 | 161.256 | 31.344 | -2.135 | 0.000 |
| Father emplpyed | 0.802 | 0.399 | 0.823 | 0.381 | -0.021 | 0.000 |
| Mother employed | 0.820 | 0.384 | 0.858 | 0.349 | -0.038 | 0.000 |
| Father earnings ('000s DKK) | 385.113 | 296.454 | 432.097 | 312.364 | -46.984 | 0.000 |
| Mother earnings ('000s DKK) | 308.329 | 226.621 | 316.926 | 217.489 | -8.596 | 0.000 |
| Family income ('000s DKK) | 912.309 | 969.804 | 959.465 | 1,593.319 | -47.156 | 0.000 |
| Danish in local area | 0.877 | 0.142 | 0.904 | 0.117 | -0.027 | 0.000 |
| Education in local area | 169.830 | 8.235 | 170.180 | 8.399 | -0.350 | 0.000 |
| Family income in local area ('000s DKK) | 919.323 | 259.083 | 910.819 | 275.950 | 8.504 | 0.000 |
| N | 61,893 | | 21,463,401 | | | |
| | | | **Panel B.** Property crimes | | | |
| Age | 11.528 | 5.772 | 10.545 | 6.157 | 0.982 | 0.000 |
| Female | 0.500 | 0.500 | 0.485 | 0.500 | 0.015 | 0.000 |
| Danish | 0.912 | 0.283 | 0.924 | 0.265 | -0.012 | 0.000 |
| Maths grade | 0.107 | 0.973 | 0.107 | 0.970 | 0.000 | 0.940 |
| GPA | 0.136 | 0.863 | 0.083 | 0.867 | 0.053 | 0.000 |
| Father danish | 0.820 | 0.384 | 0.844 | 0.362 | -0.024 | 0.000 |
| Mother danish | 0.874 | 0.332 | 0.896 | 0.305 | -0.022 | 0.000 |
| Father months of education | 153.900 | 49.910 | 149.738 | 49.148 | 4.162 | 0.000 |
| Mother months of education | 164.632 | 32.268 | 160.115 | 31.451 | 4.517 | 0.000 |
| Father emplpyed | 0.814 | 0.389 | 0.819 | 0.385 | -0.005 | 0.000 |
| Mother employed | 0.846 | 0.361 | 0.852 | 0.355 | -0.006 | 0.000 |
| Father earnings ('000s DKK) | 444.834 | 335.831 | 421.886 | 308.081 | 22.947 | 0.000 |
| Mother earnings ('000s DKK) | 336.941 | 237.325 | 310.933 | 215.082 | 26.008 | 0.000 |
| Family income ('000s DKK) | 1,021.290 | 1,156.938 | 941.448 | 1,615.690 | 79.842 | 0.000 |
| Danish in local area | 0.866 | 0.145 | 0.902 | 0.122 | -0.035 | 0.000 |
| Education in local area | 171.531 | 8.966 | 169.100 | 8.159 | 2.431 | 0.000 |
| Family income in local area ('000s DKK) | 958.341 | 323.704 | 893.801 | 269.364 | 64.541 | 0.000 |
| N | 137,452 | | 20,312,911 | | | |

**Note.** The table reports descriptive statistics comparing children exposed to parental victimisation (columns 1-2) with untreated children (columns 3-4). Columns (5) and (6) report the difference between columns (1) and (3) and the p-value of the associated t-statistics, respectively. Panel A and Panel B consider, respectively, parental victimisation for a violent or a property crime.

Table 2: Descriptive Statistics on Treated and Control Children

| | Treated | | Control | | T-C | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | | | **Panel A.** Violent crimes | | | |
| Age | 11.838 | 5.762 | 11.838 | 5.762 | 0.000 | 1.000 |
| Female | 0.489 | 0.500 | 0.489 | 0.500 | 0.000 | 1.000 |
| Danish | 0.901 | 0.299 | 0.896 | 0.306 | 0.005 | 0.004 |
| Maths grade | -0.095 | 0.990 | 0.038 | 0.980 | -0.132 | 0.000 |
| GPA | -0.064 | 0.886 | 0.028 | 0.881 | -0.092 | 0.000 |
| Father danish | 0.813 | 0.390 | 0.810 | 0.392 | 0.003 | 0.165 |
| Mother danish | 0.864 | 0.342 | 0.859 | 0.348 | 0.006 | 0.005 |
| Father months of education | 148.426 | 47.707 | 148.731 | 47.987 | -0.305 | 0.264 |
| Mother months of education | 159.140 | 32.134 | 158.915 | 32.920 | 0.225 | 0.225 |
| Father emplpyed | 0.803 | 0.398 | 0.804 | 0.397 | -0.002 | 0.421 |
| Mother employed | 0.820 | 0.384 | 0.818 | 0.386 | 0.002 | 0.296 |
| Father earnings ('000s DKK) | 385.394 | 296.337 | 384.254 | 297.289 | 1.140 | 0.501 |
| Mother earnings ('000s DKK) | 308.278 | 226.640 | 308.601 | 234.408 | -0.323 | 0.806 |
| Family income ('000s DKK) | 912.096 | 735.996 | 905.350 | 957.446 | 6.746 | 0.166 |
| Danish in local area | 0.877 | 0.142 | 0.872 | 0.150 | 0.004 | 0.000 |
| Education in local area | 169.837 | 8.237 | 169.823 | 8.460 | 0.014 | 0.770 |
| Family income in local area ('000s DKK) | 919.726 | 259.497 | 920.576 | 271.758 | -0.851 | 0.575 |
| N | 61,382 | | 61,382 | | | |
| | | | **Panel B.** Property crimes | | | |
| Age | 11.517 | 5.768 | 11.517 | 5.768 | 0.000 | 1.000 |
| Female | 0.501 | 0.500 | 0.501 | 0.500 | 0.000 | 1.000 |
| Danish | 0.912 | 0.283 | 0.910868 | 0.284935 | 0.001 | 0.431 |
| Maths grade | 0.107 | 0.973 | 0.153 | 0.977 | -0.046 | 0.000 |
| GPA | 0.136 | 0.863 | 0.153 | 0.869 | -0.017 | 0.000 |
| Father danish | 0.820 | 0.384 | 0.818 | 0.386 | 0.002 | 0.472 |
| Mother danish | 0.874 | 0.332 | 0.873 | 0.333 | 0.001 | 0.666 |
| Father months of education | 153.887 | 49.908 | 154.119 | 50.016 | -0.232 | 0.415 |
| Mother months of education | 164.627 | 32.270 | 164.917 | 31.745 | -0.290 | 0.112 |
| Father emplpyed | 0.814 | 0.389 | 0.816 | 0.388 | -0.002 | 0.436 |
| Mother employed | 0.846 | 0.361 | 0.849 | 0.358 | -0.003 | 0.156 |
| Father earnings ('000s DKK) | 444.791 | 335.659 | 450.223 | 337.370 | -5.431 | 0.005 |
| Mother earnings ('000s DKK) | 336.880 | 237.181 | 341.470 | 241.775 | -4.590 | 0.001 |
| Family income ('000s DKK) | 1,016.686 | 919.986 | 1,018.930 | 1,165.795 | -2.244 | 0.708 |
| Danish in local area | 0.866 | 0.145 | 0.864 | 0.150 | 0.002 | 0.007 |
| Education in local area | 171.528 | 8.961 | 171.682 | 9.131 | -0.154 | 0.003 |
| Family income in local area ('000s DKK) | 957.991 | 322.778 | 964.546 | 328.164 | -6.555 | 0.000 |
| N | 137,134 | | 137,134 | | | |

**Note.** The table reports descriptive statistics comparing treated (columns 1-2) and control children (columns 3-4). The sample is obtained through a 1:1 matching algorithm without replacement of each treated child to an untreated child of the same age and with the same own and parent's gender. Columns (5) and (6) report the difference between columns (1) and (3) and the p-value of the associated t-statistics, respectively. Panel A and Panel B consider, respectively, parental victimisation for a violent or a property crime.

Table 3: Violent Crime: Impacts of Parental Victimization on Child's Achievement

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | Panel A. Mathematics (Teacher assessment) | | | | | |
| Treated | -0.1211*** | -0.1090*** | -0.1048*** | -0.1211*** | -0.1090*** | -0.1047*** |
| | (0.0132) | (0.0123) | (0.0124) | (0.0132) | (0.0123) | (0.0124) |
| Treated X Exposed | -0.0137 | -0.0252* | -0.0271* | | | |
| | (0.0148) | (0.0138) | (0.0139) | | | |
| Treated X Early (age 0-5) | | | | -0.0390* | -0.0527*** | -0.0570*** |
| | | | | (0.0212) | (0.0197) | (0.0198) |
| Treated X Mid (age 6-11) | | | | -0.0119 | -0.0252 | -0.0267 |
| | | | | (0.0179) | (0.0167) | (0.0168) |
| Treated X Late (age 12-17) | | | | -0.0057 | -0.0152 | -0.0165 |
| | | | | (0.0162) | (0.0151) | (0.0153) |
| N | 106,199 | 106,199 | 105,814 | 106,199 | 106,199 | 105,814 |
| | Panel B. GPA (Teacher assessment) | | | | | |
| Treated | -0.0870*** | -0.0773*** | -0.0735*** | -0.0870*** | -0.0773*** | -0.0735*** |
| | (0.0117) | (0.0106) | (0.0107) | (0.0117) | (0.0106) | (0.0107) |
| Treated X Exposed | -0.0066 | -0.0168 | -0.0207* | | | |
| | (0.0131) | (0.0120) | (0.0120) | | | |
| Treated X Early (age 0-5) | | | | -0.0246 | -0.0374** | -0.0428** |
| | | | | (0.0188) | (0.0172) | (0.0173) |
| Treated X Mid (age 6-11) | | | | -0.0047 | -0.0167 | -0.0193 |
| | | | | (0.0158) | (0.0145) | (0.0146) |
| Treated X Late (age 12-17) | | | | -0.0013 | -0.0094 | -0.0136 |
| | | | | (0.0143) | (0.0131) | (0.0132) |
| N | 107,037 | 107,037 | 106,648 | 107,037 | 107,037 | 106,648 |
| Parental age and cohort dummies | X | X | X | X | X | X |
| Parent and child controls | | X | X | | X | X |
| Parish dummies | | | X | | | X |

**Note.** The table reports estimates of $\delta_1$ ("Treated") and $\delta_s$ (interactions) coefficients in Equation (1) on end-of-school (age 16) teacher assessments. The sample is formed by children exposed to parental victimisation for violent crimes and their matched control peers. Panel A and Panel B consider mathematics and the GPA across subjects, respectively. Average estimates across childhood are reported in columns (1)-(3), while columns (4)-(6) report estimates by childhood stage at real or placebo parental victimisation. Columns (1) and (4) include dummies for year, cohort, and age at real or placebo parental victimisation. Columns (2) and (5) add parental and child characteristics in the base year. Columns (3) and (6) add dummies for child's parish in the base year. Standard errors are clustered on families and reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Violent Crime: Heterogeneous Impacts by Victimized Parent and Child Gender

| | Father | | Mother | | Male | | Female | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Treated | -0.0591*** | -0.0590*** | -0.1555*** | -0.1555*** | -0.0979*** | -0.0979*** | -0.1206*** | -0.1206*** |
| | (0.0175) | (0.0175) | (0.0174) | (0.0174) | (0.0175) | (0.0175) | (0.0169) | (0.0169) |
| Treated X Exposed | -0.0576*** | | 0.0031 | | -0.0269 | | -0.0233 | |
| | (0.0194) | | (0.0197) | | (0.0198) | | (0.0190) | |
| Treated X Early (age 0-5) | | -0.0825*** | | -0.0346 | | -0.0823*** | | -0.0241 |
| | | (0.0263) | | (0.0303) | | (0.0279) | | (0.0271) |
| Treated X Mid (age 6-11) | | -0.0763*** | | 0.0258 | | -0.0274 | | -0.0208 |
| | | (0.0230) | | (0.0242) | | (0.0238) | | (0.0228) |
| Treated X Late (age 12-17) | | -0.0330 | | -0.0005 | | -0.0065 | | -0.0248 |
| | | (0.0213) | | (0.0216) | | (0.0218) | | (0.0210) |
| N | 56,978 | 56,978 | 49,211 | 49,211 | 53,398 | 53,398 | 52,793 | 52,793 |
| Parental age and cohort dummies | X | X | X | X | X | X | X | X |
| Parent and child controls | X | X | X | X | X | X | X | X |
| Parish dummies | X | X | X | X | X | X | X | X |

**Note.** The table plots estimates of $\delta_1$ ("Treated") and $\delta_s$ (interactions) coefficients in Equation (1) on end-of-school (age 16) teacher assessments in mathematics. Estimation and specification are analogous to columns (3) and (6) of Table 3. The sample is restricted to subgroups defined by the child's and the victimised parent's gender as indicated in column headers. Standard errors are clustered at the family level and reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Violent Crime: Heterogeneous Impacts by Parent-Child Gender Interactions

| | Father-Male | | Mother-Male | | Father-Female | | Mother-Female | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Treated | -0.0475* | -0.0474* | -0.1447*** | -0.1446*** | -0.0719*** | -0.0718*** | -0.1680*** | -0.1680*** |
| | (0.0249) | (0.0249) | (0.0249) | (0.0249) | (0.0242) | (0.0242) | (0.0238) | (0.0238) |
| Treated X Exposed | -0.0649** | | 0.0114 | | -0.0492* | | -0.0026 | |
| | (0.0277) | | (0.0283) | | (0.0269) | | (0.0271) | |
| Treated X Early (age 0-5) | | -0.0962** | | -0.0770* | | -0.0696* | | 0.0196 |
| | | (0.0376) | | (0.0423) | | (0.0361) | | (0.0421) |
| Treated X Mid (age 6-11) | | -0.0925*** | | 0.0434 | | -0.0566* | | 0.0115 |
| | | (0.0330) | | (0.0346) | | (0.0316) | | (0.0332) |
| Treated X Late (age 12-17) | | -0.0324 | | 0.0171 | | -0.0344 | | -0.0176 |
| | | (0.0305) | | (0.0312) | | (0.0297) | | (0.0297) |
| N | 28,563 | 28,563 | 24,828 | 24,828 | 28,410 | 28,410 | 24,375 | 24,375 |
| Parental age and cohort dummies | X | X | X | X | X | X | X | X |
| Parent and child controls | X | X | X | X | X | X | X | X |
| Parish dummies | X | X | X | X | X | X | X | X |

**Note.** The table plots estimates of $\delta_1$ ("Treated") and $\delta_s$ (interactions) coefficients in Equation (1) on end-of-school (age 16) teacher assessments in mathematics. Estimation and specification are analogous to columns (3) and (6) of Table 3. The sample is restricted to subgroups defined by the child's and the victimised parent's gender as indicated in column headers. Standard errors are clustered at the family level and reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Violent Crime: Child's Crime Outcomes

| | Charged (violent crimes) | | Victimised (violent crimes) | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Treated | 0.0065*** | 0.0065*** | -0.0013 | -0.0013 |
| | (0.0016) | (0.0016) | (0.0012) | (0.0012) |
| Treated X Exposed | -0.0001 | | 0.0022* | |
| | (0.0018) | | (0.0013) | |
| Treated X Early (age 0-5) | | 0.0004 | | 0.0014 |
| | | (0.0025) | | (0.0013) |
| Treated X Mid (age 6-11) | | -0.0016 | | 0.0015 |
| | | (0.0022) | | (0.0013) |
| Treated X Late (age 12-17) | | 0.0007 | | 0.0028** |
| | | (0.0020) | | (0.0014) |
| N | 102,913 | 102,913 | 102,913 | 102,913 |
| Parental age and cohort dummies | X | X | X | X |
| Parent and child controls | X | X | X | X |
| Parish dummies | X | X | X | X |

**Note.** The table plots estimates of $\delta_1$ ("Treated") and $\delta_s$ (interactions) coefficients in Equation (1) on child's crime outcomes. Dependent variables indicate whether individuals are charged for violent crimes (columns 1-2) or report a violent crime (columns 3-4) by the end of compulsory school (age 16). Estimation and specification are analogous to columns (3) and (6) of Table 3. Standard errors are clustered at the family level and reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.