

## **Repercussions of a Raid: Health and Education Outcomes of Children Entangled in Immigration Enforcement**

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## **Abstract**

Interior immigration enforcement in the U.S. has rapidly increased over the past two decades, including increased Immigration and Customs Enforcement (ICE) activity and the revival of workplace raids under the Trump administration. We contribute to the body of research that aims to better understand the consequences of immigration enforcement for children in targeted communities, including on their education, health and socioemotional well-being. We employ a mixed methods research design to investigate the effects of the sweeping April 2018 Morristown, Tennessee immigration raid on children's health care utilization and health and education outcomes. We utilize linked, longitudinal health and education data on children and a quasi-experimental design to analyze the effects of the raid on those residing in close proximity to the raid. Interview data from community members and organizations in the affected area enable us to better understand how the raid unfolded and the mechanisms through which a community trauma such as this might affect children both directly and indirectly. Our results indicate negative implications across a range of education and health outcomes for children in communities targeted by the raid, with the most negative consequences for children of immigrants living closest to the raid.

## **Introduction**

With the escalation of U.S. interior immigration enforcement actions in the last two decades, research on the effects of immigration enforcement policies on family and children's well-being is likewise on the rise. Although immigration policy has traditionally been a federal responsibility, as the imbalance in available slots vs. demand for legal entry into the U.S. grew in the late 20<sup>th</sup> century, states ramped up their responses to the upsurge in unauthorized immigration in the form of legislation and other policy actions intended to address local consequences of immigration. Karoly and Perez-Arce (2016) found that in the decade starting in 2005, the number of state-level immigration-related laws and resolutions, encompassing a wide range of broader and more targeted policy actions, increased tenfold. A growing body of research on the effects of these policy actions on children points to a myriad of negative effects, including distress from witnessing consequences of immigration enforcement policies among peers; health and socioemotional effects associated with persistent fear for unauthorized family members and risks of deportation and family separation; and more severe health, socioemotional, education, and family economic and stability consequences for children separated from parents (Dreby, 2012; Capps et al., 2015; Crookes et al., 2021).

Both federal and state immigration enforcement efforts have continued to expand aggressively since 2016, with 157 laws enacted and 174 resolutions passed, on average, each year between 2016-2020 (National Council of State Legislatures, 2021<sup>1</sup>). From fiscal year 2017 to fiscal year 2019, enforcement and removal actions by Immigration and Customs Enforcement (ICE) and Customs and Border Patrol (CBP) nearly doubled, supported by a tripling of these

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<sup>1</sup> See <https://www.ncsl.org/research/immigration/state-laws-related-to-immigration-and-immigrants.aspx> for detailed data and reports by year.

agencies' budgets since 2003 (American Immigration Council, 2021). In addition, the Trump administration revived workplace raids during this period as another key immigration enforcement tool, with ICE raids concentrated in the Midwest and South and targeting workers employed in manufacturing and meat and poultry processing industries. On April 5, 2018, ICE conducted its largest workplace immigration raid in over a decade (since the George W. Bush administration) at the Southern Provisions meatpacking plant near the rural community of Morristown, Tennessee. Data from the National Immigration Law Center (NILC, 2020) specify that 104 plant workers were affected by this raid, with reports suggesting that workers were detained based on their ethnicity, i.e., without questions asked about their work or legal status (Devereaux & Speri, 2018). News reports indicate that these workers were parents to more than 150 children (Echavarri, 2018).

The NILC, which compiles data on worksite immigration raids, points out that they typically target immigrants working in low-wage jobs in small towns, and thus, are especially destructive and traumatizing for families, children and their local communities (Straut-Eppsteiner, 2019). News accounts of the Morristown, Tennessee immigration raid reported that on the day following the raid and in subsequent weeks, hundreds of children were absent from school. Furthermore, the day of the raid coincided with the county health department's annual health carnival that provides free immunizations, health checks and information to low-income families, severely depressing attendance at an event that is considered vital for outreach to the growing number of immigrant families in the community. As a result, vulnerable children in the community missed both schooling and health care services that prior research suggests could have important implications for their healthy development and educational success. Research from workplace raids conducted under the George W. Bush administration documented

academic and health consequences for children and parents; fear, isolation and toxic stress; and long-term economic distress, including greater food and housing insecurity and diminished economic mobility, among affected families (Capps et al., 2007; Chaudry et al., 2010).

In this study, we employ a mixed methods research design to investigate the effects of the sweeping Morristown, Tennessee immigration raid on children's health care utilization and health and education outcomes. We draw on linked, longitudinal health and education data that allow us to connect low-income parents and children in these two major domains and analyze the effects of the raid using a quasi-experimental design. In addition, we analyze data collected in interviews with community members and organizations in the affected area to better understand how the raid unfolded and the mechanisms through which a community trauma such as this might affect children both directly and indirectly. Through this mixed methods approach, we also aim to identify state and local policy and program actions that may aid in mitigating the negative consequences of immigration enforcement activities for the well-being of children.

We begin below with a review of the existing literature on the effects of workplace immigration raids and other immigration enforcement activities on the health, education and well-being of children. We next describe the event and context of the Morristown, Tennessee workplace immigration raid, which provides important background information that informs our empirical modeling approach. We follow with a description of our study data and methods and the presentation of our research findings. For children of immigrants closest to the immigration raid, our findings identify a substantial spike in student absence rates in the month of the raid and stark increases in exclusionary disciplinary actions in the 12 months including and following the immigration raid. We also observed associations between the immigration raid and these children's health and behavioral health outcomes, including substance use disorder, anxiety and

self-harm, as well as adverse consequences such as maltreatment and sexual abuse. We conclude with a discussion of the implications of our findings for federal, state and local policy and programmatic responses.

### **Evidence Base on the Consequences of Immigration Enforcement for Children's Outcomes**

In a 2015 review of the literature on the implications of immigration enforcement for the well-being of children and families, Capps et al. focused primarily on the consequences of parental detention and deportations, noting that the volume of studies on this topic has accelerated since 2009, which is the approximate year that ICE had formerly halted workplace immigration raids after a period of intensification under the George W. Bush administration. In our review, we similarly draw on the sociological “pyramid” framework developed by Joanna Dreby (2012) to characterize the types and levels (or intensity) of the burdens of immigrant detention and deportation on children. At the base of Dreby’s pyramid are the approximately 11 million children of immigrants, who regardless of their parents’ legal status, experience stress, fear, and discrimination if they live in communities where detention and deportation are occurring. This general climate of fear and mistrust that is created by immigration enforcement is known in the literature as the “chilling effect,” where one does not need to have a direct encounter with immigration enforcement to be affected or deterred in going about one’s normal daily activities (Heyman, Nunez & Talavera, 2009). Children of immigrants, regardless of their own citizenship status, are frequently impacted by the consequences of this fear and distress for them and their parents (Potochnick et al., 2017). Watson (2014), for example, found significant reductions in children’s Medicaid participation attributable to the immigration enforcement climate, including for children born in the U.S. to longstanding noncitizen residents.

Research also finds that children who see peers separated from parents and worry about their own parents' risk of arrest or deportation experience increased psychological distress (Lopez & Minushkin, 2008; Arbona et al., 2010; Cervantes et al., 2011). In a national survey conducted in 2008, Lopez and Minushkin (2008) reported that more than half of Hispanic<sup>2</sup> children—35 percent of whom were native-born citizens and 72 percent who were foreign-born—were continually worried that they or their parents might get deported. In addition, parents who fear detention or deportation often take steps to prepare their children for this possibility, urging them to avoid authorities and developing plans (that their children are aware of) in the event that a caregiver is removed from the family (Philbin & Ayon, 2016; Roche et al., 2018). While Philbin and Ayon also described many actions that immigrant parents undertake to alleviate their children's fears and proactively protect them, the role of law enforcement and other authority figures in their lives is complex, making it challenging to avoid chronic stress and psychological responses that can worsen children's health outcomes.

Indeed, the second level of Dreby's pyramid of children's burdens represents the repercussions of persistent fear among children who live with unauthorized family members, which includes approximately 5-6 million children, of whom greater than 80 percent are U.S. citizens. An expanding body of research associates the protracted fear and stress these children endure with poorer health outcomes, academic performance, and lower socio-emotional well-being (Brabeck & Xu, 2010; Yoshikawa, 2011; Amuedo-Dorantes & Lopez, 2015; Kirksey et al., 2020). In a study of Hispanic immigrants, Brabeck and Xu (2010) linked declines in parental psychological and economic well-being to their children's diminished emotional health and well-being. Hainmueller et al. (2018) showed that, alternatively, when protecting immigrant mothers

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<sup>2</sup> We use the term Hispanic rather than a more inclusive term like Latinx, because this was the term regularly used by people in the community we studied, as well as in the literature we cited.

from the fear and stress of deportation through the Deferred Action for Childhood Arrivals (DACA) program, their children had 50 percent fewer diagnoses of adjustment and anxiety disorder. Children who constantly worry that their parents will be detained experience increased anger and anxiety, instability in eating and sleeping patterns, and other physical ailments or manifestations of their elevated stress levels (Chaudry et al., 2010).

These additional burdens borne by children living with unauthorized family members also affect their educational engagement, with research showing that they are more likely to be disruptive in the classroom, absent from school, held back to repeat a grade, or to drop out of school (Capps et al. 2007; Chaudry et al. 2010; Amuedo-Dorantes & Lopez, 2015). Amuedo-Dorantes and Lopez (2015) examined the intensification of interior immigration enforcement in the U.S. and found that its largest, negative impacts were on younger children, ages 6 to 13 years, whose probability of repeating a grade rose by 6 percent and likelihood of dropping out of school increased by a staggering 25.2 percent. Kirksey et al. (2020) specifically probed the effects of deportations occurring within 25 miles of school districts and found that gaps in math achievement and chronic absenteeism between White and Latinx students were significantly larger where there were more nearby deportation sites. Their findings corroborated those of Bellows (2019), who used the staggered implementation of the Secure Communities immigration enforcement program to explore how it affected the academic achievement of Hispanic students relative to their non-Hispanic Black and White peers. Bellows found that the activation of Secure Communities and increases in deportations contributed to declines in average academic achievement among both Hispanic and Black students. In his study of one of the largest workplace raids conducted by ICE in six Texas communities in 2006, which led to the arrest of more than 1,300 workers, Zuniga (2017) used synthetic control methods to compare children in



school districts close to the raids to those in unaffected areas. He found large, immediate negative effects of the raids on reading and math proficiency rates of children in the district who were identified as Hispanic or as having limited English proficiency, which persisted for multiple years and were not seen among White children. Moreover, the magnitude of the estimated workplace raid effects on proficiency rates were larger than those of other community traumatic events, such as random shootings and civic unrest that were studied by Gershenson and Tekin (2018) and Gershenson and Hayes (2018).

Moving to the next levels of Dreby's (2012) pyramid characterizing the burdens of immigrant detention and deportation on children, the third and fourth tiers correspond to the short-term and long-term (respectively) effects experienced by children who are separated from one or both parents (about 500,000 children at the time of her analysis). At the fifth level, another half a million children (mostly U.S.-born) are deported with their parents, and those at the apex of the pyramid suffer permanent family dissolution, such as parental loss of custody or contact with the children or court intervention that permanently separates them from their parents. Research shows that children separated from their parents are more likely to have diagnoses (or symptoms) of depression, anxiety, substance use disorder or other severe psychological disorders, as well as a decline in their school performance and educational attainment (Bacallao & Smokowski, 2007; Cervantes et al., 2010; Chaudry et al., 2010; Gonzales, 2011). Furthermore, Dreby's (2012: 830) ethnographic research showed that among the most damaging consequences of separation from a parent was the "forced formation of single-parent, female-headed households," which had far-reaching, negative economic and emotional impacts on children's well-being. There was not only an immediate income shock to families that were already mostly low-wage, but the gendered nature of deportations drastically

changed men's relationships with their partners and children. Rosenblum and McCabe (2014) reported that more than 90 percent of deportees are men. Chaudry et al.'s (2010) study of six immigration raid sites found that in the six months following the arrest of a parent, family income fell an average of 70 percent, pushing families into deep poverty and increasing children's reliance on public benefits.

Unfortunately, at these times when families may need public supports the most, they may be least likely to access them (Gelatt et al., 2017). For example, while Currie and Rossin-Slater (2015) identified the Women, Infants and Children (WIC) program—which provides supplemental food, health care referrals, and nutrition support for children up to age five—as one of the most effective social programs in improving children's early-life conditions, research by Vargas and Pirog (2016) found that higher perceived risk of deportation is associated with lower WIC participation in mixed-status families, particularly among those of Mexican-origin. Recent research considering the Trump Administration's expansive public charge rule (first proposed in September 2018), which aimed to deny lawfully present noncitizens a path to citizenship if they participated in federal safety net programs, found “chilling effects” even on families who were not directly affected by the rule, including reduced participation in Supplemental Nutrition Assistance Program (SNAP), Medicaid, public housing and other programs, as well as avoidance of medical care (Berstein et al, 2019; Sommers et al., 2020). Using data on Medicaid, SNAP, and WIC program enrollment (by county) from January 2015 to June 2019 and a measure of exposure to information about the public charge rule, Barofsky et al. (2020) identified consistent declines in the share of children covered by these safety net programs. More broadly, a review of the evidence base on exclusionary immigrant-related policies by Crookes et al. (2021) found them to be linked with worse health outcomes in children and adolescents, greater food

insecurity, increased high-acuity emergency room visits, worse birth outcomes and increased infant mortality rates.

In the research we undertake, as in many studies in this larger body of research, we are not able to empirically identify the particular children whose parents were detained or deported to distinguish those who experienced separation from their parents, either temporarily or permanently, from those who may have been affected in other ways by the workplace immigration raid. Some of the research that has empirically estimated the effects of interior immigration enforcement and deportations on children's well-being (Amuedo-Dorantes and Lopez, 2015; Bellows, 2019; Kirksey et al., 2020) used data from the Stanford Education Data Archive (SEDA) that only allows researchers to identify children by their ethnicity, or combined with other information, to describe consequences for children of "likely unauthorized immigrants." Research by Borjas (2003, 2017) has contributed importantly to methodological advances in defining and estimating the population of unauthorized immigrants in various publicly available data sources such as the American Community Survey and Current Population Survey. However, research that has collected information specifically from families affected by immigration raids, deportations and other immigration enforcement actions has primarily used ethnographic or other qualitative research methods and has been based on small samples that are not representative of the population of children or families affected (Capps et al., 2015). One exception is recent work by Ben Meadows (2020), who used school district data that included a student's legal immigration status to examine how undocumented immigrants responded to deportation risks. He found acute responses among undocumented Hispanic students in the form of substantial spikes in absences from school when state immigration enforcement laws overcame court challenges and increased withdrawals from school after the laws were cleared for

enactment. He also found sizable effects on student absences for documented Hispanic students, suggesting that chilling effects are not limited to the undocumented. We now turn to describing the Morristown, Tennessee workplace immigration raid and how its context and execution informs the empirical analyses we conduct in this study.

### **Morristown, Tennessee and the April 2018 Workplace Immigration Raid**

Morristown, Tennessee is a small rural town of approximately 30,000 residents that is situated in the upper region of East Tennessee (in the Tennessee Valley), with the Great Smoky Mountains bordering its southern end and the Clinch Mountain to the north. It also has a strong industrial base, with multiple industrial parks and more than 100 manufacturers with facilities located in Morristown, including food processing, aerospace technology, machine and parts production, plastics engineering, and others.<sup>3</sup> Morristown is the county seat of Hamblen County. As of the 2017-2018 school year (the year of the workplace immigration raid), Hamblen County had the highest percentage of school-aged children identified as Hispanic (26%) among Tennessee's 95 counties, followed closely by Davidson County (in which Nashville is located).

In describing the workplace immigration raid, we draw on public documents, news accounts, and interviews that were conducted in Hamblen County in November 2019 (about 17 months after the immigration raid occurred) with a local health clinic, a coordinated school health director, and a leader of a community nonprofit organization, as well as an interview in February 2021 with a staff member of the Tennessee Immigrant and Refugee Rights Coalition (TIRRC) who worked in the community after the raid to assist affected families. The November 2019 interviews were conducted as part of a larger research effort to investigate challenges that low-income families face in accessing health and human services critical for their children's

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<sup>3</sup> Morristown Area Chamber of Commerce, "Existing Industry," retrieved from [selectmorristowntn.com](http://selectmorristowntn.com).

healthy development (Heinrich et al., 2021), and in each interview, the Hamblen County respondents described how the Morristown raid affected children and families. Alternatively, the interview conducted with the TIRRC staff member was specific to the workplace immigration raid and used to gather information that could inform our understanding of its unfolding and potential impacts and our methodological approach to analysis of the raid's effects. The interview questions inquired about the ways in which children were potentially affected by the raid (short- and longer-term); the geographical radius of the raid's effects; the potential for and range of "chilling" effects, and other raids and immigration enforcement activities across Tennessee (around the time of the Morristown raid). The interviews conducted in Hamblen County and with the TIRRC staff member were recorded and transcribed.

### **The unfolding of the Morristown workplace immigration raid**

The Tennessee Highway Patrol combined forces with officials from U.S. Homeland Security and the Internal Revenue Service (IRS) to carry out the workplace immigration raid, surrounding the meatpacking plant during a day shift and blocking roads and plant exits while ICE officials entered the plant to make arrests. News reports allege that workers were initially detained without asking questions about whether they were legally authorized to work, and an ICE manual substantiates that in the execution of a criminal search warrant, authorities may "briefly detain" any individuals present at the enforcement location (Devereaux & Sperry, 2018). There were a total of 104 undocumented workers employed at the facility at the time of the raid, and according to ICE documentation, 10 were arrested on federal criminal charges; one was arrested on state charges, and 86 were arrested on administrative charges and placed in removal proceedings. Approximately one-third of the 97 initially detained were released from custody. The meatpacking plant's owner had been under investigation by the IRS for tax evasion and by

the Tennessee Department of Environment and Conservation for environmental violations (inappropriate waste disposal) and was subsequently found guilty of multiple state and federal crimes, including tax evasion, failing to properly compensate workers, and many other workplace violations.

Our interview with a (middle) school staff member who became involved in the community response to the workplace raid that day provides important information on how this was seen through the eyes of Latinx children and families in Morristown. This staff member worked at a middle school where approximately half of the student population was identified as Hispanic, and he described how they first became aware of what was happening:

“...all of a sudden, we started seeing this huge influx of parents coming in asking for their kid to leave. And so then we heard – then we got news, one of our people came in and told us, who speaks English, said there’s a raid. They’re doing a raid right now and people are being pulled from their homes.”

He explained that the story being reported—that they [ICE] were just driving down the road and picking people up—was different than the reality of the slaughterhouse raid, but there were students in the school whose parents worked there, and they had serious concerns for their safety. Some staff members stayed at school into the early evening, and others went with children on the bus, and there were cases where no adults were at home. ICE had detained the workers at a National Guard Armory, so school staff opened the gym at a school nearby to be available to support children and parents concerned about a detained family member. ICE had arranged for buses to transport workers to facilities in another state, and as described by this school staff member (who was present at the Amory throughout the evening), children and family members suffered enormous strain and trauma as they waited while workers were processed and sent away

or released. Illuminating what it was like to watch this play out, he indicated: "...it broke my heart. It did. And it was probably one of the worst days I've had as an educator, and I've had some tough days."

TIRRC staff conducted more than 80 interviews immediately following the raid to understand how families were affected and to plan for the legal support needs of specific families and individuals. TIRRC also documented that ICE presence in the community persisted for at least two weeks following the raid, and people (regardless of their immigration status) were afraid to drive outside of a safe zone area established by a local Catholic church. Community members perceived that local police were cooperating with ICE, which led to further distrust of the police.

### **Effects of the raid observed by school staff and community members**

The TIRRC staff member we interviewed spent several weeks working in Morristown after the raid and conveyed what they observed as some of the most concerning effects of the raid on children and families. She indicated that school-aged children did not want to go to school, and that many of them were having nightmares and living with "constant fear of coming home to find their parents missing." For those whose parent(s) were detained, the children wanted to know when their parents were coming home, and their caregivers did not know how to respond to this question. In addressing the "chilling effect" of the raid, she explained that school staff had to have repeated conversations with family members to convince them that ICE would not come to the schools and take children away while they were in school.

The school official we interviewed also described how children were affected in the aftermath of the raid. He said: "the biggest thing was we didn't see kids at the school—our attendance rate was terrible—for the next couple weeks." He indicated that they had

conversations with students and paid careful attention to what was circulating among youth on social media, and they found that:

“They were nervous, but it wasn’t because they were illegal, it was because they were afraid they would be thought they were illegal and be brought into this just for being Hispanic.”

The fear of being targeted for their ethnicity was not unfounded. In the subsequent investigation, Chief U.S. District Judge Travis McDonough appealed publicly to the U.S. Supreme Court to lift the immunity granted to the federal law enforcement officers involved in the Morristown raid:

"Perhaps a higher court will recognize causes of action that more directly address agents' searches and seizures based on skin color" (Satterfield, 2021). This also suggests that negative effects of the raid may have extended to documented and U.S. citizen Hispanic children, as well as those who were undocumented or living in mixed status families.

The school official also described how their school counselors were overwhelmed for the next two to three weeks, and that in addition to pulling every counselor that they could to their school, they had 47 teachers who became “47 pseudo guidance counselors.” He described the challenges they faced as they reached out to children and tried to understand their needs:

“We called a staff meeting immediately after that day, while we were still finding out about kids getting home. And you know, we just told them, we’re here to love on these kids through this, and you can’t, for the next little bit, education is going to come second... if you see kids crying, you’re going to talk to them and just tell them, we’re going to do the best we can. What do you need? Did you eat last night? Was there somebody at home with you? But we had so many kids who didn’t show up for the next few days. So, we did some calling, but a lot of times they wouldn’t answer the phone,



because they were afraid that it would show they were home. So, it was tough. And they'd see a number that looked official and they wouldn't answer it. So, it was a very hard, difficult time for everybody that's involved."

The community nonprofit leader similarly described the emotional toll of both ongoing fear in the community and the workplace raid on Latinx children in Morristown:

"One of the things we're seeing is a tremendous increase in the Hispanic kids acting out, getting in trouble with the law, getting in trouble with drugs and alcohol, because let's face it, if I come to you and say hey, we're going to get rid of your mom and dad, or your brothers and sisters are going back to Mexico or wherever and you're going to be here by yourself, the fear factor amongst that population is huge. You know, it's really, really frustrating when as a teenager, you've got so much on you already, never mind that extra fear and just absolute devastation of my family's gone... I think that has encouraged more substance use and poor decisions, you know, the Hispanic kids acting out, because they don't know what to do. They are under tremendous stress that they weren't under before."

The nonprofit leader also lamented the absence of options "for anybody in the Hispanic population anywhere near here—I'd say within hundreds of miles of here—to get treatment and recovery" unless they can speak English or are bilingual.

Staff at the local health clinic likewise described rising needs of the Hispanic population in the community and also how families were affected in ongoing ways by immigration enforcement activities in the area. One staff member provided a specific example of how the county was trying to address concerns and implications for the health of children:

“I was just thinking yesterday of the school, someone from the school system calling who knows she can call us; she’s an ESL teacher and very concerned about this family, where the father had been deported and the mother speaks no English, and there’s a young baby, six or seven months who was really sick. And the mother didn’t seem to know how to access anything. So, we tried to fast track to get her on the CHANT [Community Health Access and Navigation in Tennessee] program, so that our social workers can start the home visiting and take the interpreter with them, and you know, just to help link her to what she needs, because she didn’t think the baby had ever been to a doctor.”

The local health clinic staff could also point to a potential direct effect of the raid on children’s health and well-being, because the raid happened to take place on the very same day of their “healthy kids carnival.”

“The time came, and we usually had had a pretty big attendance from our Spanish speaking population, and nobody came. And we started thinking something’s not right, and then we heard, you know, what had happened. And then just coming out in general was a little slower after that, people not keeping their appointments or showing up.”

The annual healthy kids carnival, co-sponsored with the Tennessee Department of Health and Hamblen County University of Tennessee Extension, is designed to promote health literacy and provide access to resources for children’s basic health needs. The indoor carnival combines educational activities—featuring a variety of vendors distributing health information—with fun activities for children, such as face painting, balloon sculpture, healthy snacks, and more. It is a key health outreach effort to the local immigrant community, and as the local health clinic staff member indicated, the raid not only kept families away from this event, but these families stopped coming to other healthcare related appointments with their children.

The interviews conducted in this qualitative component of our research provide important insights for our modeling of the workplace immigration raid's effects on children. First, immigration enforcement activity was known to the Morristown community before the workplace raid, but the scale of this raid was purported to substantially increase the level of fear, stress and anxiety in the community, and particularly among children who feared or experienced separation from their parents. These fears were not limited to undocumented children or children living with undocumented family members; individuals felt targeted because of their Hispanic ethnicity. Thus, we might consider both immigrant and Hispanic identity in modeling the raid's effects. In addition, the interviews are suggestive of the potential for both education and health effects on children. As the school official mentioned, concern for meeting children's educational needs took a backseat to addressing their emotional and basic care (food, safety) needs in the weeks after the raid, and there were dramatic increases in student absences from school that made it more challenging for them to reach children with these additional supports. Community members and teachers were concerned about the mental health effects associated with both ongoing immigration enforcement and the raid incident on children, while at the same time, the chilling effects of immigration enforcement activities (and the timing of the raid with the county health literacy event) were deterrents to efforts to reach children and families with services and supports. We turn now to the empirical examination of the Morristown workplace immigration raid's effects on children's education and health outcomes.

### **Study Data and Sample**

In undertaking this research, we use a rich data panel consisting of low-income, school-aged children in Tennessee over academic years 2015-16 through 2018-19. These data were assembled by the Vanderbilt Policies for Action (P4A) Research Hub, which has linked public

school student records from the Tennessee Department of Education (and administered by the Tennessee Education Research Alliance) with individual records coming from Tennessee Medicaid (TennCare) and the Tennessee Department of Health's vital records and hospital discharge data. The student-level education data include student demographic characteristics, school disciplinary incidents, daily school attendance, schools enrolled, grade level, and test scores. Children's individual health records include chronic physical health conditions, acute physical health conditions, mental health conditions, behavioral risk factors, disabilities, and health services utilization.

The education outcomes of interest in this study include school absences (measured monthly) and disciplinary incidents (measured across a year) in the school primarily attended by the students. School absences are constructed based on daily attendance data, while disciplinary incidents are defined based on the number of disciplinary offenses and number of disciplinary actions recorded for students during the academic year. Disciplinary offenses consist of the discipline reasons and include fighting, violation of school rules, disreputable conduct, and violence, among others. Disciplinary actions consist of the type of discipline action applied and include expulsion, out-of-school suspensions, in-school suspensions, and placement in alternative facilities.

Health outcomes were defined by the P4A Research Hub using International Classification of Diseases (ICD) codes as recommended by the Center's for Medicare and Medicaid Services (CMS) Chronic Conditions Data Warehouse (CCW). The health outcomes include diagnoses or prescriptions for: attention deficit and hyperactivity disorder (ADHD) and other conduct disorders, depression, anxiety disorders, self-harm, suicide attempt or ideation, substance use disorders, eating disorders, headaches and nausea, which were defined using

diagnosis codes from health care encounters and prescription code drugs from pharmacy fills.

Another outcome includes the number of Emergency Room (ER) visits per year, defined based on claims for procedure codes.

In addition, we examine adverse childhood experiences (ACEs) as potential outcomes of children affected by the workplace immigration raid, particularly given the stress, family disruption, and changes in caregiving supports and supervision precipitated for some by the raid. Following the landmark Adverse Childhood Experiences Study (Felliti et al, 1998, Dube et al., 2001), the P4A Research Hub used diagnosis and procedure codes from children's and mothers' TennCare claims within inpatient, outpatient, and physician files and prescription drug names from the mother's pharmacy claims or TennCare enrollment files to develop measures of physical, emotional, and sexual abuse, physical and emotional neglect, and family disruption that we use in our analysis (Henkhaus, Gonzales, and Buntin, 2020).

Students' demographic characteristics were derived primarily from students' administrative records and include race/ethnicity (white, black, Hispanic and other), gender, living in poverty (measured as being eligible for free/reduced price school lunch or being economically disadvantaged),<sup>4</sup> having a special educational need (measured as having an Individualized Education Plan), and being the child of an immigrant. A student is identified as a child of an immigrant if the student or birth records show he was born outside of the United States, he is/was ever an English Language Learner at school, or if the primary language spoken at home is different than English. Finally, students were assigned to counties based on their

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<sup>4</sup> The Tennessee Department of Education changed the criteria to identify students living in poverty during our study period. Before 2016-17, they were identified according to their eligibility for free/reduced price lunch through student/family applications. Since 2017-18, the criteria for eligibility changed to direct certification of students in economic disadvantage (i.e., whose families are eligible for federal subsidies like Supplemental Nutritional Assistance and Temporary Assistance for Needy Families). This direct certification process is performed by school districts and requires having student social security numbers, which may undercount immigrant students who live in poverty. These two definitions are not directly comparable.

school district. School districts were mapped to counties, using National Center for Education Statistics (NCES) county-district links.

The sample of school-aged children analyzed in this study consists of low-income students who attended public schools in Tennessee over the 2015-16 to 2018-19 academic years and who had Medicaid (TennCare) records (approximately 2.7 million student observations in approximately 1,880 schools over the four-year period). However, because the immigration raid occurred in April 2018, we also constructed a sample of school-aged children for analysis that is defined around the month of the raid, where the pre-raïd period begins April 2016 and extends for two years (through March 2018), and the raid and post-raïd period begin in April 2018 and continue through March 2019. This sample consists of a total of 2.4 million student observations over three study years (SY), vs. four years for the academic year (AY) sample. The descriptive (demographic) statistics for the AY and SY samples (across the study period) are nearly identical, as seen in the first two columns of numbers shown in Table 1. Around 14 percent of the students were children of immigrants, and about 11 percent identified as Hispanic. They also show that the large majority of the students were living in poverty, although it is important to note that the percentage of children characterized as economically disadvantaged fell starting in AY 2017-18 (from about 70% to 50%), reflecting the modified free- and reduced-priced lunch eligibility criteria and certification process used by the state.

As we more accurately capture the pre- and post-raïd periods using the study year sample, we make this our primary analysis sample. For absences from school that are measured daily and monthly, we define the month of a given year as our unit of analysis in assessing the effects of the workplace immigration raid on student absence rates.

## **Methodology and Empirical Models**

We use a quasi-experimental approach to estimate the effects of the Morristown workplace immigration raid on school-aged children's education and health outcomes and health care utilization. The specific model we estimate varies according to the outcome measure—whether measured on a monthly or yearly basis—and makes use of variation in the students' geographic proximity to the location of the workplace immigration raid. We use the panel structure of the data to estimate student-level fixed effects models that control for fixed and time-variant student characteristics and grade and district fixed effects. We compare children's outcomes before and after the raid, and in zones defined according to their proximity to the county where the raid took place (in comparison to the rest of Tennessee counties).

### **Defining geographical proximity to the workplace immigration raid**

This empirical strategy using children's geographical proximity to the immigration raid builds on the literature that identifies potential effects of traumatic events in communities that can operate through both direct and indirect mechanisms (Gershenson and Tekin, 2018). For example, school absences may be directly linked to an immigration raid for children who had a caregiver removed from the home or who had a caregiver that felt directly threatened by immigration enforcement presence and activities, but fear and anxiety created by the raid could also spill over to other students and those in nearby communities, leading to effects on education and health outcomes for others as well. This identification strategy assumes that the raid had little or no effect on children who attended schools relatively distant from the raid, and it also hypothesizes that children of immigrants (or alternatively, children of Hispanic ethnicity) would be more negatively affected than other children in close proximity to the raid. We assess these hypotheses by including (in separate models) interactions of the geographical proximity

(“zone”) and raid year indicators with measures of children of immigrants and (alternatively) Hispanic children.

We defined three measures of geographical proximity in the form of three “zones”, with each one progressively encompassing additional counties located a little farther away from the raid. The first, Zone 1, consists only of Hamblen County, which encompasses the city of Morristown and the Hamblen County School District (Morristown Schools), where news accounts and interviewees suggested most affected families resided. The second, Zone 2, adds Grainger County and Jefferson County to Hamblen County. Grainger is the county where the Southern Provisions meatpacking plant (targeted by the workplace raid) is located, and Jefferson County borders both Grainger and Hamblen and includes some students who attend Morristown Schools (see the map in Figure 1). There is an elementary school nearby the meatpacking plant, although in part because of the topography of the region, most of the plant workers lived in Morristown. The third zone (Zone 3) expands the geographical area to include Knox and Sevier Counties, as well as Hamblen, Grainger and Jefferson. These last two counties also include sizable Hispanic populations and proportions of students who are children of immigrants, and there was some concern that “chilling effects” from the raid might extend there, in part because Knox County is publicly known for law enforcement cooperation with ICE.

The third through seventh columns in Table 1 present descriptive statistics by county and the three zones constructed to assess geographical proximity to the immigration raid. Hamblen County (defined as Zone 1) stands out as having a substantially larger proportion of school-aged children with immigrant parents (about 31%), which is three to five times larger than that of the counties added to Zones 2 and 3. Grainger County (added to Zone 2), despite being the location of the workplace immigration raid, has a notably small proportion of children of immigrants



(6%) and also a considerably whiter population. Students in Hamblen County are also more likely to identify as Hispanic (31%) and are more economically disadvantaged (73%) than those in the other counties and zones.

### **Descriptive trends in outcomes examined over the study period**

Our methodological approach also requires the education and health outcomes of these groups of children of interest (children of immigrants and Hispanic children in close proximity to immigration raid) to be trending similarly before the raid to those who were not close to the raid and to non-Hispanic children and those who were not born to immigrants, although it does not require their outcome *levels* to be the same. This is perhaps more straightforward to assess looking at school attendance outcomes that are available to us at daily and monthly levels before the raid. The protocols for construction of the health outcomes, which are typically observed or diagnosed (and measured) at less frequent intervals (e.g., annually), preclude us from examining their trends at a more granular level.

In Figure 2 (panels a. and b.), we present monthly absence rates across the study academic years, comparing all students in the state with students in counties in proximity to the Morristown workplace immigration raid (separately for children of immigrants and children not born to immigrants). Absence rates vary considerably across a given year for reasons of seasonality and school breaks and generally appear to be trending similarly, with the exception of absence rates in Hamblen County in the year prior to the raid. The graphs show comparatively lower absence rates in Hamblen County (starting at the end of the school year in June 2017 and continuing through the early months of 2018) that are similar for those who are children of immigrants (COI) and not born to immigrant parents (non-COI).<sup>5</sup> We therefore also examine

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<sup>5</sup> We have scrutinized the raw attendance files made available by the Tennessee Department of Education to confirm that these patterns are present in the data submitted by Hamblen County Schools.

*daily* absence rates during the month of the Morristown immigration raid, distinguishing COI in Hamblen County (Zone 1) vs. all other Tennessee counties (Figure 3a.), and comparing COI and non-COI students in Hamblen County only (Figure 3b.). The graphs reveal that student absence rates among COI increased enormously in the days following the raid (April 5, 2018) in Hamblen County, abruptly shifting from a 5 percent absence rate in the days before the raid to approximately 20 percent absent in the days that followed (Figure 3b.). This increase in absence rates was not observed among COI residing and attending public schools in other counties (see Figure 3a.), or among non-COI students in Hamblen County (Figure 3b.). The substantial increase in student absence rates does not appear to be driven by seasonality either, as seen in Figure 3c., which shows daily attendance rates among COI in Hamblen County during April 2018 (the month of the raid) and April 2016 and April 2017 (before the raid). There were no similar spikes in student absence rates in these prior two months of April.

We also examine the trends in school disciplinary outcomes, healthcare utilization, health outcomes, and adverse childhood experiences over the two (study) years before the raid (beginning April 2016 through March 2018), and the study year that includes the raid (in April 2018) and the months following the raid (through March 2019). In each figure (presented in the appendix), we compare children of immigrants (COI) with non-COI statewide, as well as COI and non-COI who resided in Morristown (Zone 1), across the three study years. For example, in Figures A.1-5, we present the trends in school disciplinary outcomes, including all disciplinary offenses, in-school and out-of-school suspensions, expulsions, and alternative placements. What stands out in these comparisons, with the exception of in-school suspensions, is a marked shift upward in disciplinary offenses among COI in Zone 1 (the immigration raid site) in the raid year, particularly expulsions and alternative placements. We also observe some variation in the trends

in disciplinary outcomes across these four subgroups of school-aged children in the pre-raid period, suggesting the importance of adjusting for pre-raid differences in the empirical estimation and exercising caution in interpreting the model results. Figure A.6 in the appendix presents trends in our single measure of healthcare utilization, an indicator variable for whether a child had two or more emergency room (ER) visits over the study year; Figures A.7 and A.8 depict trends in diagnoses of nausea and headaches over the study period; Figure A.9 presents the descriptive trends for ADHD (a conduct disorder); Figures A.10-A.13 depict the trends in children's behavioral health outcomes, including substance use disorders, self-harm and suicide attempts or ideation, depression and anxiety; and Figures A.14-A.17 display the trends in adverse childhood experiences over the study period, including family disruptions, physical neglect, maltreatment, and sexual abuse. The trends in these outcomes are discussed in the appendix, although, of course, they are simply descriptive trends that do not control for any other student, school or district characteristics, as we do in our empirical estimation (discussed below).

### Model specifications

In estimating the immigration raid's effects on school absences and disciplinary outcomes, healthcare utilization, health outcomes, and adverse childhood experiences, we specify a student-level model with grade level and district fixed effects, as shown in equation 1:

$$y_{idt} = \beta_0 + \beta_1 X_{idt} + \beta_2 Zone_{ijt} + \beta_3 COI_{idt} * Zone_{ijt} + \beta_4 COI_{idt} * Zone_{ijt} * raid_t + \delta_i + \lambda_d + \varepsilon_{sdt} \quad (1)$$

where  $y_{idt}$  is the outcome for student  $i$ , located in district  $d$ , for year (or month)  $t$ . Student absences from school are the only outcome that we estimate at the monthly (vs. yearly) level, and thus, it is the only outcome for which  $t$  in this model corresponds to a month over the study period (vs. the study year). We also added month fixed effects and an indicator for the time period that spans the months following the raid month to equation (1) for the analysis of monthly

absences. In equation (1),  $X_{idt}$  is a vector of covariates consisting of student demographic characteristics and other indicators (e.g., special educational needs);  $COI_{idt}$  is an indicator of whether the student is a child of immigrants;  $Zone_{ijt}$  is an indicator variable that takes 1 if the student  $i$  is located in Zone  $j$  ( $j=1,2,3$ ) in time  $t$  and 0 otherwise; and  $raid_t$  is an indicator for the month or year of the raid (which took place April 2018). For the outcomes measured over 12 months, the raid period extends through March 2019.<sup>6</sup> We also add vectors of grade-level and district-fixed effects,  $\delta_i$  and  $\lambda_d$ , that adjust for fixed, grade-specific factors and for time-invariant district characteristics that could affect student outcomes, such as district economic vitality. The vector of student-level covariates  $X_{idt}$  includes the following measures: female, Black, Hispanic, or other race or ethnicity, economic disadvantage/eligible for free or reduced-price lunch, and special educational needs.

In equation 1, the primary coefficient of interest,  $\beta_4$ , measures the effect of the workplace immigration raid on children of immigrants in proximity to the raid (zone  $j$ ) in the month or year of the raid (relative to children outside of the zone who are not children of immigrants), while controlling for being a child of immigrants in Zone ( $\beta_3$ ) or residing in Zone 1 ( $\beta_2$ ). We expect the magnitude of  $\beta_4$  to be larger in models that examine the effects of the immigration raid in Zone 1, the county where most of the individuals who felt targeted by the raid resided, compared to Zones 2 and 3. However, the precision of the estimates (and statistical significance) may also be affected by the number of students living in the respective zones. It is also important to reiterate that in the model estimating student absences, the outcome is student absence rates in the month of April (rather than for the full study year).

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<sup>6</sup> We also separately included an indicator for the raid year (or month) in this model specification; for the outcomes measured over a year, this parameter was omitted during estimation due to multicollinearity.

As discussed above, our model assumes that the immigration raid did not affect children who attended schools distant from the raid, and that its effects would be strongest for children of immigrants in close proximity to the raid. We also examine the potential for “chilling effects,” or negative effects that would spill over to children of Hispanic ethnicity (regardless of whether they were COI), who feared they or their families might be targets of immigration enforcement. This alternative specification replaces the COI indicator everywhere it appears in model (1) with an indicator for Hispanic ethnicity. We expect these results to be very similar to our main specification, because in Tennessee over the study period, 64 percent of children of immigrants were of Hispanic ethnicity, and in Hamblen County, 90 percent of COI identified as Hispanic.

## **Study Findings**

### **Results for education outcomes**

In Figure 4, we present results from the student-level models with grade and district fixed effects for the monthly absence rates outcome. The plot displays the coefficient estimates of the triple interaction  $COI_{sdt} * Zone_j * raid_t$  for each of the three zones, illustrating the effect of the raid on the monthly absence rates for children of immigrants in each zone in April 2018. The error bars depict the 95% confidence interval of the coefficient estimates. As seen in Figure 4, there was a statistically significant increase in student absence rates among children of immigrants in Zones 1, 2 and 3 during April 2018 (p-values are all 0.01 or less). The results indicate that student absent rates among COI in Zone 1 (Hamblen County, closest to the raid) increased by approximately 18 percentage points in the month of the raid. Student absence rates were also significantly higher (by about 15 percentage points) in April 2018 for COI in Zone 2, which adds the two nearest counties (Grainger and Jefferson). As expected, the increase in student absence rates is muted, albeit still large (about 7 percentage points), for COI in Zone 3 in

April 2018, which adds two larger counties (Knox and Sevier) farther from the epicenter of the workplace immigration raid. Given typical April monthly absence rates among COI (as shown in Figure 2a), the increase in COI absences in Zones 1 and 2 in the raid month represents a five to sixfold increase in student absences, and in Zone 3, the increase still represents an approximate doubling of the typical absence rate among children of immigrants during the month of the raid.

In Table 2, we report the key parameter estimates from student-level models with grade level and district fixed effects for disciplinary outcomes, measured over the months including and following the raid (through March 2019). Statistically significant coefficients are highlighted in bold. The results show that over the study period, children of immigrants generally have significantly fewer disciplinary offenses than non-COI, although alternatively, students in Hamblen County (Zone 1) have significantly higher numbers of disciplinary offenses, with the exception of out-of-school suspensions. The primary coefficient estimate of interest—the interaction between COI, Zone 1 and the raid year—is positive and statistically significant for four of the five disciplinary outcomes, indicating that following the raid, children of immigrants in Hamblen County had significantly more disciplinary problems in school (compared to other students farther from the raid). For example, the average number of expulsions among all Tennessee students that year was 0.0018, but expulsions increased by more than double that number (0.0038) among COI in Hamblen County. The rate of increase in alternative placements among COI in Hamblen County in the raid year likewise represented more than a doubling of the average. We also see statistically significant effects of the raid on out-of-school suspensions and expulsions for COI in Zone 2, which are close in magnitude to the effects observed for COI in Zone 1. Together, these findings on student absences and disciplinary actions confirm what we

heard in interviews about the disruptive effects of the workplace immigration raid (and its aftermath) on children's educational engagement and their behavioral responses.

### **Results for healthcare utilization, health outcomes, and adverse childhood experiences**

In Table 3, we present the key parameter estimates from the student-level models with grade and district fixed effects for the healthcare utilization and health outcomes. Starting with ER visits in Zone 1 (the first set of estimates shown in Table 3), the results confirm what we saw descriptively, in that COI are overall significantly less likely to have two or more ER visits in a year. However, the triple interaction,  $COI_{idt} * Zone_{ijt} * raid_t$ , is positive (although not statistically significant for Zone 1), and in the models that expand the radius of the raid's effects to Zones 2 and 3, the coefficient is more precisely estimated and statistically significant. This suggests an increase in ER visits among children of immigrants in proximity to raid in the year of the raid. Similarly, diagnoses of nausea and headaches are generally significantly lower among COI (including in Zone 1, Hamblen County), but in the year of the raid, the triple interaction term indicates that significantly more COI in Hamblen County (and in Zone 2, including Grainger and Jefferson Counties) were diagnosed with nausea, i.e., about a doubling of the pre-raid average for this subgroup. The increase observed in diagnoses of headaches for COI living close to the raid in the raid year is not statistically significant.

Table 4 presents the fixed effects model estimates for children's behavioral health outcomes, and as we saw for the other health outcomes, children of immigrants are significantly less likely to be diagnosed with these behavioral health conditions across the period of study. The triple interaction term ( $COI_{idt} * Zone_{ijt} * raid_t$ ) is positive and statistically significant, however, in the models that analyze ADHD and substance use disorder, indicating that diagnoses of these two behavioral health disorders increased among children of immigrants in proximity to

the raid in the raid year. For COI, the increases in ADHD and substance use disorder observed in the raid year represents an approximate doubling of the average prevalence rates observed for COI before the raid. These findings are consistent with concerns we heard expressed in interviews with school staff and community members who were working to help these students after the raid, that is, that fear and stress associated with the immigration enforcement actions were leading to more substance use, poor decisions, and acting out among affected children. We did not find any statistically significant effects of the raid on diagnoses of depression, anxiety or suicide ideation/attempts or self-harm, although as seen in Figures A.11-A.13 in the appendix, diagnoses of these conditions were trending upward throughout the study period for all children.

Table 5 presents our analysis of the potential effects of the immigration raid on children's ACEs as recorded in their Medicaid claims files. Among the types of family disruptions recorded in Medicaid files are transfers to foster care, and although we know from firsthand accounts that children were separated from family members during the raid, the fixed effects models do not identify increases in family disruption through the Medicaid claims records for COI living in close proximity to the raid in the raid year. Children of immigrants during the study period were overall less likely to experience ACEs—family disruptions, physical neglect, maltreatment, or sexual abuse—but for COI in close proximity to the raid, the fixed effects model results indicate a statistically significant but small increase in maltreatment and an approximate doubling of incidences of sexual abuse (identified in Medicaid claims) during the raid year. Our ACEs measures, because they only identify these adverse experiences when diagnosed by a healthcare professional, may miss some occurrences, but it is particularly concerning to see the sharp increase in sexual abuse, which was noticeable in the simple descriptive trends as well. A potential contributing factor to the observed increase in these two ACEs may have been children



staying in the care of others or receiving less adult supervision during the period following the raid, which was noted by school counselors and other “first responders” to the raid.

### **Results from alternative specifications**

In the first alternative specification, we estimated the model in equation 1 separately for high school students and for students in grades 8 and under for each outcome. Given teenagers’ well-known higher rates of engaging in risk behaviors,<sup>7</sup> we anticipated differences in substance use and behavioral health outcomes by student age (or grade level). We present this subset of the results for high school students only in Table 6. The results show that the estimated increase in substance use disorder among COI in Zone during the raid year is about 5 times larger for high school students (0.016) than the estimate for all school-aged children (0.0033, shown in Table 4). In addition, whereas the estimated associations between the raid and self-harm, suicide attempts or suicide ideation and anxiety were not statistically significant when estimated for the full sample, the associations were statistically significant (positive) and about three times larger for the subsample of high school students. Other notable differences in associations for high school students vs. younger students were considerably higher rates of out-of-school suspensions among high school COI in Zone during the raid year (0.061 vs. 0.013 for younger students) and higher rates of sexual abuse among high school COI in Zone during the raid year (0.005 vs. 0.002 for younger students). As expected, we did not find any large differences in student absence rates (associated with the raid) by grade level during the month of the raid.<sup>8</sup>

In Table 7, we present a comparison of the results (for a subset of outcomes) for the model specification that replaced the COI indicator in model (1) with an indicator for Hispanic to

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<sup>7</sup> [https://www.cdc.gov/parents/teens/risk\\_behaviors.html](https://www.cdc.gov/parents/teens/risk_behaviors.html)

<sup>8</sup> In Zone 1 during the month of the raid, school absence rates were estimated to be 19 percent higher among high school students, compared to 18 percent higher among all students.

assess implications of the raid for children who, regardless of whether they were COI, may have felt threatened by the raid because of their Hispanic ethnicity. We present the estimated associations for both the interaction term with Hispanic ethnicity and the COI interaction (first reported in Tables 2-5). For each of the outcomes shown, there are slightly smaller (statistically significant) estimated associations for children of Hispanic ethnicity that are fairly close in magnitude to those of COI in Zone 1 (or Zone 2) in the raid year, ranging from about 36 percent to 96 percent of the size of the estimated associations for COI in Zone 1. We expected associations of similar magnitude given that the large majority of COI in Hamblen County are Hispanic, and the results appear to confirm what we heard in interviews, i.e., that children and families of Hispanic ethnicity felt similarly targeted by immigration enforcement because of their ethnicity, regardless of whether a family member was at high risk for being detained or deported.

The final set of findings we discuss are for the model specification that replaces the indicator for the raid period (the month of the raid and the subsequent 11 months) in the triple interaction with an indicator for the pre-raid period as a falsification check on our primary fixed effects model specification. This simple model specification test, proposed by Heckman and Hotz (1989), requires pre-treatment measures of the outcomes of interest. For brevity, we present the findings for a selection of the outcomes for which we found statistically significant relationships between the immigration raid and children's education and health outcomes (see Table 8). The results show that for Zones 1 and 2 (of primary interest because of their close proximity to the raid site), we found only negative or non-significant associations between the interaction with the pre-raid years and these education and health outcomes (i.e., no false positive effects). For Zone 3, there is one positive, statistically significant association between

the triple interaction with the pre-raid period and alternative placements (a disciplinary outcome), although given the number of estimates, this could be expected by chance (error).<sup>9</sup>

## **Discussion and Conclusion**

We advance the growing body of research on associations between the fear, stress and direct consequences of immigration enforcement activities on children's outcomes by quantitatively examining education, health and behavioral health outcomes and adverse childhood experiences of children of immigrants residing in close proximity to a large workplace immigration raid. Prior research has relied more heavily on ethnographic and other qualitative research methods and has been based on smaller samples that are not representative of the population of children or families affected by immigration raids, so our research on the effects of one of the largest workplace immigration raids since the George W. Bush administration makes an important contribution to the literature.

Consistent with prior research (Amuedo-Dorantes & Lopez, 2015; Kirksey et al., 2020; Meadows, 2020), we observed a substantial spike in student (COI) absence rates in the month of the raid, compared to absence rates in prior Aprils and other non-raid months across our study period. Exclusionary disciplinary actions—out-of-school suspensions, expulsions and alternative placements for disciplinary reasons—also increased starkly among the COI in closest proximity to raid in the 12 months including and following the immigration raid. These findings echo what we heard in interviews with school staff who suggested that children of immigrants and Hispanic students were severely emotionally and physically affected by the raid, and that “education took a backseat” to addressing this aftermath of the raid.

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<sup>9</sup> The full set of results from the model falsification tests is available from the authors upon request.

The administrative data available to researchers rarely allow for the empirical examination of the effects of immigration enforcement actions on outcomes beyond those typically measured in the educational realm. Our unique, linked longitudinal education and health data allowed for analyses of health and behavioral health outcomes of COI residing near the raid and likewise suggested physical and behavioral consequences of the raid for these children in the 12 months including and following the raid. We found statistically significant increases in diagnoses of nausea among COI in Zones 1 and 2 (potentially associated with increased stress) and in diagnoses of ADHD and substance use disorder (in Zones 1, 2 and 3) in the year of the raid. For high school students who were COI in Zone 1, we estimated statistically significant and larger associations between exposure to the raid and substance use disorder, anxiety, and self-harm and suicide attempts or ideation. In addition, the potential for other adverse consequences for these children was indicated in our findings of statistically significant associations of the raid with documented incidences of maltreatment and sexual abuse among COI residing in close proximity to raid. The reported fears among children of engaging with law enforcement and other community authorities in the aftershock of the workplace immigration raid also raise concerns about whether these types of harms may have been under-reported/diagnosed, especially given that children were less likely to attend school, where children often spend the largest share of their daytime under adult supervision.

Moreover, our findings suggest that the negative implications of the workplace immigration raid were not limited to children of immigrants who were more likely to have parents at greater risk of detention or deportation, but that they also extended (in similar magnitudes) to Hispanic children who felt that they and their families were targeted because of their ethnicity. In some of the previous research, empirical studies were only able to use Hispanic

ethnicity to identify children likely affected by immigration enforcement (see, for example, Zuniga, 2017; Bellows, 2019; and Dee & Murphy, 2020). Our research findings confirm that these studies, although limited by their ability to identify children of immigrants most likely to be affected by the immigration enforcement, are likely generating estimates that approximate well the effects of these enforcement activities on children's well-being.

In our descriptive analysis of the outcomes analyzed in study, we identified variation in pre-raid trends in the outcomes among children of immigrants and non-COI, and among trends statewide and in the counties closest to the workplace immigration raid site. In our empirical models, we controlled for the trends in outcomes among COI, COI in the relevant zones, and in a given zone. In addition, our pre-program model specification (or falsification) tests suggested that we were likely not identifying spurious effects; still, we cannot completely rule out the potential for unobserved, time-varying factors that might bias our estimates of the effects of the immigration raid. We thus want to be clear that we are asserting convincing patterns in the outcomes that suggest COI residing close to the immigration raid were likely negatively affected by the raid, but we are not claiming to have identified *causal* relationships between the raid and specific measures of children's well-being in this study.

That said, our qualitative research findings described the mechanisms—as discussed by those who engaged with children in the community during and after the time of workplace immigration raid—through which the immigration raid may have had these profoundly negative consequences for children. They described visible indications of stress and anxiety among affected children, their absence from school and fear of interacting with other adults or authorities, detrimental behavioral responses such as “acting out” and turning to substance use for relief under stress, and concerns about diminished access to health and social services and

adult supervision and support. Individuals and organizations in the community directly affected by the workplace immigration raid, including the local health clinic, school staff, and community-based organizations, also pointed out that they were provided no advance notice of the raid and had to scramble to support and protect the affected children and families. Because local law enforcement cooperated with the raid, they could have helped to prepare community leaders in establishing safety mechanisms for the children to ensure that they didn't return to empty homes or would have adults ready to provide supports for their basic needs and health and socio-emotional well-being following the raid. Additional health and mental health support staff to meet the immediate needs of the children and expanded instructional supports and outreach to help children stay on track with their learning, even if they were not attending school, might also have helped to mitigate the most severe consequences for children.

It perhaps goes without saying that the serious, negative spillover consequences of workplace immigration raids on children, families and communities are probably not worthwhile relative to the handfuls of unauthorized immigrants that these raids net and process. It is not surprising that we found negative implications of the workplace raid for children that extended into the school year following the raid, given the continued stress, uncertainty and family and economic instability these children likely continued to face. The negative consequences associated with fear and chilling effects more broadly affected children and families of Hispanic origin, which a Chief U.S. District Judge pointed out are the result of outright discriminatory targeting of immigration enforcement activities based on skin color (Satterfield, 2021). This alone is reason to end the practice of workplace immigration raids like that which took place in Morristown, Tennessee in April 2018.

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Figure 1: Counties in Proximity to the Morristown Workplace Immigration Raid

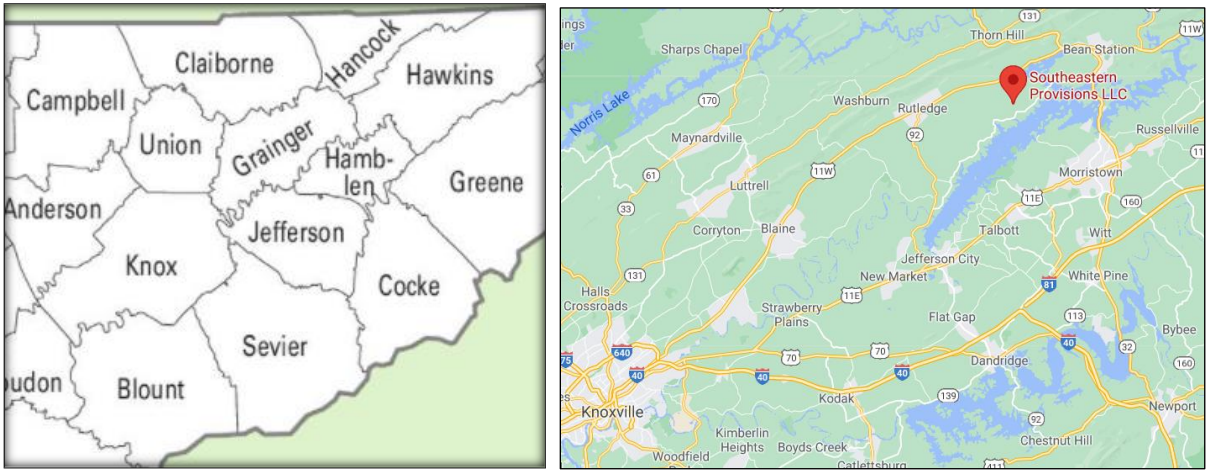
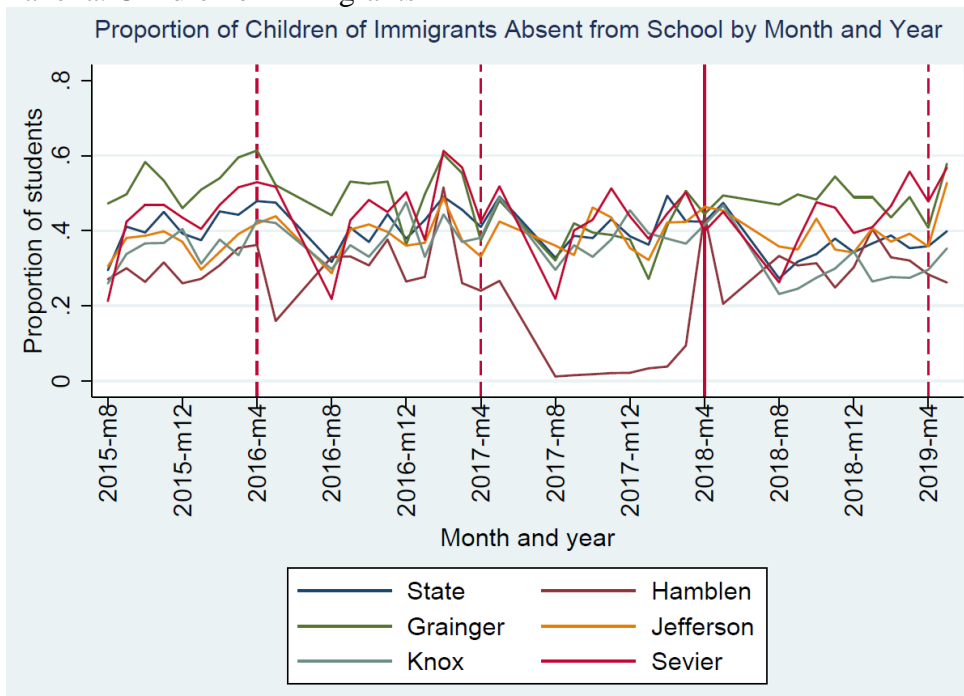


Figure 2: Trends in Student Monthly Absence Rates by Year, County and Student Subgroup  
 Panel a. Children of Immigrants



Panel b. Children Not Born to Immigrants

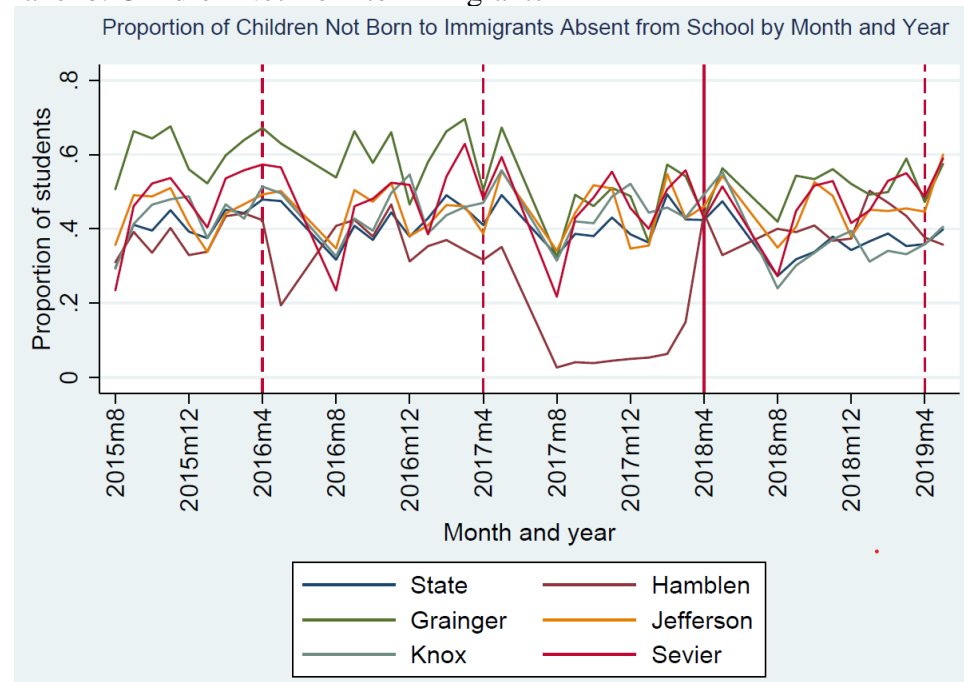


Figure 3a: Daily Absence Rates, Children of Immigrants (COI), Month of Immigration Raid

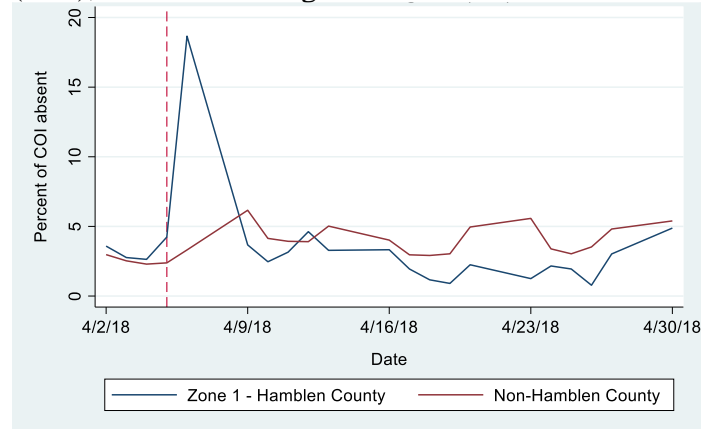


Figure 3b: Daily Absence Rates, COI vs. non-COI in Hamblen County (Zone 1), Month of Immigration Raid

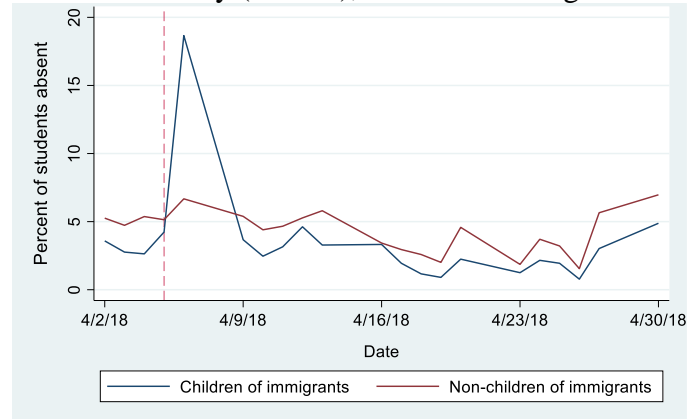


Figure 3c: COI Daily Absence Rates in Hamblen County (Zone 1), April 2016, April 2017 and April 2018

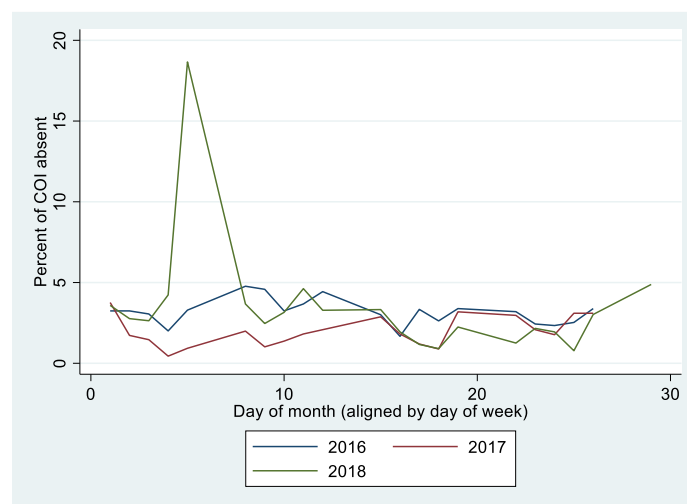
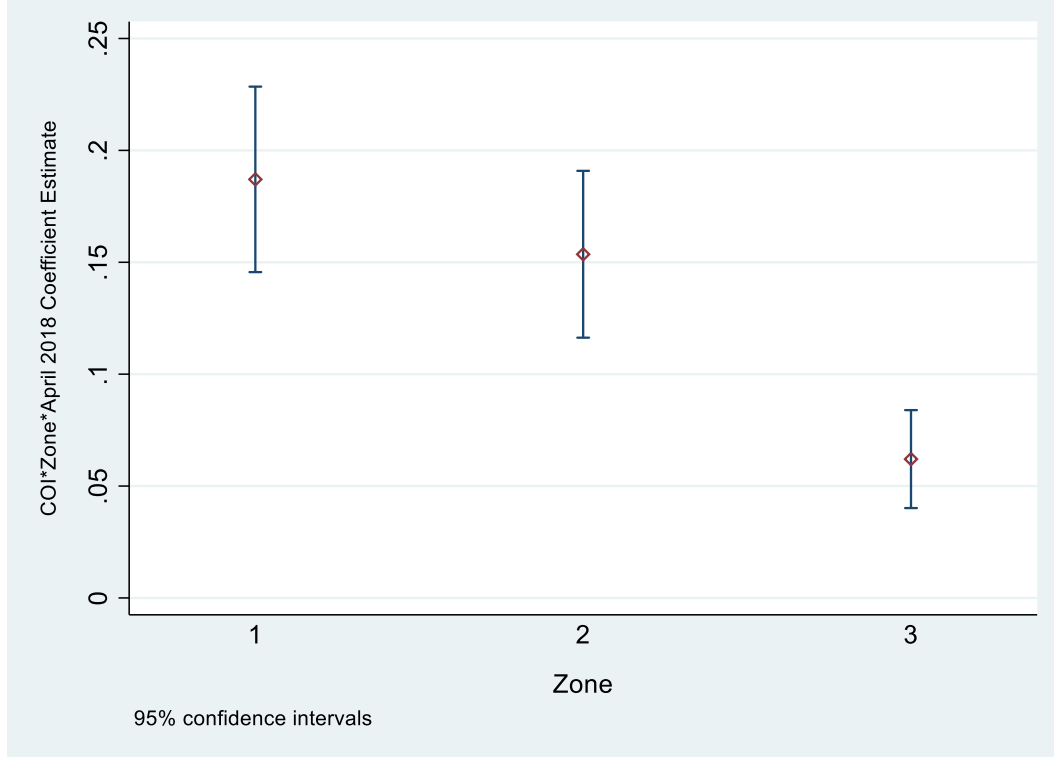


Figure 4: Estimates of Workplace Immigration Raid Effects on Student Monthly Absences





**Table 1: Student Characteristics by Sample Construction and Proximity to the Workplace Immigration Raid (Zone)**

			Zone 3, n=184,929				
Full Samples			Zone 2, n=48,033				
Student Characteristics	SY n=2,483,754		Zone 1, n=24,012				
	AY	SY	Hamblen	Grainger	Jefferson	Knox	Sevier
Female	48.8%	49.0%	50.0%	48.7%	49.4%	48.6%	48.4%
Black	30.5%	30.7%	8.2%	1.7%	4.1%	24.8%	2.6%
Hispanic	10.8%	10.8%	30.6%	5.7%	10.7%	11.7%	12.1%
White	56.5%	56.4%	59.2%	92.3%	84.0%	61.2%	83.2%
Other	2.2%	2.1%	2.0%	0.3%	1.2%	2.3%	2.2%
Child of immigrants (COI)	14.1%	14.1%	30.8%	5.7%	11.0%	16.0%	13.8%
Economic disadvantage	64.2%	68.1%	73.2%	63.1%	67.6%	63.0%	64.9%
Inclusion in Special Education	17.1%	16.8%	16.9%	20.8%	15.7%	19.1%	17.7%

**Table 2: Key Estimates of Workplace Immigration Raid Effects on Student Disciplinary Outcomes**

Disciplinary Outcomes	No. disciplinary incidents per year		No. in-school-suspensions per year		No. out-of-school-suspensions per year		No. expulsions per year		Alternative school placement	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Children of immigrants	<b>-0.1282</b>	0.0098	<b>-0.0506</b>	0.0073	<b>-0.0733</b>	0.0034	<b>-0.0013</b>	0.0001	-0.0031	0.0008
Zone1	<b>0.1185</b>	0.0164	<b>0.1319</b>	0.0111	-0.0279	0.0075	<b>0.0019</b>	0.0001	<b>0.0127</b>	0.0003
COI*Zone1	-0.0081	0.0047	<b>-0.0518</b>	0.0036	<b>0.0442</b>	0.0082	0.0020	0.0005	-0.0026	0.0007
COI*Zone1*raid year	<b>0.0461</b>	0.0108	0.0194	0.0139	<b>0.0188</b>	0.0017	<b>0.0038</b>	0.0004	<b>0.0041</b>	0.0010
Children of immigrants	<b>-0.1285</b>	0.0099	<b>-0.0506</b>	0.0073	<b>-0.0736</b>	0.0035	<b>-0.0013</b>	0.0001	-0.0031	0.0008
Zone2	-0.0064	0.0135	0.0016	0.0142	<b>-0.0173</b>	0.0024	0.0003	0.0004	<b>0.0088</b>	0.0018
COI*Zone2	0.0022	0.0107	<b>-0.0425</b>	0.0050	<b>0.0430</b>	0.0089	0.0020	0.0006	-0.0002	0.0015
COI*Zone2*raid year	0.0459	0.0141	0.0258	0.0138	<b>0.0145</b>	0.0002	<b>0.0039</b>	0.0002	0.0014	0.0007
Children of immigrants	<b>-0.1291</b>	0.0087	<b>-0.0506</b>	0.0058	<b>-0.0741</b>	0.0041	<b>-0.0015</b>	0.0002	-0.0029	0.0008
Zone3	<b>-0.0694</b>	0.0087	<b>-0.0359</b>	0.0018	<b>-0.0567</b>	0.0052	-0.0004	0.0002	<b>0.0236</b>	0.0024
COI*Zone3	0.0131	0.0172	-0.0012	0.0237	0.0133	0.0082	<b>0.0022</b>	0.0003	-0.0012	0.0010
COI*Zone3*raid year	-0.0086	0.0051	-0.0133	0.0064	0.0057	0.0016	0.0010	0.0004	<b>-0.0021</b>	0.0000
Overall R <sup>2</sup>	0.086		0.065		0.067		0.007		0.015	
Zone 1=Hamblen County; Zone 2=Hamblen, Grainger, Jefferson Counties; Zone 3=Hamblen, Grainger, Jefferson, Knox, Sevier Counties										

Notes: Estimates from student-level fixed effects models. Statistically significant coefficients at  $\alpha < 0.05$  in boldface.

**Table 3: Key Estimates of Workplace Immigration Raid Effects on Student Healthcare Utilization and Health Outcomes**

Healthcare Utilization and Health Outcomes	Two or more ER visits		Nausea		Headaches	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Children of immigrants	<b>-0.0212</b>	0.0022	<b>-0.0025</b>	0.0001	<b>-0.0022</b>	0.0002
Zone1	-0.0042	0.0046	0.0077	0.0020	0.0034	0.0028
COI*Zone1	-0.0187	0.0055	<b>-0.0104</b>	0.0021	-0.0033	0.0059
COI*Zone1*raid year	0.0119	0.0057	<b>0.0052</b>	0.0001	0.0006	0.0035
Children of immigrants	<b>-0.0213</b>	0.0023	<b>-0.0024</b>	0.0001	<b>-0.0022</b>	0.0002
Zone2	0.0106	0.0079	<b>0.0124</b>	0.0009	0.0030	0.0008
COI*Zone2	-0.0090	0.0050	<b>-0.0109</b>	0.0018	-0.0031	0.0029
COI*Zone2*raid year	<b>0.0103</b>	0.0023	<b>0.0058</b>	0.0001	0.0006	0.0016
Children of immigrants	<b>-0.0210</b>	0.0020	<b>-0.0022</b>	0.0001	<b>-0.0014</b>	0.0003
Zone3	0.0264	0.0067	<b>0.0082</b>	0.0005	0.0057	0.0014
COI*Zone3	<b>-0.0072</b>	0.0014	<b>-0.0041</b>	0.0007	-0.0026	0.0018
COI*Zone3*raid year	<b>0.0094</b>	0.0015	0.0010	0.0005	-0.0008	0.0015
Overall R <sup>2</sup>	0.034		0.011		0.007	
Zone 1=Hamblen County; Zone 2=Hamblen, Grainger, Jefferson Counties; Zone 3=Hamblen, Grainger, Jefferson, Knox, Sevier Counties						

Notes: Estimates from student-level fixed effects models. Statistically significant coefficients at  $\alpha < 0.05$  in boldface.

**Table 4: Key Estimates of Workplace Immigration Raid Effects on Student Behavioral Health Outcomes**

Behavioral Health Outcomes	ADHD		Substance Use Disorder		Self-harm, Suicide Attempt or Ideation		Depression		Anxiety	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Children of immigrants	<b>-0.0570</b>	0.0034	<b>-0.0016</b>	0.0001	<b>-0.0025</b>	0.0003	<b>-0.0250</b>	0.0006	<b>-0.0221</b>	0.0004
Zone1	-0.0039	0.0020	-0.0002	0.0007	0.0002	0.0004	0.0005	0.0012	0.0016	0.0022
COI*Zone1	<b>-0.0227</b>	0.0040	0.0008	0.0006	0.0013	0.0008	-0.0096	0.0046	<b>-0.0102</b>	0.0022
COI*Zone1*raid year	0.0072	0.0019	<b>0.0033</b>	0.0005	-0.0010	0.0007	0.0015	0.0040	-0.0019	0.0006
Children of immigrants	<b>-0.0569</b>	0.0034	<b>-0.0016</b>	0.0001	<b>-0.0025</b>	0.0003	<b>-0.0083</b>	0.0008	<b>-0.0219</b>	0.0004
Zone2	<b>-0.0088</b>	0.0020	-0.0007	0.0004	0.0003	0.0002	0.0021	0.0024	0.0013	0.0026
COI*Zone2	<b>-0.0212</b>	0.0036	<b>0.0009</b>	0.0002	0.0015	0.0008	-0.0114	0.0033	<b>-0.0109</b>	0.0016
COI*Zone2*raid year	<b>0.0047</b>	0.0010	<b>0.0036</b>	0.0001	-0.0013	0.0006	-0.0019	0.0030	<b>-0.0061</b>	0.0003
Children of immigrants	<b>-0.0557</b>	0.0034	<b>-0.0016</b>	0.0002	<b>-0.0025</b>	0.0003	<b>-0.0241</b>	0.0005	<b>-0.0210</b>	0.0004
Zone3	<b>-0.0296</b>	0.0015	-0.0017	0.0010	0.0015	0.0009	-0.0035	0.0024	-0.0071	0.0017
COI*Zone3	<b>-0.0170</b>	0.0027	0.0002	0.0003	0.0015	0.0008	-0.0092	0.0034	<b>-0.0100</b>	0.0013
COI*Zone3*raid year	<b>0.0059</b>	0.0013	<b>0.0010</b>	0.0001	-0.0016	0.0006	-0.0006	0.0039	-0.0036	0.0010
Overall R <sup>2</sup>	0.081		0.032		0.007		0.046		0.034	
<i>Zone 1=Hamblen County; Zone 2=Hamblen, Grainger, Jefferson Counties; Zone 3=Hamblen, Grainger, Jefferson, Knox, Sevier Counties</i>										

*Notes: Estimates from student-level fixed effects models. Statistically significant coefficients at  $\alpha < 0.05$  in boldface.*

**Table 5: Key Estimates of Workplace Immigration Raid Effects on Children's Adverse Childhood Experiences (ACEs)**

Adverse Childhood Experiences	Family Disruption		Physical Neglect		Maltreatment		Sexual Abuse	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Children of immigrants	<b>-0.0138</b>	0.0011	<b>-0.0020</b>	0.0004	<b>-0.0002</b>	0.0000	<b>-0.0018</b>	0.0002
Zone1	-0.0016	0.0010	0.0002	0.0006	0.0001	0.0002	-0.0016	0.0005
COI*Zone1	-0.0003	0.0026	-0.0028	0.0013	-0.0005	0.0002	0.0007	0.0007
COI*Zone1*raid year	-0.0008	0.0029	0.0014	0.0005	<b>0.00002</b>	0.00000	<b>0.0031</b>	0.0001
Children of immigrants	<b>-0.0138</b>	0.0011	<b>-0.0020</b>	0.0004	<b>-0.0002</b>	0.0000	<b>-0.0018</b>	0.0002
Zone2	0.0031	0.0010	0.0020	0.0012	<b>-0.0002</b>	0.0000	-0.0013	0.0005
COI*Zone2	-0.0017	0.0020	-0.0022	0.0011	-0.0003	0.0002	0.0006	0.0005
COI*Zone2*raid year	-0.0023	0.0024	<b>-0.0004</b>	0.0000	-0.0002	0.0002	<b>0.0020</b>	0.0000
Children of immigrants	<b>-0.0136</b>	0.0011	<b>-0.0018</b>	0.0004	-0.0002	0.0000	<b>-0.0017</b>	0.0002
Zone3	<b>-0.0096</b>	0.0016	<b>-0.0031</b>	0.0006	-0.0004	0.0001	<b>-0.0024</b>	0.0001
COI*Zone3	-0.0010	0.0012	-0.0023	0.0006	-0.0001	0.0000	-0.0010	0.0005
COI*Zone3*raid year	-0.0025	0.0018	<b>-0.0013</b>	0.0002	-0.0002	0.0001	<b>0.0012</b>	0.0003
Overall R <sup>2</sup>	0.095		0.017		0.000		0.003	
Zone 1=Hamblen County; Zone 2=Hamblen, Grainger, Jefferson Counties; Zone 3=Hamblen, Grainger, Jefferson, Knox, Sevier Counties								

Notes: Estimates from student-level fixed effects models. Statistically significant coefficients at  $\alpha < 0.05$  in boldface.

**Table 6: Estimates of Workplace Immigration Raid Effects on High School Students' Behavioral Health Outcomes**

Behavioral Health Outcomes	Substance Use Disorder		Self-harm, Suicide Attempt or Ideation		Depression		Anxiety	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Children of immigrants	<b>-0.006</b>	0.001	<b>-0.005</b>	0.000	<b>-0.005</b>	0.000	<b>-0.034</b>	0.002
Zone1	0.000	0.003	-0.001	0.003	0.001	0.003	0.004	0.006
COI*Zone1	0.000	0.001	0.002	0.002	0.002	0.001	-0.010	0.006
COI*Zone1*raid year	<b>0.016</b>	0.001	<b>0.003</b>	0.001	-0.001	0.001	<b>0.006</b>	0.001
Children of immigrants	<b>-0.006</b>	0.001	<b>-0.005</b>	0.000	<b>-0.042</b>	0.001	<b>-0.034</b>	0.002
Zone2	-0.002	0.001	0.000	0.001	0.003	0.005	0.011	0.008
COI*Zone2	0.002	0.001	0.001	0.001	-0.005	0.008	-0.015	0.006
COI*Zone2*raid year	<b>0.018</b>	0.000	0.003	0.001	0.004	0.003	-0.002	0.002
Children of immigrants	<b>-0.006</b>	0.0002	<b>-0.005</b>	0.000	<b>-0.041</b>	0.001	<b>-0.033</b>	0.002
Zone3	-0.007	0.0010	0.001	0.003	-0.008	0.004	-0.007	0.004
COI*Zone3	0.001	0.0003	0.002	0.001	-0.007	0.007	-0.007	0.006
COI*Zone3*raid year	<b>0.007</b>	0.0001	-0.001	0.001	0.003	0.006	-0.005	0.005
Overall R <sup>2</sup>	0.034		0.008		0.055		0.044	
<i>Zone 1=Hamblen County; Zone 2=Hamblen, Grainger, Jefferson Counties; Zone 3=Hamblen, Grainger, Jefferson, Knox, Sevier Counties</i>								

*Notes: Estimates from student-level fixed effects models. Statistically significant coefficients at  $\alpha < 0.05$  in boldface.*

**Table 7: Comparison of Model Estimates of Workplace Immigration Raid Effects for Hispanics vs. Children of Immigrants for Selected Outcomes**

Interactions with Hispanic vs. COI indicators	No. out-of-school- suspensions per year		No. expulsions per year		Alternative school placement		ADHD	
	Hispanic	COI	Hispanic	COI	Hispanic	COI	Hispanic	COI
Hispanic/COI	0.0065	<b>-0.0733</b>	0.0000	<b>-0.0013</b>	0.0008	-0.0031	<b>-0.0032</b>	<b>-0.0570</b>
Zone1	-0.0256	-0.0279	<b>0.0021</b>	<b>0.0019</b>	<b>0.0127</b>	<b>0.0127</b>	0.0079	-0.0039
Hispanic/COI*Zone1	<b>0.0370</b>	<b>0.0442</b>	<b>0.0014</b>	0.0020	-0.0023	-0.0026	-0.0099	<b>-0.0227</b>
Hisp/COI*Zone1*raid yr.	<b>0.0180</b>	<b>0.0188</b>	<b>0.0036</b>	<b>0.0038</b>	<b>0.0028</b>	<b>0.0041</b>	<b>0.0026</b>	<b>0.0072</b>
Hispanic/COI	0.0061	<b>-0.0736</b>	-0.0001	<b>-0.0013</b>	0.0007	-0.0031	<b>-0.0031</b>	<b>-0.0569</b>
Zone2	<b>-0.0163</b>	<b>-0.0173</b>	0.0004	0.0003	<b>0.0088</b>	<b>0.0088</b>	<b>0.0125</b>	<b>-0.0088</b>
Hispanic/COI*Zone2	<b>0.0358</b>	<b>0.0430</b>	0.0015	0.0020	0.0001	-0.0002	<b>-0.0111</b>	<b>-0.0212</b>
Hisp/COI*Zone2*raid yr.	<b>0.0130</b>	<b>0.0145</b>	<b>0.0034</b>	<b>0.0039</b>	0.0005	0.0014	<b>0.0032</b>	<b>0.0047</b>
Hispanic/COI	0.0063	<b>-0.0741</b>	-0.0002	<b>-0.0015</b>	0.0010	-0.0029	<b>-0.0028</b>	<b>-0.0557</b>
Zone3	<b>-0.0559</b>	<b>-0.0567</b>	-0.0003	-0.0004	<b>0.0235</b>	<b>0.0236</b>	<b>0.0083</b>	<b>-0.0296</b>
Hispanic/COI*Zone3	0.0092	0.0133	<b>0.0019</b>	<b>0.0022</b>	-0.0010	-0.0012	<b>-0.0056</b>	<b>-0.0170</b>
Hisp/COI*Zone3*raid yr.	0.0050	0.0057	0.0011	0.0010	<b>-0.0022</b>	<b>-0.0021</b>	0.0016	<b>0.0059</b>
Overall R <sup>2</sup>	0.067	0.067	0.007	0.007	0.015	0.015	0.011	0.081

<b>Table 7, continued</b>	<b>Nausea</b>		<b>Substance Use Disorder</b>		<b>Sexual Abuse</b>			
	Hispanic	COI	Hispanic	COI	Hispanic	COI		
Hispanic/COI	<b>-0.0032</b>	<b>-0.0025</b>	-0.0004	<b>-0.0016</b>	0.0002	<b>-0.0018</b>		
Zone1	0.0079	0.0077	0.0002	-0.0002	-0.0016	-0.0016		
Hispanic/COI*Zone1	-0.0099	<b>-0.0104</b>	-0.0003	0.0008	0.0007	0.0007		
Hisp/COI*Zone1*raid yr.	<b>0.0026</b>	<b>0.0052</b>	<b>0.0025</b>	<b>0.0033</b>	<b>0.0023</b>	<b>0.0031</b>		
Hispanic/COI	<b>-0.0031</b>	<b>-0.0024</b>	-0.0005	<b>-0.0016</b>	0.0002	<b>-0.0018</b>		
Zone2	<b>0.0125</b>	<b>0.0124</b>	-0.0006	-0.0007	-0.0013	-0.0013		
Hispanic/COI*Zone2	<b>-0.0111</b>	<b>-0.0109</b>	0.0006	<b>0.0009</b>	0.0005	0.0006		
Hisp/COI*Zone2*raid yr.	<b>0.0032</b>	<b>0.0058</b>	<b>0.0025</b>	<b>0.0036</b>	<b>0.0014</b>	<b>0.0020</b>		
Hispanic/COI	<b>-0.0028</b>	<b>-0.0022</b>	-0.0005	<b>-0.0016</b>	0.0002	<b>-0.0017</b>		
Zone3	<b>0.0083</b>	<b>0.0082</b>	-0.0017	-0.0017	<b>-0.0024</b>	<b>-0.0024</b>		
Hispanic/COI*Zone3	<b>-0.0056</b>	<b>-0.0041</b>	0.0003	0.0002	<b>-0.0008</b>	-0.0010		
Hisp/COI*Zone3*raid yr.	0.0016	0.0010	0.0006	<b>0.0010</b>	<b>0.0009</b>	<b>0.0012</b>		
Overall R <sup>2</sup>	0.011	0.011	0.032	0.032	0.003	0.003		

Notes: Estimates from student-level fixed effects models. Statistically significant coefficients at  $\alpha < 0.05$  in boldface.



**Table 8: Model Falsification Tests for Pre-raid Year Effects in Workplace Raid Areas**

Student-level F.E. Model with pre-raid year interactions	No. disciplinary incidents per year	No. out-of- school suspensions per year	No. expulsions per year	Alternative school placement	Two or more ER visits	Nausea	ADHD	Substance use disorder	Sexual abuse
Children of immigrants	<b>-0.128</b>	<b>-0.073</b>	<b>-0.001</b>	-0.003	<b>-0.021</b>	<b>-0.002</b>	<b>-0.057</b>	<b>-0.002</b>	<b>-0.002</b>
Zone1	<b>0.118</b>	-0.028	<b>0.002</b>	<b>0.013</b>	-0.004	0.008	-0.004	0.000	-0.002
COI*Zone1	0.038	<b>0.063</b>	<b>0.006</b>	0.002	-0.007	-0.005	-0.016	<b>0.004</b>	<b>0.004</b>
COI*Zone1*pre-raid years	<b>-0.046</b>	<b>-0.019</b>	<b>-0.004</b>	-0.004	-0.012	<b>-0.005</b>	-0.007	<b>-0.003</b>	<b>-0.003</b>
Children of immigrants	<b>-0.129</b>	<b>-0.074</b>	<b>-0.001</b>	-0.003	<b>-0.021</b>	<b>-0.002</b>	<b>-0.057</b>	<b>-0.002</b>	<b>-0.002</b>
Zone2	-0.006	<b>-0.017</b>	0.000	<b>0.009</b>	0.011	<b>0.012</b>	<b>-0.009</b>	-0.001	-0.001
COI*Zone2	0.048	<b>0.057</b>	<b>0.006</b>	0.001	0.001	-0.005	<b>-0.016</b>	<b>0.005</b>	<b>0.003</b>
COI*Zone2*pre-raid years	-0.046	<b>-0.014</b>	<b>-0.004</b>	-0.001	<b>-0.010</b>	<b>-0.006</b>	<b>-0.005</b>	<b>-0.004</b>	<b>-0.002</b>
Children of immigrants	<b>-0.129</b>	<b>-0.074</b>	<b>-0.001</b>	-0.003	<b>-0.021</b>	<b>-0.002</b>	<b>-0.056</b>	<b>-0.002</b>	<b>-0.002</b>
Zone3	<b>-0.069</b>	<b>-0.057</b>	0.000	<b>0.024</b>	0.026	<b>0.008</b>	<b>-0.030</b>	-0.002	<b>-0.002</b>
COI*Zone3	0.005	0.019	<b>0.003</b>	-0.003	0.002	<b>-0.003</b>	-0.011	<b>0.001</b>	0.000
COI*Zone3*pre-raid years	0.009	-0.006	-0.001	<b>0.002</b>	<b>-0.009</b>	-0.001	-0.006	<b>-0.001</b>	<b>-0.001</b>
All models include grade and district f.e.; boldface: stat. sig. $\alpha \leq 0.05$ ; italics: stat. sig. $\alpha \leq 0.10$									
Overall R-squared	0.086	0.067	0.007	0.015	0.034	0.011	0.081	0.032	0.003

This table includes only outcomes for which we observed statistically significant coefficients. It omits in-school suspensions, headaches, depression, anxiety, suicide/self-harm, physical neglect, family disruption. It also omits maltreatment, which was statistically significant but had extremely small coefficients that showed up as 0.000 when rounded to the nearest 1/1000.