

Forgotten Cogs:
The Lost Stories of Pittsburgh's Industrial Child Laborers, 1865-1915

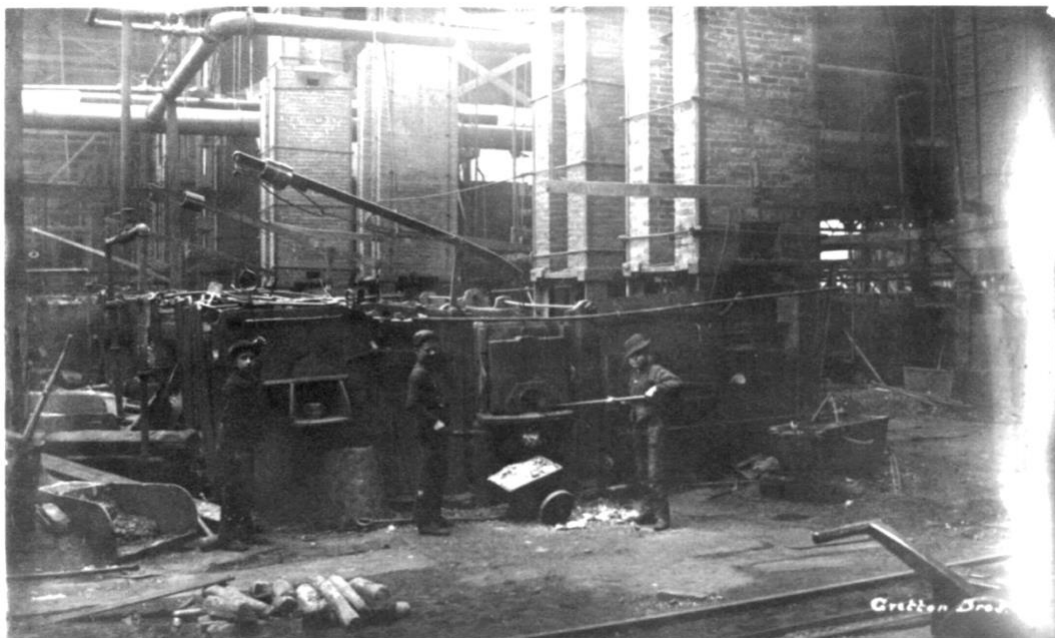
Virginia Montanez
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"Young Italian Steelworker in Pittsburgh, PA"
Lewis Hine, 1908
Nelson Atkins Art Museum

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“Two boys were killed in the Homestead Steel Works while they were asleep. Both accidents happened at 1:30 in the morning. One boy was a ‘pull-up,’ fifteen years old, who had worked eight hours out of a thirteen-hour night turn.”¹



(Three furnace pull-up boys at work in a Jones & Laughlin Steel mill in Pittsburgh, PA / Library of Congress)

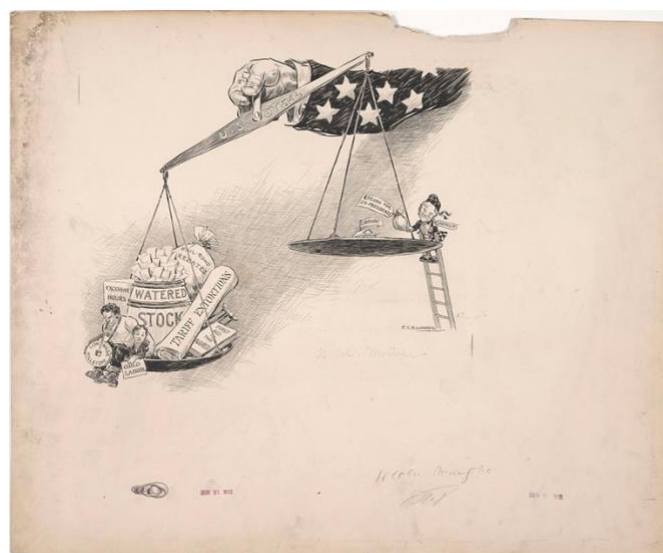
Introduction

Tucked among a variety of labor items on the third page of the September 30, 1890 edition of *The Chattanooga Daily Times* is a one-paragraph news blurb that provides a rare glimpse into Pittsburgh's steel mill child labor force during the Second Industrial Revolution. The dispatch tells of a development, most likely taken from a labor newspaper in Braddock: “Andrew Carnegie has directed that all boys of 16 years and under be discharged from his

¹ Crystal Eastman, *Pittsburgh Survey Findings in Six Volumes, Vol. 2: Work-Accidents and the Law* (New York: Charities Publication Committee, 1910), 88.

several steel works near Pittsburgh. He explains that this is not to comply with any law but because Mr. Carnegie has always been opposed to working children in such places.” That steel magnate and philanthropist Carnegie, both a friend and foe to labor throughout his life, recognized children under 16 should not be employed in his mills is commendable; however, the remainder of the blurb provides some troubling statistics: “Some 250 boys at Braddock and over 100 at Homestead will be discharged in accordance with the order.”²

Following several newspapers outside of Pittsburgh picking up the report, indications are that the media in Pittsburgh believed the word given from the Carnegie Company that the report was false. They claimed to employ less than 30 boys under age 16, and most of them were only working to help their fathers in the coal mines. In fact, the *Pittsburgh Dispatch* printed without pushback that the employment act in question didn’t even apply



“in establishments such as the Edgar Thomson [Braddock], where females and children are not employed.”³ This paper will show that the Carnegie establishments, and many others, employed children at greater numbers than claimed, and indeed in their mills. Just three months past their

² Untitled. *Chattanooga Daily Times*, September 30, 1890. Discrepancy exists as to the age of the children Carnegie dismissed. Another report out of Seattle wrote that Carnegie released children under 11 and another reports the ages as 15 and under. Because the law in Pennsylvania at this time forbade the employment of children under 12, it is likely that 15 or 16 is the correct number.

Image: “Carnegie’s Contributions to Society,” editorial cartoon by Frederick T. Richards in 1912 shows “child labor” as a negative item in the balance of Carnegie’s contributions. From The Free Library of Philadelphia digital collection. <https://libwww.freelibrary.org/digital/item/42821>

³ “Quite a Mistake,” *Pittsburgh Dispatch*, Sept. 29, 1890.

denial of the report, after the Wormser Glass House in Pittsburgh was charged with employing children as young as ten and blaming false age affidavits, it was reported that at Carnegie's Homestead Works, there were enough child employees that could conceivably be under 12 years old that age-affidavit "blanks have been furnished to all the young employees ... with the request that they be filled out properly and sworn to."⁴

This rare report of the child employment practices of Carnegie in his steel mills raises questions. At what age were these boys first employed? What jobs were they hired to do and for how many hours a week? What were their working conditions? Beyond that, questions arise pertaining to the larger manufacturing child labor force in Pittsburgh. What societal factors played a role in these children seeking employment in industry at such young ages? And what, if anything, did the Pennsylvania child labor laws do to protect them? Historians have largely not attempted or have been unable to answer these questions outside of the glass industry; however, a deeper dive into the archival news record coupled with creative methods of research reveal a large childhood labor force toiling in Pittsburgh's industrial establishments.

Driven to work by insufficient and unenforced child labor laws, family poverty, and an ineffective social safety net, countless children under the age of 16 toiled, often illegally, for long hours and little pay at dangerous jobs in Pittsburgh's steel mills, coal mines, tube works, foundries, and other manufacturing establishments during the Second Industrial Revolution. They were mistreated, injured, maimed, killed, and robbed of their childhoods. Pittsburgh was built upon steel, iron, and coal. It was built on the backs of immigrant men and women fighting for the smallest pieces of the economic pie. It was built by men with names like Carnegie and

⁴ "Others Will Observe It," *Pittsburgh Dispatch*, December 25, 1890.

Frick. Of this, the history has been told. But as this paper will show, Pittsburgh was also built on the small backs of children whom history has largely ignored.

WANTED—Three small boys. Keystone Steel Matting Co., 419 Fourth ave. 1013we

(Help wanted advertisement, May 5, 1902, The Pittsburgh Press)

(Help wanted advertisement, October 14, 1902, The Pittsburgh Press)

WANTED—Stableman, boy to deliver, color white, 25 laborers, 100 boys for mill work, \$1 day. City Employment, 411 Seventh ave. 55wp

Historical Context

It was the forces of nature over vast eons of time that primed the triangular land where the Allegheny and Monongahela Rivers meet for what it became — Pittsburgh. Originally a trading outpost then military fort in the 1700s, it became a teeming center of industry with factories in the hundreds, skies black with the aftereffects of a land turned inside out for her exhaustible resources, which were inserted into coke ovens, Bessemer converters, and blast furnaces. A seam of soft, bituminous coal ran deep and rich throughout the entire western portion of the state (as opposed to harder anthracite in eastern Pennsylvania), providing the ingredient necessary to let a city of iron transition to a city of the most sought-after steel. Historic wealth was amassed by the captains of industry whose fortunes came from steel, coal, railroads, glass, ships, banking, and all their supporting industries. But those fortunes were not earned in a vacuum. They were earned by men and women, many of them immigrants, who spent lifetimes attempting to carve out a living in a city that often didn't attend to their well-being beyond their ability to make money for others.

In 1870, 5.5 million tons of coal were extracted from the Pittsburgh coal seam, which expanded to 11.6 million tons in 1881 and a staggering 66.5 million tons in 1911.⁵ This coal was

⁵ Edward K. Muller and Joel A. Tarr, *Making Industrial Pittsburgh Modern* (Pittsburgh: University of Pittsburgh Press, 2019), 20.

largely controlled by Henry Clay Frick, who owned 35,000 acres of coal land and operated more than 10,000 ovens in 1890. Seeking to control the means of production, Carnegie, the steel man, and Frick, the coal man, partnered in 1882. They created massive integrated mills that used the byproducts of coal to become kings of steel. By 1899, mills in Allegheny County (the county seat of Pittsburgh) were producing 64 percent of structural steel in the United States.⁶

For every Carnegie and Frick, there were hundreds of smaller manufacturing operations at work in Pittsburgh, producing iron, glass, metal piping, machine parts, textiles, retail goods, and more. By 1900, Pittsburgh was pumping out iron and steel from nearly 50 mills and 300 other metals factories.⁷ This enormous and quick growth in manufacturing also meant a rising population as immigrants and other laborers sought their own fortunes, or at least a living, in Pittsburgh's industrial establishments. In 1850, the population of the downtown Pittsburgh area and its immediate surroundings was about 75,000. Within two decades, that number climbed to over 170,000. By 1900, the metropolitan population had exceeded 775,000, and by 1920, over 1.3 million people called the Pittsburgh area home.⁸ This growth translated into an ever-expanding workforce that struggled against poverty, prejudice, pollution and other factors found in all large industrial cities at the time. Enmeshed in that struggle were the child laborers put to work to assist their families in finding a more stable foothold.

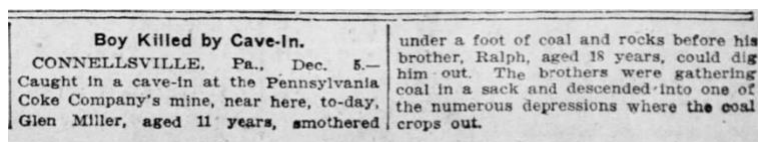
Prior to Pittsburgh becoming a center of industry, the family income was largely earned as a collective on personal farms. As Pittsburgh shifted toward industry, the jobs did as well;

⁶ Muller and Tarr, *Making*, 52.

⁷ S.J. Kleinberg, *The Shadow of the Mills: Working Class Families in Pittsburgh, 1870-1907* (Pittsburgh, University of Pittsburgh Press, 1989), 4.

⁸ Edward K. Muller, "Industrial Suburbs and the Growth of Metropolitan Pittsburgh, 1870-1920" in *Making Industrial Pittsburgh Modern*, ed. Edward K. Muller and Joel A. Tarr (Pittsburgh, University of Pittsburgh Press, 2019), 68, 79.

however, it was not just the men who sought employment outside of the farms. Their children went to work too, pulling their time away from education in an effort to continue earning toward the family income. Once Pittsburgh had firmly established itself as a center of industry with a mostly industrial workforce, another shift came to impact the prevalence of child labor— from iron to steel. Manufacturing iron required artisanal levels of skill, whereas steel was more about rote work and brute strength. Technological advancements in the production of steelmaking also meant fewer jobs were available, particularly fewer skilled jobs. Wages fell as owners discovered children filled unskilled roles at much lower wages than men, and thus, the child labor force became more fully entrenched in the city economy. In 1884, bituminous miners were earning \$7.10 per week while the boys in these mines were taking home \$2.70.⁹ It's easy to see from this wage scale why industrialists were willing to turn to children to improve their bottom lines.



(*Pittsburgh Daily Post*,
December 6, 1908)

The Historiography of Child Labor in Pittsburgh

Outside of the glass factories, the established, albeit thin historiography of Pittsburgh's child labor past argues that industrial childhood employment wasn't a major issue in Pittsburgh during the Second Industrial Revolution, due to the dangerous work involved in its major industries. One of the foremost social historians of Pittsburgh's industrial past, S.J. Kleinberg, boldly writes in her book *The Shadow of the Mills*, "The iron and steel industries did not hire

⁹ Henry George, "Labor in Pennsylvania," *The North American Review* 143, no. 358 (1886): 169, <http://www.jstor.org/stable/25101103>.

youngsters.”¹⁰ Another line in the same book says, “With the exception of the glass houses, almost none of Pittsburgh’s heavy industries employed children under the age of sixteen.”¹¹ The few historians who have turned their attention to Pittsburgh’s child labor force have claimed as much, focusing instead on the children employed in the glass factories. The sole book-length study of Pittsburgh’s child labor force during this time period, *The Glass House Boys of Pittsburgh*, is illustrative of this. However, this established narrative begins to unravel via deeper research of archival news reports. Creative research reveals three major reasons children entered the industrial labor force, that their numbers were extensive, and their working conditions poor.

*“Flesh and blood are at present deemed cheaper commodities than iron and steel.”*¹²

The Causes

The reasons children were employed from a young age in Pittsburgh’s mills and mines are easily identified via the historical record. In fact, an 1887 report from the Pennsylvania Bureau of Industrial Statistics outlined the causes succinctly, placing the blame with “the state, for not more fully providing against it; with parents, for hiring their children to labor in mines and factories; and with the employers for knowingly accepting the services of children of unlawful age.”¹³ Indeed, in hindsight, the major causes of Pittsburgh’s child labor problem can be summed up as (1) insufficient and unenforced state labor laws that encouraged law-skirting subterfuge by both employers and employees, (2) familial poverty, and (3) a lack of a

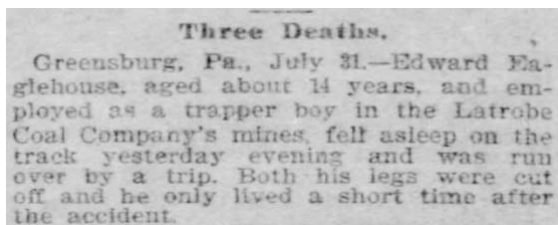
¹⁰ Kleinberg, *Shadow*, 125.

¹¹ Kleinberg, *Shadow*, 25.

¹² Kellogg Durland, “Child Labor in Pennsylvania,” *Outlook* 74 (May 9, 1903): 126.

¹³ “Child Labor in Factories,” *Pittsburgh Commercial Gazette*, October 7, 1887.

meaningful social safety net to help the families who lost their major breadwinners. An examination of each of these provides context before attempting to quantify the prevalence of child labor was in the industrial establishments.



(*Pittsburgh Post-Gazette*,
August 1, 1894)

CAUSE: Child Labor Laws and Subterfuge

In the 1880s, progressives began to pay closer attention to the childhoods spent in Pittsburgh's mines, mills, shops and factories. Activist voices increasingly called for child labor reform to return children to their schools, homes, and childhoods. As Kleinberg notes, "While society accepted child labor on farms, it became a hotly contested issue once it moved into factories and sweatshops."¹⁴ Unfortunately for child labor activists in industry-friendly Pennsylvania, they were operating in a state with some of the loosest or nonexistent child labor laws in the country. Not only that, but the laws that were on the books were vague and rarely enforced adequately enough to rectify the child labor problem.

The first child labor law was not passed in Pennsylvania until 1848 after nearly 25 years of attempts by state legislators. A weak law, it only prohibited childhood labor under 11 years of age in certain textile and food industries, while allowing children 14 and above to work an unlimited number of hours. After repeal, it was followed by a string of minor laws, including one that raised the minimum age for employment to 13, but made no attempt to address enforcement and still allowed boys as young as 12 to labor in the coal mines. It also did not restrict child

¹⁴ S.J. Kleinberg, "Seeking the Meaning of Life: The Pittsburgh Survey and the Family," in *Pittsburgh Surveyed* ed. Maurine W. Greenwald and Margo Anderson (Pittsburgh, University of Pittsburgh Press, 1996), 93.

employment in establishments outside of four industries. Enforcement of child labor laws in the Pittsburgh region was relegated to the agents of the Western Pennsylvania Humane Society, which up until 1872 had been solely focused on animal cruelty. When they turned their attention to child cruelty, they were often operating outside the scope of their jurisdiction with no means to enforce the law. In 1889, a Humane agent spoke to the *Pittsburgh Dispatch* of this issue, saying, “We are getting quite a number of complaints of violations of this [child labor] law. I should say that no attention is being paid to the law at all. In some factories there are children employed not over 8 years old, and kept at work long hours. I would like to get at these people, if I could.”¹⁵

In the second of an extensive three-part look at the labor situation in Pennsylvania, economist Henry George wrote in 1886, “As for the laws against the employment of children, they are a dead letter in Pennsylvania. In the coal mining region no one seems to pay any attention to the law prohibiting the employment of children under twelve and boys of seven and eight may be found ... trimming coke in the bituminous regions.”¹⁶ Referring to the bituminous region as opposed to anthracite indicates George was speaking of the Pittsburgh coal seam.

What promised to be sweeping legislation in 1889 via the Factory Inspection Act was instead another “dead letter” law. The act limited weekly work for minors to under 60 hours but placed no limit on daily hours. The result was children as young as 12 years old toiling for 15 to 18 hours a day. It was this act, which provided no direction or fund allocation for inspectors or enforcement, that established parental affidavits of age confirmation were required for minors

¹⁵ “Children in Mills: Complaints to Agent O’Brien that the Factory Law is a Nullity,” *Pittsburgh Dispatch*, December 29, 1889.

¹⁶ George, “Labor in Pennsylvania,” 269.

between 12 and 16 to obtain employment.¹⁷ Nearly every attempt by the state legislature to place restrictions on child labor were championed by the unions and fought by the owners of the manufacturing establishments who relied on the cheap youthful labor to impact their bottom lines. According to Kellogg Durland, writing in 1903, “A large mill owner in Pennsylvania said, ‘Much of the prosperity of the State of Pennsylvania is owing to the fact that she has a lower age-limit than any of her neighbors. Tinkering with existing conditions will drive the mills to other States.’”¹⁸

When the Factory Act of 1905 was passed in Pennsylvania, creating the Department of Factory Inspection, the law offered no guidance as to which establishments it covered; therefore, much of its interpretation was left up to a handful of inspectors charged with overseeing the entire state. It wasn't until 1915 that Pennsylvania finally neared the level of effective child labor legislation that had already been brought to nearly every other state in America, and it was this law that finally put a curb on the many loopholes parents, children, and industrialists took advantage of to skirt mandates, often via simple lies and subterfuge. Blatant and disguised nonadherence to Pennsylvania's labor law was rampant in Pittsburgh's mines, mills and industrial factories from the first attempts to control the child labor situation. As a Humane Society agent reported in 1892, “There are a large number of factories in this city which employ children under 12 years of age continually, but whenever an inspector comes along these employees are carefully hidden from view, and the inspector reports that the law is being

¹⁷ Pennsylvania Department of Labor and Industry Bureau of Women and Children, *A History of Child Labor Legislation in Pennsylvania* (Harrisburg, PA, Commonwealth of Pennsylvania, 1928), 18.

¹⁸ Durland, “Child Labor,” 124.

complied with.”¹⁹ Employers were not alone in using lies and subterfuge to skirt the law; children, mostly at the instruction of their parents, were as well.

Local newspapers reported on these accusations often, such as a school board official in 1907 who “told of ... children who had been 9 one year, 10 the next and 11 the third year, suddenly became 14 years old and went to work with a certificate in some of the mills and factories, the parents swearing falsely to the age.”²⁰ Additional attention was brought to the child labor problem by the researchers and writers of what became known as the six-volume *Pittsburgh Survey*, one of the first attempts in the country to conduct an exhaustive social study of a major city. Sought by a group of Pittsburgh progressives and Paul Kellogg of the Charity Organization Society in New York in 1906, the research was conducted by unbiased outsiders and the results painted a picture of a city with vast divisions in power, wealth, health and security.

One writer of the Survey, Florence Kelley, devoted a section of her research to the factory inspection situation. She pointed out that age affidavits with no required supporting documentation only served to legally protect employers who hired underage children, because the owners now had a paper record attesting that they were following the law despite their knowledge the children were likely younger than they claimed to be.²¹ Indeed, many manufactory owners publicly shielded themselves via this claim. As a cotton mill superintendent wrote to a Humane agent, “No children known to be under thirteen years of age are employed in

¹⁹ “Humane Society Business: It is Not Very Flourishing—Children Sent Away,” *The Pittsburgh Press*, August 2, 1892.

²⁰ “Child Labor Law Reform Advocated,” *Pittsburgh Post*, March 10, 1907.

²¹ Florence Kelley, “Factory Inspection in Pittsburgh,” in *Wage-Earning Pittsburgh: The Pittsburgh Survey Findings in Six Volumes, Vol. 6*, ed. by Paul Underwood Kellogg (New York: New York: Survey Associates, Inc., 1914), 207.

this establishment. Sometimes they manage by falsehood and subterfuge to secure work ... When in doubt we require a certificate of age from the parents, and the latter are not infrequently guilty of downright lying.”²² It was an open secret among industrialists at the time, as evidenced by a coal mine supervisor who, while speaking to Owen Lovejoy of the National Child Labor Committee “smiled significantly as he said ... ‘It’s queer how all these little fellows who have come to us this spring are just fourteen and were all born on the first of May.’”²³ In 1909, labor officials estimated that of the 52,000 children working in the state via age affidavits, 8,000 to 10,000 of them were doing so illegally via age falsifications.²⁴

Exacerbating the lies was the absence or ineffectiveness of state factory inspectors. In 1905 alone, Illinois found 994 violations of its child labor law, all of which were prosecuted and fined in amounts totaling \$8,000. In Pennsylvania, there were 6,680 violations reported to the state Department of Factory Inspection, of which 31 were prosecuted. There was no record of any of those prosecutions resulting in fines.²⁵ Kelley also laid bare just why the state’s factory inspection activities were so ineffective in addressing child labor issues, reporting that factory inspection jobs were basically political appointments that paid well and motivated those hired to keep their jobs by not angering connected and wealthy industrialists.²⁶ But why the lies in the

²² “Child Labor in Pittsburgh: The Humane Society Will Enforce the Law Against It,” *Pittsburgh Daily Post*, October 25, 1883.

²³ Owen R. Lovejoy, “Child Labor in Coal Mines,” *Annals of the American Academy of Political and Social Science* 27, no 2 (1906): 36

²⁴ “Parents’ Word Alone Insufficient Evidence,” *Pittsburgh Post-Gazette*, February 2, 1909.

²⁵ “Child Labor Law Reform Advocated,” *Pittsburgh Post*, March 10, 1907.

²⁶ Kelley, “Factory,” 190.

first place? Why were parents so desperate to send their children to work earlier than allowed by the law? The answer is poverty.

CAUSE: Poverty

Poverty was a major social issue in Pittsburgh during the Second Industrial Revolution. The iron, coal and steel industries were often beset with idle time— days, weeks and months where mills and factories shut down for reasons from labor issues to market demand or seasonal slack. As such, unemployment was high and hard to anticipate. In 1890, laborers and those working as iron and steel workers saw unemployment as high as 38.6 percent. This impacted poor families and unskilled laborers the most, putting those families in an even more dire position that would push them toward belaboring their children in the name of family survival.²⁷

With adult wages already undercut by child labor thanks to industrialists who saw labor as just another cost item to be purchased as cheaply as possible, those already mired in poverty by low-paying unskilled labor positions needed their children to join in the collective earnings. The statistics show that despite the many child labor laws enacted between 1870 and 1900, child labor rates *increased* because immigrants in low-paying jobs could not make ends meet and thus sent their children to work. As Kleinberg notes, children of unskilled laborers were contributing an average of 25 percent of income to their families during this time.²⁸

If they didn't outright send their children into the industries for employment, they brought them into the mines to assist their fathers in increasing production and take-home pay. Illustrative of this is an 1886 complaint the Humane Society received that Frick was employing "a number of children ranging in age from ten to fifteen" in his coke ovens. A representative

²⁷ Kleinberg, *Shadow*, 21.

²⁸ *Ibid*, 183.

from the Miners Association reported “that none of the children are employed directly by the operations” but were instead brought in to help their fathers.²⁹ A review of the Humane Society meeting minutes in which the complaint was first discussed shows that the children in question were “drawing coke from the ovens when the heat is 185 degrees,” and that the children were from Hungarian immigrant families mired in poverty.³⁰ Even more frequent than fathers taking their children to the mines and mills to help was the number of children working in manufacturing as the



SOFT COAL MINER AND HIS SONS, 11 AND 13 YEARS, PENNSYLVANIA.

sole providers for their widowed mothers who were unable to secure work themselves due to Pittsburgh’s gendered labor divide and near-complete absence of a social safety net for widows.

CAUSE: Ineffective Social Safety Net for Widows

The industrial labor force in Pittsburgh was centered nearly completely around males, particularly heads of households. While this was due to the labor-intensive nature of the manufacturing jobs in the city, the gendered gaps of labor were wider in Pittsburgh than in other manufacturing cities. For instance, between 1870 and 1900, 14 to 18 percent of Pittsburgh’s workforce was female, which was much lower than the average of 30 percent in other U.S. cities.³¹

²⁹ “Children in the Mines: Cases to be Investigated by the Humane Society,” *Pittsburgh Daily Post*, April 21, 1886.

Image: *The Pittsburgh Press*, January 27, 1907.

³⁰ Western Pennsylvania Humane Society, Minutes of the April 28, 1886 Meeting, Pittsburgh, PA: Western Pennsylvania Humane Society Archives at the Senator John Heinz History Center, 330.

³¹ Kleinberg, *Shadow*, 4.

In writing of the child labor issues in Pennsylvania, George looked beyond the standard poverty causes to note that many of children employed in mines were the sons of men who had been disabled or killed, often in the very industry their sons then worked to support their widowed mothers. He wrote, “Some families were so dependent on their sons to work outside of the scope of the labor laws that mine bosses reportedly would threaten to ENFORCE the labor law if miners complained about wages or conditions.”³² According to Kleinberg, in a case study of one particular industrial section of Pittsburgh, Sharpsburg, the *Pittsburgh Survey* writers reported that “nearly one-quarter of the underage workers in Sharpsburg were sole or significant contributors to the family purse. Their mothers had little choice but to put their children to work, since nondomestic jobs for women were scarce in the Pittsburgh district.”³³

Using creative search strings in online news archives brings from the shadows many stories of children who were toiling in Pittsburgh’s manufacturing establishments in order to support their mothers. One such report spoke of the drowning death of Charles Nears, 15 years old, who “went to the river with some companions and sank into the water before help could be sent to him. The lad was employed at the Duquesne plant of the Carnegie Steel Company as a pull-up boy. The boy was his mother’s only support.”³⁴ Related, back in 1890 when Andrew Carnegie was reported to be discharging hundreds of children from his mills, one news dispatch stated, “This will affect many widows, who depend on their sons for support.”³⁵ Compensation for widows whose husbands were killed in work accidents was negligible due to lacking

³² George, “Labor,” 271.

³³ Kleinberg, “Seeking,” 95.

³⁴ “Support is Gone: Boy Drowned at Munhall Only Help of his Mother,” *Pittsburgh Daily Post*, July 30, 1905.

³⁵ “Carnegie Discharges Child-Workers,” *The Seattle-Post Intelligencer*, October 2, 1890.

workman's compensation laws in the state. *The Pittsburgh Survey* found that of 235 married employees who died in work accidents, 70 percent received less than 100 dollars in compensation. Later, the report states that from 132 families whose men died in industrial accidents, 22 children left school to work, 15 of them under 16 years old.³⁶ But are these numbers only reflective of an insignificant number of children working in Pittsburgh industry?

“Patrick Feenan, a laborer, killed at Jones and Laughlin’s after 19 years’ service there, left a wife and five children under fourteen. The company paid the funeral expenses and gave the oldest boy a job. He is thirteen, and earns \$6.00 a week.”³⁷

The Numbers

Discussion regarding child labor in Pittsburgh must always bear in mind that nearly every number will be an underreporting due to age misrepresentations and lax factory inspections as herein covered. However, from the data available and research into newspaper reports of strikes, injuries, Humane Society business, and the like, it is possible to at least understand that the child labor force in Pittsburgh's industrial establishments during this time was significantly larger than historians have claimed.

For every story of a single child— perhaps that of young Willie, who around 1907 went to work in a Pittsburgh steel mill at the age of 12 by lying about his age so that his impoverished mother wouldn't institutionalize him— there is another story referring to hundreds of boys laboring in difficult conditions at labor-intensive jobs.³⁸ One such headline tells of 250 boys

³⁶ Eastman, *Pittsburgh Survey*, 121, 136.

³⁷ *Ibid*, 138.

³⁸ Florence Larrabee Lattimore, “Pittsburgh as a Foster Mother,” in *The Pittsburgh District Civic Frontage: The Pittsburgh Survey Findings in Six Volumes, Vol. 5*, ed. Paul Underwood Kellogg (New York: Survey Associates, Inc., 1914), 417.

working as iron pipe “butt welders” at the National Tube Works foundry who quit their jobs in demand of better wages and less hours. Those 250 were part of nearly 800 boys employed in the department. That same department employed 1,200 men. From this a picture emerges of an industrial workforce in just one manufacturing department in one Pittsburgh mill that was two-thirds children.³⁹

While not acknowledging that many of them were in the industrial workforce, Kleinberg reports that in 1870, 13 percent of children from 10 to 15 years of age in Pittsburgh were employed, and by 1910, that number was up to 18 percent. The numbers change slightly when separated for gender, with 4 percent of girls working in 1800 versus 14 percent of boys, aged 10 to 14. By 1900, those numbers rose to about 8 percent and 21 percent respectively for children aged 10-15.⁴⁰ Driving these numbers were certainly the children of widows who were largely employed in unskilled manufacturing positions. In 1880, two-thirds of widows’ children were in the labor force, a much higher proportion than their peers whose fathers were still alive.⁴¹

It is nearly certain that many children in the workforce, often underage, were not reflected in these numbers. Just one example of uncounted child laborers comes in 1890 when an ex-employee of a Pittsburgh bolt and hinge manufacturer referred a complaint to the Humane Society that “the firm employ a large number of boys and girls in their works who are under 12 years of age,” at a time when the child labor minimum was 14. He claimed, “I have myself seen between 20 and 25 children working in various departments who were under 12 years of age.

³⁹ “250 Boys Quit the Tube Works,” *Pittsburgh Daily Post*, August 13, 1901.

⁴⁰ Kleinberg, *Shadow*, 175.

⁴¹ *Ibid*, 93, 181.

These children come in flocks every morning at 7 o'clock ... and frequently work until 8:30 o'clock in the evening. Their wages range from \$1.75 to \$2 per week."⁴²

Pennsylvania's notoriously ineffective chief factory inspector also played an important role in the underreporting of child labor. J.C. Delaney led the agency from 1903 to 1913, and regularly came under fire from activists and Humane Society agents, but never from industrialists. *Pittsburgh Survey* writers criticized his factory inspection statistics reports as protective of industry as well as "meager and muddled." The first year's report in 1903 was 190 pages, and each successive year, the reports shrank, until in 1912, it was 48 pages despite the most extensive child labor legislation still being three years in the future. The *Survey* outlined 29 questions Delaney's 1907 report should have answered and found only 11 were. No city-wide figures were included in the report, nor was there a table of contents or index. Kelley wrote, "No statistics show the number of women or children at work in each of the important industries." The report of 1907 did finally list the number of children found to be working illegally but provided no follow-up on prosecution, punishment, or preventative follow-up visits.⁴³ Despite this underreporting, the statistics were still stark. According to the Department of Factory Inspection in 1907, there were 4,975 boys and 1,988 girls aged 14 to 16 working in industrial establishments in Allegheny County. However, the *Pittsburgh Survey*'s own tally found that large numbers of workers, including women and children, had gone uncounted by the department.⁴⁴

⁴² "Courts Investigation: Allegation Against the M'Kinney Manufacturing Co.," *Pittsburgh Press*, January 2, 1890.

⁴³ Kelley, *Pittsburgh Survey*, 192.

⁴⁴ *Ibid*, 194.

Regardless, the news reports of strikes can assist historians in understanding that children were indeed employed in the steel and iron industries despite the established historiography that they had not been. For instance, a 1903 article in the *Pittsburgh Daily Post* tells of fifty “pull-up” boys at Moorhead Bros. steel mill who went on strike. It states, “None of the youngsters were over 12 years old. They work 12 hours a day, receive from 60 to 95 cents a day each, and ask for from 75 cents to \$1.10.”⁴⁵ Andrew Carnegie’s steel and iron works were not immune to these strike reports that revealed their employment of children who labored in the mills as furnace pull-up boys. For instance, in 1885, “A strike occurred yesterday among the pull-up boys at Carnegie’s Union Iron Works, which has seriously inconvenienced the company. About fifty boys, who have been paid sixty cents per day for some time, were notified on Saturday that their wages would be reduced to fifty-five cents.”⁴⁶ An earlier report from 1888 reported, “Eighty-three ‘pull-up’ boys at Carnegie’s Thirty-third street mill went out on a strike yesterday for an advance of 65 to 75 cents per day.”⁴⁷ In the 1880s, when the Philadelphia Society of Prevention of Cruelty to Children turned their attention to the child labor problem in Pittsburgh, Benjamin Crew, the secretary, said he had “it on good authority that from 500 to 1,000 children are working in the mines” of the Pittsburgh district.⁴⁸

More broadly speaking, while the 1880 census estimated 72,441 children employed in all of Pennsylvania, it was widely understood that the number was incorrect for a variety of reasons, including deception. *The Pittsburgh Commercial Gazette* reported a few years later, “It is

⁴⁵ “Boys’ Strike Causes a Riot,” *Pittsburgh Daily Post*, February 13, 1903.

⁴⁶ “Signs of Settlement,” *Pittsburgh Daily Post*, June 16, 1885.

⁴⁷ “Industrial Small Talk,” *Pittsburgh Daily Post*, August 14, 1888.

⁴⁸ “Orphans in the Mines,” *Pittsburgh Daily Post*, September 19, 1885.

estimated from reports and personal inspection, that in manufactures, mechanics and mining [alone], out of a total of 600,000 persons employed, not less than 75,000 are children under 15 years of age.”⁴⁹ A few years later, the census of 1900 reported 120,000 children working in the state “of whom 28,000 were not 14 years old.” This number jumped to 33,000 in 1903, 41,000 in 1904 and 48,000 in 1905.⁵⁰ During these years, Pennsylvania’s lacking child labor laws and low minimum age set it apart from the rest of the country. For instance, in 1900, Pennsylvania reportedly had as many children employed in manufacturing establishments as New York, Massachusetts and Illinois combined.⁵¹

Another story ignored in the historiography is the 1913 strike by children employed at the Henry Oliver Iron and Steel Company. Seeking better treatment, working conditions, and wages at the mill, the children walked picket lines with signs and marched in strike parades with speeches to call attention to their plight. Not insignificant, one of the partners of the firm was David. B. Oliver, the president of the Pittsburgh Board of Education, who opposed child labor legislation and age affidavit requirements. Holding signs that read, “We are earning 60 a day for 12 hours,” and “We demand more bread, more education, more sunshine,” the children’s numbers grew daily. The first strikers were 100 young girls who were responsible for two to three bolt-threading machines each – machines that were once operated by men. Willard D. Price, who wrote an evocative piece about the child strikers for *Technical World Magazine* at the time, described the machines as “great, cumbersome, stiffly moving, sullen creatures, all arms

⁴⁹ “Child Labor in Factories,” *Pittsburgh Commercial Gazette*, October 7, 1887.

⁵⁰ “Child Labor Law Reform Advocated,” *Pittsburgh Post*, March 10, 1907.

⁵¹ Frank D. Watson, “The Child Labor Situation in Pennsylvania,” *Charities and the Commons* 17 (March 1907): 1110.

and shafts. It takes strong muscles and alert brains to make them do their work.”⁵² The first 100 girls were soon joined by another 800 child workers from the steel mill. Seeing children of a “tender age” striking via picket line and parades was reportedly a shock to many in Pittsburgh society who, while vaguely aware of child labor in industry, had not previously come face-to-face with it, and in such numbers.⁵³ The children employed by Oliver were as young as 12 and earned \$4.20 total for threading 64,000 bolts over 12 days.⁵⁴

Using reports such as these to establish that the numbers of children working in Pittsburgh’s industrial establishments is indeed greater than historians have claimed, it is nearly an act of justice to explore the conditions under which they labored away their formative years, and to say the names of some of those whose lives were brutally and unnecessarily cut short.

Working Conditions/Injuries/Deaths

“Here are the half-light, the moving shadows, the floating iron dust, the ponderous machines. But there the analogy ceases. Our brawny, picturesque giants are not in evidence...Instead, the great machines which shake the air with their angry thunder are controlled and operated by greasy, grime-covered young girls.”⁵⁵

Children employed in Pittsburgh’s steel, iron, and coal industries and other manufactories were exploited, overworked, underpaid, and often while surrounded by dangerous machinery that would be intimidating to an adult. Due to youthful years, immaturity, inexperience, and at times, cruel fate, they were injured, maimed, and sometimes killed on the job. Looking at reports of such injuries and deaths is helpful to anyone wanting to understand the true numbers of children

⁵² W.D. Price, “Greasy Olivers,” *Technical World Magazine* 20, no (Sept. 1913): 11. <https://catalog.hathitrust.org/Record/000544467>.

⁵³ Price, “Greasy,” 15, 19.

⁵⁴ “Steel Mill Strikers Parade to Northside,” *Pittsburgh Daily Post*, March 20, 1913.

⁵⁵ Price, “Greasy,” 11.

working in these establishments because for each report, one can deduce that there were many other children laboring under similarly dangerous circumstances who were luckily never injured badly enough for the media to report on it. Such as before, creative search strings easily uncovered dozens of stories of children dying on the job in Pittsburgh's mills and mines despite the historiography that claims they weren't engaged in such labor.

Lovejoy of the National Child Labor Committee wrote of the susceptibility of child laborers to injury in industrial establishments, reporting, "We find in the textile mills, foundries, steel and iron mills, glass houses and machine shops employing children that, in proportion to the number of children employed, accidents to children under sixteen years of age are from 250 to 300 percent more frequent than to adults."⁵⁶ Because statistics from the ineffective Department of Factory Inspection were questionable and undercounted, and because Pittsburgh was not tracking workplace incidents during most of the Second Industrial Revolution, there are gaps in the quantitative historical record that can only be filled via a search for narrative patterns.

One clear pattern established herein is that children were employed in the mines and mills and were indeed injured and killed while laboring in them. Once a historian identifies the useful search strings and archives in order to unearth the hidden stories of Pittsburgh's industrial child laborers, they come fast: the 12-year-old boy who lost his arm while feeding pieces of steel through rolls.⁵⁷ The "boy in the Pittsburgh and Lake Erie shops ... caught in a belt and carried round the shaft."⁵⁸ An industry-by-industry snapshot provides a revealing picture of the dangers

⁵⁶ Lovejoy, "Child Labor," 39.

⁵⁷ National Child Labor Committee, "The Child Workers of the Nation: Proceedings of the Fifth Annual Conference, Chicago, Illinois, January 21-23, 1909," (New York: American Academy of Political and Social Science, 1909): 138.

⁵⁸ Eastman, *Pittsburgh Survey*, 28.

and working conditions faced by children at every turn. It is again important to keep in mind that due to the rampant age falsifications already discussed, many of these children whose ages are provided were likely younger than reported.

Steel

Despite claims made by the Carnegie Works in the 1880s that they did not employ children, the news archives tell a different story, like this one reported by Florence Kelley:

While at work in the Thirty-third street mill of the Carnegie Steel Co., at 10 o'clock this morning, John Holt, aged about 14 years ... had his ankle broken by a workman employed at the mill. Holt is employed as a pull-up boy and it is his duty to raise the furnace doors when a heat is being worked. Helt [sic] said that he supposed that he did not pull the door up fast enough and that the man got angry and kicked him.⁵⁹

Proof of Carnegie employing children can be found in the court system as well. In 1884, a 13-year-old employee of Carnegie's sued for compensation after he was injured by a machine at one of their coke works during his third day on the job, his arm having been severed at the elbow. At the time, the law stated that children under 15 could not be employed at dangerous tasks within such an establishment, however, the Carnegie Company argued that the machine was not inherently dangerous. Merely, they claimed, the boy was inexperienced and not taking the dangers of the machine seriously enough. To them, it was not that the machine was dangerous per se, just that the child's immaturity made it dangerous to the child. Despite a Carnegie employee testifying that he did not think it was an appropriate place for a boy to work, the judgment sided with Carnegie, and the Pennsylvania Supreme Court affirmed the lower ruling upon appeal.⁶⁰

⁵⁹ "Boy Employed in Mill is Injured by Workman," *The Pittsburgh Press*, March 13, 1908.

⁶⁰ *Brewer v. Scott et al*, Pennsylvania Supreme Court, Westmoreland County, October and November Term, October 10, 1884, No. 172.

In the steel mills, deaths and accidents could come from crane accidents, falls, explosions, crushing, shocks, malfunctions and asphyxiation. For the *Pittsburgh Survey*, Crystal Eastman's exhaustive look at workplace injuries told the story of Joseph Koprivia, 15, one of two boys killed at 1:30 in the morning after they fell asleep on the job at Carnegie's Homestead works. Kopriva had worked eight hours out of a thirteen-hour shift.⁶¹ His mother was blind and left to care for Joseph's five remaining siblings. Eastman reported, "The Carnegie Steel Company gave the boy's mother \$100, which she spent on the funeral."⁶² He was not alone in having been injured or killed in one of Carnegie's establishments. For instance, Carl Lindlock, 15, was killed at Carnegie's Duquesne Steel Works when he was struck by a charging buggy in front of an open furnace in 1910.⁶³

Outside of injuries, the boys in the steel mills worked long hours and during the night. As Kelley wrote, "Once a fortnight the water boys in the steel mills were working twenty-four consecutive hours and every day they worked twelve hours." This amount of daily labor was illegal by state law at the time, but factory inspections were not monitoring night shifts and therefore no observations were made to ascertain whether the laws were being followed.⁶⁴

Coal

The coal mines were terrible places for children, even if they worked alongside their fathers. Determining numbers of injuries and deaths in the coal mines is difficult because mines were located large distances from hospitals and therefore injured miners, if not killed outright,

⁶¹ Eastman, *Pittsburgh Survey*, 88.

⁶² *Ibid*, 142.

⁶³ "Boy Killed in Mine," *Pittsburgh Press*, March 17, 1910.

⁶⁴ Kelley, "Factory Inspection," 202.

were cared for in their homes, and thus these numbers were not reported or trackable. Dangers in the mines include slate falls, explosions, car accidents, brake accidents, and electric shocks.⁶⁵

Henry George vividly described the conditions in the coal mines of Pennsylvania:

The coal miner works underground in a darkness made visible only by the dim rays of the lamp he carries in his hat. Oftentimes he works in places where it is impossible to stand upright. His clothes are constantly wet from the dripping of the rocks, and take what care he may he can hardly escape rheumatism. And besides this, is the risk of sudden danger – of deadly fire-damp, of falling masses of rock, of unexpected explosions, or of being entombed alive, to starve or suffocate before aid can possibly come.⁶⁶

There are dozens of stories of young boys losing their lives in the coal mines near Pittsburgh. These are just a few: Philip Murer, 15, run down by loaded wagons while working as a trapper boy in the Sutersville mine, and “the only support of his mother.”⁶⁷ Edward C. Bryant, 14, crushed to death by a fall of slate at a mine near Pittsburgh in 1904.⁶⁸ James Swink, 14, caught by a cable in the Moyer mine and crushed to death in 1895.⁶⁹ Peter O’Neil, 14, struck by an engine inside of a mine owned by Vesta Coal in Pittsburgh in 1907.⁷⁰ Edward Roath, 14, caught under a loaded wagon after taking a ride in one of the mine cars . He realized his injuries immediately and “cried out that he had his death wound and must die quickly. A moment later he was dead.” He was called, “Extremely bright, but proportionately reckless.”⁷¹ Frank Callaghan, no age, a trapper boy at the Frick Coke company, died after his legs were severed by a coal car.

⁶⁵ Eastman, *Pittsburgh Survey*, 35.

⁶⁶ Henry George, “Labor in Pennsylvania I,” *The North American Review* 143, no. 357 (1886), 170.

⁶⁷ “Mother’s Only Support,” *Pittsburgh Press*, December 2, 1890.

⁶⁸ “Boy Killed in Mine,” *Pittsburgh Press*, January 29, 1904.

⁶⁹ “Moyer Trapper Boy Killed,” *Pittsburgh Press*, October 28, 1895.

⁷⁰ “Boy Killed by Engine,” *Pittsburgh Press*, November 13, 1907.

⁷¹ “Trapper Boy Killed,” *The Weekly Courier* (Connellsville, PA), February 18, 1898.

He was the son of a mine foreman.⁷² And David Auberey, 13, a trapper boy crushed to death by a coal car in a Pittsburgh area mine.⁷³

Iron Foundries and other industrial establishments

Pittsburgh's industrial establishments outside of steel and coal were also dangerous places for children to work, and often under harsh conditions and for long hours. The National Child Labor Committee used information gathered from the Pennsylvania Child Labor Committee to conclude in 1905:

There can be no doubt that in all of the machine shops boys under age are regularly employed, and boys under sixteen are working at night. Many of the boys work five nights in the week for twelve hours. It is usual to give to the small boys in the foundries the heating of the rivets. The heat is extreme, and some of the boys work without shirts. They say: 'In summer time we often get knocked out by the heat.'⁷⁴

In her case study of the Pittsburgh neighborhood of Sharpsburg for the *Pittsburgh Survey*, Elizabeth Beardsley Butler reported that child jobs in the iron industry included pull-up boys, chain boys, and shear-boys to cut iron — “work that requires more physical strength than is ordinarily possessed by a child of twelve or thirteen years.”⁷⁵ As for the tube mills (iron pipe making), boys were working as “running hooks” during which they had to run along a ¾-inch wide pipe. Their job was to attach pipes to a moving chain which carried the pipes from the furnace to a cooling table. One tube mill boss said, “You’d wonder that anybody could run so fast. Men aren’t agile enough to do the boys’ work well. Besides, if we put men on, we’d have to

⁷² “A Trapper Boy’s Awful Fate,” *Pittsburgh Press*, February 10, 1895.

⁷³ “Kick at the New County,” *Pittsburgh Press*, April 7, 1895.

⁷⁴ National Child Labor Committee, “Children Who Work at Night,” (New York City, National Child Labor Committee: 1905), 21.

⁷⁵ Butler, Elizabeth Beardsley, “Sharpsburg: A Typical Waste of Childhood,” in *Wage-Earning Pittsburgh: The Pittsburgh Survey Findings in Six Volumes, Vol. 6*, ed. Paul Underwood Kellogg (New York: Survey Associates, Inc., 1914), 291.

pay them laborers' wages. We get the boys for a good bit less." Injuries from working as running hooks included burns, a lost leg, a crushed foot and many fingers cut off.⁷⁶ Indeed it was dangerous work, as learned from tube mill employee Joseph Brosski, a runner who was disemboweled by a hook at the age of 14.⁷⁷

Eastman tells the stories of children killed in other manufacturing establishments as well. For instance, two 14-year-old boys killed via factory belts after obeying the orders of a foreman.⁷⁸ William Rock, 14, killed while trying to put a belt on a pulley at the Pittsburgh Brewing Company in 1906. Frank Lenox, 13, who died after slipping and falling into a tempering machine at the Harper Brick Works in 1906.⁷⁹

Conclusion

"The workers at Oliver's are for the most part children of tender years. The steel center of the world is not free from the most devastating of all blights – child labor."⁸⁰

Pittsburgh's shift away from an agrarian and trading economy during the Second Industrial Revolution gradually changed its societal makeup from families working as collectives on their own land to an industrial, immigrant-heavy workforce fighting for their livings via meager wages at a shrinking supply of skilled jobs. Whether due to anti-immigrant attitudes or lack of experience, those unable to secure skilled positions found themselves desperate to provide for their families. Whereas skilled workers could send their children to schools, the

⁷⁶ Butler, "Sharpsburg," 294.

⁷⁷ Ibid, 295.

⁷⁸ Eastman, *Pittsburgh Survey*, 79.

⁷⁹ Ibid, 102.

⁸⁰ "Steel Mill Strikers," Daily Post.

unskilled were left to alleviate their poverty using a new kind of family collective — one in which their children engaged in industry to earn wages from very early ages.

For Pittsburgh's children prior to the Second Industrial Revolution, their lives were of clean air and water, food, family, security and schooling. Industrialization meant dirt, danger, long hours, hard work, little pay, and childhoods spent at labor that aged them quickly. The few historians who have turned their research toward Pittsburgh's child labor past have regretfully established an erroneous, incomplete, and dismissive historiography that should be corrected by today's historians who can take advantage of technology to uncover the silenced voices of these children. Despite claims, children indeed worked in the heat, noise, and danger of Pittsburgh's steel mills, including those belonging to iconic industry giants like Andrew Carnegie and H.C. Frick – two men often ignored in the child labor discussion. Children worked in the damp, dark, dangerous coal mines where a collapse could take their lives at any moment. They labored in foundries, tube mills, machine shops, metal fabricators, and other places of industry in jobs that once only belonged to men. They were injured, maimed, killed and sometimes blamed for their own deaths simply because they were acting as what they were— children yearning for childhood. They labored for their fathers, their widowed mothers, their siblings, and for industrialists who saw them as a number on a balance sheet.

This paper should be only the start of these children's stories finally being told. They are owed a correcting of the historical record by those who would profess to contribute to an intellectually honest historiography. Their stories are there for the uncovering for those willing to dig. Perhaps a fitting conclusion can come directly from the children via an excerpt from a letter sent to the Oliver Steel Company by the child laborers and their supporters during the 1913 strike:

A real picture of the suffering, degradation and humiliation of these children can not be drawn. Do you really know what 14 hours continuous labor means? Have you ever felt that depressing muscular fatigue caused by overwork? Did you ever feel that death would be a welcome relief from a never ending, crushing fatigue? Oh, what misery there is in that grinding physical fatigue, that wretched tired feeling, and these children know this misery and fatigue ... Not only are they robbed of joy or sunshine, they are robbed of life itself.⁸¹



⁸¹ "Oliver Strike Spreads to Other Departments," *Pittsburgh Daily Post*, March 21, 1913.

Image: Child strikers of the Oliver Steel Company in 1913 taken from "Greasy Olivers" by W.D. Price.

Bibliography

A note on sources: All newspaper archives were accessed via Newspapers.com between October and December 2022.

- “250 Boys Quit the Tube Works.” *Pittsburgh Daily Post*, August 13, 1901.
- “Boy Employed in Mill is Injured by Workman.” *Pittsburgh Press*, March 13, 1908.
- “Boy Killed by Engine.” *Pittsburgh Press*, November 13, 1907.
- “Boy Killed in Mine.” *Pittsburgh Press*, January 29, 1904.
- “Boy Killed in Mine.” *Pittsburgh Press*, March 17, 1910.
- “Boys’ Strike Causes a Riot.” *Pittsburgh Daily Post*, February 13, 1903.
- Brewer v. Scott et al. Pennsylvania Supreme Court October and November Term. Westmoreland County, No. 172: October 10, 1884.
- Butler, Elizabeth Beardsley. “Sharpsburg: A Typical Waste of Childhood.” In *Wage-Earning Pittsburgh: The Pittsburgh Survey Findings in Six Volumes, Vol. 6*, edited by Paul Underwood Kellogg, 279-304. New York: Survey Associates, Inc., 1914.
- “Carnegie Discharges Child-Workers.” *The Seattle-Post Intelligencer*, October 2, 1890.
- “Child Labor in Factories.” *Pittsburgh Commercial Gazette*, October 7, 1887.
- “Child Labor in Pittsburgh: The Humane Society Will Enforce the Law Against It.” *Pittsburgh Daily Post*, October 25, 1883.
- “Child Labor Law Reform Advocated.” *Pittsburgh Post*, March 10, 1907.
- “Children in Mills: Complaints to Agent O’Brien That the Factory Law is a Nullity.” *Pittsburgh Dispatch*, December 29, 1889.
- “Children in the Mines: Cases to be investigated by the Humane Society.” *Pittsburgh Daily Post*, April 21, 1886.
- “Courts Investigation: Allegation Against the M’Kinney Manufacturing Co.” *Pittsburgh Press*, January 2, 1890.
- Durland, Kellogg. “Child Labor in Pennsylvania.” *Outlook* 74 (May 1903): 124-127.
- Eastman, Crystal. *Pittsburgh Survey Findings in Six Volumes, Vol. 2: Work-Accidents and the Law*. New York: Charities Publication Committee, 1910.

- George, Henry. "Labor In Pennsylvania I." *The North American Review* 143, no. 357 (1886), 165-182.
- . "Labor in Pennsylvania II." *The North American Review* 143, no. 358 (1886): 268–77. <http://www.jstor.org/stable/25101103>.
- "Humane Society Business: It is Not Very Flourishing—Children Sent Away." *The Pittsburgh Press*, August 2, 1892.
- "Industrial Small Talk." *Pittsburgh Daily Post*, August 14, 1888.
- Kelley, Florence. "Factory Inspection in Pittsburgh." In *Wage Earning Pittsburgh: The Pittsburgh Survey Findings in Six Volumes, Vol. 6*, edited by Paul Underwood Kellogg, 189-216. New York: Survey Associates, Inc., 1914.
- "Kick at the New County." *Pittsburgh Press*, April 7, 1895.
- Kleinberg, S.J. "Seeking the Meaning of Life: The Pittsburgh Survey and the Family." In *Pittsburgh Surveyed: Social Science and Social Reform in the Early Twentieth Century*, edited by Maurine W. Greenwald and Margo Andersen, 88-105. Pittsburgh, University of Pittsburgh Press, 1996.
- . *The Shadow of the Mills: Working Class Families in Pittsburgh, 1870-1907*. Pittsburgh: University of Pittsburgh Press, 1989.
- Lattimore, Florence Larrabee. "Pittsburgh as a Foster Mother." In *The Pittsburgh District Civic Frontage: The Pittsburgh Survey Findings in Six Volumes, Vol. 5*, edited by Paul Underwood Kellogg, 337-452. New York: Survey Associates, Inc., 1914.
- Lovejoy, Owen R. "Child Labor in Coal Mines." *Annals of the American Academy of Political and Social Science* 27, no 2 (1906): 35-41.
- "Mother's Only Support." *Pittsburgh Press*, December 2, 1890.
- "Moyer Trapper Boy Killed." *Pittsburgh Press*, October 28, 1895.
- Muller, Edward K. "Industrial Suburbs and the Growth of Metropolitan Pittsburgh, 1870-1920." In *Making Industrial Pittsburgh Modern*, edited by Edward K. Muller and Joel A. Tarr, 64-87. Pittsburgh: University of Pittsburgh Press, 2019.
- Muller, Edward K. and Joel A. Tarr, *Making Industrial Pittsburgh Modern*. Pittsburgh: University of Pittsburgh Press, 2019.
- National Child Labor Committee. "The Child Workers of the Nation: Proceedings of the Fifth Annual Conference, Chicago, Illinois, January 21-23, 1909." New York: American Academy of Political and Social Science, 1909.

———. “Children Who Work at Night.” New York: National Child Labor Committee: 1905.

“Oliver Strike Spreads to Other Departments.” *Pittsburgh Daily Post*, March 21, 1913.

“Orphans in the Mines.” *Pittsburgh Daily Post*, September 19, 1885.

“Others Will Observe It.” *Pittsburgh Dispatch*, December 25, 1890.

“Parents’ Word Alone Insufficient Evidence.” *Pittsburgh Post-Gazette*, February 2, 1909.

Pennsylvania Department of Labor and Industry Bureau of Women and Children. *A History of Child Labor Legislation in Pennsylvania*. Harrisburg, PA: Commonwealth of Pennsylvania, 1928.

Price, W.D. “Greasy Olivers.” *Technical World Magazine* 20 (September 1913): 8-19.
<https://catalog.hathitrust.org/Record/000544467>

“Quite a Mistake.” *Pittsburgh Dispatch*, September 29, 1890.

“Signs of Settlement.” *Pittsburgh Daily Post*, June 16, 1885.

“Steel Mill Strikers Parade to Northside.” *Pittsburgh Daily Post*, March 20, 1913.

“Support is Gone: Boy Drowned at Munhall Only Help of his Mother.” *Pittsburgh Daily Post*, July 30, 1905.

“Trapper Boy Killed.” *The Weekly Courier* (Connellsville, PA), February 18, 1898.

“Trapper Boy’s Awful Fate.” *Pittsburgh Press*, February 10, 1895.

Watson, Frank D. “The Child Labor Situation in Pennsylvania.” *Charities and the Commons*. 17 (March 1907): 1110-1112.

Western Pennsylvania Humane Society. Minutes of the April 28, 1886 Meeting. Western Pennsylvania Humane Society Archives at the Senator John Heinz History Center, Pittsburgh, PA.