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## INCIDENCE OF WORK AND WORKPLACE INJURY AMONG ALBERTA TEENS

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### ABSTRACT

Utilizing a convenience sample of nearly 2000 respondents drawn from administrative data, this study finds 43.7 percent of adolescents (aged 12-14) and 61.5 percent of young persons (aged 15-17) in the Canadian province of Alberta reported employment in 2011/12. Of those employed, 49.7 percent of adolescents and 59.0 percent of young persons reported at least one work-related injury in the previous year. This study also identifies widespread non-reporting of workplace injuries and seemingly ineffective hazard identification and safety training. These results add to the growing evidence that the regulation of teenage employment in Alberta fails to adequately protect these workers from injury.

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### INTRODUCTION

Like most Canadian provinces, Alberta regulates the employment of workers under the age of 18 in order to protect their physical, intellectual and moral development. Alberta's government has largely dismissed concerns about the effectiveness of its complaint-based regulation of child labour. This study uses administrative data gathered by a not-for-profit agency to examine self-reported employment, safety training, and injury rates among 797 adolescents (aged 12-14) and 1187 young persons (aged 15-17) in 2011/12. Analysis of written comments by adolescents and young persons further flesh out our understanding of the working experiences of respondents. While this convenience sample precludes statistical generalization, the results support the growing body of evidence that suggests teenage workers in Alberta face injurious employment conditions that are not adequately addressed by complaint-based regulation.

## CHILD LABOUR

The concept of child labour is a slippery one, often overlain with moral judgments about the appropriateness of minors both working and performing specific types of work. There is broad acceptance that a child is an individual who has not reached the age of majority, typically 18 (United Nations 1989; International Labour Organization 2006, 2009). This broadly accords with age-related statutory restrictions on employment in Canada. Labour is more problematic to define, as it can include paid and unpaid activities performed for a variety of purposes and directed by a variety of others (e.g., family members, educational institutions and non-family employers). For the purposes of this study, labour is defined as performing work that entitles a worker to wages, again broadly mirroring Canadian employment statutes.

In discussing child labour, it is useful to sub-divide the term “child” by age. While age is an imperfect proxy for a child’s capabilities and developmental stage, it is the characteristic that legislators typically use to indicate when particular forms and circumstances of work are appropriate for minors. In Canada, there is broad consensus that the employment of “children” under the age of 12 is normally undesirable. Alberta’s *Employment Standards Code* terms workers aged 12-14 “adolescents”. As in other provinces, Alberta adolescents are restricted to light work during non-school hours. Workers aged 15-17 (called “young persons” in Alberta) face fewer restrictions, reflecting that this age is a period of transition towards more adult responsibilities and capabilities.

Much of the literature on child labour focuses on the developing world. In developed economies, the employment of minors is often thought to be a positive experience that develops useful employment skills. Mortimer, Finch, Dennehy, Lee and Beebe (1994) suggest employment entails developmental benefits and training opportunities, while Caspi, Moffitt, Wright and Silva (1998) assert employment provides minors with income, training opportunities, a vocational identity and an opportunity to develop a sense of mastery and purpose. The employment of minors may also be framed as economically necessary. For example, Dorman (2001) notes that the employment of minors may contribute necessary family income, but also create a pool of low-wage workers required by the service industry.

The assumption that minors in developed economies are adequately protected in the workplace runs contrary to widespread evidence of illegal employment conditions and work-related injury (Brooks, Davis and Gallagher 1993; Parker, Carl, French and Martin 1994; Dufort, Kotch, Marshall, Waller and Langley 1997; Pickett, Hartling, Brison, and Guernsey 1999; Evensen, Schulman, Runyan, Zakocs and Dunn 2000; Levine 2003; Anderson, Lamm, Shuttleworth, McMorland and Rasmussen 2008; Lewko, Runyan, Tremblay, Staey and Volpe 2010). In addition to the dangers faced by all workers, minors’ physical and psychological immaturity and lack of experience may intensify the risk

associated with existing hazards and/or create additional hazards (Ashagrie 1998; Frone 1998; Forastieri 2002; Mason and Earle-Richardson 2002; Ehrlich, McClellan, Hemkamp, Islam and Ducatman 2004; Windau and Meyer 2005; Vocaturo, Kunseler and Polanska 2007; Dorman 2008; IPEC 2008). Cohen (2013) also reports significant gender differences in the employment experiences of teenagers in British Columbia.

Employment-rate data for 15- to 19-year-olds is widely available for developed economies such as Australia (45.6 percent), Canada (32.9 percent), the United Kingdom (52.2 percent) and the United States (34.8 percent) (Dorman, 2001). By contrast, governments do not publish data on the employment of children and adolescents, although academic studies indicate widespread employment of those under 15 years of age. In Canada, Breslin, Koehoorn and Cole (2008) report adolescent employment in British Columbia at 41.5 percent in 2005 and in Ontario at 52.9 percent in 2003. One US study found 98 percent of 14- to 17-year-olds reported paid work at some point, with 32 percent reporting first working before age 14. Of these workers, 54 percent reported experiencing at least one work-related injury (Dunn, Runyan, Cohen, and Schulman 1998). This level of employment is broadly consistent with national results (United States 2000). In one New Zealand study, just under 40 percent of 10- to 13-year-olds reporting working (CARITAS 2003), with 23 percent of those working reporting a workplace injury. Typically, child labour in developed economies is concentrated in the food, service and agricultural sectors (Rothstein and Herz 2000; United States 2004; CARITAS 2003, 2007). Mayhew and Quinlin (2002) noted that young workers in highly Fordist Australian fast-food outlets experienced average rates of injury, perhaps because of the highly controlled working environment.

## **THE EMPLOYMENT OF MINORS IN CANADA**

There is a significant history of minors working in Canadian factories, homes and mines as well as on farms (Tucker 1990; Parr 1994; McIntosh 2000; Parker 2008; Rollings-Magnusson 2009). Beginning in the late 19<sup>th</sup> century, governments took a number of steps to regulate and restrict the labour of minors (and women), to both protect these workers and privilege male workers. At present, all Canadian provinces regulate the employment of minors via an amalgam of employment/labour standards, school attendance, child welfare, and occupational health and safety legislation (England 2008). The purpose of this regulation is to prevent harm to the physical, intellectual and moral development of minors. Regulation may limit the types and hours of work that are permissible as well as requiring permission, supervision and specific hazard identification, prevention and mitigation strategies.

The enforcement of employment laws tends to be largely complaint-driven and this approach has been criticized as revealing only a minority of violations

(Adams 1987; Ontario 2004; Arthurs 2006; Thomas 2009). Workers may choose not to complain based on ignorance, a lack of self-efficacy, and/or the belief that there is little hope of effective remedy (Weil and Pyles 2005). A pattern of tacit state acceptance of violations creates a culture of noncompliance, wherein workers are likely to experience greater violations but, in fact, complain less (Weil 2012). The appropriateness of complaint-driven enforcement for minors is subject to question because minors are less likely than adults to know their rights and be able to determine if their treatment is lawful as well as face the power differential associated with adult-child relationships (Bernstein, Lippel, Tucker and Vosko 2006; Barnetson 2010). Tucker and Turner (2013) note that young workers in Ontario and Manitoba were generally reluctant to voice concerns about workplace hazards and were unlikely to pursue further remedy if their initial efforts were unsuccessful. This lack of voice is consistent with Raykov and Taylor's (2013) analysis of workplace injury in Alberta and Ontario youth apprenticeship programming.

There are recent examples of governments devolving responsibility for regulating child labour to parents. For example, changes in British Columbia in 2003 transferred responsibility for assessing the appropriateness of adolescent employment to parents (Irwin, McBride and Stubin 2005; Luke and Moore 2004). Similarly, in 2005, Alberta altered the regulation of adolescent employment in restaurants and food services such that parents are effectively responsible for determining whether such work is permissible and safe (Schultz and Taylor 2006). Barnetson (2010) found that Alberta parents often do not have the knowledge necessary to make informed decisions about the legality or safety of employment, may not meaningfully consider those questions, and may not take action in the face of illegal or unsafe work. These factors are, of course, among the reasons that states began regulating the employment of minors over a century ago.

## **THE EMPLOYMENT OF MINORS IN ALBERTA**

There were approximately 2.1 million workers in the Canadian province of Alberta in 2011 (Alberta 2012a). This included 318,900 workers between 15 and 24 years of age. At 62.7 percent employment, Alberta has the highest youth (15-24) employment rate in Canada (Alberta 2012b). Although Alberta regulates the employment of children, adolescents and young persons, it publishes no data about their employment rates. Barnetson (2009, 2010) found employment rates outside of the home for children (9-11) of 6.3 percent in 2007/08 and 8.7 percent in 2008/09 and employment rates outside of the home for adolescents of 29.4 percent in 2007/08 and 19.4 percent in 2008/09. The reduction in employment rates between 2007/08 and 2008/09 may reflect the impact of the 2008-2010 recession on this secondary labour market. Alberta (2011a) does provide summary data about lost-time claims and disabling injury claims accepted by the

Workers' Compensation Board (WCB) for workers under age 15 and age 15-19, but publishes no data about less severe injuries. Raykov and Taylor (2013) identified that one fifth of Ontario and Alberta participants in youth apprenticeship programs suffered serious occupational injuries that required time off of work.

Alberta primarily regulates the employment of minors under the *Employment Standards Code* (ESC). The employment of children under 12 is prohibited by implication. Adolescents (aged 12-14) may not work during normal school hours (except in a pre-apprenticeship or work experience program), may only work outside of school hours up to two hours on a school day and eight hours on a non-school day, and may never work between 9 p.m. and 6 a.m. Adolescent employment is permitted in four occupations (delivery of small wares for a retail store, clerk or messenger in an office, clerk in a retail store, and delivery of newspapers, flyers and handbills) as well as certain jobs in the restaurant and food services industry, jobs approved by the Director of Employment Standards (via permit) and most agricultural work. Employment must also not be injurious to the life, health, education or welfare of the adolescent (Schultz and Taylor 2006). Young persons face restrictions on working after 9 p.m.

Enforcement of employment standards in Alberta is predominantly complaint-driven. Violations are addressed via remedial orders (i.e., "stop that!"). While prosecution for violations of the ESC is possible, this happens less frequently than once every five years. Employment standards officers have no power to fine employers for non-compliance with the Act. There are few OHS regulations specific to children in Alberta. The general assumption is that occupational preclusions under the ESC combined with standard OHS rules provides adequate protection. In 2011, Alberta conducted an inspection blitz of convenience stores and restaurants focused on youth (aged 15-24). In 82 of 112 inspections, violations of the OHS Code were observed with 181 orders written (Alberta 2011b). These results are broadly consistent with other inspection blitzes and suggests widespread disregard for OHS rules by Alberta employers.

## **METHODS**

The dataset comprises questionnaires gathered during the 2011/12 school year by a not-for-profit agency that offers theatre-based educational programming about workplace rights in junior and senior high schools throughout Alberta. These plays are seen by approximately 15,000 students each year. After viewing the play, each participant was provided with a questionnaire, administered by a teacher. The purpose of this questionnaire is threefold: (1) to provide feedback about the current play, (2) to repeat core concepts (e.g., specific workplace rights) after the performance to increase knowledge retention, and (3) to gather information about trends and issues in the employment of adolescents and young persons to inform annual revisions of the plays.

Completion of these program evaluations was managed by classroom teachers. The response rate was approximately 13 percent and no school-based pattern of response was evident, which suggest completion was a voluntary activity. The questionnaires were entirely anonymous. Subsequent to data collection, the not-for-profit engaged the researcher to analyze this program data. According to the Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (2010), secondary use of anonymous information does not require ethics review. Prior to undertaking the analysis, the researcher confirmed that the data collection process was consistent with the principles set out in the Tri-Council Statement.

Blind data from both junior high school and senior high school questionnaires was provided to the researcher. This dataset included self-reported gender, age, safety, and injury information. The datasets were cleaned to categorize respondents as adolescents and young persons, categories that corresponded to Alberta's *Employment Standards Code*. Twenty-seven surveys were discarded as mischievous, resulting in 797 adolescent and 1187 young-person surveys being retained for analysis.

This convenience sampling limits our ability to generalize from the results to the broader population. This sample does include responses from both urban and rural students as well as all geographic areas of the province. The employment rate results for adolescents (aged 12-14) broadly mirrors other Canadian studies (Breslin *et al.* 2008) while the injury rates of adolescents mirrors US studies (Dunn *et al.* 1998). Similarly, the employment rate for young persons (aged 15-17) broadly mirrors the Alberta employment rate for 15- to 25-year-olds (Alberta 2012b). For these reasons, the results may suggest important things about the state of adolescent and young-person employment. In addition to sampling errors, this survey is subject to common self-reporting errors, including memory decay and false reporting.

Written comments on the questionnaire by students bearing upon injurious work, injury reporting and other employment problems were reviewed and thematically analyzed. Additional comments were collected from the 2009/10 and 2010/11 questionnaires (which were not amenable to quantitative analysis). Additionally, two long-term program staff members were interviewed to determine what sorts of issues are raised during group or individual interaction with students during or after each play. Collectively, these comments identify and provide preliminary insight into issues warranting future study.

## **ADOLESCENT RESULTS**

There were 797 adolescent (aged 12-14) responses, with approximately equal gender distribution. Of these respondents, 348 (43.7 percent) reported holding a job in the past year. This employment rate is higher than the findings of earlier studies (Barnetson 2009, 2010), mostly likely because of a broader definition of

“employment” in this survey. This number is relatively close to employment levels found among Ontario and British Columbia adolescents (Breslin *et al.*, 2008). Table 1 demonstrates that a minority of employed adolescents reported hazard identification and safety training on the job:

**Table 1**  
Percentage of employed adolescents reporting hazard identification and safety training

	Full	Partial	None
Disclosure of workplace hazards	23.9%	18.9%	57.2%
Training about how to deal with hazards	27.0%	17.3%	65.7%

All adolescent respondents were asked to rate their knowledge of various workplace rights before viewing the play. Table 2 outlines the percentage of all adolescents who reported knowing their workplace rights before viewing the presentation.

**Table 2**  
Percentage of all adolescents reporting knowledge of safety rights and information

Rights	Percentage reporting knowledge
Right to be free from inappropriate touching	93.1%
Right to know about workplace hazards	68.6%
Right to refuse unsafe work	60.9%
The government provides information about safe work	48.5%

There was very little difference (<2.0 percent) between the knowledge levels of employed and non-employed adolescents on these questions.

Of the adolescents reporting employment, 173 (49.7 percent) also indicated they had experienced at least one work-related injury in the previous year. Table 3 outlines the rate of reporting by type of injury.

**Table 3**  
Adolescent injury type and frequency

Injury	Frequency
Muscle sprain, strain or tear	45
Laceration	111
Bruises	105
Fractures or dislocations	13
Burns	59
Sexual harassment	9
Chemical or biological exposures causing health problems	9
Other forms of injury	10

Listing sexual harassment as an injury reflects a broad conceptualization of injury that includes both physical and psychological damage. Where specified, other forms of injury included eye, temperature- and animal-related injuries.

Of those who were injured, 74 (42.8 percent) reported the injury to their employer, 24 (13.9 percent) reported the injury to their doctor and 16 (9.3 percent) reported the injury to the Workers' Compensation Board. There were only two cases where respondents indicated reporting injuries to multiple parties so the overall reporting percentage is approximately 64 percent. The literature (Shannon and Lowe 2002) indicates that approximately 40 percent of workplace injuries go unreported in Canada, an outcome broadly consistent with this finding.

The majority of respondents who reported work-related injuries in the preceding year reported more than one form of injury. The data does not distinguish between multiple injuries of the same type or multiple forms of injury from the same event. There is also no assessment of the severity of the injury(ies) reported by the respondents. It is possible to crudely estimate severity based upon injury rates in the broader population. For example, Barnetson (2012) reports that approximately 30 percent of workplace injuries in Alberta require some form of medical attention and/or resulted in some degree of functional incapacitation. Assuming a similar distribution of injuries among adolescents, this suggests 52 (14.9 percent) of employed adolescents in this survey experienced an injury requiring medical attention and/or resulting in some degree of functional incapacitation.

## YOUNG PERSON RESULTS

There were 1187 young-person (aged 15-17) responses, with approximately equal gender distribution. Of these respondents, 730 (61.5 percent) reported holding a job in the past year. This is very close to Alberta's (2012b) reported employment rate for 15- to 24-year-olds. Table 4 demonstrates that a majority of employed young persons reported hazard identification and safety training on the job:

**Table 4**  
Percentage of employed young persons reporting  
hazard identification and safety training

	Full	Partial	None
Disclosure of workplace hazards	39.7%	31.1%	29.2%
Training about how to deal with hazards	47.5%	27.0%	25.5%

Despite these high levels of safety training and hazard identification, 431 (59.0 percent) of employed young persons indicated they had experienced at least one work-related injury in the previous year. Table 5 outlines the rate of reporting by type of injury.



**Table 5**  
Young person injury type and frequency

<b>Injury</b>	<b>Frequency</b>
Muscle sprain, strain or tear	145
Laceration	324
Bruises	238
Fractures or dislocations	28
Burns	163
Sexual harassment	38
Chemical or biological exposures causing health problems	17
Other forms of injury	21

Where specified, other forms of injury included amputation, eye injury, stress, sexual assault, bullying, and animal-related injuries. No data was collected on injury reporting. The majority of respondents who reported work-related injuries in the preceding year reported more than one form of injury. The data does not distinguish between multiple injuries of the same type or multiple forms of injury from the same event. There is also no assessment of the severity of the injury(ies) reported by the respondents

#### **INSTANCES OF INJURIOUS WORK**

A number of young persons identified specific instances of injurious work, giving us insight into the nature or cause of their injuries. Some of the comments (selected for their diversity, rather proportionality) have been excerpted below:

- Cleaning fumes made me sick. I told my mom because she was my boss and then I went to the doctor. It wasn't that big of an issue, I was only sick for that day. (Grade 10, female)
- I was stuck fencing with a 12-year-old using 5 tonnes of equipment with no way to contact for help. I was the oldest one there. That's retardedly unsafe. (15-year-old male)
- A manager tried to make me clean blood and I refused saying I could contract AIDS potentially. (15-year-old female)
- I didn't have proper gear but was given a substitute gear. (15-year-old male)
- I had my arm sucked into a machine and ripped open from my wrist to my elbow. (16-year-old male)
- I was throwing the garbage out into the dumpster and liquid got in my eye but luckily a co-worker was around to help me. (16-year-old male)
- Nail gun to the foot. (13-year-old male)
- I work at my grampa's farm and workplace. I was too young to use big equipment. (12-year-old male)
- I quit because my supervisors were drinking on the job and leaving me to work the kitchen which I wasn't legally allowed to be in. (Grade 10, female)
- I was told to do work after passing out. My supervisor said too bad I had a job to do and I said no, I got fired. (16-year-old female)

- We had no gloves for pulling out poison ivy. (13-year-old male)
- I fell off a ladder, twisted my ankle pretty bad. But my boss didn't do anything. (14-year-old female)
- I got told by an employee that everyone does drugs and if I told anyone I would not be allowed to work there in future. (14-year-old female)
- Babysitting I got bit and needed 6 stitches. (13-year-old female)
- I got knocked out by a t-bar lift. (14-year-old male)
- My uncle told me to ride a horse he didn't know much about, and I ended up getting badly thrown from the horse, and at the time I didn't know that the horse was dangerous. (15-year-old female)
- I got burned by hot oil from the fries at work. My manager put burn cream on it although they didn't call my parents. They got fined \$5000 because I was under age. (14-year-old)
- Combine machine lit on fire. (13-year-old male)
- I got attacked by a dog. (12-year-old)
- I mixed the wrong chemicals so we opened the window to let it air out. It is a farm so it is hard not to get hurt. (Male)
- I was asked to go out on an icy roof and I did because I didn't know if I had to. (Grade 11, male)
- I stepped on a nail. Now it is recommended to wear boots and there was a huge clean-up. (Grade 11, male)

These instances of workplace exposure to hazardous physical, chemical or biological agents and drug and alcohol use, improper safety gear, lack of adequate supervision, lack of accommodation after injury, and no access to assistance in the event of injury help us understand the high rate of injury found in the survey. They also undermine the notion that the employment of minors is always a benign activity entailing adequate protection.

Of particular concern was the large number of written comments regarding sexual and other forms of harassment in the workplace. While only nine adolescents and 38 young persons reported sexual harassment when queried about workplace injuries, there were many comments about sexual and other forms of harassment by those who did not identify it as an injury:

- I got sexual harassed (by another store associate) recently and my manager didn't do anything about it. (Grade 11, female)
- I've never been harassed by the people I work with but I have been sexually harassed by a lot of customers. (Grade 11, female)
- A guy was trying to tell me to go drink with him. (Grade 11, female)
- My manager was hitting on me. (Female)
- When I do my paper route there is a man who is always following and watching me. I went to the (employer) and asked for a different route. (12-year-old male)
- Sexual harassment when I was 13 (by employer). The harassment I didn't realize until a few months ago. (18-year-old female)

- The creepiness of guys dropping things so I picked them up and they look at my ass. (Grade 10, female)
- I told my boss I don't like it when she makes comments about my body. (Grade 11, female)
- I had a very sketchy boss. He was way too close and made me extremely uncomfortable. I quit. (16-year-old female)
- I was at work and one of the older men followed me to the washroom and tickled me then reached up under my shirt and grabbed my boob. I did nothing because I was only nine, so who would have listened to me? (16-year-old female).
- Verbal harassment towards female workers; manager would call them bitches, etc. (Grade 11, male)
- I was working and a customer was saying weird things to me and he was an adult then he kept walking around me. (17-year-old female)

Both staff members from the not-for-profit separately volunteered that harassment (particularly the sexual harassment of females) is a common topic in the post-show discussion as well as in comments students make privately to members of the cast and crew. Harassment was noted as a significant issue for young workers by Mayhew and Quinlin (2002) in Australia and Cohen (2013) in British Columbia.

## NON-REPORTING OF INJURIES

The quantitative analysis above indicated 36 percent of adolescent injuries went unreported. Overall, only 42 percent of adolescent injuries were reported to employers. The written comments provide insight into the reasons for non-reporting. Again, the following excerpts were selected for their diversity:

- I burned myself on a piece of metal. (I didn't report it) because it was my fault. (Grade 10, male)
- (I didn't report the injury because) I didn't realize until awhile after. (Grade 10, female)
- (I didn't report the injury because) it never occurred that I had to. (Grade 10, female)
- I never reported (the injuries) because I could still work and one time because I was working "under the table" (cash job) so I took a few days off because I couldn't work. (Grade 11, male)
- At the time we were doing critical work and there was no time (to report it). (Grade 12, male)
- Sexual harassment, bullying, I got my eye cut up. (I didn't report it because) I was too scared. (Grade 12, male)
- The guy fired me 'cause I got sick because of mold. (I told my) mother and she talked to the boss and he fired us. (Grade 11, male)
- Cuts, abrasions, et cetera. (Didn't report because) they were minor injuries. (Grade 11, male)

- I told my manager (about my injury) but he didn't do anything about it. (I didn't report it because) I didn't necessarily know what to do. (Grade 10, male)
- (I didn't report the injury because) I had it sewn on the job 'cause it was a big cut. (Grade 11, male)
- (I didn't report the injury because) I didn't think they would do anything about it. (Grade 11, female)
- (I didn't report the injury because) my boss said to walk it off and put some ice on it. He fired me the next day. (Grade 11, female)
- I burned myself on a fry basket and I told a manager right away. They said to be more careful. (Grade 10, female)
- (I didn't report the injury because) the boss was never there. (Grade 10, female)
- (I reported the injury to) my manager. She didn't do anything. She said it took too much work. (Grade 12, female)
- (I didn't report the injury because) I've learned there's no point to report things with court etc is bullshit. (Grade 11, female)
- The management team didn't accept complaints well and didn't solve problems. At the time, I didn't know it could be reported. I learned to accept the problems with my workplace. (Grade 12, female)
- I just went to the hospital. It was a family farm and we don't report (injuries). (Grade 11, male)
- (I didn't report the injury because) I thought it would go away but I was wrong. It has been almost 2 years since I quit... and I still have it. (Grade 12, female)
- Threatening to demote if you said you had an injury. (16-year-old female)

These comments suggest that working adolescents and young persons may not report injuries due to ignorance of the requirement (or how) to do so, fear of retribution, an expectation of inaction by managers, production pressures and/or a sense that the injury was minor or the fault of the worker. Unreported injuries mean hazards are left unmitigated and, in some cases, permanent impairments are left uncompensated. Some of these reasons for non-reporting indicate that the social location of minors (employees, but also children) may limit their willingness to report injuries or injurious circumstances. Non-reporting undermines complaint-driven injury prevention and claim-drive injury statistics. There is also some indication here that adolescents and young persons are learning to accept injury as a "normal" part of employment. Cohen's (2013) study of teenage workers in British Columbia raised similar questions about the normalization of injury.

## **ILLEGAL AND HOSTILE WORK ENVIRONMENTS**

Among the reasons that governments regulate the employment of minors is concern about the negative impact that employment can have on the physical,

intellectual and moral development of minors as well as the potential for the exploitation of minors. The written comments included a number of instances that suggest these public policy concerns remain important.

- They didn't pay me minimum wage and they would tell me to go home early when we weren't busy and not pay me my whole shift and they would call me at the last minute. (Grade 10, female)
- I did not have any break and it wasn't good with my school. I didn't have much time to study because I had to stay with them late until they close the store. I could not get off work earlier. (17-year-old female)
- I was getting \$9.05 an hour for hostessing (minimum wage is \$9.40). It's supposed to be \$9.05 an hour for people serving alcohol. And I wasn't serving alcohol. I didn't do anything about it. (15-year-old female)
- Giving us short notice on our shifts; not giving us overtime pay. I know that my boss takes advantage of us, but I don't think I'd want to stand up to him 'cause then I'd get fired. (Grade 11, female)
- I was underage, they gave me odd hours... and they wouldn't pay me by the number of hours I worked. (Grade 10, female)
- On school nights I worked six-hour shifts even though I was only 14 at the time. (Grade 11, female)

The poor (and often illegal) treatment of some adolescents and young persons (and their acceptance of such treatment) highlights the vulnerability of minors to exploitation and the ineffectiveness of complaint-driven compliance strategies.

## **INEFFECTIVE HAZARD IDENTIFICATION AND SAFETY ORIENTATIONS**

The data indicates 42.8 percent of employed adolescents and 70.8 percent of employed young persons reported having workplace hazards identified for them. Similarly, 44.3 percent of adolescents and 74.5 percent of young persons reported receiving safety training. The discrepancy between the rates reported by adolescents and young persons may indicate adolescents have difficulty distinguishing hazard identification and safety training from other forms of training. Or it may reflect a real difference in the provision of hazard identification and safety training. Of interest is that, despite these rates of hazard identification and safety training, 49.7 percent of adolescents and 59.0 percent of young persons reported one or more workplace injuries in the previous year. This suggests that hazard identification and safety training as experienced by these child labourers are not necessarily effective injury-prevention methods.

Numerous respondents commented that additional information would have improved safety training:

- People should be more aware of the danger of the job and they should be told. You can't expect them just to know. (16-year-old male)

A great many respondents commented that they had not received complete disclosure of hazards. Another common comment was that safety training was mostly a one-time lecture of what not to do, with no hands-on component or reinforcement. Some additional explanations offered up by respondents include a lack of safety procedures, delay in training, a lack of safety equipment and unqualified trainers:

- An actual written procedure about how to clean the grill and deep fryer rather than just "be careful". (17-year-old male)
- I wasn't trained until 2 years after I (started) work there. I had to figure everything out for myself. (17-year-old female)
- I haven't been shown a first aid kit or fire extinguisher. (Grade 11, female)
- (Training would have been better) if someone who was only working there for 2 weeks wasn't training me. It was like the blind leading the blind. (Grade 10, female)

A small number of respondents opined that failing to eliminate hazards from the workplace reduced or negated the effectiveness of safety training.

## **DISCUSSION**

This study suggests the employment of adolescents and young persons in Alberta is frequently injurious. Interestingly, this level of injury occurs despite widespread reports of hazard identification and safety training. The government has, in part, justified expanding adolescent employment into the restaurant and food service industry by relying on such techniques to prevent injury (Schultz and Taylor 2006). It is unclear why hazard identification and safety training appear ineffective at injury prevention, but poor quality and/or a lack of hazard mitigation may be important factors.

There is also a significant level of non-reporting of workplace injury among adolescents. Adolescents and young persons identify a number of reasons for non-reporting. Some respondents internalized fault or developed the expectation that workplace injury is a normal and acceptable consequence of employment. A number of respondents suggest that injury reporting is ineffective and can trigger retaliation (despite statutory prohibition). At a basic level, this finding suggests there is a difference between having rights and being willing and able to exercise them. In this way, these results raise questions about the effectiveness of complaint-based regulation of adolescent and young person employment. This

dynamic also raises concerns about the validity of Alberta's injury data, which is actually workers' compensation claims data. This study also raises some serious questions about the level of sexual harassment of minors in the workplace. It remains unclear whether the government will continue to dismiss concerns about adolescent and young person employment as union propaganda (Alberta 2011c).

Finally, this study identifies several areas for future research. First, it would be useful to confirm whether these employment and injury rates are representative. Second, it would be useful to understand how employers perform hazard identification and safety training and whether such approaches are effective at injury prevention among adolescents and young persons. Third, further examining instances of injurious and otherwise abusive work (particularly sexual harassment) experienced by Alberta minors might prioritize additional regulatory work by the government. Finally, exploring the source of and degree to which adolescents and young persons have internalized the idea that injury is a normal part of work might identify ways to counter this belief.

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## REFERENCES

- Adams, R. 1987. "Employment standards in Ontario: An industrial relations systems analysis." *Industrial relations/Relations industrielles* 42(4):46-64.
- Alberta. 2011a. *Occupational injuries and diseases in Alberta: Lost-time claims, disabling injury claims and claim rates, Young workers, 2006 to 2010*. Edmonton: Work Safe Alberta.
- Alberta. 2011b. *Occupational Health and Safety Focused Inspection Project: Young Workers*. Edmonton: Work Safe Alberta.
- Alberta. 2011c. Alberta Hansard, Hon. Thomas Lukaszuk PC. April 21, 2011.
- Alberta. 2012a. *2011 annual labour market review*. Edmonton: Human Services. Retrieved August 14, 2012 (<http://employment.alberta.ca/documents/annual-labour-market-review.pdf>)
- Alberta. 2012b. *Labour force profiles: Youth 2011*. Edmonton: Human Services. Retrieved August 14, 2012 (<http://employment.alberta.ca/documents/LMI/LMI-LFP-profile-youth.pdf>)
- Anderson, D., F. Lamm, P. Shuttleworth, J. McMorland, and E. Rasmussen. 2008. "Child labour: What is happening in New Zealand?" Paper presented

- at the 2008 Labour Employment and Work Conference. December 11, 2008, Wellington, NZ.
- Arthurs, H. 2006. *Fairness at work: Federal labour standards for the 21<sup>st</sup> century*. Ottawa: Labour Standards Review Commission.
- Ashagrie, K. 1998. *Statistics on child labor and hazardous child labor in brief*. Geneva: International Labour Organisation.
- Barnetson, B. 2009. The regulation of child and adolescent labour in Alberta. *Just Labour* 13:29-47.
- Barnetson, B. 2010. Effectiveness of complaint-driven regulation of child labour in Alberta. *Just Labour* 16:9-24.
- Barnetson, B. 2012. The validity of Alberta safety statistics. *Just Labour* 19:1-21.
- Bernstein, S., K. Lippel, E. Tucker, and L. Vosko. (2006). "Precarious employment and the law's flaws: Identifying regulatory failure and securing effective protection for workers." Pp. 203-219 in *Precarious employment: Understanding labour market insecurity in Canada*, edited by L. Vosko. Kingston: McGill-Queens University Press.
- Breslin, C., M. Koehoorn, and D. Cole. 2008. "Employment patterns and work injury experience among Canadian 12 to 14 year olds." *Canadian Journal of Public Health* 99(3):201-204.
- Brooks, D., L. Davis, and S. Gallagher. 1993. "Work-related injuries among Massachusetts children: A study based on emergency department data." *American Journal of Industrial Medicine* 24(3):313-324.
- Canada. 2011. 2011 census of population (Alberta, Code 48) Ottawa: Statistics Canada. Catalogue no. 98-311-XCB2011018
- CARITAS. 2007. *Delivering the goods: A survey of child delivery workers*. Thorndon: Caritas Aotearoa New Zealand.
- CARITAS. 2003. *Protecting children at work: Children's work survey*. Thorndon: Caritas Aotearoa New Zealand.
- Caspi, A., B. Moffitt, B. Wright, and P. Silva. 1998. "Early failure in the labour market: child and adolescent predictors of unemployment in the transition to adulthood." *American Sociological Review* 63(3):424- 451.
- Cohen, M. 2013. "Teenage work: Its precarious and gendered nature." *Revue Interventions économiques*. Retrieved February 13, 2013 (<http://interventionseconomiques.revues.org/1895>)
- Dorman, P. 2001. *Child labour in the developed economies*. Geneva: International Labour Office, International Programme on the Elimination of Child Labour.
- Dorman, P. 2008. *Child labour, education and health: A review of the literature*. Geneva: SIMPOC, International Labour Organisation-IPEC.
- Dufort, V., J. Kotch, S. Marshall, A. Waller, and J. Langley. 1997. "Occupational Injuries Among Adolescents in Dunedin, New Zealand, 1990-1993." *Annals of emergency Medicine* 30(3):266-73.
- Dunn, K., C. Runyan, L. Cohen, and M. Schulman. 1998. "Teens at work: A state-wide study of jobs, hazards and injuries." *Journal of Adolescence* 22(1):19-25.



- Ehrlich, P., W. McClellan, J. Hemkamp, S. Islam, and A. Ducatman. 2004. "Understanding work-related injuries in children: A perspective in West Virginia using the state-managed workers' compensation system." *Journal of Paediatric Surgery* 39(5):768-772.
- England, G. 2008. *Individual employment law*, 2<sup>nd</sup> Ed. Irwin: Aurora.
- Evensen, C., M. Schulman, C. Runyan, R. Zakocs, and K. Dunn. 2000. "The downside of adolescent employment: Hazards and injuries among working teens in North Carolina." *Journal of Adolescence* 23(5):545-560.
- Frone, M. 1998. "Predictors of work injuries among employed adolescents." *Journal of Applied Psychology* 83(4):565-576.
- Forastieri, V. 2002. *Children at work: Health and safety risks*. Geneva: International Labour Organisation.
- International Labour Organisation. 2006. *The end of child labour: Within reach*. Geneva: International Labour Organisation.
- Inter-Parliamentary Union/International Labour Organisation. 2002. *Eliminating the worst forms of child labour: Handbook for parliamentarians No 3*. Geneva: Inter-Parliamentary Union/International Labour Organisation .
- IPEC. 2008. *Hazardous child labour*. Geneva: International Programme on the Elimination of Child Labour.
- Irvin, J., S. McBride, and T. Strubin. 2005. *Child and youth employment standards: the experience of young workers under British Columbia's new policy regime*. Vancouver: Canadian Centre for Policy Alternatives.
- Lewko, J., C. Runyan, C.L. Tremblay, J. Staley, and R. Volpe. 2010. "Workplace experiences of young workers in Ontario." *Canadian Journal of Public Health*. 101(5):380-384.
- Levine, M. 2003. *Children for hire: the perils of child labor in the United States*. Westport: Praeger.
- Luke, H. and G. Moore. 2004. *Who's looking out for our kids. Deregulating child labour law in British Columbia*. Vancouver: Canadian Centre for Policy Alternatives.
- Marlenga, B., R. Berg, J. Linneman, R. Brison, and W. Pickett. 2007. "Changing the child labor laws for agriculture: Impact on injury." *American Journal of Public Health* 92(2):276-282.
- Mason, C. and G. Earle-Richardson. 2002. "New York State child agricultural injuries: How often is maturity a potential contributing factor?" *American Journal of Industrial Medicine* (Supplement 2):36- 42.
- Mayhew, C. and M. Quinlin. 2002. "Fordism in the fast food industry: Pervasive management control and occupational health and safety risks for young temporary workers." *Sociology of Health & Illness* 24(3):261-284.
- McIntosh, R. 2000. *Boys in the pits: Child labour in coal mines*. Montreal: McGill-Queens University Press.
- Mortimer, J., M. Finch, K. Dennehy, C. Lee, and T. Beebe. 1994. "Work experience in adolescence." *Journal of Vocational Education Research* 19(1):39-70.

- Ontario. 2004. Annual report of the Auditor General. Toronto, Auditor General.
- Parr, J. 1994. *Labouring children: British immigrant apprentices to Canada, 1869-1924*. Toronto: University of Toronto Press.
- Parker, R. 2008. *Uprooted: The shipment of poor children to Canada, 1867-1917*. Vancouver: University of British Columbia Press.
- Parker, D., W. Carl, R. French, and F. Martin. 1994. "Characteristics of adolescent work injuries reported to the Minnesota Department of Labour and Industry." *American Journal of Public Health* 84(4):606-611.
- Pickett, W., L. Hartling, R. Brison, and J. Guernsey. 1999. "Fatal work-related farm injuries in Canada, 1991-1995." *Canadian Medical Association Journal* 160(130):1843-1848.
- Raykov, M. and A. Taylor. 2013. "Health and safety for Canadian youth in trades." *Just Labour* 20: 33-50.
- Rollings-Magnusson, S. 2009. *Heavy burdens on small shoulders: The labour of pioneer children on the Canadian prairies*. Edmonton: University of Alberta Press.
- Rothstein, D. and D. Herz. 2000. "A detailed look at employment of youth aged 12-15." *US Bureau of Labor statistics: report on the youth labor force*. Washington DC: US Bureau of Labor.
- Schultz, L. and A. Taylor. 2006. "Children at work in Alberta." *Canadian Public Policy* 32(4):431-441.
- Shannon, H. and G. Lowe. 2002. "How many injured workers do not file claims or workers' compensation benefits?" *American Journal of Industrial Medicine* 42(6):467-473.
- Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans. 2013. Ottawa: Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada.
- Thomas, M. 2009. *Regulating flexibility: The political economy of employment standards*. Montreal: McGill-Queen's University Press.
- Thomas, C. and C. Reader. 1997. Development and Inequality. Pp. 90-110 in *Issues in world politics*, edited by B. White, R. Little & M. Smith. London: Macmillan.
- Tucker, E. 1990. *Administering danger in the workplace: The law and politics of occupational health and safety regulation in Ontario, 1850-1914*. Toronto: University of Toronto Press.
- Tucker, S. and N. Turner. 2013. "Waiting for safety: Responses by young Canadian workers to unsafe work." *Journal of Safety Research*. Retrieved February 13, 2013 (<http://dx.doi.org/10.1016/j.jsr.2013.01.006>)
- United Nations 1989. *Convention on the Rights of the Child*. New York: United Nations.
- United States. 2000. *Report on the Youth Labour Force*. Washington: Department of Labour.

- United States. 2004. *The Department of Labor's 2003 Findings of Child Labor: Report Required by the Trade and Development Act 2000*. Washington DC: Bureau of International Labor Affairs.
- Vocaturro, E., F. Kunseler, and K. Polanska. 2007. *Work injuries in children and young people*. World Health Organization: Copenhagen.
- Weil, D. and A. Pyles. 2005. "Why complain? Complaints, compliance and the problem of enforcement in the US workplace." *Comparative Labor Law & Policy Journal* 27(1):59-92.
- Weil, D. 2012. "Broken windows," vulnerable workers and the future of worker representation." *The Forum: Labour in American Politics* 10(1): Article 9.
- Windau, J. and S. Meyer. 2005. "Occupational injuries among young workers." *Monthly Labour Review* October:11-24.