

Monographs

Migrant Health Issues

Child Labor
by
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Monograph no. 10

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Child labor has been a feature of American agriculture since the birth of the nation. Yet few legal protections exist to safeguard the health and well-being of young farmworkers. Exposure to pesticides, transportation accidents, tractor rollovers, unguarded machinery, open irrigation ditches, and animals are among the most serious workplace hazards they face. Farm work is one of the three most dangerous occupations in the United States. With large numbers of youth suffering fatal and nonfatal injuries in agriculture, both public health interventions and increased legal protections are needed to address this problem.

While the children of farm owners or operators often engage in work activities on farms, this paper focuses on two groups of migrant and seasonal workers who perform farm work: unaccompanied minors who are hired to do farm work and children of adult farmworkers who work alongside their parents.

A Demographic Snapshot of Young Hired Farmworkers

The exact number of migrant and seasonal workers under age 18 is not precisely known because of gaps in the available data. The Census Population Survey (CPS) March supplement includes all 15-17 year olds, whether paid or not, who have done agricultural work within the past 12 months. This publication reports 290,000 15- to 17-year-old agricultural workers (USGAO, 1998:22). By contrast, the U.S. Department of Labor's National Agricultural Worker Survey

(NAWS), which counts 14 - 17 year old workers employed in crop agriculture, only found there to be 128,500 such workers. Since children under the ages of 14 and 15 can work legally on a farm, both the CPS and NAWS undercount the number of children working in agriculture.

Hired child workers fall into two categories. Some are accompanied by their parents, who are themselves hired farmworkers. Fifty-five thousand others, according to the NAWS, are living and working apart from their parents. Some in the latter group are totally on their own, while others are accompanied by a friend or relative from the home community.

Unaccompanied youth are amongst the most vulnerable children working in agriculture (Mines, 1997, p. 21). Approximately 40,000 of these young workers are foreign-born, and 85 percent are male (Mines, 1997, p. 22). The great majority of unaccompanied children (87 percent) live without any relatives. Their levels of income and education are also very low. Specifically, foreign-born young workers have a median annual personal income of between \$1,000 and \$2,500. Even when their income is added to that of the relatives with whom they share expenses, the combined total is only between \$2,500 and \$5,000 per year. More than half of these children have less than a sixth-grade education.

One third of unaccompanied children are American-born. Their personal annual income is no greater than

that of their foreign-born counterparts, but when it is combined with that of relatives with whom they share expenses, the total is much higher: \$10,000 to \$12,500. In addition, more than half of these young workers have not completed tenth grade or beyond.

The other main category of working children is those who accompany their parents to work. According to the NAWS, about 15 percent of farmworker children, from ages 10 through 17, do farmwork themselves (Mines, 1997, p. 16).

Work Performed by Young Hired Workers in Agriculture

According to NAWS, about 40 percent of young agricultural workers work at harvesting tasks (USGAO, 1998, p. 25). These are physically demanding and repetitive jobs that require bending, kneeling, stooping, climbing ladders, and/or carrying heavy bags or buckets containing more than 50 pounds of picked fruits or vegetables. These activities frequently require the harvesters to work with their arms above shoulder level or to move their hands and wrists in repetitive motions (Villarejo and Baron, 1999, p. 622).

A 13-year-old Hispanic migrant worker described his work in testimony before Congress in 1991. He harvested strawberries in California six days per week, from 6:30 a.m. to 8:00 p.m.

"I stoop, moving up and down the rows of strawberry plants, looking for good berries and then placing them in a packing box. I move my cart up and down the field ... At the end of the day, our backs hurt and we are tired" (U.S. House Committee on Government Operations, 1992, p. 26).

There is no limit under federal law to the number of hours per day or per week that children may work in agriculture. As a result, the hours worked are often long. Children ages 14 through 17 work an average of 31 hours per week in agriculture. While the long hours are due in part to the imperative of harvesting crops when they are ripe, long hours are also attributable to the fact that farmworkers are not entitled to overtime pay under the Fair Labor Standards Act. As a

consequence, employers have no financial incentive to limit the work week to 40 hours.

Outside of school hours, federal law imposes no limit on the time of day that children can work in agriculture. Consequently, some of their work is done early in the morning or late in the evening. Sheer weariness can lead to injuries. In 1992, 14-year-old Joel Compos was killed when he fell asleep at 2:30 a.m. in a Washington field and was run over by a truck (San Diego Union Tribune, June 21, 1992).

Long hours and work done in the early morning and evening adversely affects the health and well-being of young workers. Because of the time and effort consumed by work, many have difficulty doing school work and/or getting adequate rest and nutrition. As a consequence, some perform poorly in school and others drop out.

Injuries to Young Workers

Limited data is available on injuries to young hired migrant and seasonal farmworkers. In 1985, in a groundbreaking study, Frederick Rivara found that children who live and work on farms suffer nearly 300 fatal injuries and 23,500 nonfatal injuries each year. In a follow-up study published 12 years later, using the same data sources (Rivara, 1997), Rivara found that the annual incidence of fatal injuries for farm children had decreased by 39 percent, from 13.2 per 100,000 in 1979-1981 to 8.0 per 100,000 in 1991 - 1993, whereas the annual incidence of nonfatal injuries increased 10.7 percent, from 1,551 per 100,000 in 1979-1983 to 1,717 per 100,000 in 1990-1993.

Rivara's work on fatal injuries is particularly instructive because it reflects an actual death certificate count, rather than a sample survey. In the 1985 study, Rivara relied on tapes reporting information from death certificates received by the National Center for Health Statistics (NCHS) from all states and the District of Columbia. From these NCHS tapes, Rivara extracted all information on deaths of individuals 19 years of age and younger from external causes that occurred on a farm (including farm homes). He did not count

motor vehicle fatalities, however, because they could not be separated as to place of injury. Rivara's count of fatal injuries is both underinclusive and overinclusive of employment-related deaths. By excluding all motor vehicle deaths, Rivara significantly undercounts the number of employment-related deaths arising in agriculture. But by counting deaths in the farm home, his number includes some fatalities that could have occurred in any home.

Rivara's count of nonfatal farm injuries is based on the National Electronic Injury Surveillance System (NEISS) maintained by the federal Consumer Product Safety Commission (CPSC). This is a surveillance system of nonmotor-vehicle-related injuries in the United States involving consumer products, without regard to where the injury occurred. Rivara recognized the limitations of the NEISS data. First, there is a question about whether the sample of emergency rooms used is adequate to estimate injuries on farms. The sample, he notes, does not necessarily reflect hospitals located in rural areas. Second, the sample includes only injuries treated in hospital emergency rooms. This approach is likely to result in a considerable undercount, because a study of nonfatal farm injuries in Ontario shows that only 28 percent of farm injuries are treated in the emergency room and only 68 percent of all farm injuries receive any medical care at all (Pickett et al., 1995). Third, the NEISS database includes only product-related injuries, thus excluding many other kinds of injuries on the farm, such as injuries due to farm animals, drowning in natural bodies of water, and falls.

Rivara offers several explanations to explain the trends he discerned. Noting that nearly half of children who die from farm accidents now die in hospitals compared with only 15 percent in the 1985 study, he points out that emergency medical services have improved substantially for farm injuries. Another improvement is better regionalized trauma care.

Rivara also notes that rollover protective structures (ROPS) have reduced tractor fatalities, which were a principal cause of farm deaths. Since ROPS were only required by federal regulations to be installed in tractors manufactured after 1976 (29 C.F.R. § 1928.51(b)), many fewer tractors had such protective devices at the time of the earlier study than at the time of the later one. To account for the 10.7 percent increase in nonfatal injuries, Rivara points to the lack of child care options and the fact that some children are allowed to ride on tractors and other farm machinery despite the danger.

Rivara's 1997 study listed machinery as the leading cause of deaths (34.1 percent) followed by drowning (24.1 percent), and firearms and explosives (14.8 percent). With regard to nonfatal injuries, lacerations and punctures were the leading types of injury (37.6 percent), followed by contusions, abrasions, and hematomas (23.3 percent) and dislocations and fractures (19.5 percent).

The Census of Fatal Occupational Injuries (CFOI) data for the Agriculture, Forestry, and Fishing Industry, for the period 1992 through 1995, were analyzed. (Murphy and Yoder, 1998). The percentage of all farm deaths attributed to employees who were ages 19 and younger - 5 percent of all farm deaths - appears to the researchers to be too low. They offer several reasons why this is so. Children ages 14 and younger are not normally viewed as having an "occupational" status, and as a result the Industry and Occupation categories on their death certificates are often left blank and/or filled in as "Student." Nor are workers' compensation reports a good source of information about farmworker fatalities because many farmworkers are not covered by these systems and unpaid child workers are especially unlikely to file claims or receive benefits.

Another researcher analyzing the same CFOI data as Murphy and Yoder found that young farmworkers

(excluding managers) led all youths in job-related fatalities (Derstine, 1996). In nearly one third of these deaths (32.2 percent), the cause was a non-highway vehicular incident, such as a youth operating or helping to operate a tractor.

More detailed data about risk factors have come from studies of groups at the state level or at a specific hospital or emergency room. One such study (Heyer et al., 1992), using workers' compensation data, focused on hired farmworkers under age 18 who filed claims for occupational injuries in Washington State from 1986 to 1989. Because there was no information on the number of farmworkers under age 18 who were covered by the Washington workers' compensation law, Heyer et al. had no "denominator" data from which to calculate an incident rate. Instead, he compared the data on workers' compensation claims filed by young agricultural workers to the claims data for minors working in the food service industry. The Heyer study's most notable finding was that 26 percent of the claims filed by young farmworkers were for serious or disabling injuries, whereas only 13 percent of the claims filed by young food service workers were for serious or disabling injuries.

A California study (Schenker, et al., 1995) reviewed death certificates for farm-related deaths from 1980 to 1989 to children under age 15. The study excluded deaths occurring in a farm residence or traffic accidents. The single leading cause of death, resulting in 30 percent of all fatalities, was farm machinery, particularly tractors. Next, at 23 percent, was non-traffic motor vehicle deaths (including off-road vehicles). Animals caused 13 percent of deaths, and drownings accounted for 10 percent. Schenker and his associates also analyzed the sex and ethnicity of the young victims, and found that boys were three times more likely than girls to die in farm accidents. The increased danger to boys has been found in other studies as well (Cogbill et al., 1985; Swanson et al., 1987; Salmi et al., 1989). The Schenker study also disclosed that the

death rate for Hispanic boys in California was 70 percent higher than for non-Hispanic boys.

Absence of Adequate Legal Protections

Despite the documented hazards of agricultural employment, the legal protections for children working in agriculture are significantly less than those for children working in other industries. At the federal level, child labor is regulated by the Fair Labor Standards Act (FLSA). Under the FLSA, the normal minimum age at which children can work in agriculture is 14, whereas in all other industries it is 16. In occupations that the Secretary of Labor has determined to be particularly hazardous (such as operating a chain saw), the FLSA raises the minimum age in agriculture to 16, but in all other industries it is 18. As a result, a child can apply toxic pesticides on a farm at 16, but could not apply the same pesticides on a golf course until age 18. The Labor Department's hazardous occupation orders do not apply at all to a child who works on a farm owned or operated by his or her parents.

In other industries, the Secretary of Labor may permit 14- and 15-year-olds to work if the Secretary "determines that such employment is confined to periods which will not interfere with their schooling and to conditions that will not interfere with their health and well-being." Applying this standard, the Secretary has authorized 14- and 15-year-olds to work in the retail, food service, and gasoline service station industries, but only if the work hours are (1) outside school hours, (2) not over 40 hours a week during non-school weeks, (3) not over 18 hours a week during school weeks, (4) not over 8 hours a day on non-school days, (5) not over 3 hours a day on school days, and (6) between 7 a.m. and 7 p.m. (except for June 1 through Labor Day, when the evening hour is extended to 9 p.m.). In agriculture, the only one of these six requirements applies: farmworkers who are 14- and 15-years old can only work outside of school

hours. As such, these children can work before or after school or unlimited hours when school is not in session.

In agriculture, unlike in any other industry, children under 14 years old are authorized to work in certain circumstances. Specifically, a 12- or 13-year old child can work on a farm with the consent of a parent, or if the parent is employed on the same farm. A child even younger than 12 years old can work on a farm if the farm employs fewer than 7 full-time workers or if the farm is owned or operated by the child's parent. And finally, 10- and 11-year-old children can work up to eight weeks per year as hand-harvest laborers doing piece-rate work, with the written permission of the Department of Labor.

A majority of states provide some additional protections to children working in agriculture. For example, 27 states set standards respecting the number of hours per day and per week that minors employed in agriculture may work. Some states also forbid work in agriculture during certain hours, typically early in the morning or late in the evening, much like the federal restrictions that apply to the retail, food service, and gasoline service station industries. However, in the absence of adequate federal protection, the state laws provide only a patchwork quilt of hit-and-miss safeguards that would be available to some young workers on some occasions, but leave many unprotected.

Recommendations

Efforts should be made to improve the earning power of adult farmworkers to reduce the dependence of farmworker families' on the income of working children. Programs should also be initiated to encourage

farmworker teens to remain in school and pursue higher education. Safety training programs should be devised to teach young agricultural workers how to perform farm labor tasks safely in order to reduce the number of fatal and non-fatal injuries.

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Copies may be obtained through the following sources:

*National Center for Farmworker Health, Inc., Buda TX
Phone: (512) 312-2700
<http://www.ncfh.org>*

*Migrant Health Branch, Bethesda, MD
Bureau of Primary Health Care
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<http://bphc.hrsa.gov/migrant/>*

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