

# Agricultural Employers' Hiring and Safety Practices for Adolescent Workers

B. C. Lee, J. D. Westaby, P. H. Chyou, M. A. Purschwitz

**ABSTRACT.** *The goal of the "Safety Training for Employers and Supervisors of Adolescent Farmworkers" initiative is to improve the occupational health and safety knowledge and practices of agricultural employers and supervisors responsible for employees, ages 14 to 17 years. Surveys were sent to members of the National Council of Agricultural Employers and the Washington Growers League to measure attitudes regarding adolescent employees, current hiring and training practices, and future intentions. More than half of the respondents hire adolescents. Two-thirds were male, nearly three-quarters of the respondents had college or post-graduate degrees, and more than half were 50 years or older. The majority of respondents had positive perceptions of adolescents in terms of dependability, helpfulness, and work ethic. Among those who currently hire young workers, the most common reasons were to provide a job for children of friends and family and because they can work part-time to fill a labor demand. Among those not hiring adolescents, the most common reason was concern about child labor regulations and associated tasks (e.g., paperwork, monitoring hours). Respondents use a variety of safety training resources, especially posters and safety meetings. For the future, they expect to need more handout materials and training videos. Study results provide insights into barriers to the employment of young workers and suggest methods by which agricultural safety specialists can best assist those employers and producers who are willing to hire adolescents into agricultural work settings.*

**Keywords.** *Adolescent farmworkers, Hiring youth workers, Safety training, Supervision.*

According to the National Research Council (NRC, 1998), work provides young people with many valuable lessons about responsibility, punctuality, human interaction, and money management. Work experiences can provide a foundation for independence by having a positive effect on self-esteem and skill development. Surveys suggest that up to 80% of all adolescents work at some point during their high school years (NRC, 1998).

Agriculture is the only industry that can legally employ people as young as 12 years old to perform a variety of tasks deemed acceptable per U.S. Child Labor Requirements in Agriculture under the Fair Labor Standards Act (U.S. Department of Labor, 2004). For example, this may include manual labor associated with harvesting tree fruits or field vegetables. Understanding reasons for or against hiring young workers in agriculture is important for several reasons: (1) in some geographic regions, agricultural producers hire a large number of teen workers; (2) agricultural work can provide positive work experiences for youth; (3) agricultural work can be hazardous to people of all ages,

---

Submitted for review in August 2005 as manuscript number JASH 6029; approved for publication by the Journal of Agricultural Safety and Health of ASABE in May 2006.

The authors are **Barbara C. Lee**, Senior Scientist, **Po-Huang Chyou**, Biostatistician, and **Mark A. Purschwitz**, ASABE Member Engineer, Research Scientist, Marshfield Clinic Research Foundation, Marshfield, Wisconsin; and **James D. Westaby**, Associate Professor, Teachers College of Columbia University, New York, New York. **Corresponding author:** Barbara C. Lee, Marshfield Clinic Research Foundation, 1000 North Oak Ave., Marshfield, WI 54449; phone: 715-389-4999; fax: 715-389-4996; e-mail: lee.barbara@mcrf.mfldclin.edu.

especially inexperienced adolescents; and (4) labor shortages associated with the availability of migrant/immigrant workers may increase the likelihood of hiring local teenagers for time-limited seasonal work.

Data from the USDA National Agriculture Statistics Service indicate that in 1998 there were 431,730 youth between ages 12 and 17 hired in agricultural work (Myers and Hendricks, 2001). The majority (86%) were boys, and the largest cluster of youth (28%) were boys ages 16 to 17 years employed in crop work, including cash grains, nursery, vegetables, fruits, and nuts. The next largest group was boys ages 16 to 17 employed in livestock operations of beef, dairy, cattle, or swine.

During 1998 there were 1,900 reported work-related injuries among hired adolescents, which comprised about 8% of all injuries to youth on farms (Myers and Hendricks, 2001). The injury and fatality rate of 16 to 19 year old workers in agriculture can be compared to their non-agricultural counterparts using data from the Bureau of Labor Statistics (BLS) Current Population Survey and the National Institute for Occupational Safety and Health (NIOSH) 2004 Childhood Agricultural Injury Survey. For nonfatal occupational injuries, youth in agriculture incur an estimated 3.3 injuries/100 farm household youth, compared to 2.3 injuries/100 non-farm youth. With respect to fatalities, there was a much greater contrast (J. Myers, personal communication, 17 April 2006). Estimates from the 2003-2004 BLS Census of Fatal Occupational Injuries data in the agriculture, forestry, and fishing sector reveal an annual fatality rate of 12.5 deaths/50,000 youth workers, compared with 1.6/50,000 in non-agriculture industries. Further, this rate does not account for workers younger than 16 years, where 23 occupational deaths in the agriculture/forestry/fishing sector were noted during that time period (J. Myers, personal communication, 17 April 2006).

NIOSH provided funding for a collaborative project: Safety Training for Employers and Supervisors of Adolescent Farmworkers. Conducted in cooperation with the National Council of Agricultural Employers (NCAE) and the Washington Growers League, this project has the goal of improving the occupational health and safety knowledge and practices of agricultural employers and supervisors responsible for adolescent farmworkers (ages 14 to 17 years). Ultimately, agricultural employers will have ready access to information regarding: (1) proactive strategies for regulatory compliance associated with adolescent farmworkers, (2) principles of child development applicable to work assignments for youth, (3) agricultural diseases and injuries incurred by adolescents, and (4) adolescent worker health and safety recommendations. The first phase of the initiative was to increase our knowledge of the hiring and safety practices of agricultural employers and supervisors as they pertain to adolescents.

This initiative drew from the success of other industries, such as quick-service restaurants that depend on a labor pool of young people (M. Miller, Washington State Department of Labor and Industries, unpublished report, 2003). The first step of this project was to increase our understanding of agricultural employers' perspectives on the characteristics of adolescents as young employees. Additionally, we sought information on employers' current practices and future intentions to employ adolescents. A description of survey methods and results is provided here.

## Methods

This descriptive study (Babbie, 1990) used focus group methodology (Krueger, 1994; Morgan, 1998) and a modified Dillman mail survey technique (Dillman, 1978). In preparation for survey instrument development, three focus groups were convened with participants at the annual meeting of NCAE. Each group had from four to eight

participants who responded to a set of questions during a one-hour breakfast meeting. Responses were collated and synthesized to identify the primary reasons for and against hiring teen workers from the growers' perspective and to form the basis of properly worded survey questions. The survey instrument was drafted, pilot tested, and refined. The four-page instrument included demographic questions and nine subscales addressing attitudes, hiring practices, reasons for and against hiring teens, along with current and preferred safety training activities. On average, it took 15 minutes to complete.

In advance of sending mail surveys to participants, a notice regarding the study was sent via email and newsletter to potential recipients of the survey. A cover letter with signatures of the directors of NCAE and the Washington Growers League, along with the principal investigator, described the purpose and importance of the project, the consensual nature of participation, the planned distribution of a report of study findings, and the gratuity of a \$5 telephone card, regardless of whether or not the survey form was completed. In April 2004, mail surveys were sent to individual members of NCAE (about one-third of NCAE members represent other national or state organizations and thus were not included) and members of the Washington Growers League. To protect the anonymity of survey respondents, no personal identifiers were collected and only limited information regarding agricultural operations was requested.

Data coding and entry were conducted by trained staff, who used a systematic process to resolve aberrant responses consistently. Classification of job titles into groupings was determined through consensus of the project team, as were decisions regarding clustering employers per number of hired workers. Data quality systems were implemented to ensure that data were collected, entered, and analyzed accurately. For this component of the study, descriptive statistical tests were conducted.

## Results

### Demographics

Of the 878 survey forms mailed out, 333 (38%) were returned. Respondents were asked to return blank surveys if they preferred not to participate. Thus, some returned forms were blank or not fully completed. There were 283 usable surveys, representing 151 employers who hire adolescents ("teen employers") and 132 who do not ("non-teen employers"). The cover letter of the survey indicated that responses were requested from the individual responsible for hiring and supervising teen workers. On the survey form, respondents filled in a blank, writing out their job title. Specific reported titles varied from "owner" to "human resource director." These titles were then categorized by the study team into three groups: owner/executive, office administrator/manager, or field supervisor. The largest category of respondents was "owner/company executive" (47%), followed by "office administrator/manager" (42%). Supervisors comprised 8% of respondents, and 3% had missing data.

Of the 283 survey respondents, 67% were males, 27% were females, and another 6% did not indicate gender. The majority of respondents (76%) had formal education beyond high school. Nearly 60% had college degrees, and 15% had post-graduate degrees. Their ages ranged from 23 to 76 years. More than half were age 50 or older.

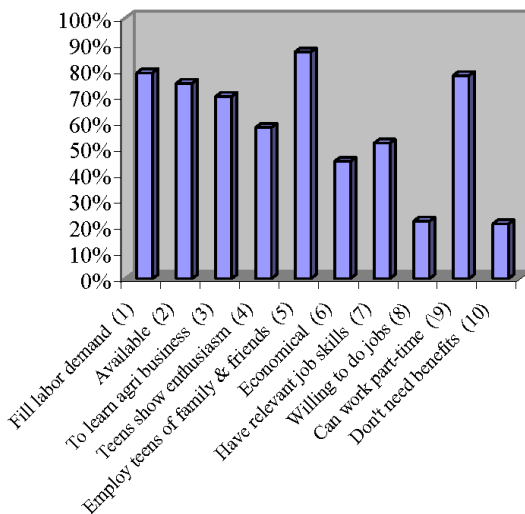
The agricultural enterprises of respondents involved a range of commodities. Some were relatively specialized, and others checked several types of products. Agricultural enterprises that were represented primarily included tree fruit and nut growers (61%) plus another 14.5% who grew tree fruits, nuts, plus other crops. This accounted for three-fourths of respondents. Among the other fourth, there were vegetable, berry, and grain growers (12%), nursery owners (5%), and a few beef, cotton, or tobacco farm owners.

The survey asked respondents to indicate the number of employees hired over the course of one year. Responses ranged from one to 15,000 employees. The size of the employee base and the company policy regarding hiring teen workers demonstrated a clear association between size and teen employment. Among the enterprises that hired from 220 to 15,000 employees, more than half the respondents reported they hire teen workers. Of the smaller enterprises, having one to 24 employees, the majority hired only adult workers.

In general, results showed that many respondents perceive adolescents as hardworking, likeable, and dependable. The majority of respondents have positive perceptions of adolescents in terms of dependability, helpfulness, and general attitudes toward safety. Moreover, of the 277 respondents who had complete information, approximately 46% of the respondents were intending to employ adolescents in the future, while approximately 34% did not plan to employ adolescents in the future. Roughly 20% were uncertain about their future intentions concerning the employment of adolescent farm workers.

The reasons for or against hiring adolescents were analyzed by group. Figure 1 depicts reasons for hiring adolescents as reported by 151 respondents who currently have adolescent employees. Respondents could check “all that apply” and 90% indicated that they hired teens “to help employ teens of family and friends.” The next most common reason was “to fill our labor demand.” Among the survey respondents who do not hire teens, the reasons for their decision are illustrated in figure 2. Nearly 90% of respondents who do not hire teens indicated that it is “because of concerns about regulations.” For many respondents, primary reasons for not hiring teens were related to the extra monitoring effort associated with regulatory compliance. To a lesser extent, respondents were concerned about injury risk or unpredictable teen behavior.

Survey respondents were asked to rate their agreement with personal beliefs and social expectations regarding employment of teen workers in agriculture. Responses on a 5-point scale (strongly agree to strongly disagree) of all employers are depicted in figure 3. More than 80% of respondents agreed that it is important to have strategies for complying with teen labor regulations. Only a few respondents were concerned that



**Figure 1. Reasons for hiring adolescents (n = 151).**

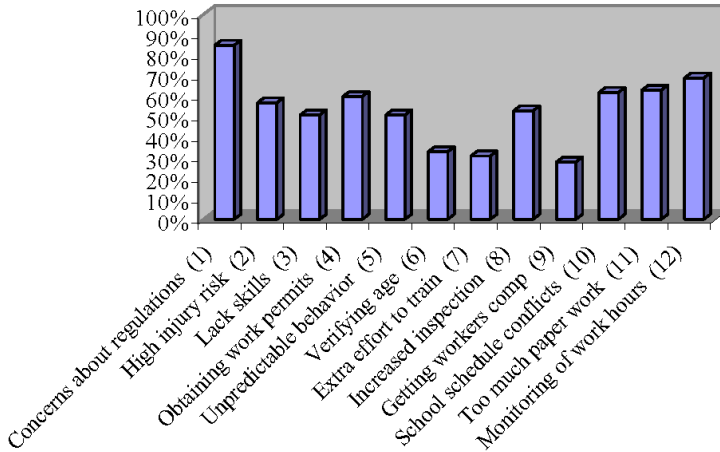


Figure 2. Reasons for not hiring adolescents (n = 132).

hiring teens resulted in bad outcomes. More than half the respondents were interested in knowing more about how teens’ physical and mental growth relates to work tasks and how to prevent agricultural injuries among their teen workers.

### Training Practices and Employment Experiences

Respondents described their current practices and indicated whether they expect to need certain resources (e.g., safety posters) more or less often in the future. Currently, respondents indicated that they rely on safety policies, posters, meetings, and equipment. To a much lesser extent, they use videotapes. Websites are rarely used for safety information. Employers of adolescent workers were asked: “In the future, will you need more or less of the various safety resources, or are no changes needed?” Figure 4 illustrates that most employers have enough resources now, but about 25% of teen employers would appreciate more safety training videos and printed handout safety resources.

Employers were asked about the extent to which they experience factors that affect the work output. On a 4-point scale (never to always), more than 60% indicated that

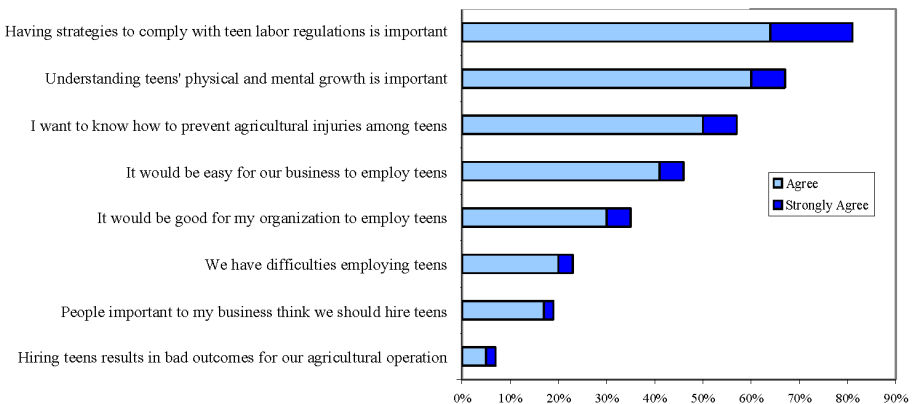
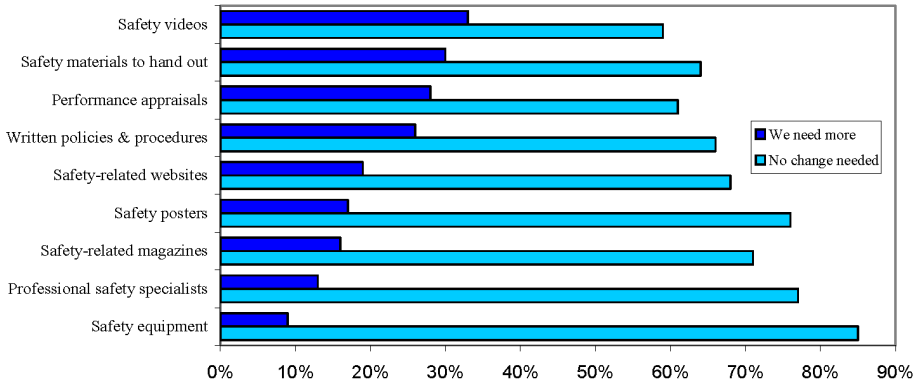


Figure 3. Employers' (n = 283) agreement with statements (perspectives) on teen workers.



**Figure 4. Teen employers' future safety resource needs (n = 151).**

among their adult and teen employees combined, they often or always have high productivity and high-quality work. Very few reported that they often have employee accidents or absenteeism.

### Other Feedback from Employers

A final survey question asked survey participants to “share other important insights you have about safety, teen workers, or general business issues.” Written feedback responses were submitted by 100 (35%) of the 283 survey respondents. Comments reflected a range of feelings and experiences, from very positive to negative (primarily associated with regulatory restrictions). Written feedback included:

“I am very pleased with teen workers. They are willing to work and do a great job.

We will continue to use teens, hopefully, we won't be regulated out of using them.”

“Teens have a lot to offer, but there's a lot of paperwork and regulations.”

“All our teenage employees work side by side with their parents. We hire them because it's good for them and helpful to their families.”

“Current regulations discourage employment of teenagers. As a result, a strong work ethic is often missing among young people.”

“It's all a balancing act -- dealing with regulations while hiring teen workers.”

## Discussion

There are many reasons influencing the hiring of adolescents for agricultural work. Our study revealed the strong influence of concern over regulations in limiting employment options for young people. The regulatory concerns of employers who do not hire teens seem to fall into three primary categories. First and foremost, employers felt that there are too many regulations involved in hiring and employing teens, and the effort and cost of understanding, administering and complying with the regulations, including paperwork, outweighs any benefit they might gain by employing teens. Second, the state-regulated minimum wage was considered too high for the work accomplished by teens and thus priced teens out of the labor market. Third, some employers felt they were taking on extra liability by hiring teens, related both to higher risk of injury and risk of inadvertent regulatory non-compliance.

Results also revealed that, for many employers who hire teens, their reasons are often altruistic: to provide jobs for children of relatives and friends. Further, some employers

who hire teens acknowledged in written survey comments and focus groups that it is not economical to employ teen workers because they rarely keep pace with adult workers, yet receive equal pay. Although the current study used descriptive statistics to provide a snapshot of employers' hiring and safety practices for adolescent workers, our future analysis of the available database will examine important interrelationships among broader survey constructs. For instance, because this study was grounded in established concepts and scales from behavioral reasoning theory (Westaby, 2005), we are currently examining the degree to which the broader psychological scales, such as intentions, attitudes, and reason composite scores, validly predict the employment of youth across organizations. We are also examining whether such employment is related to overall organizational injury.

Safety practices of employers and supervisors range from minimal oversight to the use of multiple resources, such as video training programs and written safety procedures. Most employers rely on the traditional training methods of safety meetings, posters, and videotapes. Relatively few employers use the internet to access training materials, despite the fact there are many resources available on web sites provided by state and federal agencies and safety organizations. A few very large businesses, such as those with more than 5,000 employees, have a dedicated safety director, but the majority of respondents indicated that they did not plan to consult safety professionals for their enterprise.

These results provided a basic understanding of agricultural employers that was necessary for background and credibility in later aspects of the initiative, and informed project staff about employer priorities. The topic of regulations was shown to be an important part of teen worker-related interactions with employers that cannot be ignored and should be addressed in future interventions. The results also showed that employers tend to prioritize training needs in terms of educational materials that can be shown or given to employees, both adults and youth. This implies the need for an additional intervention outside the scope of this project involving the development and distribution of training materials, instruction on their use, and overall guidance on how to train young workers.

The Washington State Department of Labor and Industries in cooperation with the Washington Restaurant Association developed a 2.5-hour workshop to teach quick-service restaurant managers and supervisors how to prevent injuries to their young workers. The workshop involved presentations and written materials on safety orientation, supervisor and employee responsibilities, prohibited duties, best practices, shoe policy, incident tracking, and post-workshop "assignments." Restaurants participating in a pilot test reported a 28% decrease in injury rate for the following quarter, compared with a 3.4% decrease in injury rate for all quick-service restaurants statewide, and by the end of the year reported a workers compensation claim rate that was 27% below the statewide rate for all such restaurants (M. Miller, Washington State Department of Labor and Industries, unpublished report, 2003). Once the injury reduction impact of Washington's restaurant safety training initiative (or comparable programs) is verified, similar initiatives could be implemented and evaluated via agricultural producer organizations to train employers and supervisors who hire large numbers of teen workers.

## **Limitations**

Study participants represented members of one national organization and one state organization. While members represented large agricultural producers, the extent to which they reflect attitudes and practices on a national level is unknown. Therefore, findings cannot be generalized beyond the membership of two organizations. The survey response rate of 38% was considered typical of other member surveys by leaders of NCAE and the Washington Growers League, who also noted that the demographic characteristics of the respondents were consistent with their overall member profile.

Responses were less than preferred by the investigators for conducting extensive analyses. However, follow-up with non-responders was not an option granted by the agricultural organizations. A four-page survey instrument was likely too long, which affected the decision not to complete it by many potential participants.

## Conclusion

These survey results can be used by agricultural producers to compare their own employment practices with those of other growers. Results can also be used to guide future programs that support efforts of agricultural employers to safely and appropriately give adolescents positive work experiences. Ideally, young people will be recruited, hired, and carefully trained and supervised to conduct safe, appropriate work in agriculture (Vela Acosta and Lee, 2001). To this end, future research should continue to examine how the hiring of teen workers may impact adolescent development and organizational outcomes. Through positive work experiences, young adults could gain important life skills along with an appreciation of the importance of production agriculture for our society and economy.

## Acknowledgements

This study was funded by a grant from the National Institute for Occupational Safety and Health (NIOSH grant 1 U50 OH008107). The authors extend gratitude to Sharon Hughes, Executive Vice President of National Council of Agricultural Employers, and Michael Gempler, Executive Director of Washington Growers League, for their firm commitment to young workers and their valuable assistance in implementing this project. Lorelle Benetti, statistical assistant at Marshfield Clinic Research Foundation, conducted analyses for the project team, and Michael Peters, assistant manager at the University of Wisconsin Agricultural Research Station, Prairie du Sac, Wisconsin, helped in the start-up phase of this study. We also thank Marshfield Clinic Research Foundation for its support through the assistance of Alice Stargardt in the preparation of this manuscript.

## References

- Babbie, E. 1990. *Survey Research Methods*. 2nd ed. Belmont, Cal.: Wadsworth Publishing.
- Dillman, D. A. 1978. *Mail and Telephone Surveys: The Total Design Method*. New York, N.Y.: John Wiley and Sons.
- Krueger, R. A. 1994. *Focus Groups: A Practical Guide for Applied Research*. 2nd ed. Thousand Oaks, Cal.: Sage Publications.
- Morgan, D. L. 1998. *Planning Focus Groups*. Thousand Oaks, Cal.: Sage Publications.
- NRC. 1998. *Protecting Youth at Work: Health, Safety, and Development of Working Children and Adolescents in the United States*. Washington, D.C.: National Research Council, Institute of Medicine.
- Myers, J. R., and K. J. Hendricks. 2001. Injuries among youth on farms in the United States, 1998. DHHS/NIOSH Publication No. 2001-154. Cincinnati, Ohio: National Institute for Occupational Safety and Health. Available at: [www.cdc.gov/niosh/childag/pdfs/2001154.pdf](http://www.cdc.gov/niosh/childag/pdfs/2001154.pdf).
- U.S. Department of Labor. 2004. Child labor requirements in agricultural occupations under the Fair Labor Standards Act (Child Labor Bulletin 102). Washington, D.C.: U.S. Department of Labor. Available at: [www.dol.gov/esa/regs/compliance/whd/childlabor102.pdf](http://www.dol.gov/esa/regs/compliance/whd/childlabor102.pdf).
- Vela Acosta, M. S., and B. Lee. 2001. Migrant and seasonal hired adolescent farmworkers: A plan to improve working conditions. Marshfield, Wis.: Marshfield Clinic. Available at: [www.marshfieldclinic.org/ldf/MCRF-Centers-NFMC-nccrahs-reports-migrant.pdf](http://www.marshfieldclinic.org/ldf/MCRF-Centers-NFMC-nccrahs-reports-migrant.pdf).
- Westaby, J. D. 2005. Behavioral reasoning theory: Identifying new linkages underlying intentions and behavior. *Org. Behavior and Human Decision Processes* 98(2): 97-120.