# Demographics and Non-fatal Injury Patterns of Youth Less Than 20 Years Old on Hispanic Operated Farms in the United States, 2000

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#### **Abstract**

**Purpose**: Minority operated farms are less than three percent of farms in the U.S. and are not adequately captured in surveys of farming. The 2000 Minority Farm Operated Childhood Agricultural Injury Survey (M-CAIS) was designed specifically for the study of racial minority and Hispanic operated farms. This work will examine the demographic and non-fatal injury patterns of youth less than 20 years old on Hispanic operated farms in the U.S. during 2000.

**Methods**: The data were extracted from the 2000 M-CAIS, conducted by the National Agricultural Statistics Service in collaboration with the National Institute for Occupational and Health. The M-CAIS was a census of all minority operated farms in the U.S. using the 1997 Census of Agriculture as the sampling frame. Data were collected using telephone interviews. A non-fatal farm injury was defined as an occurrence that resulted in at least 4 hours of restricted activity or professional medical treatment.

**Results**: During 2000, there were an estimated 287,870 ( $CI_{95\%} \pm 8,710$ ) youth less than 20 years old present on Hispanic operated farms sometime during the year. By type of farm, 158,881 (55%) of the youth were on livestock operations and 121,654 (42%) on crop operations. Of the total number of youth, only 17,998 (6%) were household youth living on the farms, with the remainder of the youth consisting of 124,801 (43%) relatives visiting the farm, 139,927 (49%) non-relative visitors, and 5,144 (2%) hired workers. There were an estimated 366 ( $CI_{95\%} \pm 25$ ) non-fatal injuries to youth less than 20 years old that occurred on Hispanic operated farms during 2000, for an injury rate of 1.3 per 1,000 youth. By type of farm, 234 (64%) of the injuries occurred on livestock operations and 127 (35%) injuries on crop operations. The injury rate for youth on livestock operations was 1.5 per 1,000 youth and 1.0 per 1,000 youth for crop operations. About 71% of all injuries occurred to household youth with an injury rate of 14.4 per 1,000 youth. Hired youth had the second highest injury rate (3.2/1,000 youth), followed by visiting youth relatives (0.5/1,000) and non-relative youth visitors (0.2/1,000). Males accounted for 262 (72%) of the injuries and females for 104 (28%). An examination of injuries by age showed that 131 (36%) of the injuries occurred to youth less than 10 years of age, 136 (37%) to youth 10-15, and 94 (26%) to youth 16-19.

**Summary**: Youth on Hispanic operated farms are an under-studied segment of the agricultural community in the U.S. The 2000 M-CAIS data will provide previously unavailable statistical estimates for both the demographic characteristics and the non-fatal injury burden of youth less than 20 years old on Hispanic operated farms. These data will help guide safety and health intervention activities for this under-studied segment of the farming community.

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#### Introduction

The public health surveillance for farmers and agricultural workers in the United States has seen great improvements during the last decade of the twentieth century. These surveillance efforts however, have clustered in areas focusing on fatal traumatic injuries. Non-fatal injury on farms and ranches in the U.S. has not been as successfully documented as the fatal events. Special populations among the agricultural community such as children who live on or visit farms and ranches have seen even fewer surveillance efforts, particularly those aimed at documenting both the demographic distribution of the population at risk and the non-fatal injury outcomes at the national level. This current effort is designed to address demographic distributions and measure the magnitude of injury to youth on Hispanic operated farms across the U.S.

#### Methods

The data were extracted from the 2000 Minority Childhood Agricultural Injury Survey (M-CAIS), conducted by the National Agricultural Statistics Service (NASS) in collaboration with the National Institute for Occupational and Health (NIOSH). For M-CAIS data collection, we attempted to contact all minority operated farms (including all minority races and those of Hispanic ethnicity) as listed by the 1997 Census of Agriculture sampling frame. We attempted to contact 20,789 Hispanic operated farms, of which 10,862 were interviewed for a crude response rate of 52%. Statistical weights were derived by post-stratifying and benchmarking the data to the 1997 Census of

Agriculture. Data were collected using telephone interviews conducted from eight NASS calling centers during February and March of 2001. A *farm* was defined as any operation with \$1,000 or more gross agricultural production. A *non-fatal injury* was defined as an occurrence that resulted in at least 4 hours of restricted activity or professional medical treatment. *Youth* were defined as anyone less than 20 years old and classified as (1) *household* if they resided on the farm, (2) *hired* if employed directly by the farm operator but excluding those hired by contractors, (3) *visiting relatives*, and (4) *visiting non-relatives*. The source that directly produced the injury, and the injury event (or type of incident) were coded in accordance to the Occupational Injury and Illness Classification System (OIICS) [Bureau of Labor Statistics, 1992].

#### Results

Demographics & Type of Farm Operation

During 2000, there were an estimated 287,870 (Confidence Interval of 95% ( $CI_{95\%}$ )  $\pm 8,710$ ) youth less than 20 years old present on Hispanic operated farms in the U.S. sometime during the year. Of the total number of youth, only 17,998 (6%) were household youth, with the remainder of the youth consisting of relatives visiting the farm (43%; 124,801), non-relative visitors (49%; 139,927), and hired workers (2%; 5,144) (Table 1). An estimated 22,850 or 8% of the total number of youth were reported to have worked on the farm. About 44% (7,921 out of 17,998) of household youth worked compared to 6% (14,928 out of 269,872) of all non-household youth.

An examination of all youth by type of operation shows 45% (158,881) were on crop operations and 55% (121,654) were on livestock (with 3% unknown) (Table 1). Youth on crop operations were primarily seen on fruit, tree nut and berry farms (26%; 31,237  $\text{CI}_{95\%} \pm 3,042$ ) or grain and oilseed farms (25%; 30,145  $\text{CI}_{95\%} \pm 3,394$ ). Among youth on livestock operations, the majority of youth were on beef operations (72%; 113,888  $\text{CI}_{95\%} \pm 5,163$ ), followed by equine (9%; 14,349  $\text{CI}_{95\%} \pm 2,144$ ) and dairy (8%; 13,437  $\text{CI}_{95\%} \pm 2,033$ ).

The distribution for household youth by type of operation was similar to that for all youth, with 45% (8,109) on crop operations and 50% (9,037) on livestock (with 5% unknown) (Table 1). Of household youth on crop operations, 29% (2,366  $CI_{95\%} \pm 153$ ) were on fruit, tree nut and berry farms and 21% (1,691  $CI_{95\%} \pm 132$ ) on grain and oilseed farms. Nearly three-quarters of those on livestock operations were on beef farms (73%; 6,558  $CI_{95\%} \pm 259$ ), with another 7% (647  $CI_{95\%} \pm 82$ ) on equine farms and 9% (817  $CI_{95\%} \pm 115$ ) on dairy.

Among household youth on crop operations, 40% (3,154) reported to have performed work tasks while 58% (4,590) reported working on livestock operations (Table 1). Among working household youth on crop operations, 26% (814  $\text{CI}_{95\%} \pm 86$ ) were on grain and oilseed operations and 24% (750  $\text{CI}_{95\%} \pm 78$ ) on fruit, tree nut and berry operations.

In contrast to the distributions for working household youth, there were a larger number of hired youth on crop operations (62%; 3,207) compared to livestock (37%; 1921) (Table 1). Of hired youth on crop operations, the majority were seen on fruit, tree nut and berry operations (39%; 1,263  $CI_{95\%} \pm 310$ ) and grain and oilseed operations (12%; 843  $CI_{95\%} \pm 80$ ). Hired youth on livestock operations were primarily on beef (65%; 1,241  $CI_{95\%} \pm 310$ ) and dairy operations (15%; 296  $CI_{95\%} \pm 61$ ).

Of the estimated 17,998 household youth on Hispanic operated farms, males comprised 51% (9,235) and females 47% (8,400) (with 2% unknown) (Table 2). Youth less than 10 years of age accounted for 33% (6,015) of the household youth, 37% (6,589) for those aged 10-15 years, and 28% (4,969) for those aged 16-19 years (with 2% unknown) (Table 2). Forty-four percent (7,921) of the household youth were reported to have performed work on the farm and 54% (9,717) reported no work (with 2% unknown). Older youth were more likely to have worked on the farm with 61% (3,010) of those aged 16-19 years positive for work, followed by 57% (3,778) for those 10-15 years old and 18% (1,099) for those < 10 years old. Males (52%; 4,843) were more likely to work on the farm than females (37%; 3,076). The higher percent of males working was consistent across all age groups (Table 2).

# Non-fatal Injuries

There were an estimated 366 ( $CI_{95\%}$  ±45) non-fatal injuries to youth less than 20 years old that occurred on Hispanic operated farms during 2000. The overall injury rate was 1.3 per 1,000 youth. Household youth comprised 259 ( $CI_{95\%}$  ±38) or 71% of the

injuries, relatives 58 (CI<sub>95%</sub> ±17) injuries, visitors 32 (CI<sub>95%</sub> ±13), and hired workers 17 (CI<sub>95%</sub> ±10) injuries. Household youth had the highest injury rate, 14.4 (CI<sub>95%</sub> ±2.2) per 1,000, followed by 3.3 (CI<sub>95%</sub> ±1.9) for hired workers, 0.5 (CI<sub>95%</sub> ±0.1) for relatives, and 0.2 (CI<sub>95%</sub> ±0.1) for visitors. By type of farm, 64% (234 CI<sub>95%</sub> ±36) of the injuries to youth occurred on livestock operations and 35% (127 CI<sub>95%</sub> ±27) of the injuries on crop operations. The injury rate for youth on livestock operations was 1.5 (CI<sub>95%</sub> ±0.1) per 1,000 and the corresponding rate for crop operations was 1.0 (CI<sub>95%</sub> ±0.2). The work-related injury rate on livestock operations was 7.7 (CI<sub>95%</sub> ±1.8) per 1,000 compared to 4.0 (CI<sub>95%</sub> ±1.5) on crop operations. The non-work injury rate on livestock operations was 0.8 (CI<sub>95%</sub> ±0.2) per 1,000 and the rate for crop operations was 0.7 (CI<sub>95%</sub> ±0.2).

Males accounted for 72% (262) of the injuries and females for 28% (104) (Table 3). An examination of injuries by age showed that 36% (131) of the injuries occurred to youth less than 10 years of age, 37% (136) to youth 10-15 years, and 26% (94) to youth 16-19 years (with 1% unknown). These percentages by age group were fairly consistent for both males and females (Table 3).

Cuts and lacerations (24%; 86) were the most common type of injury, followed by fractures (19%; 70) and bruises (14%; 51). This distribution was fairly consistent by sex except for fractures, in which 24% (25) of all injuries to females were fractures compared to 17% (44) for males (Table 3). Injuries to the upper extremities (arm, wrist, and hand) comprised 30% (110) of the injuries, followed by 28% (101) to the lower extremities (leg, ankle, and foot) and 24% (88) to the head and face (Table 3).

Falls were the leading type of injury event, accounting for 26% (96) of the incidents (Table 4). About two-thirds (66) of the fall incidents were falls from height. Falls comprised similar percentages for males and females. Contact with objects followed falls, with 44% (41) of these contact-related injuries categorized as struck by an object. Transportation incidents comprised 19% (71) of the injuries, and were primarily non-highway events (68). Non-highway incidents comprised 19% (50) of injuries to males and 17% (17) for females. Bites and other injuries from animals (40) accounted for 19% (20) of all injuries to females compared to 8% (20) for males.

Floors and ground surfaces were the leading source of injury (81  $\text{CI}_{95\%}$  ±21), accounting for 22% of the injuries among both males and females. Vehicles including equipment such as tractors and all-terrain vehicles (65  $\text{CI}_{95\%}$  ±18) comprised 19% (51  $\text{CI}_{95\%}$  ±16) of the injuries to males and 14% (14  $\text{CI}_{95\%}$  ±9) of the injuries to females. Animals accounted for a larger percent of injuries to females (27%, 28  $\text{CI}_{95\%}$  ±10) than for males (11%, 28  $\text{CI}_{95\%}$  ±12).

# Non-fatal Injuries to Household Youth

As previously mentioned, household youth comprised 259 (CI<sub>95%</sub> ±38) of the 366 injuries, and had the highest non-fatal injury rate (14.4 per 1,000 youth). By type of farm, 63% (162 CI<sub>95%</sub> ±30) of the injuries to household youth occurred on livestock operations and 36% (92 CI<sub>95%</sub> ±23) on crop operations. The injury rate for household youth on livestock operations was 17.9 (CI<sub>95%</sub> ±3.4) per 1,000 and 11.3 (CI<sub>95%</sub> ±2.9) for

crop operations. Injuries that occurred to household youth during work comprised 44% (114  $\text{CI}_{95\%} \pm 24$ ) of the total, with an injury rate of 14.3 ( $\text{CI}_{95\%} \pm 3.1$ ) per 1,000. Nonwork injuries to household youth comprised 56% (145  $\text{CI}_{95\%} \pm 28$ ) of the total with a rate of 8.1 ( $\text{CI}_{95\%} \pm 1.6$ ) per 1,000. The work-related injury rate on livestock operations was 17.9 ( $\text{CI}_{95\%} \pm 4.5$ ) per 1,000 compared to 9.2 ( $\text{CI}_{95\%} \pm 3.9$ ) on crop operations. The nonwork injury rate on livestock operations was 8.9 ( $\text{CI}_{95\%} \pm 2.3$ ) per 1,000 and 7.7 ( $\text{CI}_{95\%} \pm 2.3$ ) for crops.

Males accounted for 72% (188) of the injuries to household youth (Table 5) and had an injury rate of 20.3 ( $CI_{95\%} \pm 3.5$ ) per 1,000 youth. Females comprised the remaining 28% (71) of the injuries with an injury rate of 8.5 ( $CI_{95\%} \pm 2.3$ ) per 1,000 youth. The work-related injury rate for males was 17.1 ( $CI_{95\%} \pm 4.5$ ) per 1,000 and the work-related rate for females was 10.0 ( $CI_{95\%} \pm 3.9$ ). The non-work injury rates were 11.4 ( $CI_{95\%} \pm 2.6$ ) per 1,000 for males and 4.9 ( $CI_{95\%} \pm 1.6$ ) for females.

Household youth less than 10 years of age comprised 33% (84) of the injuries (Table 5) with an injury rate of 14.0 ( $\text{CI}_{95\%} \pm 3.6$ ) per 1,000 youth. Youth 10-15 years accounted for 43% (111) of the injuries with an injury rate of 16.9 ( $\text{CI}_{95\%} \pm 3.7$ ) per 1,000, while those 16-19 years accounted for 23% (60) of the injuries with a rate of 12.2 ( $\text{CI}_{95\%} \pm 3.4$ ) per 1,000 (with 1% cases unknown for age). Among males the highest rate was seen in those 10-15 years of age with a rate of 24.9 ( $\text{CI}_{95\%} \pm 6.4$ ) per 1,000, followed by the <10 years (18.6  $\text{CI}_{95\%} \pm 5.5$ ) and 16-19 years (16.0  $\text{CI}_{95\%} \pm 5.4$ ). The younger age groups among females also had higher rates than the older youth, with a rate of 9.0 ( $\text{CI}_{95\%}$ 

 $\pm4.0$ ) per 1,000 for those < 10 years and a rate of 8.7 (CI<sub>95%</sub>  $\pm3.6$ ) for the 10-15 year olds. Females 16-19 years had an injury rate of 7.6 (CI<sub>95%</sub>  $\pm3.8$ ) per 1,000.

The distribution of the nature of injury and body part injured for household youth follows similar patterns to that for all injuries, including a higher percentage of injuries to females being fractures (Table 5). Injuries to the leg were primarily bruises (36%) or cuts (30%), while injuries to the foot and ankle were most often fractures (32%) and cuts (21%). Fractures comprised 68% of the injuries to the arm while cuts (38%) were the leading injury sustained to the hand and fingers. Fifty-five percent of injuries to the back and shoulders were either bruises or sprains/strains, while injuries to the head and face were primarily cuts (48%).

Contact with objects (27%; 71) and falls (25%; 65) were the leading type of injury events (Table 6). Falls from height accounted for 66% (43) of all fall events. Falls comprised similar percentages for males and females. Transportation incidents comprised 21% (54) of the injuries, all of which were non-highway incidents. Bites and other injuries from animals comprised 21% (15) of all injuries to females compared to 4% (8) for males.

Floors and ground surfaces accounted for 19% (50  $\text{CI}_{95\%}$  ±16) of the injuries, followed by animals (13%, 35  $\text{CI}_{95\%}$  ±12) and off-road vehicles (11%, 28  $\text{CI}_{95\%}$  ±12). The off-road vehicles were primarily all-terrain vehicles and tractors. Animals comprised 31% (22  $\text{CI}_{95\%}$  ±10) of all injuries to females compared to 6% (13  $\text{CI}_{95\%}$  ±8) for males.

# **Discussion**

Results and Previous Research

Minority operated farms are less than three percent of farms in the U.S. and are not adequately captured in surveys of farming. The 2000 M-CAIS was designed specifically for the study of racial minority and Hispanic operated farms. This is the first study to the authors' knowledge documenting demographic and non-fatal injury information to youth on Hispanic operated farms at the national level. It has previously been noted that there is a need to establish more accurate data for persons living and working on U.S. agricultural production operations [Rautiainen and Reynolds, 2002].

Household youth accounted for the largest number of injuries and had the highest injury rate. The injury rate for household youth on Hispanic operated farms of 14.4 per 1,000 youth initially appears to be lower than the rate of 18.7 per 1,000 reported for household youth on an 'all farm' operator survey in the U.S. [Myers and Hendricks, 2001] and household youth in Ontario of 20 per 1,000 [Pickett el al., 1995]. These rates however, were calculated based on data collected using different methodologies and for different time periods. The injury patterns for household youth on Hispanic operated farms were similar to household youth injury on all farms in the U.S., except for the finding of a higher injury rate among females for work-related incidents than for nonwork incidents. Myers and Hendricks reported that on all U.S. farms, household female youth had a higher injury rate for non-working incidents [Myers and Hendricks, 2001]. The greater proportion of injuries to females from animals has previously been

documented in a study in Wisconsin [Stueland et al., 1991]. The higher injury rates for livestock operations were also reported in the study of household youth on all farm operations in the U.S. [Myers and Hendricks, 2001].

#### Limitations

This cross-sectional survey provides a first glimpse of demographic and injury data for youth on Hispanic operated farms. The cross-sectional nature however, does not provide surveillance data for monitoring trends or progress in reducing the injury burden. Conducting the minority operated farm survey on a regular basis would provide the demographic and injury data needed for monitoring changes over time.

The M-CAIS data exclude contractor-hired youth on Hispanic operated farms (compared to youth hired directly by the farm operator who are included in the survey). While the true extent of the undercount of hired youth from this exclusion is unknown, the NASS Farm Labor Survey estimated that 79% of the 1.4 million hired agricultural workers were hired directly by farm operators in July of 2000 [NASS Farm Labor August 2000]. If the distribution of hired youth is similar to all hired agricultural workers, then our estimate for hired youth may be an under-estimate of about 20% if contractor hired youth were not excluded.

The injury rates for hired youth and visitors were much lower than for household youth. Part of this discrepancy can be explained by the calculation of rates, which did not take into account hours of exposure. For example, a youth who spends half a day on a

farm once or twice per year accounts for the same exposure unit as a household youth who works 20 hours per week for the entire year. It is possible that if the unit of exposure were hours-based, the injury rates for hired youth and visitors would be greater than those for household youth. A diary of youth visits and work activities could provide a methodology for obtaining an hours-based unit of exposure for the calculation of rates.

# **Conclusions**

Youth on Hispanic operated farms are an under-studied segment of the agricultural community in the U.S. The 2000 M-CAIS data utilized the NASS 1997 Census of Agriculture list to provide previously unavailable statistical estimates for both the demographic characteristics and the non-fatal injury burden of youth less than 20 years old on Hispanic operated farms. These data will help guide safety and health intervention activities for this under-studied segment of the farming community.

### References

Bureau of Labor Statistics. 1992. Occupational Injury and Illness Classification System. Washington, DC: US Department of Labor. <a href="http://www.bls.gov/iif/oshtc.htm">http://www.bls.gov/iif/oshtc.htm</a> (Date accessed: 06-12-03)

McCurdy SA, Carroll DJ [2000]. Agricultural Injury. Am Jn Indust Med 38:463-480.

Myers JR, Hendricks KJ [2001]. Injuries among Youth on Farms in the United States 1998. DHHS [NIOSH] Publication number 2001-154.

NASS [2000]. Farm Labor August 2000. National Agricultural Statistics Service, Agricultural Statistics Board, U.S. Department of Agriculture. Sp Sy 8 (8—00). <a href="http://jan.mannlib.cornell.edu/reports/nassr/other/pfl-bb/2000/fmla0800.pdf">http://jan.mannlib.cornell.edu/reports/nassr/other/pfl-bb/2000/fmla0800.pdf</a> (Date accessed: 06-12-03)

Pickett DL, Brison RJ, Niezgoda H, Chipman ML [1995]. Non-fatal Farm Injuries in Ontario: A Population-based survey. *Accid Anal Prev* 27(4):425-433.

Rautiainen RH, Reynolds SJ [2002]. Mortality and Morbidity in Agriculture in the United States. *Jn Agr Safety & Hlth* 8(3):259-276.

Stueland D, Layde P, Lee BC [1991]. Agriculture Injuries to Children in Central Wisconsin. *Jn Trauma* 31:1503-1509.

Table 1.- Total Number of Youth on Hispanic Operated Farms-Relationship to Farm Operator by Type of Farming Operation, United States 2000

	Total		Crop		Livestock	
	Estimate	CI95%	Estimate	CI95%	Estimate	CI95%
All Youth	287,870	8,710	121,654	6,757	158,881	6,104
Household	17,998	398	8,109	132	9,037	306
Hired	5,144	496	3,207	470	1,921	177
Visitor	264,728	8,607	110,338	6,646	147,922	5,993
Relative	124,801	2,755	49,060	1,892	71,569	2,247
Non-relative	139,927	7,617	61,277	5,933	76,353	4,977
Working Only	22,850	816	9,360	595	13,038	592
Household	7,921	256	3,154	164	4,590	206
Non-household	14,928	751	6,207	548	8,448	527
Hired	5,144	496	3,207	470	1,921	177
Relative	9,784	555	3,000	277	6,526	482

Table 2.- Age and Working Status of Household Youth on Hispanic Operated Farms by Sex, United States 2000

	Total		Ma	le	Female		
	Estimate CI95%		Estimate	Estimate CI95%		CI95%	
Total	17,998	398	9,235	252	8,400	239	
Age							
<10	6,015	223	3,124	144	2,886	135	
10-15	6,589	206	3,349	138	3,236	135	
16-19	4,969	168	2,704	120	2,260	110	
Work	7,921	256	4,843	178	3,076	146	
<10	1,099	88	661	63	439	50	
10-15	3,778	157	2,177	111	1,601	98	
16-19	3,010	131	1,979	103	1,031	75	
Non-work	9,717	290	4,372	172	5,311	189	
<10	4,910	197	2,461	126	2,444	122	
10-15	2,809	133	1,169	80	1,635	96	
16-19	1,944	104	717	62	1,222	80	

Table 3 Injuries to All Youth on Hispanic Operated Farms by Sex,
United States 2000

Clined States 2000	Total		Ma	le	Female	
	Estimate	CI95%	Estimate	CI95%	Estimate	CI95%
Total	366	45	262	37	104	23
Age						
<10	131	26	92	21	39	14
10-15	136	26	95	22	41	14
16-19	94	21	70	19	24	10
Work Status						
Work	140	27	104	23	36	13
Non-work	226	35	158	28	68	18
Nature of Injury						
Cut, Laceration	86	21	63	18	23	11
Fracture	70	18	44	15	25	11
Bruise	51	16	38	13	13	8
Abrasion	37	14	29	12	8	6
Multiple	35	12.3	22	9.4	13	7.8
Other	87		66		22	
Body Part						
Head	51	16	32	12	19	10
Face	37	14	***		***	
Arm	56	17	38	14	18	9
Hand, Wrist	54	16	39	14	15	8
Leg	58	17	46	15	13	8
Foot, Ankle	43	15	28	11	15	9
Shoulder, Back	25	11	15	9	10	6
Other	42		***		***	

Table 4.- Injuries to All Youth on Hispanic Operated Farms by Injury Event and Sex, United States 2000

To	Total		Male		Female	
Estimate	CI95%	Estimate	CI95%	Estimate	CI95%	
366	45	262	37	104	23	
95	22	72	19	22	10	
23	11	13	8	10	7	
41	14	34	13	7	6	
17	9	***		***		
96	22	68	19	28	12	
66	18	45	15	20	10	
26	11	18	9	8	7	
10	6	10	6	0		
23	10	15	84	7	6	
71	19	53	16	17	10	
68	18	50	15	17	10	
11	9	0		11	9	
23	10	***		***		
15	9	15	9	0		
7	5	***		***		
40	14	20	10	20	10	
40	14	20	10	20	10	
32		24		8		
	Estimate  366 95 23 41 17 96 66 26 10 23 71 68 11 23 15 7 40 40	Estimate         CI95%           366         45           95         22           23         11           41         14           17         9           96         22           66         18           26         11           10         6           23         10           71         19           68         18           11         9           23         10           15         9           7         5           40         14           40         14	Estimate         CI95%         Estimate           366         45         262           95         22         72           23         11         13           41         14         34           17         9         ***           96         22         68           66         18         45           26         11         18           10         6         10           23         10         15           71         19         53           68         18         50           11         9         0           23         10         ***           15         9         15           7         5         ***           40         14         20           40         14         20	Estimate         CI95%         Estimate         CI95%           366         45         262         37           95         22         72         19           23         11         13         8           41         14         34         13           17         9         ***         ***           96         22         68         19           66         18         45         15           26         11         18         9           10         6         10         6           23         10         15         84           71         19         53         16           68         18         50         15           11         9         0         23           15         9         15         9           7         5         ***           40         14         20         10           40         14         20         10	Estimate         CI95%         Estimate         CI95%         Estimate           366         45         262         37         104           95         22         72         19         22           23         11         13         8         10           41         14         34         13         7           17         9         ****         ****         ****           96         22         68         19         28           66         18         45         15         20           26         11         18         9         8           10         6         10         6         0           23         10         15         84         7           71         19         53         16         17           68         18         50         15         17           11         9         0         11         ***           23         10         ****         9         0           7         5         ***         ***           40         14         20         10         20           <	

Table 5.- Injuries to Household Youth on Hispanic Operated Farms by Sex, United States 2000

	Total		Ma	le	Female		
	Estimate	CI95%	Estimate	CI95%	Estimate	CI95%	
Total	259	38	188	32	71	19	
Age							
<10	84	22	58	17	26	11	
10-15	111	24	83	21	28	12	
16-19	60	17	43	14	17	9	
Work Status							
Work	114	24	83	21	31	12	
Non-work	145	28	105	23	41	14	
Nature of Injury							
Cut, Laceration	63	18	48	15	15	9	
Fracture	49	15	31	12	18	9	
Bruise	39	14	31	12	8	7	
Abrasion	16	9	***		***		
Multiple	27	11.0	15	7.6	13	7.8	
Other	65		***		***		
Body Part							
Head	21	10	12	7	8	7	
Face	20	9	20	9	0		
Arm	38	13	27	11	11	7	
Hand, Wrist	41	14	29	12	13	8	
Leg	43	14	33	13	10	7	
Foot, Ankle	38	14	26	11	12	8	
Shoulder, Back	23	10	15	9	8	6	
Other	35		26		9		

Table 6.- Injuries to Household Youth on Hispanic Operated Farms by Injury Event and Sex, United States 2000

	Total		Male		Female	
Type of Injury Event (OIICS)	Estimate	CI95%	Estimate	CI95%	Estimate	CI95%
Total	259	38	188	32	71	19
Contact with Objects (0)	71	18	53	16	18	9
Struck Against Object (01)	16	9	***		***	
Struck By Object (02)	30	12	23	10	7	6
Caught In Objects (03)	15	8	***		***	
Falls (1)	65	18	50	16	15	8
Fall To Lower Level (11)	43	14	33	13	10	7
Fall On Same Level (13)	17	9	***		***	
<b>Bodily Reaction/Exertion (2)</b>	10	6	10	6	0	
Exposure To Substances/Environments (3)	12	7	***		***	
Transportation Events (4)	54	17	41	14	13	9
Nonhighway Events (42)	54	17	41	14	13	9
Vehicle Struck Stationary Object (422)	11	9	0		11	9
Fall From Moving Vehicle (4231)	18	9	18	9	0	
Overturn (4233)	11	7	***		***	
Loss Of Control (4234)	7	5	***		***	
Assaults And Violent Acts (6)	23	10	8	6	15	8
Assault By Animal (63)	23	10	8	6	15	8
Other/Unknown Events (5 and 9)	24		19		6	