

Identifying High-Risk Subsectors in Wholesale and Retail Trade

HeeKyung Chun, ScD.¹ and Vern P. Anderson, PhD.²
 APTR-CDC fellow¹ and National Institute for Occupational Safety and Health²

Abstract

The Wholesale and Retail Trade (WRT) sector employs nearly 21 million workers. This diverse workforce and the wide variety of job activities include jobs that pose serious risks of injury and death to workers. Few studies have examined characteristics associated with aging as they impact workplace injuries by industry and occupation.

We analyzed the Current Population Survey (CPS) data and BLS data on workplace injuries/illnesses. From the CPS annual average data, we estimated the percentage of workers employed in occupations who were 65 and older. Denominators were determined from both full-time equivalent estimates and the estimates of the number of workers.

More than ¼ quarter of a million older workers (18%) are employed in the WRT industry. The retail trade industry accounts for the largest share of injury and illness cases (23.1%) for older workers. Sales and related jobs are the second highest choices for older workers (15.1%). From the BLS data, we found that the workplace events or exposures leading to injury and illness of older workers included fall to same level, contact with objects, and overexertion. Older workers have a higher share of sprains than younger workers (IR= 28.3), fractures (IR= 16.8), and multiple traumatic injuries (IR= 10.4). Although older workers may benefit from increased maturity, experience, and decision-making skills, they may face higher risk of fatality and injury due to decreasing physical capability, and decreasing sensory and cognitive abilities.

To maximize the impact of an intervention, prioritization should be given to those sub sectors that have the largest work populations and also include high risk sub sectors where older workers are employed. An alternative approach would be to rank each subsector by size and rate, and then select the subsector with the largest average rank score.

Industry shares: % = Industry employment/total employment



2003-2008 High Risk Subsectors in WRT

Highest Incidence Rates for Nonfatal Injury/Illness

Retail Trade Subsectors

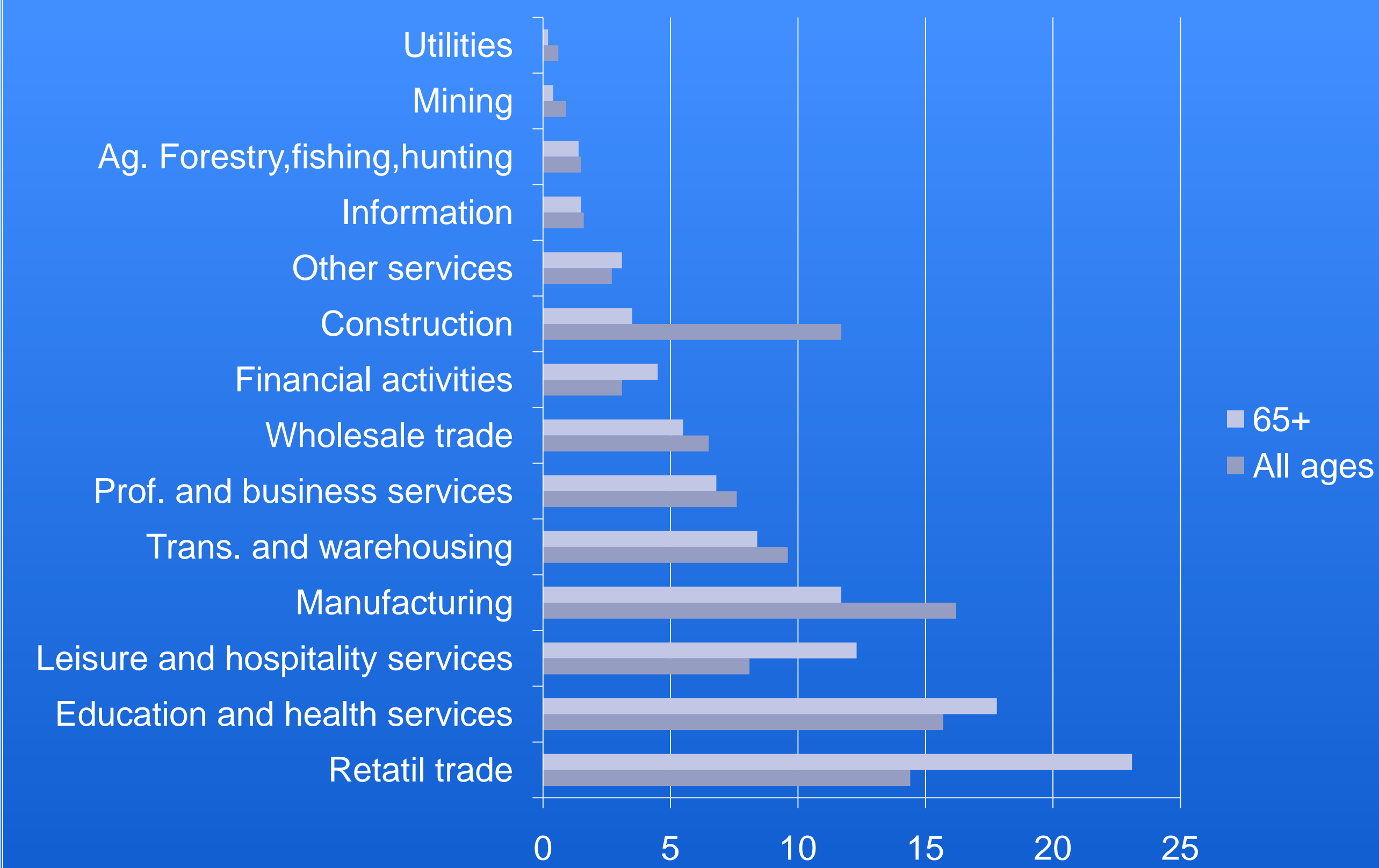
- Home centers – 3 times in the 1st place and six years in a row
- Warehouse clubs/Superstores – 5 years high IR > 7.1 six times in a row
- Other Building Materials – six years in a row
- Supermarkets and Other Grocery – six years in a row
- Tire dealers – 6 times
- Fuel dealers – 6 times
- Hobby, toy and game stores – 5 times but higher IR than fuel dealers
- Department store – 5 times
- Nursery and garden centers – 2 times
- All other general merchandise – 2 times
- Pet and pet supplies, Recreational vehicle dealers, Convenience stores – 1 time

Wholesale Trade Subsectors

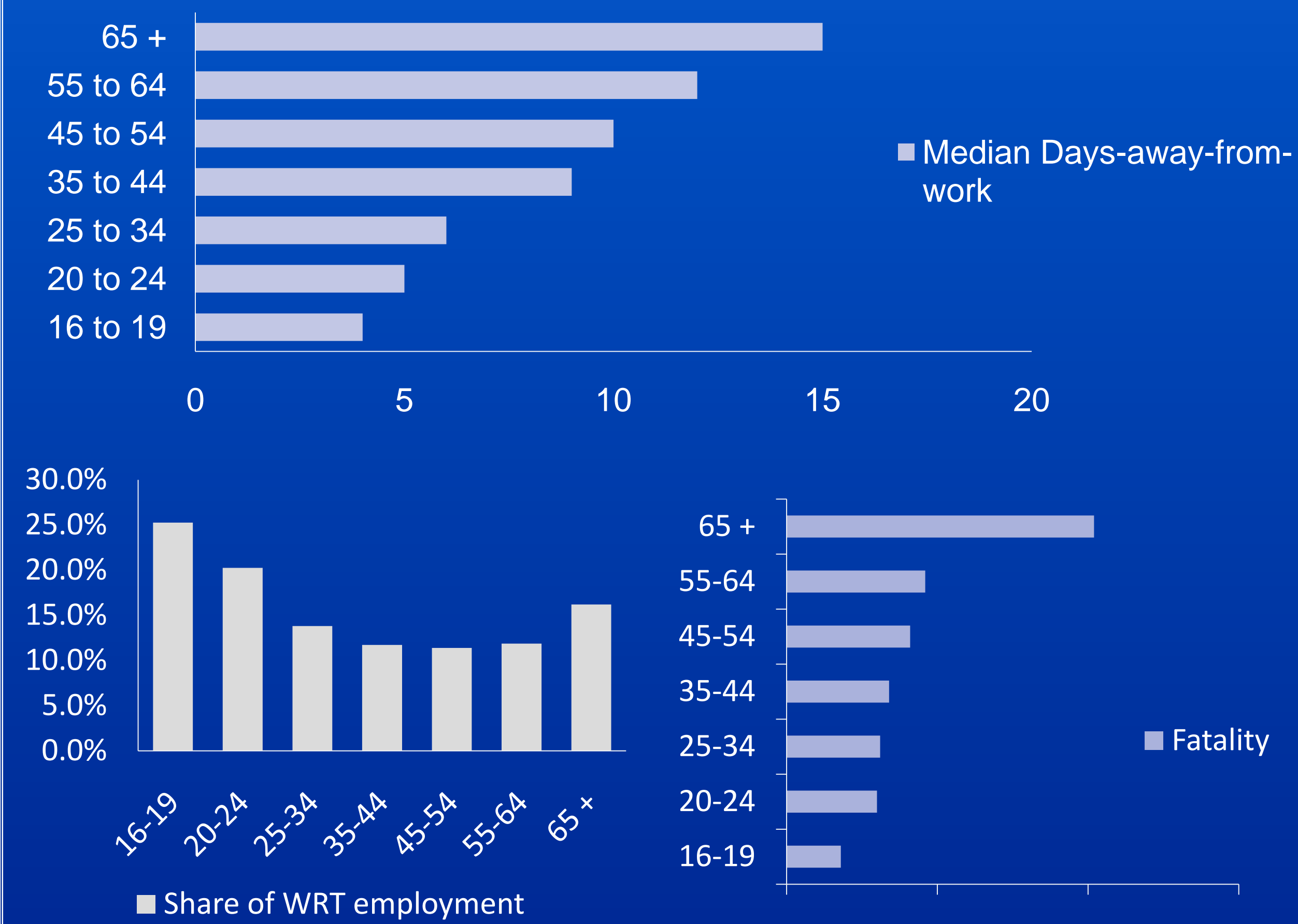
- Beer, wine, and distilled alcoholic beverage merchant wholesalers – 6 times in the 1st place in a row
- Grocery and related – 5 times in the 2nd place, 6 times in a row
- Lumber and other construction materials – 6 times
- Metal and mineral merchant wholesalers – 5 times
- Motor vehicle and parts supplies – 5 times
- Farm product raw material – 4 times
- Hardware, plumbing and heating – 1 time
- Jewelry, watch, precious stone

Number of MSDs				
	NAICS	2008	2007	2006
Wholesale	42	22,770	24,840	24,980
Retail	44-45	46,640	51,740	56,500
Private Sector	N/A	317,440	335,390	357,160
Incidence Rates of MSDs				
	NAICS	2008	2007	2006
Wholesale	42	38.7	42.7	44.4
Retail	44-45	38.3	42.5	47.5
Private Sector	N/A	33.4	35.4	38.6

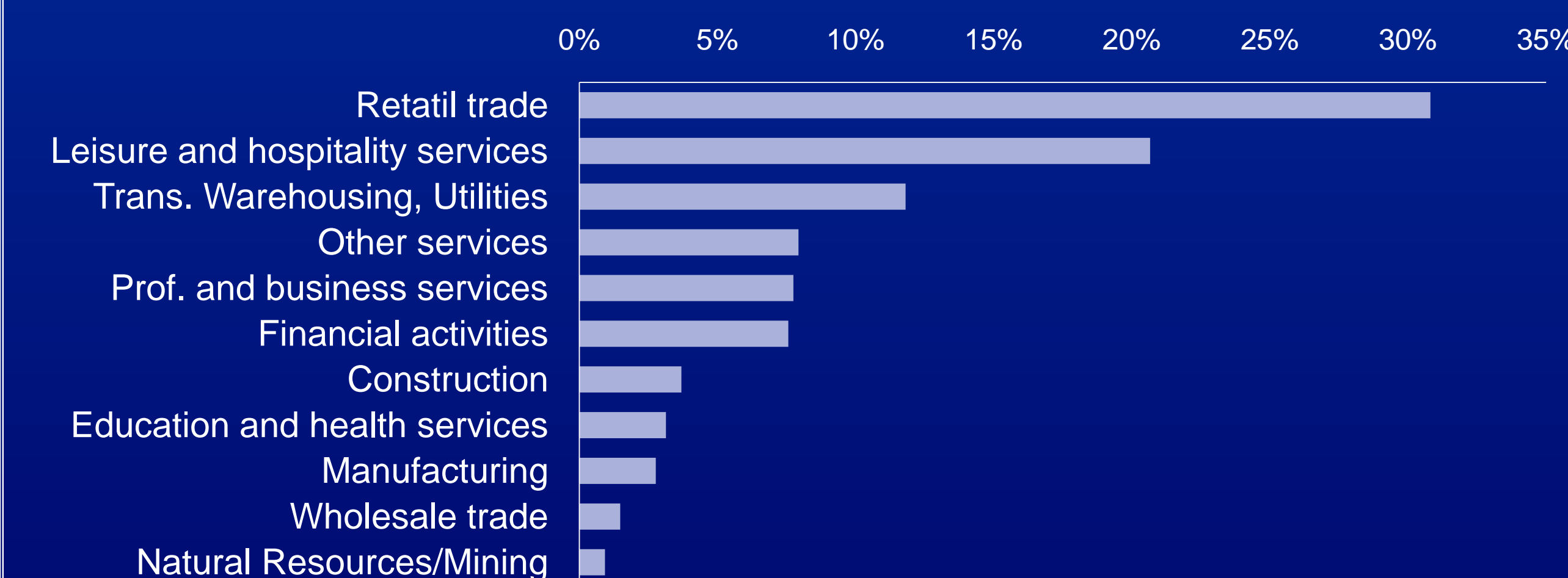
Retail Trade Accounts for the largest share of Injury and Illness Cases for Older Workers



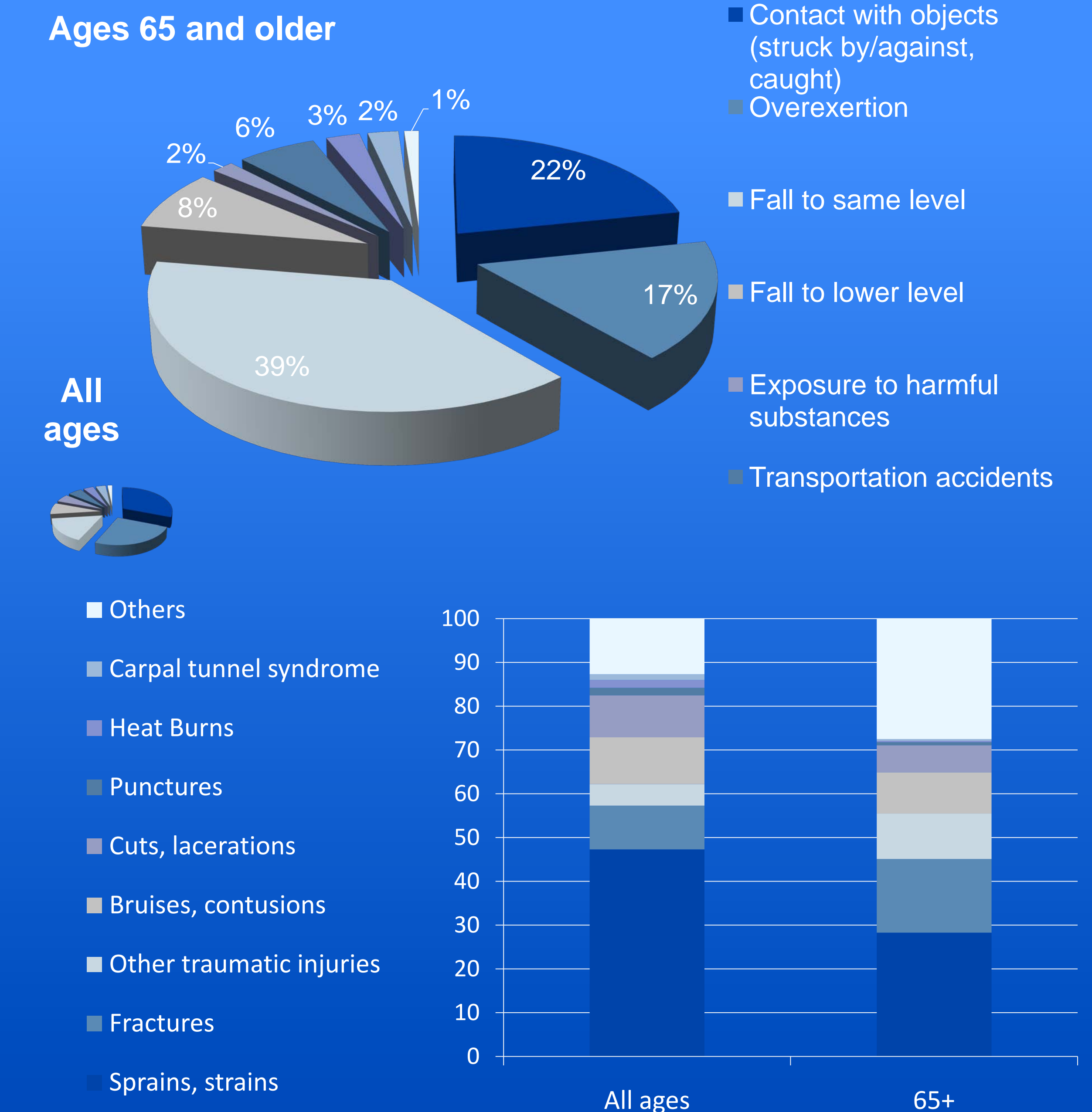
Older workers: High Median DAFW and Fatality



Retail Trade Has the Highest Percentage of Workplace Homicides



Older Workers have a High Risk of Fall/Fractures



WRT Subsectors with Highest Incidence Rates for Nonfatal Injury/Illness, 2008 (Private = 3.9)

Retail Trade Subsector	NAICS	Average Employee	Incidence Rate (per 100 FTE)
Pet and pet supplies	45391	100,500	7.9
Home centers	44411	664,000	7.0
Hobby, toy and game	45112	147,700	7.0
Warehouse clubs/Superstores	45291	1,151,500	6.4
Supermarkets and Other	44511	2,395,100	6.2
Tire dealers	44132	170,600	6.0

Wholesale Trade Subsector	NAICS	Average Employee	Incidence Rate (per 100 FTE)
Beer, wine, and distilled alcoholic beverage merchant wholesalers	4248	162,000	7.8
Jewelry, watch, precious stone	42393	116,800	7.3
Metal and mineral merchant wholesalers	4235	133,100	6.6
Farm product raw material	4245	74,100	6.4
Grocery and related	4244	739,300	6.1