



A look back...
Protecting the health of workers:
IWH research and
policy and practice in Ontario

Cameron Mustard
2022 Alf Nachemson Memorial Lecture

Founding IWH: The Backstory



Robert (Bob) Elgie

1929-2013

Minister of Labour: 1978-1981

Chair, Ontario Workers' Compensation Board: 1985-1991

"He was smart, courteous, with a great sense of humour and great warmth. No one reflected the traditions of progressive conservatism more than Bob Elgie. I loved the guy."

Bob Rae, former NDP Premier of Ontario

"One of the most brilliant and compassionate MPPs Queen's Park has ever known."

Steve Paikin, The Agenda, TVO

Five themes, 2000-2020

Work-related harms to health

Employers' investments in OHS

Organized labour and the tripartite governance of OHS

OHS regulatory standards and enforcement

Reform and innovation at the WSIB

Old epidemiologists never die....

Old epidemiologists never die....

they just become totally confounded

Old epidemiologists never die....

they just become totally confounded

they just lose power

Old epidemiologists never die....

they just become totally confounded

they just lose power

they just reach their confidence limits

Old epidemiologists never die....

they just become totally confounded

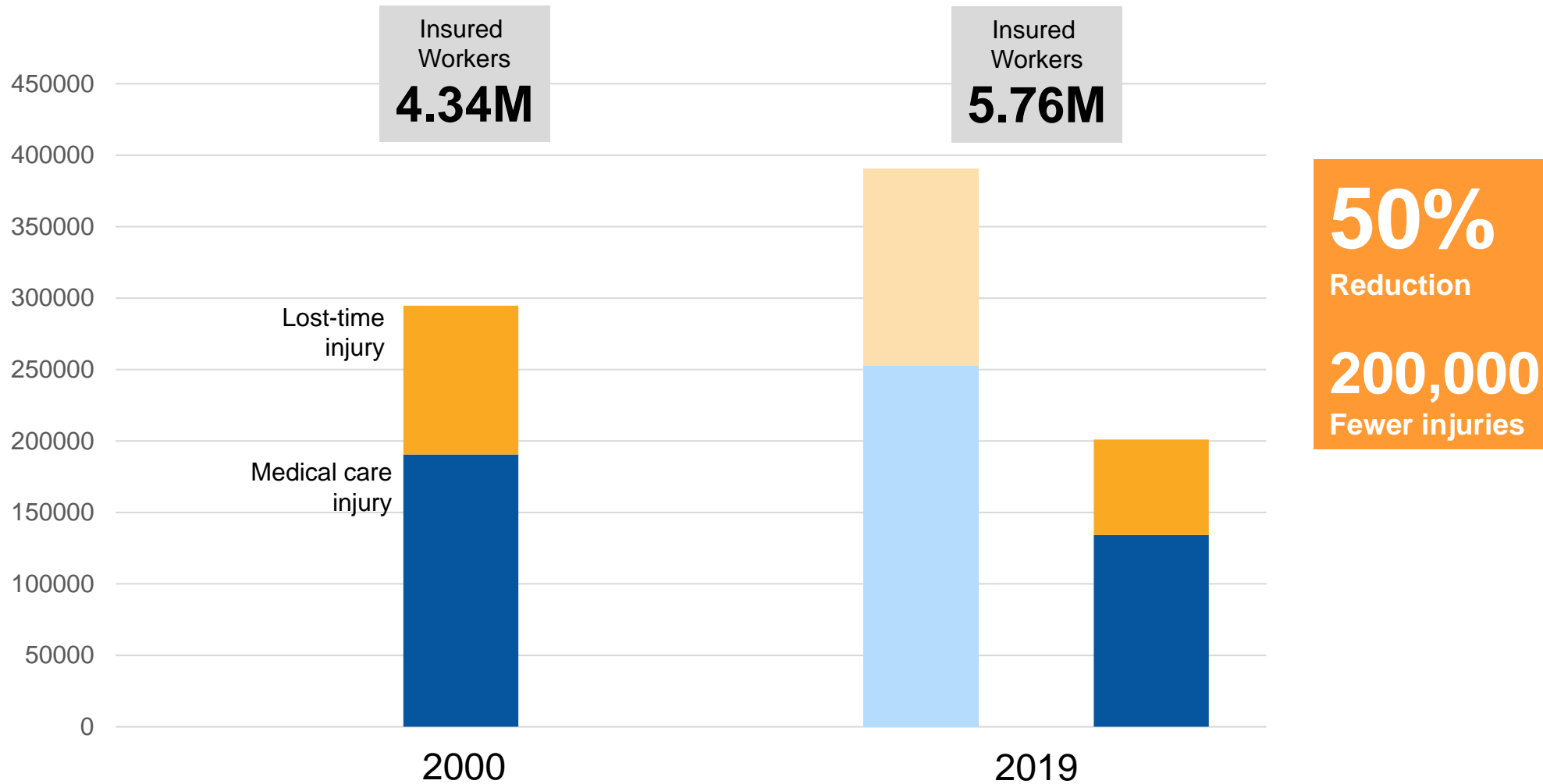
they just lose power

they just reach their confidence limits

they just don't count anymore

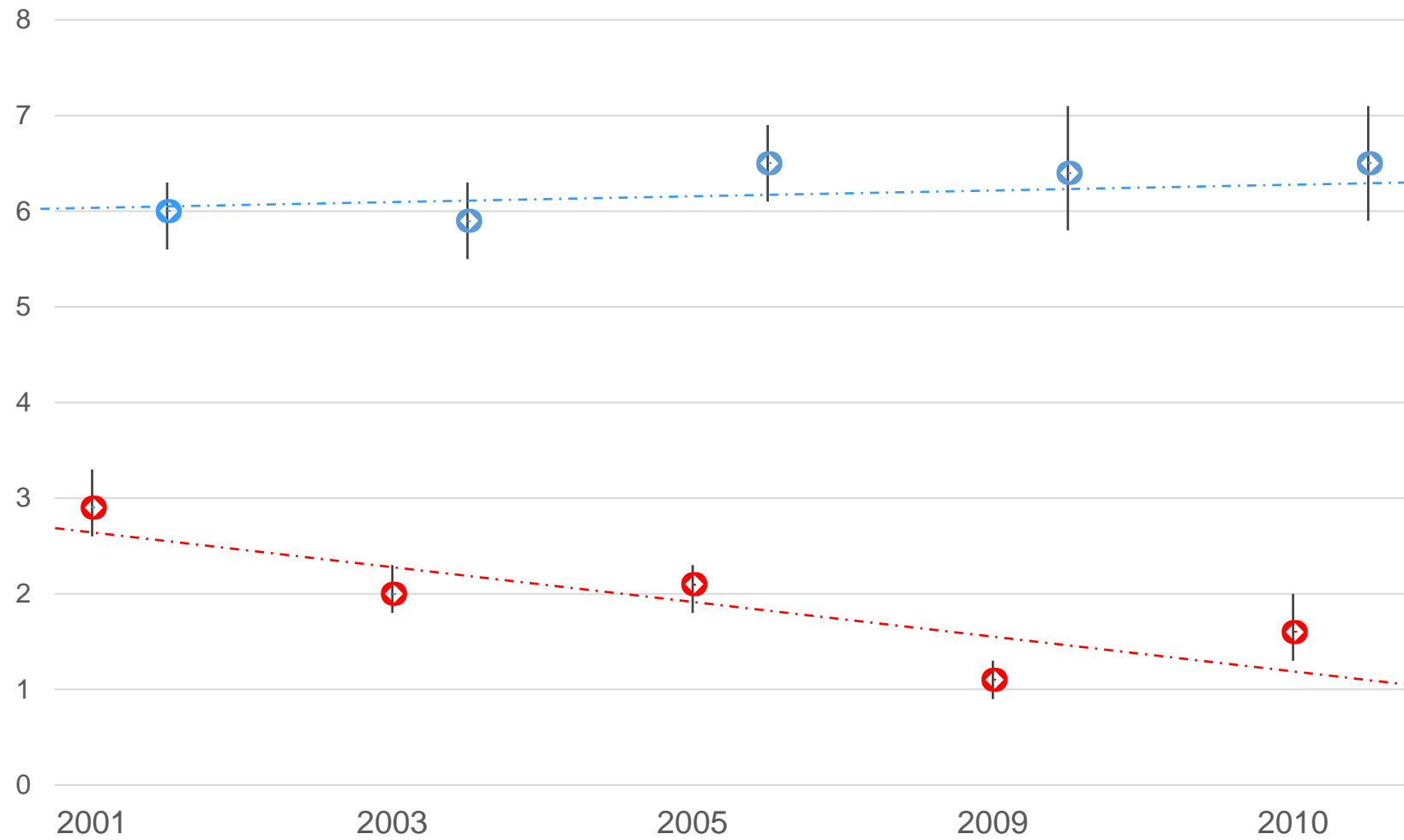
A substantial reduction in work-related harms to health over the past 20 years

Compensation claim frequency, 2000 vs 2019 Ontario



Annual percent change in self-reported incidence of medically-attended injuries among adults aged 15-64, by Occupational and Nonoccupational cause, Ontario 2001-2010, Canadian Community Health Survey

Rate per 100 person-years

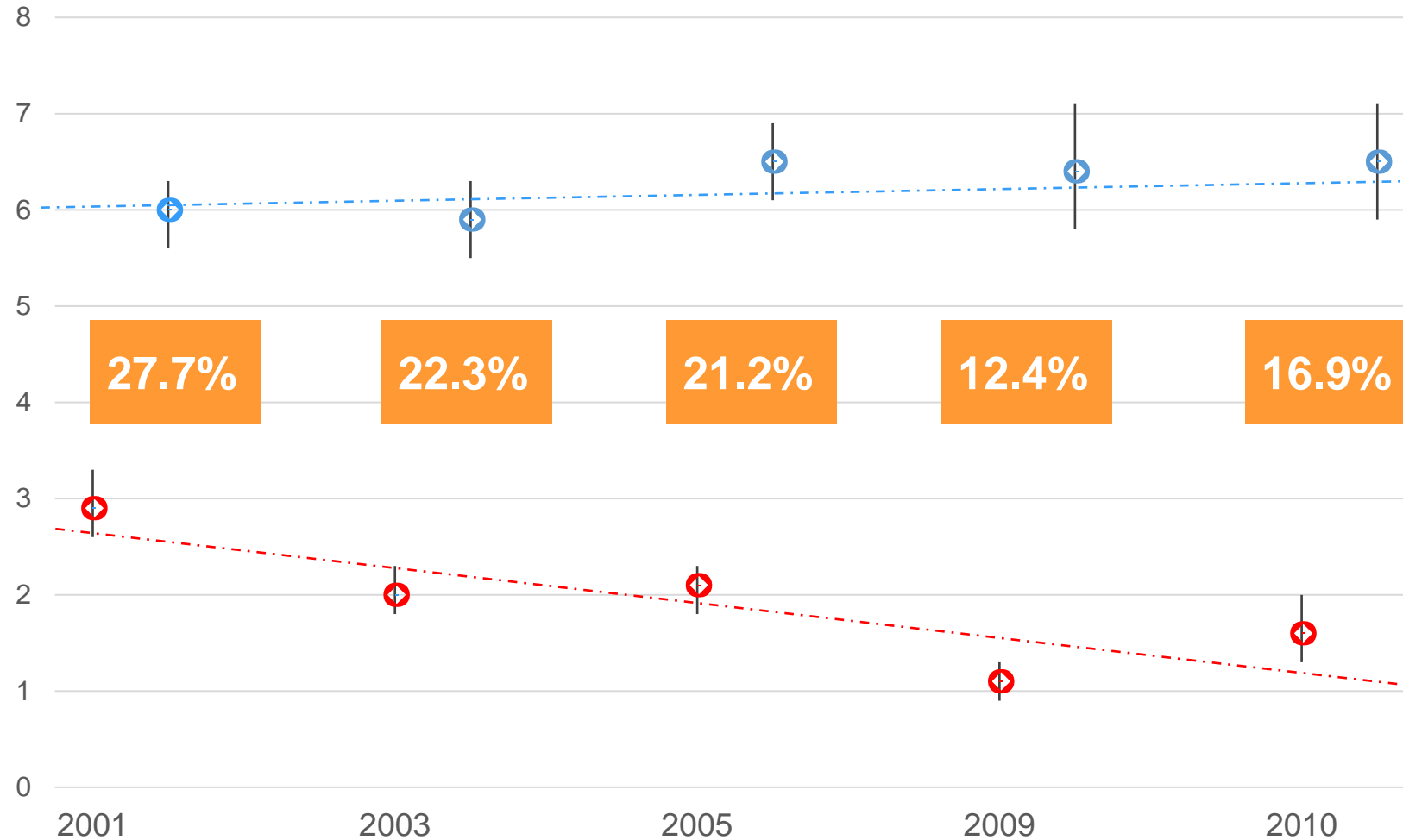


Nonoccupational Injury
Annual Percent Change
+1.0

Occupational Injury
Annual Percent Change
-7.4

Annual percent change in self-reported incidence of medically-attended injuries among adults aged 15-64, by Occupational and Nonoccupational cause, Ontario 2001-2010, Canadian Community Health Survey

Rate per 100 person-years



Nonoccupational Injury
Annual Percent Change

+1.0

Occupational Injury
as a percent of total

Occupational Injury
Annual Percent Change

-7.4

Annual Percent Change in Occupational and Nonoccupational Injury among adults aged 15-64 years, by external cause, Ontario 2004-2011

Cause of Injury	Nonoccupational Injury Annual Percent Change (95% CI)			Occupational Injury Annual Percent Change (95% CI)		
	APC	Lower CI	Upper CI	APC	Lower CI	Upper CI
Motor vehicle occupant	-3.56	-4.16,	-2.95	-4.39	-5.36,	-3.41
Fall	0.82	0.06,	1.60	-3.48	-4.98,	-1.95
Inanimate mechanical force	-0.78	-1.11,	-0.45	-7.01	-8.53,	-5.47
Overexertion	-1.28	-1.65,	-0.91	-5.96	-7.38,	-4.51
Total, all external causes	-0.25	-0.44,	-0.04	-5.95	-7.30,	-4.57

Data are from emergency department records from the National Ambulatory Reporting System
Bold APC values represent statistically significant changes.

Employer OHS expenditures are substantial

Employer expenditure on health and safety per worker per year for 17 sectors, Ontario 2017

Employers with 20 or more employees	N	Average expenditure per worker per year
Mining, Quarrying, and Oil and Gas Extraction	5	\$4,432.90
Construction	30	\$3,625.93
Utilities	7	\$3,335.41
Manufacturing	50	\$1,515.47
Agriculture, Forestry, Fishing and Hunting	5	\$890.03
Goods Producing Sectors	97	\$2,417.67
Transportation and Warehousing	17	\$1,326.29
Health Care and Social Assistance	37	\$1,021.47
Public Administration	20	\$996.36
Other Services (except Public Administration)	7	\$935.59
Management /Administration of Enterprises	12	\$902.62
Professional, Scientific, and Technical Services	24	\$858.43
Finance and Insurance, Real Estate	17	\$819.28
Accommodation and Food Services	19	\$732.70
Wholesale Trade	18	\$719.88
Retail Trade	47	\$636.32
Educational Services	12	\$630.92
Arts, Entertainment, and Recreation	7	\$583.73
Service Sectors	237	\$846.51
Total	334	\$1,302.80

OHS expenditures in the Ontario manufacturing sector: **\$1,500** per worker per year



Organized labour is a powerful driver of positive change

Tripartite governance of OHS in Canada is a strength

Expert Advisory Committee on Occupational Health and Safety
(the Dean Report), December 2010

Mining Health, Safety and Prevention Review, 2013-2015

Workplace Violence Prevention in Health Care Leadership Table
MOHLTC/MOL, 2015-2017

Preventing Workplace Violence: Bill 168

Bill 168 became law on June 15, 2010, an amendment to the Occupational Health and Safety Act. The changes strengthen protections for workers from workplace violence and workplace harassment. Bill 168 requires employers to have policies and programs in place to deal with workplace violence, workplace harassment and domestic violence that may occur in the workplace.

“Workplace violence” means:

- the exercise of physical force by a person against a worker, in a workplace, that causes or could cause physical injury to the worker;
- an attempt to exercise physical force against a worker, in a workplace, that could cause physical injury to the worker;
- a statement or behaviour that it is reasonable for a worker to interpret as a threat to exercise physical force against the worker, in a workplace, that could cause physical injury to the worker.

Preventing Workplace Violence: Bill 168

OHS regulatory standards and enforcement are effective

Randomized Government Safety Inspections Reduce Worker Injuries with No Detectable Job Loss

David I. Levine,¹ Michael W. Toffel,^{2*} Matthew S. Johnson³

Controversy surrounds occupational health and safety regulators, with some observers claiming that workplace regulations damage firms' competitiveness and destroy jobs and others arguing that they make workplaces safer at little cost to employers and employees. We analyzed a natural field experiment to examine how workplace safety inspections affected injury rates and other outcomes. We compared 409 randomly inspected establishments in California with 409 matched-control establishments that were eligible, but not chosen, for inspection. Compared with controls, randomly inspected employers experienced a 9.4% decline in injury rates (95% confidence interval = -0.177 to -0.021) and a 26% reduction in injury cost (95% confidence interval = -0.513 to -0.083). We find no evidence that these improvements came at the expense of employment, sales, credit ratings, or firm survival.

Levine DI, Toffel MW, Johnson MS. Randomized government safety inspections reduce worker injuries with no detectable job loss.

Science.

2012 May 18;336(6083):907-11.

doi: 10.1126/science.1215191

Preventing falls-from-heights

A regulatory training standard for construction workers using fall protection equipment became mandatory in 2015 in the province of Ontario, Canada. By the end of the transition period in 2017, **418,000 workers** had been trained to the new standard.

Learners self-reported substantial increases in knowledge of and improvements in safe work practices when working at heights. The incidence rate of lost-time claim injuries attributed to falls targeted by the training **declined by 19.6%** (95% CI: 10.7, -27.6), compared to corresponding declines of 2.1% (95% CI: -6.3, 9.9) for other fall injuries and 7.2% (95% CI: 1.8, 12.3) for non-fall traumatic injuries. The observed decline was largest among the smallest employers (<5 full-time equivalent employees).



OSHA says IWH review confirms effectiveness of OHS enforcement

December 2015

Sometimes, research evidence is used by policy-makers to shape new policy. And other times, research is used to confirm a policy direction. This second purpose,—the “supportive” use of research—is evident in **the recent decision of the U.S. Occupational Safety and Health Administration (OSHA) to strengthen its enforcement practices**. OSHA pointed to the findings of a systematic review by the Institute for Work & Health (IWH) to support its focus on inspections and penalties.

In the November 2, 2015 edition of OSHA’s bi-monthly e-newsletter, OSHA QuickTakes, OSHA Assistant Secretary Dr. David Michaels referred to a systematic review led by IWH Senior Scientist Dr. Emile Tompa on the effectiveness of enforcement interventions. The review found strong evidence that regulatory health and safety inspections that result in a citation or penalty are effective in reducing work-related injuries, and that general deterrence—the mere chance that employers may get inspected one day—is not as effective.

Innovation and reform at the Workplace Safety & Insurance Board

New Service Delivery Model 2008-2009

WSIB Funding Review 2010-2012

Funding Fairness: A report on Ontario's workplace safety and insurance system. H Arthurs

Rate framework reform: detailed design work 2015-2016

Elimination of the unfunded liability, 2018

Innovation and reform at the
Workplace Safety & Insurance Board

New Service Delivery Model (2008-2009)

For a decade, from 1999 to 2009, the proportion of disability episodes of long duration compensated by the WSIB steadily increased.

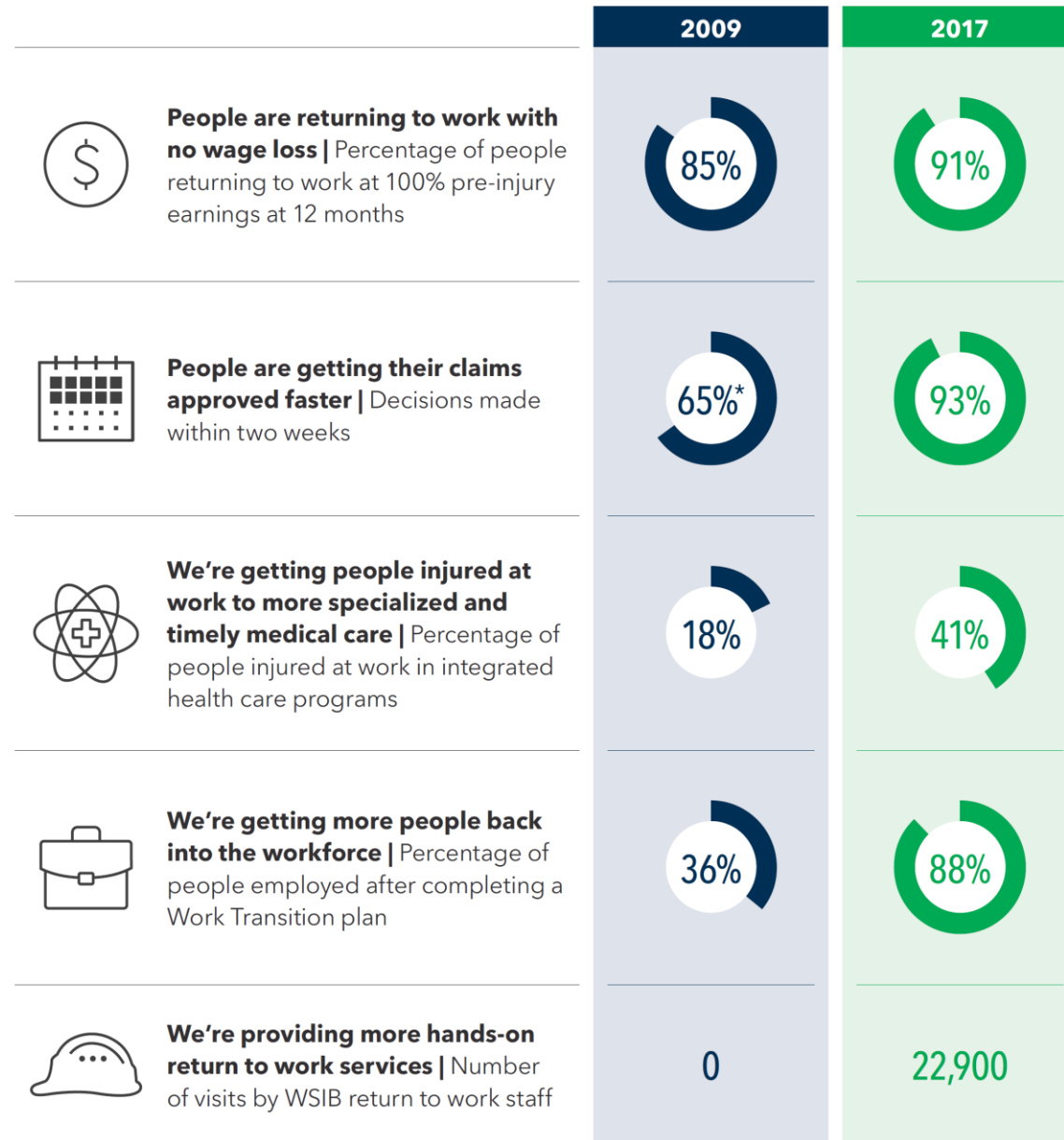
In 2008-2009, the WSIB introduced a new case management focus for the delivery of services to injured workers and their employers, with an emphasis on improving RTW outcomes, incorporating procedures based on the best evidence available. The model adopted a **case management framework**, created a new role, **RTW specialist**, when an injured worker and workplace are having difficulty developing an RTW plan, and emphasized processes to enable **timely first decisions**.

“We certainly relied on the Institute’s research,” Judy Geary, Vice President, Program Development, “Indeed, researchers from the IWH met regularly with WSIB staff during the design and development of the model to offer advice about the appropriate use of research evidence.”

From tipping point to turning point

How the WSIB eliminated the unfunded liability

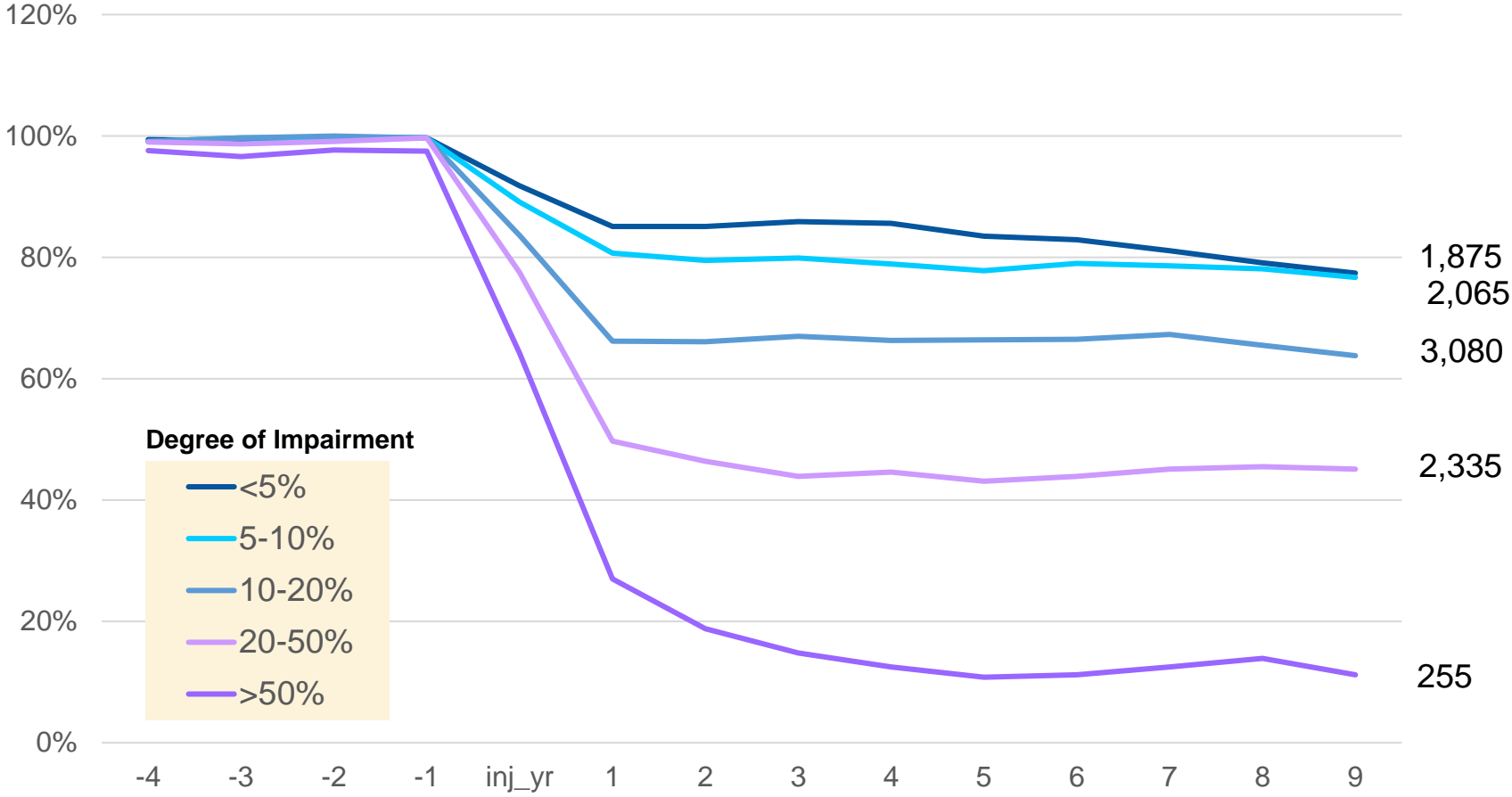
<https://www.wsib.ca/sites/default/files/2019-03/tippingpointtoturningpoint.pdf>



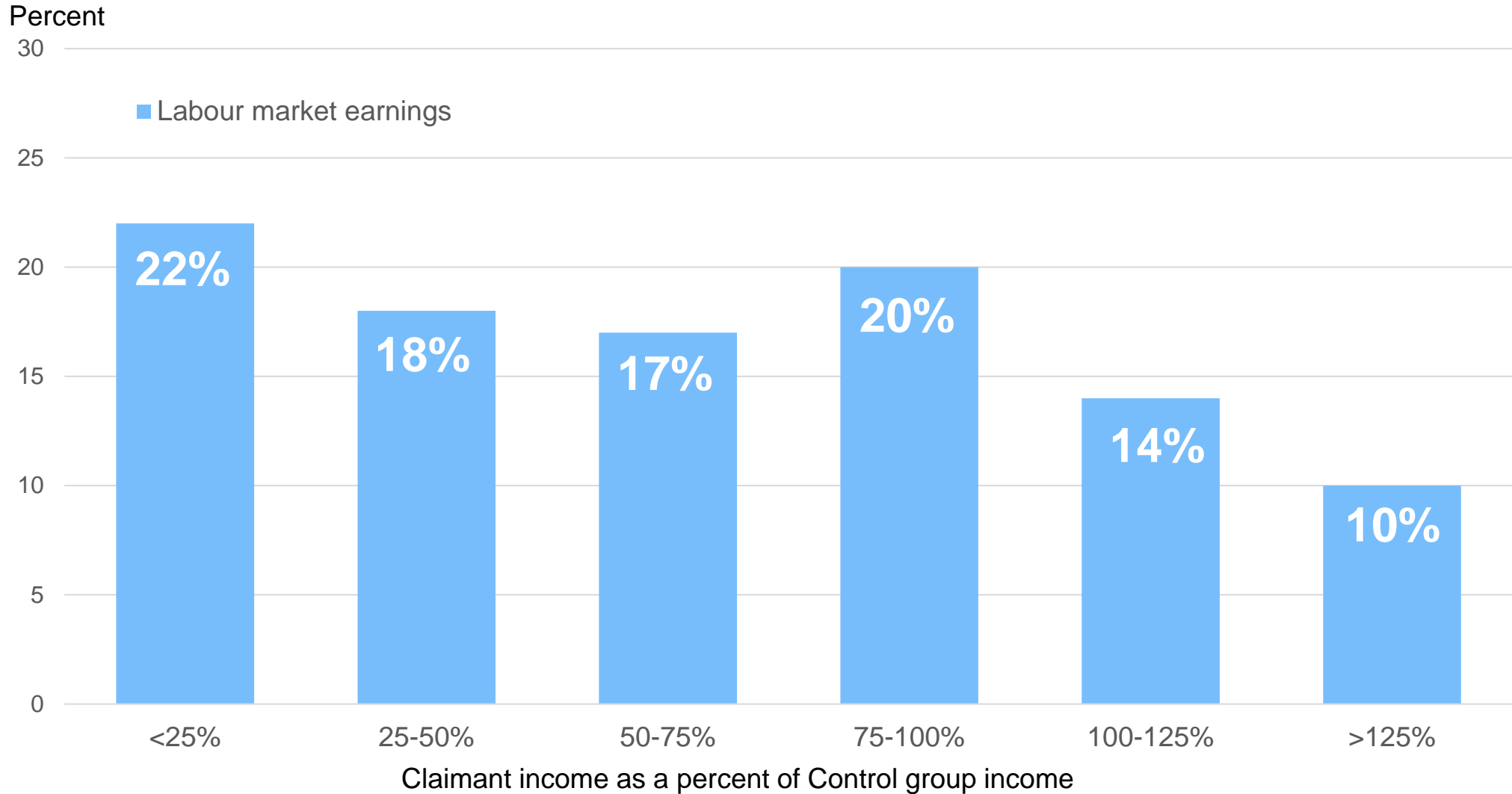
*2008 data

Labour market earnings: Workers with Permanent Impairments, Ontario 1998-2002

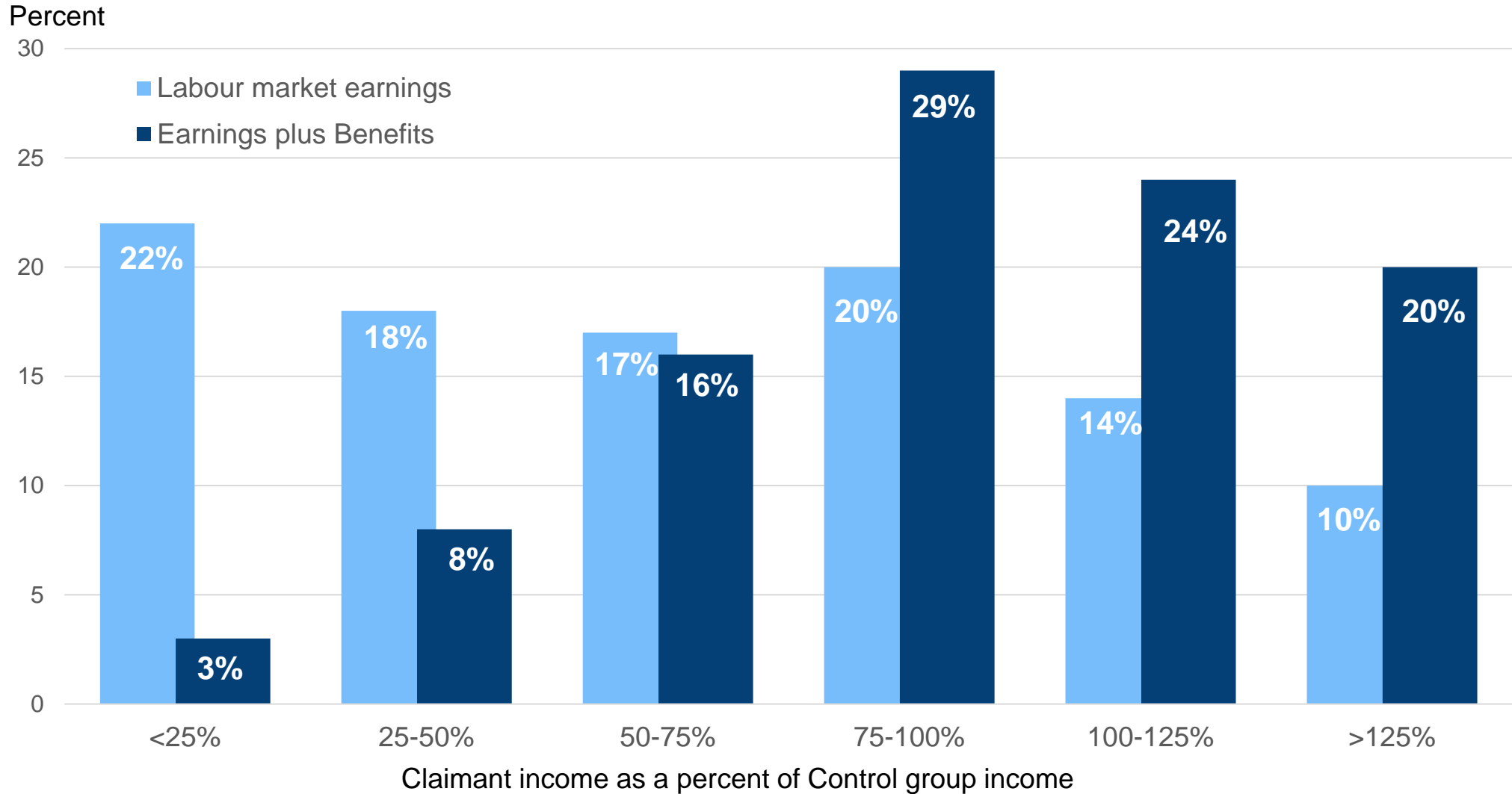
Labour market earnings as a percent of control earnings



Labour market earnings: Workers with Permanent Impairments, Ontario 1998-2002

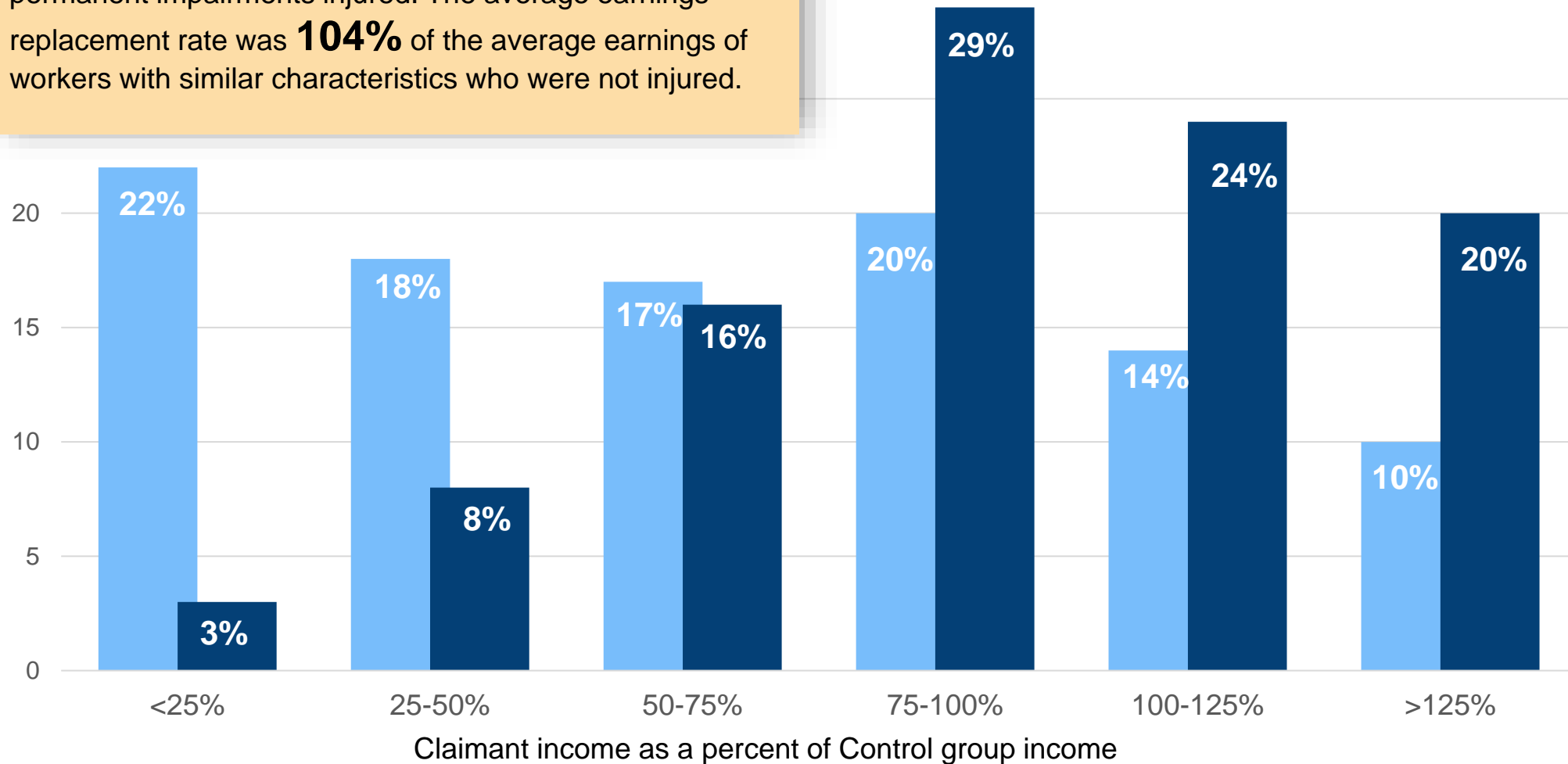


Labour market earnings, Earnings plus Benefits: Workers with Permanent Impairments, Ontario 1998-2002



Labour market earnings, Earnings plus Benefits: Workers with Permanent Impairments, Ontario 1998-2002

On average, workers' compensation benefits fully compensated for lost earnings among workers with permanent impairments injured. The average earnings replacement rate was **104%** of the average earnings of workers with similar characteristics who were not injured.



**Some final thoughts:
20 years in the same job!**



**Institute
for Work &
Health**

Research Excellence
Safe Work
Healthy Workers

Announcing ...

The Cameron Mustard Early Career Development Award

To be given annually to a Canadian early career researcher to help fund activities to help promote, develop and/or accelerate their research career.

More details to follow in late spring/early summer 2023

<https://www.iwh.on.ca/subscribe>

Keep up on evidence-based practices from IWH



Sign up online for our monthly e-alerts, our quarterly newsletter, event notifications and more: iwh.on.ca/subscribe



Follow @iwhresearch on Twitter:
twitter.com/iwhresearch



Connect with us on LinkedIn:
linkedin.com/company/institute-for-work-and-health



Subscribe to our YouTube channel:
youtube.com/iwhresearch