

MINNESOTA
SAFETY
COUNCIL
Chapter of the National Safety Council

Drive
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Work
SAFE

Live
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Teen Workers

Challenges preparing our next workforce

Ben Wood, JD, MS, CSP
Occupational Safety Manager

Helping Make Life Safer

Mission of Safety

Return our kids home to us.

What is your primary mission within your safety program?

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Number of Youth Workers (16-24 YOA)

Center for Disease Control (NIOSH)

“In 2021, there were about 18.9 million workers under the age of 25”.

12.4% of the total workforce

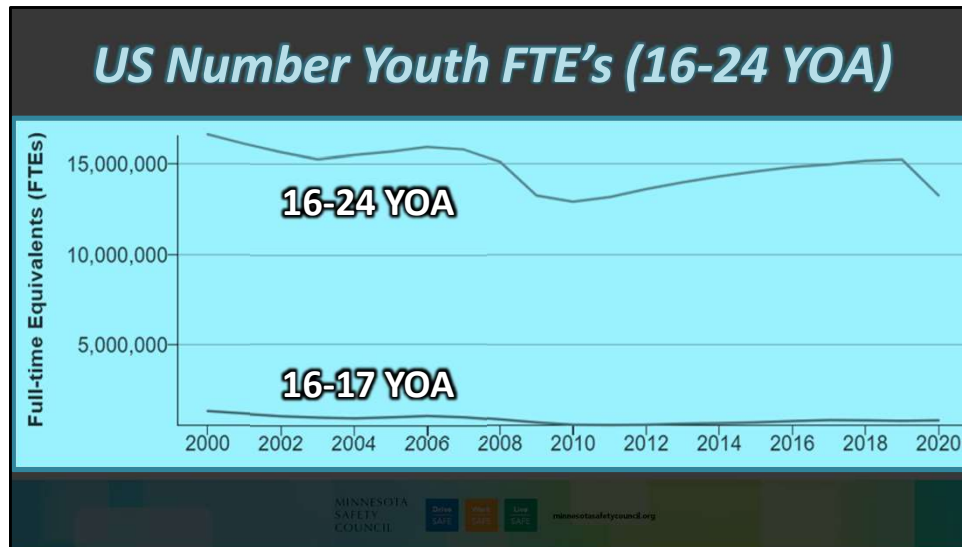
*“On average, adolescents/young adults represent approximately **13% of the U.S. workforce**”.*

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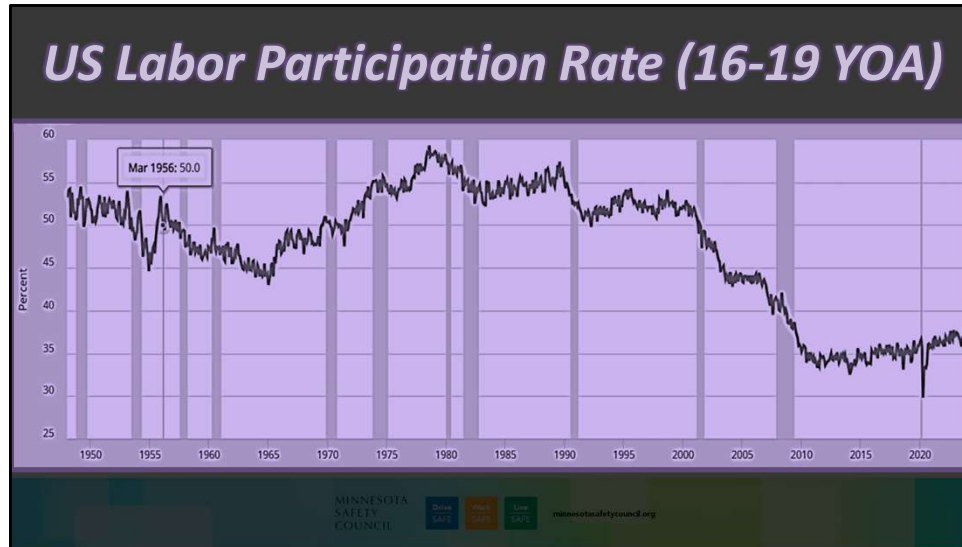
CDC: <https://www.cdc.gov/niosh/topics/youth/default.html>



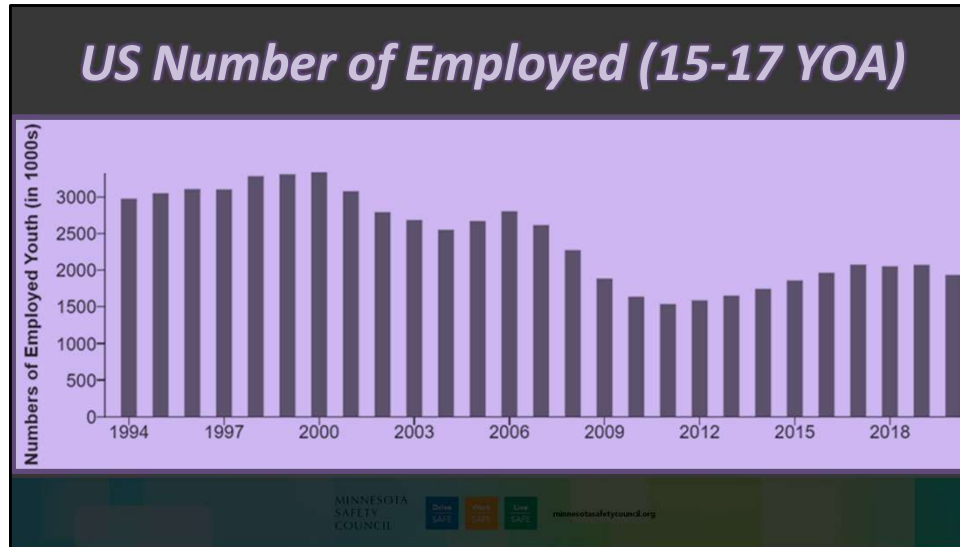
CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfiga.html>



FRED: <https://fred.stlouisfed.org/series/LNS11300036>



FRED: <https://fred.stlouisfed.org/series/LNS11300012>



CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfig2.html>

Number of Youth Workers (16-24 YOA)

***Which month has the highest rates of
employment for young workers ?***

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OSHA Letter of Interpretation (September 19, 2023): <https://www.osha.gov/laws-regs/standardinterpretations/2023-09-19>

Number of Youth Workers (16-24 YOA)

US Bureau of Labor Statistics (2023)

“In July 2023, 21.6 million were employed”.

55%

“Between April and July, the number of employed youth rose by 1.4 million, or 6.9%”.

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BLS: <https://www.bls.gov/news.release/pdf/youth.pdf>

US Bureau of Labor Statistics - *“July 2023 remains below its level of 56.2% in July 2019, prior to the coronavirus pandemic”.*

Number of Youth Workers (16-24 YOA)

Table 2. Employment of Civilian Population (1000s) (16-24 YOA)

Employment status, sex, race, and Hispanic or Latino ethnicity	July 2020	July 2021	July 2022	July 2023
TOTAL				
Civilian noninstitutional population	37,472	37,250	37,954	39,342
Civilian labor force	21,479	22,522	22,943	23,681
Participation rate	57.3	60.5	60.4	60.2
Employed	17,507	20,268	20,992	21,623
Employment-population ratio	46.7	54.4	55.3	55.0
Unemployed	3,973	2,254	1,951	2,059
Looking for full-time work	2,651	1,697	1,415	1,437
Looking for part-time work	1,321	557	536	621
Unemployment rate	18.5	10.0	8.5	8.7
Not in labor force	15,993	14,728	15,011	15,660

BLS: <https://www.bls.gov/news.release/youth.t02.htm>

Where are they?

US Teens Employed (Summer 2021)

- **Food-Service**
- **Retail/Customer Service**
- **Transportation**
- **Office/Administrative**
- **Building/Grounds**
- **Personal Care/Service**



PEW Research Center: <https://www.pewresearch.org/short-reads/2022/06/21/after-dropping-in-2020-teen-summer-employment-may-be-poised-to-continue-its-slow-comeback/>

- Retail/Customer Service
- Barista
- Mowing lawns/landscaping
- Babysitting
- Tutoring/Coaching
- Lifeguard
- Summer Camp Counselor
- Graphic design
- Survey taker

Hurting Our Kids

US Bureau of Labor Statistics (2023)

*“Approximately 70 teen workers
are killed every year”.*

96 Deaths (< 20 YOA) (2022)

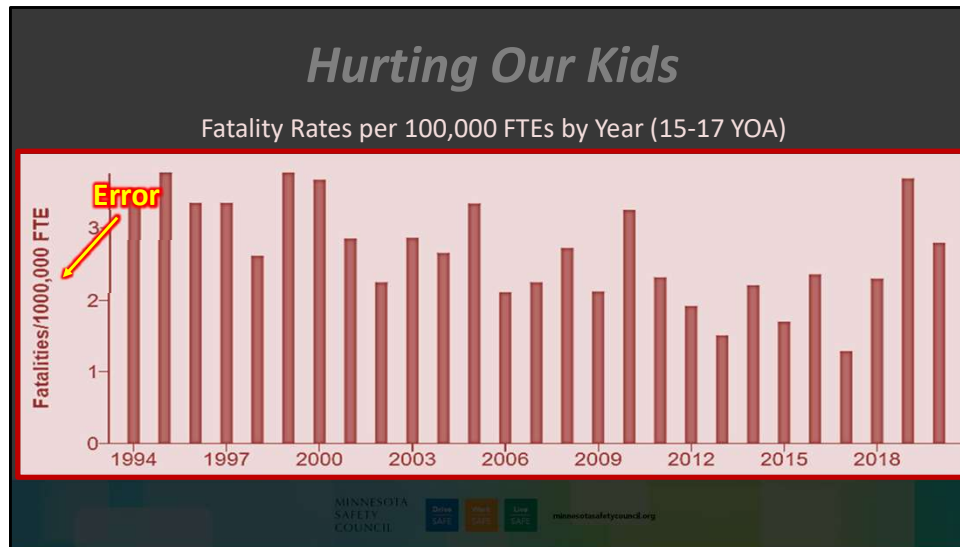
19 Deaths (< 18 YOA) (2022)

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BLS: <https://www.bls.gov/news.release/pdf/cfoi.pdf>



Generally, fatality rate for youth is not consistently higher or lower compared to overall.

CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfig7.html>

CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfig5.html>

Hurting Our Kids

US Dept. of Labor (2023)

***“Every five minutes, a teen (15-19 YOA) is treated
in a hospital emergency department for a
workplace injury”.***

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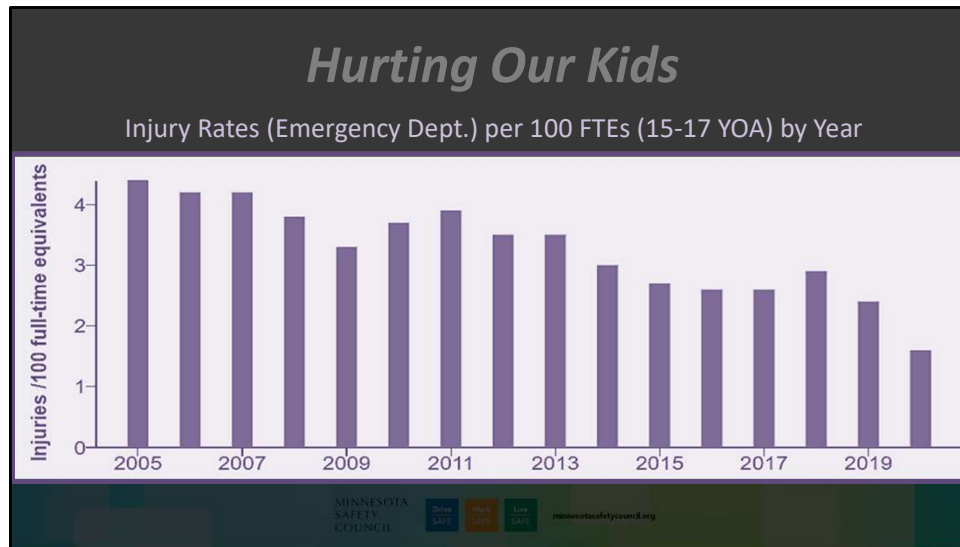
BLS: <https://www.bls.gov/news.release/pdf/youth.pdf>



Injury rates are highest in 18-19 YOA workers

CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfig8.html>

BLS: <https://www.bls.gov/news.release/pdf/cfoi.pdf>



Generally, similar to other age groups, rates of injury are decreasing ...however
CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfig9.html>

Hurting Our Kids

Center for Disease Control (NIOSH) (2020)

“From 2012 to 2018, annual rates of work-related injuries treated in emergency depts. declined across all age groups”.

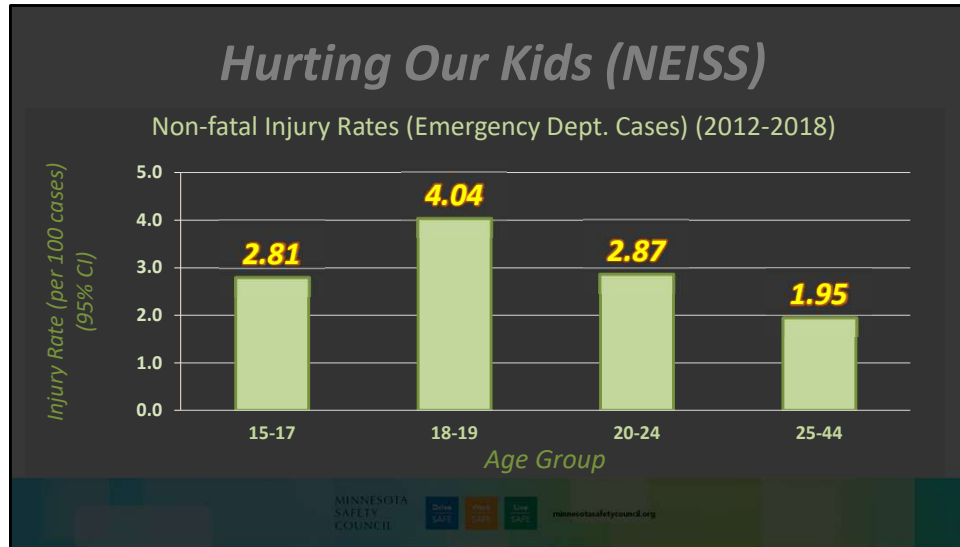
*“Rates for youth workers (15-24 YOA) were **1.2 to 2.3 times higher** than rates for adult workers (25-44 YOA)”.*

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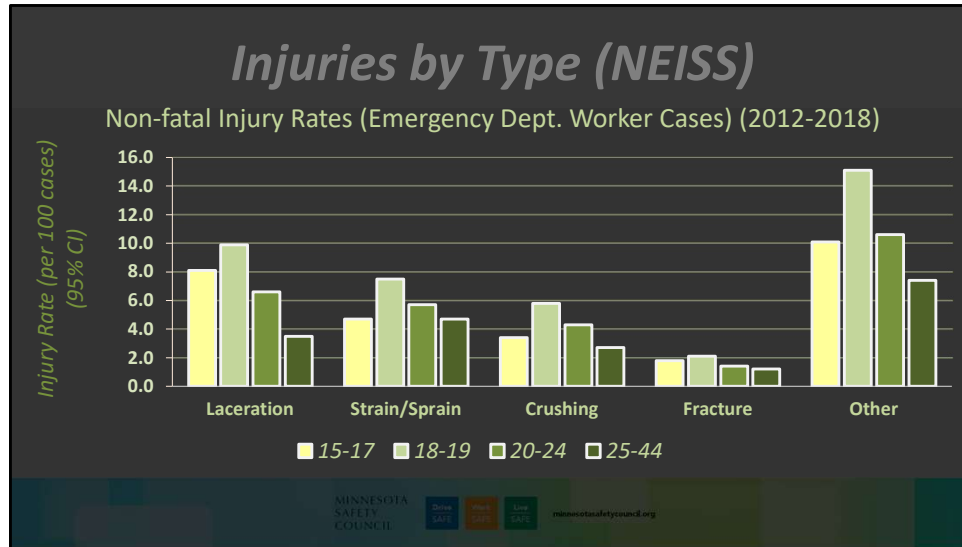


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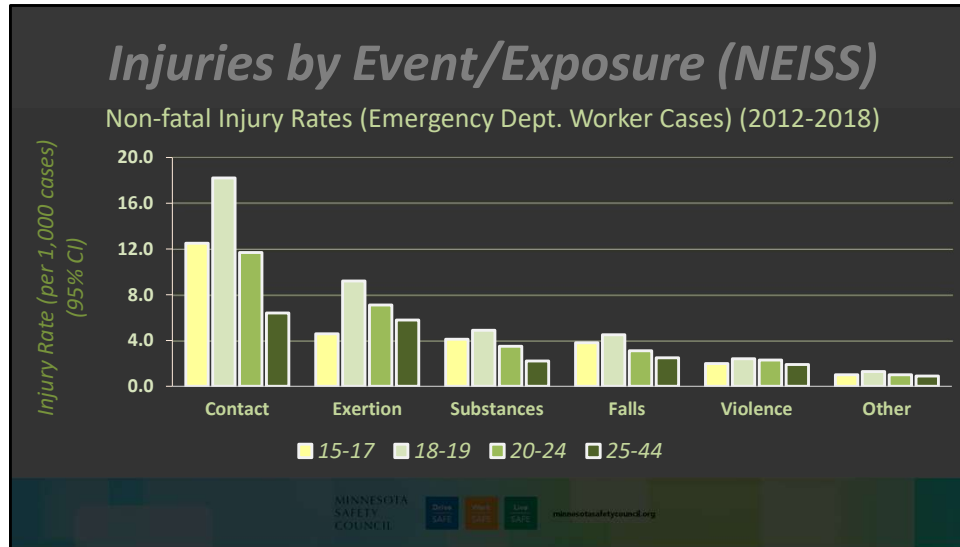
CDC: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a3.htm>



National Electronic Injury Surveillance System (Occupational Supplement)
CDC: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a3.htm>



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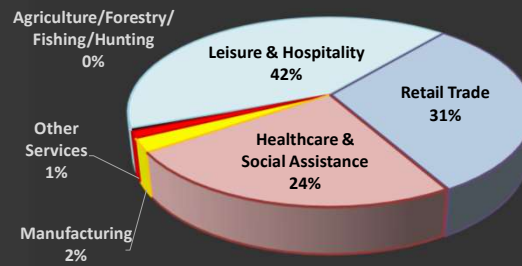
Injuries by Industry

**Highest percentage of
“days away” injuries to
workers (15-17 YOA):**

- **Hospitality**
- **Food-service**

**56% of injuries result
in days away!**

*Days Away Injuries by Sector (2020)
(Workers 15-17 YOA)*



CDC: <https://www.cdc.gov/niosh/topics/youth/chtpkgfig10.html>

US DOL: <https://www.dol.gov/agencies/oasp/empowering-teen-workers>

Workplace Violence

Center for Disease Control (September 2022)

Between 2015 and 2019, over 20% of workplace homicide victims worked in sales/retail occupations.

Convenience Stores

Retail Stores

Shopping Malls

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<https://blogs.cdc.gov/niosh-science-blog/2022/09/07/workplace-violence-indicators/>

Teens are Different ...

American Academy of Child & Adolescent Psychiatry (2017)

“Adolescents differ from adults in the way they behave, solve problems, and make decisions”.

“Is it circumstantial, or are teens more susceptible to getting hurt”?

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AACAP: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.

It's Nature ...

American Academy of Child & Adolescent Psychiatry (2017)

*“Studies have shown that
brains continue to mature and
develop throughout childhood
and adolescence and well into
early adulthood”.*



Amygdala

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Amygdala: Responsible for immediate reactions (e.g. fear; aggression) – Develops early

Corpus Callosum; Cerebellum; Medula Oblongata

AACAP: [https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-](https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.)

[095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.](https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.)

It's Nature ...

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Frontal Cortex

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Frontal Lobe: Responsible for reasoning and consequences– Develops later

AACAP: [https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-](https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.)

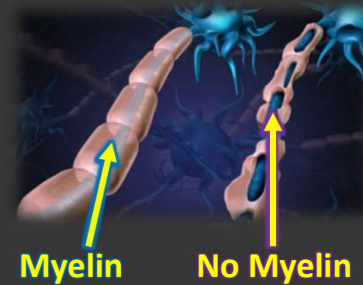
[095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.](https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.)

It's Nature ...

American Academy of Child & Adolescent Psychiatry (2017)

*During adolescence, our brains
are developing ...*

- Neuro-connections
- Brain-pathways
- Myelin
- Coordinated thought



Myelin: Insulating layer over cells that help communicate

AACAP: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.

... AND Nurture

CareerForce (2023)

"Teens don't have as much...":

- *Work experience*
- *Life experience*

"Less likely to recognize that something they're doing is dangerous".



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Teens Are More Likely ...

American Academy of Child & Adolescent Psychiatry (2017)

Misread social cues

Misinterpret emotions

Respond emotionally

Respond inappropriately

Act without thinking

Act on impulse



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AACAP: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.

Teens Are More Likely ...

AACAP (2017)

Engage in risky behavior

Get into accidents

Become seriously injured

Not alter inappropriate behaviors

Not change dangerous behaviors



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AACAP: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Teen-Brain-Behavior-Problem-Solving-and-Decision-Making-095.aspx#:~:text=Adolescents%20differ%20from%20adults%20in,and%20well%20into%20early%20adulthood.

Contributing Factors at Work

Work-life balance

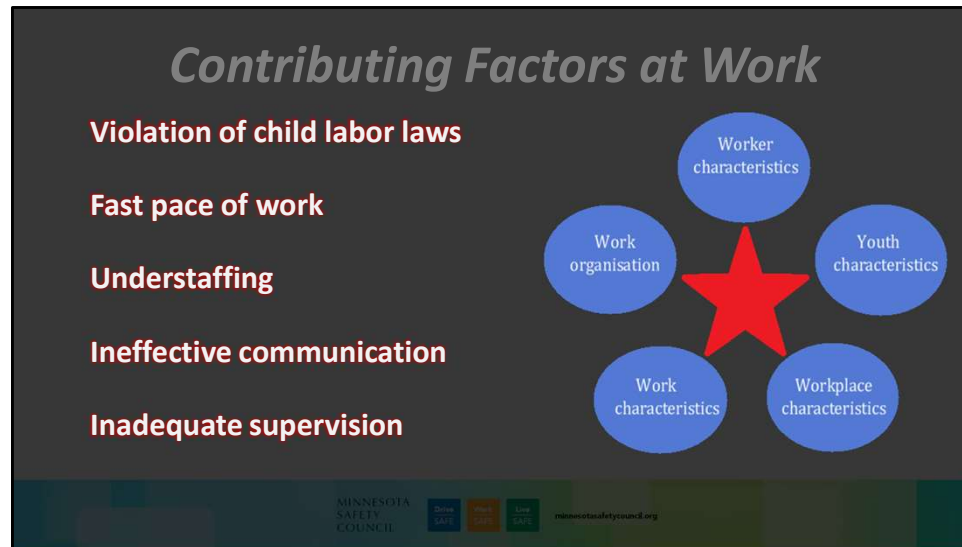
New job/First job

Lack of "work-readiness"

Lack of skills/experience

Lack of training/mentoring





Anne Salmi (Finland): “Factors Contributing to increased occupational health and safety risks of young workers”
Research Gate: https://www.researchgate.net/figure/Factors-contributing-to-increased-occupational-health-and-safety-risks-of-young-workers_fig1_263704143

Working Alone

StaySafe (2021)

According to a survey of 478 companies ...

Two out of three reported experiencing a “lone-worker”
incident within the past three years.

One of every five described as
‘quite severe’ or ‘very severe’.

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<https://staysafeapp.com/resources/the-lone-worker-landscape-report/>
325 Companies
64 Severe

OSHA



Are there requirements?

Prohibited Employment

Which of the following job-activities is a 17 YOA employee allowed to do?

Work as an “uber” driver

Operate a chop-saw

Remove leaves from a rooftop

Operate a dough-mixer

Operate a cardboard bailer

Operate a meat-slicer

Operate a shopping cart trolley

Operate a forklift

OSHA Letter of Interpretation (September 19, 2023): <https://www.osha.gov/laws-regs/standardinterpretations/2023-09-19>

Particularly Hazardous Employment

29 CFR 570 Subpart E – Prohibited Employment (<18 YOA)

Power-driven Machinery & Equipment

Motor Vehicles	Forklifts/PITS
Wood-working	Lifts & Hoists
Metal-working	Bailers/Compactors
Meat-processing	Paper-product
Saws, Shears, Cutters	Bakery



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US DOL: <https://www.ecfr.gov/current/title-29/subtitle-B/chapter-V/subchapter-A/part-570/subpart-E>

NOTE: Specific criteria provided for each

NOTE: Additional restrictions for 14-15 YOA workers

NOTE: Differing restrictions for “Agriculture” farming

NOTE: Accommodations for “student-learning”, “work-study”, “vocational/apprenticeships”

Particularly Hazardous Employment

29 CFR 570 Subpart E – Prohibited Employment (<18 YOA)

Hazardous Work Activities

Meat-processing	Logging/Forestry
Brick/Tile Mfg.	Demolition/Wrecking
Mining	Excavation
Radioactive Mats.	Rooftop (On/About)
Explosives/Ammunition	



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US DOL: <https://www.ecfr.gov/current/title-29/subtitle-B/chapter-V/subchapter-A/part-570/subpart-E>

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Prohibited Employment

Minn. Rul. 5200.0910 – Prohibited Employment (<18 YOA)

Machinery & Equipment

- Motor Vehicles*
- Power-driven Machinery
- Non-automatic Lifts/Hoists
- Railroads
- Amusement Park Machinery



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MN DOLI: <https://www.revisor.mn.gov/rules/5200.0910/>

NOTE: Specific criteria provided for each

NOTE: Additional restrictions for 14-15 YOA workers (Minn. Rul. 5200.0920)

NOTE: Differing restrictions for “Agriculture” farming (Minn. Rul. 5200.0930)

NOTE: Accommodations for “student-learning”, “work-study”, “vocational/apprenticeships”

Prohibited Employment

Minn. Rul. 5200.0910 – Prohibited Employment (<18 YOA)

Construction & Maintenance

- Construction/Building Projects
- Building Maintenance/Repair
- Window-washing
- Power-driven Machinery



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Prohibited Employment

Minn. Rul. 5200.0910 – Prohibited Employment (<18 YOA)

Hazardous Materials

- Hazardous Materials*
- Explosives/Pyrotechnics
- Liquor Served/Consumed*
- Oxyacetylene Welding



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MN DOLI: <https://www.revisor.mn.gov/rules/5200.0910/>

NOTE: Specific criteria provided for each

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NOTE: Differing restrictions for “Agriculture” farming (Minn. Rul. 5200.0930)

NOTE: Accommodations for “student-learning”, “work-study”, “vocational/apprenticeships”

Prohibited Employment

Minn. Rul. 5200.0910 – Prohibited Employment (<18 YOA)

Hazardous Activities

- Mines/Quarries
- Logging/Lumbering
- Sawmills/Papermills
- Lifeguards
- Dangerous Entertainment



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MN DOLI: <https://www.revisor.mn.gov/rules/5200.0910/>

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NOTE: Additional restrictions for 14-15 YOA workers (Minn. Rul. 5200.0920)

NOTE: Differing restrictions for “Agriculture” farming (Minn. Rul. 5200.0930)

NOTE: Accommodations for “student-learning”, “work-study”, “vocational/apprenticeships”

“Be Safe!”

“Be Careful!”

“Be Aware of your surroundings”.

“Use common sense”.

How do you help young workers grow to understand safety?

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#1 - Remember ...

CareerForce (2023)

"Teens don't have as much...":

- *Work experience*
- *Life experience*

"They are less likely to recognize that something they're doing is dangerous".

"Common Sense"



Goals/Skills Inventory

Career Force: <https://www.careerforcemn.com/working-teens>

#2 – Prepare for the Future

CareerForce (2023)

*“What skills can teens learn
at your workplace that will
help them later in life?”*

*“What advice can you offer
them?”*



Goals/Skills Inventory

Career Force: <https://www.careerforcemn.com/working-teens>

#2 – “Teaching” vs. “Training”

OSHA (2023)

“Remember that young workers are not just ‘little adults’”.

“You must be mindful of the unique aspects of communicating with young workers, ...”.



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OSHA: <https://www.osha.gov/young-workers/employer-responsibilities>

#3 - Mentoring

CareerForce (2023)

“Implement a mentoring or buddy system for new young workers”.



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OSHA: <https://www.osha.gov/young-workers/employer-responsibilities>

“Have an adult or experienced young worker answer questions and help the new young worker learn the ropes of a new job”.

CareerForce: <https://www.careerforcemn.com/working-teens>

“Nothing takes the place of a supervisor spending one-on-one time with a teen worker to make sure they understand what they’re supposed to be doing and know they play an important role in the organization”

#4 – Protect them from themselves

OSHA (2023)

“Ensure that equipment operated by young workers is both legal and safe for them to use”.

“Label equipment that young workers are not allowed to operate”.



OSHA: <https://www.osha.gov/young-workers/employer-responsibilities>

#4 – Protect them from themselves

OSHA (2023)

“Ensure that equipment operated by young workers is both legal and safe for them to use”.

“Label equipment that young workers are not allowed to operate”.



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OSHA: <https://www.osha.gov/young-workers/employer-responsibilities>
Color-coded uniforms, shirts, vests, hats, hard-hats, ID badges

#5 – Supervision Never Ends

CareerForce (2023)

“Even though teens may be restricted from using some of the most dangerous equipment in your workplace, ...”

“... they still need full safety training and ongoing safety reminders”.



Career Force: <https://www.careerforcemn.com/working-teens>

#6 – Provide Helpful Feedback

CareerForce (2023)

“When teen workers are doing their job well, make sure they - and their co-workers - know it”.

Carol Dweck
“Praising Intelligence”



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Career Force: <https://www.careerforcemn.com/working-teens>

#7 – Involve Their Families

Jeylan T. Mortimer, Ph.D., Professor (University of MN) (2011)

*“Parents should counsel their children
to avoid hazardous workplaces”.*



National Library of Medicine: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936460/>
US DOL: <https://www.dol.gov/agencies/whd/youthrules/young-workers>

#8 – It Takes a Village

Center for Disease Control (NIOSH) (2020)

“Talking Safety has been demonstrated to be effective at educating adolescents on foundational workplace safety, ...”.



Parents/Family

Schools

Communities

Schools

Counselors

First Responders

Employers

Coaches

Healthcare

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“It takes a village” tree

CDC: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a3.htm>

CDC (Youth at Work): <https://www.cdc.gov/niosh/talkingsafety/>

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***“Our children are the rock on which
our future will be built, our greatest
asset as a nation”***

~N. Mandela

Helping Make Life Safer