



Fatigue: The Silent Safety Epidemic

Wednesday, October 17, 2018

9:15 a.m. - 10:00 a.m.

Flight Attendant/Flight Technician Safety Sub-Committee of the NBAA Safety Committee

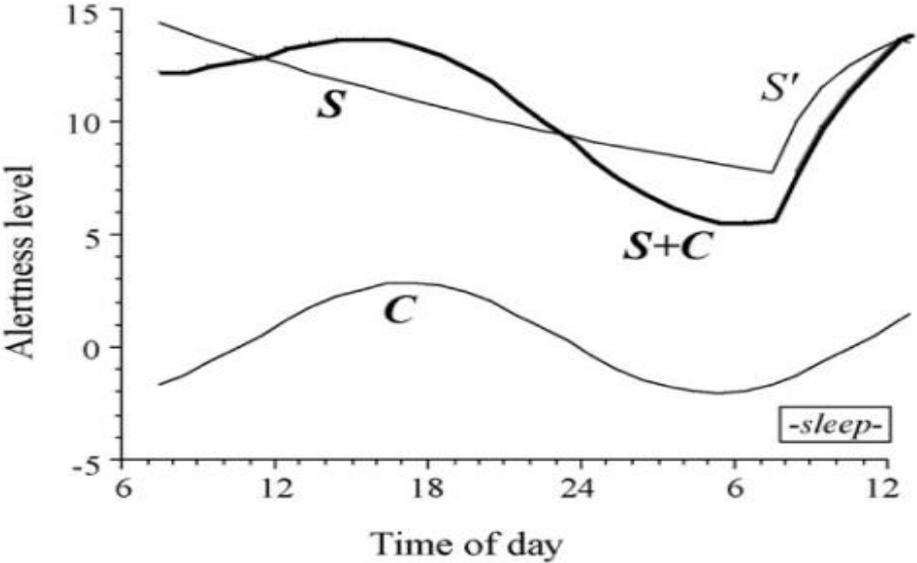
Would your entire crew be ready to respond?



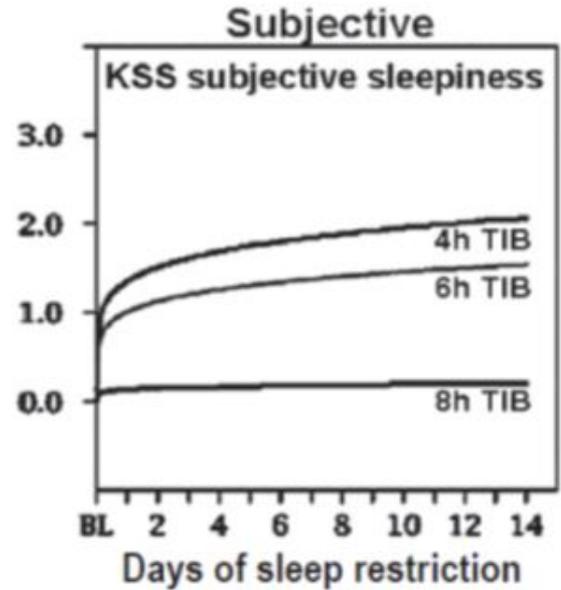
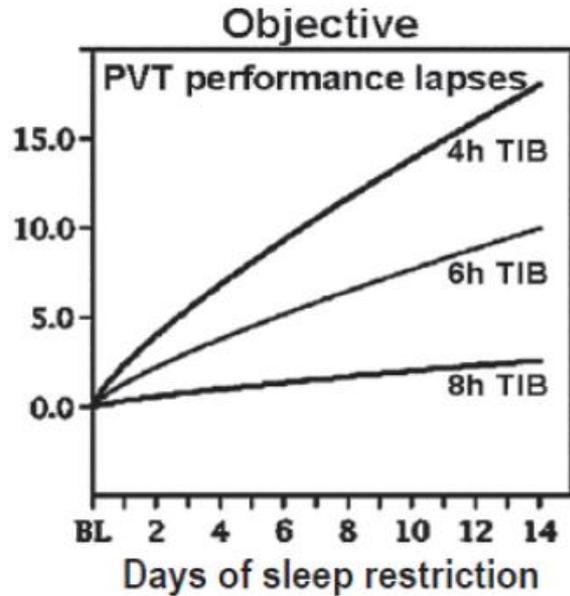
Fatigue as Causation in Mishaps

- 1993 American International Airways 808 first accident citing fatigue as causal
- Continental 3407 (2009), Colgan Air 3407 (2009), Air France 447 (2009), Asiana Airlines 214 (2013), UPS 1354 (2013)
- East Coast Jet 81 (2008), Total Corp (2014), Cleveland/Lake Erie (2016)
- 15% - 20% of accidents caused by fatigue (NASA)
- 88% of accidents fatigue is contributing (NTSB)
- FAR 117 (2014)

Fatigue defined



Effects of Fatigue

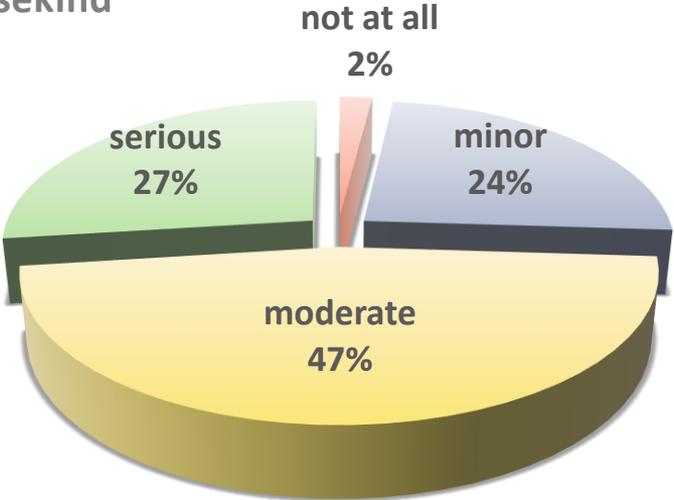


Fatigue Clearly Defined

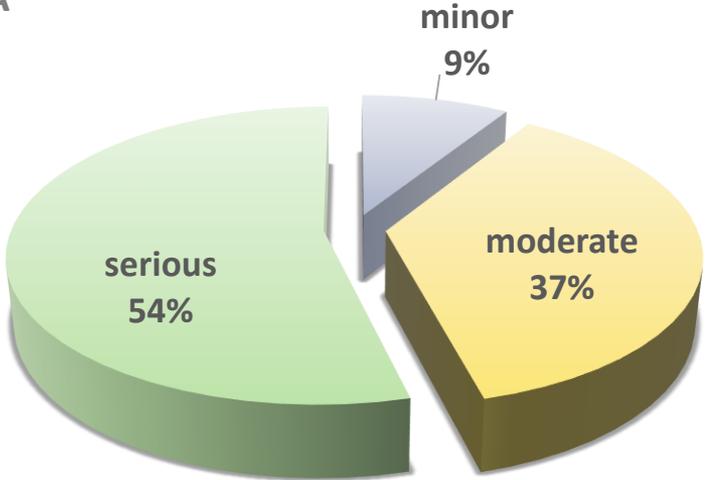


Is fatigue a concern in business aviation?

Rosekind

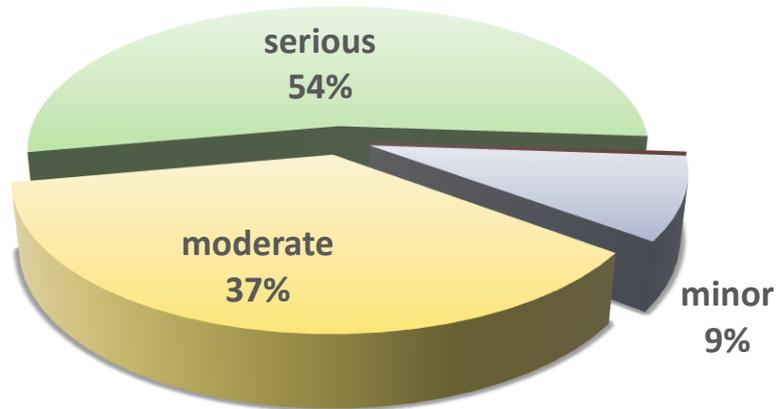


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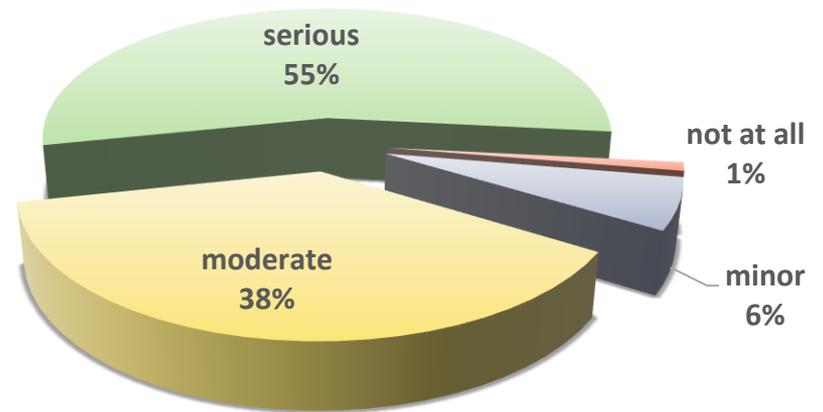


Is fatigue a concern in business aviation?

Pilots

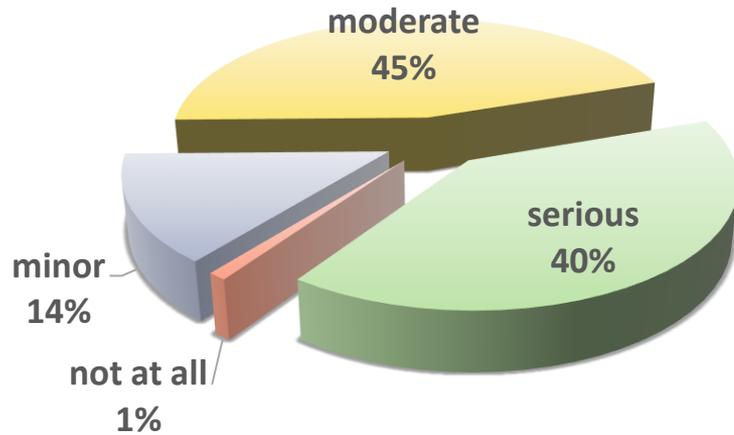


FA/FT

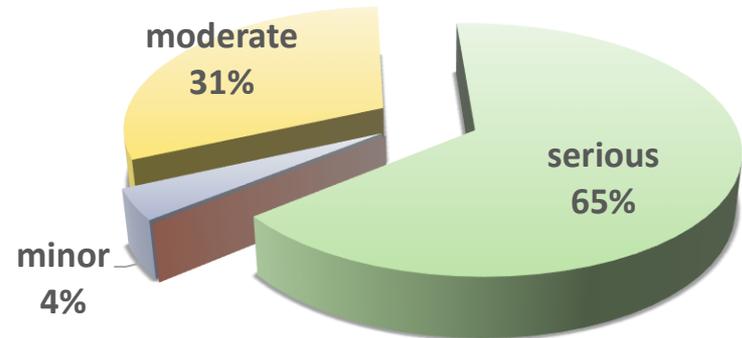


When it occurs , how serious of a concern is fatigue?

Rosekind

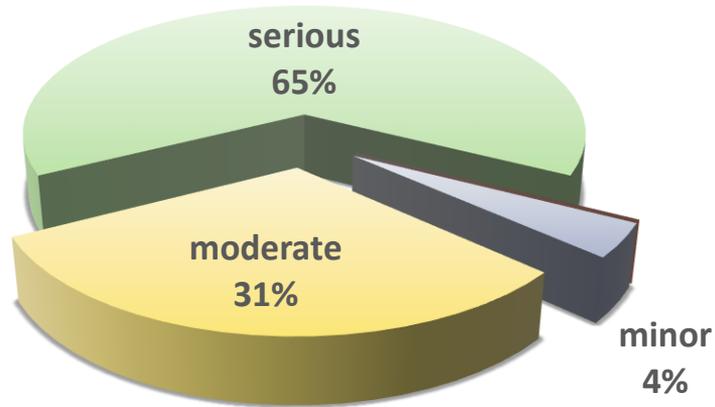


NBAA

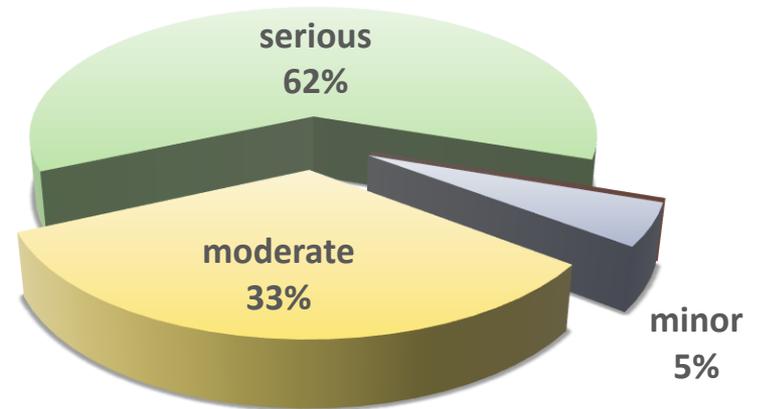


When it occurs, how serious of a concern is fatigue?

Pilots



FA/FT



Polling Questions 1 & 2

Fatigue Management Issues

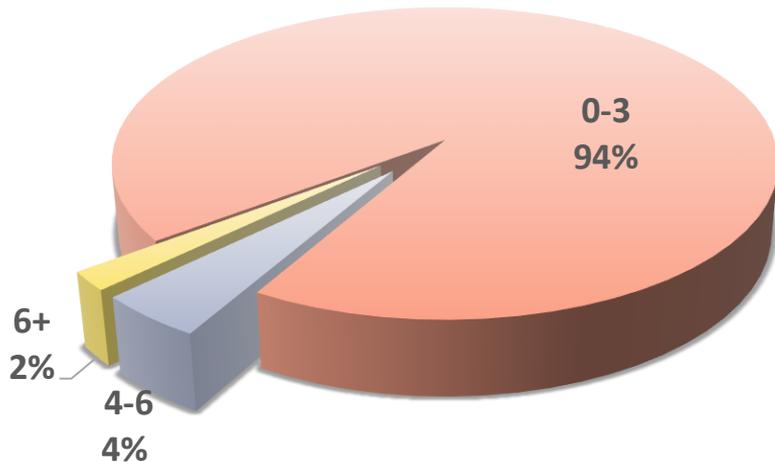
1. Does your company have a fatigue management (crew duty) program that is published?
 - a) Yes
 - b) No

2. Are all crew members included in your fatigue management program?
 - a) Pilots only
 - b) Pilots and cabin crew
 - c) Pilots and cabin crew and maintenance team
 - d) No fatigue management plan in place

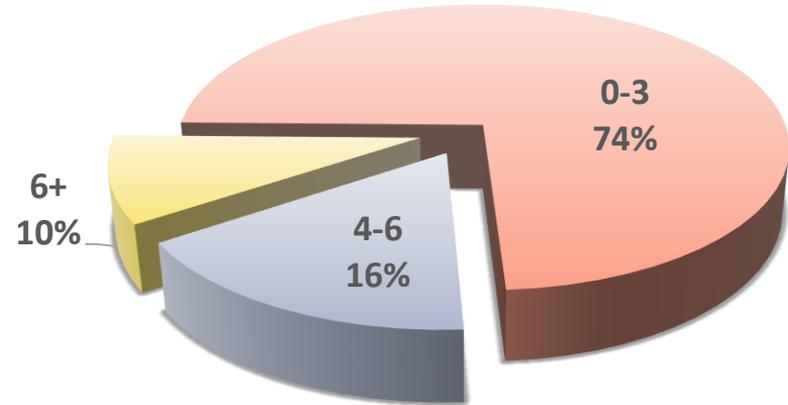
Shift in Aircraft Utilization

Time zones crossed per flight

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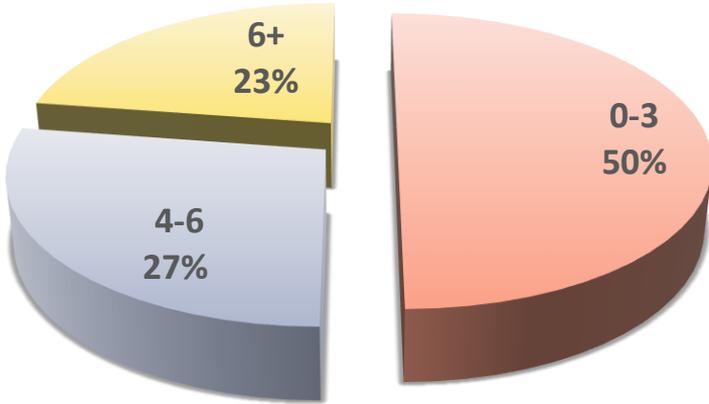
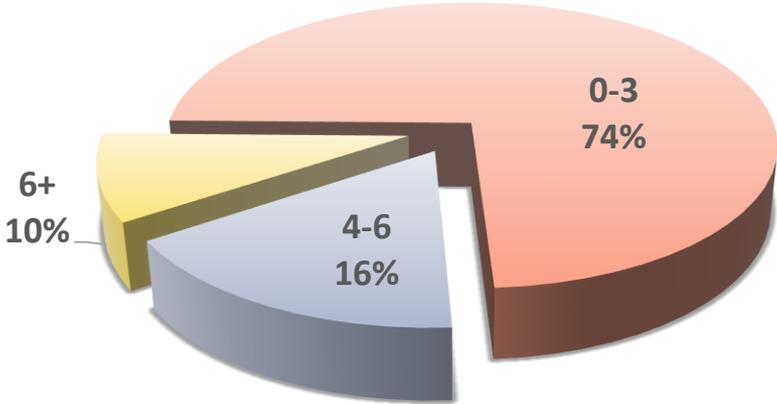


Shift in Aircraft Utilization

Time zones crossed per flight

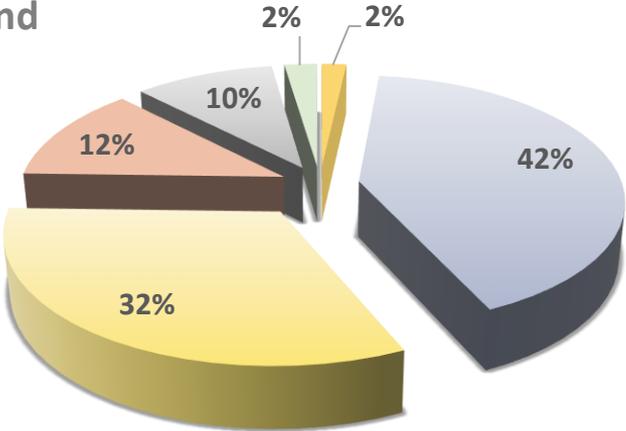
Pilots

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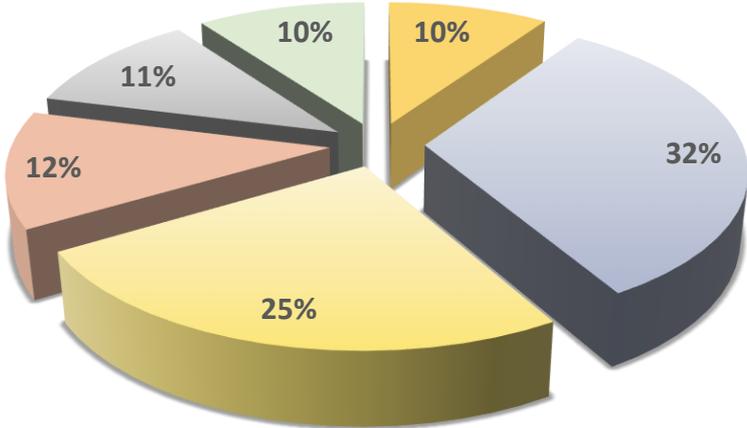


Report times

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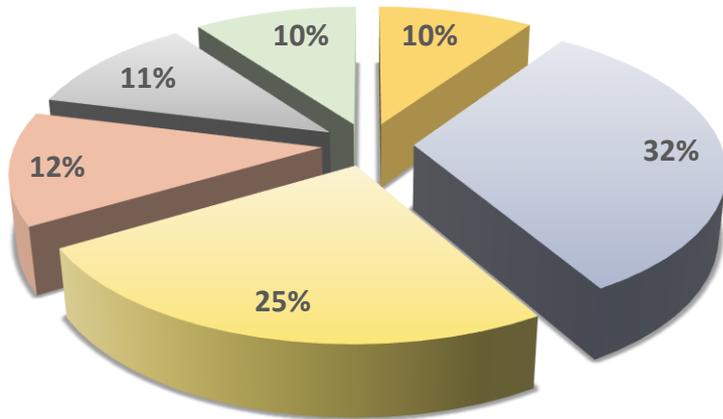
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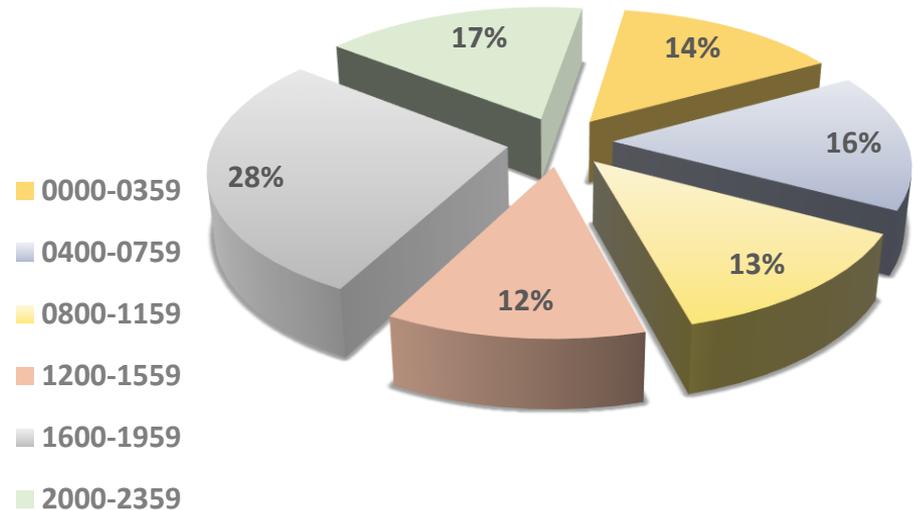
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- 1600-1959
- 2000-2359

Report times

Pilots



FA/FT



Polling Questions 3 & 4

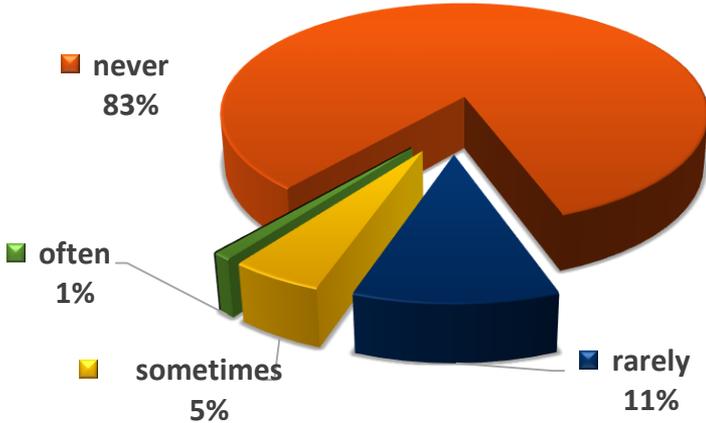
Fatigue Management Issues

3. Does your fatigue management apply only to
 - a) Prep, Flight time and post flight of the aircraft
 - b) First time showing up for work until time you depart for rest.
 - c) Limited time allowed for pre and post flight of aircraft.

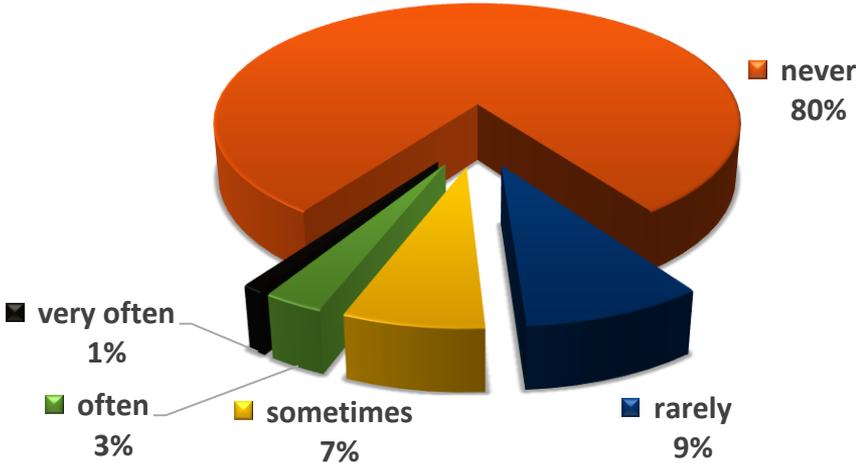
4. How much preflight time is allotted in your fatigue management plan?
 - a) One hour
 - b) Two hours
 - c) Three hours
 - d) Crew duty starts when you arrive on site.

Alcohol use as a sleep aide

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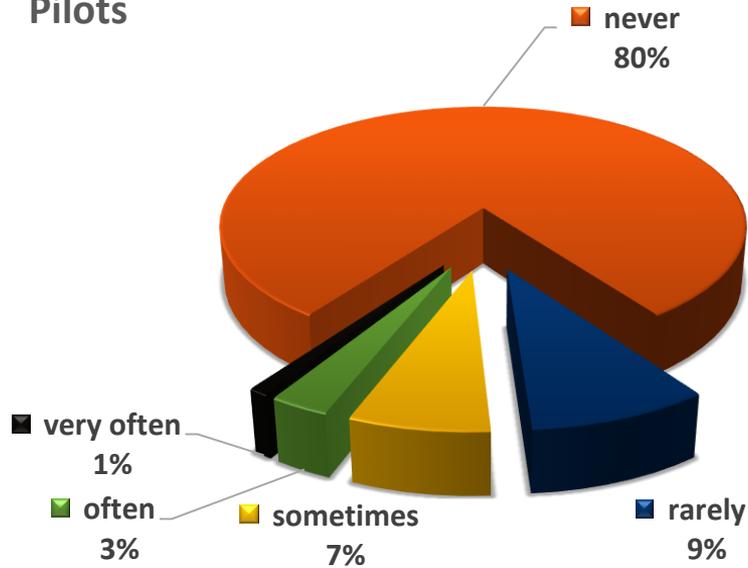


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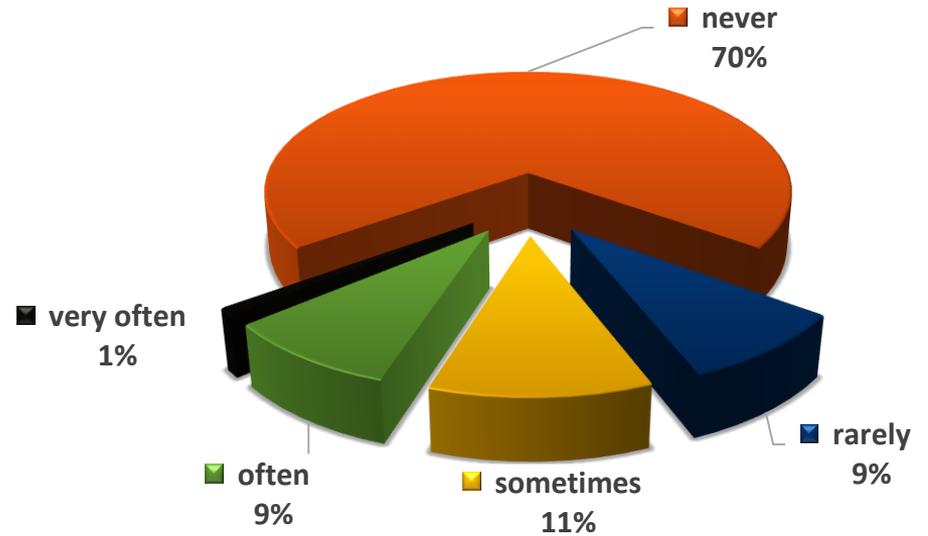


Alcohol use as a sleep aide

Pilots

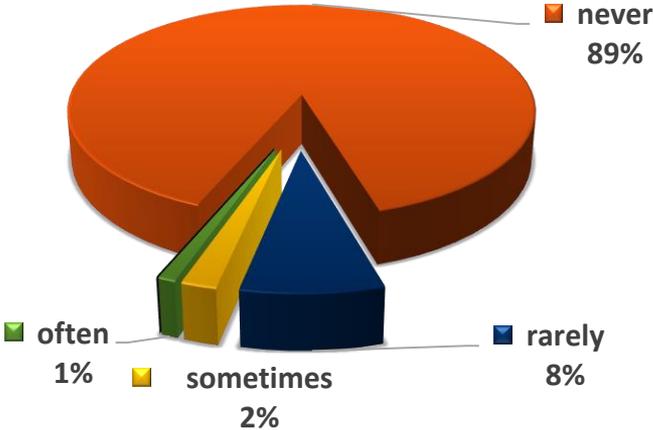


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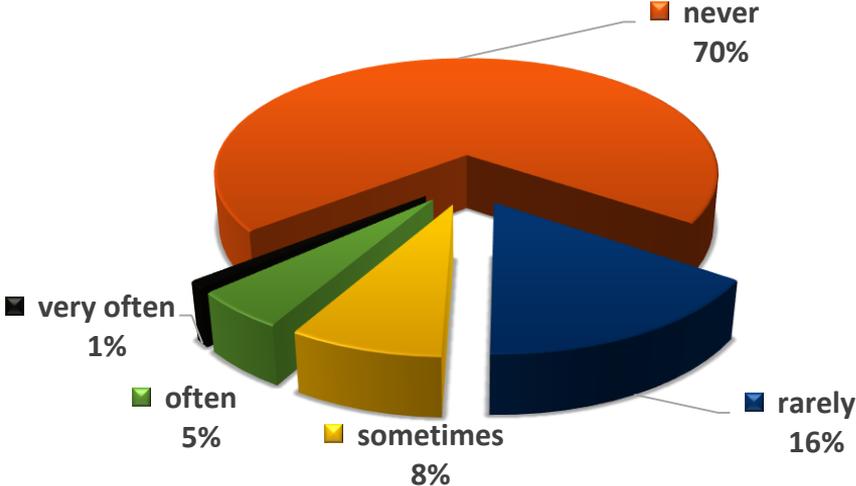


Medication use as a sleep aide

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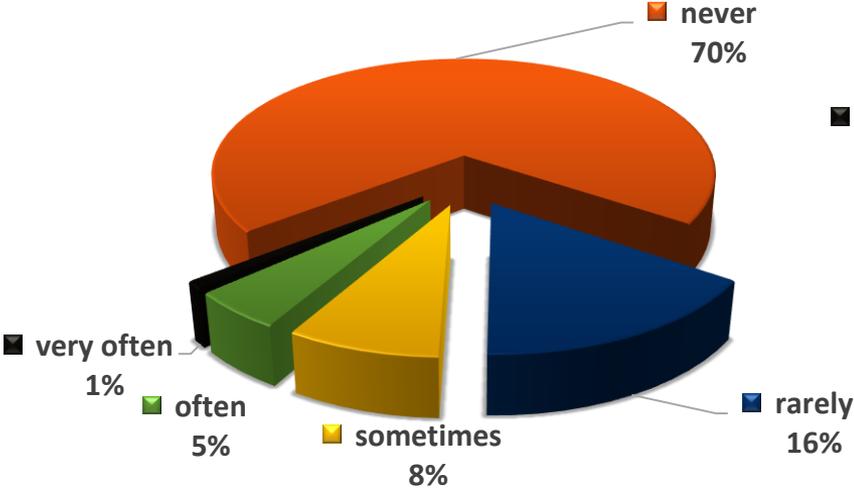


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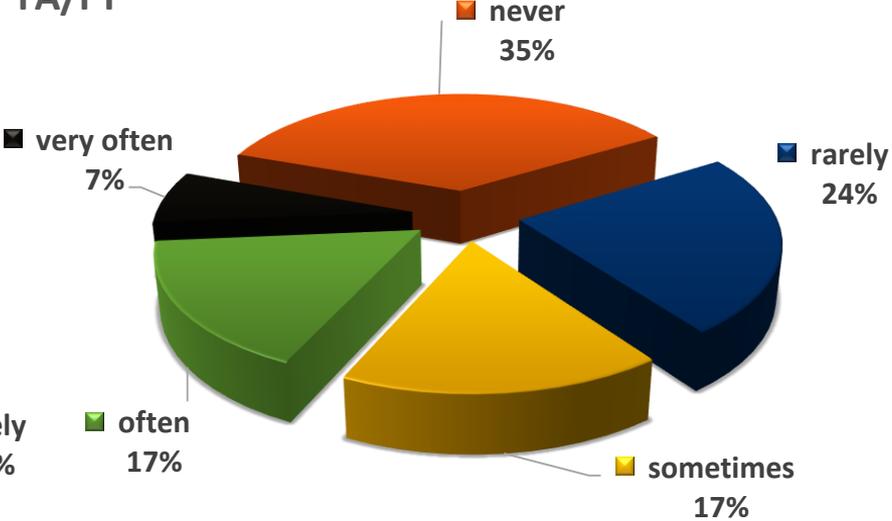


Medication use as a sleep aide

Pilots



FA/FT



Polling Questions 5 & 6

Fatigue Management Issues

5. How much post flight time is allotted in your fatigue management plan?
 - a) One hour
 - b) Two hours
 - c) Three hours
 - d) No limit on post flight time allotted.

6. Are you in favor of Controlled Rest in the Flight Deck (CRIF)?
 - a) Yes
 - b) No
 - c) Undecided

Fatigue Related Facts



- Mean age up from 45.2 to 49.6
- Commute times are up from 33 to 64 minutes
- Airline as method of commute up from 1% to 7.5%
- Increase in use of sleep aides/health supplements
- Perceived efficacy increase of sleep aides
- Sleep quality down from 89% to 68%
- Average sleep increased by 24 minutes
- FDA level devices that measure fatigue still non-existent

Questions/Interaction

The Paradox of Knowledge

Knowledge that does not change behavior is useless.
But knowledge that changes behavior, quickly become irrelevant.

NBAA Study 2017

A Survey Measuring the Efficacy of Duty and Rest Guidelines
in Business Aviation Operations

by

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Bachelor of Arts, Augustana College, 1989

A Thesis

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Science

Grand Forks, North Dakota

June

2017

Karen Hall

Flight Attendant

Flight Attendant perspective on fatigue.

Creighton Anderson

Flight Tech

Abbvie US LLC

Flight Tech perspective on fatigue.



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