



BUY QUIET AND NOISE CONTROL IN CONSTRUCTION

Matt Patten

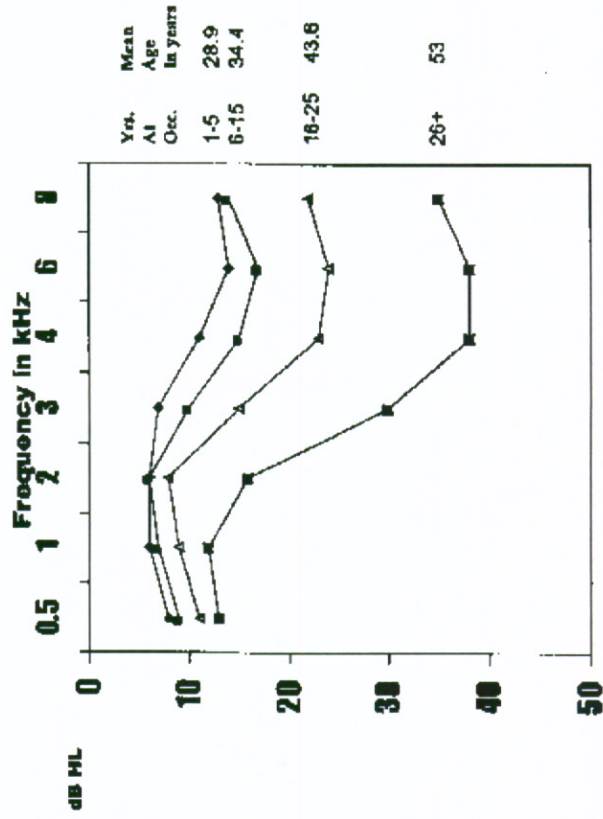
Is noise a big problem?

- Noise affects almost all types of work
 - Over 500,000 construction workers are overexposed
 - Over 9 million workers in all industries
- Up to 50% of construction workers may have some job-related hearing loss
- A 25 year old construction worker has the hearing of a 50 year old without noise exposure
- Once hearing is gone, it is lost forever
- Disrupts your daily life

Hearing Loss in Construction Laborers in Canada

- Hearing loss data from British Columbia shows that most construction laborers there have significant hearing loss after 15-25 years at the trade

**1997 Average Hearing Levels--
Labourers in Construction**

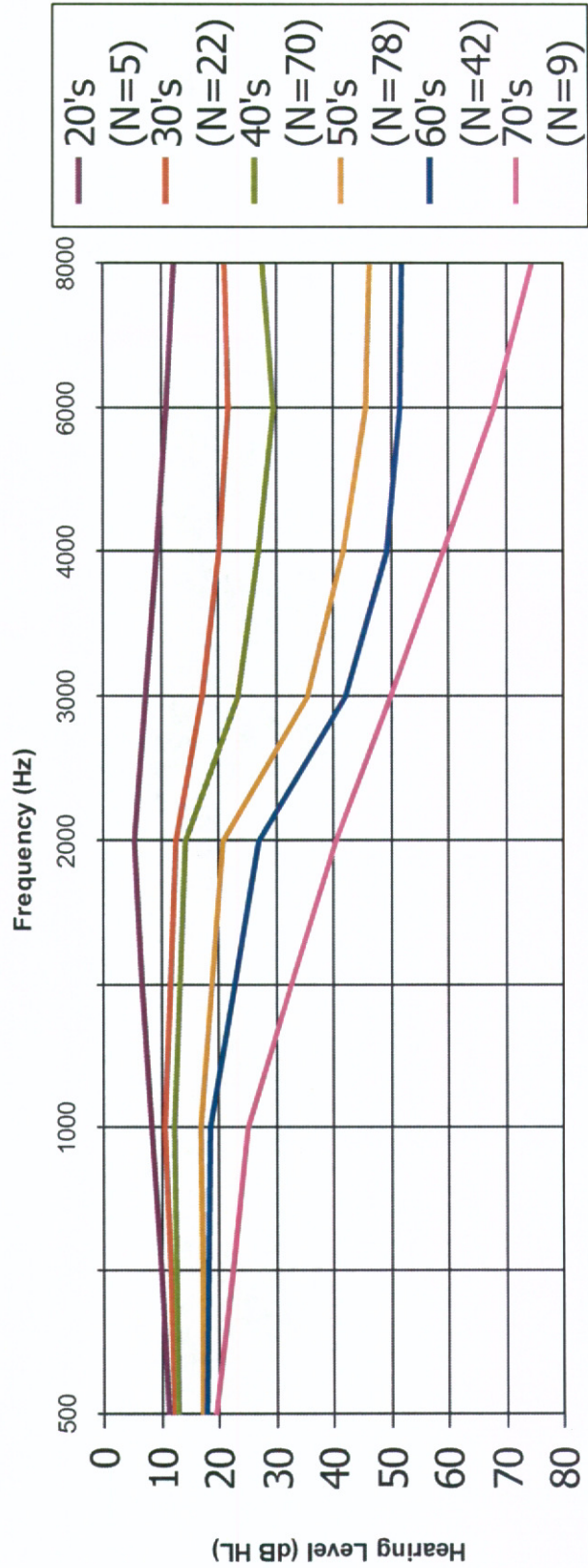


Hearing Loss Among Construction Laborers

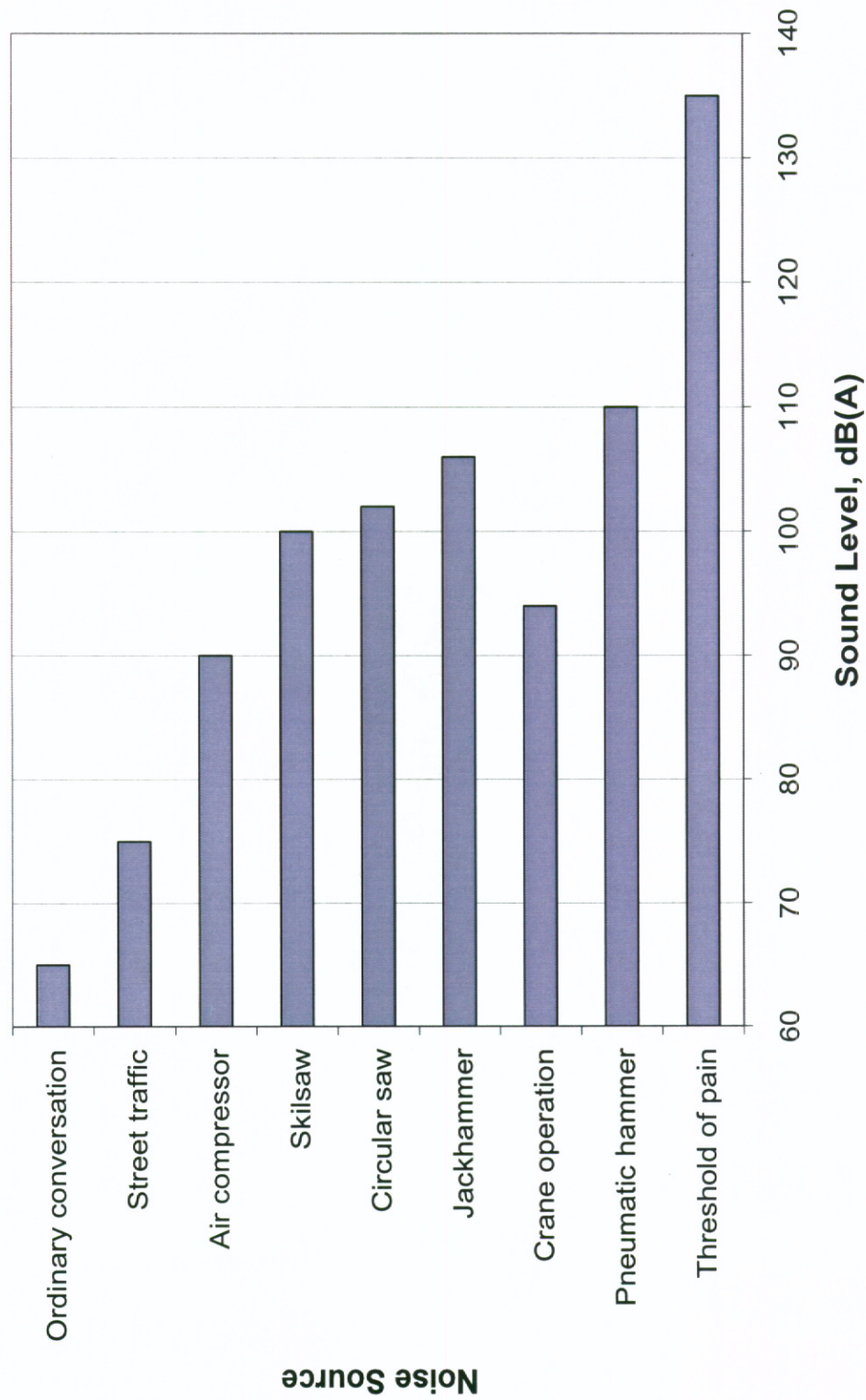
- 255 members tested at 2001 Tri-fund Conference
- 227 males, 28 females
- Average age= 52 yrs. old
- 39% of males had significant loss according to NIOSH
- 28% of males had an OSHA recordable loss
- Loss becomes very significant in 50s

Hearing Loss Among Construction Laborers- 2001

Average Audiogram by Age Category
(Both Ears Combined, Males Only)



Job-Related Exposures



Noise Regulation

- OSHA tackled noise early on almost 40 years ago
- Even back then OSHA recognized the inadequacy of the PEL, but court decisions lead to the promulgation of the Hearing Conservation Amendment (HCA), relying on PPE instead of controls to reduce exposure to 85 dBA
- This assumed that PPE were as effective as noise controls
- This was further codified in its enforcement policy change which allowed PPE up to 100 dBA(!) in lieu of controls
- Construction was excluded from coverage by the HCA

Controlling Noise is the Best Approach

- Construction sites are constantly changing
- Workers have exposure to noise they create but also to noise from other workers as bystanders
- Construction noise is the biggest complaint cities have from residents
- Construction noise restricts hours of operations in many cities due to noise ordinances
- Construction noise is also linked to safety problems- workers who can't hear warning signals and are at risk of being killed by vehicles backing up
- Reducing noise levels in construction can have a lot of benefits for workers and contractors

There are many ways to control noise in construction

- Noisy equipment is much quieter if properly maintained
- Noisy equipment can have dampening materials installed to reduce noise levels
- Barriers can be created around noisy equipment if it is stationary
- A best practice guide with fact sheets can be found on the Laborers' H&S Fund website www.lhsfna.org/noise
- But the most effective way is to buy quieter equipment to start with.

Noise Control Requirements in US

- In the 1970s, Congress passed the Noise Control Act and Quiet Communities Act
- They gave EPA the authority to regulate noise from construction equipment and created the EPA Office of Noise Control and Abatement (ONAC)
- They regulated noise from Portable Air Compressors but the office was defunded in the 1980s and has never since lived up to its mandate

Buy Quiet in Europe

- Buying quieter equipment has been the rule in Europe for many years
- The EU has a requirement for quieter equipment and that equipment be labeled with its noise levels
- Most equipment manufacturers operate globally and meet the EU standards
- Even before the standards were set, in Germany the Blue Angel program gave awards to the quietest equipment and many companies developed quieter equipment in response

Buy Quiet in the US

- NASA has taken the lead
- New equipment tends to be quieter, at least for operators
- But companies have resisted any labeling for noise levels in the US and don't seem interested in quiet as a competitive advantage
- Information on equipment noise levels is very difficult to come by
 - Companies do not make it easy to find
- But databases are starting in Europe and US (hand held tools only)
- NYC has a buy-quiet list of approved tools
- But quieter equipment tends to be more expensive
- How do we get employers to buy it without a mandate?

Promoting Buy Quiet in the US

- What would help:
 - Case studies on how quieter equipment helped companies comply with local noise ordinances and could get the job done quicker
 - Case studies on how noisy worksites resulted in pedestrian workers killed by equipment
 - A database of noise levels of construction equipment so **we** can promote the quieter ones
 - An award program like the Blue Angel to recognize companies with the quietest equipment
 - New requirements for quieter equipment or labeling from a refunded EPA ONAC