Selling a Quiet Workplace Through "Buy Quiet" Programs

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CDC
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NIOSH

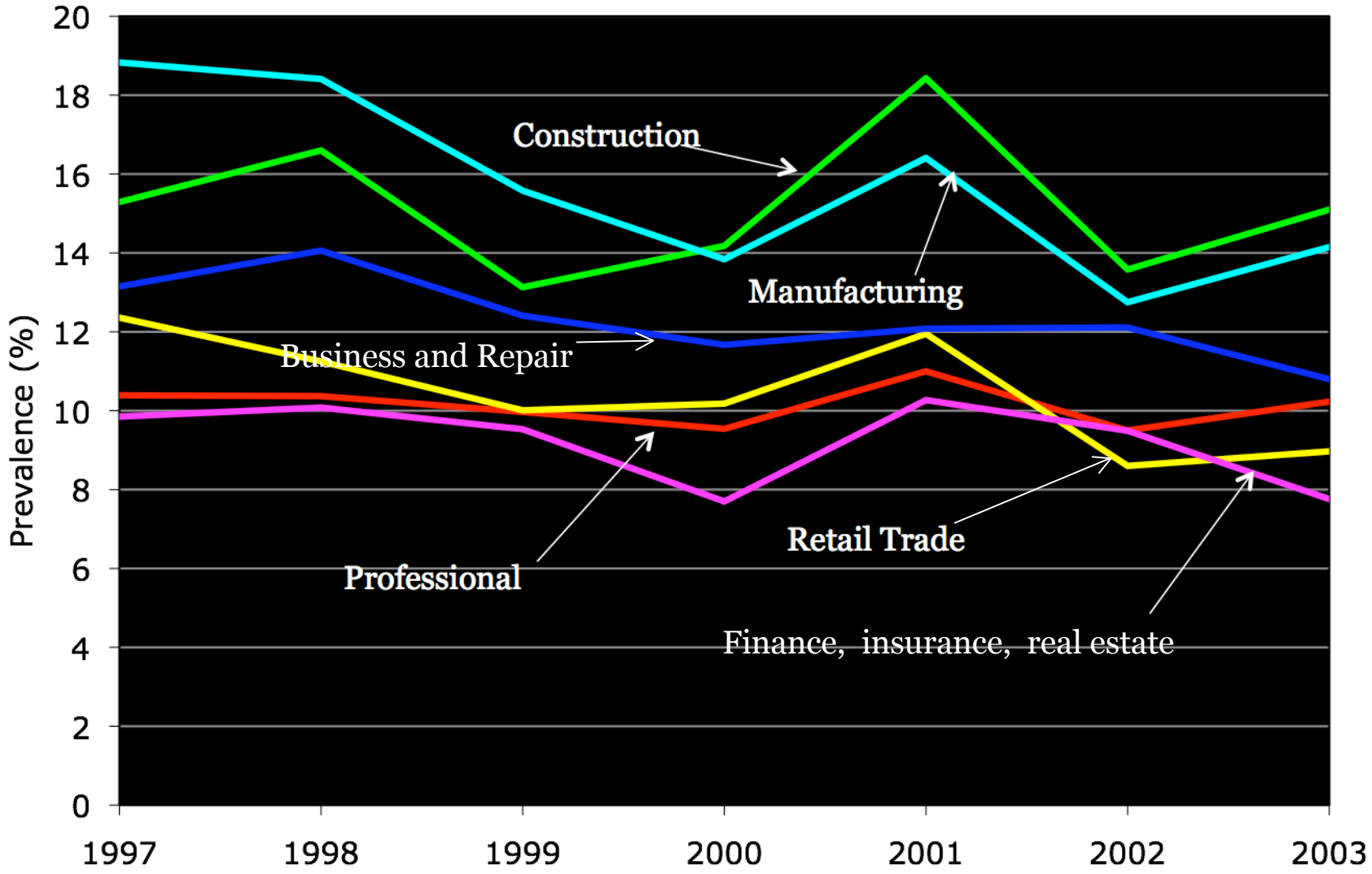
Acknowledgments

- David Nelson, Nelson Acoustics
- Messer Construction (Cincinnati, OH)
- Tier1 Performance Solutions

Occupational Hearing Loss

- 22 Million workers in U.S. at risk
- Cross-cutting issue, affects workers in nearly every sector
- Currently no recovery; severely impairs quality of life
- One of most common workplace illnesses/injuries
- Significant $costs$ associated with high noise levels in the workplace.

Prevalence of hearing difficulty in top-six industry sectors, 1997-2003



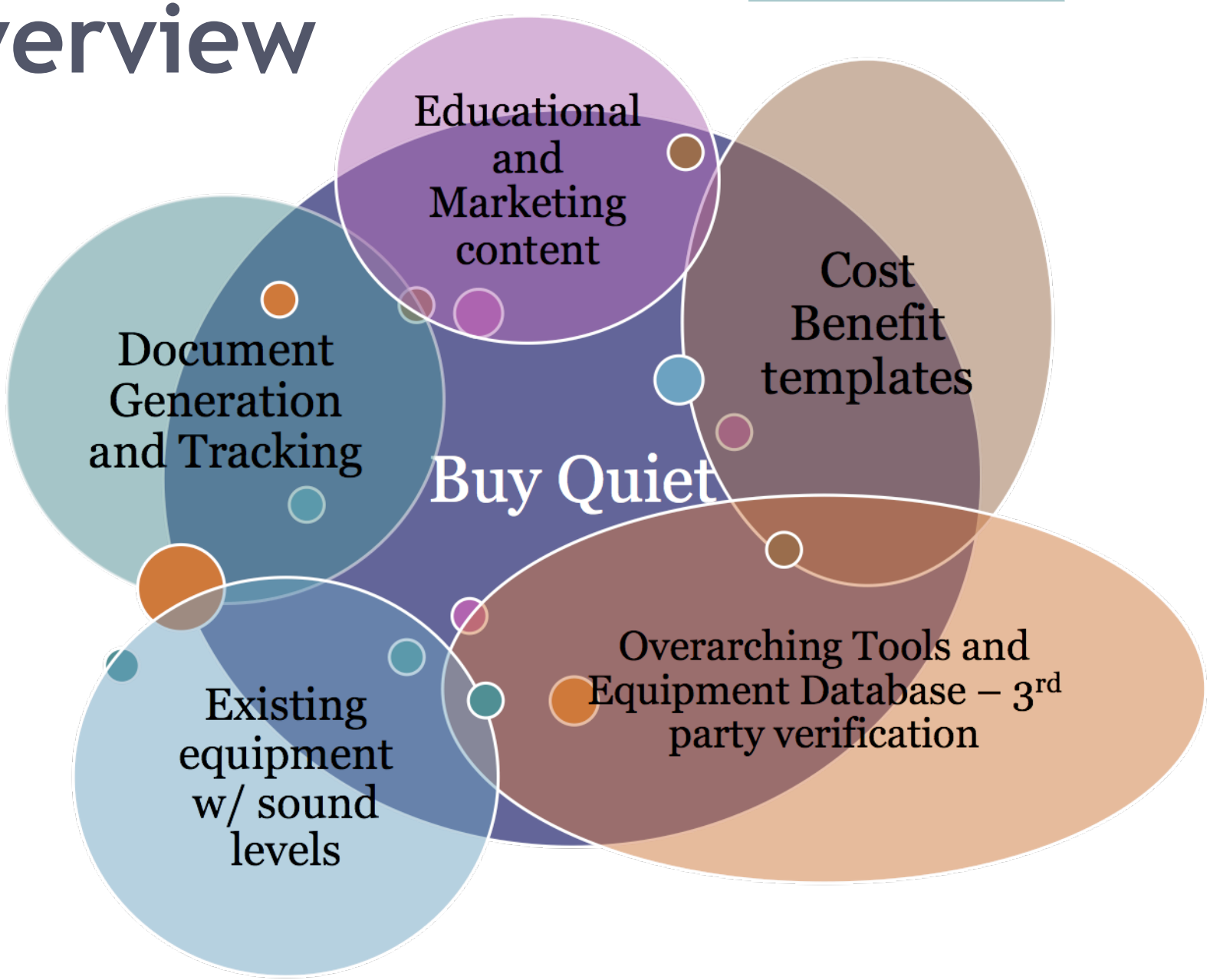
Hierarchy of Controls

- Elimination
  - **Design hazard out of product/process.**
- Substitution
  - **Reduced noise product/process.**
- Engineering
  - **Properly maintain.**
  - **Retrofit existing equipment.**
  - **Barriers.**
- Administrative
  - **Limit exposure, medical surveillance, improved work practices.**
- Personal Protective Equipment
  - **Ear Plugs/muffs…**

Manufacturers of machinery and equipment

- Design expertise.
- Operational characteristics.
- Fatigue/life cycle analysis.
- Cause and effect.
- Most suited to eliminate or mitigate noise at its source.

Overview


Educational and Marketing content
Cost Benefit templates
Document Generation and Tracking
Buy Quiet
Overarching Tools and Equipment Database – 3rd party verification
Existing equipment w/ sound levels

Periodic policy review by management of commitment level and cost benefit effectiveness of buy quiet program.

Buy-Quiet Process Policy Review
Firm:_____
Date:_____

1. Cycle just completed

- ☐ Hearing disability claims
- ☐ Accidents involving hearing loss
- ☐ Dosimeter trends
- ☐ Noisy equipment retired
- ☐ Noisy equipment needing retirement
- ☐ "Quiet" equipment purchased
- ☐ Vendor cooperation
- ☐ Marketing successes

2. Next Cycle Commitment

	☐ A: Just Do It	☐ B: Show Me the Money	☐ C: Hold that Line
No Data (Inventory)	Retire	Database Low + 2	Database Low + 5
dBA Limit	Inv. Low + 2	Inv. Low + 5	Inv. High
Retire	If > Limit	Cost-benefit	N/A
No Data (New)	Reject	Inventory High	Reject
NC Options	Always	Cost-benefit	Always
$/dBA Cost-benefit	N/A	☐ $100/dBA ☐ $200/dBA ☐ $300/dBA ☐ $400/dBA ☐ $500/dBA	N/A
Select:	Quietest	Best Value	No noisier than present

3. Authorization

Purchasing employees are hereby authorized to invest time, effort, and money in the pursuit of low-noise purchases, in accordance with the foregoing instructions.

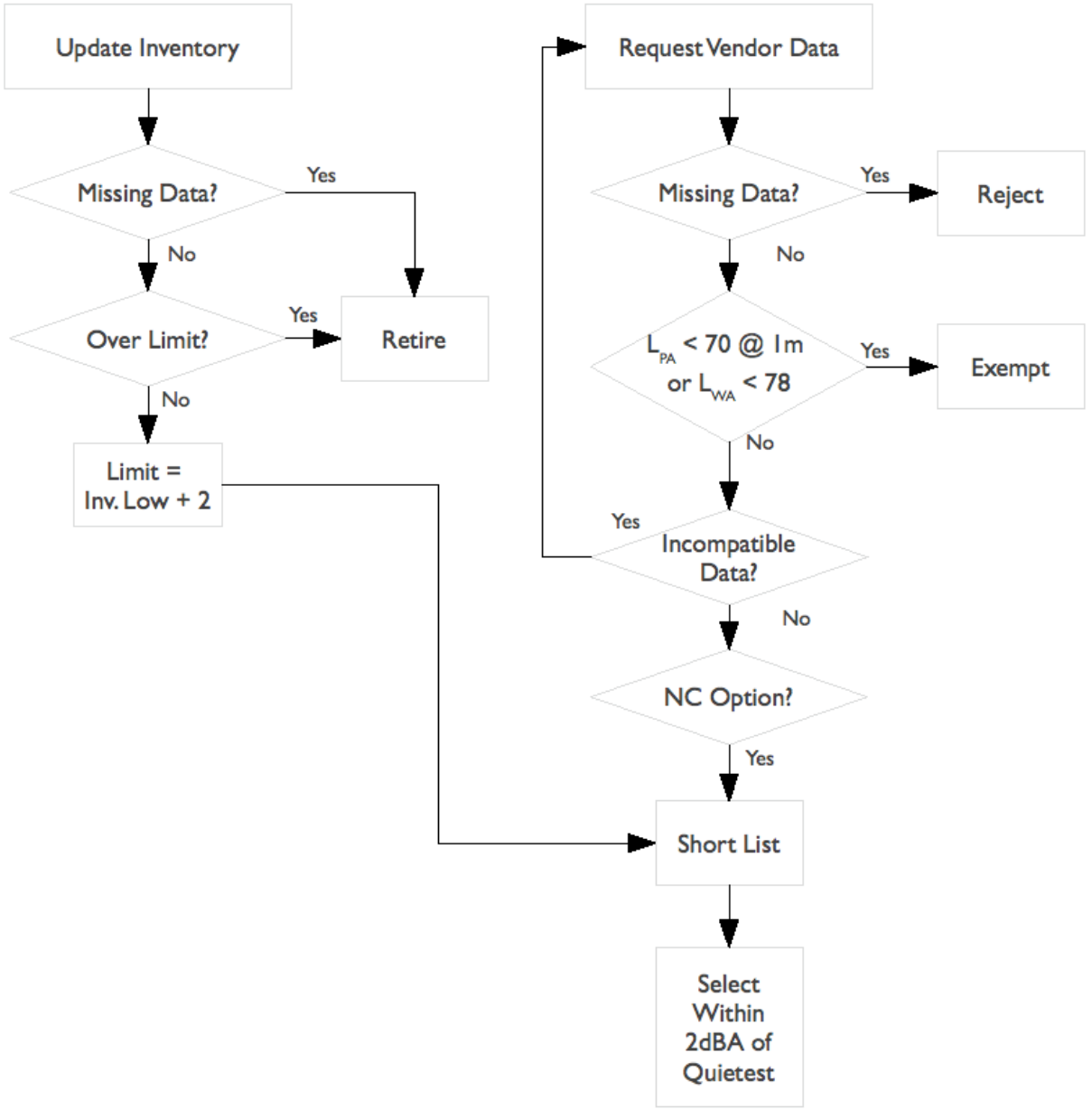
Signatures_____

4. Date of Next Review:_____

Determine level of commitment.

- Class A: Always purchase quietest equipment.
- Class B: Purchase equipment based on best value per cost-benefit analysis.
- Class C: Do not buy equipment more noisy than at present.
- The Level of Commitment prescribes:
  - Options in the absence of data for existing and new equipment.
  - Method for setting noise emission limit for new purchases.
  - Whether noise control options are to be purchased.
  - When to retire older, noisier equipment.

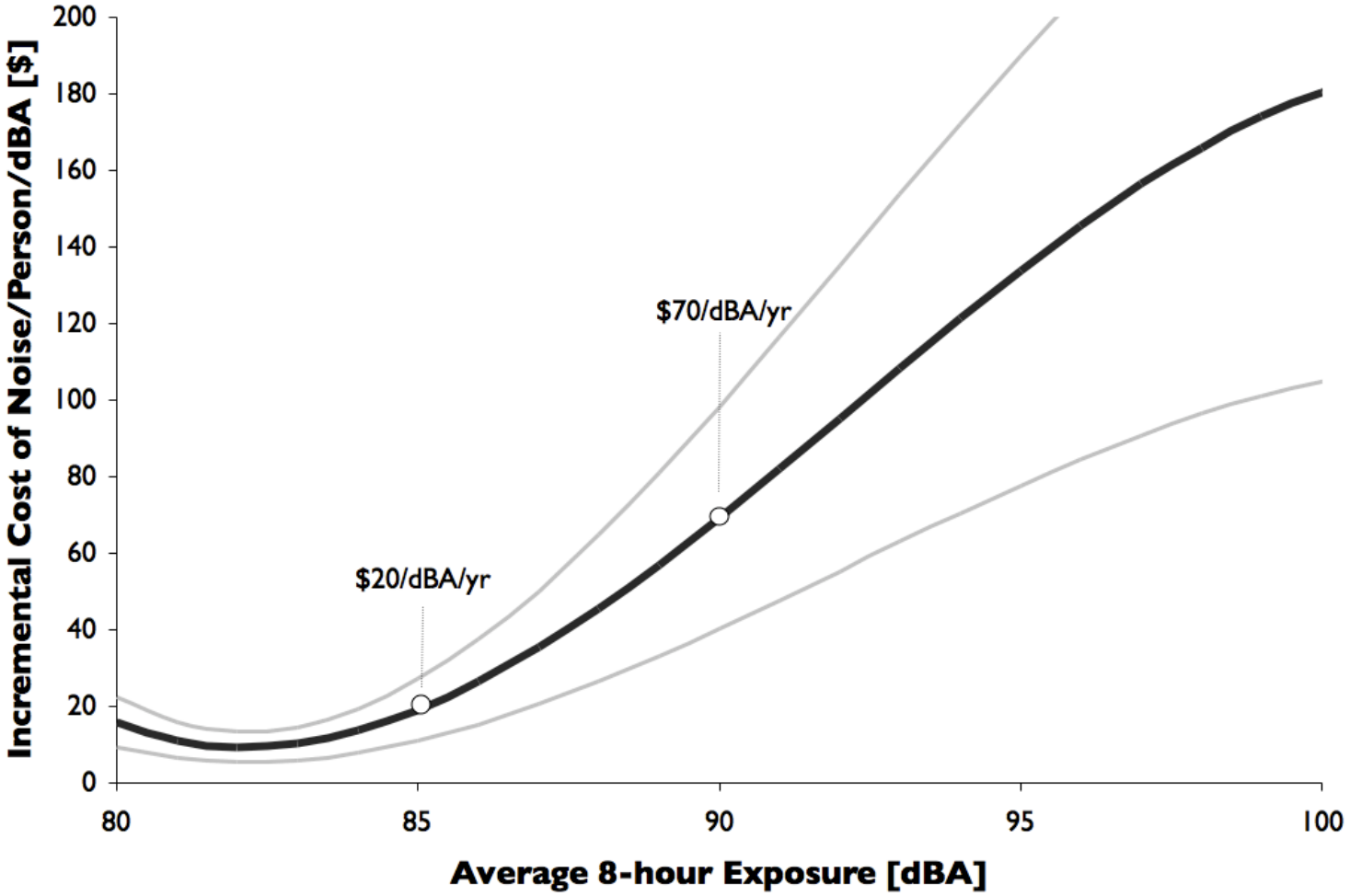
Class A: "Just Do It"



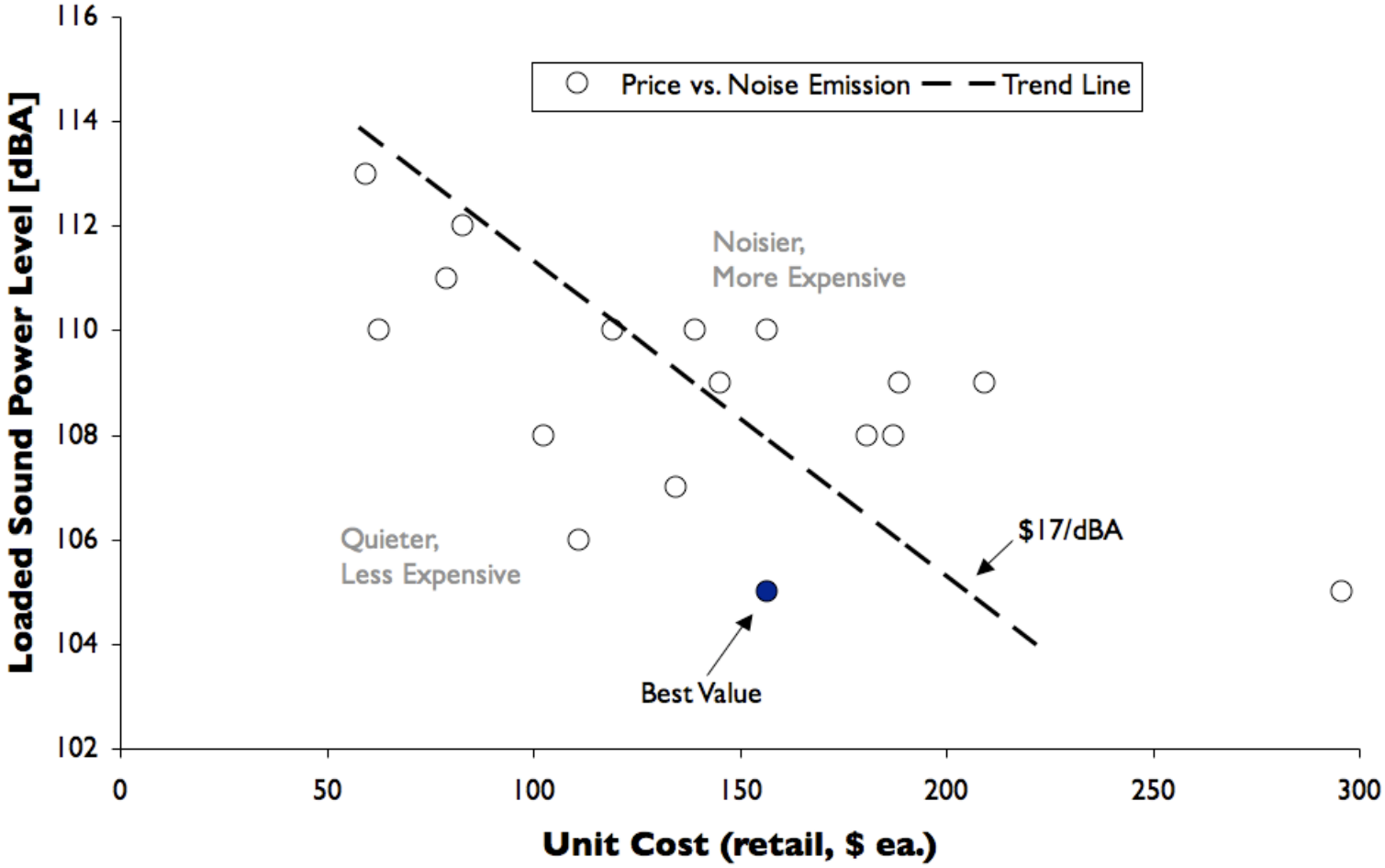
Costs of Noise Induced Hearing Loss

- Hearing conservation program.
- Hearing aids/batteries.
- Worker's compensation claims.
- Insurance premiums.
- Decreased productivity, increased worker absenteeism and turnover.
- Noise abatement activities.

Cost Benefit Overview



Cost Benefit Overview



Payback

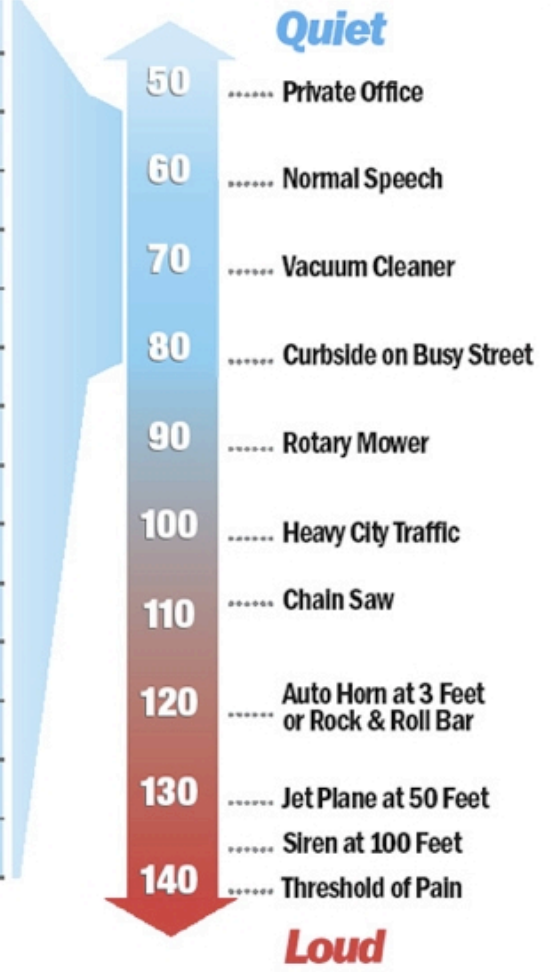
- Demonstrate innovative technological advances in machinery/equipment design.
- Reduced noise induced hearing loss among construction workers.
- Demonstrate innovation in improving the quality of their customer's lives.
- Economic benefit.
  - Increase product quality and functionality.
  - Advance technology.
- Quieter, safer, and healthier environment.

Payback

- Safe in Sound Awards (www.safeinsound.us)
  - NHCA
- Competitive advantage.

When quiet counts, count on Honda.

Model Number	Noise Level* (in decibels)
EU3000*i*sA	58 dB 90 LwA**
EU1000*i*A2	59 dB 86 LwA**
EU2000*i*A	59 dB 89 LwA**
EU6500*i*sA	60 dB 91 LwA**
EM5000*i*sAB	68 dB 98 LwA**
EB3000cKAG	68 dB 97 LwA**
EP2500X	69 dB 96 LwA**
EM3800SXA	71 dB 100 LwA**
EB3800XA	71 dB 100 LwA**
EG3500XK1A	72 dB 101 LwA**
EM5000SXK2A	72 dB 104 LwA**
EB5000XK2A	72 dB 104 LwA**
EM6500SXK1A	75 dB 105 LwA**
EB6500XA	75 dB 105 LwA**
EG5000XK1A	76 dB 104 LwA**



* Noise levels at rated load, measured at 9 Feet (3 Meters) from the control panel side of the generator.
** LwA is an international noise level measurement that uses a weighing factor to reflect noise "tonality" in addition to the sound power (dBA) level.

Summary

- NIOSH's web tool.
- Cost benefit.
- Competitive Advantage.
- Database.

Questions or Comments?

- Contact Information (also available on handout)
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