



Aggregation

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Structure

- Reasons for aggregation
- Certification & assessment
- Examples
- The problem(s)
- Possibilities



Reality

Which welfare situation is better overall?

Indicator	Situation A	Situation B
Hock Burn	2	1
Slaughterhouse rejections	0.40%	1.5%
Footpad dermatitis	2	3
Dead on Arrival (DOA)	0.02%	0.10%
Dislocations & Fractures	0.10%	0.20%
Gait score	3.5	2.5
Farm mortality	10.0%	5.0%

Choose one of the following answers::

- ☐ Situation A
- ☐ Situation B

Please rate the magnitude of the welfare difference on a 0-100 scale (0 = equal welfare, 100 = extremely large difference)





Reasons for aggregation

- Large number of measures (WQ around 30)
- Consumers don't want/need fine grained responses
- Competent authorities typically don't want them



Certification and assessment

- Legislation is different from assessment
- Welfare control is different from welfare assessment
- Certification can be a mixture





Legislation

- Setting a minimum standard
- Resource based measures in most cases
- Typically no aggregation, just complying or not



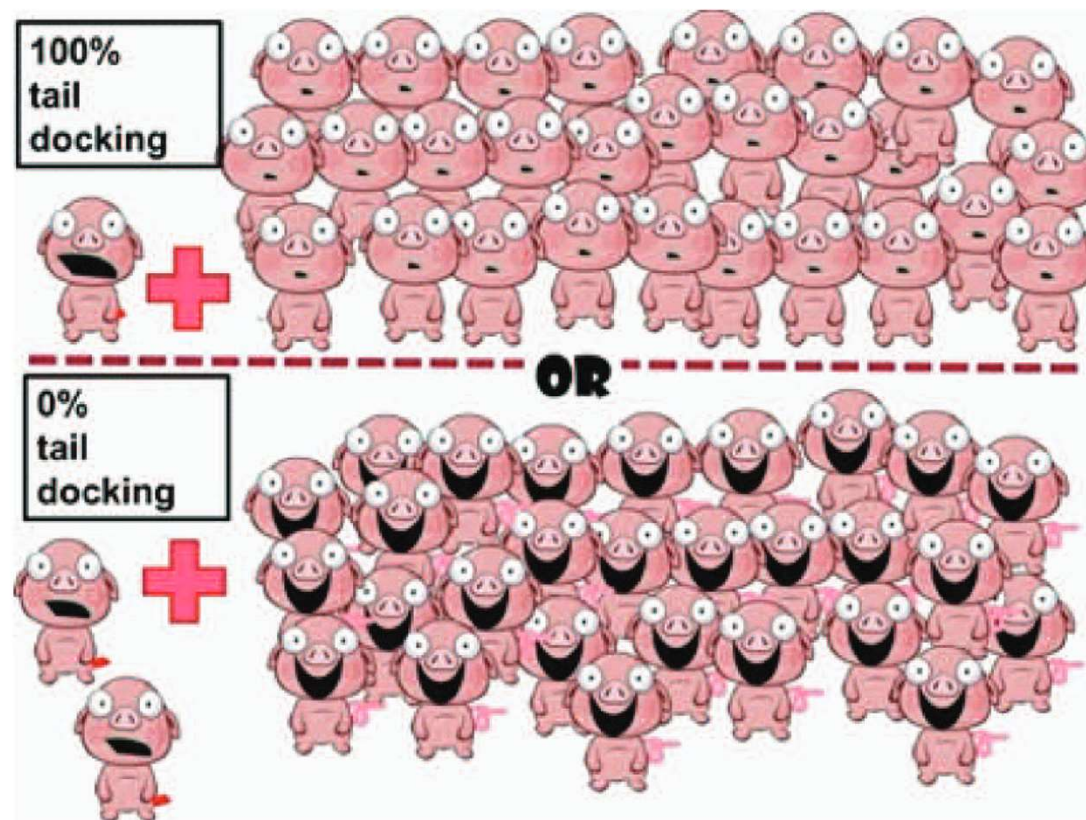
Animal welfare certification schemes





What is important?

Figure 1





Two incompatible approaches

1. Take the average of the suffering
2. Protect the worst off animals





Typical first step, give value to state

Question section 1: Hernia indicator (Pig survey)

A score of 0 means that there is no negative welfare consequence and 100 that there is a maximal negative welfare consequence.

What is the welfare impairment of a pig with a **hernia** that is <15 cm in diameter?



A hernia that is >15 cm in diameter



How relevant do you think that hernia is as a welfare indicator? (0 not at all relevant, 100 extremely relevant.)



How certain are you of your answers taking your background knowledge into account? (0 not at all certain, 100 completely sure.)





Possible second step

- Value of combinations:
 - 30% hungry pigs & 40% thirsty pigs
 - 40% thirsty pigs & 30% hungry pigs





Alternative second step

Which welfare situation is better overall?

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Aggregation, one problem

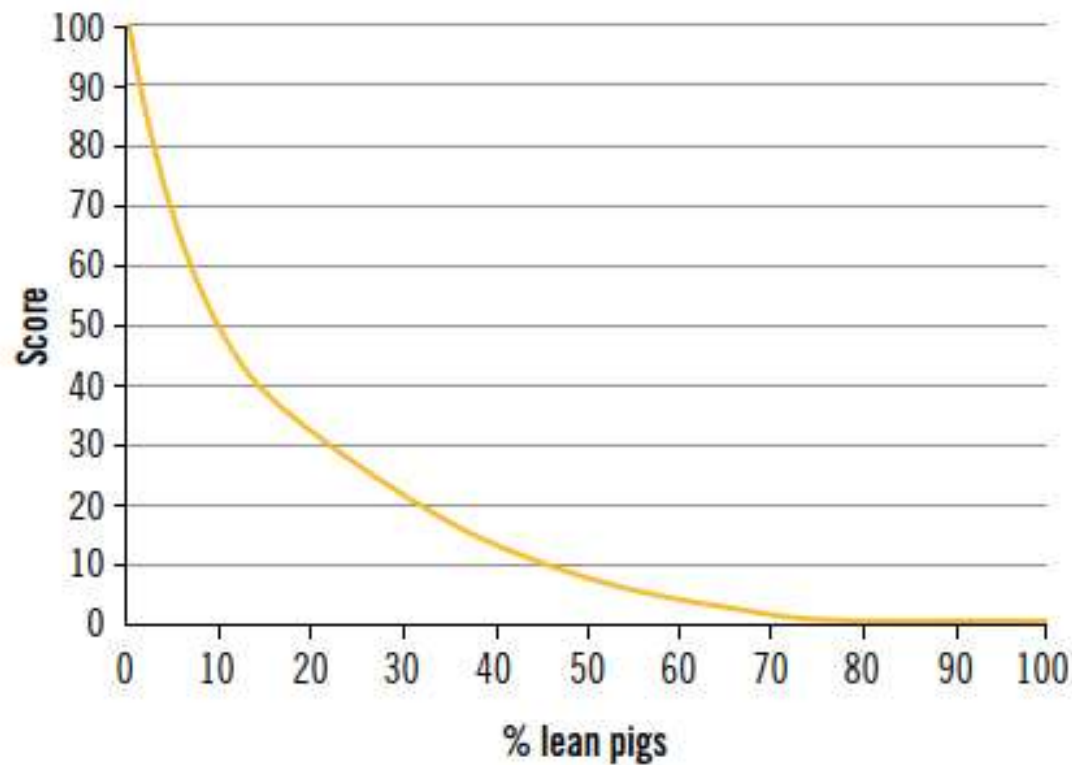


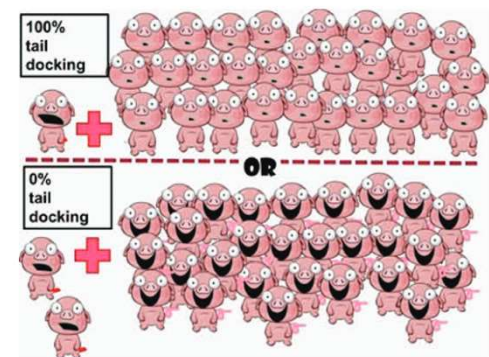
Figure 5 Calculation of scores for absence of hunger according to % lean animals



Aggregation – taking the average

- Transparent
- All animals given same weight
- BUT - compensation

Figure 1





Compensation

