Re: two factories, different profile, how to compare?

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- *From*: "espyrian" <espyrian@xxxxxxxxx>
- *Date*: 20 Sep 2006 23:31:45 −0700

peter.anderson.1969@xxxxxxxxx wrote:

> fellow experts,
>
> lets say I have 2 factories. One in China, the other in Taiwan. Both are identical, containing the same machines, same brand, manufacture the same item. All factors are same except their age are different. This is because the factory in china started operation in 2005 while that in Taiwan started way in 1995.
>
> As you know machines do breakdown, lets assume that there are 10 machines in each factories.
>
> China − 10 machines, all are 1 years old
> Taiwan − 10 machines, all are 10 years old
>
> So now I want to compare the 2006 performance of both factories in terms of their breakdown trends. plotting their cumulative failure function, i found out that the curve belonging to Taiwan is much steeper than China. Meaning the rate of failure is much higher in Taiwan.
>
> My engineers in Taiwan protest saying that the machines in taiwan are much older, therefore my way of comparing is not fair.
>
> What in you opinion should I compare, such that everyone is satisfied that it is a fair comparison?
>
> Many thanks!
>
> Regards,
> Peter

When epidemiologists compare morbidity rates between regions they will generally age standardise the data. This allows for a fairer comparison between populations that may have different age structures. I'm wondering if it's possible to weight your data using a similar

approach?

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