John Deere Components Works: Summary

These notes summarize the main points that you should take away from the John Deere Component Works case that we discussed in class. At a very general level, the point of the case was to reinforce the idea that you should not make economic decisions on the basis of accounting costs, continuing the theme that we started with the discussion of opportunity costs and sunk costs. There are several more specific lessons that you should take away, including:

1. **Don’t allocate overhead when making pricing decisions.** Overhead should only be taken into account when you're making the decision that causes you to incur the overhead. For example, if you're debating whether or not to keep an existing plant open, you should think about all the costs that you would save by closing it down, including the resale value of the machines, the workers you wouldn't be paying (minus any severance payments), etc. If you've got an existing plant and are deciding which product lines to produce, you want to ignore any costs that you're already paying to keep the plant open, and think just about the new costs you would incur by introducing a new product line (or, if you're thinking about dropping a product line, think about the costs that you would save). This could include things like the cost of doing the process engineering for the product and the additional setup costs for the machines. If you're deciding whether or not to sell a couple extra units of a given product, though (as the JDCW managers were when they bid on the 275 parts), you should only consider the additional costs that you will incur in manufacturing these units. For the JDCW managers, this should include things like materials costs, direct labor costs, scrap, the use (as opposed to time) component of both maintenance and depreciation on the machines, the electricity needed to run the machines, etc.

You may be thinking that if you always ignore overhead when you price your product, you'll never be able to recover your overhead. This is where the idea of backwards induction—which we've formalized with decision trees—comes into play. When you're deciding whether or not to open a plant, keep a plant open, or add a product line, you should look forward and make sure that your revenues will cover both your direct costs and your overhead costs. This may involve selling some of your product to consumers who value it a lot at a high price and selling it to other consumers at a price that just barely covers your direct costs. We will go over this concept in more detail in the lectures to come.

2. **Don't assume that an accountant's allocation of costs into categories (e.g. overhead and direct costs) matches the categories that you would want in order to make economic decisions.** In the John Deere case, they were calling a lot of things overhead that weren't truly overhead (e.g. scrap, which is probably proportional to the amount you produce). We discussed how the internal transfer pricing arrangement probably encouraged the managers to think this way since it awarded
contracts on the basis of direct costs but, by the books, the actual transfer price was supposed to be the full price.

In summary, the John Deere case was an exercise in thinking about how not to make pricing decisions (i.e., doing what the managers at JDCW did). We will spend the next couple lectures talking about better pricing models.