A10-5 Factory overhead rate

Fabricator Inc., a specialized equipment manufacturer, uses a job order costing system. The overhead is allocated to jobs on the basis of direct labor hours. The overhead rate is now $3,000 per direct labor hour. The design engineer thinks that this is illogical. The design engineer has stated the following:

> ***Our accounting system doesn't make any sense to me. It tells me that every labor hour carries an additional burden of $3,000. This means that while direct labor makes up only 5% of our total product cost, it drives all our costs. In addition, these rates give my design engineers incentives to "design out" direct labor by using machine technology. Yet, over the past years as we have had less and less direct labor, the overhead rate keeps going up and up. I won't be surprised if next year the rate is $4,000 per direct labor hour. I'm also concerned because small errors in our estimates of the direct labor content can have a large impact on our estimated costs. Just a 30-minute error in our estimate of assembly time is worth $1,500. Small mistakes in our direct labor time estimates really swing our bids around. I think this puts us at a disadvantage when we are going after business.***

1. What is the engineer's concern about the overhead rate going "up and up"?
2. What did the engineer mean about the large overhead rate being a disadvantage when placing bids and seeking new business?
3. What do you think is a possible solution?

A10-6 Classifying costs

GROUP PROJECT

With a group of students, visit a local copy and graphics shop or a pizza restaurant. As you observe the operation, consider the costs associated with running the business. As a group, identify as many costs as you can and classify them according to the following table headings:

Cost	Direct Materials	Direct Labor	Overhead	Selling Expense

A10-7 Just-in-time principles

Warm Space Inc. manufactures electric space heaters. While the CEO, Gwen Willis, is visiting the production facility, the following conversation takes place with the plant manager, Tyra Chastain:

Gwen: As I walk around the facility, I can't help noticing all the materials inventories. What's going on?

Tyra: I have found our suppliers to be very unreliable in meeting their delivery commitments. Thus, I keep a lot of materials on hand so as to not risk running out and shutting down production.

Gwen: Not only do I see a lot of materials inventory, but there also seems to be a lot of finished goods inventory on hand. Why is this?

Tyra: As you know, I am evaluated on maintaining a low cost per unit. The one way that I am able to reduce my unit costs is by producing as many space heaters as possible. This allows me to spread my fixed costs over a larger base. When orders are down, the excess production builds up as inventory, as we are seeing now. But don't worry—I'm really keeping our unit costs down this way.

Gwen: I'm not so sure. It seems that this inventory must cost us something.