

# Marginal Costs/Marginal Benefits



In order for consumers and businesses to decide how many items to buy and produce, they must consider their marginal costs and marginal benefits. Choices are normally made at the margin. What does this mean? Let's look at some examples.

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# Marginal Benefits



How will you benefit, or be better off, by getting one more hamburger, drink, or hour of sleep? If you eat at a restaurant and choose the all-you-can-eat entrée, when do you decide not to eat anymore -- after four plates, five plates, or six plates?

You decide if you should get one more unit, or in this case, one more plate. When you decide you are full, even though you can get another plate at no cost to you, you choose to stop eating because the benefit of not eating is more important. The additional plate is no longer valuable to you. In economics, marginal simply means one more.

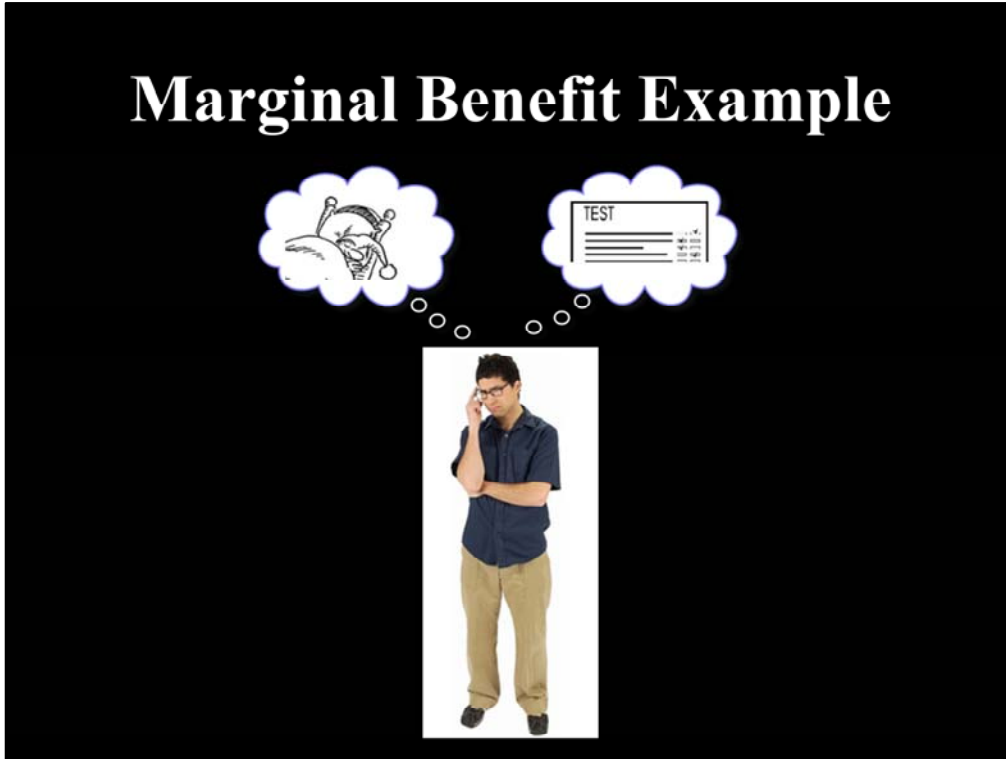
# Total Benefits

Quantity	Total Benefits	Marginal Benefits
0	0	0
1	20	20
2	35	15
3	45	10
4	53	8
5	60	7

This table charts the marginal and total benefits from consuming slices of pizza. Why do you think the marginal benefit decreases as you eat more?

Think about when you're really hungry. The marginal benefit of the first slice of pizza is twenty. When you get to the fifth slice of pizza, the marginal benefit is only seven. Of course, the first few pieces of pizza are appetizing when you are hungry. After several pieces of pizza, however, the added benefits diminish.

# Marginal Benefit Example



Here's another example.

It's 7 p.m. and you have a test tomorrow morning. You have only two things you need to do: study for the test and sleep. Both of these are good things for you to do; you need to know as much about the topic on the test as you can, but you also need to be well rested to perform well. Unfortunately, you can't sleep and study simultaneously. You must make an economic choice about when studying is no longer productive and sleep would be more a beneficial choice to you. Will you get four, five, or six hours of sleep? At what point do you decide that there is no more marginal benefit to studying, and that sleeping is more productive?

Image Source: clipart.com



Now, you probably have a pretty good idea about marginal benefits from the consumer's point of view, but what about from the producer's? How do producers know how to satisfy our wants and needs to the point of their marginal benefit?

Producers normally think more in monetary terms. What will be the marginal cost of something? The marginal cost indicates how much the total cost changes when the producer makes one more unit. It only makes sense for the producer to add more time or resources to make something if the marginal benefit exceeds the marginal cost.

To see how this works, let's look at an example where you're functioning as the producer.

Image Source: [clipart.com](http://clipart.com)

# Chicken



You've invited four of your friends over for dinner and are going to cook a whole chicken, some potatoes and green beans. You figure that each person will eat one-quarter pound of potatoes, one-half cup of green beans, sixteen ounces of drink, and about one-fifth of a chicken.

One of the friends you've invited calls to see if he can bring someone. The marginal cost of your labor to cook more food is minimal, since it won't take much more time. The marginal cost of buying more potatoes, green beans, and drinks is also minimal. The chicken, on the other hand, is a different story. You figure that one chicken can feed five people with some left over, but if you have a sixth person, you might have to get another bird. Now the marginal cost of inviting that extra person goes up a lot.

Of course, it all depends on how much your friend's friend eats. You might be able to get away with just one bird. You'd better not leave it to chance!

Image Source: [clipart.com](http://clipart.com)

# Producer Costs



The marginal costs you have for cooking food for your friends are similar to the marginal costs that producers face. They also have to consider how much it costs to produce each additional item. Often times, the cost per item goes down the greater the number of items that the producer makes; however, there's always some point where the costs involving producing one more item or unit makes it less profitable for the producer. It might be that the producer has to hire extra workers, or buy more materials, or that the producer won't be able to sell the additional items. Having a good understanding of the marginal benefits of producing each item helps producers to be profitable.

Let's look at an example of a laptop manufacturer to see how well you understand marginal benefits.

Image Source: [clipart.com](http://clipart.com)

## Marginal Cost

Question 1 of 1

Point Value: 10

The table illustrates the relationship between the quantity of laptops produced, total costs, and marginal costs.  
The total cost of making six laptops is 640 dollars, and the cost of making seven laptops is 800 dollars.

So, what is the marginal cost?

- 140
- 150
- 120
- 130
- 160

Quantity	Total Costs	Marginal Costs
0	0	0
1	100	100
2	200	100
3	220	20
4	350	130
5	490	140
6	640	150
7	800	160

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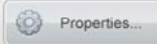
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# Marginal Benefits to Producers

Marginal benefits to producers are the *additional* benefits they receive by producing one more unit.

Marginal Benefit

Greater than

Marginal Cost

Marginal Benefit

Less than

Marginal Cost

Marginal benefits to producers are the *additional* benefits they receive by producing one more unit. Producers tend to look at these benefits in terms of how much money they will spend and make. Remember, whether you are a producer or a consumer, you will choose to do something to the extent that the marginal benefit is equal to or greater than the marginal cost.

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