Lesson 22 Career Trajectories

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A convenient model for OPS as a function of age is a quadratic function:

$$OPS = A + B(Age - 30) + C(Age - 30)^2$$

What are some good reasons to use the quadratic model?

- Simple, easy-to-interpret
- Models a typical career (player improves initially as he gains experience with major league experience, peaks, and then starts to decline as age reduces eye sight and reflexes)

What are some bad reasons to use the quadratic model?

- No way to model multiple peaks
- Assumes rate of improvement early in the career is the same as the rate of decline late in career

Why do we subtract 30 from *Age* in the model?

Based on this model, find an expression for the peak age.

Based on this model, find an expression for the peak OPS.

In the quadratic model, explain what C tells us about a player's trajectory.