



For students to appreciate why line of best fit is generally implemented by minimizing the sum of the squares of the errors, JSE Editor Michelle Everson suggested that The University of Texas at El Paso's Lawrence Lesser write a parody of "Beat It," Michael Jackson's 1983 number-one hit that went platinum, won a Grammy, and helped make *Thriller* the best-selling album of all time. Here is Lesser's result, which incorporates a couple of suggestions from Ethan Brown.

Square It!

They told him, don't just add the regression errors here:

The plus and minus cancel and they disappear.

So make each error positive, make it really clear—

Just square it, just square it!

Absolute value doesn't make me a fan:

A line it gives is not unique, ya understand?

And that is real tough for a software command,

So square it, you want to so bad:

Just square it (*square it*), square it (*square it*):

Get a better line of best fit!

It's the least you can do to get the best line,

It really matters how you're inclined:

Just square it (*square it*), just square it (*square it*),

Just square it (*square it*), just square it (*square it*)

Oooh! Markov and Gauss, you know that each was the man,

Showed squaring errors made a better plan.

They talked 'til they were BLUE 'bout their theorem so grand,

So square it, just square it.

Oooh! Well now we know to minimize residuals squared

'Cause other estimators really can't compare:

The coefficients' estimates are most precise there,

So square it, you want to so bad:

Just square it (*square it*), square it (*square it*):

Now derivatives can bear it!

It's the least you can do to get the best line,

It really matters how you're inclined:

Just square it (*square it*), just square it (*square it*),

Just square it (*square it*), just square it (*square it*)

Lyrics © 2013 Lawrence M. Lesser (reprinted with permission)

Here are my recommendations for anyone considering freelancing:

Have a specialty. Clients won't hire you just because you "know something about statistics." Clients hire you because you can solve a problem more quickly and efficiently than they can. Besides, without a specialty, your only competitive advantage is to undercut other consultants, and that's the road to poverty.

Be visible. Show the world what you know. Not everyone has the opportunity to write a book, but everyone can create a website where they post their work. Include your contact information.

Get out in the world. Don't sit at home. Volunteer to help with your local ASA chapter or user's group. Apply to speak at conferences. Tell local colleges and universities you are available for adjunct work and statistical consulting. Have lunch with other freelancers in your area.

Be ready for the stochastic income lifestyle. Every freelancer faces periods without billable time. It's inevitable, such as the time between gigs. Are you financially prepared to live for three months with no income? Are you psychologically ready? It can be stressful.

Apprenticeship is necessary. Freelancing right out of school is not a good idea. Find and establish your specialty first. A possible exception is the PhD who has already demonstrated mastery of a topic. Nonetheless, all recent graduates can benefit from joining an established group in which they can learn the practical aspects of business and commercial analytics work.

Add value wherever and whenever you can. Make a difference. This is part of being visible. It's also good experience, good material for your résumé, a good source of referrals and recommendations, and good karma.

Long ago, a wise business consultant taught me the First Rule of Business: Always give more than you get. That applies double in consulting. Clients come back over and over to the consultants who provide genuine value. Clients dump the consultants who don't.

Perhaps you want to be a freelancer and you're asking yourself, "How can I find clients?" Honestly, I don't have a simple answer. But I do know that adding value wherever and whenever you can will make a difference in the world. People will notice. They will wonder how you could add value for them. Be ready to tell them. ■