

EconDataScience.com

Steven C. Myers, PhD

2019 SAS Distinguished Educator



2021 Course Brochure

Economist
Business Analyst
Professional Speaker
Applied Econometrician
SAS® Programmer and Trainer

Economists put the Science into data science



Outstanding Presentations for your team

SAS Boot Camp

(For the budding analyst new to SAS)

Learn to program in SAS
in a problem-solving setting.

Time: 8 hours, can be broken up into a two or four day course.

Prerequisites: No prior knowledge of SAS is required.

Students get hands on practice and will need to be at a computer with SAS installed.

Learning objectives:

- ⇒ Participants will learn to code in the SAS windowing environment and will be introduced to the non-programming SAS Studio interface.
- ⇒ Participants will learn to read data in text, csv and Excel formats.
- ⇒ Participants will learn to explore the data, create data transforms, clean data and define sample subsets for analysis.
- ⇒ Participants will learn the differences and similarities of time-series and cross-section data and some tools specific to each.

Regression is introduced only in the last session. If you desire a course in regression use, see the Pitfalls of Regression Practice course in this brochure.

"I can help you build your data science presence, discuss the importance of analytics to your business, teach methods to your data science team, and more."

Boot Camp is based on these presentations:

- ⇒ Explore your data before you rush to analysis, you will thank me later: explorations in cross section data.
 - Best Paper in Business Leadership MWSUG 2019.
 - Presented at SCSUG 2019.
- ⇒ Exploring and characterizing time series data in a non-regression based approach.
 - Presented MWSUG 2019.
- ⇒ Do you know when your data is lying to you? The How of regression analysis with quantitative and qualitative variables.
 - Presented at SCSUG 2019 as a hands on workshop.

For actual papers, data and more:

<https://econdatascience.com/analytic-papers-using-sas/>



Outstanding Presentations for your team

The Pitfalls of Regression Practice

A full day course

ESSENTIAL PRACTICE BEYOND THE BASICS

"Regression is a puddle in which a novice can wade, and an expert drown."

– Steven C. Myers

Time: 8 hours in two parts

Part 1:

Pitfalls of Regression Analysis Part 1: Don't let influential data observations kill your regression and your career

Part 2:

Pitfalls of Regression Analysis Part 2: The Power of Dummy Variables in Regression

Reference:

This course is based on my 2021 SAS Global Forum paper. The checklist of pitfalls began with an invited paper for OHSUG virtual conference in August 2020.

Myers, Steven C. (2021). "Haste Makes Waste: Don't Ruin Your Reputation with Hasty Regression," Proceedings of the SAS Global Forum 2021 conference, Virtual, SAS Institute. Available at <https://communities.sas.com/t5/SAS-Global-Forum-Proceedings/Haste-Makes-Waste-Don-t-Ruin-Your-Reputation-With-Hasty/ta-p/726369>.

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Pitfalls of regression practice are failures to:

- 1) Understand why you are running the regression.
- 2) Be a data skeptic and understand the data generating process.
- 3) Examine your data before you regress.
- 4) Examine your data after you regress.
- 5) Understand how to interpret regression results.
- 6) Model both theory and data anomalies and to know the difference.
- 7) Be ethical.
- 8) Provide proper statistical testing.
- 9) Properly consider causal calculus.
- 10) Meet the assumptions of the classical linear model.

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Outstanding Presentations for your team

The Ethics of Applied Econometrics

(Ethics needs to be practiced)

"Failing to follow these rules brings about ethical implications if not direct unethical behavior."

– Steven C. Myers

"... we have a moral obligation to inform students of these rules..."

– Peter Kennedy

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The first econometrician concerned with ethics: Peter Kennedy.

From the moment I read this paper, I was completely transformed and forever a disciple of his. I was fortunate to host him on my campus where he spoke of the misuse of econometrics and failure of research to make it past his editor's desk at the Journal of Economic Education

Peter Kennedy's "Sinning in the Basement: What are the Rules? The Ten Commandments of Applied Econometrics." This essay also appears in his Guide to Econometrics (Kennedy, 2008).

Time: 1 to two hours.

The rules:

- 1) Use common sense and theoretical economic reasoning
- 2) Avoid Type III errors
- 3) Know the context
- 4) Inspect the data
- 5) Keep it sensibly simple
- 6) Use the intraocular trauma test
- 7) Understand the costs and benefits of data mining.
- 8) Be prepared to compromise
- 9) Do not confuse statistical significance with meaningful magnitude
- 10) Report a sensitive analysis

Based on:

Myers, Steven C. (2020). "Ethics Rules in Applied Econometrics and Data Science," Essay 85, Policy Implications, in Bill Franks (ed.). 97 Things About Ethics Everyone in Data Science Should Know. O'Reilly, pp. 231-233.

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Outstanding Presentations for your team

Preparing your Students for Data Science Careers

Academic Consultancy, not training

Time: negotiable

Let me work with your department to help you see the advantages of partnering with SAS.

Let me also help you see why economists make such great data scientists.

I taught econometrics to students at the University of Akron for 41 years. In that time, we watched our students gain great placements as analysts and in more recent years as data scientists.

Economics offers as a discipline many valuable skills such as problem solving ability and storytelling. When economic theory and deep business acumen combine with applied econometric analytics plus an obsession to understand the data generating process and methods of dealing with dirty data you have a lot of research savvy. Add a layer of deep SAS® programming and analytics and you have the beginnings of a great data scientist.

We at the University of Akron partnered in 2015 with the SAS Global Academic Program to offer a joint certificate in economic data analytics. Now called a SAS Academic Specialization, partnering with SAS is the best thing you can do for your students.

Based on my 2020 SAS Global Forum Paper:

Myers, Steven C. (2020). "Show Me the Money! Preparing Economics Students for Data Science Careers" Proceedings of the SAS Global Forum 2020 conference, Virtual, SAS Institute. Available at <https://www.sas.com/content/dam/SAS/support/en/sas-global-forum-proceedings/2020/4705-2020.pdf>.

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How do economists put the science into data science?

- ◆ Focus on problem solving using economic theory and common sense
- ◆ Focus on telling the story
- ◆ Obsessed with Causality
- ◆ Focus on being data skeptics
- ◆ Obsessed with finding the data generating process
- ◆ Development of deep data cleaning skills
- ◆ Evaluation & treatment analysis
- ◆ Strong focus on estimation and inference
- ◆ Committed to testing strategies and avoiding Type III errors
- ◆ Understanding prediction and its limitations

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About Dr. Steven C. Myers

Dr. Steven Myers is an evangelist for economists in data science. An applied econometrician, he has taught SAS® programming and advanced analytics to students for four decades. He is responsible for the Joint Certificate in Economic Data Analytics awarded at The University of Akron in partnership with SAS since 2015. His students are highly placed in data science careers locally and nationally. He was the first CIO of UA splitting time between production computing and overseeing exciting developments in academic computing including web presence, tech-enhanced classrooms, distance learning and faculty support.

He is the organizer of the first Data Science Day at UA in 2007. He received BS/MA in economics from WVU and MA/PHD in economics from The Ohio State University. He has presented at OHSUG, MWSUG, SCSUG and twice at SAS Global Forum. He writes at LinkedIn and at EconDataScience.com, where “economics puts the science into data science.”



Front cover: 2019 Speaking at LSU, Baton Rouge.
Inside cover: Participants at UA Data Science Day
Above: Addressing the UA Data Science Day

Steven C. Myers Consulting

Available for consultation and contract engagements.

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