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## Proposed Survey Of Business Statistics Teachers

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MSMESB 2002

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## A Big Job! 300,000+ students per year

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**227,000 undergraduates per year**  
~1,000 teachers (4 sections/yr; 50 students/section).

**94,000 graduate students per year**  
~1,000 teachers (3 sections/yr; 33 students/section).

At \$1,000 per student, the total revenues are:  
US Undergraduate: \$230 million per year.  
US Graduate: \$100 million per year.

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## What Are Our Goals in Introductory Statistics?

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*To teach business students:*

- the power & beauty of statistical inference.**  
*What percent teach confidence intervals?  
What percent teach hypothesis testing?*
- the importance of statistical process control.**  
*What percent teach quality tools or control charts?*
- how to describe and model associations.**  
*What percent teach interpreting tables and graphs?  
What percent teach multivariate/logistic regression?*

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## What do Teachers Teach?

Stroup-Jordan Survey #1

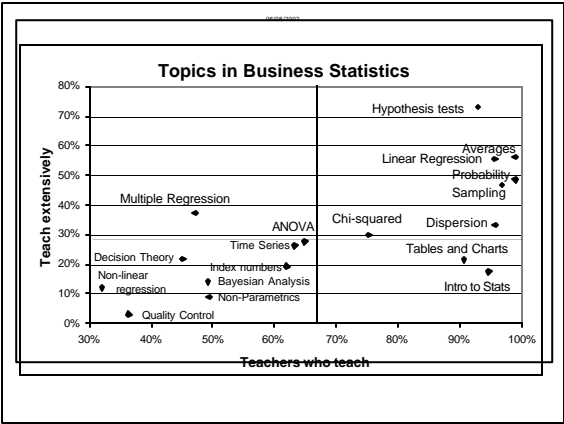
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105 teachers of business statistics were asked:

Q1. What topics do you teach?  
Q2. If you teach a topic, do you teach it moderately or extensively?

1982 ASA Proceedings of the Section on Statistical Education  
"Statistics: Monster in the University"



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## What do Managers Use?

Stroup-Jordan Survey #2

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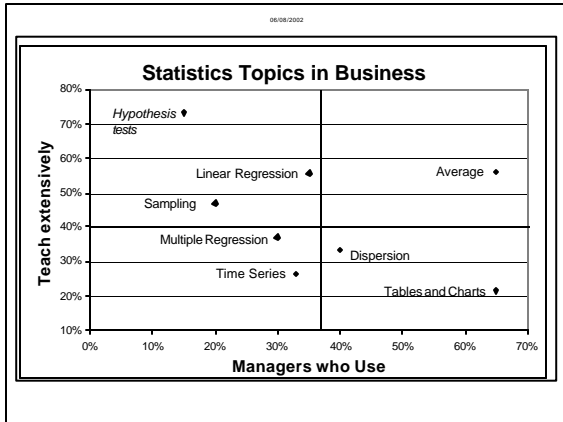
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1,495 business managers were asked if they used various statistical topics in business.

**High usage:** graphs (83%), surveys (69%), and crosstabs/frequencies (65%)

**Moderate usage:** standard deviation (38%), regression (35%), time series (33%) and confidence intervals (30%)

**Low usage:** random sampling (20%) and non-parametrics (13%)



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## Foreseeable THREAT to Business Statistics

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Topics taught extensively in business statistics are negatively correlated with business usage.

What would happen if the statistics requirement was expanded to include **any one** of these?

• Statistics	• Risk Management
• Management Science	• Cost Accounting
• Operations Research	• Market Research
• Business simulation	• Investment theory
• Actuarial science	• Project Management

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## The MSMESB Should Survey Business Statistics Teachers

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**We have**

- money for this survey.
- staff to compile a list of teachers.
- staff to mount/run web survey.

**What is needed:**

1. MSMESB authorization.
2. leadership.
3. participation.

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## MSMESB Survey of Business Statistics Teachers

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- What text is used? How many students taught?
- How are the topics and the text chosen?
- What is teacher education and experience?
- What topics are taught? How extensively?
- How relevant are these topics in business?
- What are the course goals?
- What changes are needed?
- What justifies statistics versus other courses?
- What is importance of modeling vs. inference?

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## Next Step on Proposed Survey

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Let me know if you are interested in:

- Survey coordination
- Generation of teacher contact list
- Survey design
- Survey field test
- Data preparation
- Data analysis

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## Benefits to MSMESB

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Externally:

- Be proactive in anticipating change
- Meet foreseeable “threat”
- Improve quality of statistical education
- Make “statistics more effective”

Internally:

- To serve 100% of business majors