Determinants of Teacher Evaluation Results at EAFIT University

Research Practise 1: Progress presentation

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October 16th, 2015

OBJECTIVES

GENERAL OBJECTIVE

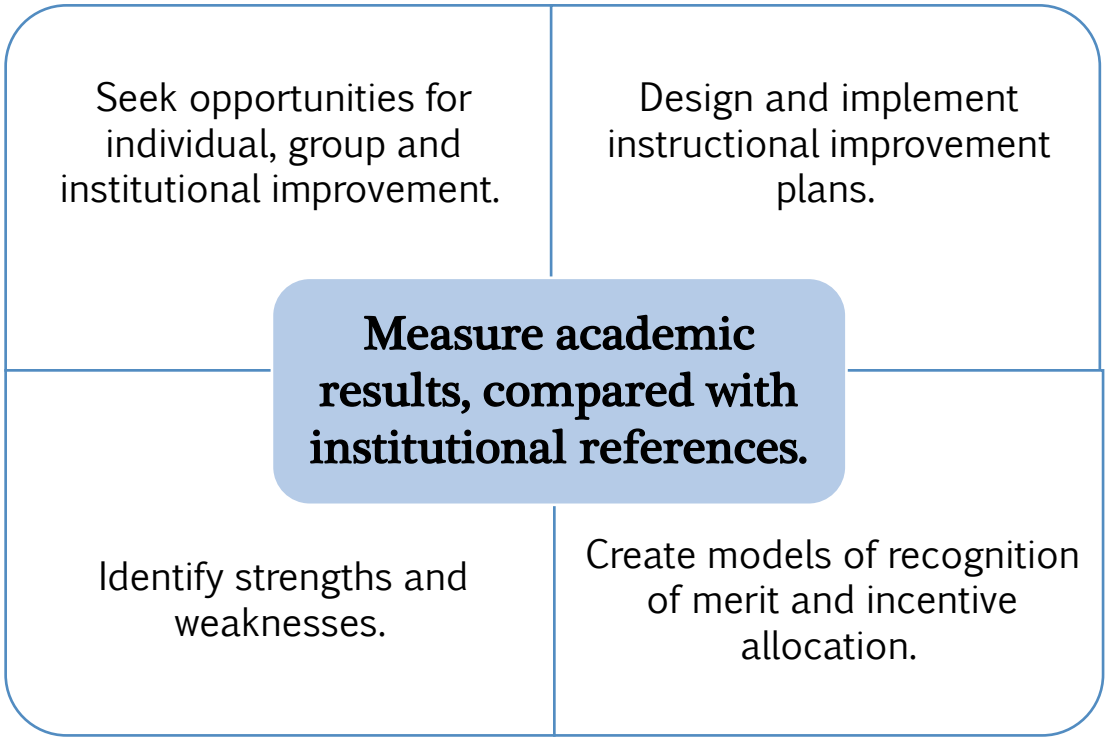
Identify the factors that influenced teachers evaluation by students from EAFIT University during the semester 2014-2.

SPECIFIC OBJECTIVES

- Make a framework of previous studies conducted on teacher evaluation.
- Organizing databases of teachers evaluation in 2014-2 and variables to consider in econometric modelling.
- Analyze using descriptive statistics the results of the teaching assessment by students from EAFIT University in 2014-2.
- Designing an econometric model to explain the relationships between the different explanatory variables set and teacher evaluation at EAFIT University.

FRAMEWORK

Teacher evaluation purposes at EAFIT University



FRAMEWORK

The teacher evaluation instrument used in EAFIT consists of 16 questions that are scored on a scale of 1-5

- Course significance
- Evaluation difficulty level
- Relationship with students
- Students attention
- Motivation
- Teacher assistance
- Compliance class hours
- Compliance topics
- Foster autonomous learning
- Using resources
- Curriculum
- Comunicative skills stimulation
- Methodology
- Topics extenstion
- Conducting application activities
- Review evaluations

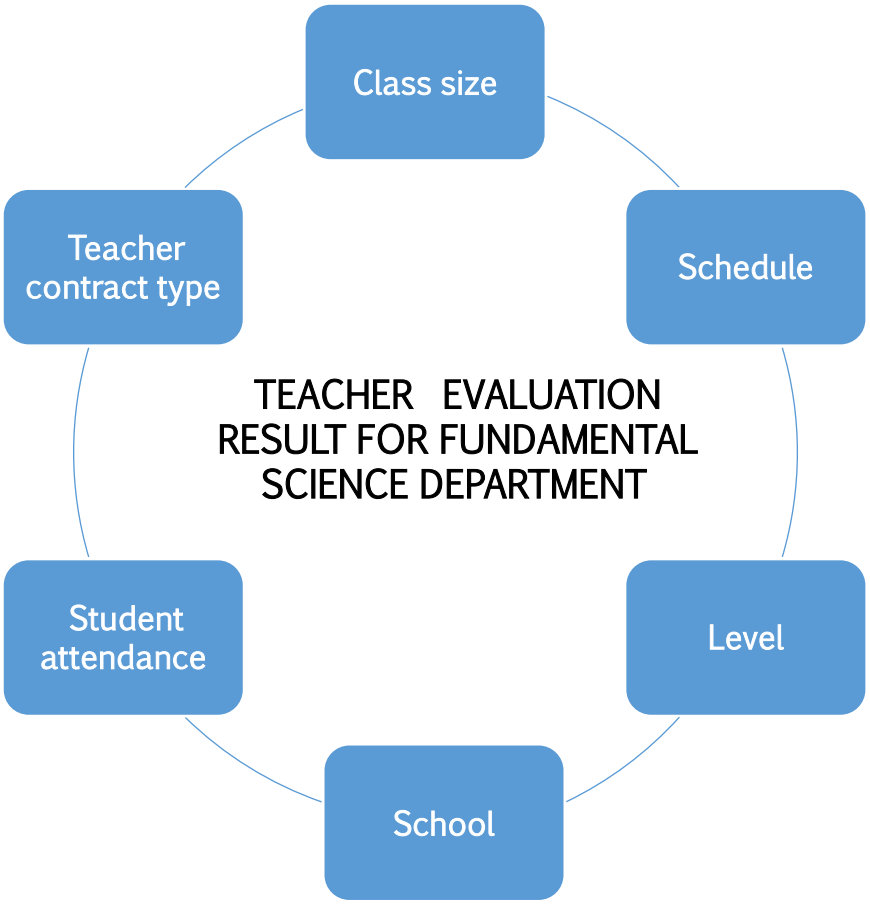
FRAMEWORK

Based on different studies on College teacher assessment we decided to reduce the variables for the results of teacher evaluation in EAFIT

Before...

MODEL	Fixed effects regression	Explanatory variables	• Contract Type • Last academic degree • Experience
Dependent variable	TEACHER RESULTS		
MODEL	Fixed effects regression	Explanatory variables	• Faculty • Schedule • Course Type • Level • Class size
Dependent variable	COURSE RESULTS		
MODEL	Ordinary Least Squares (OLS)	Explanatory variables	Results by group of student self-assessment: Attendance, dedication, group behavior, difficulty level.
Dependent variable	GENERAL RESULTS		

FRAMEWORK

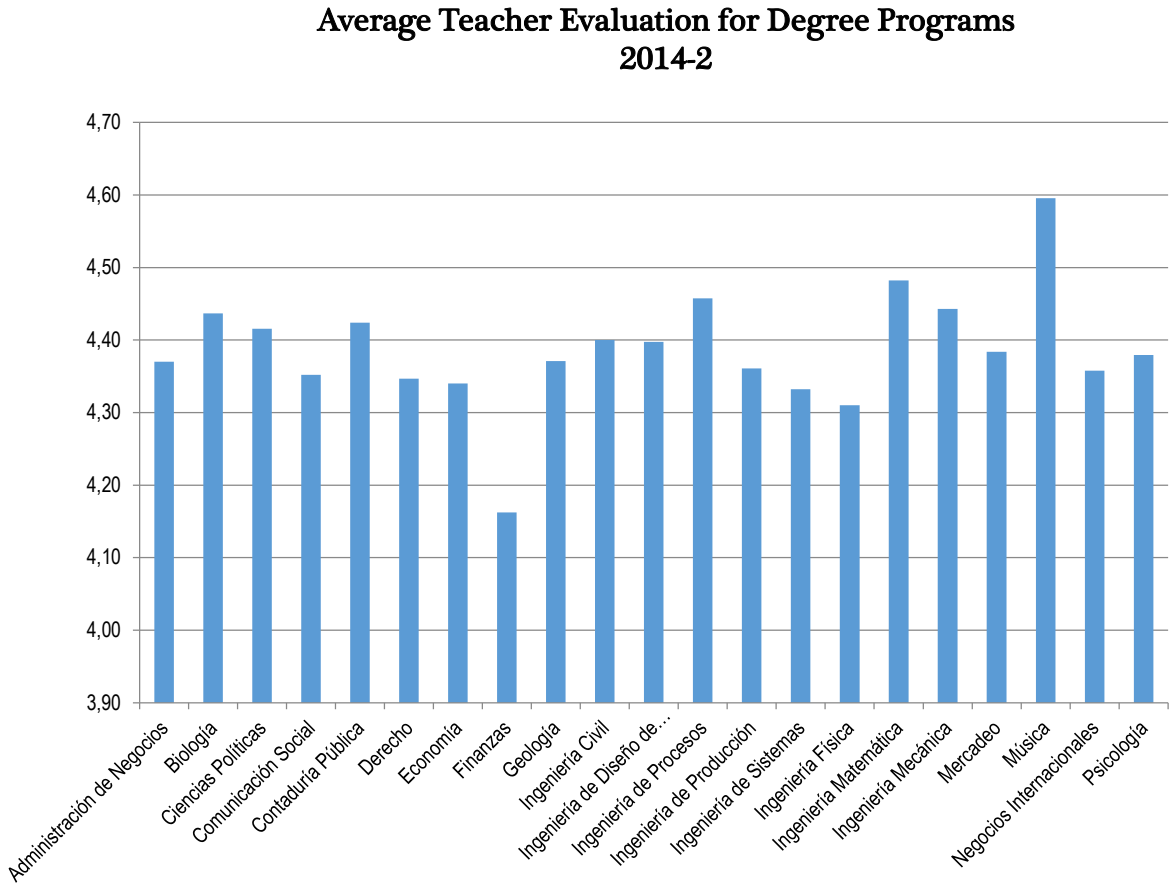


How do these factors influence the results of teacher evaluation?

VARIABLES AND DATABASES

MODEL	Ordinary Least Squares (OLS)
Dependent variable	Average for groups of Fundamental Science Department teacher evaluation in 2014-2
Explanatory Variables	
Teacher contract type	Full Time or Partial Time
School	Management and Economics, Engineering, Science, Humanities
Schedule	Morning, Afternoon or Evening
Level	Basic (1^{st}-3^{th} semester), Profesional (4^{th} -7^{th} semester), Elective(8^{th} -10^{th} semester)
Class size	Number of students for each group
Student attendance	• Less than 20% • 20- 50% • 50-70% • Over 70%

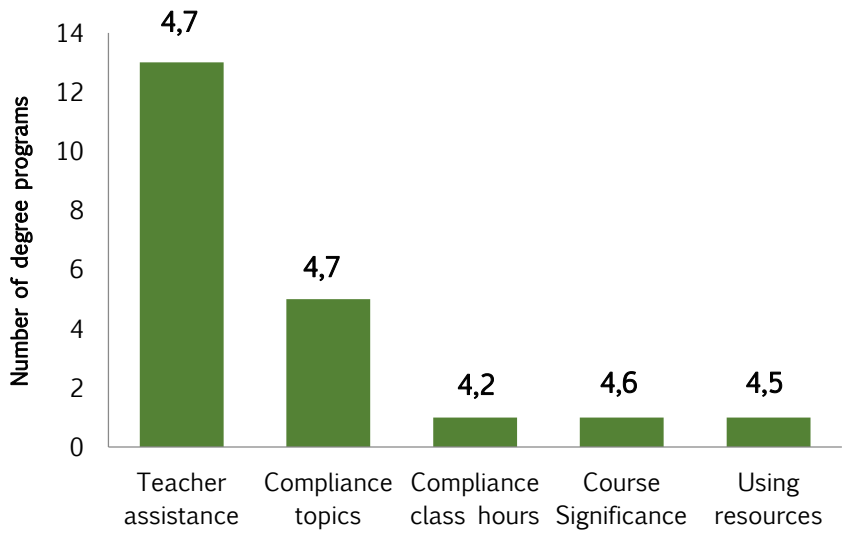
DESCRIPTIVE STATISTICS



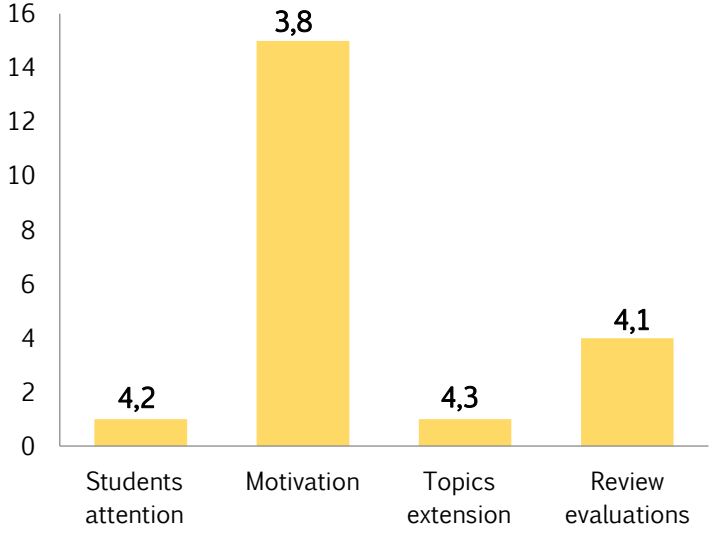
Source: Institutional databases and authors' calculations

DESCRIPTIVE STATISTICS

Questions with the best results



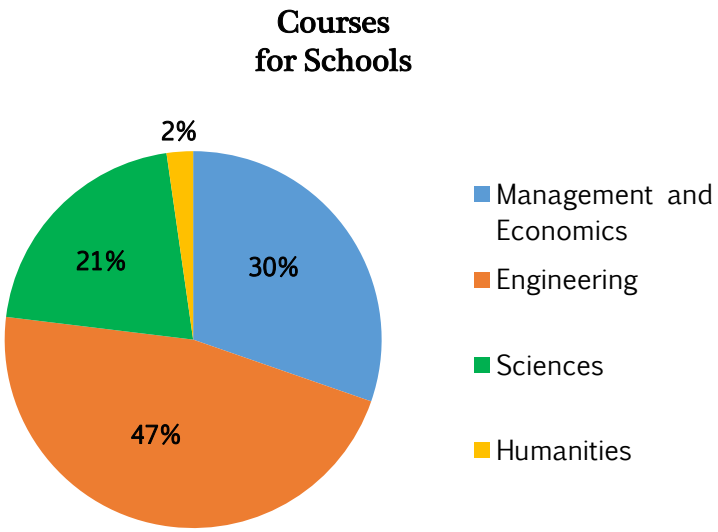
Questions with the worst results

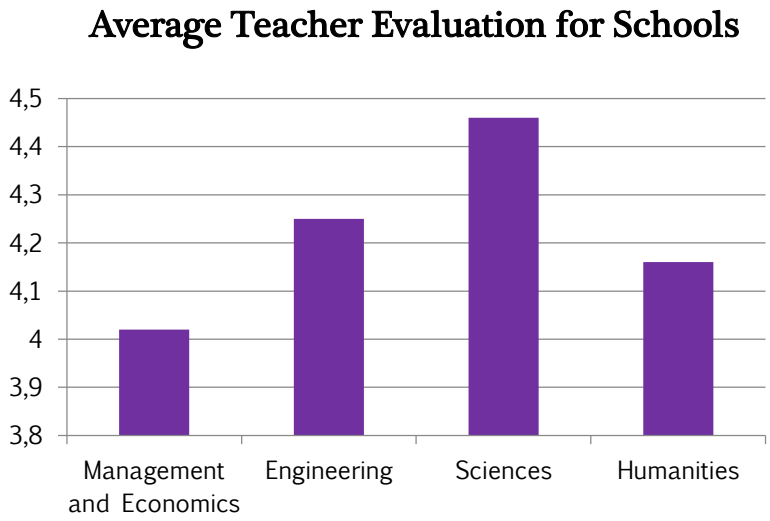


Source: Institutional databases and authors' calculations

DESCRIPTIVE STATISTICS

FUNDAMENTAL SCIENCE DEPARTMENT





Source: Institutional databases and authors' calculations

DESCRIPTIVE STATISTICS

Average of teacher evaluation of Fundamental Science Department for questions

Question	Average	Question	Average
Course significance	4.22	Foster autonomous learning	4.16
Relationship with students	4.38	Using resources	4.20
Evaluation difficulty level	4.18	Curriculum	4.35
Students attention	4.13	Comunicative skills stimulation	3.97
Motivation	3.97	Methodology	4.19
Teacher assistance	4.61	Topics extension	4.18
Compliance class hours	4.54	Conducting application activities	4.14
Compliance topics	4.53	Review evaluations	4.23

Source: Institutional databases and authors' calculations

DESCRIPTIVE STATISTICS

Descriptive Statistics of teacher evaluation for Fundamental Science Department

VARIABLE	Obs.	Mean	Min.	Max.	Std. Dev.	Var.Coef.	Q1	Q2	Q3	Skewness	Kurtosis
Science Department	221	4.27	3.03	5.00	0.37	8.61	4.06	4.30	4.54	-0.62	3.53
Management and Economics	67	4.15	3.13	4.73	0.35	8.40	3.97	4.20	4.38	-0.90	3.59
Engineering	103	4.28	3.37	4.90	0.33	7.80	3.56	4.31	4.54	-0.54	3.06
Sciences	46	4.44	3.04	5.00	0.41	9.33	4.28	4.55	4.99	-1.16	4.67
Humanities	5	4.12	3.84	4.33	0.18	4.30	4.12	4.15	4.17	-0.68	2.59

Source: Institutional databases and authors' calculations with Stata

ECONOMETRIC MODEL

Is it possible to determine whether the results of the teacher evaluation can found groups of variables with common meaning and get thus reducing the number of dimensions necessary to explain these results?

FACTOR ANALYSIS
Technique of dimensionality reduction of data.

TEACHER EVALUATION OF FUNDAMENTAL SCIENCE DEPARTMENT

Dependent Variable

Average of each group

Explanatory Variables

Results per question for each group

Thanks for your attention

QUESTIONS