

Statistics and Operations Research Careers in Science 2015

Talk by Jeremy Tua

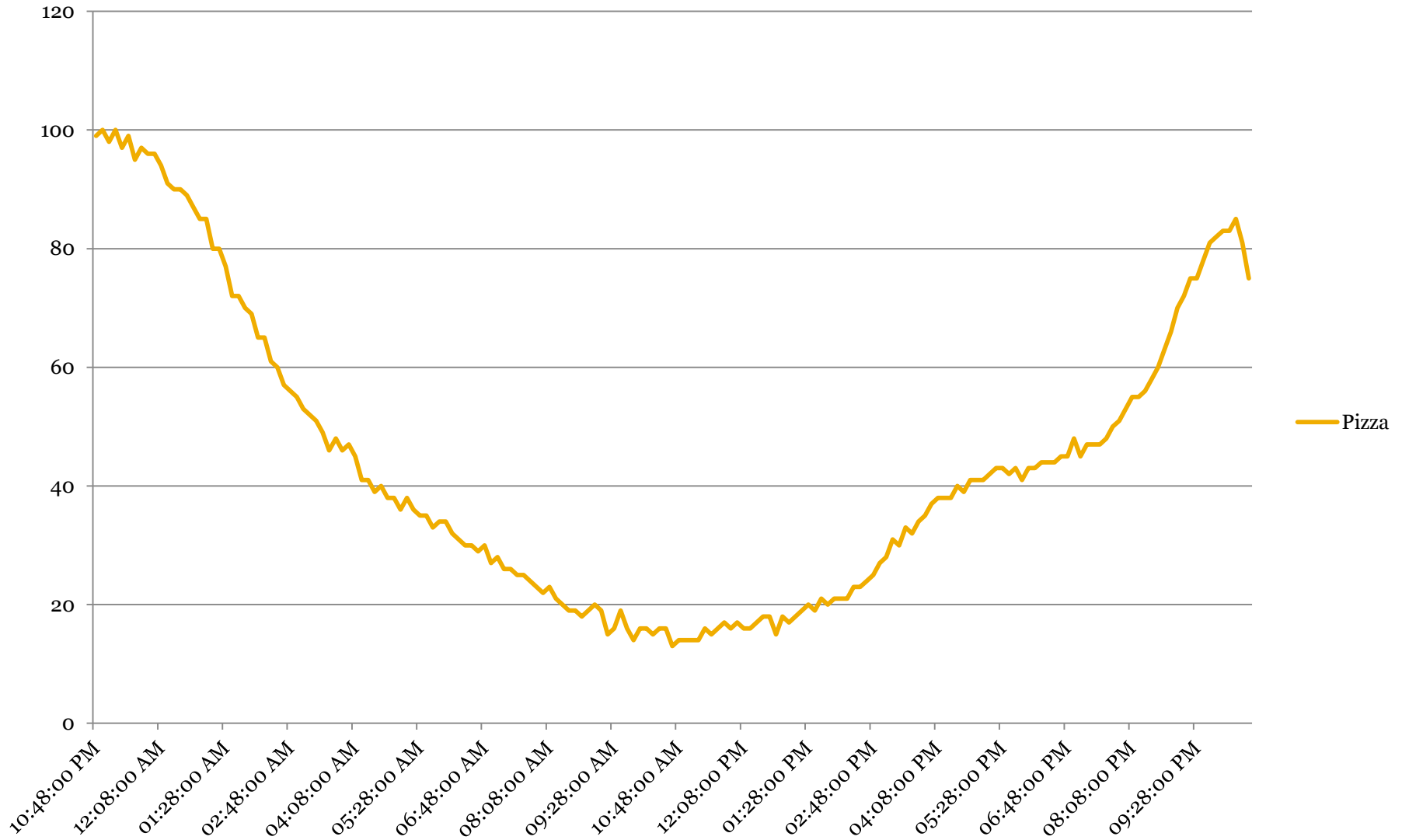
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What is Statistics?

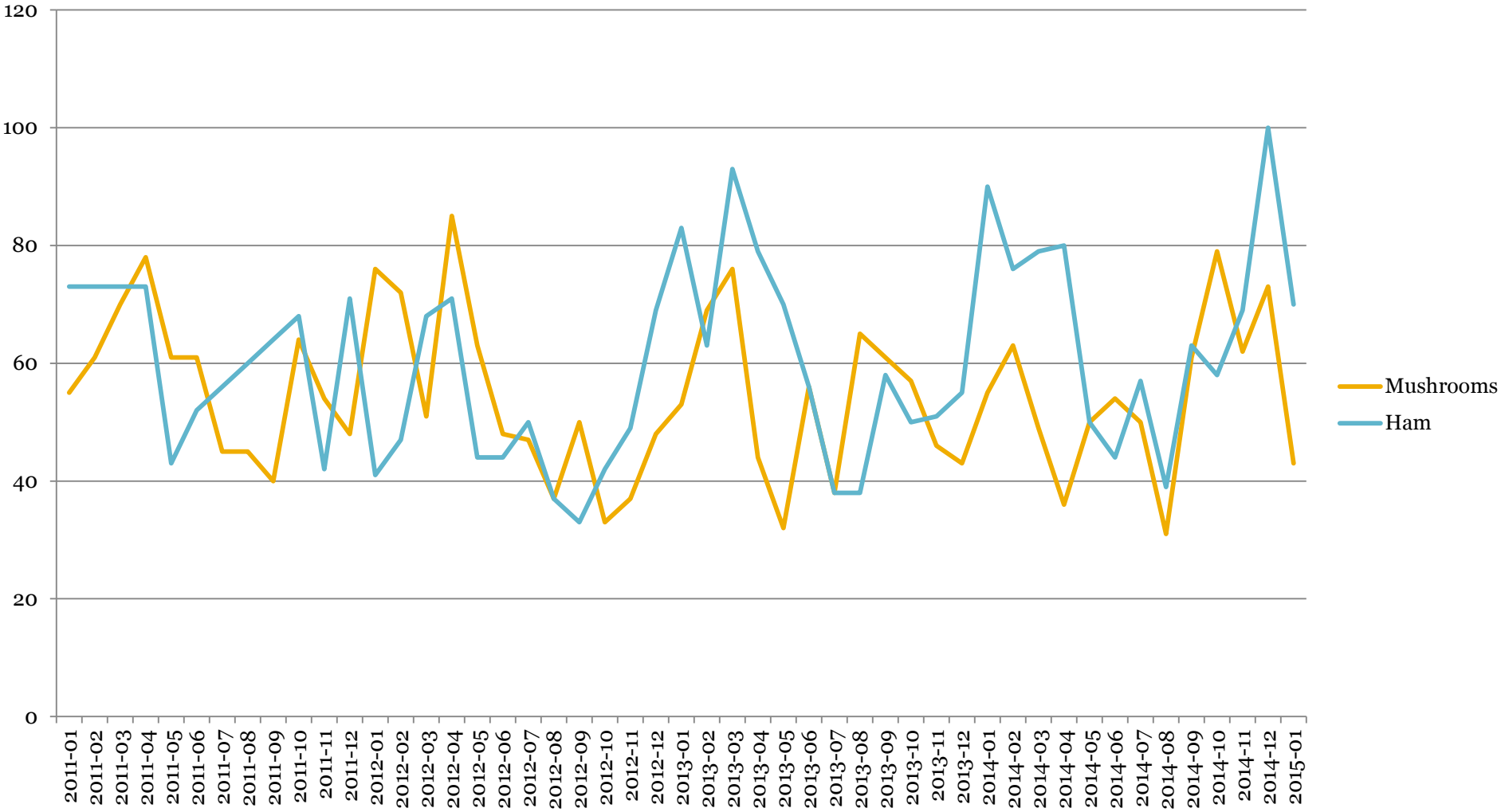
“There are three kinds of lies:
lies, damned lies, and
statistics.”

-Benjamin Disraeli, Politician

Google Searches for Pizza in the US over 24 hours.



Worldwide Google Searches for "Pizza with _____"



What is Statistics?

"Statistics is the grammar
of science."

- Karl Pearson, Mathematician

Probability

How do we model situations with randomness?

- Mathematical approach to modelling uncertainty.

Probability

- Some units within the discipline of Probability:
 - Probability
 - Convergence and Limit Theorems in Probability
 - Stochastic Processes I & II
 - Introduction to Stochastic Differential Equations

Statistics

Faced with randomness, how can we learn something from our data?

- Careful and mathematically supported approaches for making inferences about a population from observable variables.

Statistics

- Some units within the discipline of Statistics:
 - Statistical Inference I & II
 - Time Series I & II
 - Regression Models
 - Sampling
 - Statistical Computing

Operations Research

Faced with randomness, how can we choose something optimally?

- Mathmatically supported approach to making optimal decisions

Operations Research

- Units within the discipline of Operations Research:
 - Optimisation
 - Linear Programming
 - Integer and Dynamic Programming
 - Queueing Theory
 - Logistics Models

Subject Combinations

- SOR is offered as part of a B.Sc. Double honours course, in conjunction with:
 - Banking and Finance
 - Biology
 - Chemistry
 - Computer Science
 - Mathematics
 - Physics

Entry Requirements

- General Entry Requirements, plus either:
 - C or better in Applied or Pure Mathematics
- or
 - Or C or better in Computing or Information Technology together with a pass at Advanced Level at grade D or better

Job Opportunities

- Some Maltese employers of statistics graduates:
 - HSBC, SparkasseBank- Banks
 - NSO, MFSA, Central Bank – Gov't and Semi Gov't entities.
 - Actavis – Pharmaceutical Company
 - Betsson, Betfair, Phoenix GSB – Gaming companies