

## Expert advice from experts

### **Marie Curie**

Nobel Prize, PhD

### **Pierre Curie**

Nobel Prize, PhD

Report for  
Acme Corporation

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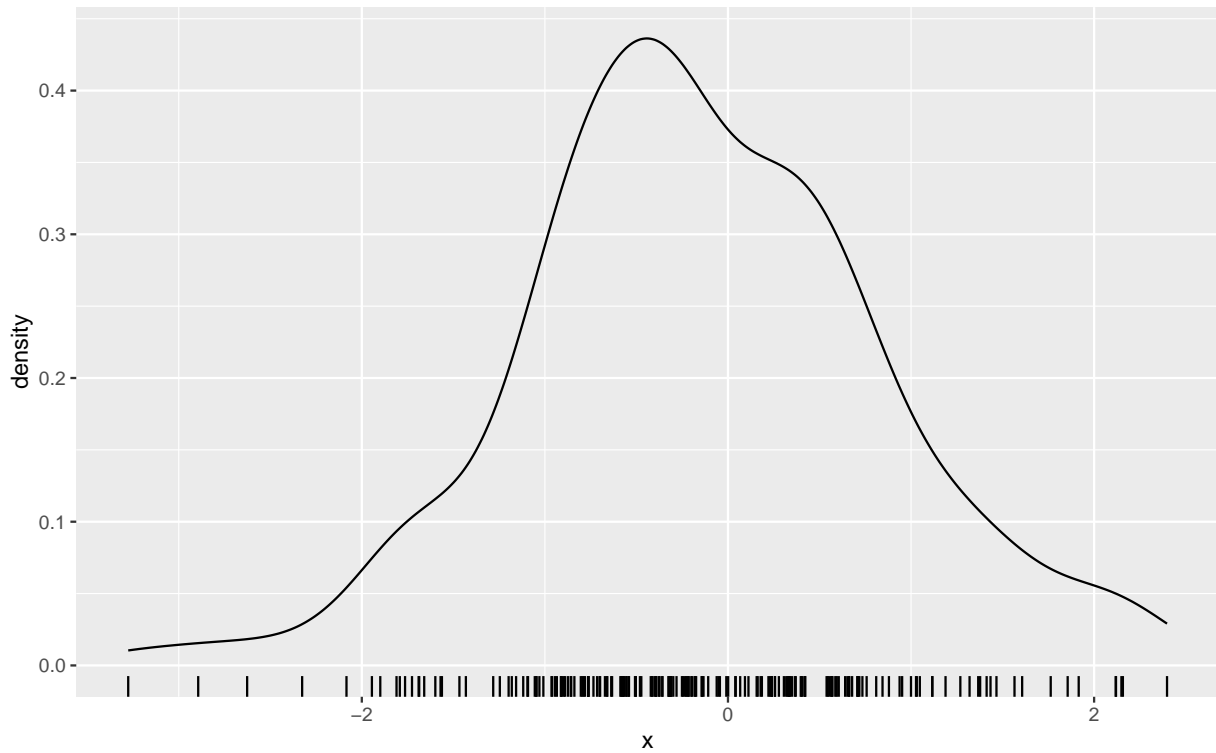
**Department of  
Econometrics &  
Business Statistics**

☎ (03) 9905 2478  
✉ [mcurie.notreal@gmail.com](mailto:mcurie.notreal@gmail.com)

ABN: 12 377 614 012

## 1 Introduction

In a famous paper, Box and Cox ([1964](#)) introduced a family of transformations ...



**Figure 1:** Simulated data from a  $N(0,1)$  distribution.

Figure 1 shows a kernel density estimate of simulated data from a  $N(0,1)$  distribution. The sample variance is given by

$$s^2 = \frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2 = 0.98. \quad (1)$$

Note that Equation 1 is an unbiased estimate of the variance, but it is not the maximum likelihood estimate (Rice [2007](#), p.269).

## References

Box, GEP and DR Cox (1964). An analysis of transformations. *Journal of the Royal Statistical Society, Series B* **26**(2), 211–252.

Rice, JA (2007). *Mathematical Statistics and Data Analysis*. 3rd edition. Duxbury.