

Supporting Data for *Teaching Heterodox Economics using Problem Based Learning Methods*

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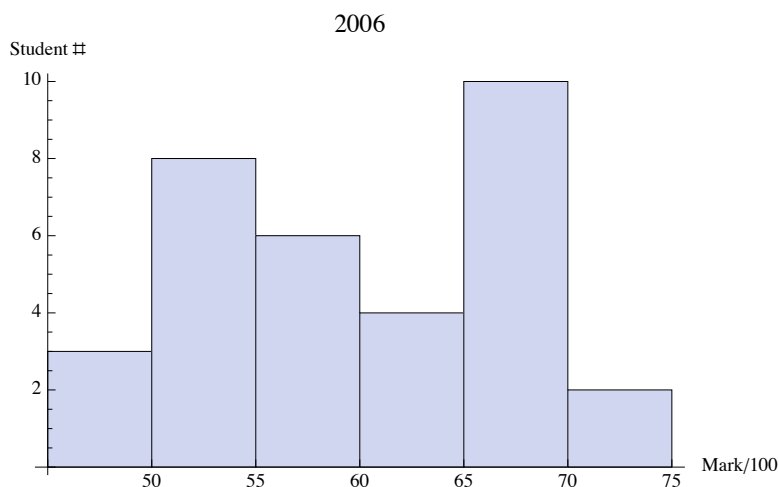
Sept 11, 2007

```
data1 = Flatten[Import["grades2006.xls"]]
```

```
{56.75, 69.75, 67.75, 49., 67.25, 56.25, 73.25, 62.75, 63., 65.75, 65.,  
63.5, 56.75, 57.5, 48., 51., 53., 68.5, 51.25, 58.75, 67.25, 65.5,  
68., 62.5, 54., 54., 49.75, 53.5, 54., 65.25, 52.75, 57.25, 71.75}
```

```
<< Histograms`
```

```
h2006 = Histogram[data1, PlotLabel -> "2006",  
  AxesLabel -> {"Mark/100", "Student #"},  
  HistogramRange -> {0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100}]
```



```
Kurtosis[data1]
```

```
1.74557
```

```
Mean[data1]
```

```
60.0076
```

```
StandardDeviation[data1]
```

```
7.2695
```

```
Max[data1]
```

```
73.25
```

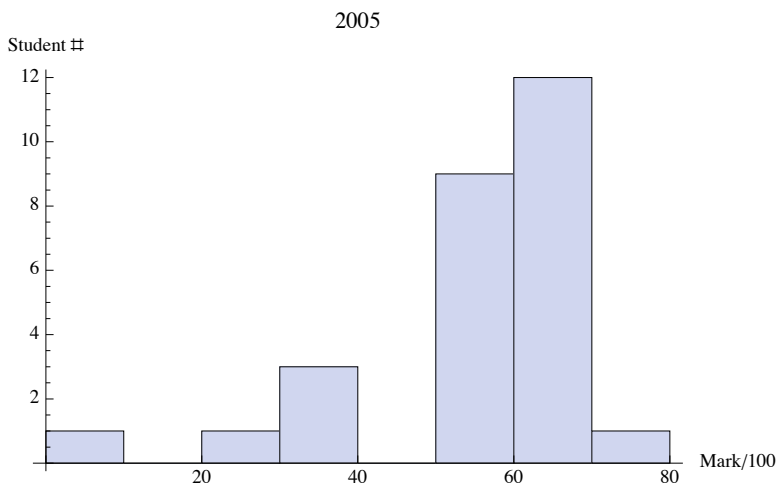
```
Min[data1]
```

```
48.
```

```
data2 = Flatten[Import["hist.xls"]]
```

```
{70.4, 68., 66.95, 66.25, 65.15, 64.85, 64.8, 64.55,  
64.1, 62.9, 61.65, 61.45, 61.1, 59.6, 59.55, 59.52, 59.5,  
58., 57.8, 56.9, 53.25, 52.6, 38.3, 32.45, 31.2, 27.75, 0.}
```

```
h2005 = Histogram[data2, PlotLabel -> "2005",  
AxesLabel -> {"Mark/100", "Student #"},  
HistogramRange -> {0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100}]
```



```
Mean[data2]
```

```
55.1322
```

```
StandardDeviation[data2]
```

```
15.8888
```

```
Max[data2]
```

```
70.4
```

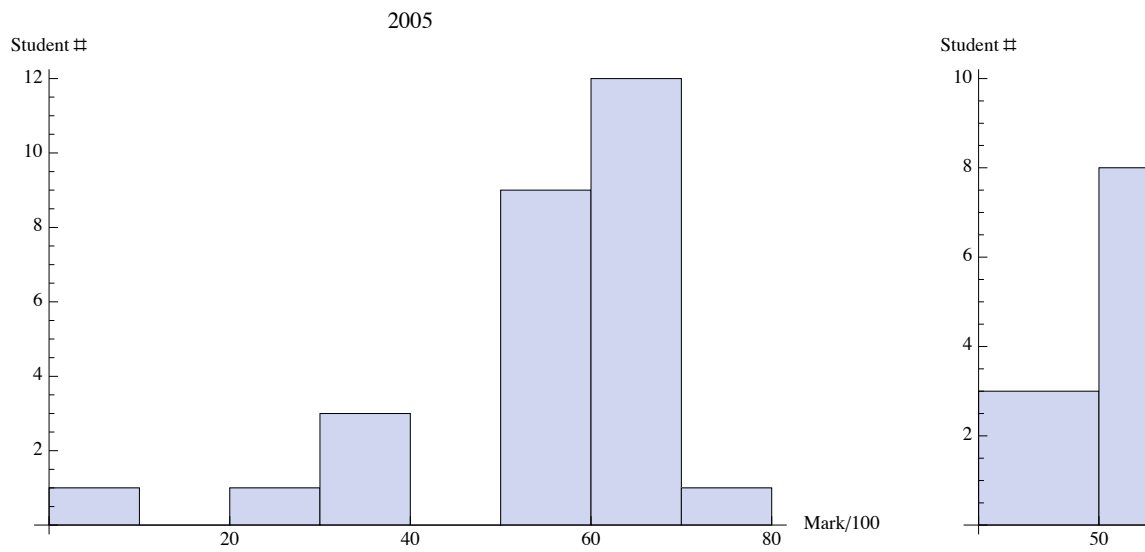
```
Min[data2]
```

```
0.
```

```
Kurtosis[data2]
```

```
6.66968
```

```
Show[GraphicsGrid[{{h2005, h2006}}]]
```



Needs["HypothesisTesting`"]

MeanDifferenceTest[data1, data2, 0, SignificanceLevel → 0.95]

{OneSidedPValue → 0.0748346,
Reject null hypothesis at significance level → 0.95}

MeanDifferenceTest[data1, data2, 0, SignificanceLevel → 0.99]

{OneSidedPValue → 0.0748346,
Reject null hypothesis at significance level → 0.99}