An Analysis of the European Pay

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The dataset provided is a statistically representative sample of annual earnings in a European country. Every record in the dataset represents a person's annual wage in euros.

Probability Density Function:

As incomes diverge from the mean, we can observe that probability density gradually decreases from its peak around the mean salary. A balanced distribution is suggested by the rather symmetric salary spread. the SciPy method Norm.pdf. The pdf is computed using statistics. Here is the formula.

$$f(x;\mu,\sigma) = \frac{1}{\sigma\sqrt{2\pi}} e^{-1/2\left(\frac{x-\mu}{\sigma}\right)^2}$$

Mean:

As a measure of the distribution, the mean salary (W) was computed to be roughly 39531.50 Euros. The mean is computed using NumPy. Here's the formula.

$$\frac{mean = \sum_{i=1}^{n} arr[i]}{n}$$

X calculation:

About 82961.75, according to the calculation, was the x value. That means that 5 percent of people earn more than 82961.75. NumPy is a Python library that was used to do the computation. the following formula.

X = percentile (data, 5)