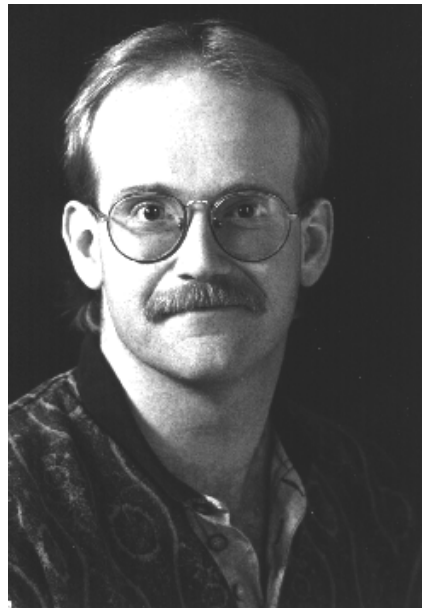


# Analysis of Birthday and Deathday for the Common Man

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**In everyday life an individual goes through many changes and many thoughts cross through his or her mind. Few people concentrate on death, yet many more look forward to their birthday which many of us have ingrained as a time of celebration from the many gifts showered upon us as youngsters. This paper is set out to study how these two are related, the passing of another year and the passing on to the other side. Part of my motivation of looking at the average man was based on the quote by David P. Philips in his paper Deathday and Birthday: An Unexpected Connection;**

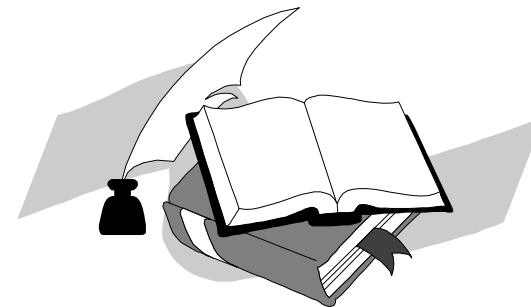
**“We shall examine only the deaths of famous people...It seems likely that ordinary people look forward to their birthdays less eagerly than do famous people..”**

**I intend to explore this issue by analyzing obituary data which appeared in the Erie Daily Times from August-November 1994. The reason of choosing this time frame was the fact that the weather would have very little impact in confounding this data, since this is considered some of the best weather that we Erieites can attain. The data I collected consisted of the following**

Column	Name	Count
C1	Sex	555
C2	Bimnth	555
C3	Bday	555
C4	Seqday	555
C5	Demnth	555
C6	Deday	555
C7	Deseq	555
C8	Age	555
C9	Daywk	555
C10	Bi-De	555
C11	Mnth	555
C12	Decade	555

Male (1) Female (0)

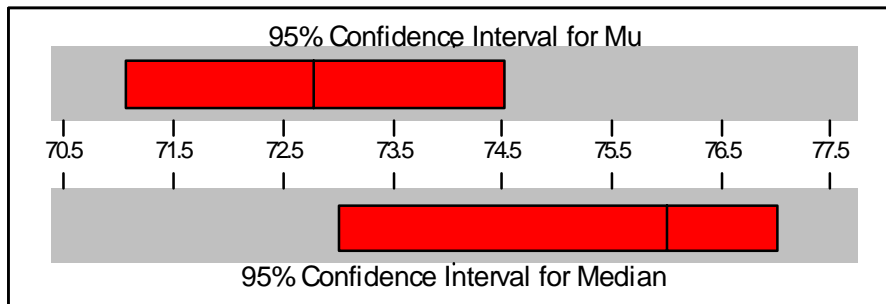
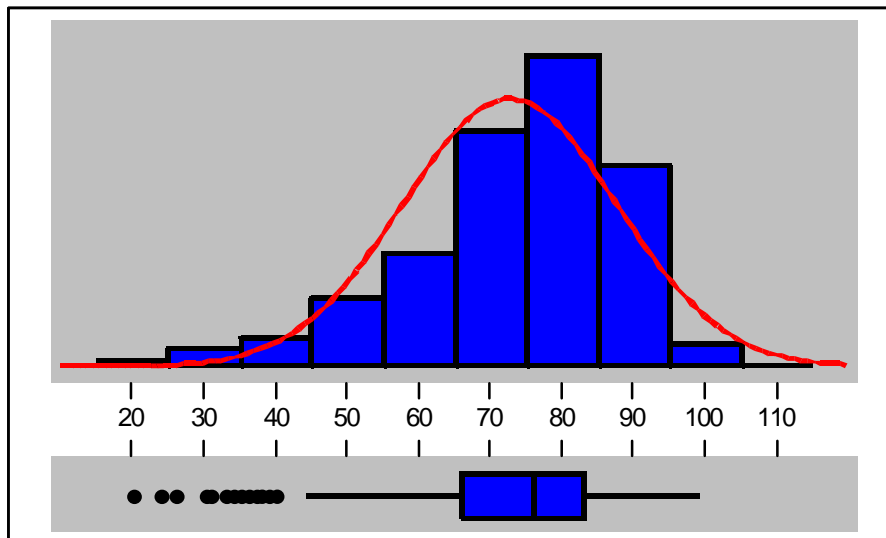
Seq- Sequential Day 1-365



← Months Before Their Next Birthday

# Male Data

## Descriptive Statistics



Variable: Age  
Group: 1

Anderson-Darling Normality Test

A-Squared: 4.520

p-value: 0.000

Mean 72.784

Std Dev 14.944

Variance 223.315

Skewness -0.952

Kurtosis 0.825

n of data 291.000

Minimum 20.000

1st Quartile 66.000

Median 76.000

3rd Quartile 83.000

Maximum 99.000

95% Confidence Interval for Mu

71.059 74.508

95% Confidence Interval for Sigma

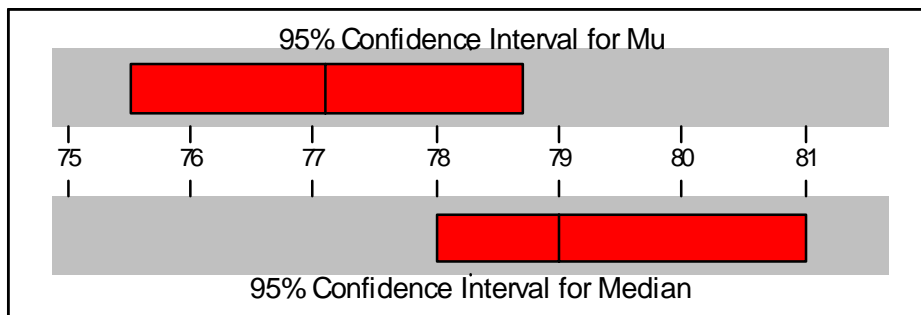
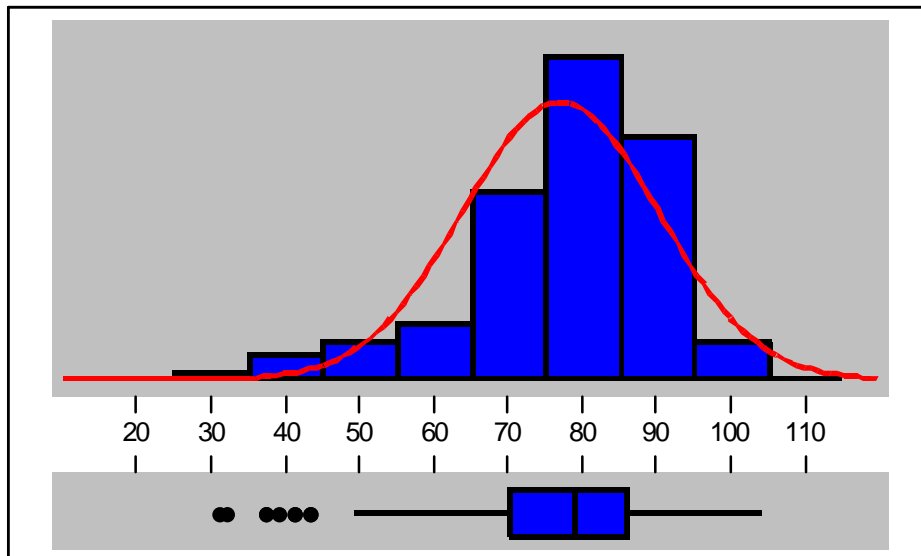
13.820 16.268

95% Confidence Interval for Median

73.000 77.000

# Female Data

## Descriptive Statistics



### Variable: Age

Group: 2

#### Anderson-Darling Normality Test

A-Squared: 3.938

p-value: 0.000

Mean 77.110

Std Dev 13.170

Variance 173.437

Skewness -0.978

Kurtosis 1.157

n of data 264.000

Minimum 31.000

1st Quartile 70.000

Median 79.000

3rd Quartile 86.000

Maximum 104.000

#### 95% Confidence Interval for Mu

75.514 78.706

#### 95% Confidence Interval for Sigma

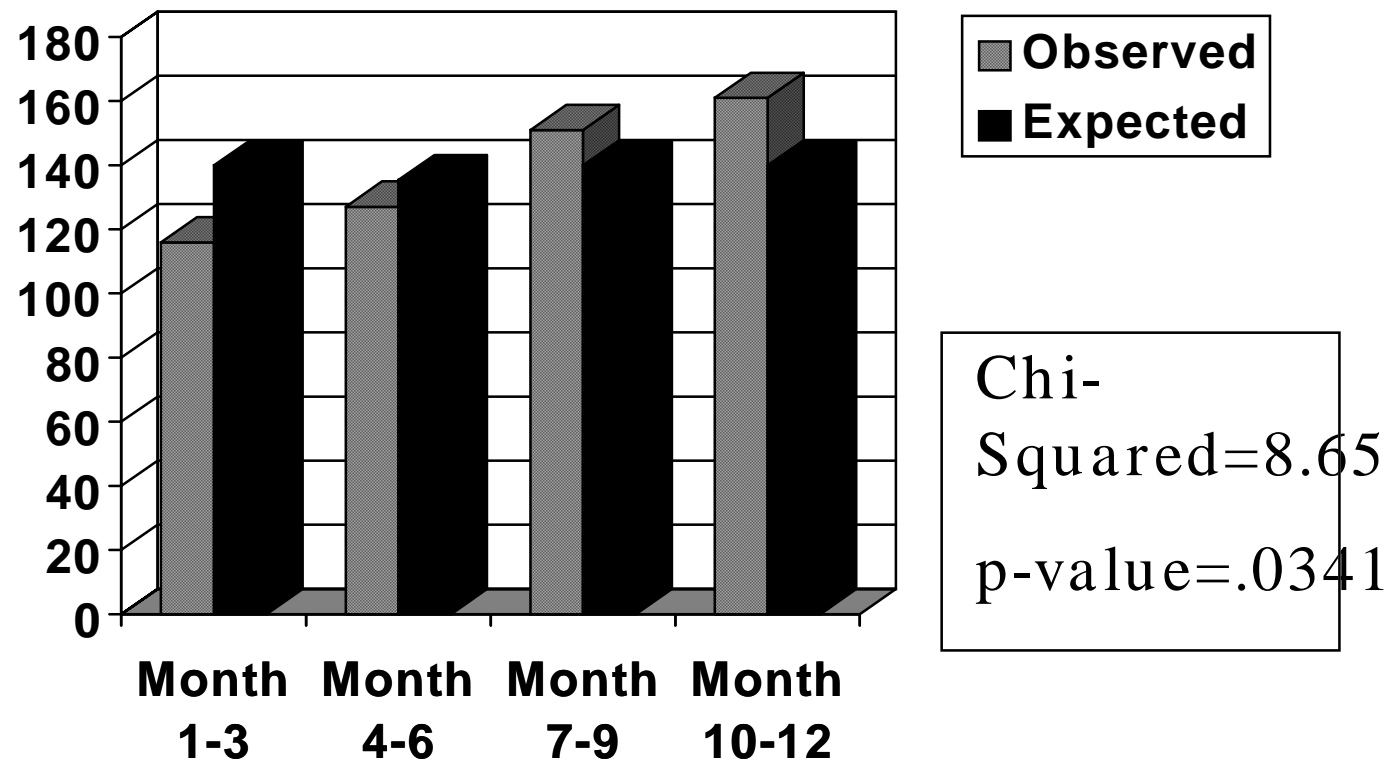
12.134 14.400

#### 95% Confidence Interval for Median

78.000 81.000

# Deaths by Months Until Next Birthday

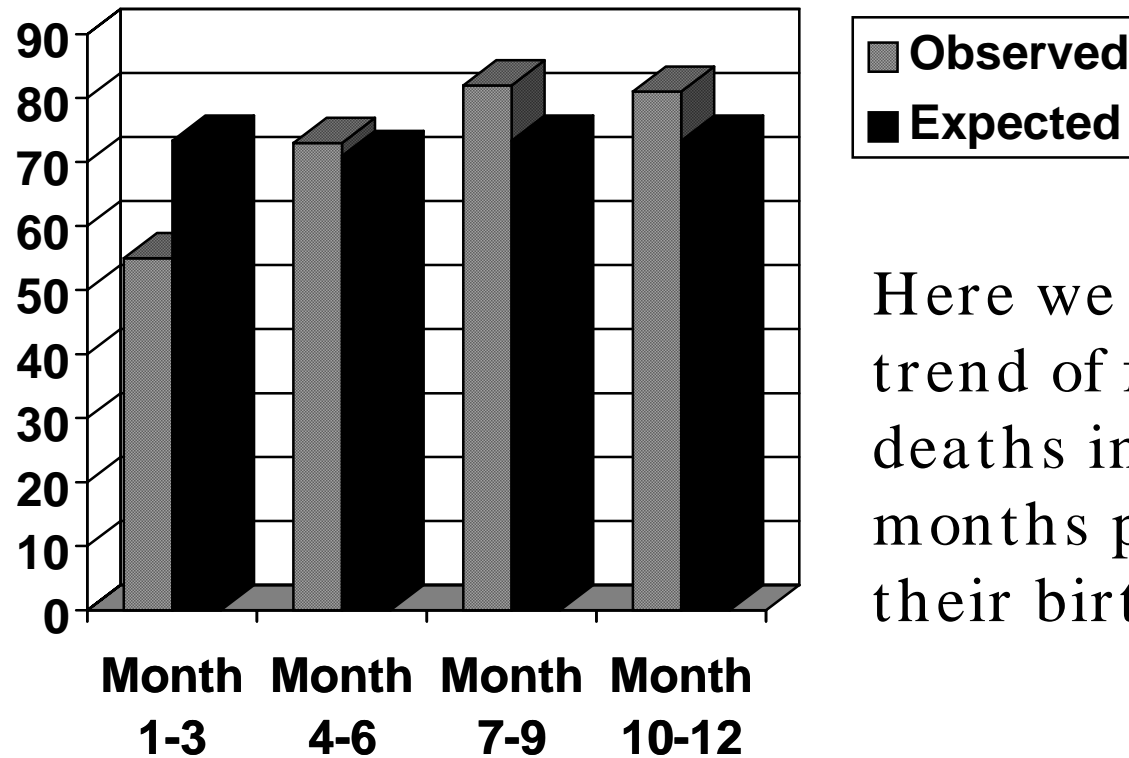
3-Month Cluster Analysis



Statistical Dependence exists!

# Male Deaths Before Next Birthday

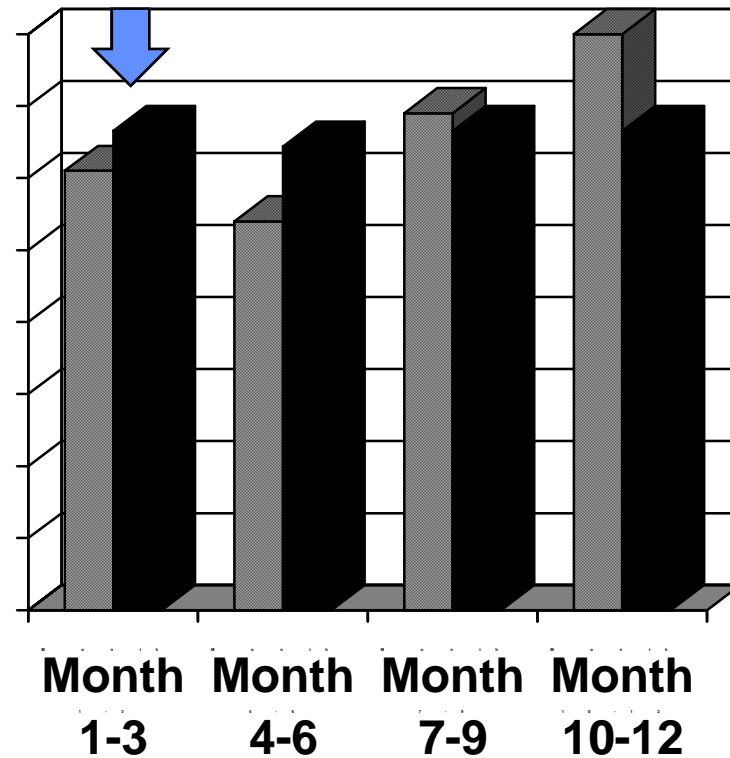
## 3-Month Cluster



Here we see the trend of fewer deaths in the 3 months prior to their birthdays.

# Female Deaths Before Next Birthday

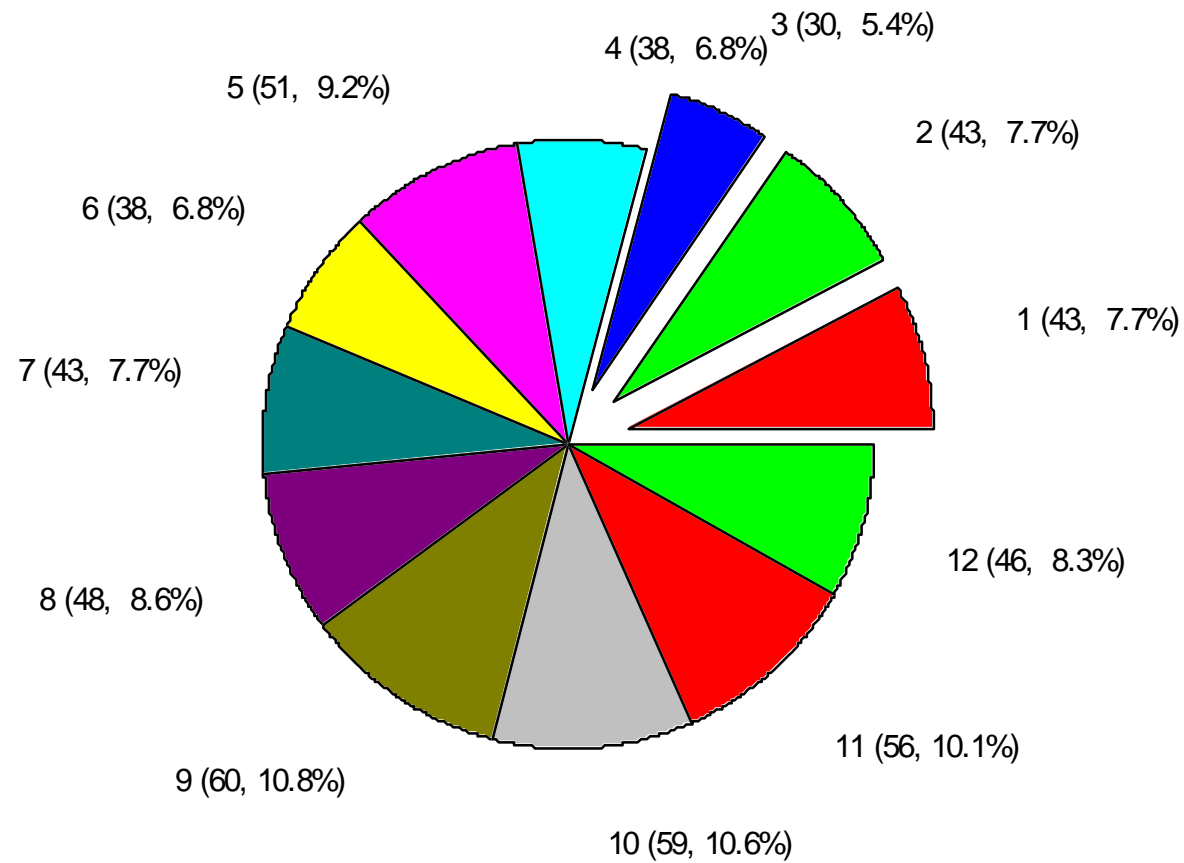
## 3-Month Cluster



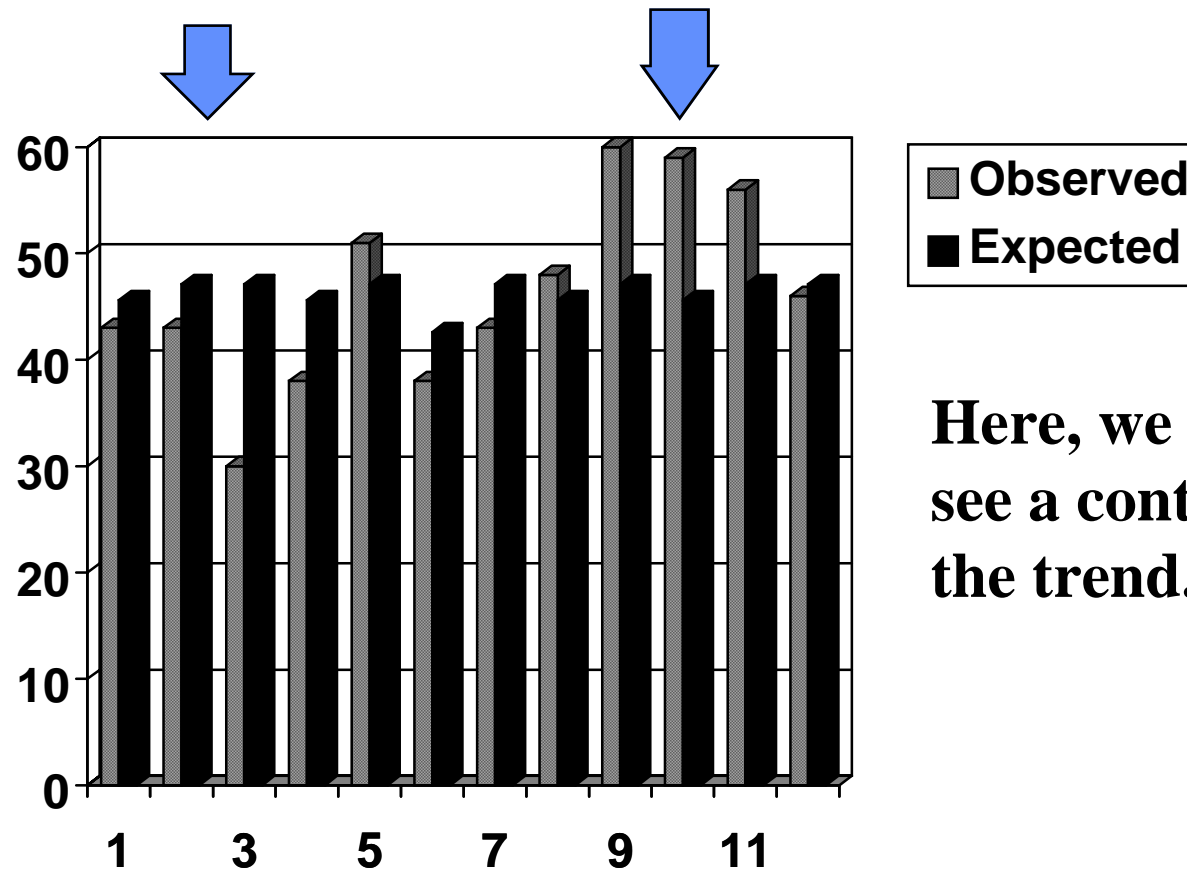
■ Observed  
■ Expected

Here we see the females not as anticipatory as the males were.

## Pie Chart of Number of Deaths in Months Preceding Birthday



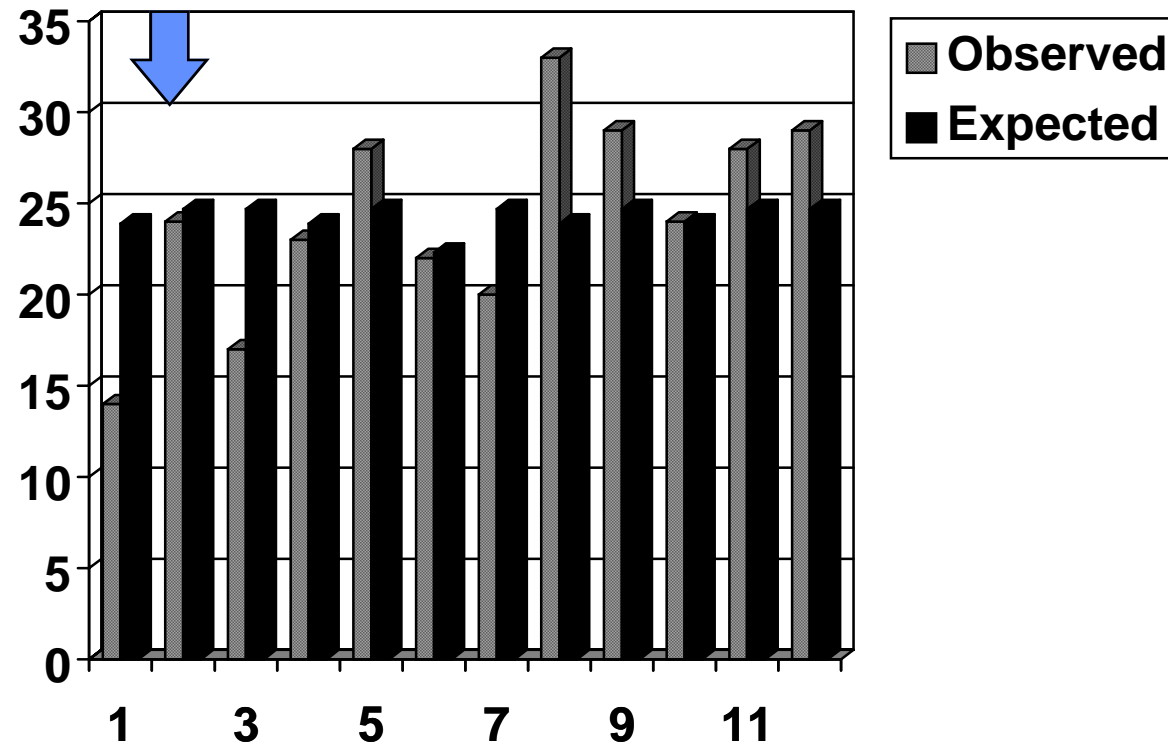
# Death By Months Until Next Birthday-Monthly



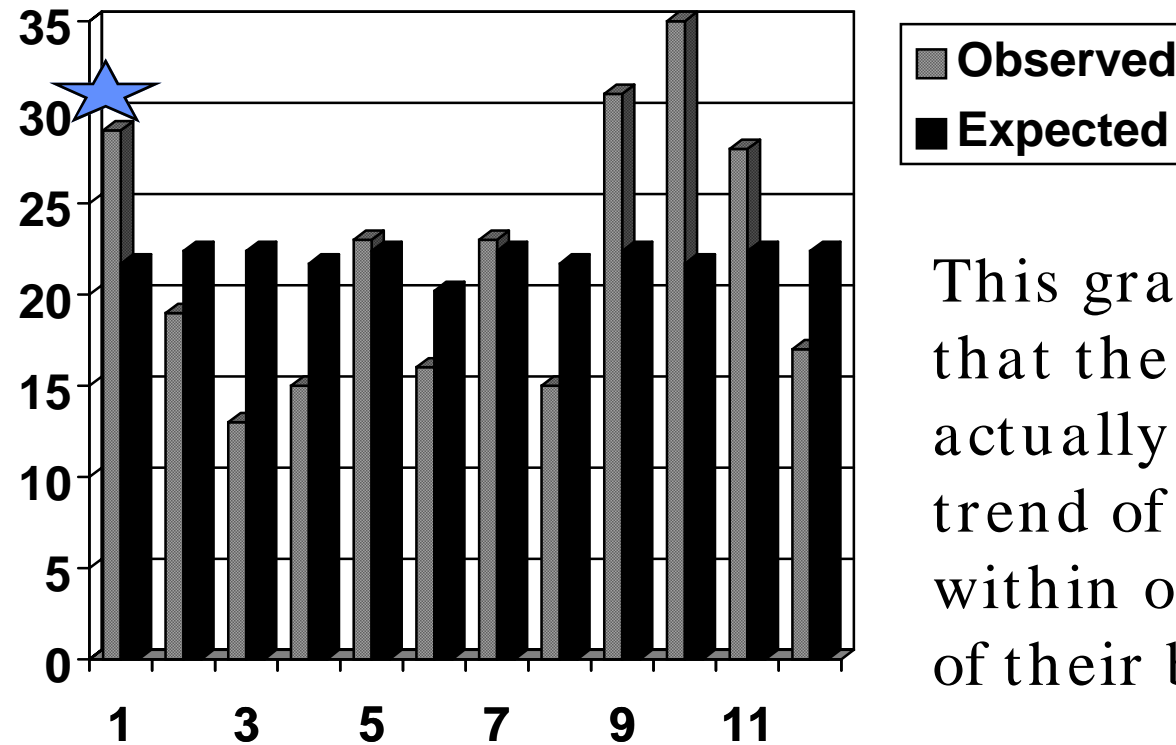
**Here, we are able to see a continuation of the trend.**

# Deaths Before Next Birthday

## Males



# Death Before Next Birthday Females



This graph shows that the females actually have a trend of dying within one month of their birthdays.

# Sex Comparison

291 Males 264 Females

