**Part X: Chapter 11: Goodness of Fit Tests**

**One way to examine this data is to analyze the relationship between expected frequency of occurrence and what the dataset reports as actually happening.**

**Task 1: For example, it seems reasonable to expect that proportion of deaths for each racial category would match the demographic proportion for each racial category. To begin this examination, complete the following table by sorting the dataset by race:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Black** | **Hispanic** | **White** |
| **Number of deaths** |  |  |  |
| **Proportion of population** | **.126** | **.164** | **.724** |

**Task 2: Perform the goodness-of-fit test for unequal expected frequencies. Insert the results below.**

* **What does this result indicate about the distribution of police-involved deaths over racial categories?**
* **How can you explain the extremely high value of the test statistic?**

**Task 3: We might also speculate that the method of death would be evenly spread out between gunshot wounds, beatings and tasering. For 2014 the data for the combined races looked like this:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Method of Death** | **Gunshot** | **Beating** | **Taser** |
| **Number of deaths** | **500** | **8** | **18** |

**Perform a goodness-of-fit test with equal expected frequency for this data and insert below:**

* **What do you conclude when you examine these results?**
* **Can you explain the conclusion reached?**