**Question**

Wants employees idle 25% of the time

Sample should be accurate within 3%

Wants to have 95.45% confidence in the results

**Answer**

***n =***

***z*2 *p*(1 - *p*)**

***h*2**

where n = required sample size

z = 2 for a 95.45% confidence level

p = estimate of idle proportion = 25% = .25

h = acceptable error of 3% = .03

***n* = 833 *observations***

|  |  |
| --- | --- |
| **No. of Observations** | **Activity** |
| 485 | On the phone or meeting with a welfare client |
| 126 | Idle |
| 62 | Personal time |
| 23 | Discussions with supervisor |
| 137 | Filing, meeting, and computer data entry |
| 833 | |

All but idle and personal time are work related.

Percentage idle time = (126 + 62)/833 = 22.6%.

Since this is less than the target value of 25%, the workload needs to be adjusted.