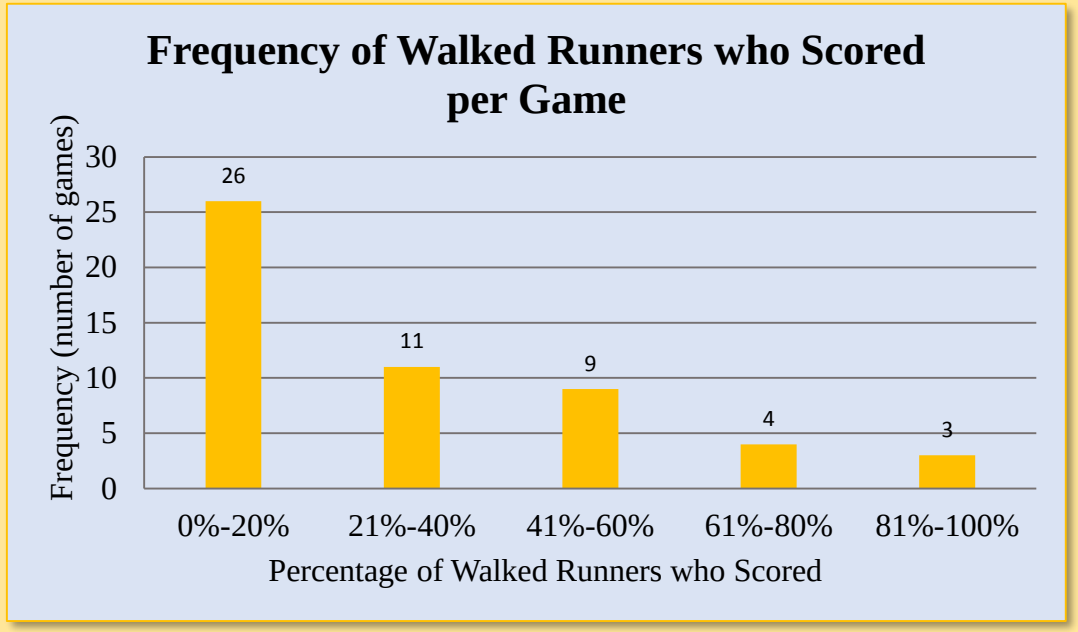
"Walks'll kill ya" – but by how much?

Do 80% of walked runners in the game of baseball score?

Georgia Tech Baseball's 2015 Season: (sample)
Total Games: 55
Total Walks: 250
Total Walks that Scored: 78
Total Walks that Scored / Total Walks = 31.2%

Total Runs Against GT: 306
Total Runs from Walks / Total Runs Against GT = 25.49%

Avg. Margin of Loss by GT: 5.391 runs
1 Less Walk per Game: saves 17.16 runs*
1/3 Less Walks Overall: saves 25.896 runs*
*Assuming 1 less walk would lead to 0.312 less runs



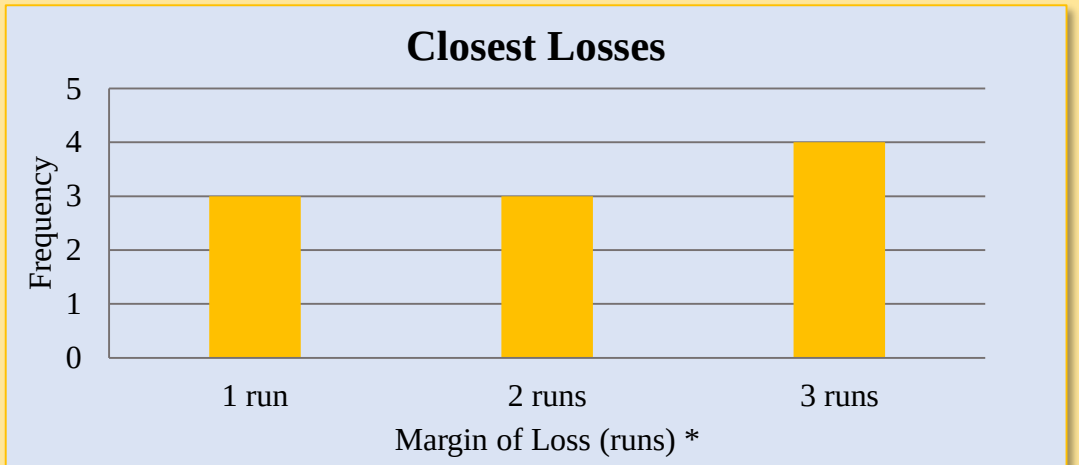
Best at Getting out of Trouble	
Pitcher	**Total Walks that Scored/Pitcher %**
P. Wiseman	0%
Parr	21%
Ryan	27%
King	28%
Gold	28%
Datoc	29%
Phillips	33%
J. Wiseman	33%
Craport	33%

Parameter of interest: Percentage of walked runners who score, p.
Hypothesis: H_0: $p = 0.80$
H_1: $p \neq 0.80$
Test statistic: $Z_0 = \left(Z_{\alpha/2} \sqrt{\frac{\hat{p}(1-\hat{p})}{n}} \right)$
Point estimate of proportion parameter: $\hat{p} = 0.312$
95% Confidence Interval: $\alpha = 0.05$, $z_{\alpha/2} = z_{0.025} = 1.96$
$n = 250$
Rejection region: Reject H_0 if p falls outside of $\hat{p} \pm Z_0$
Computations:

$$\left(\hat{p} - Z_{\alpha/2} \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}, \hat{p} + Z\alpha_{/2} \sqrt{\frac{\hat{p}(1-\hat{p})}{n}} \right)$$

$$\left(0.312 - 1.96 \sqrt{\frac{0.312(1-0.312)}{250}}, 0.312 + 1.96 \sqrt{\frac{0.312(1-0.312)}{250}} \right)$$

$= (0.312 - 0.0574324817, 0.312 + 0.0574324817)$
$= (0.2545675183, 0.3694324817)$
Conclusion: $p = 0.80$ **is not** within (0.2545675183, 0.3694324817) => Reject H_0
95% confident p is within (0.2545675183, 0.3694324817)
=> About 25% to 37% of walked runners circle the bases to score.



* Out of Georgia Tech's 10 total losses by 3 runs or less, 9 were to ACC opponents and 5 of those 9 were to fellow Coastal Division ACC opponents.