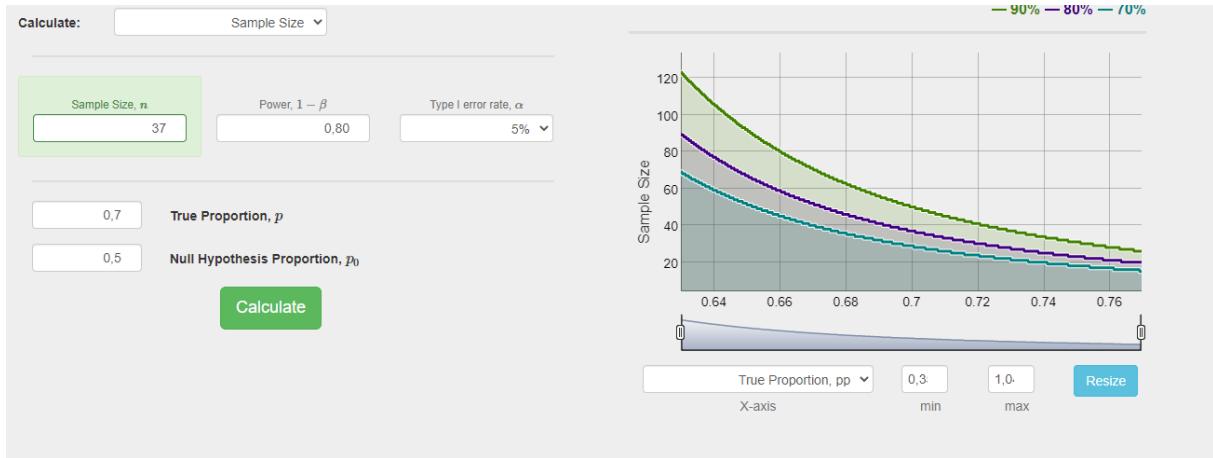


Power Calculations done with the website: <http://powerandsamplesize.com/>

1: Calculate required n to have 80 power to discern a proportion of 0.70 from chance (chance level = 0.50):



R-Code for the calculation:

```

1 p=0.7
2 p0=0.5
3 alpha=0.05
4 beta=0.20
5 (n=p0*(1-p0)*((qnorm(1-alpha)+qnorm(1-beta)*sqrt(p*(1-p)/p0/(1-p0)))/(p-p0))^2)
6 ceiling(n) # 191
7 z=(p-p0)/sqrt(p0*(1-p0)/n)
8 (Power=pnorm(sqrt(p0*(1-p0)/p/(1-p))*abs(z)-qnorm(1-alpha)))

```

2: Calculate Power if  $n = 37$  is rounded to  $n = 40$  per condition:

