

# Worst Game Of SIMS

*In-class exercise*

*9/25/2019*

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## Coefficients

Coefficients of the logistic regression model used to impute PTSD outcomes in Kessler et al<sup>1</sup>

```
beta<-c(  
-1.515 ,#Intercept  
0.0263 ,#Age  
0.1105 ,#Sex is female (0 = Male, 1 = Female)  
-0.0819 ,#Race is hispanic  
-0.5597 ,#Race is black  
-0.9751 ,#Race is other  
-0.5603 ,#as child, badly beaten by parent/caregiver  
0.0504 ,#badly beaten by spouse/romantic partner  
-0.3877 ,#badly beaten by anyone else  
0.1148 ,#mugged/held up/threatened with weapon  
-0.1614 ,#ever raped (penetration occurred)  
0.5993 ,#ever sexually assaulted or molested  
0.078 ,#someone close died unexpectedly  
0.4687 ,#anyone close had extreme traumatic exper.  
0.4591 ,#as child, witnessed serious physical fights  
0.1683 ,#saw person badly injured/killed/dead body  
-0.2237 ,#ever experienced other very traumatic event  
0.3664 ,#purposely stay away things remind event  
-0.0581 ,#lose interest in things used to enjoy  
0.2516 ,#feel emotionally distant/cut-off from people  
0.1159 ,#trouble feeling love/happiness toward others  
0.64 ,#feel no reason to plan for the future  
0.8654 ,#trouble falling asleep during random event  
0.1323 ) #more easily startled by ordinary noises
```

---

<sup>1</sup>Kessler RC, Duncan GJ, Gennetian LA, et al.: Associations of housing mobility interventions for children in high-poverty neighborhoods with subsequent mental disorders during adolescence. JAMA. 2014; 311(9): 937–948.

<b>Beta</b>	<b>Independent variable</b>
-1.515	Intercept
0.0263	Age
0.1105	Sex is female (0 = Male, 1 = Female)
-0.0819	Race is hispanic
-0.5597	Race is black
-0.9751	Race is other
-0.5603	as child, badly beaten by parent/caregiver
0.0504	badly beaten by spouse/romantic partner
-0.3877	badly beaten by anyone else
0.1148	mugged/held up/threatened with weapon
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0.2516	feel emotionally distant/cut-off from people
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0.64	feel no reason to plan for the future
0.8654	trouble falling asleep during random event
0.1323	more easily startled by ordinary noises

Figure 1: Kessler Table 1.

Play here

Modify coefficients:

```
x<-  
c(  
1 ,#Intercept  
18 ,#Age  
1 ,#Sex is female (0 = Male, 1 = Female)  
0 ,#Race is hispanic  
0 ,#Race is black  
0 ,#Race is other  
0 ,#as child, badly beaten by parent/caregiver  
0 ,#badly beaten by spouse/romantic partner  
1 ,#badly beaten by anyone else  
1 ,#mugged/held up/threatened with weapon  
1 ,#ever raped (penetration occurred)  
0 ,#ever sexually assaulted or molested  
1 ,#someone close died unexpectedly  
1 ,#anyone close had extreme traumatic exper.  
1 ,#as child, witnessed serious physical fights  
0 ,#saw person badly injured/killed/dead body  
0 ,#ever experienced other very traumatic event  
1 ,#purposely stay away things remind event  
0 ,#lose interest in things used to enjoy  
0 ,#feel emotionally distant/cut-off from people  
0 ,#trouble feeling love/happiness toward others  
0 ,#feel no reason to plan for the future  
1 ,#trouble falling asleep during random event  
0 )#more easily startled by ordinary noises
```

Estimate probability of PTSD

```
bx<-x%*%beta  
Z<-exp(bx)  
p<-Z/(1+Z)
```

The probability of this SIM have PTSD is: 0.7052033