

# A Smart Scale Analysis Tool for Evaluating Prospective Projects

Christopher Garcia, Ph.D., CAP® UMW Center for Business Research May 20, 2019

- Who am I?
- UMW Center for Business Research
- What is Smart Scale?
- Smart Scale Statistical Analysis Project (2018)
  - <a href="https://nbviewer.jupyter.org/github/chrisgarcia001/Notebooks/blob/master/smart\_scale/Smart\_Scale-Analysis-9.17.2018.ipynb">https://nbviewer.jupyter.org/github/chrisgarcia001/Notebooks/blob/master/smart\_scale/Smart\_Scale-Analysis-9.17.2018.ipynb</a>

## Background

- Ability to intelligently evaluate prospective projects
  - Evaluate Smart Scale scores
  - Evaluate likelihood of receiving funding
  - Explore hypothetical scenarios
- Utilize historic Smart Scale data
  - Tool becomes smarter as more data added
- Web-based interactive software tool
  - Ability to provide controlled accounts for users

#### Why Develop A Tool?

- Use Case 1: Evaluate a set of prospective projects
  - Input prospective project metrics
    - Use metric ranges to do sensitivity analysis
  - Select desired Smart Scale rounds to compare against
  - See the resulting Smart Scale scores and likelihoods of funding
- Use Case 2: Explore the impact of varying intensities of competition
  - Insert hypothetical competitor projects into the data
  - See the impact on funding likelihood

## **Example Use Cases**

Phase	Estimated Duration	Key Milestones or	<b>Expected Cost</b>
		Deliverables	
Phase 1: Requirements	0.5 Months	1. Pre-development	
		meeting	
		2. Project contract	
		signed	\$ 7,800.00
Phase 2: System Design	1 Month	System Design	
		Documentation	
		Complete	\$ 15,700.00
Phase 3: System	2 Months	Initial Software Code	
Development		Base Complete	\$ 31,400.00
Phase 4: Testing	0.5 Month	1. Acceptance Testing	
		Complete	
		2. Finalized Software	
		Code Base Complete	\$ 6,300.00
Phase 5: Deployment	0.5 Months	Deployment of System	
		Into Live Environment	\$ 7,800.00
TOTALS	4.5 Months		\$ 69,000.00

# **Project Structure**