



**INDUSTRIAL ENGINEERING CONSULTANTS**

# Computer Simulation Modeling

## Benefits of Computer Simulation

- Create a **digital twin of the operation & design** to test initiatives being considered.
- Model enables **quick and economical testing** of operational and design changes including:
  - Labor staffing, equipment options, layout, process and menu changes, among others.
- Measure the **service & throughput** impact of modifications being considered.
- Understand, **eliminate and fix bottlenecks** before the changes are implemented.
- Develop **“Optimum” Operations and “Front & Back of House” Facility Design** Parameters.

## Improve “Unit Economics” through Computer Simulation Modeling!

### Why Us? – Our Unique Proposition

- We are **Industrial Engineers** experienced in simulation and **application of lean principles**.
- We are **experts in food service** functional and operations design optimization.
- As we develop the simulation model, as an added value of our services, we will provide **“best practices”** ideas that can drive efficiency and impact in the existing business.
- Our experience spans to **over 65% of the “Top 100” foodservice brands**.

### Example Simulation Inputs

- Concept visual graphics
- Customer arrival patterns and rates
- Order size and product mix
- Sales mode (on and off-premise)
- Process timings and flows
- Staffing levels and responsibilities
- Equipment cycles and capacities



### Example Simulation Outputs

- Customer flow & speed of service breakdown
- Throughput capacity
- Equipment utilization & bottlenecks
- Front-of-house usage statistics
- Production times and delays
- Labor utilization by position
- Concept Design Guidelines
- 3D Animated Model



	140/hr	150/hr	160/hr
Crew 1	66%	69%	72%
Crew 2	57%	62%	66%
Crew 3	61%	64%	67%
Crew 4	79%	85%	89%
Crew 5	74%	79%	84%

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To access Profitability Labor Guru Simulation Article Witten in Industrial & Systems Engineering Magazine go to this link: [Profitality.com/PDFs/Profitality Simulation Article.pdf](http://Profitality.com/PDFs/Profitality Simulation Article.pdf)



# Simulated dining offers tasty options

*Cheaper, expanded testing allows restaurants to innovate with menus and services*

By Juan Martinez