

Louisiana EPSCoR
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***Modeling the Economic Impact
of the Gulf Oil Spill***

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Motivation

- Gulf oil spill has had a large economic impact
- Investment into recovery underway, pending
- Economic modeling can support experimentation with alternative investments, support decisions



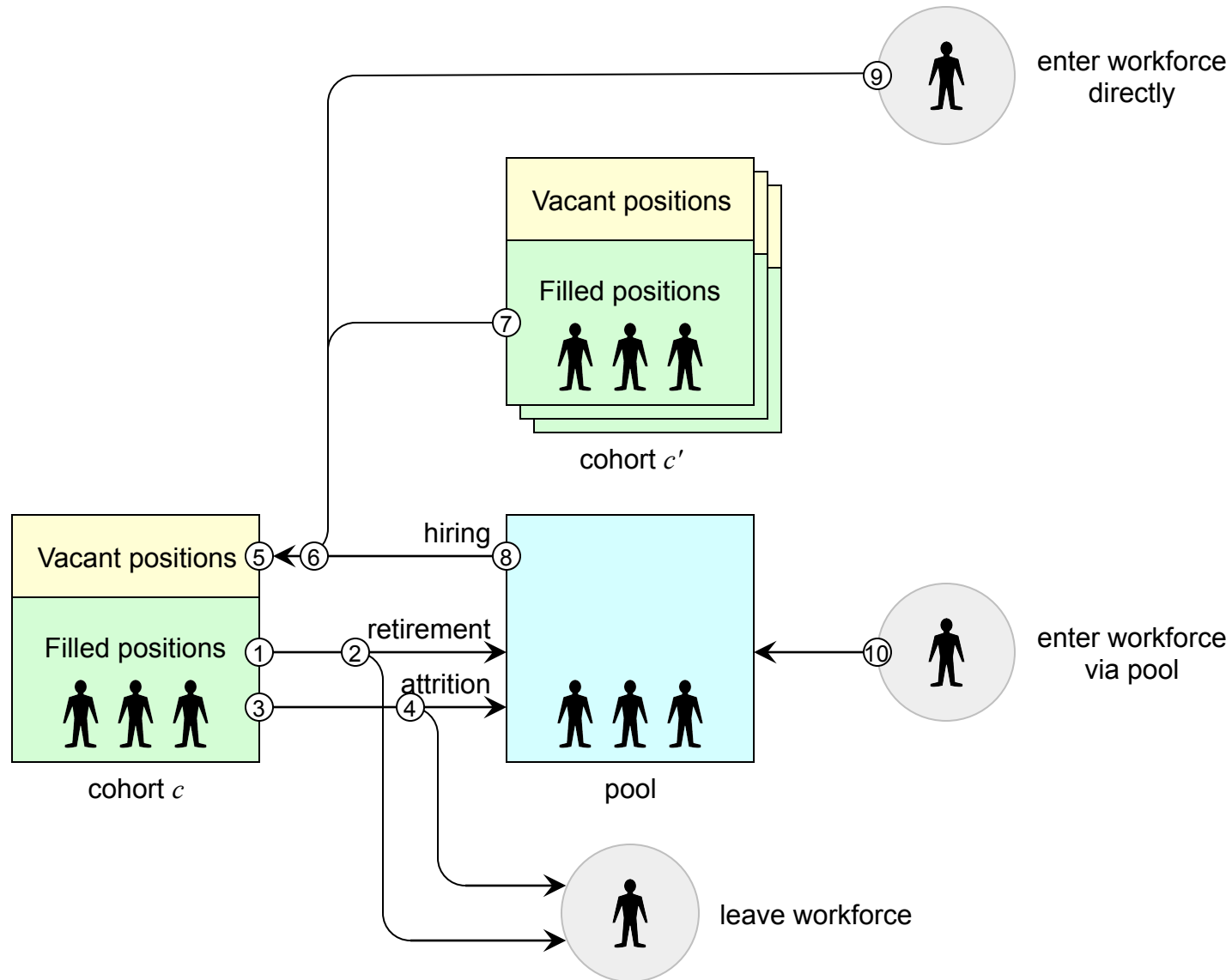
Oil in gulf near Chandeleur Islands LA



Empty tourist beach near Bradenton FL

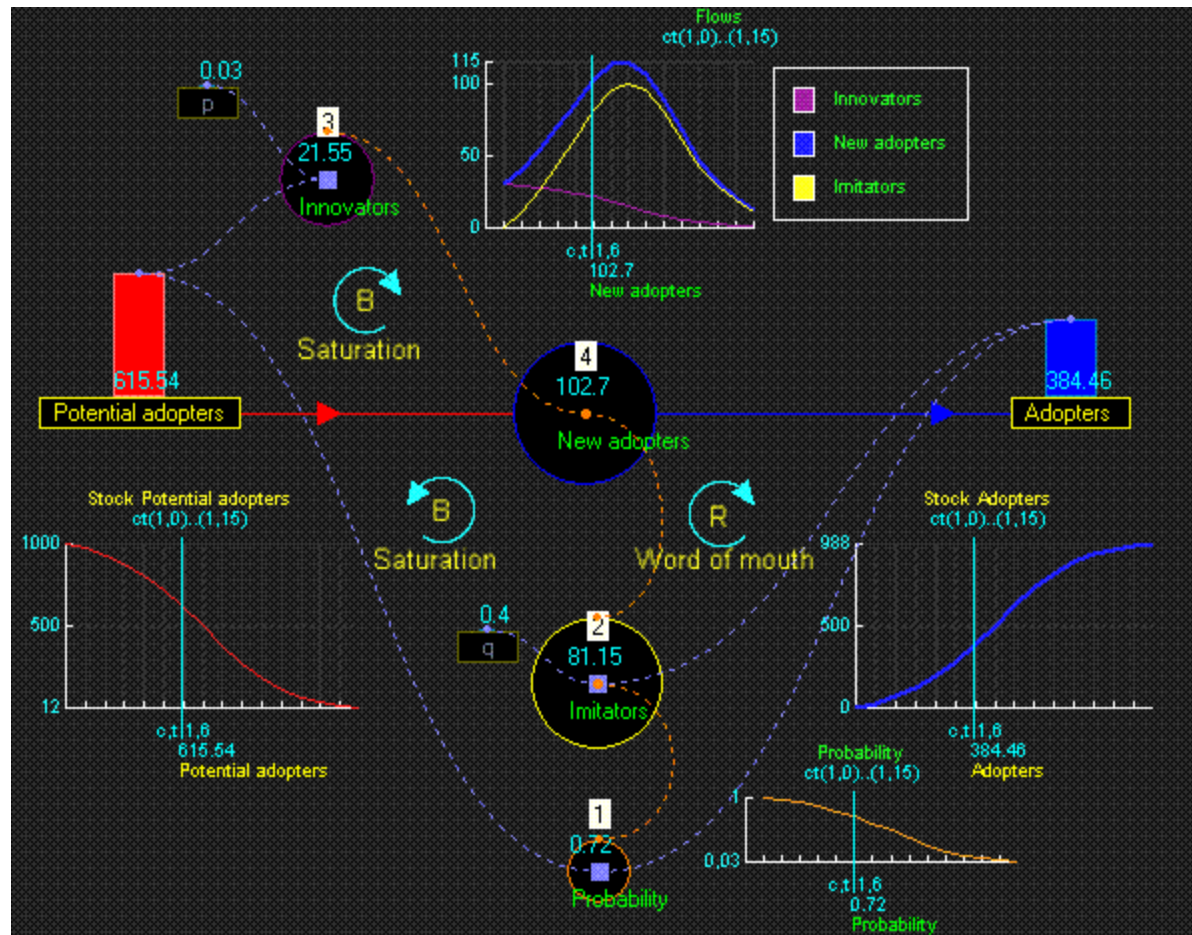
Example: Huntsville Technical Workforce Model

- Problem
 - 5,000–15,000 jobs moving to Huntsville due to BRAC
 - 50% - 75% coming vacant
 - What will the effect be on the regional workforce?
- Modeling approach
 - Time-stepped discrete event model
 - Individual persons with degrees, experience, job history
 - Hiring, promotion, retirement, graduation events
 - Initialization data provided by region's employers
- Uses
 - Identify impacted organizations, technical specialties
 - Guide managers, recruiters, educators



Proposal: Gulf Region Economic Model

- Problem
 - Gulf region economy damaged by oil spill
 - Recovery investment funding available
 - What investment strategies will be most effective?
- Modeling approach
 - System dynamics model
 - Economic variables related via feedback loops
 - Nonlinear modeling capabilities
 - Validation using investment results to date
- Uses
 - Assess economic damage by sector
 - Assess alternative investments
 - Compare short- and long-term recovery strategies



Sample system dynamics model (new product adoption)

Questions?

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