

# MGT 40750 – Quantitative Decision Modeling Spring 2017

## Linear Programming

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## Optimization

- **Main Idea**: Finding the **best** way to allocate **limited** resources
- **Applications**
  - Supply chain optimization: used by UPS, FedEx, GE, Schneider, etc.
  - Portfolio optimization: used by numerous Wall Street firms.
  - Airline scheduling: used by all major airlines.
  - Product mix: used by major oil companies, beverage manufacturers, etc.
  - Sales of TV ads: used by all broadcast TV networks such as ABC, CBS, NBC, FOX, CW, etc.
  - Sports scheduling: used by all major professional and college sports leagues.
  - Health care: kidney swaps.
- Recent survey: 85% of Fortune 500 firms use optimization.