

Overview of Benefit-Cost Analyses of Preventive Interventions for Children

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MDRC example: Minnesota Family Investment Program (MFIP)

- Intervention and results
 - Welfare-to-work program with financial work incentives,
 - Increased employment and income
 - Improved young children's academic achievement
- Benefit-cost results over 5 years
 - Improved participants economic well-being
 - Cost government ~\$2,000/year
- Did not monetize all benefits
 - Child well-being
 - Other family outcomes, such as marriage
 - Distributional effects
- No measure of uncertainty presented

MDRC example: Foundations of Learning (FOL)

■ Intervention

- Classroom management training in Head Start
- Mental health consultants
- Goal: improve kids' problem behavior

■ Results

- Improved classroom management
- Reduced problem behavior, but not academic skills

■ Cost-benefit results

- Cost \$1,750/child (training, consultants, supports)
- Planned to monetize benefits, but no evidence of impacts on academic progress

Policy-influencing BCA

- Nurse-Family Partnership
 - Home visiting for 1st time pregnant women
 - Studied in three RCTs
 - Savings in health care, welfare, criminal justice
 - \$1.5 b. in ACA for home visiting programs
 - Reimbursed through state Medicaid programs
- Center for Employment Opportunities (CEO)
 - Transitional jobs for former prisoners
 - Reduced recidivism resulted in cost savings
 - Results helped program expand to upstate NY

Challenges related to measuring costs

- One-time costs (e.g., teacher training in FOL)
 - Benefits accrue to generations of students
 - MDRC study looked at impacts for two cohorts
- Demonstration vs. ongoing
 - Ex: FOL incurred full costs of training teachers
 - In HS system, could be added to existing training
- Harder to measure costs
 - In-kind contributions, volunteer work
 - Opportunity costs, especially for participants

Expressing statistical uncertainty

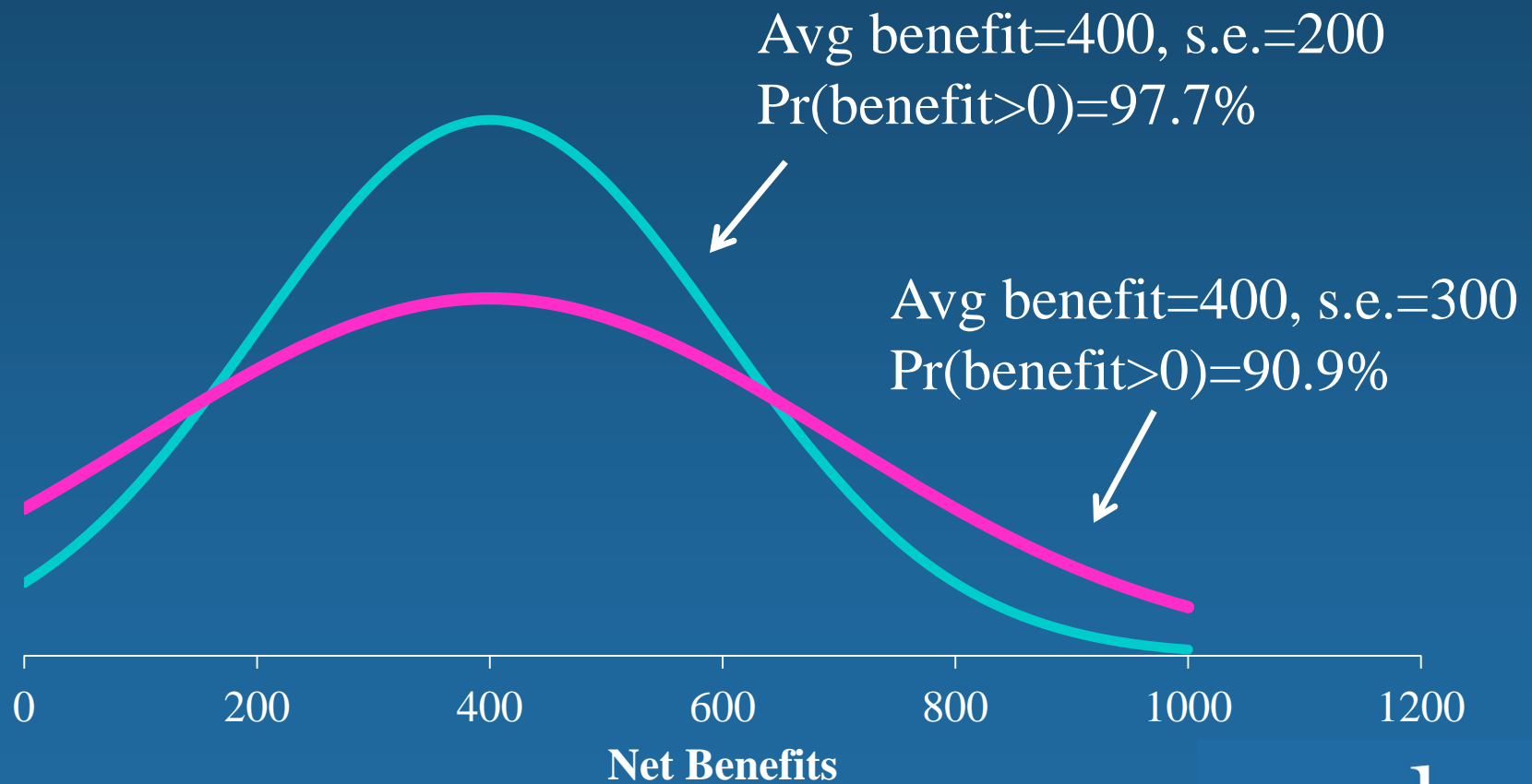
■ Should be done

- \$1 benefit +/- \$.01 vs +/- \$1 m.
- But rarely is (e.g., see Karoly 2010)
- Difficulty in measuring uncertainty

■ How should uncertainty be presented?

- Significance test: often wrong for policymaking
- Monte Carlo: probability cost-beneficial

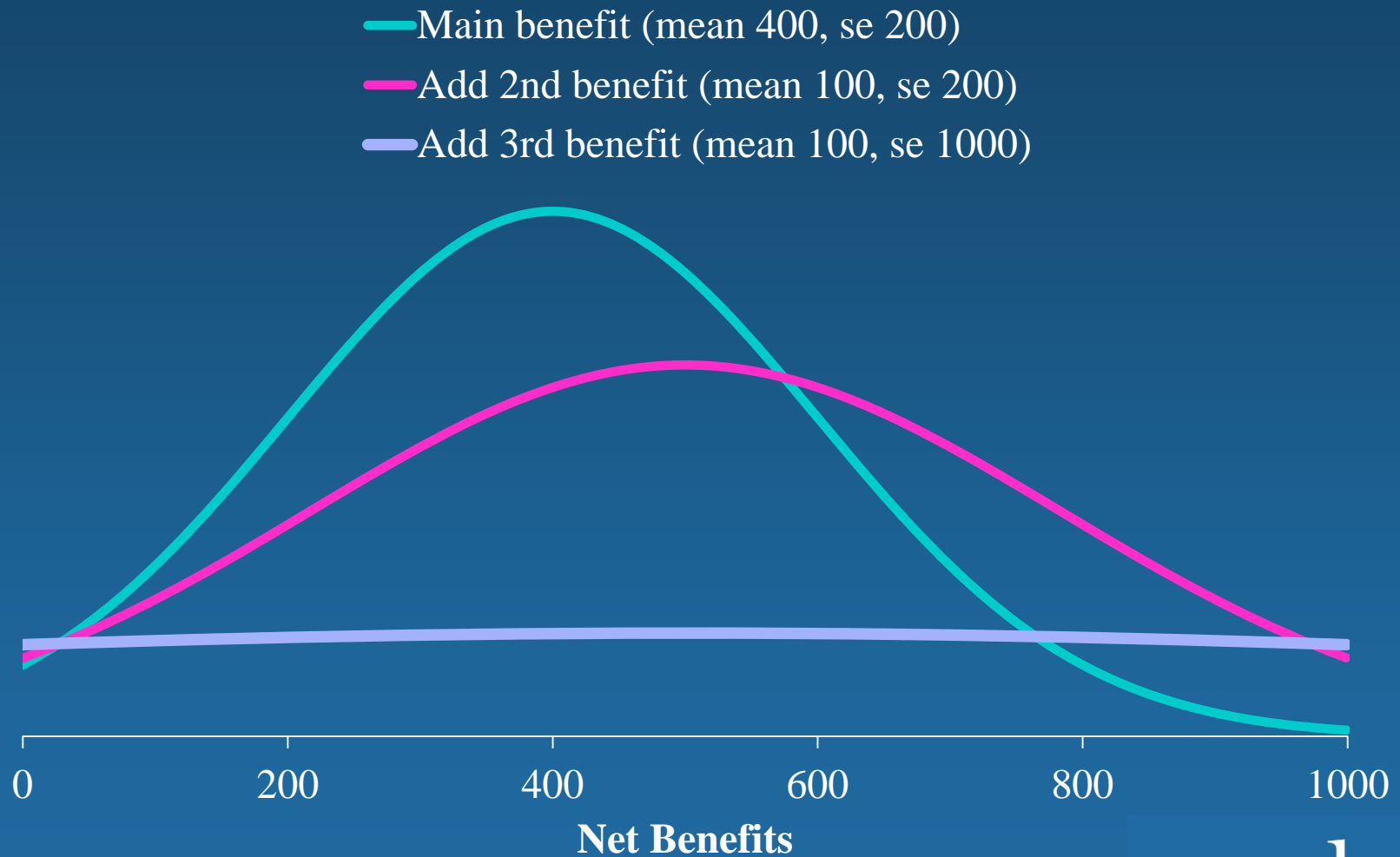
Focus on probability of benefit, not statistical significance



Should we include results that are not statistically significant?

- Don't base on statistical significance
 - Would you present only stat. sign. impacts?
- Design BCA before results are available
- Perhaps omit if considerable uncertainty
 - Ex: 20-year projections
 - Ex: outcomes with little information on monetary benefit

Danger in too much uncertainty



Monetizing benefits

- Some outcomes are easier to monetize
 - Criminal justice activity vs. externalizing behavior
 - NICU vs. infant cognitive development
- Some more certain than others
 - Near-term vs. long-term benefits
 - Direct vs. indirect effects (e.g., peer effects)
- MFIP: pluses and minuses for non-monetary outcomes
- NFP, Perry Preschool: Long-term follow-up

Generalizability and scale up

- How to use results from efficacy trials
 - Are effects of Perry Preschool on long-term outcomes applicable?
 - One approach: assume benefits lower, but by how much?
- How applicable are results to other groups
 - Importance of multi-site, multi-subgroup estimates
 - More generally, results may change with assumptions

Implications of uncertainty lens

- Diversity of outcomes:
 - focus on key outcomes that can be monetized with reasonable certainty
- Recipient of benefits
 - Measure as many relevant benefits as possible
- Target age of child
 - less important than whether benefits monetizable
- Different baseline groups
 - Caution in generalizing to other groups

For more information

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