Approved: February 13, 2002
Date

MINUTES OF THE SENATE COMMITTEE ON COMMERCE.

The meeting was called to order by Chairperson Senator Karin Brownlee at 8:30 a.m. on February 07, 2002 in Room 123-S of the Capitol.

All members were present except:

Committee staff present: April Holman, Legislative Research
Norman Furse, Revisor of Statues
Sherman Parks, Revisor of Statues
Lea Gerard, Committee Secretary

Conferees appearing before the committee: Doctor David Burress, Research Economist

Others attending: See attached list

Chairperson Brownlee welcomed Doctor David Burress, Research Economist from the University of Kansas, who presented an overview on Benefit-Cost Analysis of Tax Incentives (Attachment 1). Benefit-Cost Analysis is a form of using two types of program evaluation; process and outcome. David Burress explained the following from his presentation:

- What is Benefit-Cost Analysis (BCA)?
- "Traditional" versus generalized BCA
- Important features of BCA
- Examples of BCA of incentives
- Should it be used for Kansas tax incentives?
- Recommendations

The Committee questioned how accurate multipliers are. Dr. Burress stated the only way to come up with an accurate multiplier is to build a small model of the state economy with a great deal of data that shows how the dollars flow through the state and filter out of the state. Without the detailed data and complicated model, you would not have multipliers that are effective. Chairperson Brownlee thanked Doctor Burress for the good overview and presentation before the Committee.

The meeting was adjourned at 9:30 a.m.

The next meeting is scheduled for February 12, 2002 at 8:30 a.m.

SENATE COMMERCE COMMITTEE
GUEST LIST
DATE: February 07, 2002

NAME	REPRESENTING
Bernie Koch	Wichita Area Chamber
Mike Reecat	AT+T
Bob Kuchbiel	KIOCA
DICK CARTER	KBOR
BUD BURKE	Olathe Chamber
Stephanie Buchanan	DOB
Erik Sartorius	City of Overland Park

The University of Kansas

Benefit-Cost Analysis of Tax Incentives

Suggestions for Kansas

Policy Research Institute

presented to the

Kansas Senate Commerce Committee

February 7, 2002

presented by

David Burress

Center for Economic and Business Analysis
Policy Research Institute
University of Kansas

TOPICS

- What is Benefit-Cost Analysis (BCA)?
- "Traditional" versus generalized BCA
- Important features of BCA
- Examples of BCA of incentives
- Should it be used for Kansas tax incentives?
- Recommendations

Two types of program evaluation

- **Process evaluation** measures and evaluates whether the program is being conducted in a competent manner.
- **Outcome evaluation** measures program inputs and outputs and evaluates program worth.
- **BCA** is an outcome evaluation.

Some types of formal outcome evaluation

- **Cost Analysis** answers: what does it cost (both directly and indirectly) to do the job using this government program?
- **Cost-Effectiveness Analysis** answers: is this program the cheapest way to do the job?
- **Benefit-Cost Analysis** (BCA) answers: is the job worth doing using this program?

Outcome evaluation depends on economic models

- Any valid outcome evaluation compares what happened under the program to what *would have happened* without the program.
- Measuring "what would have happened" *always* depends on an economic model.

("What would have happened" is referred to as the "counterfactual".)

Specific advantages of BCA (if done well)

BCA is the gold standard of outcome evaluation.

- Leads to definite policy recommendations
- Methodology is relatively standardized
- Logically consistent and fully documented
- Clearly stated value judgments
- Provides a complete answer
  (if those value judgments are accepted)
- Based on empirical data plus widely accepted economic models
- Can be repeated and tested by others

General limitations of BCA and other outcome evaluations

- Easy to mess up -- it needs an expert, but not all experts are equal
- Always incomplete -- not all program benefits and costs can be measured
- Accuracy is usually not well determined using existing techniques.
  - Possible exception: full randomized experiment

General limitations of outcome evaluation, continued

- In some cases, there are controversies about what is the correct economic model.
  (Ideally, you would do multiple studies.)
- In some cases, economic modeling techniques may not be advanced enough to be persuasive.

General limitations of outcome evaluation, continued

- If policy-makers do not agree on values, then the evaluation may not lead to unique policy recommendations
- More generally, policy-makers nearly always have some value judgments not represented in the evaluation.

Specific disadvantage of BCA

- The most expensive form of outcome evaluation
- Not interdisciplinary – usual requires a professional economist
- Introduces distinctive new ways of going wrong or blundering

When should we use BCA?

Ideally, use BCA if and only if all of the following are true:

- There is live controversy about starting, continuing, or expanding the program
- Accepted economic modeling techniques can be applied
- BCA cost is small compared with program cost

Is BCA all you need?

Absolutely not. Policymakers also need general policy analysis information such as

- Process evaluation
- Result of open-ended interviews with experts
- Comparisons across states
- Analysis of alternative policy options

Important features of a BCA

- Specification of scope
  - Definite and narrow policy question
  - Choice of relevant policy goals
- Methodology
  - Clearly specified economic model
  - Data on what actually happened with the policy
  - Estimate what would happen without the policy
  - Differences = estimated effects of the policy
  - Net benefit = summarization of differences
- Evaluation
  - Absolute: positive net benefit?
  - Comparative: better than competing programs?

The policy question (examples)

- Good: should Kansas retain the quality jobs program?
- Better: which of (several listed incentive programs) should be expanded or dropped?

The policy goals (I.e. value judgments)

- What outcomes do policy-makers want to measure? E.g.,

(easier to measure:)

  - Money income and wealth
  - Jobs (total versus high quality)
  - Tax revenues

(harder to measure:)

  - Generalized income
  - Reductions in poverty
  - Quality of life

Policy goals (continued)

- In "traditional" BCA:
  The single accepted policy goal is (generalized) income (i.e. "1 dollar 1 vote".)
- Most published BCA is "traditional".
- Advantage: easier to measure, highly developed models
- Disadvantage: nearly all textbooks and theoreticians agree "1 dollar 1 vote" is ethically inappropriate.

Policy goals (continued)

- Effects on whom? (The issue of "standing")
  - Existing Kansans
  - In-migrants
  - The rest of the world

Policy goals (continued)

What is the benchmark?

- If benefit/cost < 1, drop the program.
- If benefit/cost >1, then what?
- With a limited budget we can't adopt every beneficial program. How high a benefit/cost ratio is "good enough to keep"?
- Partial answer: with competing programs, keep programs with highest benefit/cost.

Working with differing value judgments

- Comparing benefits and costs across time (choice of discount rate)
  - Solution: separate BCA analysis for each rate
- Multiple goals
  - Solution: separate BCA analysis for each goal

In other words, use sensitivity analysis.

What are "benefits" and "costs"?

- Benefit is the net increase in the desired outcome, resulting directly and indirectly from production of outputs by the program.
- Cost is the net reduction in the desired outcome, resulting directly and indirectly from use of resources as inputs to the program.

Problems of economic modeling and measurement

- Opportunity cost (e.g. what would Kansas otherwise have done with abated taxes?)
- "Counterfactual" behavior –
  especially the "but for" test
  (claim that the firm wouldn't relocate "but for" the incentive)
- Indirect (multiplier) effects
- Migration effects
- "Double counting"
- If there were multiple incentives, how do you allocate causal responsibility?

Examples of needed data

- What projects used the incentives?
- Value of incentives claimed
- What resulted from the project? (jobs, income, taxes, sales from Kansas suppliers, competition to existing Kansas firms)
- What share of employees are in-migrants?
- What do firm managers say they would have done without the incentive?
- Multiplier data

Data gathering methods

- Sampling
- Bias versus random error
- Contractual/legal obligations
- 3rd party data gathering
- Confidentiality versus public disclosure
- Administrative data (especially KDOR)
  - Access to existing KDOR data
  - Additional data gathering by KDOR

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Estimating the policy effects
(simplified example)

Suppose the goal is new jobs.

- Benefit = (number of new jobs)
  x (% of new jobs caused by the incentive)
  x (job-job multiplier).
- Cost = (foregone taxes) x (jobs expected to be generated if those taxes had been spent)
  x (job-job multiplier).

BCA examples
(for state-level economic development)

- Georgia's Economic Development Tax Incentive Program for jobs
- New York's Centers for Advanced Technology
- Kansas Technology Enterprise Corporation

Partial BCA of Georgia's Job Incentive Program

- An informal BCA
- Model estimate (from comparing claimants with non-claimants): 70% of jobs would have been created without the credit.
- Net cost: around $3,000/direct new job

  Ihlanfeldt and Sjoquist, "Conducting an Analysis of Georgia's Economic Development Tax Incentive Program,", *Economic Development Quarterly* 15(3), August 2001, pp. 217-228

BCA of New York Centers for Advanced Technology

- Benefit-Cost ratio for income of 3:1 to 6:1
- "But for" attribution based on interviews

  Feller, Irwin; and Gary Anderson. 1994. "A Benefit-Cost Approach to the Evaluation of State Technology Development Programs," *Economic Development Quarterly* 8(2), May, pp. 127-140

BCA of Kansas Technology Enterprise Corporation

- Lower-bound approach
- Benefit-Cost ratio for income greater than 3
- Benefit-Cost ratio for jobs greater than 6
- Net cost: around $15,000 per direct new job
- "But for" attribution based on interviews

David Burress and Patrica Oslund, *KTEC OUTCOMES, 1989-1995: An Evaluation of the Kansas Technology Enterprise Corporation Using the ROPI Methodology*, Lawrence KS: University of Kansas, Institute for Public Policy and Business Research Report 225, August 1998

Some recommendations

- Formal BCA of Kansas economic development incentives is needed
  - Incentives are controversial
  - Not everyone agrees that they work
  - If they don't work, they are very costly
    - Foregone revenue; compliance; distorted price incentives
  - Even if they do work, some work better than others.
    - Perhaps the least effective ones should be dropped and the most effective expanded.
  - Cost of BCA is much smaller than cost of failed incentives
  - Others have shown BCA of incentives can be done.
  - We believe accuracy of those BCAs is acceptable.

Recommendations, continued

- Establish a committee to oversee the study.
- Hire an outside consultant to do the work.
- Consultant should be university-based.
- Consultant must be able to work closely with committee
- Don't choose the lowest-cost bidder. Choose the highest-quality bidder. If the cost is too high, reduce the scope of work.

Recommendations, continued

- Don't set a tight deadline. Allow at least a year.
- Then repeat the study over time.
- Study several incentives using same methodology
- Work with consultant to determine what policy goals (value judgments) and what incentives.

Recommendations, continued

- Consultant should conduct interviews with each firm as soon as possible after its investment or location decision is made.
- Consultant should interpret findings in light of other research.
- Consultant should provide additional policy analysis
  - E.g., discussion of policy alternatives.

Recommendations, continued

- Pass legislation to support ongoing BCA
  - Require recipient firms to accept interviews with 3rd party consultants.
  - Recipient firms that don't file annual reports or grant interviews should lose their benefits
  - Allow consultant access to confidential KDOR data.
    - (E.g., swear them in as KDOR employees.)
  - Protect confidentiality of firm-level data
    - (E.g. KDOR could vet reports before publication.)

KDOR data issues

- Can use a stand-alone data system
  - Full integration with collections systems is not needed
- Statutory authority
- Cost items for consultant:
  - Form design
  - Form processing and data entry
  - Data extraction and analysis
- Cost item for KDOR: compliance

FIN

Comments or questions? Contact:

David Burress
Policy Research Institute, Blake Hall Room 607
1541 Lilac Lane, University of Kansas
Lawrence KS 66044-3177 USA
Email: d-burress@ku.edu
Phone: (785)864-9116
FAX: (785)864-3683
PRI web site: http://www.ku.edu/pri
Personal web site: http://www.people.ku.edu/~dburress