# Valuing Program Outcomes Relative to Program Costs to Improve Both:

#### Alternative Forms of Cost-Inclusive Evaluation

Brian T. Yates, Ph.D. American University Washington, DC USA

## Valuing program outcomes ... relative to program costs

- "The cynic ... knows the price of everything and the value of nothing." -- Oscar Wilde's *Lady Windermere's Fan*
- The *value* of a program can be understood as referring not only to outcomes, but also to how those outcomes compare to the types and amounts of resources expended to produce the outcomes.

### Major mistakes when evaluating resources consumed

- Limit perspective
  - One person's major resource is another person's "too trivial or too difficult to measure"
  - One person's resource consumed can be another person's resource generated
- Limit *context*, including culture and time
  - Price is often situation- and time-specific
  - Nonmonetary resources may be the most essential ones
  - Ignore potential "spillover" effects on other programs' resource expenditures
- Assume all resources can be valued in the same units
- Combine all resources in one number, and claim it represents "cost"

## Major mistakes when evaluating outcomes produced

- Limit perspective
  - "transfer payments"
  - client time, travel time and transportation costs
  - lifetime earning increments to evaluate program benefits?
  - assume no differences in lifetime earning potential due to demographic variables such as age, ethnicity, class, or country
  - assume an informed consumer (for willingness to pay)
- Limit context
  - extrapolating across diverse cultures, regions, and time
  - ignore possible additional, distal outcomes, positive and negative, caused by initial outcomes ... only look for the outcomes you expect and want

## "value" as comparing ... what you *get* for what you *give up*

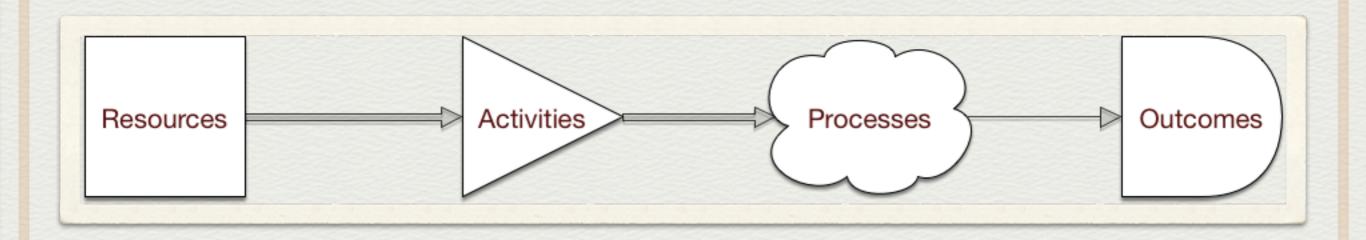
examples of perspectives	examples of what you <i>get</i>	examples of what you <i>give up</i>	
client & allies	help, well-being, time	time, money, opportunities	
provider	job, education, satisfaction	time, money, opportunities	
funder	reduced use of other entitlements	time, money	
community	tax income, reduced crime	space, money	

- benefit > cost? => "cost-beneficial!"
- ah, but how does one assess "benefit"? ... "cost"?

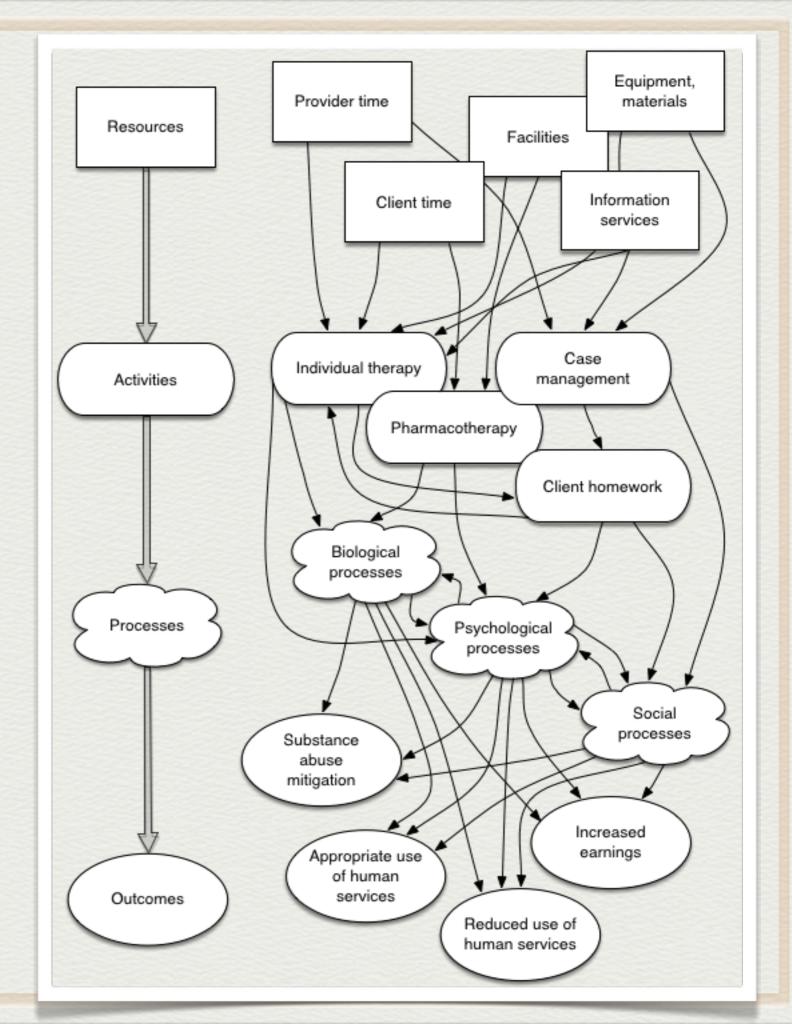
#### forms of Cost-Inclusive Evaluation

focus	resources consumed	resources generated	name
outcomes	not evaluated	nonmonetary or monetary	"program evaluation"
inputs	monetary	not evaluated	cost analysis
costs of nonmonetary outcomes	monetary	"native" units	cost-effectiveness analysis
costs of nonmonetary outcomes (universal units)	monetary	QALYs, DALYs, HYEs	cost-utility analysis
monetary outcomes relative to monetary costs	monetary	monetary	cost-benefit analysis
program & client as well as resources and outcomes	monetary and nonmonetary		resource >> activity >> process>>outcome analysis

## Opening up the Pandora's Box of the program ... and the person!



Psychotherapy:
optimize for
the person,
place,
provider, and
payor.



## Toward optimizing program value with and operations research-based

Resources >> Activities >> Processes >> Outcomes Analysis.

NIDA Manual Example.

Dorothy Lockwood - Dillard & Brian Yates

#### Resources

- Direct Service Staff
- Administrative Staff
- Facilities
- Utilities
- Support Staff
- Supplies
- Urine Testing

#### Procedures

- Group Counseling
- Relapse Prevention
- Individual Counseling
- Case Management

#### Processes

- Self-Efficacy Enhancement
- Skill Acquisition: Relapse
- Skill Acquisition: for Support
- Skill Acquisition: for Service
- DBonding to: Other Addicts, Ex-Offenders
- DBonding to: Counselors

#### Outcomes

- Drug Free
- Stable Employment
- ✓ Crime Free
- Compliance with Probation and Parole

#### Resources -> Procedures Matrix

		Procedures				
		Group	Relapse	Individual	Case	
		Counseling	Prevention	Counseling	Management	
Resources	Direct Service Staff (\$2500)					
	Administrative Staff (\$250)	18% = \$612	23% = \$782	23% = \$782	36% = \$1224	
	Facilities (\$500 rent)					
	Utilities (\$150)					
	Support Staff (\$500)		50% = \$250		50% = \$250	
	Supplies (\$500)	\$100	\$150	\$100	\$150	
	Urine Testing (\$1000)		\$1000			
TOTAL Procedure Cost		\$712	\$2182	\$882	\$1624	

#### Procedures -> Processes Matrix

		Processes					
		Self-Efficacy Enhancement	Skill Acquisition			Bonding	
			Relapse Prevention	Support Access	Service Access	With Addicts and Ex- Offenders	With Counselors
Procedures	Group Counseling (\$712)	33% = \$237				33% = \$237	33% = \$237
	Relapse Prevention (\$2182)	20% = \$436	20% = \$436	20% = \$436		20% = \$436	20% = \$436
	Individual Counseling (\$882)	50% = \$441					50% = \$441
	Case Management (\$1624)				75% = \$1218	12.5% = \$203	12.5% = \$203
TO	TAL Procedure t	\$1115	\$436	\$436	\$1218	\$877	\$1318

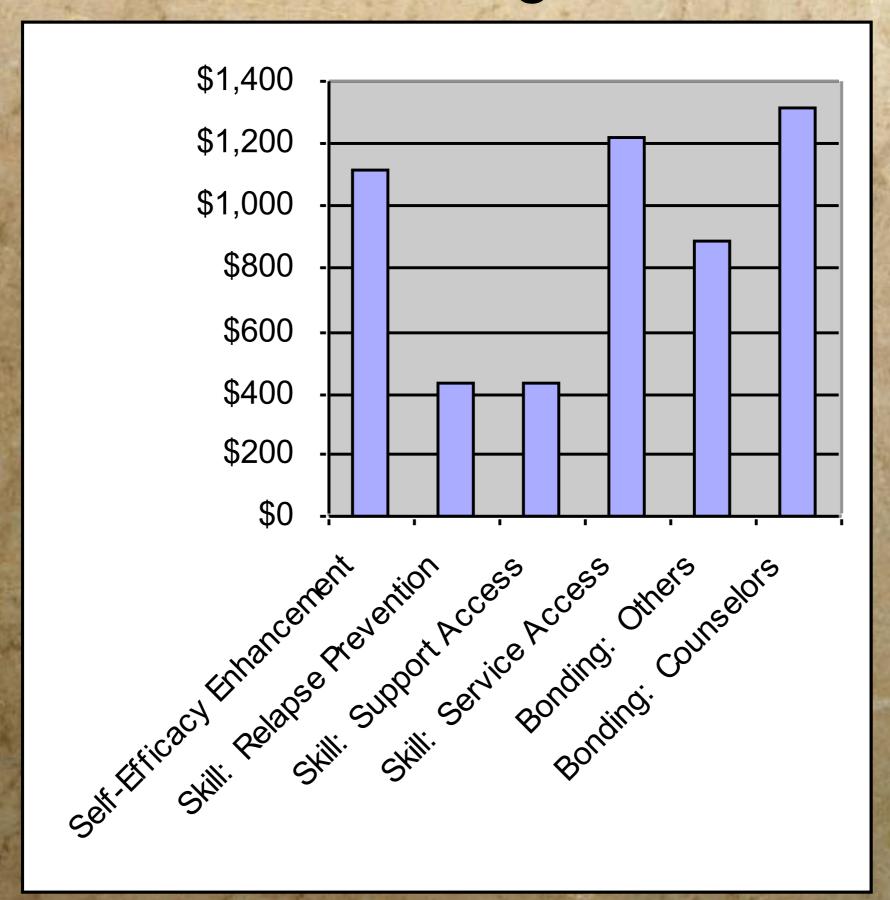
#### Processes -> Outcomes Matrix

			Outcomes			
			Drug-Free (Complete Drug Abstinence)	Stable Employment	Crime-Free (Avoidance of All Criminal Behavior)	Compliance with Probation and Parole
	Self-Efficacy		400/ - 0440	000/ - 0000	400/ - 0440	
	Ennan   (\$1115	cement 5)	40% = \$446	20% = \$223	40% = \$446	
	Skill Acquisition	Relapse Prevention (\$436)	100% = \$436			
Ses		Support Access (\$436)	25% = \$109	25% = \$109	25% = \$109	25% = \$109
Processes		Service Access (\$1218)		80% = \$974		20% = \$244
	Bonding	With Addicts and Ex-Offenders (\$877)	32% = \$281	4% = \$34	32% = \$281	32% = \$281
		With Counselors (\$1318)	10% = \$132	40% = \$527	10% = \$132	40% = \$527
TOTAL Outcome Cost		\$1404	\$1867	\$968	\$1161	

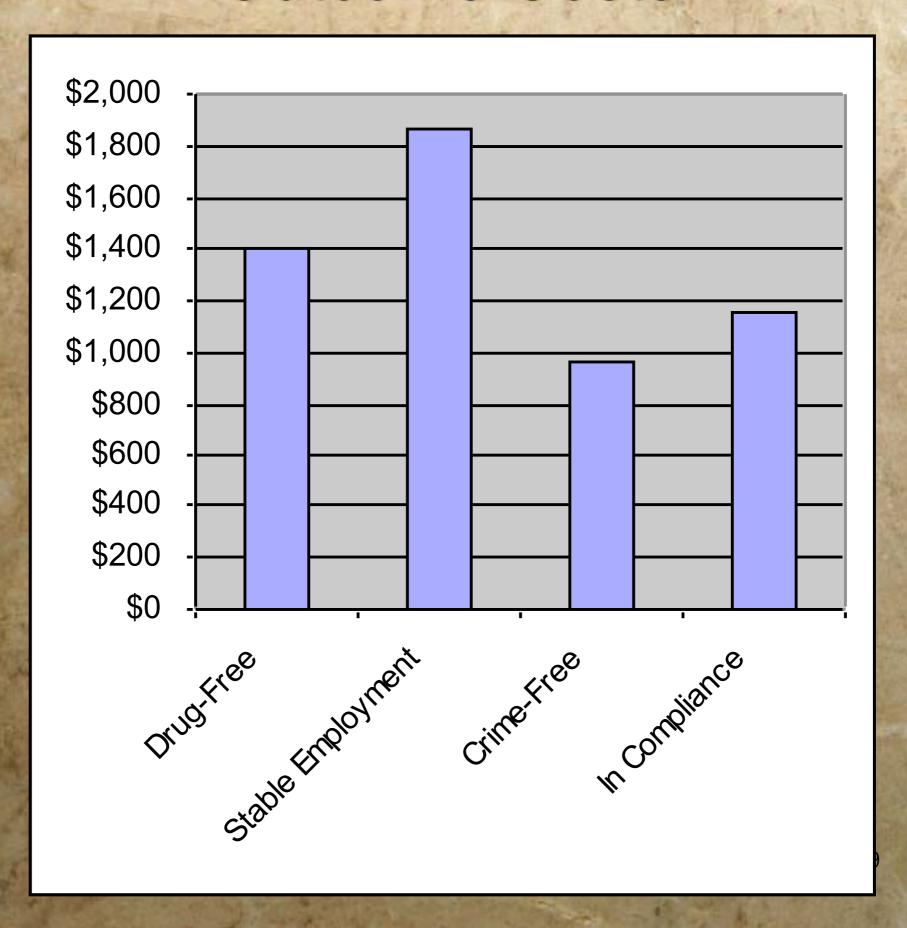
#### **Procedure Costs**



#### **Process Change Costs**



#### **Outcome Costs**



#### Caveats and Qualifications

- Subjective rather than Objective
- Short-term, not Long-term
- Constructive, rather than Observational
- But...
  - Less Costly!
  - More Cost-Effective?

#### presentation slides available for download now AEA Public eLibrary:

http://bit.ly/AEAeLibrary

file: "Valuing and Cost-Inclusive Evaluation"

#### Brian T. Yates, Ph.D.

Department of Psychology American University Washington, DC USA

brian.yates@mac.com