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# Interpreting and coding complex alcohol policies for use in statistical models: Alcohol server training as a case study

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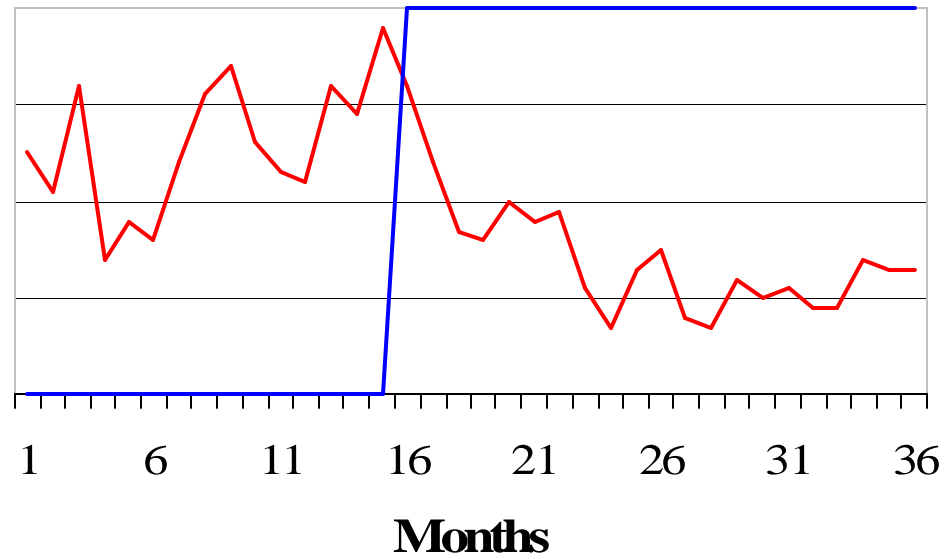


# What is alcohol server training?

Program that educates bartenders, waitstaff, store clerks and managers about responsible alcoholic beverage service:

- how to avoid selling alcohol to minors
- how to refuse service to obviously intoxicated persons

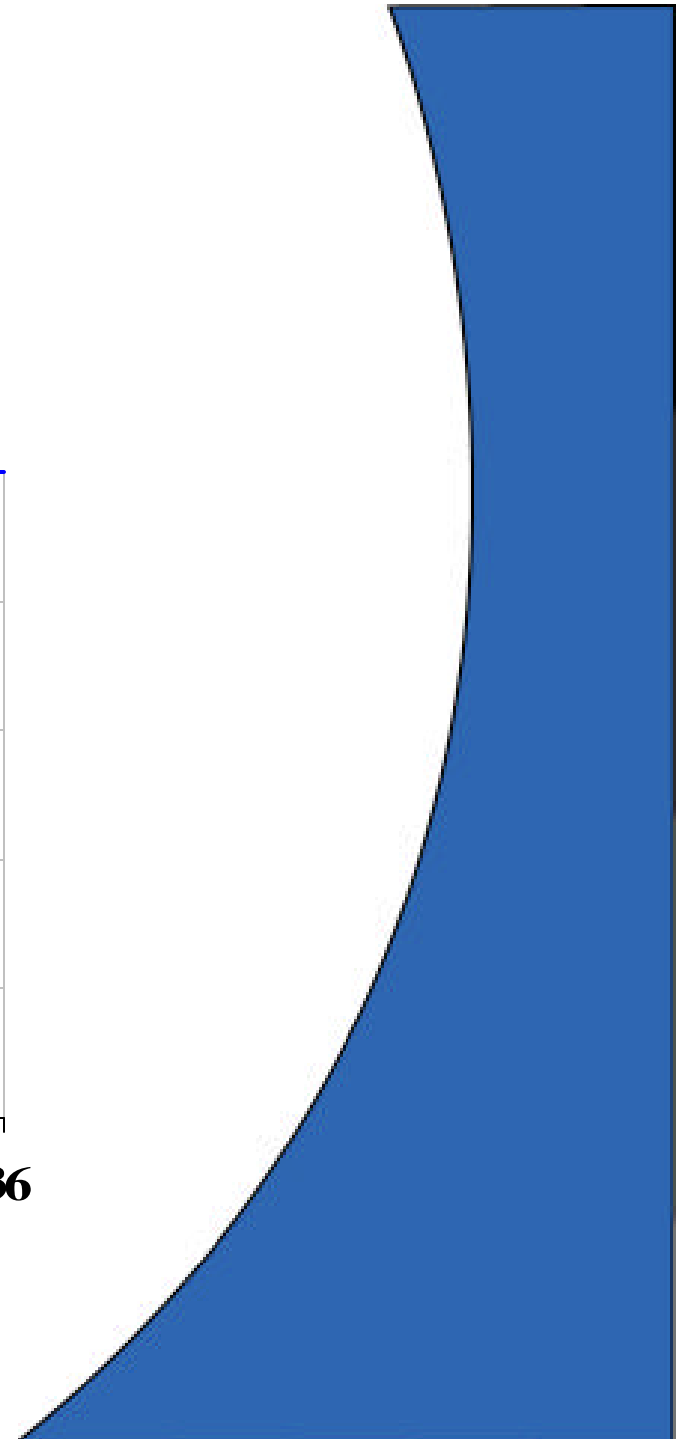
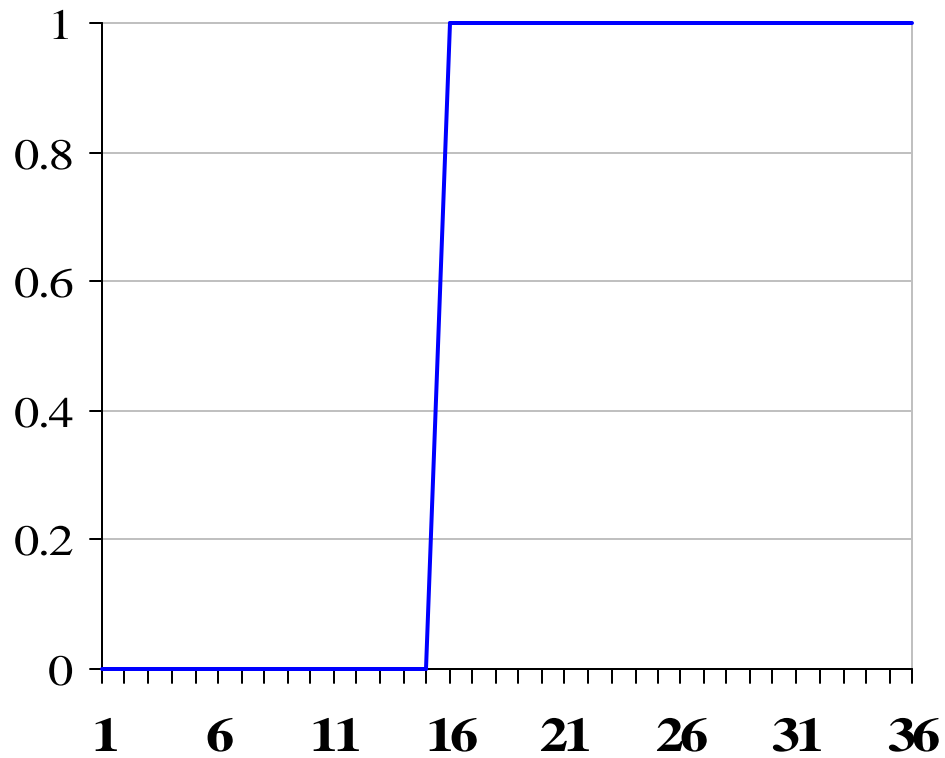
Hypothetical injury death series intersected with policy implementation: One state, 36 months



Time-dependent policy coded as 0-1

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Unstandardized effect estimates of alcohol server training on injury deaths: Time series 1968-1988

Death Type	ME	MI	NH	OR	TX	UT	VT
Homicides	.34	1.37	1.61*	-.65	.12	.60	-.38
Suicides	.15	-.22	-.55	-.13	-1.43	-1.48	-.72
Traffic	-2.24	.88	-.65	-1.62	.80	2.26	-.44

\* p < .05

## Differences in server training policies

Policy Type	ME	MI	NH	OR	TX	UT	VT
Mandatory				Yes		Yes	Yes
Voluntary	Yes	Yes	Yes		Yes		

# Legal research team

## **2 Attorneys & 1 Legal research assistant**

- Read all statutes, regulations, other legal materials
- Interviewed liquor board personnel
- Developed preliminary rating criteria and protocols

## **2 Public health policy researchers**

- Reviewed rating criteria and categories
- Used criteria to test rating protocols
- Assisted in fine-tuning criteria and protocols

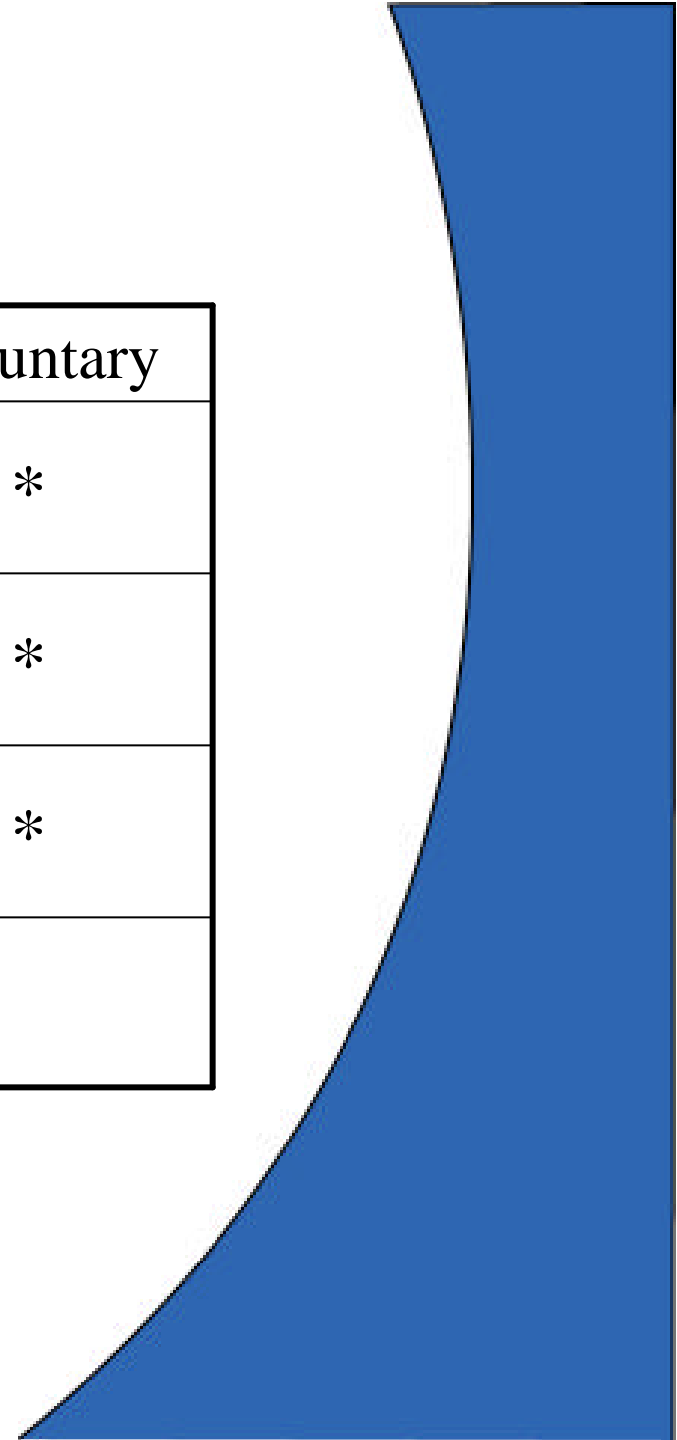
As of January 2001, 23 states had server training laws

Type:	States with this policy:
<b>Mandatory</b> (N=12)	AK, DE, LA, MD, NJ, NM, <b>OR</b> , TN, <b>UT</b> , <b>VT</b> , WA, WI
<b>Voluntary</b> (N=11)	AL, AZ, AR, FL, IL, IN, <b>ME</b> , <b>MI</b> , <b>NH</b> , RI, <b>TX</b>



## Targeted components of server training

Components	Mandatory	Voluntary
Program characteristics	*	*
Administrative requirements	*	*
Enforcement	*	*
Penalties	*	



# Coding/rating protocol across four policy components

Requirements and Elements Included	Rating Categories						
	1	2a	2b	3a	3b	4	5
<b>Program Requirements</b>							
Manager training focus		No		Yes	No	Yes	Yes
Management policy development	No minimum requirements	No		Yes	No	Yes	Yes
Behavior change methods		Inadequate	N/A	Inadequate	Yes	Yes	Yes
Basic knowledge of legal, social and physiological issues		Inadequate		Inadequate	Yes	Yes	Yes
Minimum length specified as at least 4 hours of face-to-face training		No		No	No	No	Yes
<b>Administrative Requirements – Mandatory Policies</b>		<b>1 of 1<sup>st</sup> 5</b>		<b>2 of 1<sup>st</sup> 5</b>	<b>1 re-certify</b>		
Mandatory certification of trainers/programs	No requirements	Yes		Yes	Yes	Yes	
Mandatory <i>re-certification</i> of trainers/programs		Yes		Yes	Yes	Yes	
Mandatory certification of specified trainees		Yes	N/A	Yes	Yes	Yes	N/A
Mandatory <i>re-certification</i> of specified trainees		Yes		Yes	Yes	Yes	
Proof of training required at license renewal		Yes		Yes	Yes	Yes	
Advisory board composition with <50% alcohol industry representation		No		Yes	Yes	Yes	
<b>Administrative Requirements – Incentive Policies</b>							
Mandatory certification of trainers/programs	No requirements	Yes		Yes	Yes	Yes	
Mandatory <i>re-certification</i> of trainers/programs		No		Yes	Yes	Yes	
Mandatory certification of specified trainees		No	N/A	No	Yes	Yes	N/A
Mandatory <i>re-certification</i> of specified trainees		No		No	Yes	Yes	
Advisory board composition with <50% alcohol industry representation		No		Yes	No	Yes	
<b>Enforcement – Mandatory Policies</b>				<b>1 of 1<sup>st</sup> 2</b>			
Active surveillance of training programs (random checks)	No surveillance	No	No	Yes	N/A	Yes	N/A
Active surveillance of licensees (random checks)		No	No	Yes		Yes	
Passive surveillance of training programs (largely from complaints)		Yes	No	No		No	
Passive surveillance of licensees (largely from complaints)		No	Yes	No		No	
<b>Enforcement – Incentive Policies</b>							
Active surveillance of training programs (random checks)	No surveillance	No		Yes	N/A	N/A	N/A
Passive surveillance of training programs (largely from complaints)		Yes	N/A	Yes		Yes	
<b>Penalties – Mandatory Policies</b>		<b>1 of 2 Yeses</b>					
Graduated admin penalties – licensees	None	Yes		Yes	N/A	Yes	N/A
Graduated admin penalties – server permits		No	N/A	No		Yes	
Graduated admin penalties – training programs/ABC-based training		Yes		Yes		Yes	



## Detail of one policy component: Program requirements

Requirements and Elements Included	Rating Categories						
	1	2a	2b	3a	3b	4	5
<b>Program Requirements</b>							
Manager training focus	No minimum requirements	No	N/A	Yes	No	Yes	Yes
Management policy development		No		Yes	No	Yes	Yes
Behavior change methods		Inadequate		Inadequate	Yes	Yes	Yes
Basic knowledge of legal, social and physiological issues		Inadequate		Inadequate	Yes	Yes	Yes
Minimum length specified as at least 4 hours of face-to-face training		No		No	No	No	Yes



# Inter-rater reliability

Kappa reliability scores ranged from:

.53 to 1.00

Mean score = .82

Combined rating “scores” for each state with server training

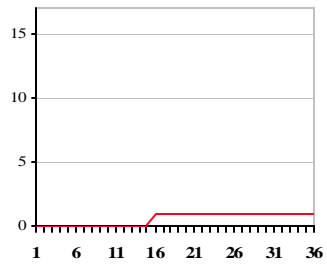
State	AK	DE	LA	MD	NJ	NM	OR	TN	UT	VT	WA	WI
<b>M</b> (4-17)	9	14	13	8	11	16	15	13	11	8	13	6
<b>V</b> (3-12)	11	7	6	5	5	6	9	5	3	3	10	
State	AL	AZ	AR	FL	IN	IL	ME	MI	NH	RI	TX	

Original server training effect estimates  
with policy rating scores in parentheses ( )

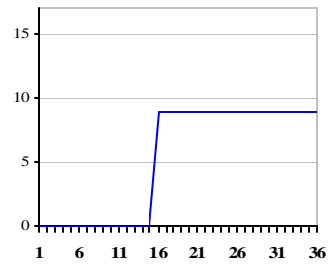
Death Type	ME (9)	MI (5)	NH (3)	OR (15)	TX (10)	UT (11)	VT (8)
Homicides	.34	1.37	1.61*	-.65	.12	.60	-.38
Suicides	.15	-.22	-.55	-.13	-1.43	-1.48	-.72
Traffic	-2.24	.88	-.65	-1.62	.80	2.26	-.44

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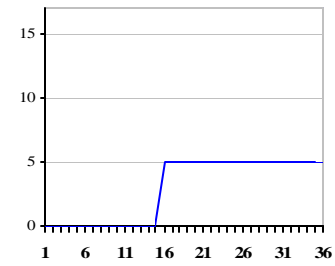
0/1 coding



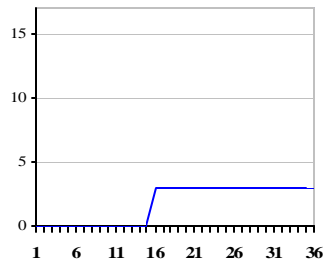
ME (9)



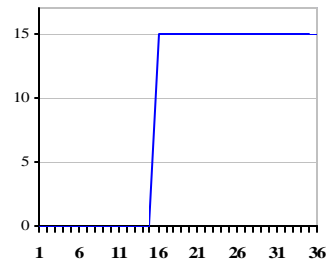
MI (5)



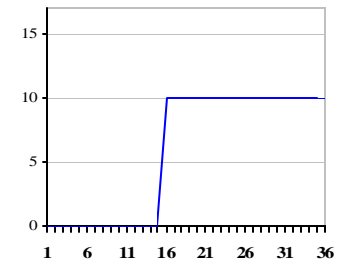
NH (3)



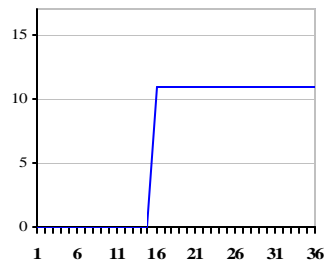
OR (15)



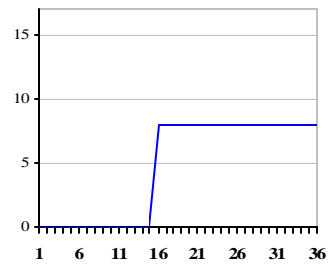
TX (10)



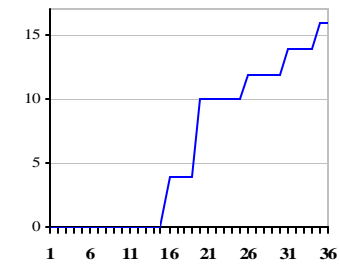
UT (11)



VT (8)



Theoretical



# CONCLUSIONS

- 0/1 coding simplifies
- Qualitative scale may
  - . Improve explanatory powers
  - . Lengthen coding processes