g009.sas: Exact confidence intervals for odds ratios (fixed effects) Sorted by  $\boldsymbol{n}$ 

Obs	id	n	y00	y01	y10	y11	zero_margins
1	Gnanadas 2017	6	0	1	1	4	0
2	Hunyadi 2014	10	0	3	3	4	0
3	Hunyadi 2015a	18	0	7	7	4	0
4	Lee 2014	29	1	5	2	21	0
5	Reyes 2016	34	0	3	3	28	0
6	Boerwinkle 2017	36	0	2	7	27	0
7	Chen 2017	42	4	6	2	30	0
8	Bettus 2010	44	12	6	10	16	0
9	Khoo 2019	49	18	7	8	16	0
10	Boerwinkle 2019	64	38	1	3	22	0
		332	73	41	46	172	0

#### n=6

11-0						
Model Information						
Data Set			W	ORK.B		
Response	e Variable (I	Events)	у			
Response	e Variable (	Trials)	m			
Model			bir	nary logit		
Number c	of Observati	ons Read		2		
Number c		2				
Sum of Fi		6				
Sum of Frequencies Used				6		
R	esponse Pr	ofile		•		
Ordered Value	Binary Outcome	To Frequen				
1	Event		1	-		
2	Nonevent		5			
				-		
Class Le	vel Informat	ion				

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

## **Exact Conditional Tests**

p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	0.2000	1.0000	0.5833
	Probability	0.8333	1.0000	0.5833

## Exact Parameter Estimates

					95	5%	
				Standard	Confid	dence	
Parameter		Estimate		Error	Lin	nits	p-Value
row	1	1.6094	*		-Infinity	4.5539	0.8333

 $\ensuremath{\textit{Note:}}$  \* indicates a median unbiased estimate and a one-sided p-value.

#### n=10

Model Information	
Data Set	WORK.B
Response Variable (Events)	у
Response Variable (Trials)	m
Model	binary logit
Number of Observations Rea	d 2
Number of Observations Use	d 2
Sum of Frequencies Read	10
Sum of Frequencies Used	10
Response Profile	
Ordered Binary T Value Outcome Freque	otal ncy
1 Event	3
2 Nonevent	7
Class Level Information	

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

## Exact Conditional Tests

n	Va	1110
υ-	v a	ıuc

Effect	Test	Statistic	Exact	Mid
row	Score	1.6531	0.4750	0.3292
	Probability	0.2917	0.4750	0.3292

## Exact Parameter Estimates

					95	%	
				Standard	Confid	dence	
Parameter		Estimate		Error	Lin	nits	p-Value
row	1	-0.7387	*		-Infinity	1.3978	0.2917

 $\ensuremath{\textit{Note:}}\ ^*$  indicates a median unbiased estimate and a one-sided p-value.

#### n=18

	Model Inf	ormation	
	wodei irii	ormation	
Data Set			WORK.B
Response	e Variable (E	Events)	У
Response	e Variable (1	Trials)	m
Model			binary logit
Number o	of Observation	ons Read	2
Number o	of Observation	ons Used	2
Sum of F	18		
Sum of F	18		
R	esponse Pro	ofile	
Ordered	- ,	To	•••
Value	Outcome	Frequen	<u>cy</u>
1	Event		7
2	Nonevent		11
Class Le	vel Informati	ion	

#### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

## Exact Conditional Tests

n	Va	1110
υ-	v a	ıuc

Effect	Test	Statistic	Exact	Mid
row	Score	6.8843	0.0128	0.0076
	Probability	0.0104	0.0128	0.0076

## Exact Parameter Estimates

					5%		
				Standard	Confidence		
Parameter		Estimate		Error	Lir	nits	p-Value
row	1	-2.5182	*		-Infinity	-0.6633	0.0104

 $\ensuremath{\textit{Note:}}$  \* indicates a median unbiased estimate and a one-sided p-value.

### The LOGISTIC Procedure

### n=29

	Model Information							
Data Set	Data Set							
Response	e Variable (E	vents)	у					
Response	e Variable (T	rials)	m					
Model			binar	y logit				
Number o	of Observation	ns Read	2	<u>-</u>				
Number c	of Observation	ns Used	2					
Sum of Fi	Read	29						
Sum of Fi	Jsed	29						
				_				
R	esponse Pro	file						
Ordered Value	Binary Outcome	To: Frequenc						
1	Event		3					
2	Nonevent	:	26					

### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

# **Exact Conditional Analysis**

## Exact Conditional Tests

p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	0.3148	1.0000	0.7923
	Probability	0.4154	0.5153	0.3076

			Standard	95 Confid	, •	
Parameter		Estimate	Error	Limits		p-Value
row	1	0.7118	1.2909	-3.5162	3.8527	1.0000

#### n=34

n=34 							
Model Information							
Data Set			W	ORK	K.B		
Response	e Variable (i	Events)	у				
Response	e Variable (	Trials)	m				
Model			bir	nary	logit		
Number o	of Observati	ons Read		2			
Number o	of Observati	ons Used		2			
Sum of F	requencies	Read		34			
Sum of Frequencies Used							
R	esponse Pr	ofile		-			
Ordered Value	Binary Outcome	To Frequenc					
1	Event		3	_			
2	Nonevent	;	31				
				-			
Class Lo	vel Informat	ion					

#### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

## Exact Conditional Tests

p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	0.3091	1.0000	0.6244
	Probability	0.7512	1.0000	0.6244

## Exact Parameter Estimates

					5%		
				Standard	Confidence		
Parameter		Estimate		Error	Lin	nits	p-Value
row	1	0.9992	*		-Infinity	3.0848	0.7512

 ${\it Note:}\ {\it *}\ {\it indicates}\ {\it a}\ {\it median}\ {\it unbiased}\ {\it estimate}\ {\it and}\ {\it a}\ {\it one-sided}\ {\it p-value.}$ 

### The LOGISTIC Procedure

#### n = 36

<i>n=3</i> 6							
Model Information							
Data Set	W	ORK	K.B				
Response	e Variable (l	Events)	у				
Response	e Variable (	Trials)	m				
Model			bin	ary	logit		
Number o	of Observati	ons Read		2			
Number o	of Observati	ons Used		2			
Sum of F	requencies	Read		36			
Sum of Frequencies Used				36			
R	esponse Pr	ofile					
Ordered	Binary	То	tal				
Value	Outcome	Frequen	cy				
1	Event		7				
2	Nonevent	:	29				
Class Le	vel Informat	ion					
	Des	ian					

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

## **Exact Conditional Tests**

p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	0.4970	1.0000	0.6778
	Probability	0.6444	1.0000	0.6778

## Exact Parameter Estimates

				Standard	Confid	dence	
Parameter		Estimate		Error	Limits		p-Value
row	1	0.5311	*		-Infinity	2.7036	0.6444

 $\ensuremath{\textit{Note:}}$  \* indicates a median unbiased estimate and a one-sided p-value.

### The LOGISTIC Procedure

#### n=42

	Model Information						
Data Set	WORK.B						
Response	e Variable (L	Events)	у				
Response	e Variable (1	Trials)	m				
Model			binary log	it			
			_				
Number o	of Observation	ons Read	2				
Number o	of Observation	ons Used	2				
Sum of F	requencies i	Read	42				
Sum of F	Sum of Frequencies Used						
R	Response Profile						
Ordered Binary Total Value Outcome Frequency							
1	Event		6				
2	Nonevent	;	36				

### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

Exact Conditional	Tests
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p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	6.9188	0.0214	0.0115
	Probability	0.0199	0.0214	0.0115

			Standard	•	5% dence	
Parameter		Estimate	Error	Limits		p-Value
row	1	2.2239	0.9527	0.0587	4.8235	0.0429

### The LOGISTIC Procedure

#### n=44

Model Information					
Data Set			WORK.B		
Response	e Variable (i	Events)	у		
Response	e Variable (	Trials)	m		
Model			binary logit		
Number	of Observati	ons Read	2		
Number o	of Observati	ons Used	2		
Sum of F	requencies	Read	44		
Sum of F	requencies	Used	44		
R	esponse Pr	ofile			
Ordered Value	,	To Frequen	•••		
1	Event		22		
2	Nonevent		22		
		'			
Class I s	val Informat	ion .			

#### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

# **Exact Conditional Analysis**

## Exact Conditional Tests

p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	3.3077	0.1243	0.1008
	Probability	0.0469	0.1243	0.1008

Parameter	·	Estimate	Standard Error	95 Confid Lim	lence	p-Value
row	1	1.1354	0.6338	-0.2529	2.6229	0.1243

#### n=49

	Model Inf	ormation		
Data Set			WO	RK.B
Response	e Variable (l	Events)	у	
Response	e Variable (	Trials)	m	
Model			bina	ary logit
Number c	of Observati	ons Read		2
Number c	of Observati	ons Used		2
Sum of Fi	requencies	Read	4	.9
Sum of Frequencies Used 49				
R	esponse Pr	ofile		
Ordered Value	Binary Outcome	To Frequenc	••••	
1	Event		26	
2	Nonevent	:	23	

### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

## **Exact Conditional Analysis**

Exact Conditional Tests						
	p-Value					
Effect	Test	Statistic	Exact	Mid		
row	Score	7.2005	0.0101	0.0071		
	Probability	0.00606	0.0101	0.0071		

Exact Parameter Estimates						
95%						
Standard Confidence						
Parameter		Estimate	Error	Lin	p-Value	
row	1	1.6003	0.6126	0.2741	3.0365	0.0145

#### n=64

11-04						
	Model Information					
Data Set			W	ORK	.В	
Response	e Variable (I	Events)	у			
Response	e Variable (*	Trials)	m			
Model			bin	ary I	ogit	
Number o	of Observati	ons Read		2		
Number o	of Observati	ons Used		2		
Sum of Fi	requencies	Read		64		
Sum of Fi	requencies	Used		64		
R	esponse Pr	ofile				
Ordered Value	Binary Outcome	To: Frequenc				
1	Event		41			
2	Nonevent	:	23			
-						

### Class Level Information

Class	Value	Design Variables
row	1	1
	2	0

# **Exact Conditional Analysis**

## Exact Conditional Tests

p-Value

Effect	Test	Statistic	Exact	Mid
row	Score	47.5460	<.0001	<.0001
	Probability	6.11E-13	<.0001	<.0001

			Standard	•	5% dence	
Parameter		Estimate	Error	Limits		p-Value
row	1	5.4015	1.1370	3.1784	9.3729	<.0001