Chapter 2:

Organizing Information

Frequency Distributions

A table reporting the number of observations falling into each category of the variable.

The purpose is typically to present a large amount of data in an easily readable format

Example Frequency Distribution

Identity	Frequency (f)
Native American of multiple ancestry	269,700
Native American of Indian descent	5,537,600
Native American of other descent	947,500
Total (N)	6,754,800

Example of a <u>Percentage Distribution</u>

Midpoint			Cum. Freq.		Cum %
Score	Frequency Bar Chart	Freq.	(below)	%	(below)
40	*	4	4	0.33	0.33
50	*****	78	82	6.5	6.83
60	******	275	357	22.92	29.75
70	******	483	840	40.25	70
80	****	274	1114	22.83	92.83
90	*****	81	1195	6.75	99.58
100	*	5	1200	0.42	100

Reading a Table: 1. What is the title of the table? 2. What is the purpose of the table? 3. What is the primary variable(s) in the table? 4. How many cases are reported in the table? 5. What is the source of the data in the table?

State	Minimum Age	State	Minimum Age
rkansas	14	Texas	17
/irginia	15	California	18
labama	16	Colorado	18
Delaware	16	Connecticut	18
ndiana	16	Illinois	18
lentucky	16	Louisiana	18
Aississippi	16	Maryland	18
Aissouri	16	Nebraska	18
levada	16	New Jersey	18
Oklahoma	16	New Mexico	18
Vyoming	16	Ohio	18
Georgia	17	Oregon	18
New Hampshire	17	Tennessee	18
orth Carolina	17		

In-class assignment:
Create a table and present these numbers in
a frequency distribution

State	Minimum Age	State	Minimum Age
Arkansas	14	Texas	17
Virginia	15	California	18
Alabama	16	Colorado	18
Delaware	16	Connecticut	18
Indiana	16	Illinois	18
Kentucky	16	Louisiana	18
Mississippi	16	Maryland	18
Missouri	16	Nebraska	18
Nevada	16	New Jersey	18
Oklahoma	16	New Mexico	18
Wyoming	16	Ohio	18
Georgia	17	Oregon	18
New Hampshire	17	Tennessee	18
North Carolina	17		

Creating a F	requency	Distribution
Minimum Age	Tally	Frequency
(of states)	
14		1
15		1
16		9
17		4
18		12
Total N		27

ble 1: Age Limits for U.S. State Deat Penalty Statutes				
Minimum Age	State Frequencies			
14	1			
15	1			
16	9			
17	4			
18	12			
Total N	27			

Proportions and Percentages • Proportion (P): a relative frequency obtained by dividing the frequency in each category by the total number of cases. • Percentage (%): a relative frequency obtained by dividing the frequency in each category by the total number of cases and multiplying by 100. • N: total number of cases • Proportions and percentages are relative frequencies

Propor	tions ar	nd Percent	ages
Minimum Age	Frequency	Proportion	Percentage
14	1	1/27=.037	3.7
15	1	.037	3.7
16	9	.333	33.3
17	4	.148	14.8
18	12	.444	44.4
Total N	27	1.0	100.0

Frequency tables vary somewhat by the level of measurement of the variable of interest.

What are the levels of measurement?

	Nominal	Variables	
Gender	Tallies	Freq. (f)	Percentage
Male		15	37.5
Female		25	62.5
Total (N)		40	100.0
(male, ·	he categories female) do no rticular order	ot have to b	al variables be listed in

Happiness	Tallies	Freq. (f)	Percentage
Very Happy		9	22.5
Pretty Happy		25	62.5
Not too happy		6	15.0
Total (N)		40	100.0

	Distributi -Ratio Vari	
Number of Children	Freq. (f)	Percentage
0	5	12.5
1	10	25.0
2	10	25.0
3	5	12.5
4	5	12.5
5	1	
6	2	
7 or more	2	
Total (N)	40	100.0

Frequency Interval	Distributi -Ratio Vari	
Number of Children	Freq. (f)	Percentage
0	5	12.5
1	10	25.0
2	10	25.0
3	5	12.5
4	5	12.5
5	1	2.5
6	2	5.0
7 or more	2	5.0
Total (N)	40	100.0

Cumulative Distributions

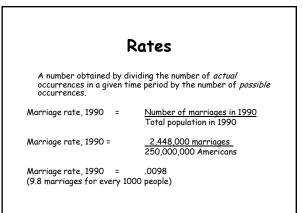
- Cumulative <u>frequency</u> distribution: a distribution showing the frequency at or below each category (class interval or score) of the variable.
- Cumulative <u>percentage</u> distribution: a distribution showing the percentage at or below each category (class interval or score) of the variable.

Minimum			Cumulative
Age	Freq.(f)	Percentage	Frequency
14	1	3.7	01
15	1	3.7	02
16	9	33.3	11
17	4	14.8	
18	12	44.4	
Total	27	99.9*	

			Distribution
Minimum			Cumulative
Age	Freq.(f)	Percentag	e Frequency
14	1	3.7	01
15	1	3.7	02
16	9	33.3	11
17	4	14.8	15
18	12	44.4	27
Total (N)) 27	99.9*	

Ninimum Age	Frequency	Percentage	Cumulative Percentage
14	1	3.7	3.7
15	1	3.7	7.4
16	9	33.3	40.7
17	4	14.8	
18	12	44.4	99.9*
Total N	27	99.9*	,,,,

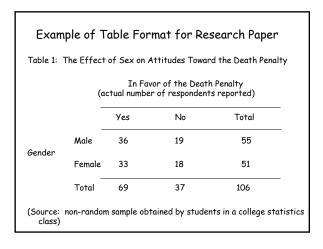
Ninimum Aqe	Frequency	Percentage	Cumulative Percentage
14	1	3.7	3.7
15	1	3.7	7.4
16	9	33.3	40.7
17	4	14.8	55.5
18	12	44.4	99.9*
Total N	27	99.9*	





Basic principles for understanding what the researcher is trying to tell you (that is, questions you should ask yourself when reading a table):

- What is the source of this table?
- How many variables are presented? What are their names?
- What is represented by the numbers presented in the first column? In the second column?



		No. (%)	
	Women (n = 9367)	Men (n = 7970)	Total (N = 17 337)
Adverse childhood experiences Emotional abuse	1227 (13.1)	602 (7.6)	1829 (10.5)
Physical abuse	2530 (27.0)	2382 (29.9)	4912 (28.3)
Sexual abuse	2310 (24.7)	1276 (16.0)	3586 (20.7)
Battered mother	1281 (13.7)	920 (11.5)	2201 (12.7)
Household alcohol/drug abuse	2759 (29.5)	1896 (23.8)	4655 (26.9)
Mental illness in household	1937 (20.7)	1058 (13.3)	2995 (17.3)
Parental separation or divorce	2293 (24.5)	1738 (21.8)	4031 (23.3)
Incarcerated household member	485 (5.2)	324 (4.1)	809 (4.7)
ACE score O	3271 (34.9)	3044 (38.2)	6315 (36.4)
1	2299 (24.5)	2237 (28.1)	4536 (26.2)
2	1443 (15.4)	1297 (16.3)	2740 (15.8)
3	969 (10.3)	685 (8.6)	1654 (9.5)
4	665 (7.1)	382 (4.8)	1047 (6.0)
5	390 (4.2)	212 (2.7)	602 (3.5)
6	210 (2.2)	74 (0.9)	284 (1.6)
≥7	120 (1.3)	39 (0.5)	159 (0.9)
For ACE Study waves 1 and 2 combined. ACE tions of each type of adverse event.	Indicates adverse child	hood experiences. See	"Methods" for defini
Dube, S. R., Anda, R. F., Felitti, V. J., Ch od abuse, household dysfunction, an from the Adverse Childhood Experie	d the risk of attemp	ted suicide through	

ge-group	Participants (n=1244)*
3-17 years	575 (46:4%)
8-24 years	669 (53-6%)
Community setting	
Irban	201 (14.9%)
tural	1043 (85-1%)
Orphan status†	
Biological mother died	125 (9-6%)
Biological father died	241 (18-4%)
Death of both biological parents	83 (7.6%)
Death of at least one biological parent#	449 (36.0%)
Aarital status	
Aarried	127 (9.7%)
ot married	1112 (90-3%)

World	Births 133 028	Unregistered children 48 276 (36%)	
Sub-Saharan Africa	26 879	14 751 (55%)	
Middle East and north Africa	9790	1543 (16%)	
South Asia	37 099	23 395 (63%)	
East Asia and Pacific	31 616	5901 (19%)	
Latin America and Caribbean	11 567	1787 (15%)	
CEE <comma> CIS<comma> and Baltic states</comma></comma>	5250	1218 (23%)	
Industrialised countries	10 827	218 (2%)	
Developing countries	119 973	48 147 (40%)	
Least developed countries	27 819	16 682 (71%)	

Thank You.

<u>In-class assignment</u>:

Add a column of proportions and a column of percentages to your table of state age limits

SPSS	5 Outp	out Looks Som	nething L	like Th	is:
V13 *	V6 Cro	osstabulation			
			V	5	
			Yes	No	Total
V13	Male	Count	36	19	55
		% within V6	52.2%	51.4%	51.9%
		% within V13	65.5%	34.5%	100.0
	Female	e Count	33	18	51
		% within V6	47.8%	48.6%	48.1%
		% within V13	64.7%	35.3%	100.0
Total		Count	69	37	106
		% within V6	100.0%	100.0%	100.0
		% within V13	65.1%	34.9%	100.0

