

MODULE 9

FINDING THE RIGHT GENDER DATA AND CONDUCTING BASIC ANALYSIS

EXERCISES

Curriculum on Gender Statistics Training

This product was developed under the guidance of the Subgroup on Gender Statistics Training, within the Asia-Pacific Network of Statistical Training Institutes.

Exercise 1

What are the characteristics of good gender data? (Select all that apply)

1. It should be accurate and reliable
2. It should come from a microdata source
3. It should only interview the household head
4. It should be accessible

Solutions to Exercise 1

1 & 4

Exercise 2

Which data source should you refer to if you want to conduct an analysis using internationally comparable estimates? (Select all the apply)

1. Census data
2. DHS STATcompiler
3. IPUMS International
4. SDG Global Database

Solutions to Exercise 2

2, 3 & 4

Exercise 3

Which of the following are national sources of gender data? (Select all that apply)

1. Ministries of education
2. Ministries of labour
3. Electoral management bodies
4. Official SDG database
5. Gallup surveys
6. Police, military

Solutions to Exercise 3

1,2,3 & 6

Exercise 4

Using data from the SDG Global Database, obtain the estimates for SDG Indicator 5.2.1 for Bangladesh, 2017.

(Indicator 5.2.1: Proportion of ever-partnered women and girls subjected to physical and/or sexual violence by a current or former intimate partner in the previous 12 months, by age (%))

Solution to Exercise 4

Step 1: Go to SDG Global Database <https://unstats.un.org/sdgs/indicators/database/>

Step 2: Select Indicator 5.2.1

Step 3: Select 'Bangladesh' from the list of countries

Step 4: Select 'Download table'

- The following table will appear

Goal	Target	Indicator	SeriesCod	SeriesDes	GeoAreaC	GeoAreaF	TimePeric	Value	Time_Det	UpperBo	LowerBo	BasePeric	Source	FootNote	Nature	Units	[Age]
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	27.1	2015				Violence against Wo	C		PERCENT	35-39
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	21.6	2015				Violence against Wo	C		PERCENT	40-44
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	19.7	2015				Violence against Wo	C		PERCENT	45-49
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	28.8	2015				Calculated UNECE me	CA		PERCENT	15-49
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	35.4	2015				Violence against Wo	C		PERCENT	20-24
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	28.4	2015				Violence against Wo	C		PERCENT	15-19
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	32.2	2015				Violence against Wo	C		PERCENT	25-29
5	5.2	5.2.1	VC_VAW_Proportior	50 Banglades	50	Banglades	2015	30.8	2015				Violence against Wo	C		PERCENT	30-34

Step 5: Select the data and click on 'Pivot Table' from the 'Insert' option in MS Excel

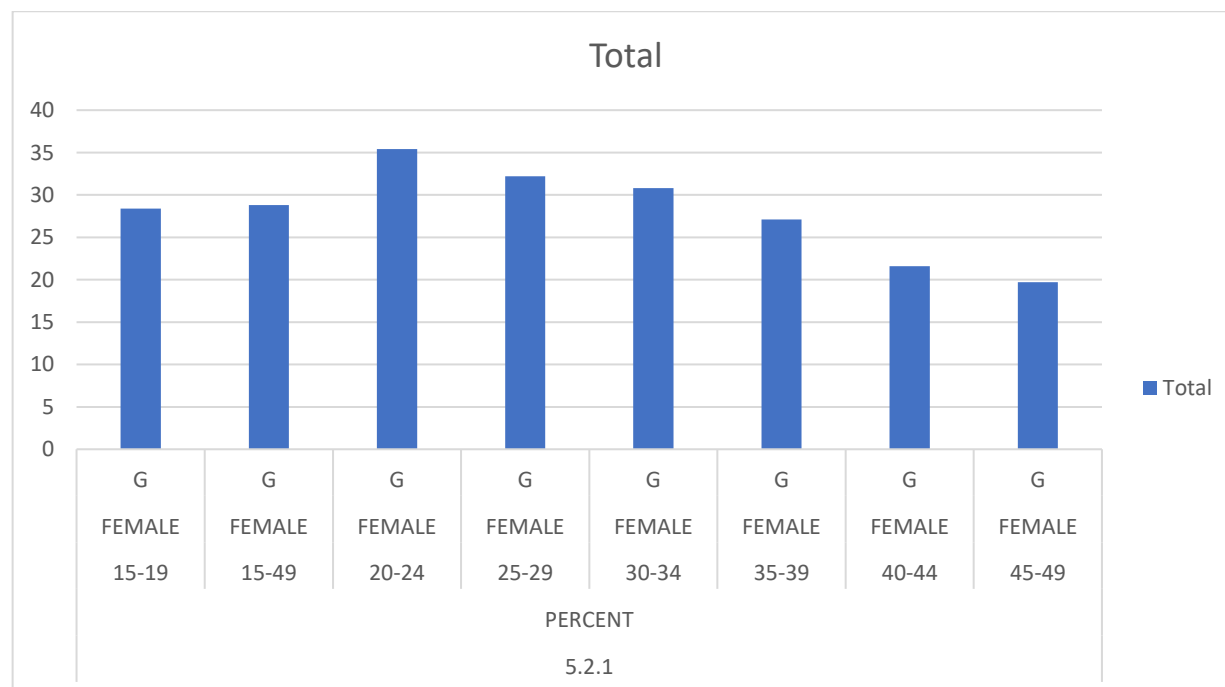
- Select the full range of data table.

- Select the following 'Row Labels' options from 'Pivot Table' fields

- Indicator
- Value
- Units
- Age
- Sex

Row Labels	Sum of Value
5.2.1	224
PERCENT	224
15-19	28.4
FEMALE	28.4
G	28.4
15-49	28.8
FEMALE	28.8
G	28.8
20-24	35.4
FEMALE	35.4
G	35.4
25-29	32.2
FEMALE	32.2
G	32.2
30-34	30.8
FEMALE	30.8
G	30.8
35-39	27.1
FEMALE	27.1
G	27.1
40-44	21.6
FEMALE	21.6
G	21.6
45-49	19.7
FEMALE	19.7
G	19.7
Grand Total	224

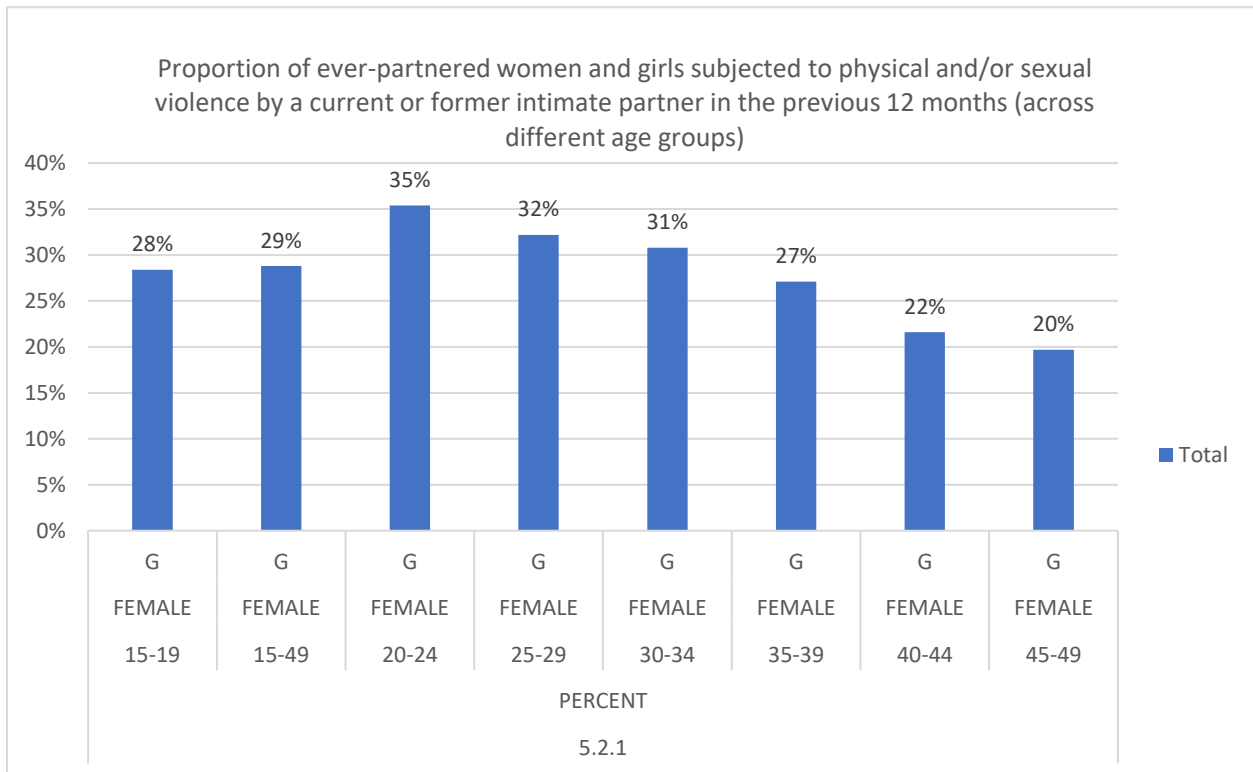
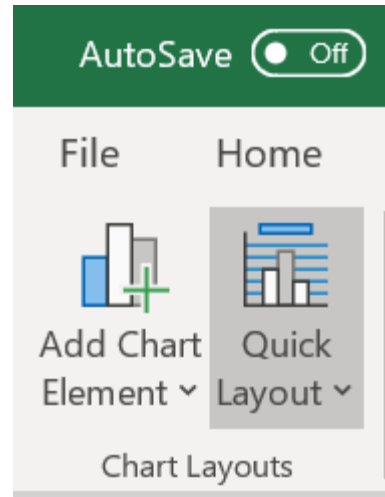
Step 6: Select 'PivotChart' to visualize the data



Step 7: Format the Pivot Chart:

-Select 'Add Chart Element'

- Add 'Chart' title
- Add data labels
- Data Legends
- Vertical axis (express in %)



Exercise 5

Using pre-processed data from DHS STATcompiler, obtain the estimates for median years of education completed in Bangladesh by women and men in the years 2011.

Solutions to Exercise 5

Step 1: Go to DHS STATcompiler <https://www.statcompiler.com/en/>

Step 2: Select Bangladesh from the list of countries

Step 3: Select 'Median years of schooling completed' for both men and women

Country	Survey	Median years of education completed [Women]	Median years of education completed [Men]	
			Total	Total 15-49
Bangladesh	2014 DHS	4.6		
Bangladesh	2011 DHS	4.3	3.7	3.9
Bangladesh	2007 DHS	3.2	2.7	2.8
Bangladesh	2004 DHS	1.7	3.8	3.9
Bangladesh	1999-00 DHS	0.8		
Bangladesh	1996-97 DHS		1.2	1.3
Bangladesh	1993-94 DHS			

Step 4: Export the table in 'Table Format'

	A	B	C	D	E	F
1			Median years of ec	Median years of ec		
2						
3						
4	Country	Survey	Total 15-49	Total	Total 15-49	
5	Bangladesh	2014 DHS	4.6			
6	Bangladesh	2011 DHS	4.3	3.7	3.9	
7	Bangladesh	2007 DHS	3.2	2.7	2.8	
8	Bangladesh	2004 DHS	1.7	3.8	3.9	
9	Bangladesh	1999-00 DHS	0.8			
10	Bangladesh	1996-97 DHS		1.2	1.3	
11	Bangladesh	1993-94 DHS				
12						
13	Median years of ec Median number of years of education completed by women					
14	Median years of ec Median number of years of education completed by men					
15	ICF, 2015. The DHS Program STATcompiler. Funded by USAID. http://www.statcompiler.com . November 7 2019					

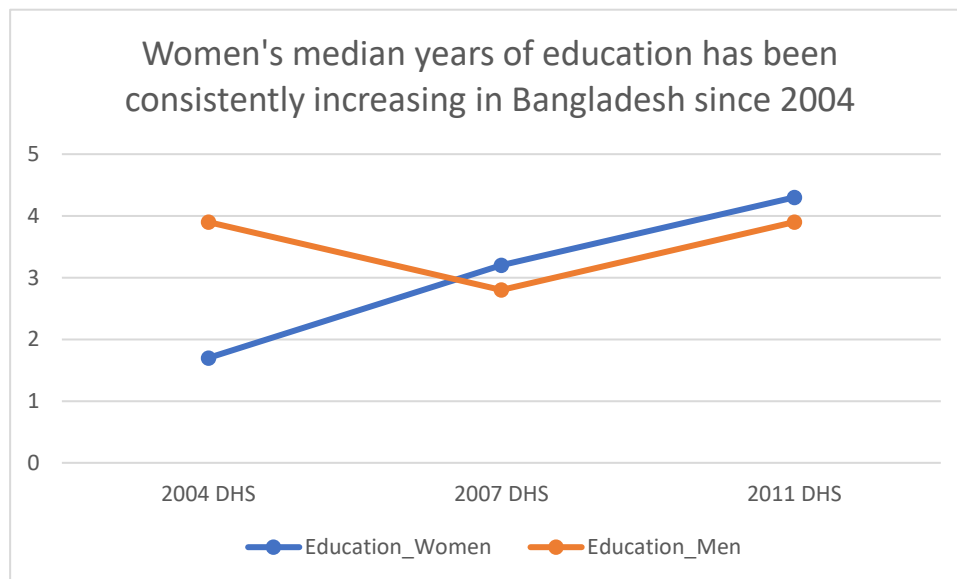
Step 5: Clean the data by deleting the row with missing data

- Delete row for 2014 DHS, 1999–00, 1996–97 and 1993–94 (as there is no data for men or women for these years).
- Delete column D, since we only want to compare women and men of the same age group (15-49).
- Rename column C as 'Education Women' and column E as 'Education_Men'.

1						
2						
3						
4	Country	Survey	Education_Women	Education_Men		
5	Bangladesh	2011 DHS	4.3	3.9		
6	Bangladesh	2007 DHS	3.2	2.8		
7	Bangladesh	2004 DHS	1.7	3.9		
8						
9	Median years of ec	Median number of years of education completed by women				
10	Median years of ec	Median number of years of education completed by men				
11	ICF, 2015. The DHS Program STATcompiler. Funded by USAID. http://www.statcompiler.com . November 7 2019					

Step 6: Visualize the data and format the chart

- Choose a line graph because we want to show change over time
- Arrange the data in ascending order to see the change since 2004



Exercise 6

Obtain the estimates for proportion of women and girls who were married as children in Bangladesh using DHS raw survey data for the year 2014¹.

Solutions to Exercise 6

- Open IR File (Bangladesh DHS 2014)

To calculate child marriage:

-Generate new variable 'childmarriage'

```
gen childmarriage=0
```

-Replace childmarriage with a value of 1 if the age at first marriage or cohabitation is less than 18 years

```
replace childmarriage=1 if v511<18
```

-Replace all the missing values with a dot (.)

```
replace childmarriage=. if v511==.
```

-Tabulate the result with appropriate weights

```
tab childmarriage [iw=v005/1000000]
```

¹ Note: Proportion of women ages 18-49 who were married below the age of 18 (defined here as child marriage) is calculated as a ratio of women ages 18-49 who married below the age of 18 to all women ages 18-49. In countries where surveys did not interview non-married women (e.g., DHS Bangladesh), the denominator has to be adjusted using all women's factor (awfact). While this is straightforward for one-way tabulations, the syntax's complexity increases for two-way and three-way tabulations. Hence, for simplicity, awfact has not been applied in this case

The command 'gen weights', generates women's sample weights so that the results are representative of the population.

The command 'tab v025' tabulates women's population distribution on type of location of residence.

```
gen weights=v005/1000000
tab v025 [iw=weights]
```

type of place of residence	Freq.	Percent	Cum.
urban	5,047.3554	28.26	28.26
rural	12,815.6443	71.74	100.00
Total	17,862.9997	100.00	

In Bangladesh, 71.74% of women and girls live in rural households.

Exercise 7

Using DHS STATcompiler:

- Calculate the estimates on women unemployed in the past 12 months in Bangladesh
- Compare women's estimates with men's estimates
- Represent this information graphically

Solution to Exercise 7

Step 1: Go to STATcompiler <https://www.statcompiler.com/en/>

Step 2: Select Bangladesh as the country and select the indicator 'employment status'. Make this selection for both women and men. Now, there are three options under this:

- Women who worked in the last 12 months and are currently
- Women who worked in the last 12 months, but not currently
- Women who did no work in the last 12 months

For the purpose of this exercise, select the third option: Women who did not work in the last 12 months and similarly for men: Men who did not work in the last 12 months

You will obtain the following result table:

Click on this icon to read additional information about this data

Country	Survey	Women who did no work in the last 12 months	Men who did not work in the last 12 months	
		Total 15-49	Total	Total 15-49
Bangladesh	2014 DHS	64.4		
Bangladesh	2011 DHS	85.0	0.8	0.5
Bangladesh	2007 DHS	65.0	1.1	0.9
Bangladesh	2004 DHS	77.5	10.7	11.3

Reading the additional information about the data (referred to as the metadata) is crucial to avoid misinterpreting results. You will obtain the following indicator details through this:

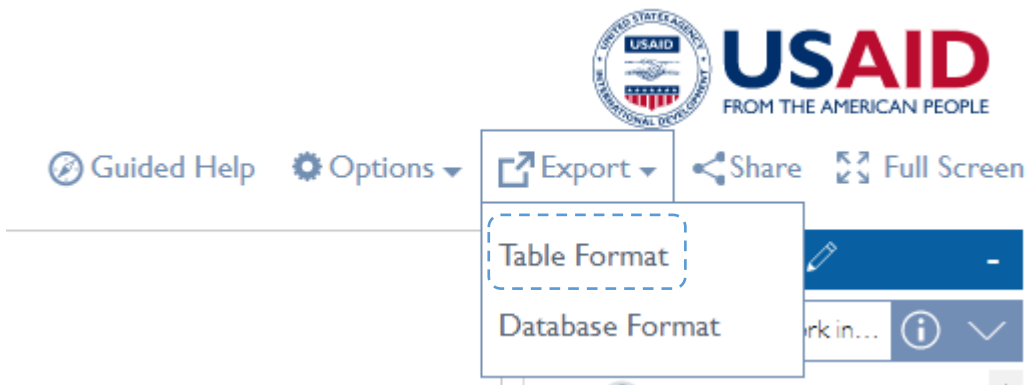
This information indicates that the estimates are presented as percentages.

Indicator Details

- Indicator: Women who did no work in the last 12 months
- Measure: Percent
- Definition: Percentage of women who did no work in the 12 months preceding the survey
- Denominator: Women interviewed
- Group: Employment: Employment status
- Type: Indicator
- Decimals: 1
- Indicator ID: EM_EMPL_W_N12

OK

To represent this information graphically, first, export this result table in Excel by clicking the top right option.



You get the following Excel file:

		Women who did no work	Men who did no work	
Country	Survey	Total 15-49	Total	Total 15-49
Bangladesh	2014 DHS	64.4		
Bangladesh	2011 DHS	85	0.8	0.5
Bangladesh	2007 DHS	65	1.1	0.9
Bangladesh	2004 DHS	77.5	10.7	11.3

Women who did no work: Percentage of women who did no work in the 12 months preceding the survey
Men who did no work: Percentage of men who did no work in the 12 months preceding the survey
ICF, 2015. The DHS Program STATcompiler. Funded by USAID. <http://www.statcompiler.com>. October 18 2019

To keep the same sample for comparison, only compare women and men in the 15–49 age group and for the years 2004, 2007 and 2011. Use a line graph.

