

Point in Time Analysis of Gender Data

Workshop on Gender Statistics and Analysis
Module II – Topic 1

Providenciales, Turks and Caicos Islands
17-19 February 2026



UNITED NATIONS

ECLAC

UNITED NATIONS ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN, SUBREGIONAL HEADQUARTERS FOR THE CARIBBEAN

**Please complete the
workshop questionnaire
if you have not already
done so**

It takes about 5-10
minutes to complete



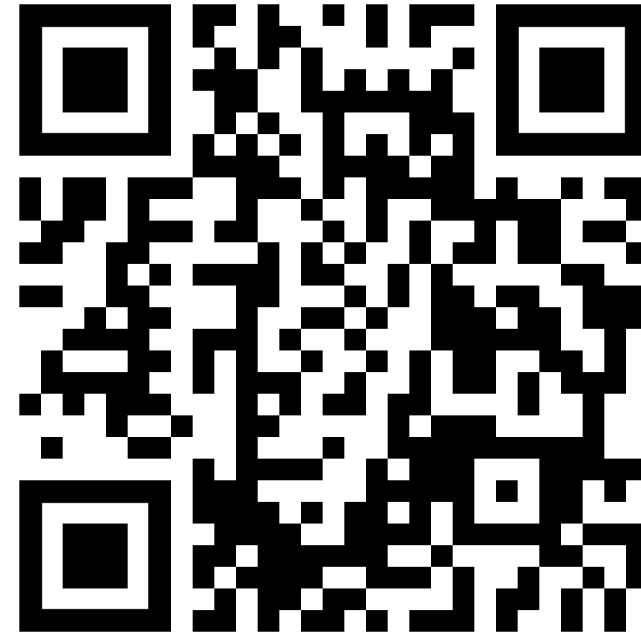
Please download and install an open-source statistical software, if you do not already have such a software

JASP



(Jeffreys's Amazing Statistics Program)
User-friendly and supports SPSS/Excel files

PSPP



Open-source clone of SPSS
(with fewer advanced functions)



Module II – Topic 1

The topics covered are:

Use of summary statistics

- Types of data
- Measures of central tendency: Mean, Median, Mode

Methods of data analysis and interpretation

- Tables and Crosstabs
- Visualizing data: Line graphs, bar charts, 2-D area graphs



Summary Statistics

Types of Data

	Continuous data	Ordinal data	Count data
What it is	Can take <i>any value</i> within a range	Categories with a natural order	Whole numbers representing quantities
Examples	<ul style="list-style-type: none"> Income (USD) Height (cm) Birth/death rates Time (days, years) 	<ul style="list-style-type: none"> Satisfaction: Low / Medium / High Agreement scale: Strongly disagree → Strongly agree Education level 	<ul style="list-style-type: none"> Number of men and women Number of schools in a district
Key feature	Decimals are possible and differences between values are meaningful	Order is known but distances between categories are not necessarily equal	No fractions (you cannot have 2.5 women)



Measures of central tendency

	Mean	Median	Mode
What it is	Sum of all values divided by number of observations (average)	The value in the middle when data are ordered	The most common value in a dataset
When to use it	Data are continuous. However, the mean can be misleading if the data has extreme values (outliers)	<ul style="list-style-type: none">• Data are skewed• There are extreme values• Working with ordinal data	<ul style="list-style-type: none">• Categorical data• Identifying dominant groups
Example	Average poverty rates	Income of the “middle class”	Most common education level of women 25years and older in a country



Example of measures of central tendency

Women

	Age of respondent (MWB4)
Valid	824
Missing	106
Mode	35.56
Median	35.00
Mean	34.05
Std. Deviation	8.814
Minimum	15.00
Maximum	49.00

Men

	Age of respondent (MWB4)	Age when he had first child (MCM17)
Valid	364	136
Missing	57	285
Mode	41.56	23.67
Median	35.00	25.00
Mean	34.39	25.40
Std. Deviation	9.703	5.283
Minimum	15.00	14.00
Maximum	49.00	45.00

Source: Turks and Caicos Islands Multiple Indicator Cluster Survey 2019-2020



Data Analysis and Interpretation

Tables

Best for:

- Reporting precise figures
- Providing detailed breakdowns
- Documentation and transparency

Limitations:

- Patterns and trends might be harder to see

Intra-Caribbean migration stocks, % of host country population
(ECLAC associate members, 2000 to 2020)

Host country	2000	2005	2010	2015	2020
Anguilla	18.3	19.2	19.2	18.7	19.4
Aruba	9.3	9.9	10.1	10.2	11.4
Bermuda	3.9	3.4	2.9	3.0	3.4
British Virgin Islands	36.0	35.3	36.1	38.7	43.9
Cayman Islands	23.2	20.7	20.3	19.7	21.9
Curaçao	0.0	0.0	8.7	8.9	10.4
Guadeloupe	5.7	6.6	7.3	7.0	7.0
Martinique	2.0	2.3	2.4	2.9	2.8
Montserrat	10.7	12.0	11.8	12.1	12.5
Puerto Rico	2.2	2.3	2.1	2.1	1.7
Turks and Caicos Islands	33.5	28.0	38.2	43.7	49.5
United States Virgin Islands	34.9	35.9	36.4	37.6	37.6

Source: Leon and Abdulkadri, 2024



Crosstabs

Intra-Caribbean migration stocks, % of host country population by gender (ECLAC associate members, 2000 to 2020)

Best for:

- Examining relationships between groups
- Comparing distributions across categories
- Reveal disparities and structural patterns
- Show percentages within groups

Limitations:

- Interpretation can be complex for non-technical audiences

Country	2000		2005		2010		2015		2020	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Anguilla	22.0	14.7	23.1	15.3	23.3	15.3	22.6	14.8	22.1	14.3
Aruba	7.2	11.3	8.0	11.5	8.8	11.3	8.9	11.4	9.5	12.6
Bermuda	4.0	3.7	3.3	3.5	2.9	2.9	2.9	3.2	3.2	03.5
British Virgin Islands	34.5	37.5	34.7	35.9	36.0	36.2	38.7	38.7	42.2	41.3
Cayman Islands	21.9	24.4	20.4	21.0	20.8	19.9	19.8	19.6	20.0	19.7
Curaçao	0.0	0.0	0.0	0.0	6.4	10.7	6.5	11.0	6.8	11.5
Guadeloupe	5.5	5.9	6.3	6.9	6.9	7.6	6.4	7.6	6.4	07.6
Martinique	1.8	2.2	2.0	2.5	2.1	2.7	2.4	3.3	2.5	03.4
Montserrat	9.9	11.6	11.1	13.0	11.1	12.5	11.6	12.7	12.9	15.4
Puerto Rico	2.2	2.2	2.3	2.3	2.1	2.2	2.0	2.1	1.8	01.9
Turks and Caicos Islands	33.3	33.7	27.8	28.3	37.7	38.8	43.2	44.2	40.6	41.1
United States Virgin Islands	33.6	36.2	34.6	37.1	35.2	37.6	36.6	38.6	38.0	39.0

Source: Leon and Abdulkadri, 2024



Visualizing data

Strengths

- Makes patterns immediately visible and easy to communicate
- Highlights inequalities, disparities or trends
- Easier for decision-makers to interpret and to present to non-technical audiences

Limitations

- Less precise than tables
- Risk of misleading design choices



Line Graphs

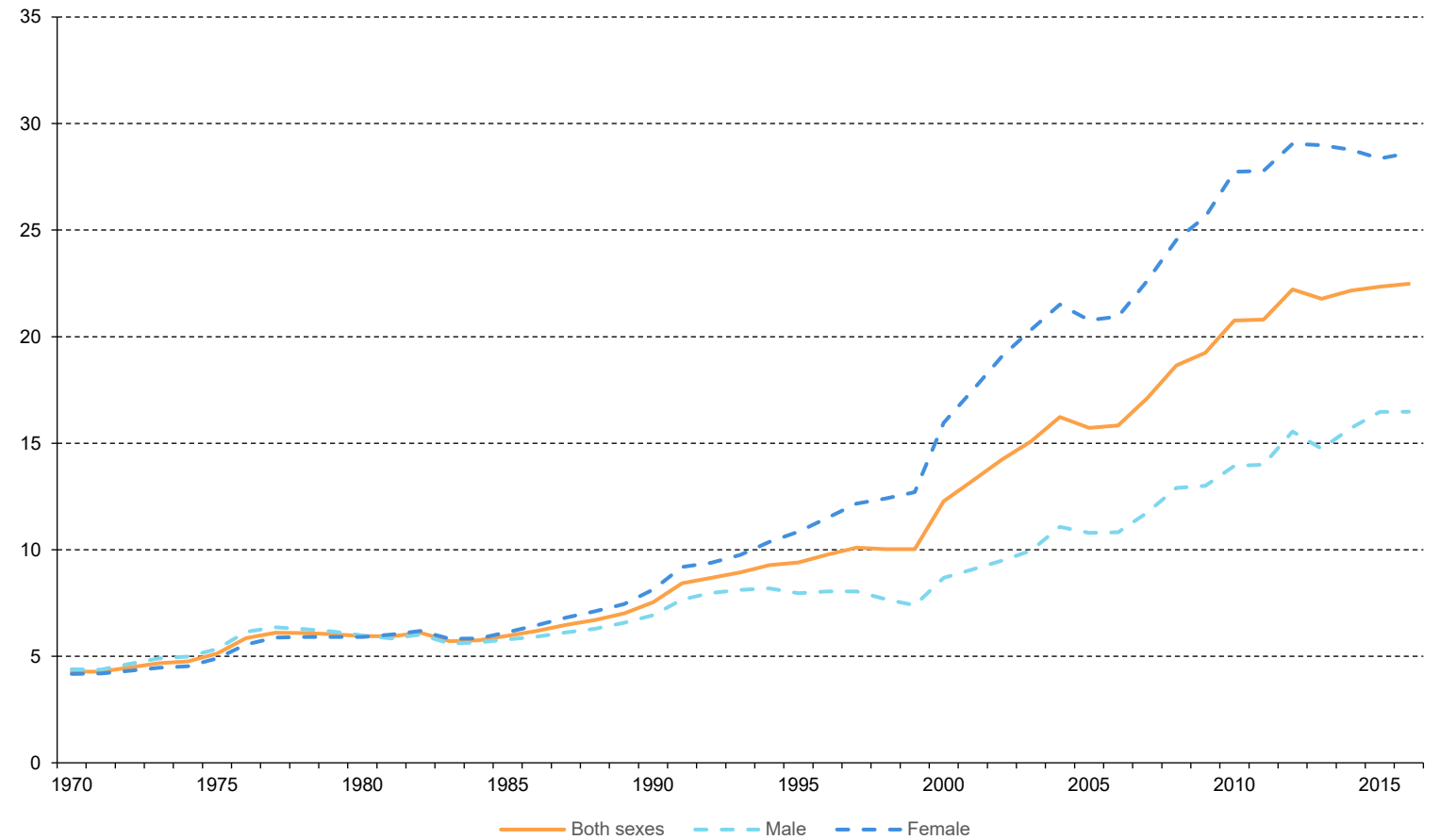
Best for:

- Change over time
- Trends and developments
- Direction and speed of change

Limitations:

- Interpretation can be complex for non-technical audiences

School enrollment in the Caribbean, tertiary
(percentage, gross)



Source: Abdulkadri et al., 2026



Bar Charts

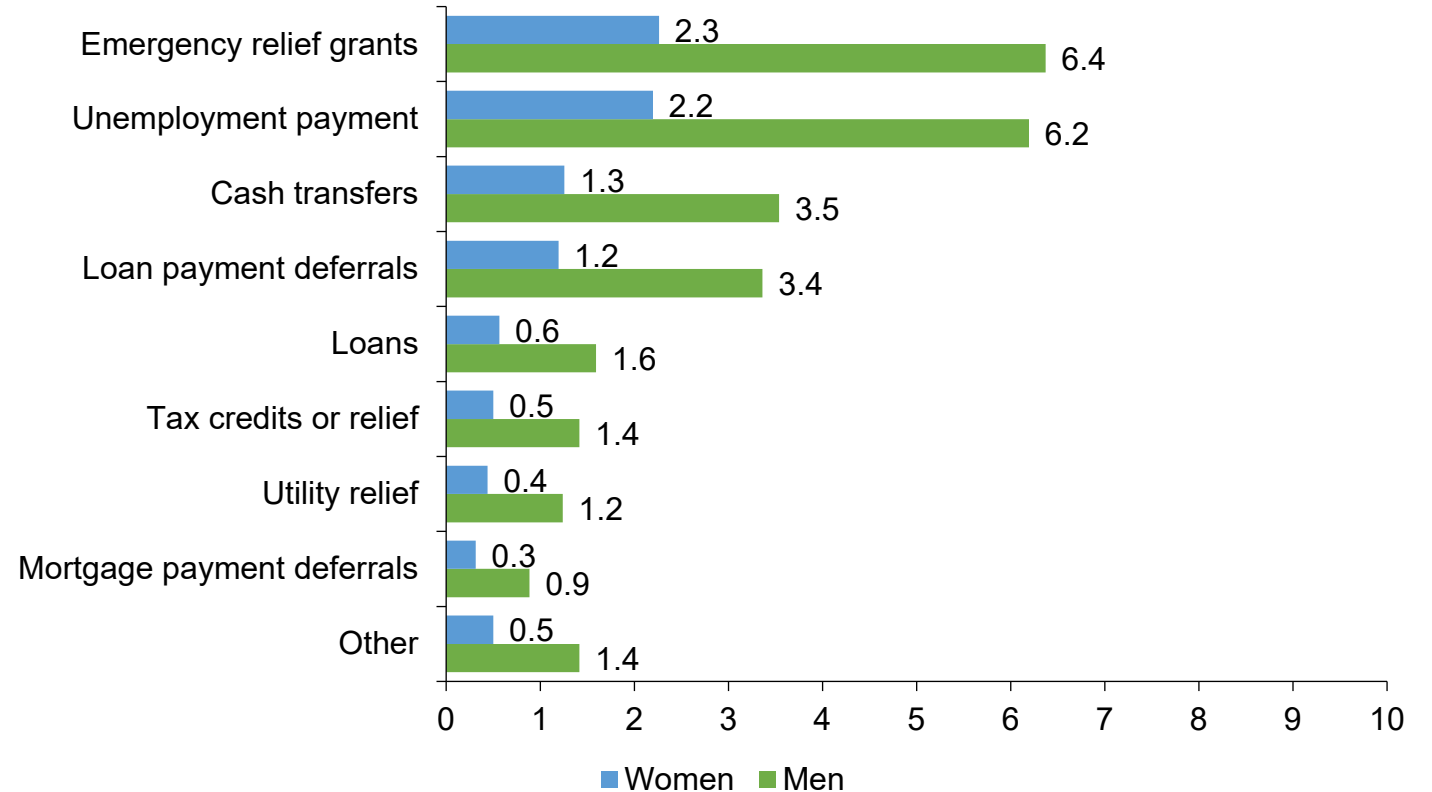
Best for:

- Comparisons between groups
- Differences in magnitude
- Analysis of non-continuous time trends

Limitations:

- Not ideal for long time trends
- Too many categories reduce readability

Proportion of respondents reporting receiving financial support from the government by gender (Percentages)



Source: Leon, Abdulkadri and Floyd, 2023



2-D Area Graphs

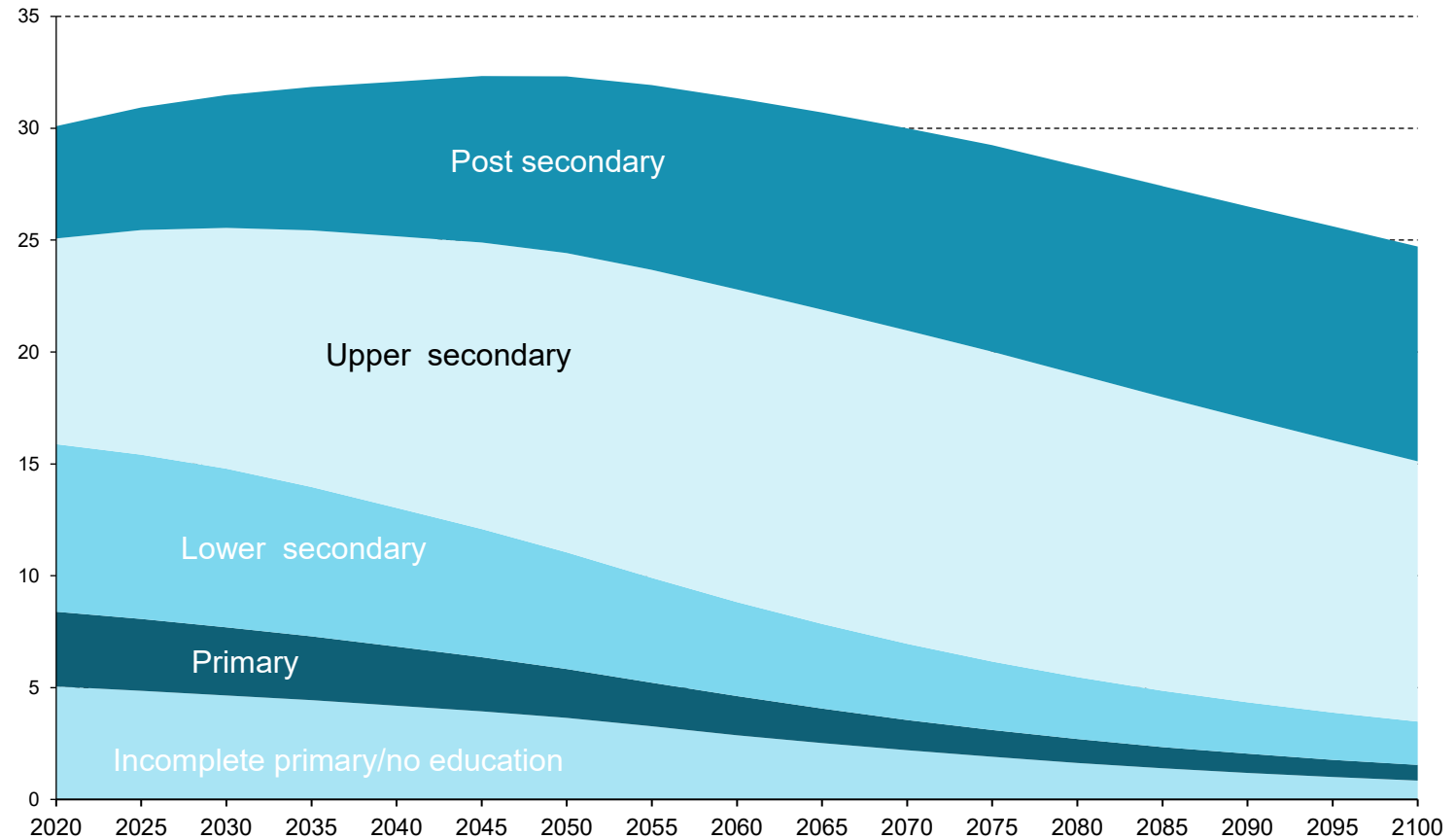
Best for:

- Showing composition
- Showing cumulative change over time
- Highlights relative change
- Makes structural shifts visible

Limitations:

- Can distort perception if scales are unclear
- Hard to compare exact values
- Not ideal if categories fluctuate strongly

Projected Caribbean population aged 15 to 64 by level of education, 2020 to 2100 (Millions)



Source: Abdulkadri et al., 2026





Thank you!

Feel free to ask any questions



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