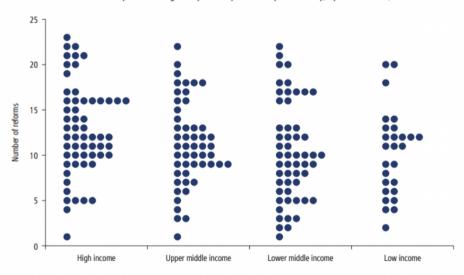## Questions

1. Please use the WBL 1971-2023 panel data and replicate Figure 2.3 of the WBL 2023 report.

FIGURE 2.3 | IMPLEMENTING GENDER REFORM IS NOT DEPENDENT ON INCOME LEVEL

Number of women's rights reforms implemented per economy, by income level, 1970–2022

Source: Women, Business and the Law database.
Note: The figure shows for each economy, by income group, the number of reforms that removed legal gender barriers. A reform is counted if, within any of the 35 areas of measurement, an answer changes from "no" to "yes" because of the adoption of a new law or the amendment of an existing law. Each dot represents an economy. The income groups are constituted as follows: 58 high-income economies, 51 upper-middle-income economies, 54 lower-middle-income economies, and 27 low-income economies. All income groups are classified as of 2022, except for República Bolivariana de Venezuela, which is included in the upper-middle-income group, as last classified in 2021.

Note:
- There is no specific requirement for the programming language that you use.
- If you think a dot plot is not the best way to display the data, please feel free to change the chart type.

- When you submit your test, please provide 1) the total number of reforms between 1970-2022; 2) your code file; 3) your data visualization output.

Instructions:

- Women, Business and the Law 2023 provides scores for each economy covered. Thirty-five data points (or "question") are scored across eight indicators of four or five binary questions.
- In the above chart, the calendar year is used instead of the WBL report year. calendar year = report year − 1
- In order not to double count reforms at the question level (an answer changes from "No" to "Yes"), please take the following table into consideration. Specifically, formerly colonized countries applying the colonizer's law or countries that were one country (e.g., Sudan / South Sudan) are only counted once. For example, Sudan's reform is not counted as a reform for South Sudan before 2011.

*Eritrea (gained independence from Ethiopia in 1993)
*South Sudan (gained independence from Sudan in 2011)
*Timor Leste (gained independence from Indonesia in 2002)
**The following are a list of USSR economies enacting their own labor code.*
*Armenia (enacted its first labor code in 1972)
*Azerbaijan (enacted its first labor code in 1971)
*Belarus (enacted its first labor code in 1972)
*Estonia (enacted its first labor code in 1972)
*Georgia (enacted its first labor code in 1971)
*Kazakhstan (enacted its first labor code in 1972)
*Kyrgyz Republic (enacted its first labor code in 1972)
*Latvia (enacted its first labor code in 1972)
*Lithuania (enacted its first labor code in 1972)
*Moldova (enacted its first labor code in 1973)
*Russian Federation (enacted its first labor code in 1971)
*Tajikistan (enacted its first labor code in 1972)
*Ukraine (enacted its first labor code in 1971)
*Uzbekistan (enacted its first labor code in 1971)

2. Please use WBL 1971-2023 panel data, write a program to merge the legal bases at the indicator level (Mobility, Marriage…8 indicators in total), and save the output in an Excel sheet.

Note:
- There is no specific requirement for the programming language that you use.
- When you submit your test, please provide 1) your code file; 2) Excel sheet with the merged legal bases.

Instructions:
- Make sure the merged legal bases include distinct law names only.
- Data clean-up requirements: use semicolons to separate laws; there should be no duplicate laws, no beginning or ending spaces, no extra space in between, no ending period, etc.
- Please do not include "No applicable provisions could be located/No restrictions could be located/No XXX" in the merged legal bases unless there are no actual legal bases for ALL the indicator questions. For example, the merged legal bases of Albania, 2020, Mobility indicator will be "Family Code; Law on Providing Passports for Albanian Citizen"

Family Code, Arts. 1, 50	No restrictions could be	Law on Providing Passports for Albanian	Family Code, Arts.

and 55	located	Citizen, Arts. 6-7	1 and 50