

# 7QQMM906

## Environmental Economics

### Group-Assessment

### (40% of total module grade)

## Technical Report or Data Report

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Lead Instructor:	Dr Florian Munch	Instructors email:	Florian.munch@kcl.ac.uk
Submission deadline	Via KEATS by 10:00 on December 18 <sup>th</sup> 2025	Submission Checklist:	<ol style="list-style-type: none"><li>1. File saved as [ModuleCode_GroupNumber]</li><li>2. Word count (2,000 words)</li><li>3. File format for submission (.docx) or PDF (.pdf)</li></ol>

#### Group-Assessment Milestones

1. Choose whether you are interested in working on a technical report or a data report and submit your response on Keats.

DUE DATE: TUESDAY, NOVEMBER 4<sup>th</sup> 2025, midnight UK time

2. The module leader conducts a randomized allocation into groups among the students interested in each type of report.

DATE: November 4 – November 11<sup>th</sup> 2025, midnight UK time

3. Students unite in their groups and select an environmental policy or database(s) and submit their choice on Keats.

DUE DATE: MONDAY, NOVEMBER 17<sup>th</sup> 2025, midnight UK time

4. Students work in groups on technical or data reports.

Submissions due dates are:

- Roadmap:<sup>1</sup> latest week 7 (November 27<sup>th</sup>), 11:00 am (formative)
- First draft:<sup>2</sup> latest week 10 (December 8<sup>th</sup>), 11:00 am (formative)
- Final report: Thursday, 18<sup>th</sup> December 2025, 10:00 am (summative)

Note: The group assignment grade is only based on the final report – the roadmap and the first draft are NOT marked.

## Technical Report: The Tasks

The tasks consist of writing up a report that analyses an environmental policy of your choice and that provides economic-theory informed consultancy to three fictive polluting businesses or households, represented by consumer groups, how to respond to the policy. Finally, you will conclude by providing a general assessment and recommendations to the public about how policymakers should either improve the policy or what alternative environmental policy tool they should use.

Each report should include the following sections and address all the tasks listed in each part.

### 1. Cover page

- a. Title of your report
- b. Abstract [100 words]: A paragraph synthesizing your analysis.
- c. Student IDs of all group members and a date

### 2. Part I: Motivation/Rationale & context/background [~300 words]

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<sup>1</sup> The roadmap sketches out *how* students intend to conduct the analysis. It is the plan based on which the analysis will be conducted. Bullet points are sufficient, but each section should be covered.

<sup>2</sup> The first draft should contain the actual analysis written up for a first time. It is the basis for final feedback and allow students to correct errors and further improve their product.

- a. Motivation/Rationale: Describe why the policy is interesting/important for the world/society and how it relates to environmental economics.
- b. Context/Background: Describe the following:
  - i. environmental policy objective (e.g., reduce air pollution from traffic) and policy tool (e.g., congestion charge),
  - ii. target population (e.g., farmers, industrial plants, drivers, households),
  - iii. structure of the market/sector (e.g., who are producers and who are consumers, is the market concentrated or competitive, is consumer demand or producers supply more elastic),
  - iv. discuss the market failures that are present in the specific context,
  - v. briefly outline the core economic logic how the policy intends to shift the behavior of the target population (polluters/emitters)

### **3. Part II: Analysis [~ 1400 words]**

#### **c. Part II A: General environmental policy effects**

- i. Based on your description of producers and consumers, outline how the policy will affect aggregate price and quantity demand and supplied considering the expected policy response from target population (see list of policy responses in lecture 3 slides).
- ii. Draw a demand-and-supply-curve of at least one industry/product targeted by the environmental policy both before and after policy implementation.
- iii. Explain your reasoning using the demand-and-supply curve shift.

#### **d. Part II B: Firm-level responses**

- i. Think of three different types of firms (e.g., different size, age, product/position in the value chain, technology, etc.) or households (e.g., income-level, profession, location etc.) that will be affected differentially by the policy.
- ii. Imagine you are consulting these firms. They ask you to provide them with an assessment of: i) how the environmental policy will affect them and ii) how they should respond to the policy.
- iii. Draw their relative abatement-emission cost curves into a single coordinate diagram (cost on the y-axis and emissions on the x-axis).
- iv. Use their abatement-cost curves, policy response and policy evaluation criteria taught in lecture 3 to consult the firms.
- v. Note: If you want to think about the policy's effect on households rather than firms, imagine you are consulting a consumer protection

NGO and develop scenarios based on specific household profiles, e.g. a family with two breadwinners and three children living in an affluent neighborhood.

#### 4. Part III: Discussion and Conclusion [~300 words]

- e. Discuss the advantages and disadvantages of the environmental policy. Briefly contrast the policy with other potential policy tools and take a position if another policy tool would be preferable using your firm-level impact assessments and policy evaluation criteria. You can also refer to scientific studies/evidence of other policies.
- f. Conclude by summarizing your findings on the policy's effectiveness and essential recommendations for the targeted polluters/emitters and the government.

## Module Learning Outcomes Assessed

- **Apply environmental economics tools** to analyse contemporary environmental issues and policy problems
- **Critically evaluate** the limitations of markets, government policies, and economic analysis in addressing environmental challenges
- **Solve and manipulate** diagrammatic and algebraic models in environmental economics, and critically assess these models
- **Present economic analysis** of environmental policies and topics effectively to diverse audiences
- **Prepare data or technical reports** (for those selecting the data option) that use economic tools to analyse environmental policies and policy responses
- **Demonstrate strong communication and collaboration skills** through report writing and active participation in discussions

## Data Report: The Tasks

The data report provides an assessment of an environmental database of your choice. On the one hand, the data report documents how you proceeded in terms of processing, analyzing, and visualizing the data. On the other hand, it asks you to outline why the data is relevant from an environmental economics and societal viewpoint as well as to interpret the results of your data analysis. In comparison to the technical report, more emphasis lies on the technical execution rather than the depth and rigor of the economic analysis.

The report should consist of the following sections, and each section should respond to the respective tasks as relevant for your specific database.

## **1. Part I: Motivation & Data Context**

### **a. Dataset Selection and Research Questions**

- Identify and justify selection of environmental/economic dataset(s) relevant to course themes
- Formulate 2-3 specific, answerable research questions that can be addressed through descriptive analysis
- Explain the relationship between your research questions and environmental economics theory

### **b. Data Significance and Relevance**

- Describe why the dataset is of interest to the world and environmental economics specifically
- Connect the data to current environmental policy debates or economic challenges
- Explain potential policy implications or academic contributions of your analysis
- Identify the target audience for your findings (policymakers, researchers, NGOs, etc.)

## **2. Part II: Technical Implementation**

Note: In the final data report, please use screen shots, e.g., of code scripts, folders, and version control/reproducibility processes using GitHub to document your approach.

### **a. Coding Setup and Documentation**

- **Master file code structure:** Create well-organized, commented code with clear section headers (templates will be provided)
- **Folder organization:** Establish logical directory structure (data/raw, data/processed, code, output, documentation – templates will be provided)
- **Version control:** Set up a Github repository with regular commits and descriptive commit messages based on a tutorial (will be provided)

- **Reproducibility:** Ensure code can be run independently with clear installation/setup instructions (guaranteed if template is followed)

## **b. Data Preparation and Management**

Note: Document and justify your main data cleaning, aggregation, merging, and transformation decision in the final data report, e.g., via screenshots code scripts and snippets of data before and after processing.

- **Cleaning processes:**

- Handle missing values, outliers, and inconsistencies
- Rename variables for clarity and consistency
- Format data types appropriately (dates, factors, numerics)
- Describe problems encountered and solutions implemented

- **Data aggregation:**

- Aggregate data to appropriate temporal/spatial units for analysis
- Create summary statistics by relevant groupings (country, year, sector, etc.)

- **Data merging:**

- Connect multiple datasets using common identifiers
- Handle non-perfect matches and document decisions
- Validate merge success and identify any data loss

- **Variable transformation:**

- Generate derived variables relevant to research questions
- Create categorical variables and binary indicators
- Apply appropriate transformations (log, winsorizing, standardization)
- Document theoretical justification for transformations

## **3. Part III: Descriptive Analysis and Export of Results for Presentation**

Note: Please provide a screenshot of the code that you used to generate and export the tables or figures.

### **a. Summary Statistics Table (will vary depending on the data set you choose)**

- **Table 1:** Create comprehensive descriptive statistics table
  - Include relevant measures (mean, median, standard deviation, min/max, observations)
  - Present by meaningful subgroups where appropriate
  - Discuss key patterns and notable findings
  - Highlight any surprising or policy-relevant statistics

**b. Data Visualization and Exploration (the below will vary depending on what data set you choose)**

- **Distribution analysis:**
  - Density plots, histograms, or boxplots for key outcome and explanatory variables
  - Identify skewness, multimodality, or other distributional features
- **Temporal and spatial patterns:**
  - Time series plots showing evolution of variables over time
  - Cross-sectional comparisons across countries/regions
  - Two-way dot plots or bar charts for categorical breakdowns
  - Facet grid/wrap plots for multiple group comparisons
- **Comparative analysis:**
  - Bar plots comparing different groups, policies, or time periods
  - Scatter plots exploring relationships between key variables
- **Geospatial visualization (if applicable):**
  - Maps showing geographic distribution of key variables
  - Choropleth maps for country/region-level data

**c. Optional, only for advanced groups: Introductory Regression Analysis**

- Simple bivariate or multivariate regression exploring relationships suggested by descriptive analysis
- Focus on interpretation rather than sophisticated econometric techniques

- Discuss limitations and caveats of findings
- Connect results back to environmental economics theory

#### **4. Part IV: Discussion and Conclusions**

##### **a. Key Findings Summary**

- Synthesize main patterns and relationships identified in the data
- Address each research question with evidence from your analysis
- Discuss unexpected findings or data limitations encountered

##### **b. Policy and Research Implications**

- Connect findings to environmental policy debates or economic theory
- Suggest areas for future research based on data patterns
- Identify data collection improvements or additional variables that would enhance analysis
- Discuss broader implications for environmental economics research

##### **c. Technical Reflection**

- Evaluate strengths and limitations of your analytical approach
- Discuss challenges encountered in data preparation and solutions developed
- Assess reproducibility and potential for extension of your work

#### **Assessment Structure**

The data report will be evaluated using the same four criteria framework:

- **Completeness:** All required sections and technical components delivered
- **Comprehension:** Correct application of data analysis concepts and environmental economics principles
- **Presentation:** Clear code documentation, effective visualizations, and professional report structure
- **Originality:** Creative dataset selection, innovative analysis approaches, and insightful interpretations

## Module Learning Outcomes Assessed

- **Apply environmental economics tools** to analyse contemporary environmental issues and policy problems
- **Critically evaluate** the limitations of markets, government policies, and economic analysis in addressing environmental challenges
- **Prepare data or technical reports** (for those selecting the data option) that use economic tools to analyse environmental policies and policy responses
- **Write statistical software code** collaboratively and conduct data analysis (data report option only)
- **Demonstrate strong communication and collaboration skills** through report writing and active participation in discussions

## General assignment details and structure

### (applicable to technical and data report)

- Your submission should include all the sections listed in The Tasks section.
- It is advisable that you set up a Word document on OneDrive (or another cloud-platform that includes version control) to enable group work.

## General submission guidelines

### (applicable to technical and data report)

- Each report must have a cover page with the report title, submission date, word count, student IDs
- The word limit for either report is 2,000 Words. Students can exclude the words on the cover page and figures, and table notes and titles from the word count.
- The report should be submitted in Microsoft Word or PDF format.
- The report file should be named [ModuleCode\_group\_number].
- Submissions are only received via Keats.
- Late submission penalties are applied as follows:
  - Within 24 hours after the deadline: 10 points deduction.
  - After 24 hours after the deadline: mark set to 0 points.

- Students are allowed and encouraged to use LLMs/AI for their analysis or for reviewing their writing, but not for their original writing. The cover sheet should specify whether AI was used and for what purpose.

## Technical Report: Marking Criteria

**Assessment Type:** Group Technical Report

**Marking Scheme:** Step-marking

**Grade Classifications:** First (Distinction) | Second (Merit) | Third (Pass) | Fail

- **Distinction:** 78, 75, 72
- **Merit:** 68, 65, 62
- **Pass:** 58, 55, 52
- **Fail:** 48, 45, 42, 35, 28, 21, 14, 7

**Marking Criteria:** Completeness, Comprehension, Presentation, Originality

### Marking Criteria Table

Criteria	First - Distinction (72-78)	Second - Merit (62-68)	Third - Pass (52-58)	Fail (0-48)
<b>COMPLETENESS</b> <i>S All questions and tasks are answered and completed</i>	<ul style="list-style-type: none"> <li>• All three parts fully addressed with comprehensive responses</li> <li>• Part I: Complete motivation, context, policy objective, target population, market structure, and economic logic</li> <li>• Part II A: Full demand-supply analysis with</li> </ul>	<ul style="list-style-type: none"> <li>• Most parts substantially completed with minor omissions</li> <li>• Part I: Good coverage of key elements, may lack some detail</li> <li>• Part II A: Demand-</li> </ul>	<ul style="list-style-type: none"> <li>• Basic completion of required sections with significant gaps</li> <li>• Part I: Essential elements present but incomplete</li> <li>• Part II A: Basic demand-supply</li> </ul>	<ul style="list-style-type: none"> <li>• Major sections missing or severely incomplete</li> <li>• Failure to address key assignment requirements</li> <li>• Inadequate response to fundamental questions</li> </ul>

Criteria	First - Distinction (72-78)	Second - Merit (62-68)	Third - Pass (52-58)	Fail (0-48)
	<p>before/after curves and shift explanations</p> <ul style="list-style-type: none"> <li>Part II B: Three distinct firm/household types with complete abatement-cost curves and consulting advice</li> <li>Part III: Thorough discussion of advantages/disadvantages, policy comparisons, and conclusions</li> </ul>	<p>supply analysis present but may lack depth</p> <ul style="list-style-type: none"> <li>Part II B: Three firm types</li> </ul> <p>identified with adequate abatement analysis</p> <ul style="list-style-type: none"> <li>Part III: Discussion present but may lack comprehensive policy comparison</li> </ul>	<p>analysis, limited explanation</p> <ul style="list-style-type: none"> <li>Part II B: Firm types identified but limited abatement analysis</li> </ul> <p>• Part III: Minimal discussion of policy alternatives</p>	<ul style="list-style-type: none"> <li>Substantial omissions across multiple parts</li> </ul>
<b>COMPREHENSIVENESS</b> <i>All analytical concepts are correctly applied in the context of the selected environmental policy</i>	<ul style="list-style-type: none"> <li>Sophisticated understanding of demand-supply mechanics with accurate curve shifts</li> <li>Expert application of elasticity concepts to policy context</li> <li>Precise use of abatement-cost curve analysis</li> </ul>	<ul style="list-style-type: none"> <li>Good understanding of demand-supply analysis with mostly correct applications</li> <li>Generally accurate use of elasticity concepts</li> </ul>	<ul style="list-style-type: none"> <li>Basic understanding of economic concepts with some errors</li> <li>Limited application of demand-supply analysis</li> <li>Superficial use of elasticity concepts</li> </ul>	<ul style="list-style-type: none"> <li>Fundamental misunderstanding of core economic concepts</li> <li>Incorrect application of analytical frameworks</li> <li>Major errors in demand-supply analysis</li> </ul>

Criteria	First - Distinction (72-78)	Second - Merit (62-68)	Third - Pass (52-58)	Fail (0-48)
	<ul style="list-style-type: none"> <li>• Correct application of policy evaluation criteria from lecture 3</li> <li>• Deep understanding of market structure implications</li> <li>• Accurate economic logic connecting policy tools to behavioral responses</li> </ul>	<ul style="list-style-type: none"> <li>• Competent or abatement-cost concepts</li> <li>• Minimal application of policy</li> <li>• Reasonable evaluation use of policy evaluation criteria</li> <li>• Sound understanding of market structure</li> <li>• Weak economic reasoning or logic gaps</li> <li>• Clear economic reasoning with minor errors</li> </ul>		<ul style="list-style-type: none"> <li>• Failure to apply policy evaluation criteria</li> <li>• Confused understanding of market dynamics</li> </ul>
<b>PRESENTATION</b> <i>Reasoning clearly presented in structured paragraphs.</i> <i>Basic form requirements fulfilled</i>	<ul style="list-style-type: none"> <li>• Excellent document structure with clear logical flow</li> <li>• Professional formatting with effective use of headings</li> <li>• Sophisticated academic writing style</li> <li>• Flawless grammar and expression</li> </ul>	<ul style="list-style-type: none"> <li>• Good document structure with logical organization</li> <li>• Appropriate formatting and use of headings</li> <li>• Competent academic writing</li> </ul>	<ul style="list-style-type: none"> <li>• Basic document structure but may lack clear organization</li> <li>• Adequate formatting but inconsistent application</li> <li>• Acceptable writing but lacks precision</li> </ul>	<ul style="list-style-type: none"> <li>• Poor document structure and organization</li> <li>• Inadequate formatting</li> <li>• Unclear or confusing writing</li> <li>• Significant grammar and expression errors</li> </ul>

Criteria	First - Distinction (72-78)	Second - Merit (62-68)	Third - Pass (52-58)	Fail (0-48)
	<ul style="list-style-type: none"> <li>• Clear, well-labeled diagrams and figures</li> <li>• Comprehensive and accurate referencing</li> <li>• Engaging and accessible presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Generally good grammar with minor errors</li> <li>• Clear diagrams with appropriate labeling</li> <li>• Good referencing with relevant sources</li> <li>• Clear and readable presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Frequent grammar errors that may impede understanding</li> <li>• Basic diagrams with some labeling issues</li> <li>• Limited referencing or citation errors</li> <li>• Generally readable but lacks polish</li> </ul>	<ul style="list-style-type: none"> <li>• Missing or poorly constructed diagrams</li> <li>• Inadequate or missing references</li> <li>• Difficult to follow or understand</li> </ul>
<b>ORIGINALITY</b> <i>Creativity in policy selection, analysis, or scenario construction. Application beyond course examples</i>	<ul style="list-style-type: none"> <li>• Innovative policy selection showing deep research</li> <li>• Creative scenario construction for firm/household types</li> <li>• Original application of analytical tools beyond lecture examples</li> <li>• Insightful connections between theory and real-world applications</li> <li>• Novel approaches to policy comparison and evaluation</li> <li>• Evidence of independent thinking</li> </ul>	<ul style="list-style-type: none"> <li>• Interesting policy choice with some research depth</li> <li>• Good variety in firm/household scenarios</li> <li>• Some application beyond basic course examples</li> </ul>	<ul style="list-style-type: none"> <li>• Standard policy selection with limited research</li> <li>• Basic firm/household scenarios with minimal differentiation</li> <li>• Limited application beyond course materials</li> </ul>	<ul style="list-style-type: none"> <li>• Poor or inappropriate policy selection</li> <li>• Lack of creativity in scenario development</li> <li>• Heavy reliance on course examples without adaptation</li> </ul>

Criteria	First - Distinction (72-78)	Second - Merit (62-68)	Third - Pass (52-58)	Fail (0-48)
and analysis	<ul style="list-style-type: none"> <li>• Creative consulting recommendations</li> <li>• Some creativity in policy analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Reasonable connections between theory and practice</li> <li>• Minimal creativity in analysis or recommendations</li> <li>• Evidence of independent research and thinking</li> </ul>	<ul style="list-style-type: none"> <li>• Superficial connections between theory and practice</li> <li>• Over-reliance on course examples</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence of independent thinking</li> <li>• Minimal or no original analysis</li> </ul>
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## Data Report: Marking Criteria

**Assessment Type:** Group Data Report

**Marking Scheme:** Step-marking

**Grade Classifications:** First (Distinction) | Second (Merit) | Third (Pass) | Fail

- **Distinction:** 78, 75, 72
- **Merit:** 68, 65, 62
- **Pass:** 58, 55, 52
- **Fail:** 48, 45, 42, 35, 28, 21, 14, 7

**Marking Criteria:** Completeness, Comprehension, Presentation, Originality

### Assessment Philosophy for Data Reports

Unlike the Technical Report, which emphasizes application of analytical environmental economics concepts, the Data Report prioritizes **correct implementation of data analysis processes**. The quality of technical execution, methodological rigor, and

reproducibility are valued more heavily than the substantive findings themselves. Students are evaluated on their ability to demonstrate competent data science practices and transparent analytical workflows.

### **Marking Criteria Table**

<b>Criteria</b>	<b>First - Distinction (72-78)</b>	<b>Second - Merit (62-68)</b>	<b>Third - Pass (52-58)</b>	<b>Fail (0-48)</b>
<b>COMPLETENESS</b>	<ul style="list-style-type: none"> <li>• All required technical components delivered (Github repo, master file, folder structure, data cleaning, visualizations, tables)</li> </ul>	<ul style="list-style-type: none"> <li>• Most technical components present</li> <li>• Generally complete documentation</li> </ul>	<ul style="list-style-type: none"> <li>• Basic technical components present</li> </ul>	<ul style="list-style-type: none"> <li>• Major technical components missing</li> </ul>
<b>COMPREHENSION</b>	<ul style="list-style-type: none"> <li>• Complete and well-structured documentation</li> <li>• All sections of report present with appropriate depth</li> <li>• Reproducible workflow from raw data to final outputs</li> </ul>	<ul style="list-style-type: none"> <li>• Minor omissions in secondary elements</li> <li>• Workflow mostly reproducible with minor gaps</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate but incomplete documentation</li> <li>• Some required sections missing or underdeveloped</li> <li>• Reproducibility issues present</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate or absent documentation</li> <li>• Substantial portions of required work missing</li> <li>• Code does not run or cannot be reproduced</li> </ul>

<b>data preparation process</b>	<b>data processes</b>	but with notable technical errors	<b>n of data processes</b>
(cleaning, merging, transformation)	with minor technical errors	• Acceptable but inconsistent handling of data issues	• Inappropriate or incorrect handling of data issues
• Technically sound handling of missing values, outliers, and data issues	• Generally appropriate handling of data issues	• <b>Some correct application of techniques</b> but with errors or inappropriate choices	• <b>Incorrect application of</b> statistical or visualization methods
• <b>Correct implementation of statistical and visualization techniques</b>	• <b>Most statistical and visualization techniques</b> correctly applied	• Limited justification for methods	• No justification for choices
• Appropriate choices justified with technical reasoning	• Reasonable justification for methodological choices	• Superficial awareness of data quality	• No awareness of data limitations
• Demonstrates understanding of data quality and limitations	• Good awareness of data limitations	• Weak connections to environmental economics	• Missing or incorrect connections to environmental economics
• Sound connection of descriptive findings to environmental economics concepts	• Reasonable connections to environmental economics		

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	<ul style="list-style-type: none"> <li>• Exceptionally clear, well-commented code following best practices</li> </ul>	<ul style="list-style-type: none"> <li>• Clear, adequately commented code</li> </ul>	
	<ul style="list-style-type: none"> <li>• Logical and intuitive folder/file organization</li> </ul>	<ul style="list-style-type: none"> <li>• Logical organization with minor inconsistencies</li> </ul>	<ul style="list-style-type: none"> <li>• Basic code documentation but lacking clarity in places</li> </ul>
	<ul style="list-style-type: none"> <li>• High-quality visualizations with proper labeling, appropriate chart types, and</li> </ul>	<ul style="list-style-type: none"> <li>• Good visualizations with appropriate choices and proper labeling</li> </ul>	<ul style="list-style-type: none"> <li>• Poorly documented or uncommented code</li> </ul>
PRESENTATION	<ul style="list-style-type: none"> <li>professional aesthetics</li> </ul>	<ul style="list-style-type: none"> <li>• Well-structured tables with mostly clear formatting</li> </ul>	<ul style="list-style-type: none"> <li>Acceptable organization but inconsistent</li> </ul>
	<ul style="list-style-type: none"> <li>• Well-formatted tables with clear variable names and units</li> </ul>	<ul style="list-style-type: none"> <li>• Regular Github commits with reasonable messages</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate visualizations but with labeling or aesthetic issues</li> </ul>
	<ul style="list-style-type: none"> <li>• Github repo demonstrates good version control practices</li> </ul>	<ul style="list-style-type: none"> <li>• Competent report structure</li> </ul>	<ul style="list-style-type: none"> <li>• Basic tables with some formatting problems</li> </ul>
	<ul style="list-style-type: none"> <li>Professional report structure with clear narrative</li> </ul>	<ul style="list-style-type: none"> <li>• Generally good writing with minor errors</li> </ul>	<ul style="list-style-type: none"> <li>Minimal Github activity or poor commit practices</li> </ul>
	<ul style="list-style-type: none"> <li>• Flawless technical</li> </ul>		<ul style="list-style-type: none"> <li>• Poor quality visualizations with missing labels or inappropriate choices</li> </ul>
			<ul style="list-style-type: none"> <li>• Poorly formatted tables that are difficult to interpret</li> </ul>
			<ul style="list-style-type: none"> <li>• No meaningful version control</li> </ul>
			<ul style="list-style-type: none"> <li>• Unclear report structure</li> </ul>
			<ul style="list-style-type: none"> <li>• Significant writing issues that impede comprehension</li> </ul>

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	writing and grammar		
ORIGINALITY	<ul style="list-style-type: none"> <li>• Creative and sophisticated approach to</li> </ul>	<ul style="list-style-type: none"> <li>• Competent handling of</li> </ul>	<ul style="list-style-type: none"> <li>• Basic problem-</li> </ul>
	<ul style="list-style-type: none"> <li>challenges</li> </ul>	<ul style="list-style-type: none"> <li>data challenges</li> </ul>	<ul style="list-style-type: none"> <li>solving with</li> </ul>
	<ul style="list-style-type: none"> <li>Innovative solutions to technical problems encountered</li> </ul>	<ul style="list-style-type: none"> <li>with some creative elements</li> </ul>	<ul style="list-style-type: none"> <li>conventional approaches</li> </ul>
	<ul style="list-style-type: none"> <li>Insightful dataset selection with clear policy relevance</li> </ul>	<ul style="list-style-type: none"> <li>• Reasonable solutions to problems</li> </ul>	<ul style="list-style-type: none"> <li>• Standard solutions without creativity</li> </ul>
	<ul style="list-style-type: none"> <li>Advanced visualization or analysis techniques beyond basic requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Good dataset selection with appropriate justification</li> </ul>	<ul style="list-style-type: none"> <li>• Acceptable dataset choice but limited justification</li> </ul>
	<ul style="list-style-type: none"> <li>Thoughtful and novel interpretations of patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Some sophistication in visualization or analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal technical sophistication</li> </ul>
	<ul style="list-style-type: none"> <li>Evidence of independent problem-solving and research</li> </ul>	<ul style="list-style-type: none"> <li>• Reasonable interpretations</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal sophistication in technical approach</li> </ul>
	<ul style="list-style-type: none"> <li>Evidence of independent problem-solving and research</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of independent thinking</li> </ul>	<ul style="list-style-type: none"> <li>• No meaningful interpretation</li> </ul>
			<ul style="list-style-type: none"> <li>• Surface-level interpretations</li> </ul>
			<ul style="list-style-type: none"> <li>• Limited evidence of independent thinking</li> </ul>
COMPLEXITY			<ul style="list-style-type: none"> <li>• Over-reliance on templates without adaptation</li> </ul>
			<ul style="list-style-type: none"> <li>• Evidence of independent thinking</li> </ul>

### **Key Differences from Technical Report Assessment:**

1. **Process over results:** Correct implementation of data workflows is valued more highly than substantive findings or policy insights
2. **Technical rigor:** Code quality, reproducibility, and methodological correctness are central to evaluation
3. **Execution emphasis:** How students handle data challenges and implement techniques matters more than the economic interpretation
4. **Transparency:** Documentation and clear explanation of technical decisions are critical components