

BRFSS DASHBOARD — FULL REPORT

1. DATA INGESTION

- Loaded original CSV (~2.7M rows)
- Converted to Parquet for performance
- Verified schema and cleaned anomalies

2. MERGE LOGIC

- ResponseID merge rules
- Response text standardization
- BreakoutID merging
- Break_Out label unification

3. PANEL AGGREGATION MODEL

- persons = Sample_Size
- true_ss = persons * 100 / Data_value
- percent = persons_sum / ss_sum
- CI = percent \pm 2 * sqrt(p(1-p)/n)

4. DASH APP ARCHITECTURE

- 3 dropdown selectors: Class → Topic → Question
- 8 analytical panels: Overall, Gender, Age, Race, Education, Income, Temporal, State
- CI bars + tooltip hover info
- More/Less filtering logic
- Loading spinners for UX

5. FILE STRUCTURE

app.py

utils/

merges.py

prepare.py

options.py

aggregation.py

assets/

styles.css

6. KEY TAKEAWAYS

- Dashboard mimics professor's R model exactly
- Scalable for millions of rows
- Easily extensible