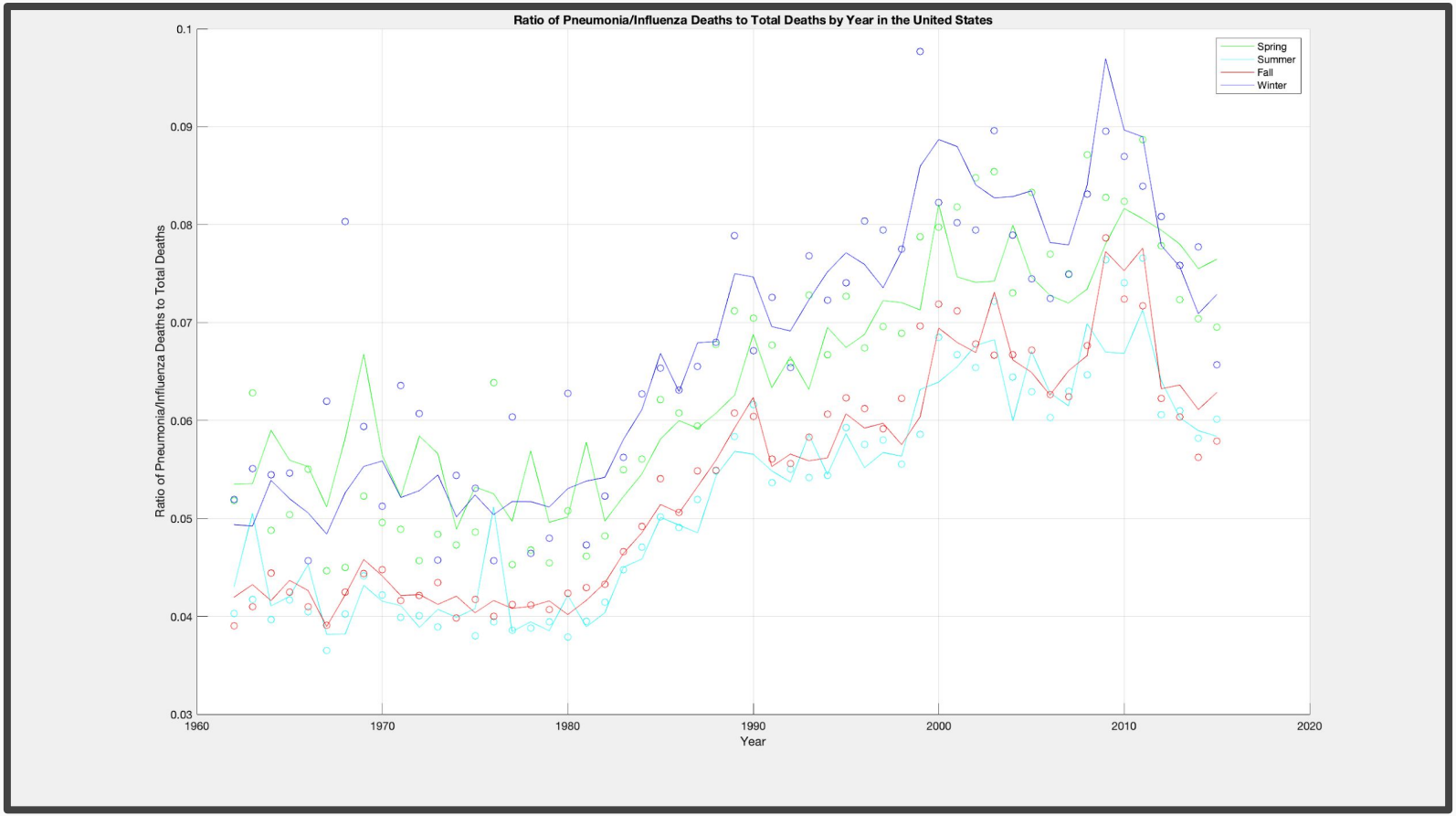
Before



Modeling United States

The Model

$$P_n = x \sum_{i=1}^{m_n} \left(\frac{i}{\sum_{j=1}^{m_n} j} * P_{4i-4+s} \right) + yP_{n-1}$$

$$P_n = x * \frac{2}{m_n * (m_n + 1)} \sum_{i=1}^{m_n} (i * P_{4i-4}) + yP_{n-1}$$

- P_i = Percentage of Pneumonia/Influenza deaths over total deaths in a given season's year
- n = Season being predicted for some year
- m_i = Number of years in dataset up to the year being predicted (where $m_{i+1} = m_i + 1$)
- x = weight of previous years' seasons
- y = weight of previous season

After

Pneumonia and Influenza Model

Model Rationale: The weighted average of the previous years' seasons (historical data) and the previous season (current data) should both contribute to the prediction of the following season.

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Modeling United States

Proof of Concept: Spring and Winter exhibit higher mortality rates compared to the other seasons in the United States

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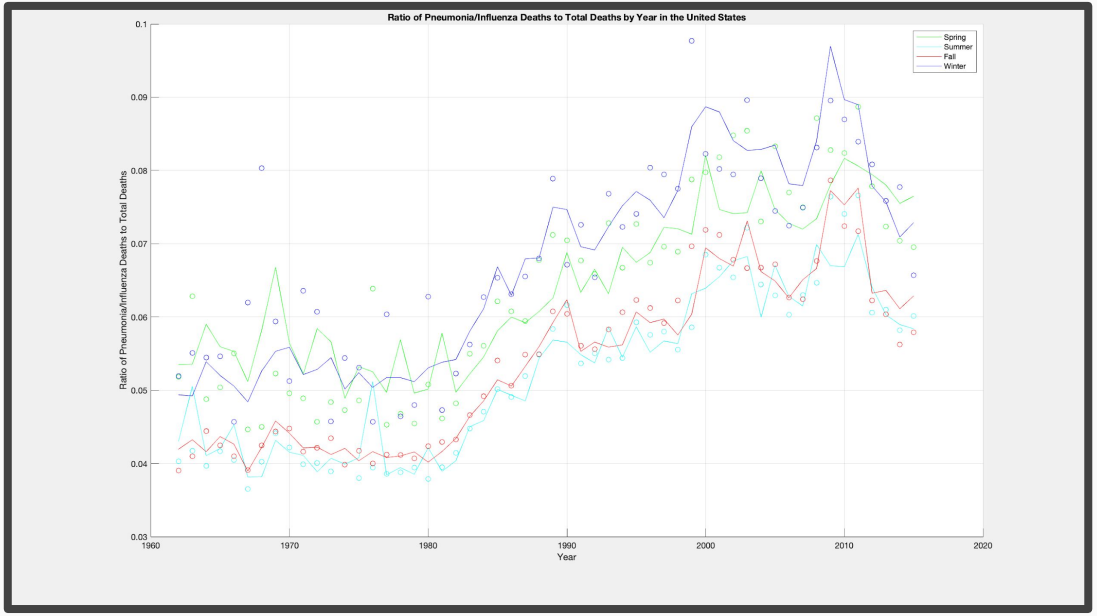

Questions

Main Point: To model pneumonia/influenza deaths by season

Memory Slots:

- Graph: ~2 slots
  - Mortality rates by season
  - Mortality rates over time
- Model:
  - Original: ~1-5 slots
    - The model is not easily understood by audience members on its own and requires mathematical expertise in order how to understand what the model is trying to accomplish
  - Altered: ~1 slots
    - The model is forcibly reduced to a single concept rather than a complicated expression

Necessary Memory Slots: ~3 slots

- Graph cannot be further reduced but the model can be reduced to 1 slot

Changes

One change is that the rationale behind the model is given prior to showing the model itself, thus priming the audience what to take away from the model. The flow of the presentation is given in a better order as well, where each slides builds on each other rather than throwing all the information at the audience at once. The text itself also helps solidify the focus of what the audience should be taking away from the slides.