

# Analyzing Maine legislative testimony

Using natural language processing and network analysis

Darren Fishell, 10/25/2024

# The problem

The Sierra Club wants to better analyze and understand the bills introduced in the Maine Legislature, how their involvement has changed, and the context of their lobbying efforts.

The foundation of this is access to and creation of a valuable database of legislative information.

# The data

- Legislative bills, amendments and bill text
- Testimony metadata
  - Who, when, what committee
- Testimony text: What did they actually say?

# Challenges to focus this work

- Establishing causality from lobbying to outcomes
- Amassing data in a clean and comprehensive way
- Understanding and summarizing a large corpus of text
- Cleaning and preprocessing messy aspects of data

# Challenges we can overcome

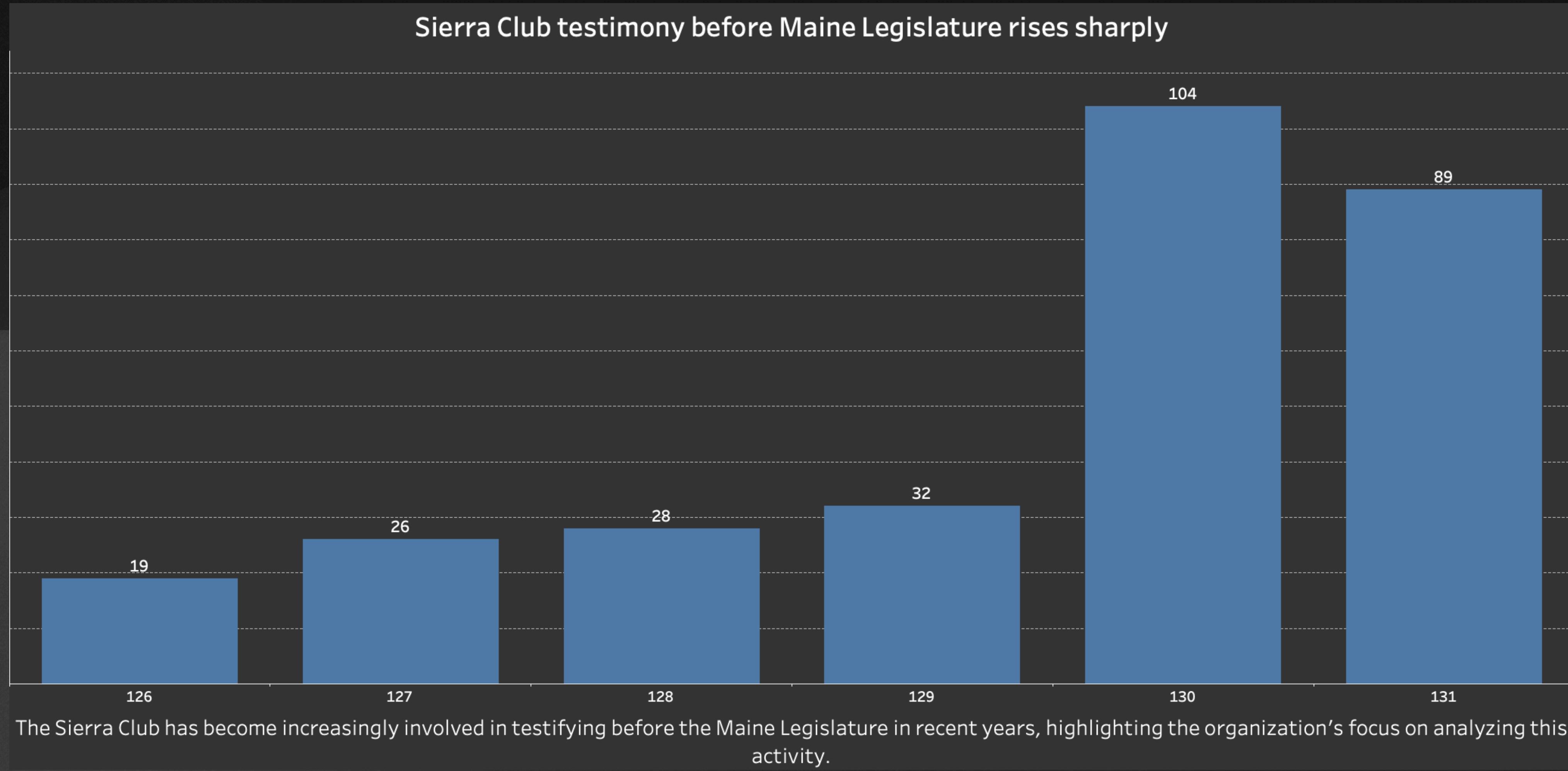
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# Our primary objectives

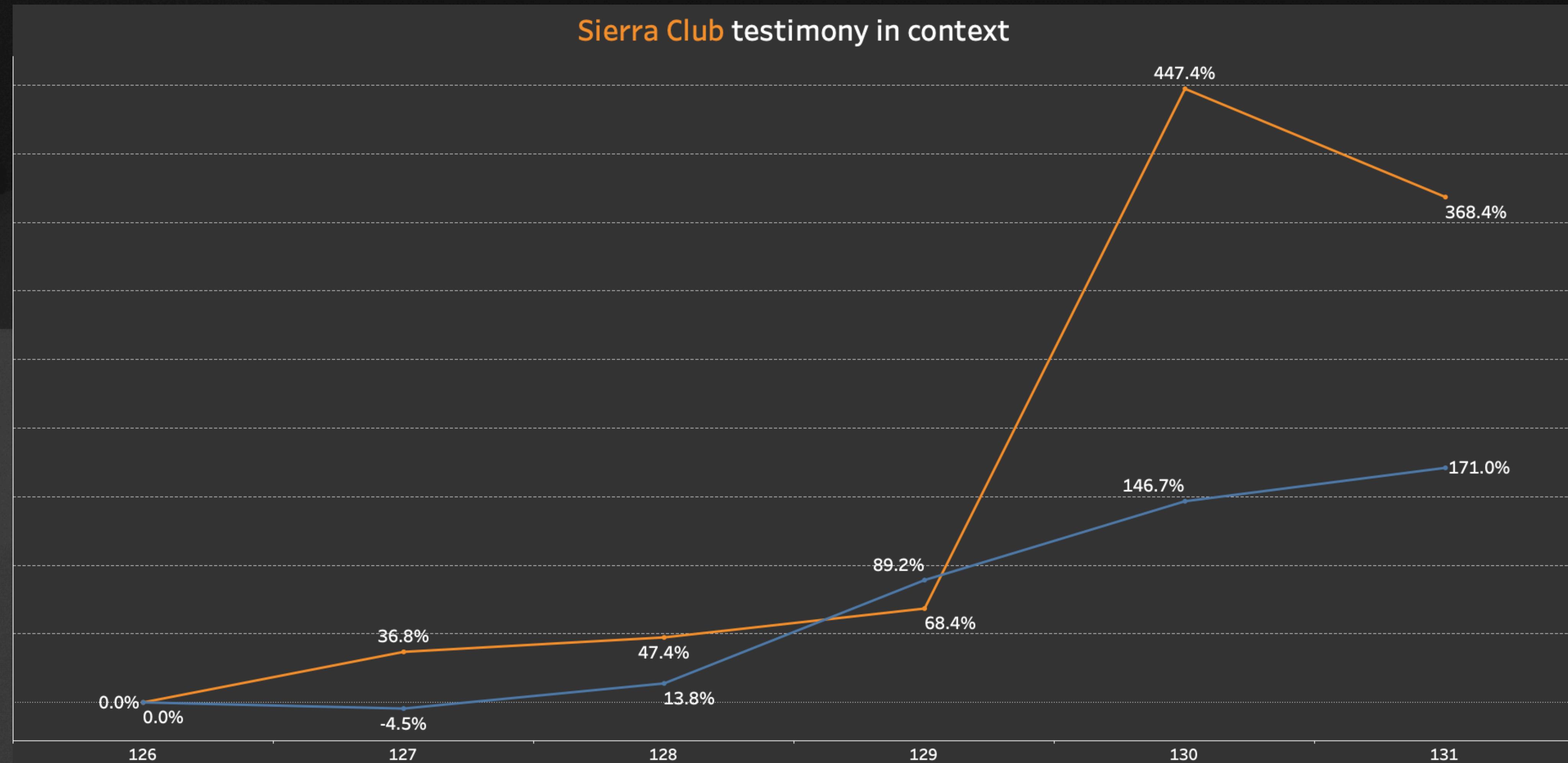
- Collect a large database of one decade of legislative information from the 126th legislature through the 131st (2013 – 2024)
- Use language modeling to categorize bill subjects and compare this with manual labeling by legislative staff
- Use language modeling to put bill testimony in context, highlighting distinctive testimony on specific bills and distinctive testimony from a given party
- Develop affinity scores for organizations who frequently focus their energy on the same legislation

# Validating the project goals

# Testimony from Sierra Club rose sharply

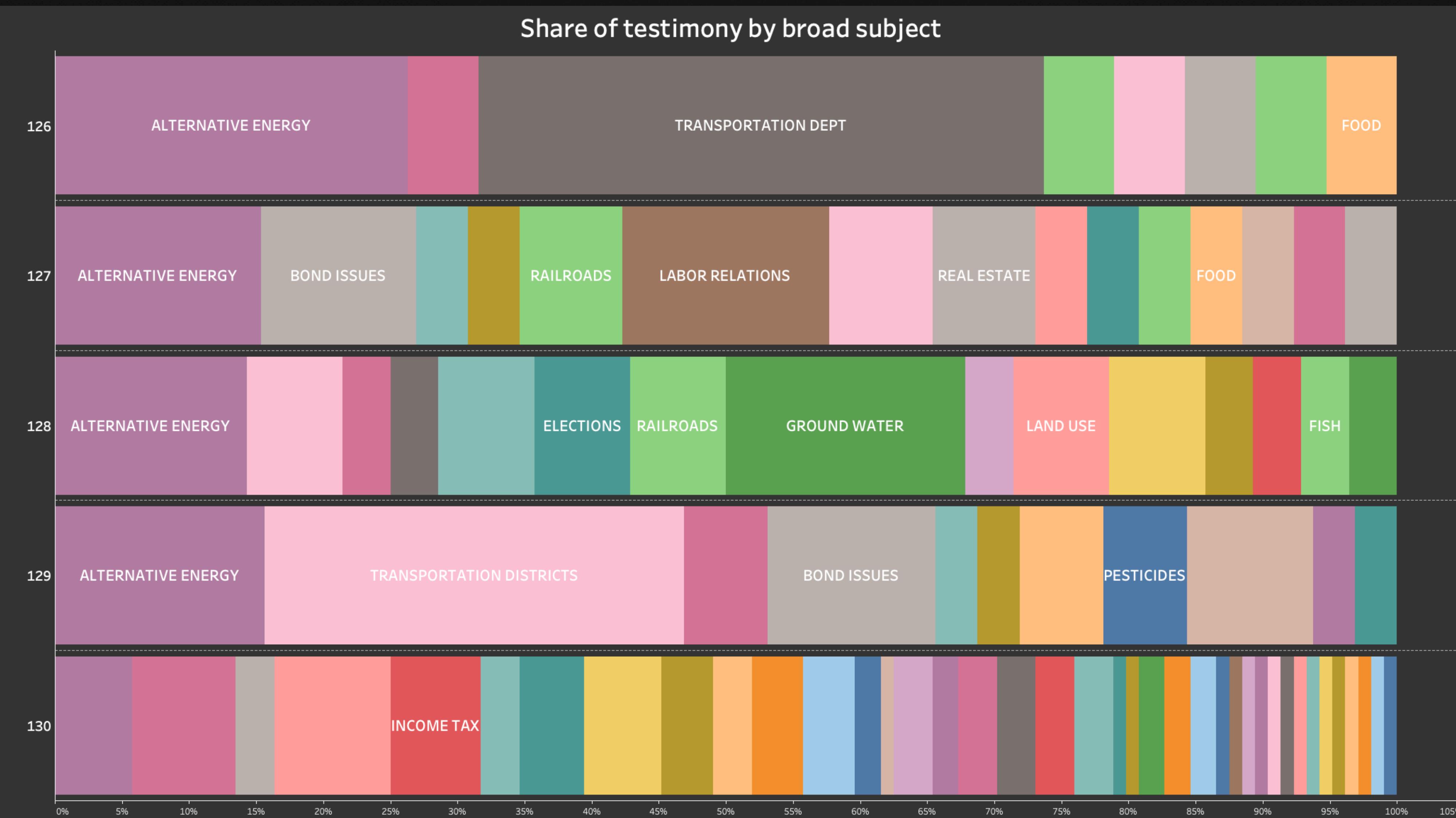


# And that increase is not the norm

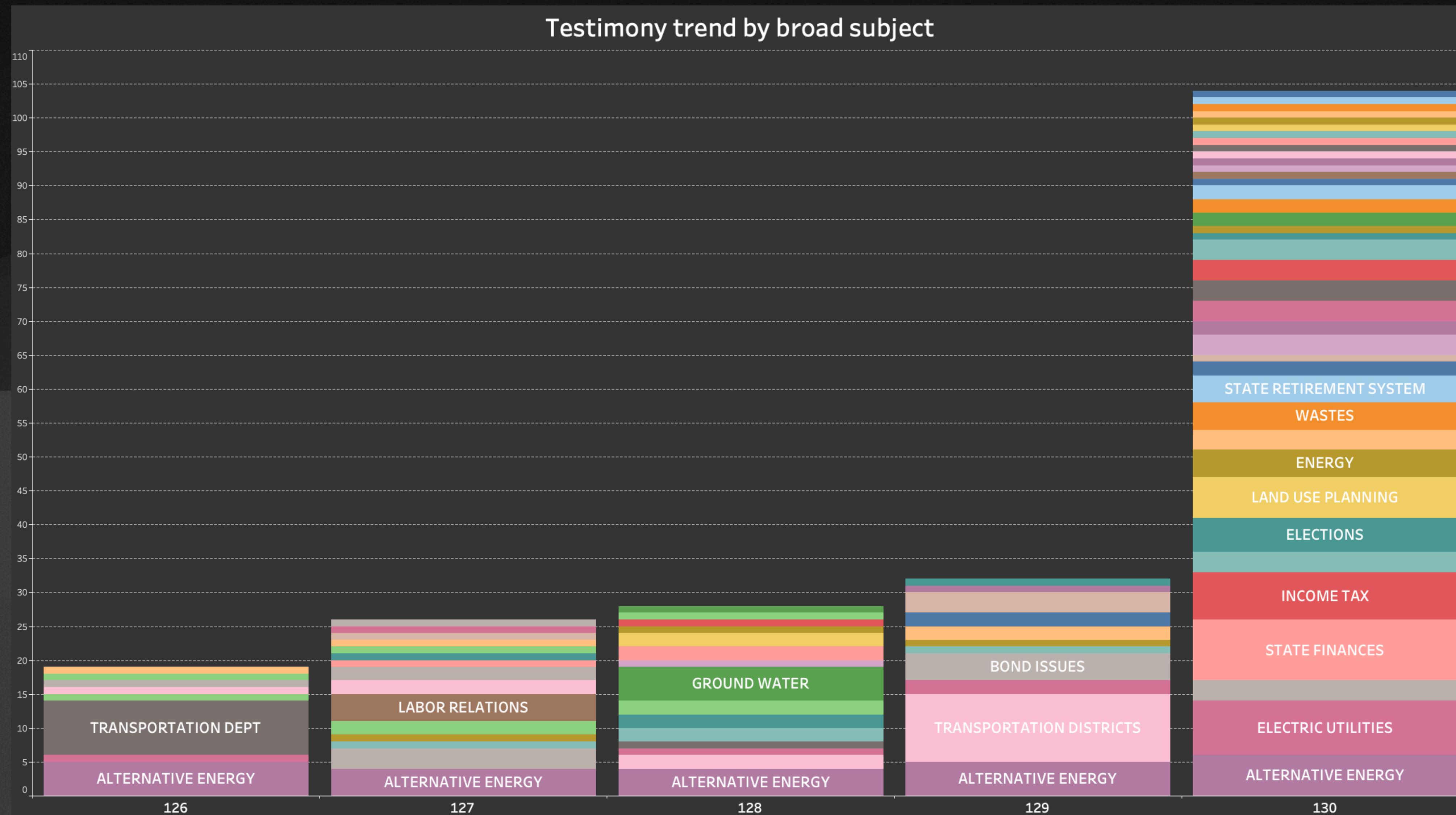


# Testimony topics broadens

Share of testimony by broad subject



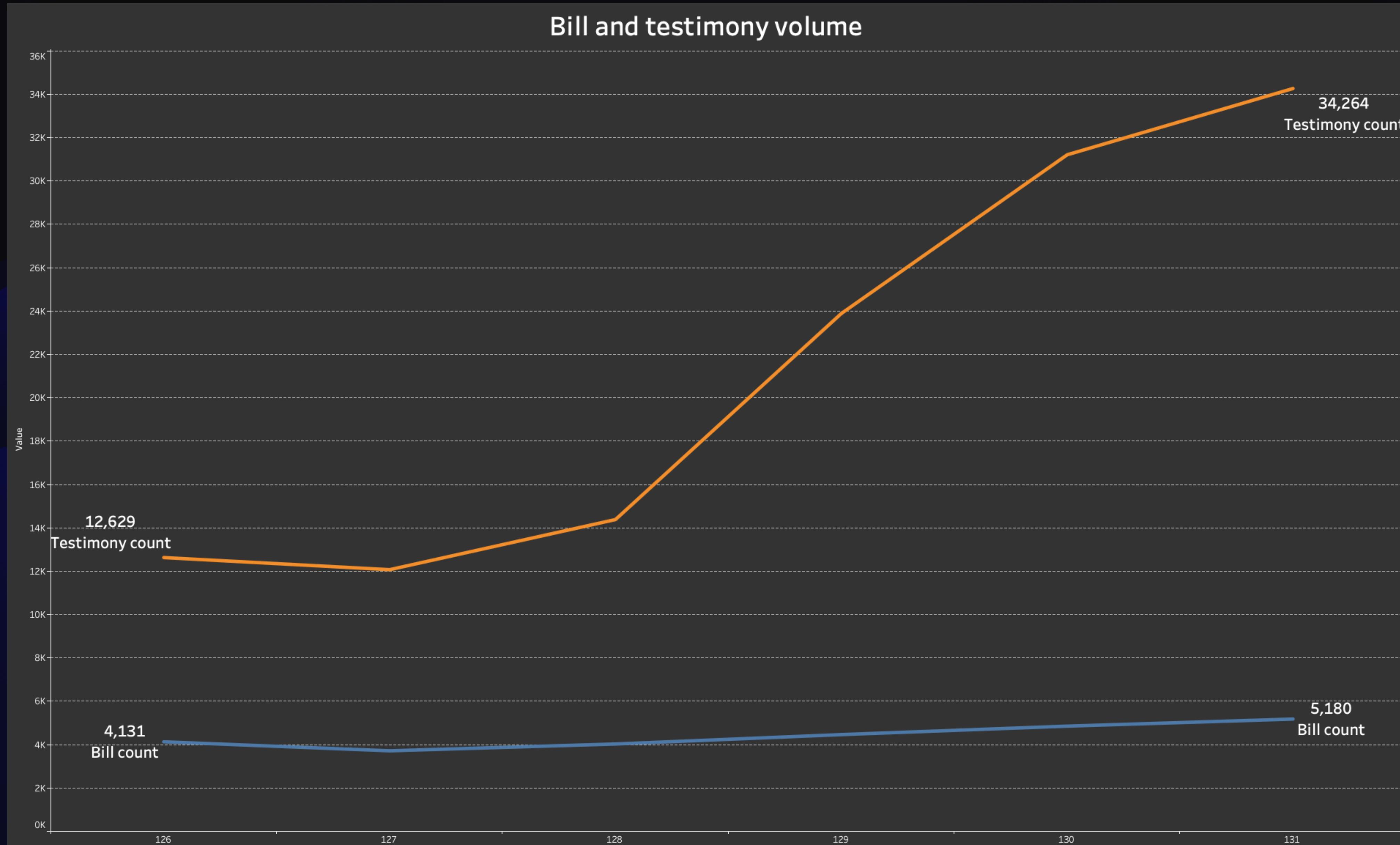
# Testimony on core issues remains



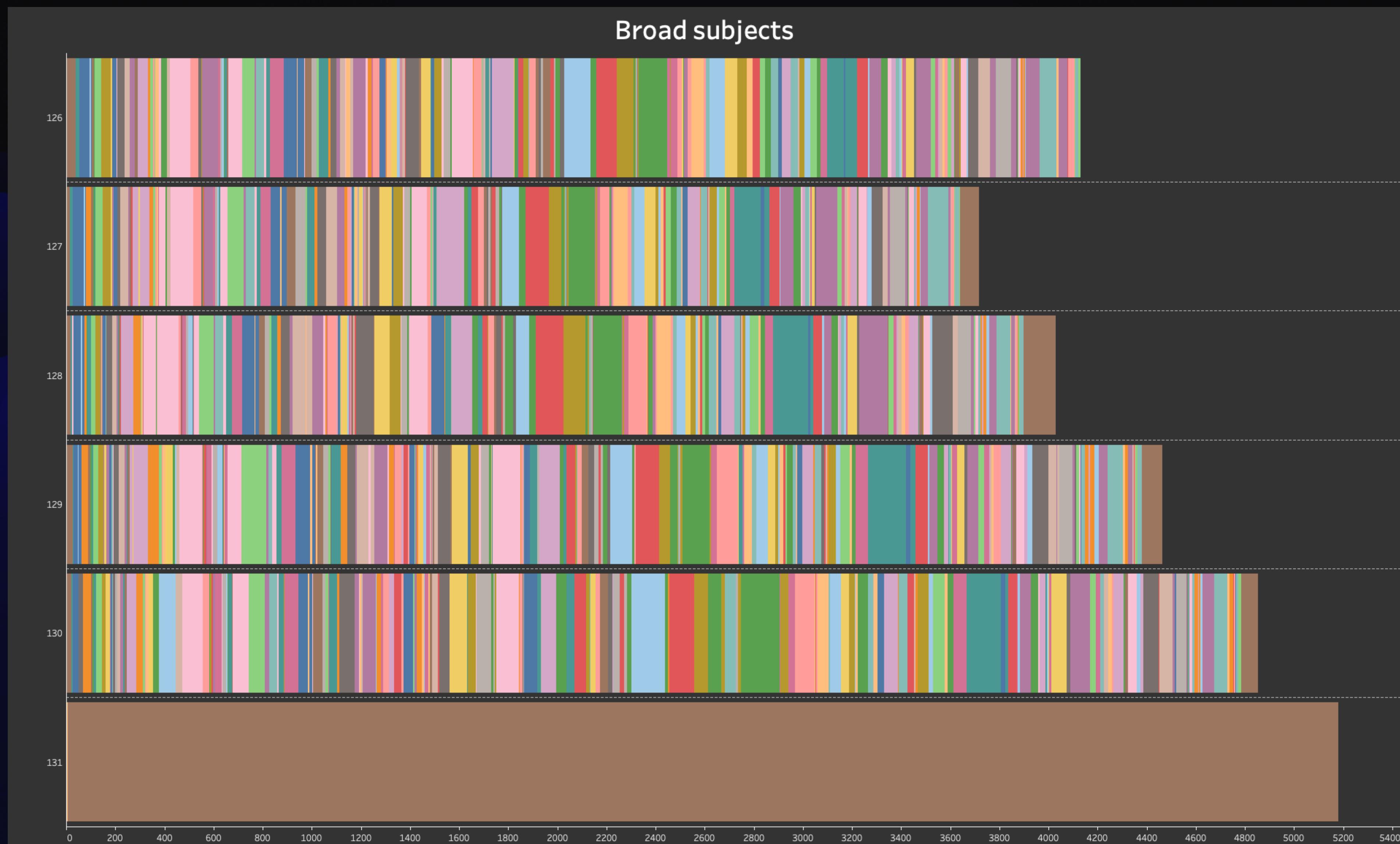
The background features a dark blue gradient with three-dimensional wavy patterns that create a sense of depth and motion.

# Profiling data collected

## Bill and testimony volume



# Labeling anomaly in latest legislature





Testimony of the Maine Municipal Association  
In Opposition to LD 73  
*An Act To Exempt Person 65 Years of Age or Older Whose Income Is below the Poverty Line  
from Paying Property Taxes on Their Homes*

February 11, 2013

Senator Haskell, Representative Goode, members of the Taxation Committee, my name is Geoff Herman and I am testifying in opposition to LD 73 on behalf of the Maine Municipal Association.

Maine's municipal officials are opposed to the creation of any additional exemptions to the property tax code because new exemptions have the undeniable effect of increasing the tax burden for all the other taxpayers who are not eligible for the exemption. From the municipal perspective, Maine's property tax code is over-exempted and further exemption at this point, except in the context of comprehensive tax reform, should be regarded as contrary to public policy.

There are several programs currently in place to help Maine homeowners in general with their property taxes, and elderly, low-income homesteaders specifically. Those programs include the property tax homestead exemption, both the elderly and the general-benefit "Circuitbreaker" cash assistance programs and, as a safety net, the tax abatement program that is available at the local level for persons in poverty or hardship.

It is our guess that there will be ample opportunity in the weeks and months ahead to discuss the merits or disadvantages of relying so heavily in this state on the regressive property tax for the purpose of generating governmental revenues. Of the three major taxes in Maine, property taxes account for 44% of the total revenue generated, income taxes for 34% and sales taxes for 23%. The municipal position is that no part of the solution to the problem of overreliance on the property tax can be found in creating even more exemptions for certain classes of property owners, thereby exacerbating the burden on all others.

- Roughly 120K testimony texts collected
- Text still needs to be cleaned
- Relies on prior OCR in some cases

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In Opposition to LD 73  
*An Act To Exempt Person 65 Years of Age or Older Whose Income Is below the Poverty Line  
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