

Using NLP to find topics in SC cases

Data

Find Law for legal professionals

23,000 individual cases

From 1780 to present



~11,000 recent cases(1955-present)36 justices

TF - IDF

Term frequency - inverse document frequency

tf-idf to 5,000 features

NMF takes 5,000 unique words To divide into 20 topics

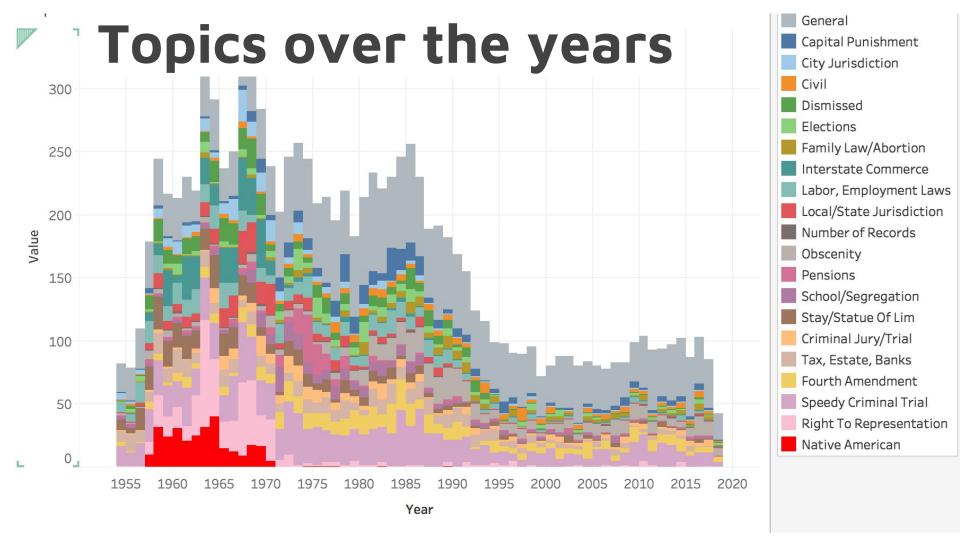
Topic Modeling

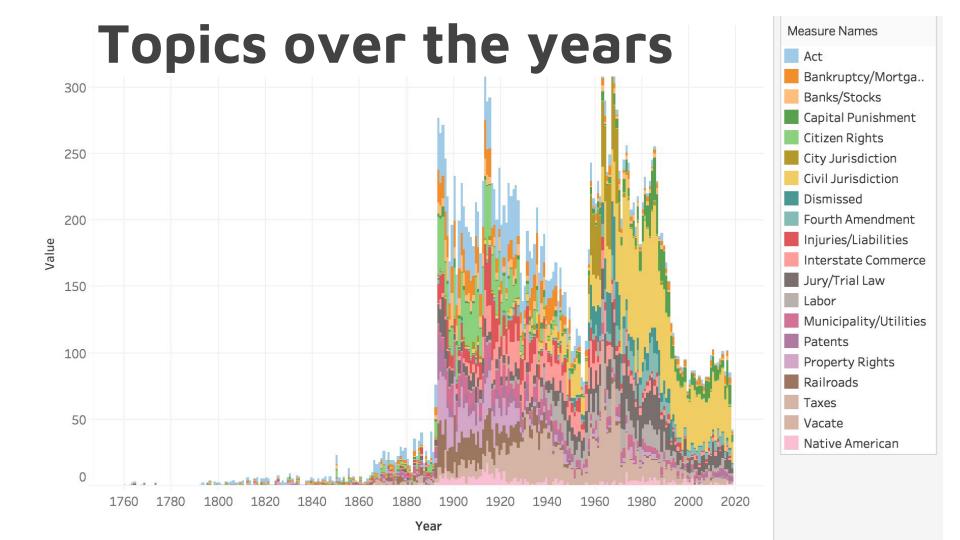
20 topics, Including:

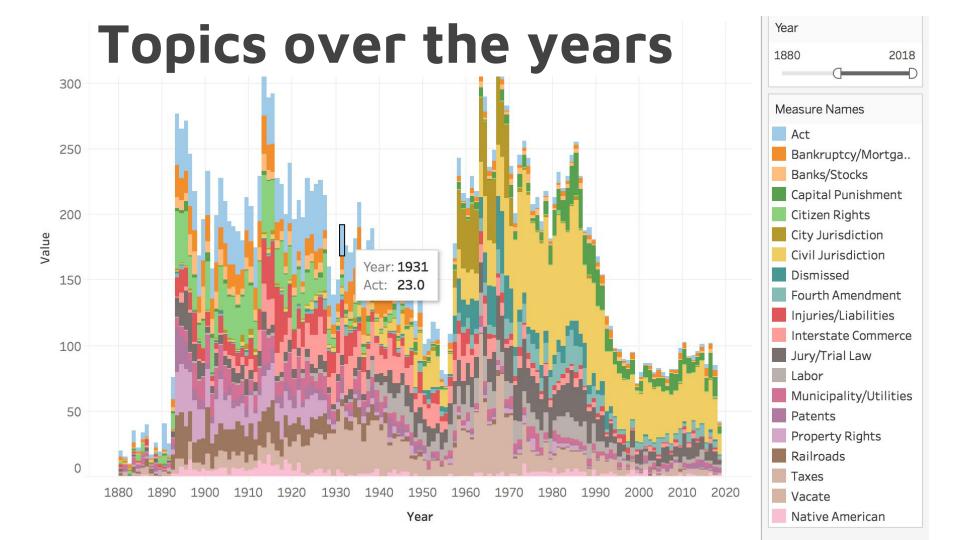
- searches (fourth amendment) and probable cause
- Taxes and estate law
- Labor laws
- Native American issues

DAVIS v. UNITED STATES (2010)

While conducting a routine vehicle stop, police arrested petitioner Willie Davis, a passenger, for giving a false name. After handcuffing Davis and securing the scene, the police searched the vehicle and found Davis's revolver. Davis was then indicted on charges of being a felon in possession of a firearm. In a suppression motion, Davis acknowledged that the search of the vehicle complied with existing Eleventh Circuit precedent interpreting New York v. Belton, 453 U. S. 454, but Davis raised a Fourth Amendment challenge to preserve the issue on appeal. The District Court denied the motion, and Davis was convicted. While his appeal was pending, this Court announced, in Arizona v. Gant, 556 U. S. ____, a new rule governing automobile searches incident to arrests of recent occupants. The Eleventh Circuit held, under Gant, that the vehicle search at issue violated Davis's Fourth Amendment rights, but the court declined to suppress the revolver and affirmed Davis's conviction.







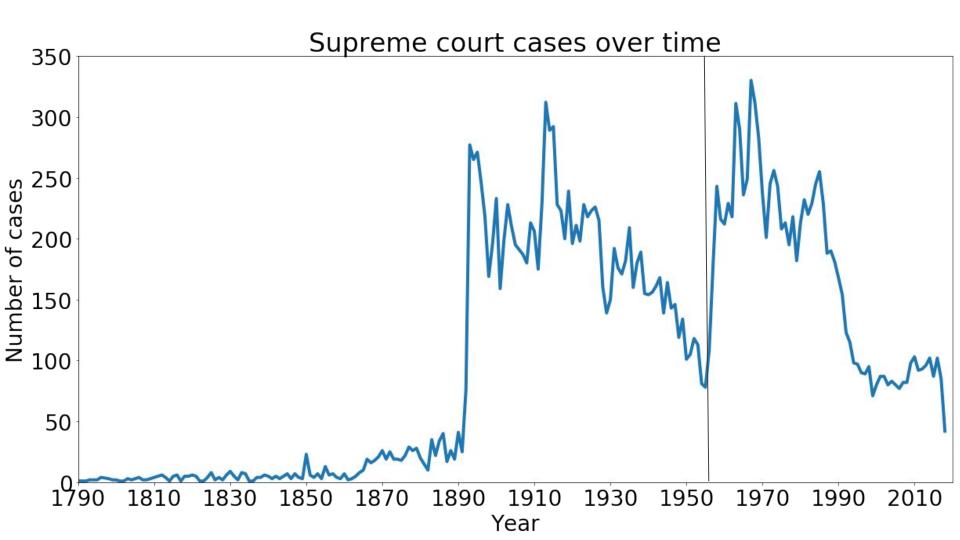
application

Categorization of texts

Moving forward

Find similarities between Justices

How do Justices change over time



Tools used

Library: scikitlearn

term frequency—inverse document frequency

tf-idf

Non-negative Matrix Factorization

NMF

