COURTS MODELING

Open questions

- When do we pull the trigger for a new case per court? What is the threshold to request? 2100? 2150?
- Do we try to predict future course of action based on recent history (past 4 years) or a longer history and data set (past 12 years)?
- Do we base future court needs on case-load or population?
 - On case counts this leads to other questions on types of cases, trials, etc. because all cases aren't created equal.
 - Do people generate cases or does case growth have a life of its own?
 - What population estimate do we use? Use an average per year for last 11 years or an AGR.
- If the models suggest two courts do we stagger them or start immediately.

Basic Assumptions

- I think that the growth rates of population even from Judge Miskel's predictions of 37k was too high. Since 2006 we have only had one year above that amount and most have hovered around 20-35k on yearly growth. Average is 25,970 since 2006.
 - 25,970 IS WHAT I USED FOR FUTURE YEARLY GROWTH
 - I also did a model that uses aggregate growth rates. (a little over 3% a year)
- Target average cases per year. I averaged the case load and this resulted in 2174 cases/year.
 - I USED 2174, 2100, 2050 and 2000 TO DETERMINE COURT TRIGGER LEVELS FOR NEW COURTS

Models Based on Case AGRs

- These models do not use any population in computations of court needs. Accurate Case Prediction Determines Results.
- Judge Miskel Model with Hale Court growth predictions.
 Used Case Average Growth Rate of 2014-2018 from JM.
 - Results in 11.86, 12.57, 13.32 and 14.11 for next 4 years for predicted court counts.
- Commissioner Hale Model with My Court Case Load
 - Used Average Growth Rate of 2006-2018
 - Results in 11.51, 11.83, 12.17, and 12.51 for next 4 years for predicted court counts.

Models Based on Population / Case

Prediction is highly dependent on accurate population forecast.

Looked at Past 2006 to 2017 average population per case. Two models. Average population per case of 2006 to 18 using my average population growth (~26k/yr). Used AGR of cases from 2006 to 2017 in first two models

- Commissioner Hale model minus Outlier Years of 2014 and 2006. 41.86 population per case. Results in 11.22,11.51,11.80 and 12.08 for next 4 years.
- Commissioner Hale model minus Outlier Years of 2014 and 2006 except that I used an AGR for growth of population (makes court slightly higher) Results in 11.48, 11.85, 12.23, and 12.63 for next 4 years.

Models Average 2174 and 2100 Cases

Year	District Courts Predicted on average of 4 Models with 2174 Case Trigger (Note that if we are close to the trigger level the next year will be painful for judges)
2019	12
2020	12
2021	13
2022	13
Year	District Courts Predicted on average of 4 Models with 2100 Case Trigger (Note that if we are close to the trigger level the next year will be slightly painful for judges)
Year 2019	District Courts Predicted on average of 4 Models with 2100 Case Trigger (Note that if we are close to the trigger level the next year will be slightly painful for judges) 12
Year 2019 2020	District Courts Predicted on average of 4 Models with 2100 Case Trigger (Note that if we are close to the trigger level the next year will be slightly painful for judges) 12 13
Year 2019 2020 2021	District Courts Predicted on average of 4 Models with 2100 Case Trigger (Note that if we are close to the trigger level the next year will be slightly painful for judges) 12 13

Models Average 2050 and 2000 cases

Year	District Courts Predicted on average of 4 Models with 2050 Case Trigger
2019	13
2020	13
2021	14
2022	14

Year	District Courts Predicted on average of 4 Models with 2000 Case Trigger
2019	13
2020	13
2021	14
2022	14

Current Data From Courts

- Oct 17 to Oct 18 24626 cases filed in previous 12 months
- If we have no growth where would we be?
 - 11 Courts 2240
 - 12 Courts 2053
 - 13 Courts 1896 (almost the 1985 level where courts were last added)

Summary

- I believe 2 Courts Need to be added this session
- The timing of the add is up for discussion
- Option A
- Add Sep 2019 2 courts
- Option B
- Add Sep 2019 1 court
- Add Jan 2020 1 court (same budget year so functionally same as option A)
- Option C
- Add Sep 2019 1 court
- Add Sep 2020 1 court
- Worst case, we provide better service for our constituents because quantitatively we will need to add two courts no matter what.