**MTS NEXT STEPS & POSSIBILE PROJECTS**

1. Investigate relationship between MTS, DTS, and DATA Act
   1. Especially with budget function
   2. Outlays by object class
   3. Understand the delays, reconciliations, etc.
   4. Understand when things don’t match up, why
2. Finalize any revisualizations of the 5 figures
   1. Fix numbers, finalize hover overs
   2. Get Gita’s eyes for feedback and help on colors
   3. Where will this live?
3. Meeting follow ups
   1. Janelle – review GSA and see about Object Class integration
   2. (Janelle – OMB and TAS crosswalk and relationships
      1. If crosswalk is public, ask for crosswalk)
   3. Justin – figure out what “unclassified” on DTS means and send to Meredith
4. Scope out possible projects
   1. Explore DTS to better understand if we can visualize spent/remaining extraordinary measures (debt ceiling)
   2. Justin ideas on R/O over time vs. policy, pres. Admins, etc. - Is this possible w/ data?
      1. Outlays
         1. By function
         2. Policy timeline
         3. Prez admin
      2. Receipts
         1. By function
         2. Policy timeline
         3. Prez admin

**GSA**

1. GSA - Review GSA’s storyboard and determine if adding in object class data is possible/would be helpful
   1. Is there a way to combine data act data with gsa data to improve their storyboard process/product?

**OMB**

1. OMB – agencies use for their own internal projections, monthly outlay plans
   1. Could agencies find it useful to see their data visualized? Basically do the 5 figures but for each agency?
   2. Is this possible given MTS data?
2. OMB – connecting OMB accounts to TAS accounts
   1. Is this useful? When would it be helpful? What’s the relationship here?
3. OMB – visualizing presidents’ budgets
4. OMB – info for policy officials internally
   1. Could they benefit from new visualizations?
   2. They’re interested in the issue of the day and at the end of the year
      1. Could we do a zoomed in viz of some sort re: health/medicare?
5. How do GTAS and DATA Act relate? Interact? How does DATA Act reconcile its data with GTAS data, given there’s a reconciliation window?

**CBO**

1. CBO – figure out what “unclassified” from DTS is and share with Meredith
2. CBO - Explore DTS to better understand if we can visualize spent/remaining extraordinary measures (debt ceiling)
3. CBO – Explore specific areas, e.g. Medicare
   1. Med A is funning out, not all of it… how to visualize this concisely = tough
   2. Issues with visualizing net vs. gross
4. CBO – Determine how/why sum of DTSs in a month don’t equal the MTS

**Justin’s ideas from 7/14 meeting**

1. Outlays by function with Presidential administration timeline
2. Outlays for ONE budget function with Policy/Legislation timeline
   1. BF hover over 🡪 see breakdown of agencies within that budget function
   2. BF/outlays hover over 🡪 see through Q2 spending facts and tidbits, e.g. OC, biggest Federal account, anything that pops out for that particular area of spending
3. Presidential admin timeline with tax revenue, perhaps including notable policy
4. Similar to BF hover, see receipts by source over time
   1. ~~Connect to IRS data on where personal taxes are coming from 🡪 map~~
5. Of government receipts with personal income tax, what % came from each bracket?
   1. Is anything related to this publicly available?
   2. Add function to allow user to see which bracket they’d (likely) fall in with 1-3 questions, e.g. salary, location,
6. Visualizing R/O over time compared to President’s budgets
   1. Do presidents budgets seem to affect R/O? Does past R/O predict future better than presidents’ budgets?
   2. Understanding how presidents have contributed to deficit/debt over time?

**Brain Dump on Medium**

--Tableau

--Explore Plotly/Python – offers interactivity, free at some level, priced at another – need to explore. (plotly is D3-powered and allows python to interface with it. Can do everything matplotlib can do. Can start working offline, they have online hosting/sharing platform, online dashboards, etc. ($?) “R Shiny for Python” Dash – need to explore. Can share Plotly charts back and forth between Python and R users. All libraries are open source. “ is a collaborative browser-based plotting and analytics platform. You can generate graphs and analyze data from the in-browser”

--Pygal – need to explore, have read good things for easy, interactive, easy to embed

--geoplotlib/piglet for choropleths

Notes from CBO meeting

* Lori – Medicare
* Meredith – tracking debt limit/extraordinary measures
* Avi – tracking debt, mainly public debt
* Check out CBO monthly budget report
* Lori checks Medicare numbers daily from DTS
* POSSIBLE ANALYSIS: Figure out why the sum of all the DTSs in a month are off by a few million from the MTS. Medicare is usually the case that MTS > DTSs but not always the case, and not across all areas will this be true
  + Being off is also the case for total cash balances, what Meredith worked on
* POSSIBLE USE CASE: visualizing how many extraordinary measures have been used and how much is left on a more ongoing basis. They do this every few months
* Timing shifts are important when comparing this year to last year’s month; less so if looking at overall annual numbers or trends
* Meredith said she never looks at the figures, but when she did in the meeting, she said she likes them though because it pulls out the big pieces related to questions they get
* TO DO: figure out relationship with MTS, DTS, and DATA Act data for matching/connections
* Like OMB, they said trends over time are interesting. If looking at specific point in time, more interesting is often the comparison to previous year/same month (may ’17 to may ’16)

Steam python <https://github.com/spyder-ide/spyder/releases>

Multiple Viz tools <http://pbpython.com/visualization-tools-1.html>

<https://wiki.python.org/moin/NumericAndScientific/Plotting>

Plotly <https://plot.ly/python/getting-started/>

<https://plot.ly/dashboards/>

<https://plot.ly/python/>

<https://plot.ly/python/treemaps/>

<https://plot.ly/python/getting-started/#initialization-for-online-plotting>

<https://plot.ly/python/getting-started/#initialization-for-offline-plotting>

plotly cheat sheet https://images.plot.ly/plotly-documentation/images/python\_cheat\_sheet.pdf

pygal <http://pygal.org/en/stable/>

<https://pythonprogramming.net/pygal-tutorial/>

<http://www.pygal.org/en/stable/documentation/first_steps.html>