Oregon GIS Program Leaders (GPL)
April 9, 2024 Meeting Notes

Attendees:

Daniel Stoelb, ODEM, GPL chair	Jim Gores, DOE
Bob Harmon, OWRD, scribe	Arron Heriford, DHS
Randall Sounhein, DSL	Julia Brown, DHS
Phil McClellan, DOR	Eric Main, OHA
Thom York, DOR	Rachel Saltzman, OHA
Diana Walker, ODA	Myrica McCune, INR
Cassidy Wood, Fire Marshal	Joe Severson, Marine Board
Stephen Wepprich, Fire Marshal	Phil Smith, ODOT
Lacey Summers, Esri	Alex Drake, Confederated Tribes of Grand
Ariel Low, LPRO	Ronde
Elissa Bullion, Legislative Commission on Indian	Brady Callahan, OPRD
Services	Scott Bruton, State Police
Rachel Smith, GEO	Steve Timbrook, ODF
Tom Elder, GEO	Paula Wills, OWEB
Melissa Foltz, GEO	Chris Cowin, ODFW
Erik Brewster, GEO	Kim Jones, USGS
Willow Crum, GEO	Sarah Marvin, DLCD
Dave Mather, GEO	Tanya Haddad, DLCD/Coastal
Bailey Harris, DOE	

- Announcements
    - Daniel: Esri Business Analyst, rescheduled to Fri, 4/12, 12-1
    - Lacey, Esri
        - Sentinel 2 update (link)
        - Individual widget matrix from Web App to Experience Builder (link)
        - Top 10 ways to get most from the Living Atlas Blog (link)
        - Trainings
            - Creating organizational and geospatial resiliency (link)
            - MOOC, climate action (link)
        - Manager's summit, weekend before Esri UC (link)
    - Rachel, GIS In Action, in Portland, April 30 – May 1 (link)
- GEO/OGIC update, Rachel
    - OGIC meeting, Rachel
        - Virtual meeting, 4/24, 10-12
    - Esri UC, digital access, Dave
        - Will send out email with instructions
        - Must set up an Esri "event" account
        - No cost
        - 60+ tech sessions
    - AGOL, Tom

- Will be publishing update to geocoder soon
- Work on cleaning up inactive accounts; has received feedback from many agencies; waiting on a few large ones
  - Agency AGOL list sorted on activity status (inactive/least active at top)
  - Trying to get rid of few hundred more accounts
- Framework update, Melissa
  - Spring Forum registration ends tomorrow night (4/10) (link)
  - In person event in Astoria
  - ~48 registered
  - Recent FIT meetings: [more]
- Round table
  - DOR, Thom
    - One county left to submit tax lot data; hopeful to have submitted to DAS by end of this week
  - DSL, Randall
    - Updating Enterprise to 11.2; eventually stand up in Azure cloud (a challenge)
  - INR, Myrica
    - Recently launched Oregon design criteria Hub tool in partnership with DCBS; looking at building code & design criteria
  - LPRO, Ariel
    - Added language switcher to the Find Your Legislator app
    - Released summary of legislation reports and created a dashboard associated with those and laws
    - Bug with effects in AGOL; with blend with drop shadows on boxes in Android; *remember to test in iOS *and* Android
  - ODA, Diana
    - Field season starting and hiring seasonals; will be using Field Maps & Survey123
    - Hiring Timmonds to set up new GIS in cloud and assist with maintenance for 1-year
  - ODF, Steve T
    - Releasing flowline survey tracking system later this month
    - ArcGIS Portal migration; move file based library to web based library with services
    - Migrating part of Hub site to Portal for employees
    - Working with governance group on approval process for AGOL accounts especially when asking for publisher rights
  - ODFW, Chris Cowin
    - Contractor starting Monday to write the Habitat Qualitative Tool; use to determine which areas are developable for sage grouse habitat; in Py 3 for Pro
  - DOE, Bailey and Jim
    - Writing GIS plan for the agency
  - ODOT, Phil
    - New release of TransGIS; looking for testers, contact him or Brett Juul
    - Last week, in Atlanta for GIS in Transportation (GST) Symposium; next year hosted in Portland at Oregon Convention Center
  - ODEM, Daniel

- - - Effective 4/1, Daniel's position transferred to CIO as shared service; please send him any Pro templates that you use for mapping [OGIC/GPL cartographic best practices doc link; example map link]
    - 4/11, 2-3, overview of evacuation solution, for fire and other hazards
    - Survey123 report templates for search and rescue activities
  - Parks, Brady
    - Working on imagery acquisition for the shore for this summer; 3-inch resolution w/ obliques
      - GIS team looking to partner with communications team on developing virtual tours and digital twins for access to places they manage
    - Ready to conduct final in person training for Pro for transition this June
    - Working with TAC for best practices for migration to new coordinate system; will come to GPL later
  - State Police, Scott Bruton
    - Approached by Marine Board; may be taking over AGOL user management of F&W troopers; additional ~60-70 AGOL users
  - Fire Marshal, Cassidy
    - New GIS analyst, Stephen Wepprich
  - Marine Board, Joe
    - Getting apps ready for boating season
  - OWRD, Bob
    - Well inspection app overhaul coming out soon (more in future meeting)
    - Working on creating geoprocessing services for Enterprise (on server at the Data Center); we're having problems with our approach; Bob will summarize in an email to the GPL list-serve
  - DLCD
    - Sarah
      - Continue to prepare expansion of GIS; ISS4 GIS analyst advertised soon
      - Starting up Land Use/Land Cover FIT; let Sarah know
    - Tanya, Coastal
      - Sharing info soon w/ Brady this fall
  - Esri, Lacey
    - Shout out to the Marine Board; won SAG at Esri; Congratulations Joe!
- Overcoming Bad Addresses: Giving Value to Non-Geocoded Data, Eric Main, OHA
  - Periodically get requests for health outcome data from other agencies at census tract level; any issues with data quality can potentially effect environmental justice community missing out on millions of dollars in state/federal funds
  - ~15% of OHA emergency dept. and hospitalization discharge data are not currently geocoded to a census tract
  - Highest rates per 100 residents of all-cause, non-geocoded data are in rural counties with small number of tracts
  - Highest rates of PO boxes and addresses that can't be geocoded for unknown reasons are in rural counties
  - Issues
    - Nearly 1/3 of all patients who identify as American Indian or Alaska Native
    - Means the data disproportionately underestimate tract-level health disparities those communities
  - Challenges

- non-geocoded addresses are critical data, but options for geo-locating are very limited
- county and zip code of patient's residence are captured
- if randomly distribute points within intersected counties and zip codes creates risk of placing points in wrong tracts
  - Proposed solution to constrain distribution to census blocks with population >= 10 within zip code and county boundaries
  - Results
    - Respiratory disease rate percentiles increased in 27% of census tracts
    - Respiratory disease rate percentiles increased by 20 or more in 8.5% of tracts
    - Mean percentile increase is 17.1
  - Validation
    - Apply random distro method to successfully geocode addresses; had match of 16.5% over nearly 1 million records
    - 59% of data in or near correct census tract
    - Why didn't model perform better in urbanized counties
      - Populations spread out in large block cluster in more populous counties
      - Zip codes are large and tracts tend to be smaller
      - Random point distro is area-weighted not pop weighted
      - All counties that performed below the state mean had address geocoding success rates >80%
      - Exchange of cases between tracts
    - Random spatial distribution performed better for some race/ethnicity groups than others
    - Some populations cluster by race/ethnicity more than others
    - Block-level race/ethnicity high-low clustering examined
  - Proposed solution 2.0
    - Apply multilevel logistic model to distribute the non-geocoded health outcomes into Census tracts on the CDC Places method
    - Many risk factors for respiratory disease prevalence
    - Median household income strong predictor
    - Reduce over stratification by removing sex and collapsing age groups; change predictor variable and constrain cases by zip code intersection
    - Question of excluding counties with low geocoding precision?
  - Conclusions
    - Rural communities and some communities of color are disproportionately penalized for poor home address quality
    - Underestimating health disparities could result in environmental justice communities scoring lower in an environmental justice index
    - Counties with large percentage of PO boxes have 1 tract so random distribution does not introduce inaccuracies in those counties
    - Using a secondary geocoder is not a remedy for PO boxes, unhoused populations, and incomplete or inaccurate addresses
    - Randomly distributing points from available information (counties and zip codes) performs better in rural counties
    - Given probability of placing cases in neighboring or distant tracts, area-based random distribution of addresses introduces errors in the data, particularly in urban counties

- - - Using population density weighting alone could improve the accuracy of point distribution, but including predictors of health outcomes like demographic information and median household income should improve the accuracy
  - Note: OHA Office of Health Analytics uses RedPoint Data Management to parse and geocode addresses; use proprietary system
  - Q&A
    - Daniel, comparison w/ state geocoder?: Health Analytics offered addresses; needed to come up with a solution quickly; maybe improve address match by ~3%?
    - Tom, gaps in state addresses, missing ~1100 in Warm Springs; other areas?: noticed issues with some census tracts in Lincoln and Tillamook counties
    - Daniel, level of reporting from hospitals?: get 100%, but problematic when live on edge of state and go to a hospital in adjacent state, don't get their data
- Oregon Legislative District Fast Facts, Ariel
  - Covering
    - Technology pattern generally applicable to other areas
    - Tips and tricks
    - Please send feedback to Ariel
  - ArcGIS Dashboard
    - Select chamber (senate/house)
    - Filters district list; picking a district in turn filters data in main pane
      - Map element
      - List element with legislator info; provides more styling options
      - Business Analyst Infographic showing info graphics
        - Uses Esri templates; can create your own (done here)
        - Can also pull in own data; doesn't need to be in the map
  - Configuring for mobile
    - Since February, there is a mobile preview mode
  - 4 different infographics and multiple sites
  - Created 4 dashboards, one for each infographic
  - Got creative w/ URLs
  - Sidebar instant app URL
  - Dashboard configuration specifics
    - Uses current data from find your legislator app
      - House and senate in different layers
      - Used Arcade data expressions to combine
  - Dashboard mobile view
    - Can use most elements from desktop view except selector had to be reconfigured
  - Future addition
    - Splash screen with more information (avail since February)
  - Limitations/work arounds
    - Updating infographic results in a new dashboard, map, layer
      - Work around: Dashboard uses a view of the combined layer
    - Infographic screen reader compatibility:
      - Work around: make underlying data available
    - Representing uncertainty in survey data

- - - Work around: add clear language around data limitations; better option?
  - ○ Q&A
    - • Eric, Tableau shop at OHA looking at other options; how are query capabilities
      - ▪ Filters in dashboard controlling what gets displayed
      - ▪ Can set up selectors
      - ▪ Has not seen comparison between ArcGIS Dashboards and Tableau
    - • Sarah, does Business Analyst require a license?: yes
      - ▪ There are credit consuming activities ([link](#))
    - • Daniel, re language switcher functionality, presume changes URL?
      - ▪ Invokes &locale= parameter
      - ▪ May be future auto-translate feature
  - ○ Links:
    - • Summary of Legislation Dashboard: https://geo.maps.arcgis.com/apps/dashboards/35ed3b3c707f4e91b34f0fa24efa0ea2
    - • Find Your Legislator (w/ language switcher): https://geo.maps.arcgis.com/apps/instant/lookup/index.html?appid=fd070b56c975456ea2a25f7e3f4289d1
- • Adjourn