SUDHA KUMAR
sudha1k@yahoo.com ▪ (984) 242 -7510 ▪ Cary, NC

SUMMARY

Detail-oriented with excellent verbal and written communication skills including presentation skills. Ability to collect, conduct research, analyze complex data sets, resolve problems and prepare reports. Good interpersonal and time management skills with a positive attitude and ability to work with people at all levels. Possess advanced computer skills and knowledge of multiple databases and software systems. Proficient in web development and Geospatial Information Systems.

SKILLS

Computer: Windows, DOS, MAC OS X, SQL Server, MS Office Suite (Word, Excel, PowerPoint, Access, Outlook), SharePoint

Web Development: HTML 5, CSS, Adobe Suite (Acrobat, Dreamweaver, Photoshop, Muse, Fireworks, Flash, Illustrator, InDesign, Premiere Pro) PHP, MYSQL, JavaScript, C++, Python, R, Visual Studio, ASP.NET, C#, XML, Visual Basic, WordPress, SEO, Bootstrap, Git Bash, GitHub, Visual Studio Code

Geographic Information Systems: Developing web maps using ArcGIS Online, Creating and managing shapefiles and geodatabases, Spatial Analysis, pgAdmin III, Geocoding, Batch Geoprocessing, REST, ESRI Suite (ArcGIS Desktop, ArcMap, ArcServer, ArcGIS Online), ArcSDE, Enterprise Geodatabase GRASS, QGIS

EXPERIENCE

Communications and Outreach Support (ORAU Contractor) | US Environmental Protection Agency, Durham, NC | Nov 2018 – May 2020

- Create data visualizations and apps using Qlik Sense
- Design, develop and update EnviroAtlas Interactive mapping Application web pages using Drupal CMS
- Perform descriptive analysis to find total pageviews, apply inferential analysis to find the user base and compare the trends in the user accesses of EnviroAtlas webpages from FY 2016-2018 using Qlik data visualization software
- Analyze the Superfund, Brownfields and RCRA data, perform geocoding to find the latitude and longitude of the sites
- Calculate and map the total number of sites per category per EnviroAtlas communities using ArcGIs online
- Design, develop and update EnviroAtlas websites using Drupal CMS, create and update images using Photoshop
- Assist with EnviroAtlas Interactive Map application demos and training
- Collaborate with other members of the development team and EPA scientists
- Create maps for analysis using ArcMap and ArcGIS Online
- Develop use cases and story maps to demonstrate tool usage
- Create YouTube tutorial videos and pdf guides for EnviroAtlas Interactive Map application

GIS Graduate Teaching Assistant | North Carolina State University, Raleigh, NC | Jan 2016 – Dec 2016

- Collaborated with instructional team to update and improve course materials over two semesters
- Facilitated weekly lessons for three graduate level courses over two semesters, including communicating expectations, producing and monitoring help forums in person and through various digital media. The number of students ranged from 5 - 30
- Graded assignments for a total of around 40 students per semester over two semesters

GIS PROJECT

Capstone Project | The Center for Geospatial Analytics | NCSU | Sep 2016 – Dec 2016

- Utilized GIS and Agent Based Modeling (ABM) tools to create a supply demand model to estimate existing demand assigned to water treatment plant
- Investigated the use of ABM with GIS to estimate service area for the water network using ArcGIS Agent Analyst extension
- Organized and analyzed water treatment plant service area data and mapped demand consumption using ArcGIS 10.3
- Created, updated, and edited shapefiles
- Presented project to the client and geospatial community during the professional showcase

WEB DEVELOPMENT EXPERIENCE

Web Designer/Administrator | NCTTSABHA, Apex, NC | Feb 2015 – Present

- Consulted with the client and determined website requirements
- Designed, developed and implemented website using Adobe Muse, HTML, CSS, Photoshop, Illustrator
- Manage the front-end and back-end development. Maintain and update the website
- Organize events, create flyers and invitations
- Edit, compile audio and video using Premiere Pro

Web Document Publishing/IT Assistant/Web Designer Assistant | Mediant Communications, Cary, NC | Mar 2015 – June 2017

- Communicated with Relationship managers for document hosting website requirements
- Worked closely with Web Designers to assure documents meet client's expectations and deadlines
- Created digital web-ready documents with bookmarks and links from PDF source usingcompany's proprietary software
- Edited images using Photoshop, sourced logos and other images from client websites to be used inthe digital documents
- Branded/Designed/Developed/implemented standard and responsive websites using Adobe Muse, Photoshop, Illustrator, HTML, CSS, SQL
- Documented various internal company procedures

Web Developer/Administrator | Sky Shuttle Inc., Chapel Hill, NC | Feb 2012 – Oct 2014

- Arranged meetings with the client for website requirements
- Designed, developed and implemented website using WordPress, HTML, CSS, PHP, Photoshop, JavaScript, SQL
- Managed the front-end and back-end development. Maintained and updated the website

Web Developer | Moer Foundation, Boston, MA | September 2012 – May 2013

- Collaborated with web designers and content providers. Updated the web pages utilizing Dreamweaver and HTML

Web Developer | SV Temple, Cary, NC | March 2011 – May 2011

- Discussed with the team members for project requirements
- Assisted with graphics using Photoshop and updated the web pages using HTML, CSS

EDUCATION

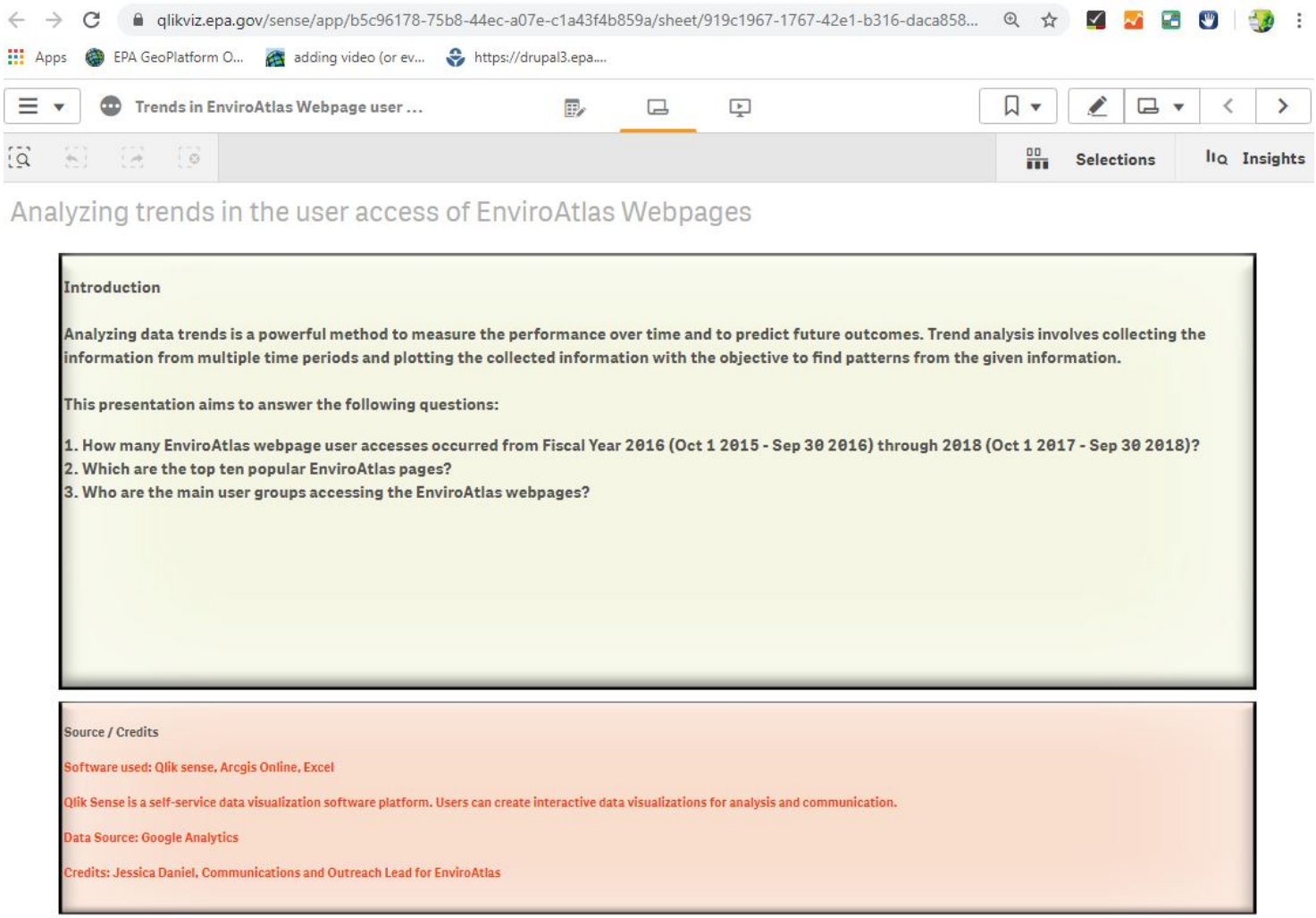
North Carolina State University, Raleigh, North Carolina
Master of Geospatial Information Science and Technology (MGIST) - Dec 2016

North Carolina State University, Raleigh, North Carolina
Graduate Certificate in Geographic Information System - Dec 2014

North Carolina Wesleyan College, Triangle Campus, Morrisville, North Carolina
Bachelor of Science in Computer Information System - May 2012

Examples of work in Qlik Sense

Trend Analysis:



Trends in EnviroAtlas Webpage user ...

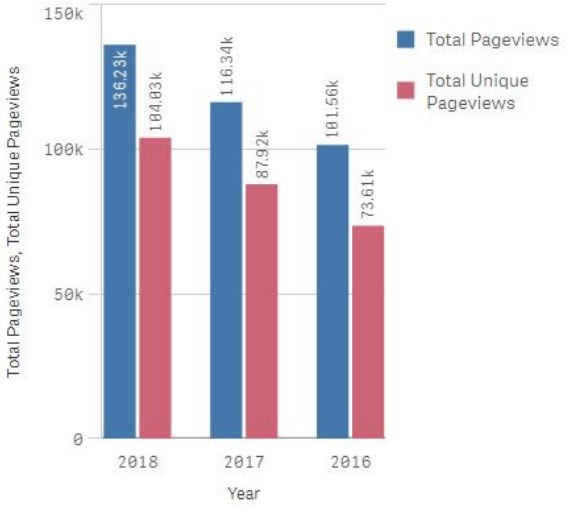
Selections Insights

Total EnviroAtlas webpage user accesses from FY 2016 -2018

Pageview: Pageview is the number of times someone visits any page on the site.

Unique Pageview: Unique pageview combine the pageviews that are from the same person on the same page, in the same session, and count them as one. Unique pageviews are tracked for each page URL and page title combination.

Increase in Total Pagesviews and Total Unique Pageviews



2018 Total Pageviews
136232 ▲19889 Increase from 2017

2018 Total Unique Pageviews
104033 ▲16108 Increase from 2017

2017 Total Pageviews
116343 ▲14785 Increase from 2016

2017 Total Unique Pageviews
87925 ▲14317 Increase from 2016

FY 2016 Total Pageviews
101558

FY 2016 Total Unique Pageviews
73608

Trends in EnviroAtlas Webpage user ...

Selections Insights

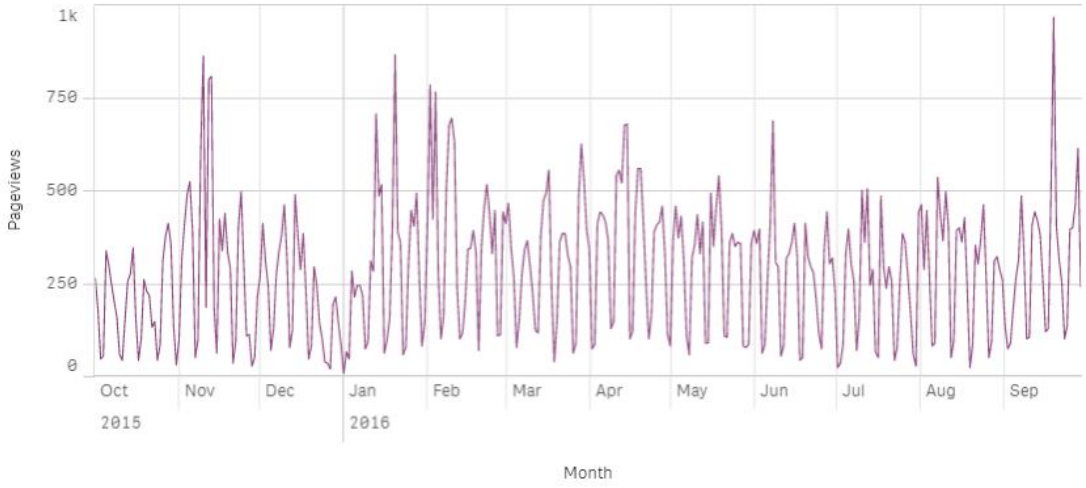
User accesses based on monthly pageviews for FY 2016

Quarter
Q1
Q2
Q3
Q4

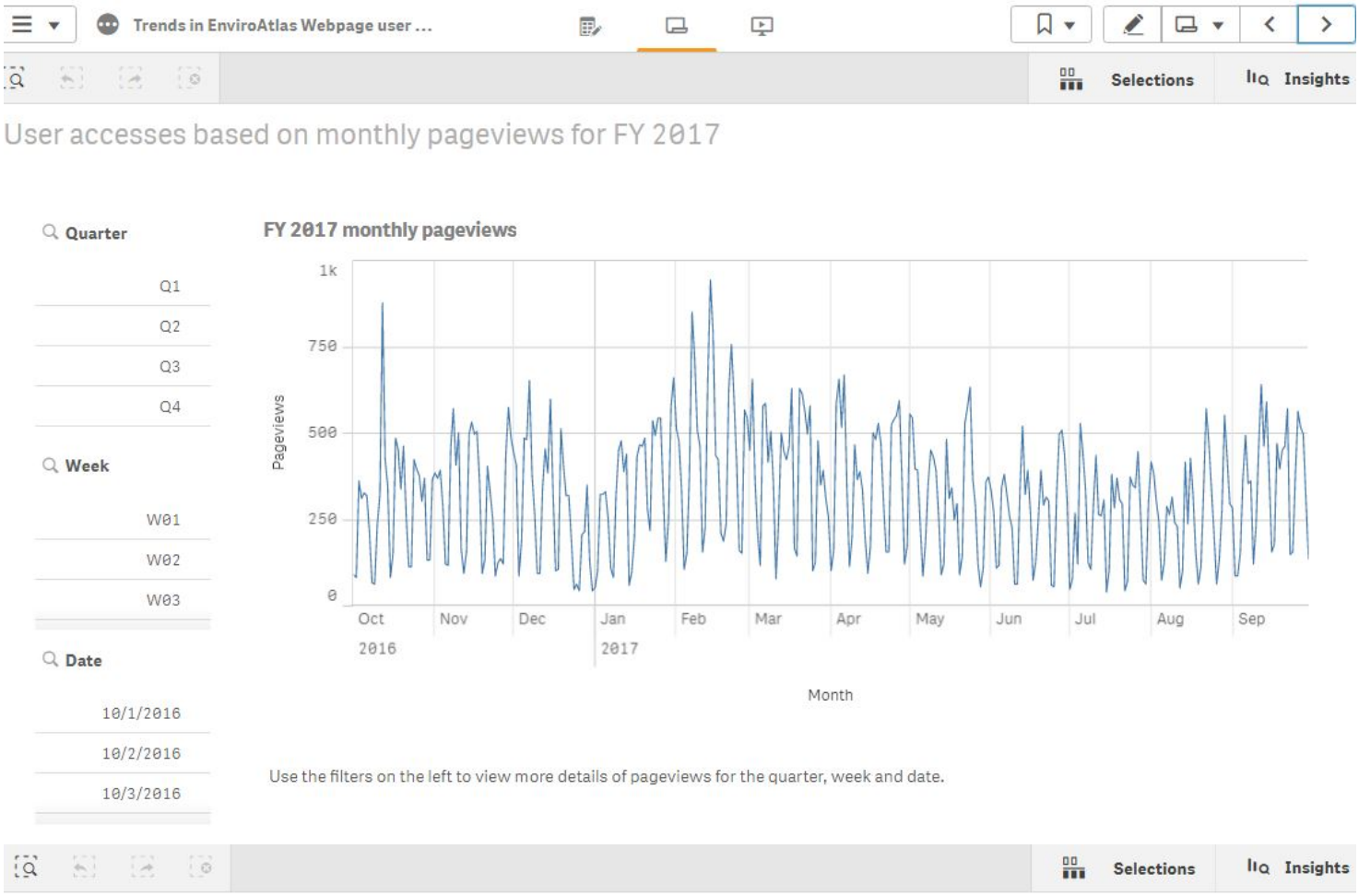
Week
W01
W02
W03

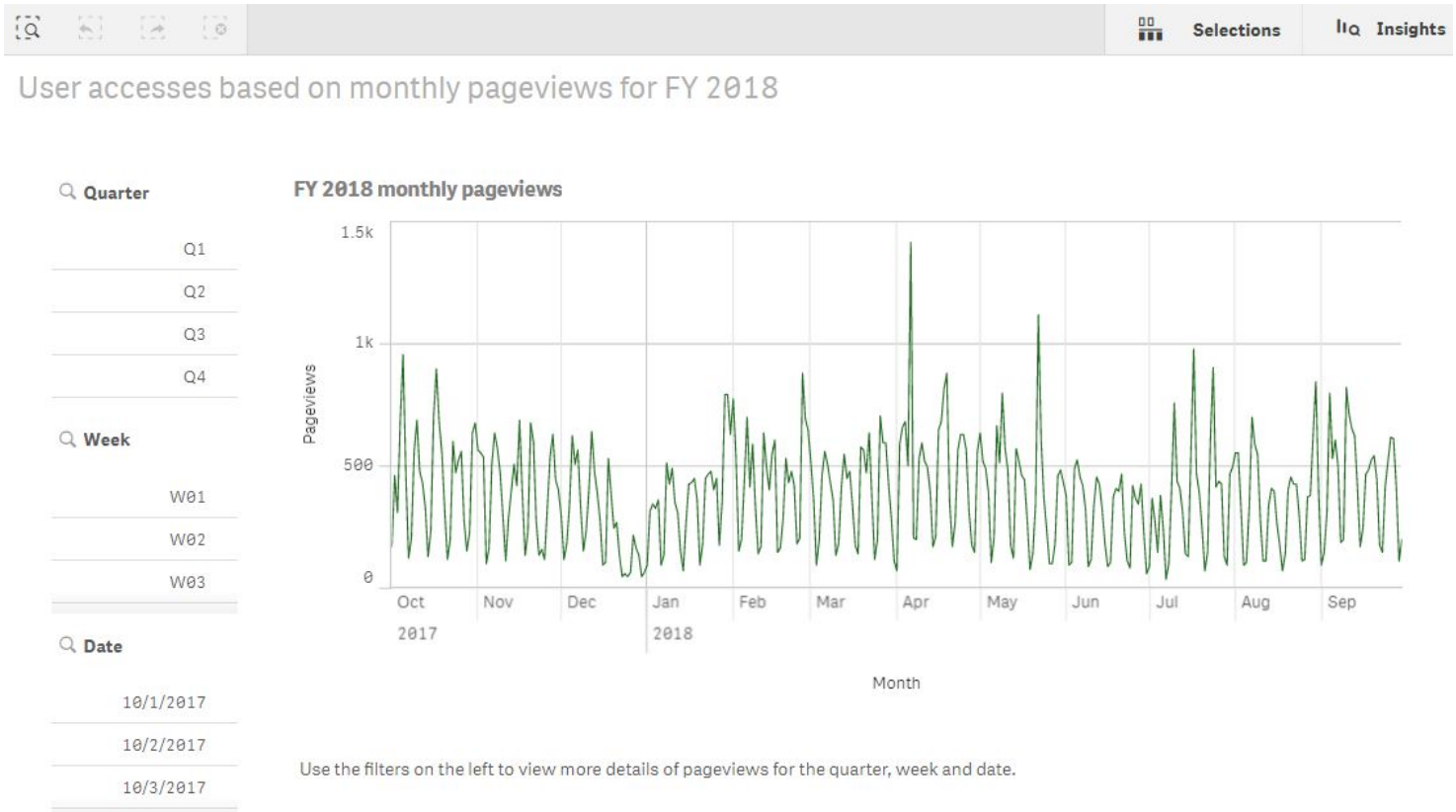
Date
10/1/2015
10/2/2015
10/3/2015

FY 2016 monthly pageviews



Use the filters on the left to view the details of pageviews for the quarter, week and date.


Trends in EnviroAtlas Webpage user ...
Selections
Insights
User accesses based on monthly pageviews for FY 2017
Quarter
Q1
Q2
Q3
Q4
Week
W01
W02
W03
Date
10/1/2016
10/2/2016
10/3/2016
FY 2017 monthly pageviews
1k
750
500
250
0
Pageviews
Oct
2016
Nov
Dec
Jan
2017
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Month
Use the filters on the left to view more details of pageviews for the quarter, week and date.


Selections
Insights
User accesses based on monthly pageviews for FY 2018
Quarter
Q1
Q2
Q3
Q4
Week
W01
W02
W03
Date
10/1/2017
10/2/2017
10/3/2017
FY 2018 monthly pageviews
1.5k
1k
500
0
Pageviews
Oct
2017
Nov
Dec
Jan
2018
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Month
Use the filters on the left to view more details of pageviews for the quarter, week and date.

Trends in EnviroAtlas Webpage user ...

Selections Insights

FY 2016 Top Ten Popular Pages

Pages

about/aboutus...
about/index.ht...
about/projectp...
agricultural-wa...
atlas.html
attila-toolbox
cite-enviroatlas
clone-2-enviro...
dasymetric-to...
data/communi...
data/developm...

2016 Top Ten Popular Pages

FY 2016 Table

Pages	Average Time on Page (Secs)	Unique Pageviews
Totals	**18417.19**	**73608**
www2.epa.gov/enviroatlas/ecosystem-services-enviroatlas	89.66	299
tools/rarity.html	82.39	28
tools/index.html	23.24	78
tools/ecohealth_relationshipbrowser/bibliography.html	268.28	435

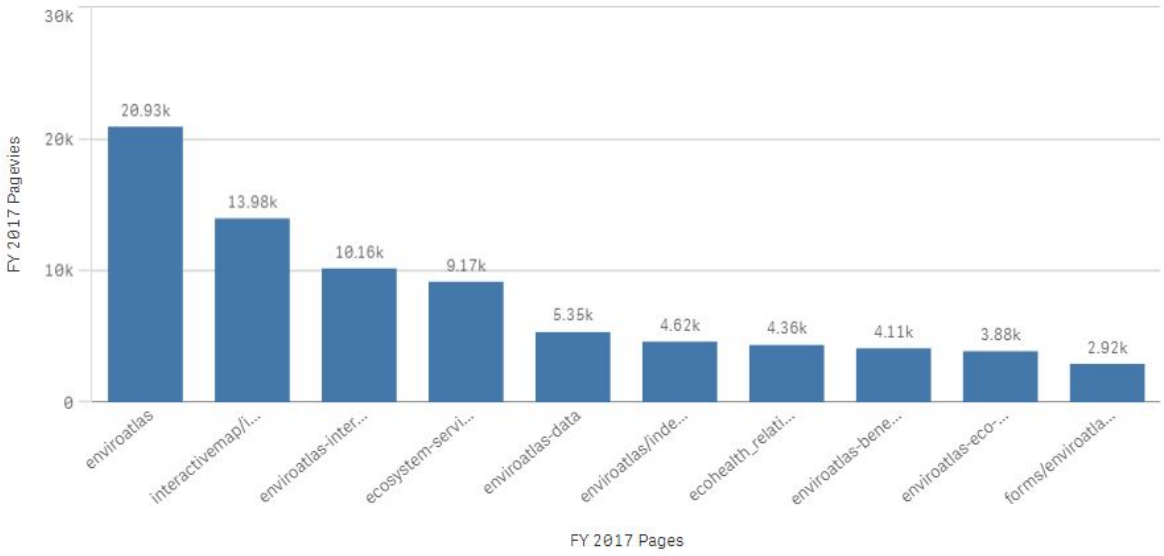
To view information on the other pages use the filter on the left

Selections Insights

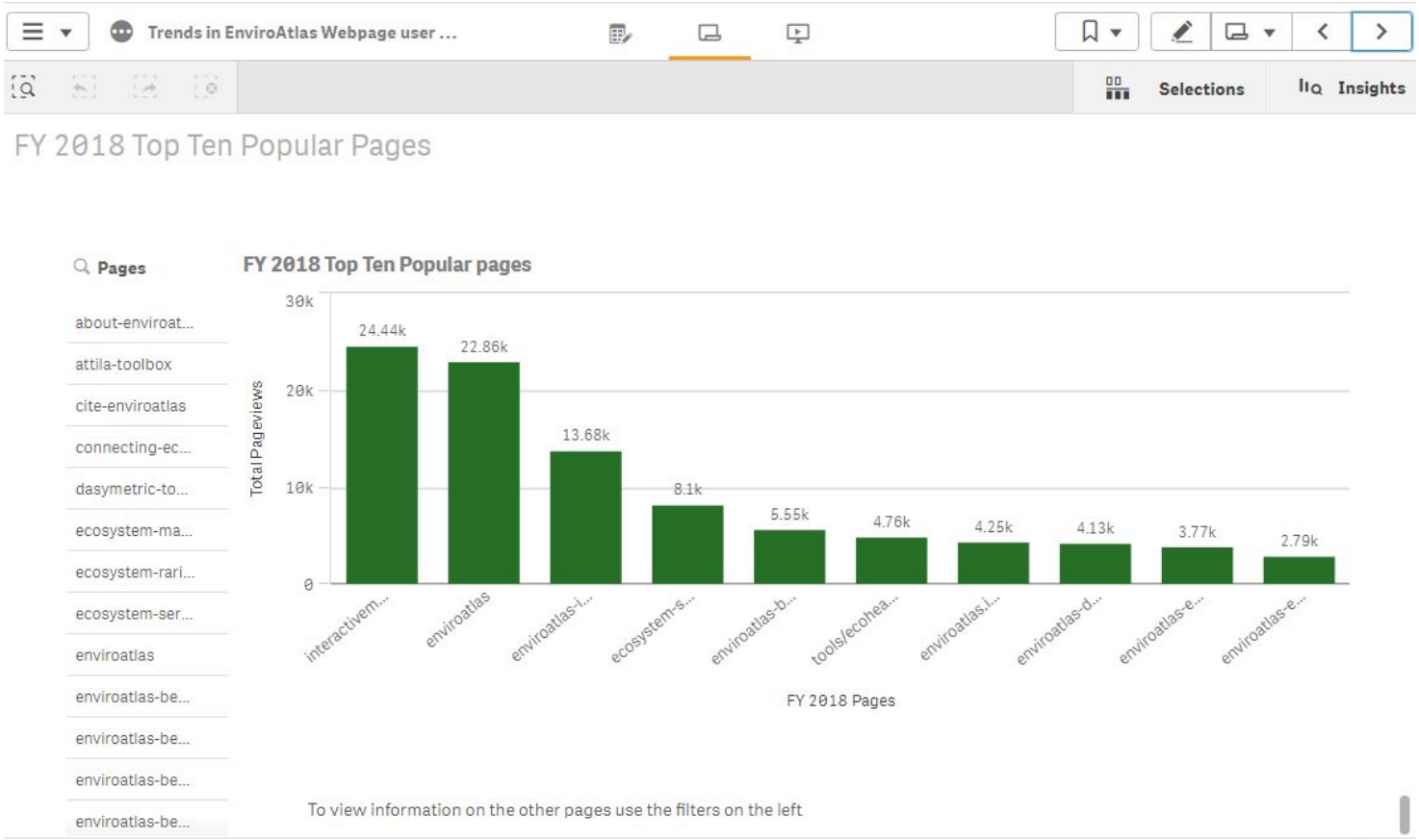
FY 2017 Top Ten Popular Pages

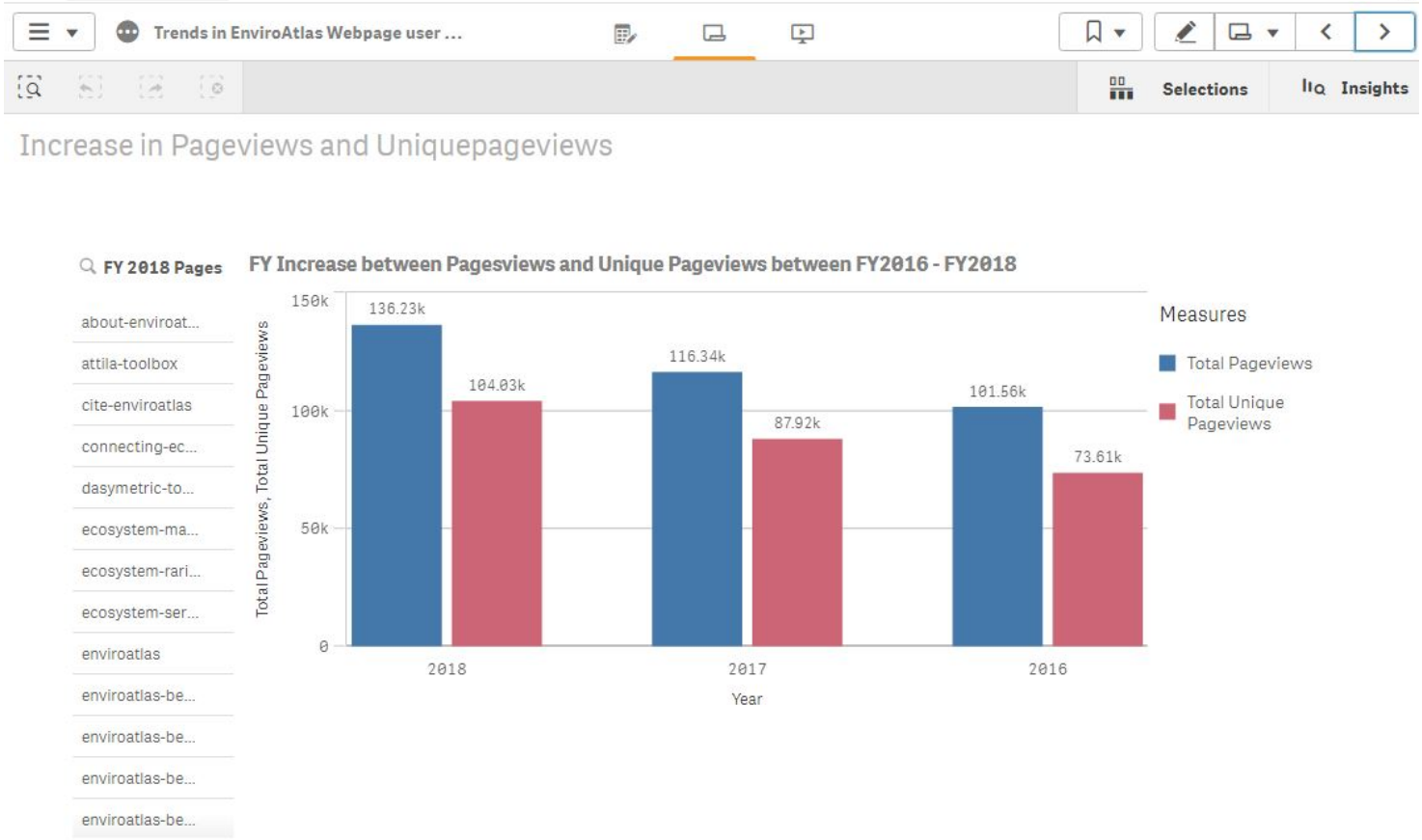
Pages

about-enviroat...
atlas.html
attila-toolbox
building-green...
citations-and-f...
citations-and-f...
cite-enviroatlas
connecting-ec...
dasymetric-to...
ecohealth_rela...
ecosystem-ma...
ecosystem-rari...
ecosystem-ser...



To view information on the other pages use the filter on the left


Trends in EnviroAtlas Webpage user ...
Selections
Insights
FY 2018 Top Ten Popular Pages
Pages
about-enviroat...
attila-toolbox
cite-enviroatlas
connecting-ec...
dasymetric-to...
ecosystem-ma...
ecosystem-rari...
ecosystem-ser...
enviroatlas
enviroatlas-be...
enviroatlas-be...
enviroatlas-be...
enviroatlas-be...
FY 2018 Top Ten Popular pages
Total Pageviews
30k
20k
10k
0
24.44k
22.86k
13.68k
8.1k
5.55k
4.76k
4.25k
4.13k
3.77k
2.79k
interactivem...
enviroatlas
enviroatlas-i...
ecosystem-s...
enviroatlas-b...
tools/ecohea...
enviroatlas.i...
enviroatlas-d...
enviroatlas-e...
enviroatlas-e...
FY 2018 Pages
To view information on the other pages use the filters on the left

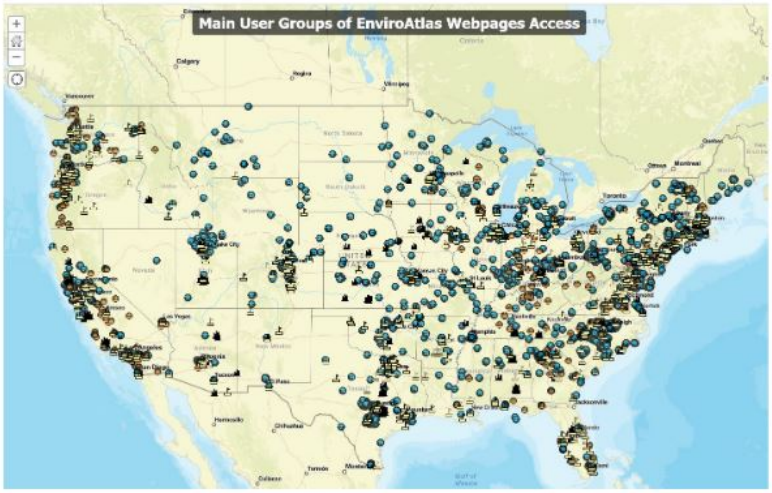

Trends in EnviroAtlas Webpage user ...
Selections
Insights
Increase in Pageviews and Uniquepageviews
FY 2018 Pages
about-enviroat...
attila-toolbox
cite-enviroatlas
connecting-ec...
dasymetric-to...
ecosystem-ma...
ecosystem-rari...
ecosystem-ser...
enviroatlas
enviroatlas-be...
enviroatlas-be...
enviroatlas-be...
enviroatlas-be...
FY Increase between Pagesviews and Unique Pageviews between FY2016 - FY2018
Total Pageviews, Total Unique Pageviews
150k
100k
50k
0
136.23k
104.03k
116.34k
87.92k
101.56k
73.61k
2018
2017
2016
Year
Measures
Total Pageviews
Total Unique Pageviews

Trends in EnviroAtlas Webpage user ...

Selections Insights

Main User groups accessing EnviroAtlas

The EnviroAtlas web pages and the Interactive Map application page are being accessed by many users including universities, colleges, research institutions and state governments. The map showing different users can be viewed at https://arcg.is/DGHTj



Screenshot of the map showing Enviroatlas webpage users

Trends in EnviroAtlas Webpage user access

Data Analysis Story

Edit Analysis of University Users

Selections Insights

Analysis of University Users

Year

2018

2019

Quarter

Q1

Q2

Q3

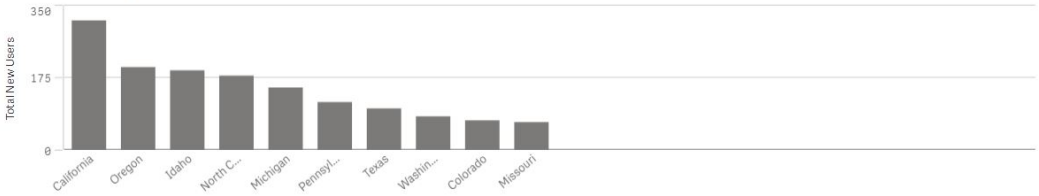
Q4

State

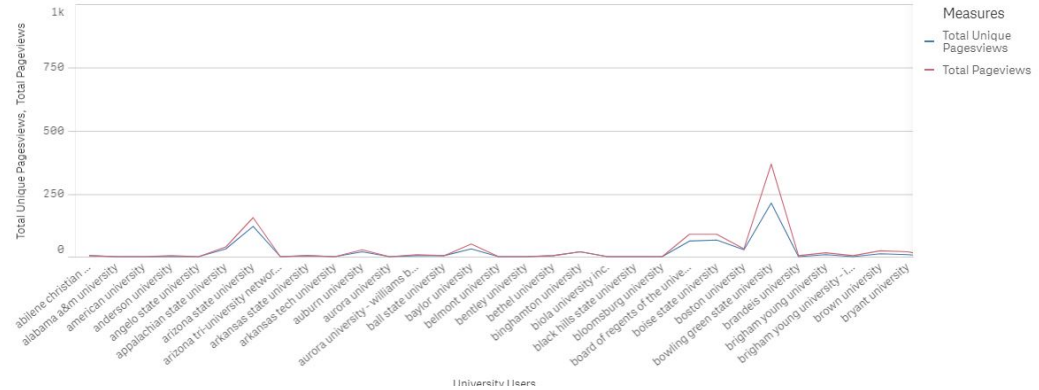
Alabama

Alaska

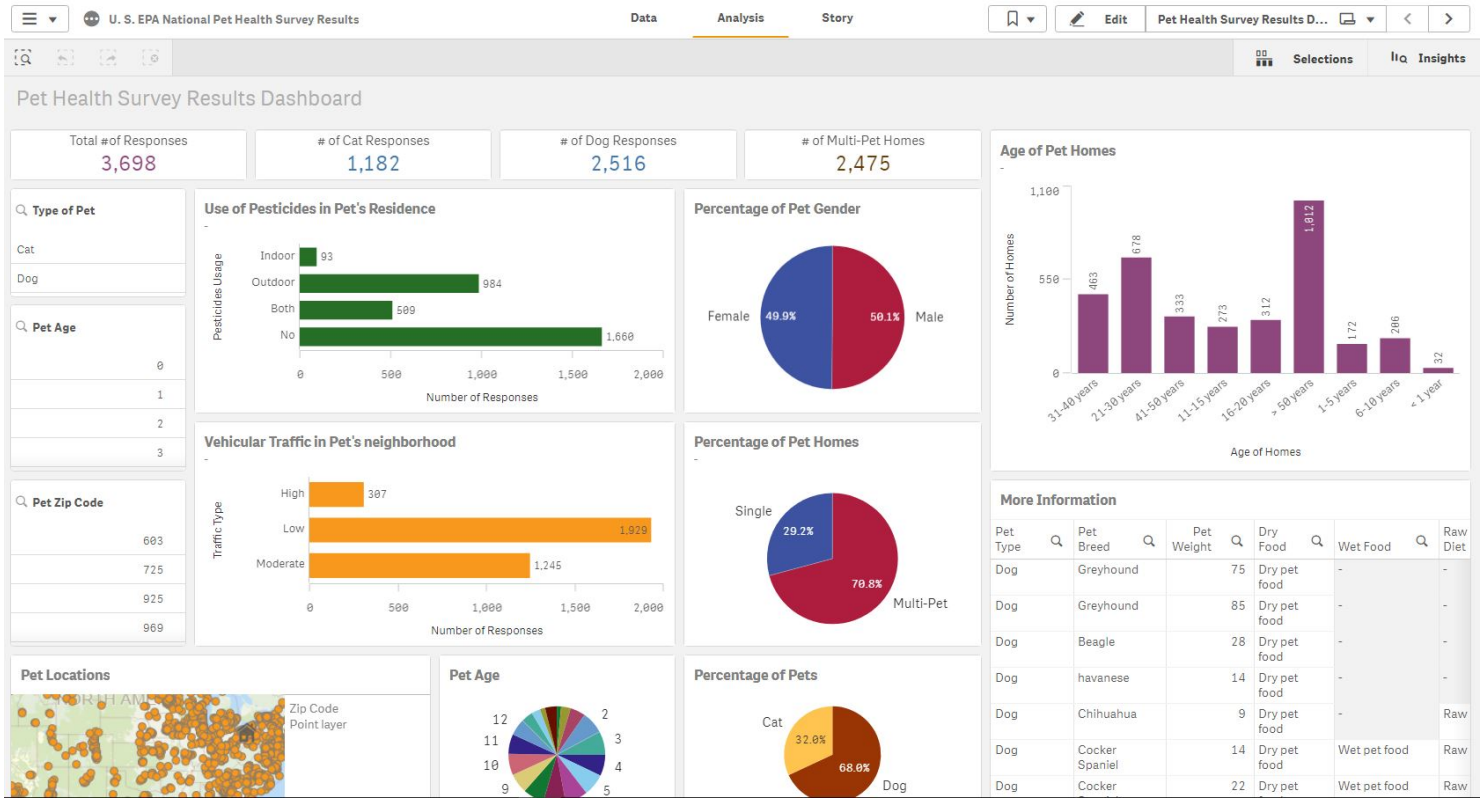
Total New Users for each state

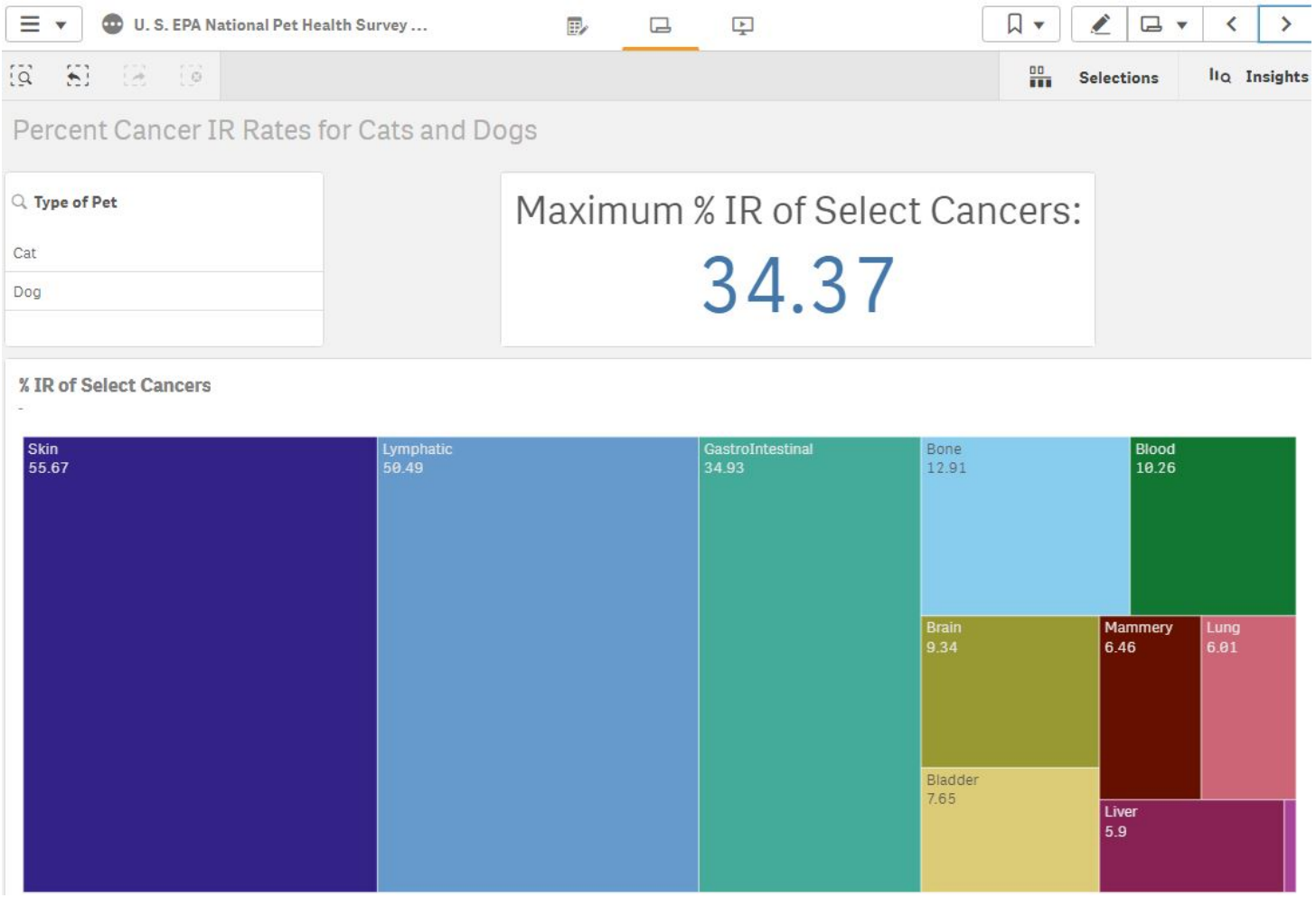


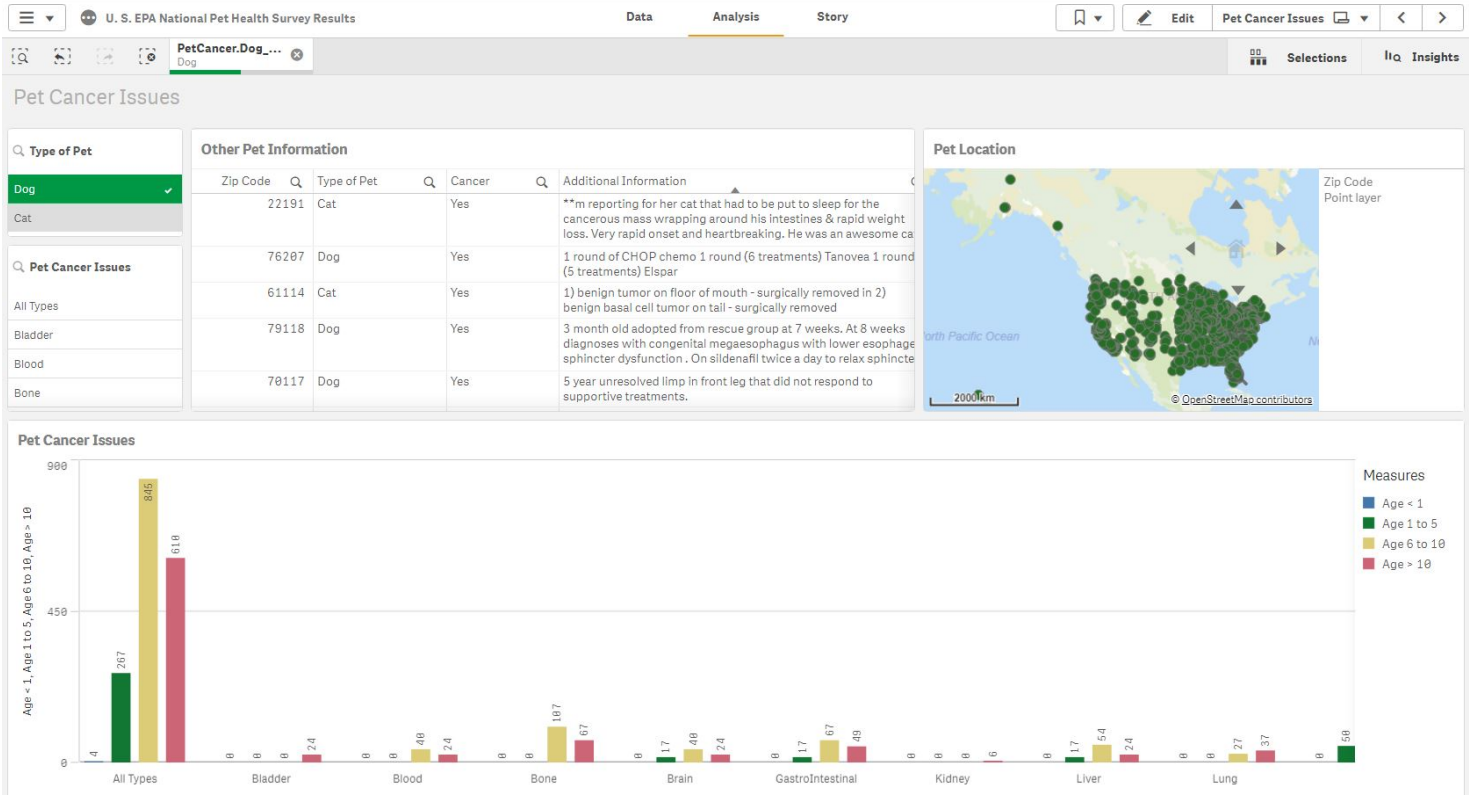
Comparison of Total Unique Pageviews and Pageviews for University Users



Analysis of National Pet Health Survey Results




U. S. EPA National Pet Health Survey ...
Selections
Insights
Percent Cancer IR Rates for Cats and Dogs
Type of Pet
Cat
Dog
Maximum % IR of Select Cancers:
34.37
% IR of Select Cancers
Skin
55.67
Lymphatic
50.49
GastroIntestinal
34.93
Bone
12.91
Blood
10.26
Brain
9.34
Mammery
6.46
Lung
6.01
Bladder
7.65
Liver
5.9

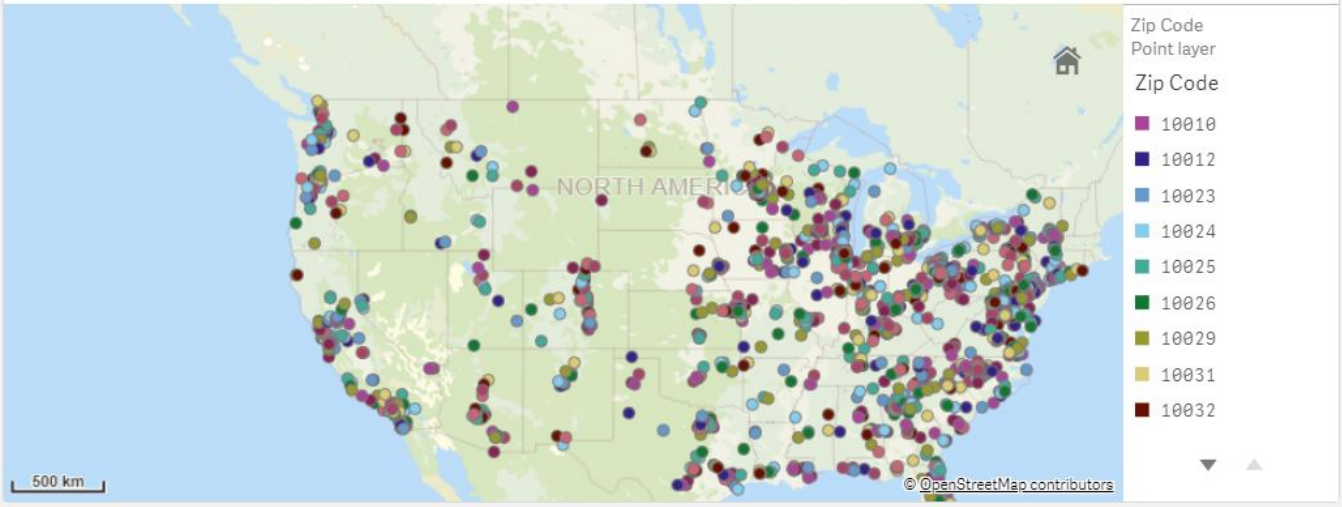

U. S. EPA National Pet Health Survey Results
Data
Analysis
Story
Edit
Pet Cancer Issues
PetCancer.Dog_...
Dog
Selections
Insights
Pet Cancer Issues
Type of Pet
Dog
Cat
Pet Cancer Issues
All Types
Bladder
Blood
Bone
Other Pet Information
Zip Code
Type of Pet
Cancer
Additional Information
22191 Cat Yes **m reporting for her cat that had to be put to sleep for the cancerous mass wrapping around his intestines & rapid weight loss. Very rapid onset and heartbreaking. He was an awesome ca
76207 Dog Yes 1 round of CHOP chemo 1 round (6 treatments) Tanovea 1 round (5 treatments) Elspar
61114 Cat Yes 1) benign tumor on floor of mouth - surgically removed in 2) benign basal cell tumor on tail - surgically removed
79118 Dog Yes 3 month old adopted from rescue group at 7 weeks. At 8 weeks diagnoses with congenital megaesophagus with lower esophage sphincter dysfunction . On sildenafil twice a day to relax sphincte
70117 Dog Yes 5 year unresolved limp in front leg that did not respond to supportive treatments.
Pet Location
Zip Code
Point layer
2000km
© OpenStreetMap contributors
Pet Cancer Issues
Age < 1, Age 1 to 5, Age 6 to 10, Age > 10
900
450
0
4
267
846
610
0
0
0
24
0
0
40
24
0
0
107
67
0
17
40
24
0
17
67
49
0
0
0
6
0
17
54
24
0
0
27
37
0
50
All Types
Bladder
Blood
Bone
Brain
GastroIntestinal
Kidney
Liver
Lung
Measures
Age < 1
Age 1 to 5
Age 6 to 10
Age > 10

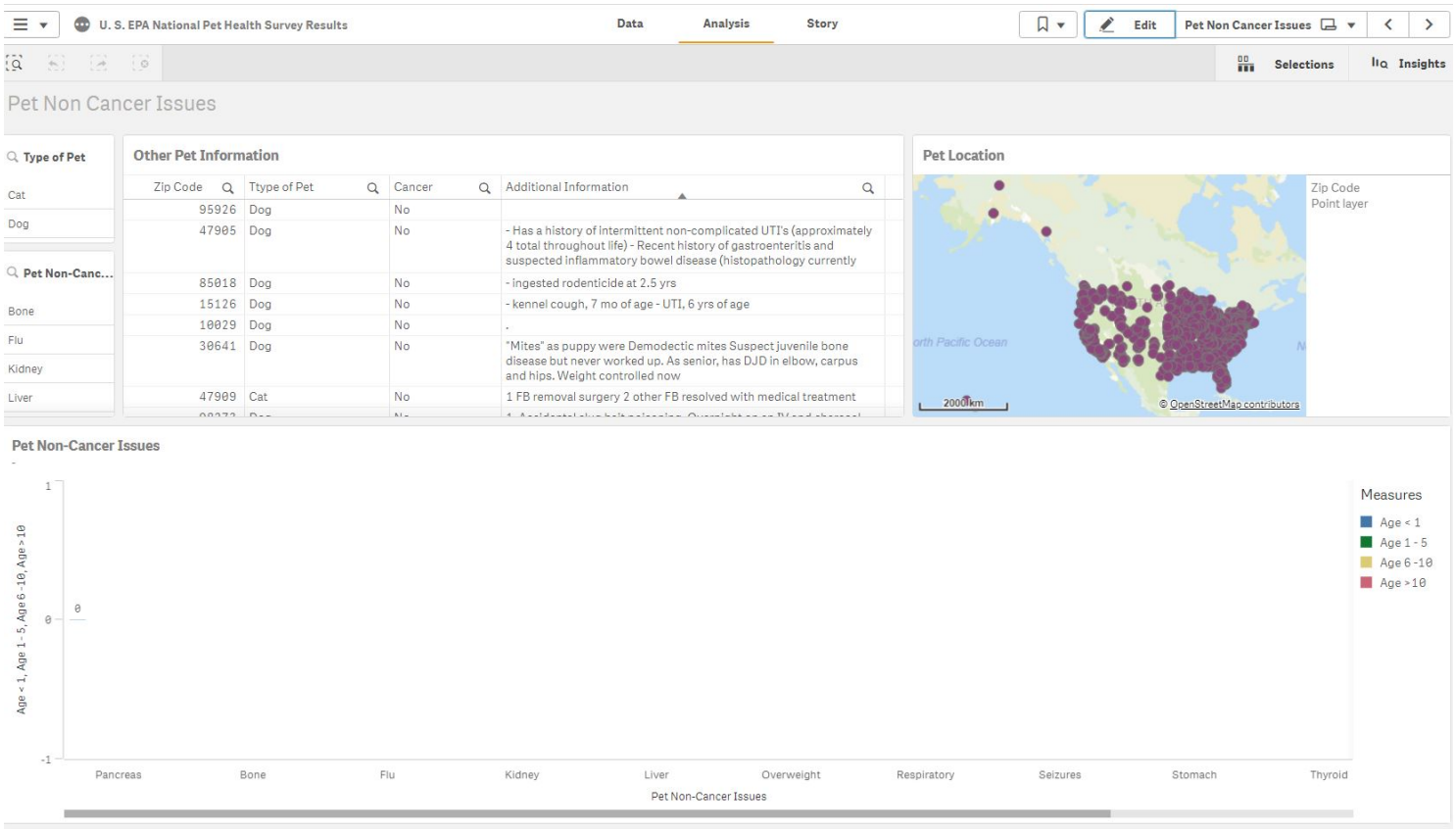
U. S. EPA National Pet Health Survey ...

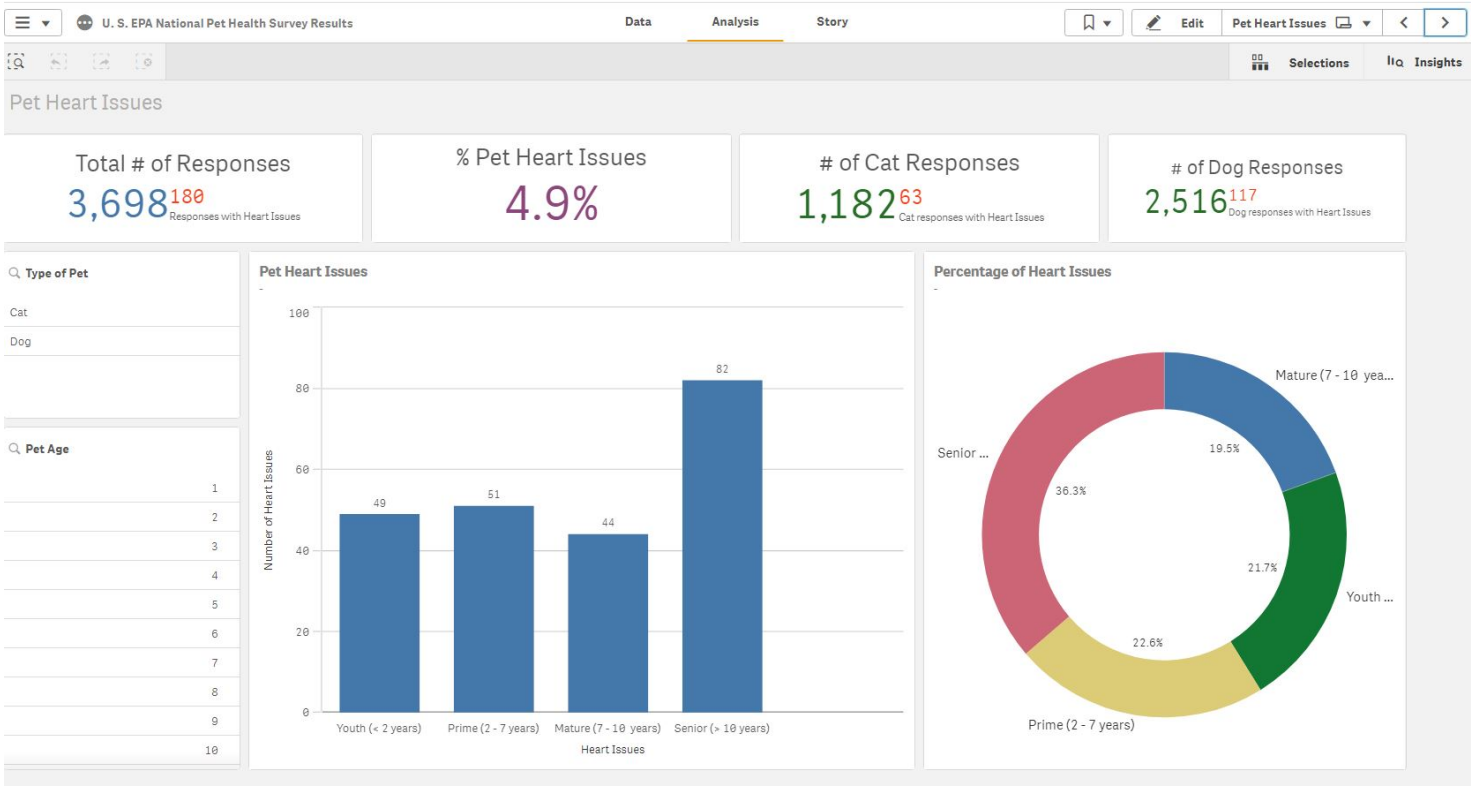
Selections Insights

Additional Pet Information and locations

Zip Code	Type of Pet	Cancer	Overweight
603	Cat	No	No
725	Dog	Yes	No
925	Cat	No	No
969	Dog	-	No
1007	Dog	No	No




U. S. EPA National Pet Health Survey Results
Data
Analysis
Story
Edit
Pet Non Cancer Issues
Selections
Insights
Pet Non Cancer Issues
Type of Pet
Cat
Dog
Pet Non-Canc...
Bone
Flu
Kidney
Liver
Other Pet Information
Zip Code
Ttype of Pet
Cancer
Additional Information
95926 Dog No
47905 Dog No - Has a history of intermittent non-complicated UTI's (approximately 4 total throughout life) - Recent history of gastroenteritis and suspected inflammatory bowel disease (histopathology currently
85018 Dog No - ingested rodenticide at 2.5 yrs
15126 Dog No - kennel cough, 7 mo of age - UTI, 6 yrs of age
10029 Dog No .
30641 Dog No "Mites" as puppy were Demodectic mites Suspect juvenile bone disease but never worked up. As senior, has DJD in elbow, carpus and hips. Weight controlled now
47909 Cat No 1 FB removal surgery 2 other FB resolved with medical treatment
Pet Location
Zip Code
Point layer
2000 km
© OpenStreetMap contributors
Pet Non-Cancer Issues
Measures
Age < 1
Age 1 - 5
Age 6 -10
Age >10
Age < 1, Age 1 - 5, Age 6 -10, Age >10
Pancreas
Bone
Flu
Kidney
Liver
Overweight
Respiratory
Seizures
Stomach
Thyroid
Pet Non-Cancer Issues


U. S. EPA National Pet Health Survey Results
Data
Analysis
Story
Edit
Pet Heart Issues
Selections
Insights
Pet Heart Issues
Total # of Responses
3,698 180 Responses with Heart Issues
% Pet Heart Issues
4.9%
# of Cat Responses
1,182 63 Cat responses with Heart Issues
# of Dog Responses
2,516 117 Dog responses with Heart Issues
Type of Pet
Cat
Dog
Pet Age
1
2
3
4
5
6
7
8
9
10
Pet Heart Issues
Number of Heart Issues
100
80
60
40
20
0
49
51
44
82
Youth (< 2 years)
Prime (2 - 7 years)
Mature (7 - 10 years)
Senior (> 10 years)
Heart Issues
Percentage of Heart Issues
Mature (7 - 10 yea...
Senior ...
Youth ...
Prime (2 - 7 years)
19.5%
36.3%
21.7%
22.6%