



2016 High Res Imagery Survey



Preliminary Response Summary on Google Imagery and Base Map Services

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Utah Statewide High Resolution Imagery License

- 2015 Acquisition for State, Regional, Local + Contractors and Formal Partners
- Google 'Candid' 6" Imagery Product
- Cloud-based WMTS/WMS Services + On Premise Use
- Funding Partners:



UTAH DEPARTMENT OF
ENVIRONMENTAL QUALITY



Trust Lands Administration
State of Utah School and Institutional Trust Lands Administration



Department of
Workforce Services



Utah Governor's Office of
Economic Development
BUSINESS • TOURISM • FILM



Utah Department of
Heritage & Arts



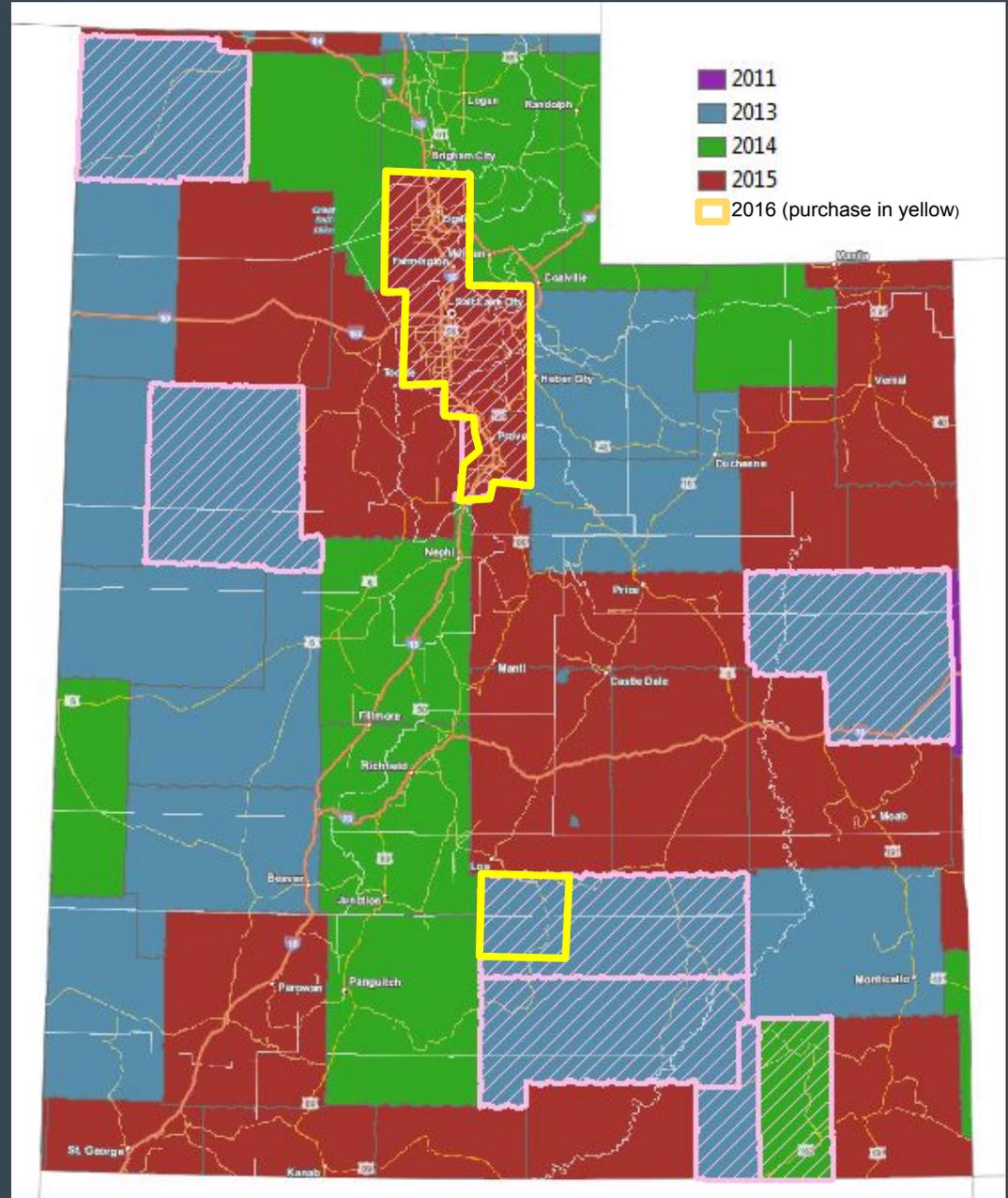
MOUNTAINLAND
ASSOCIATION OF GOVERNMENTS

Utah's Licensed Imagery: Statewide 6" RGB

2013, 2014, 2015

2016 Purchases:

- Salt Lake Block ('16)
- Torrey Block ('16)
(NW Corner - Clouds)

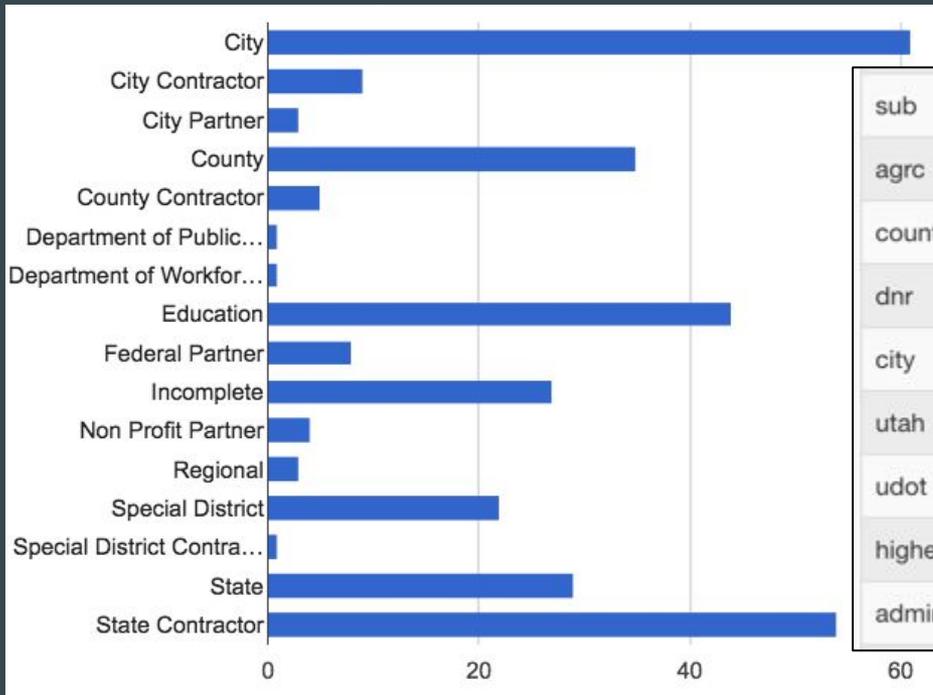


**Does desire for data sharing and transparency
require 'on the curb' anonymous transactions?**

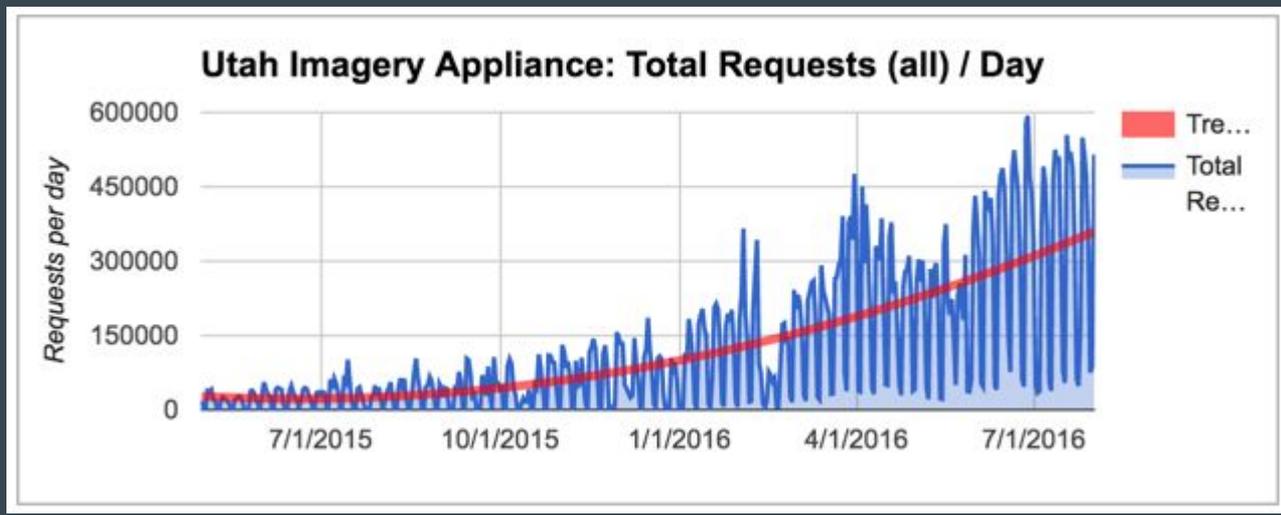
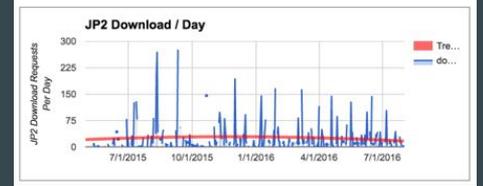
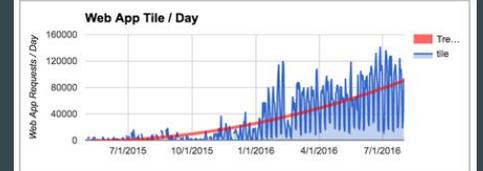
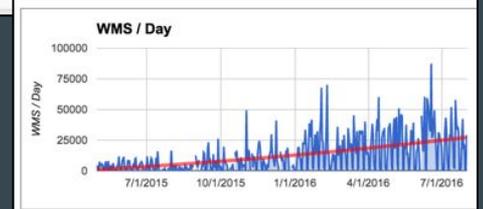
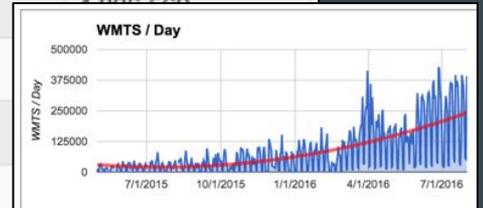


**5 Seating Positions
3.5 Square Meters of Material**

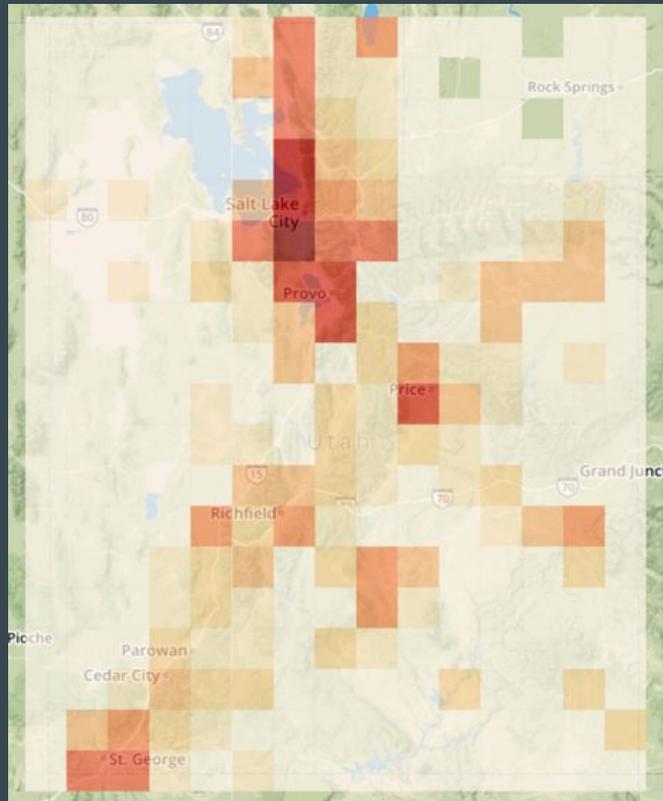
Or... Meaningful Metrics for 280+ Organizations' Use



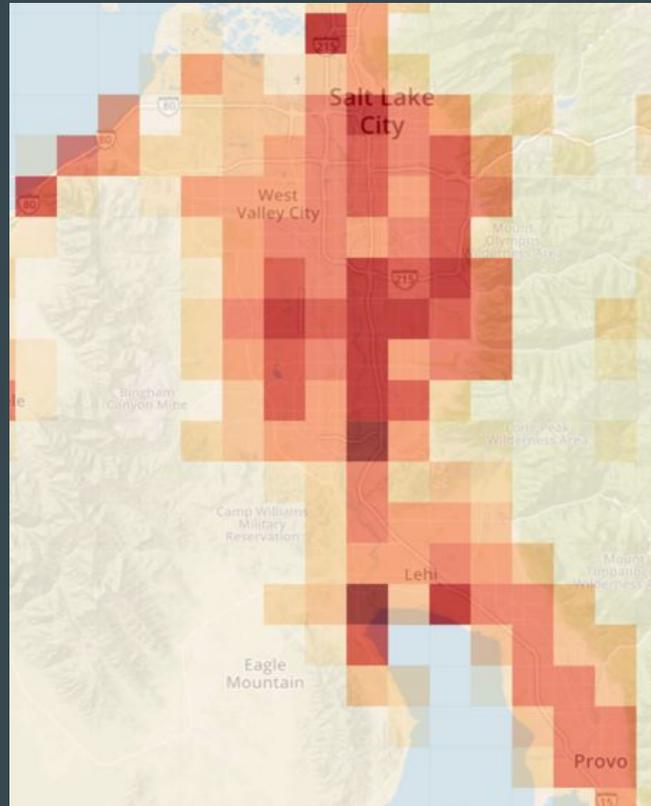
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agrc	309.97 GiB	10,308,965
county	724.63 GiB	9,203,453
dnr	353.37 GiB	8,538,389
city	1.01 TIB	7,938,594
utah	290.94 GiB	4,888,588
udot	1.23 TIB	4,888,588
higher_ed	146.17 GiB	4,888,588
admin	5.95 GiB	4,888,588



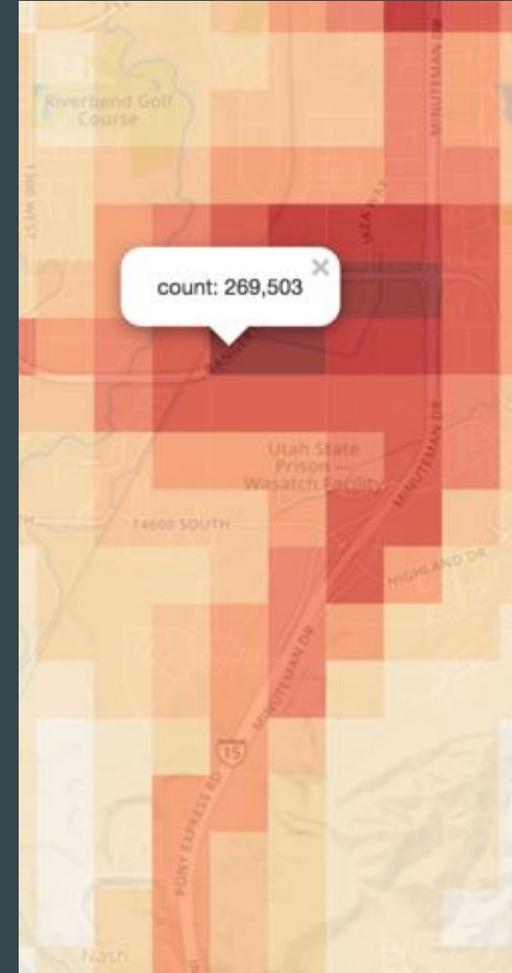
Realtime Heat Maps of Usage, By Scale, By Organization



Statewide



Regional



Local

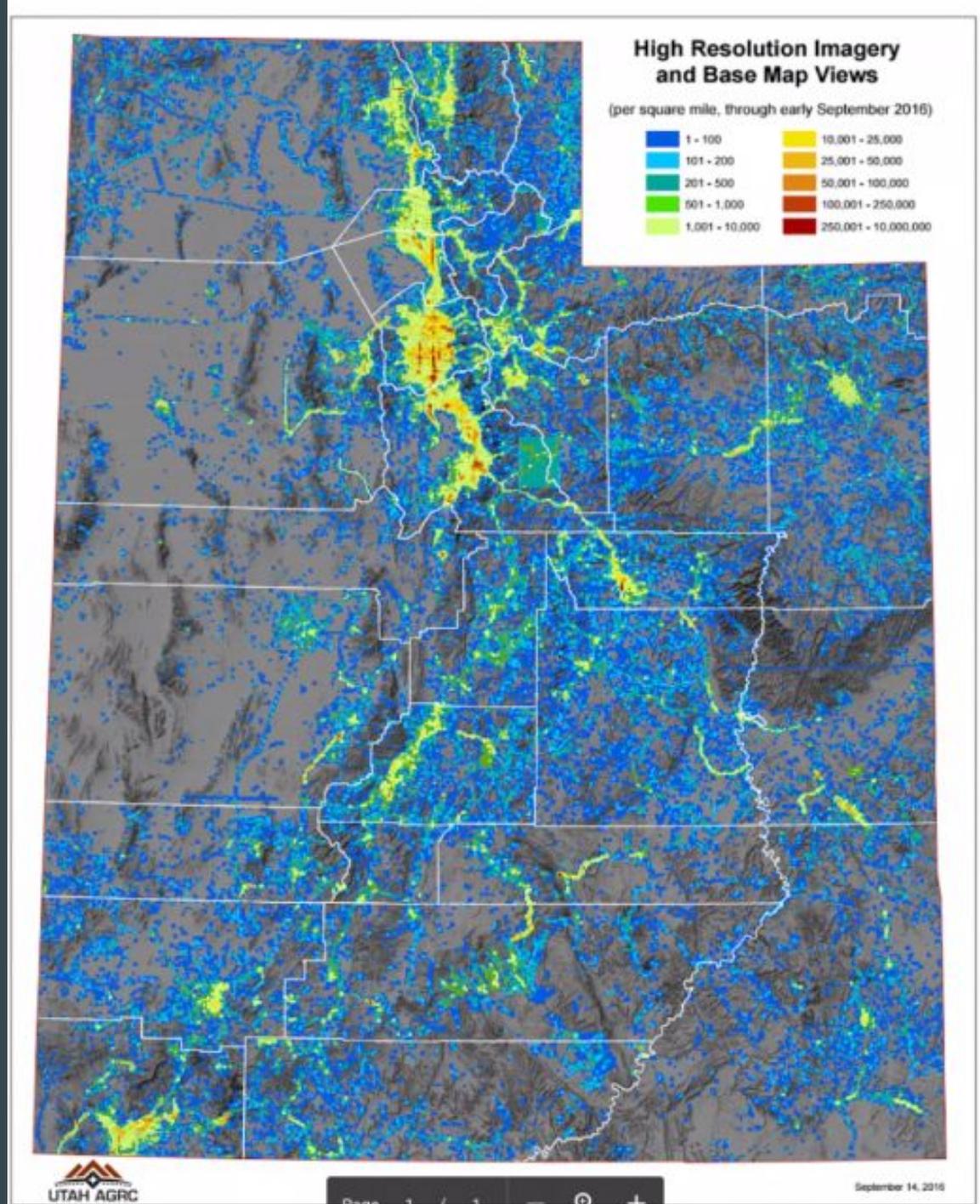
Future Acquisition Areas??

KEY QUESTIONS:

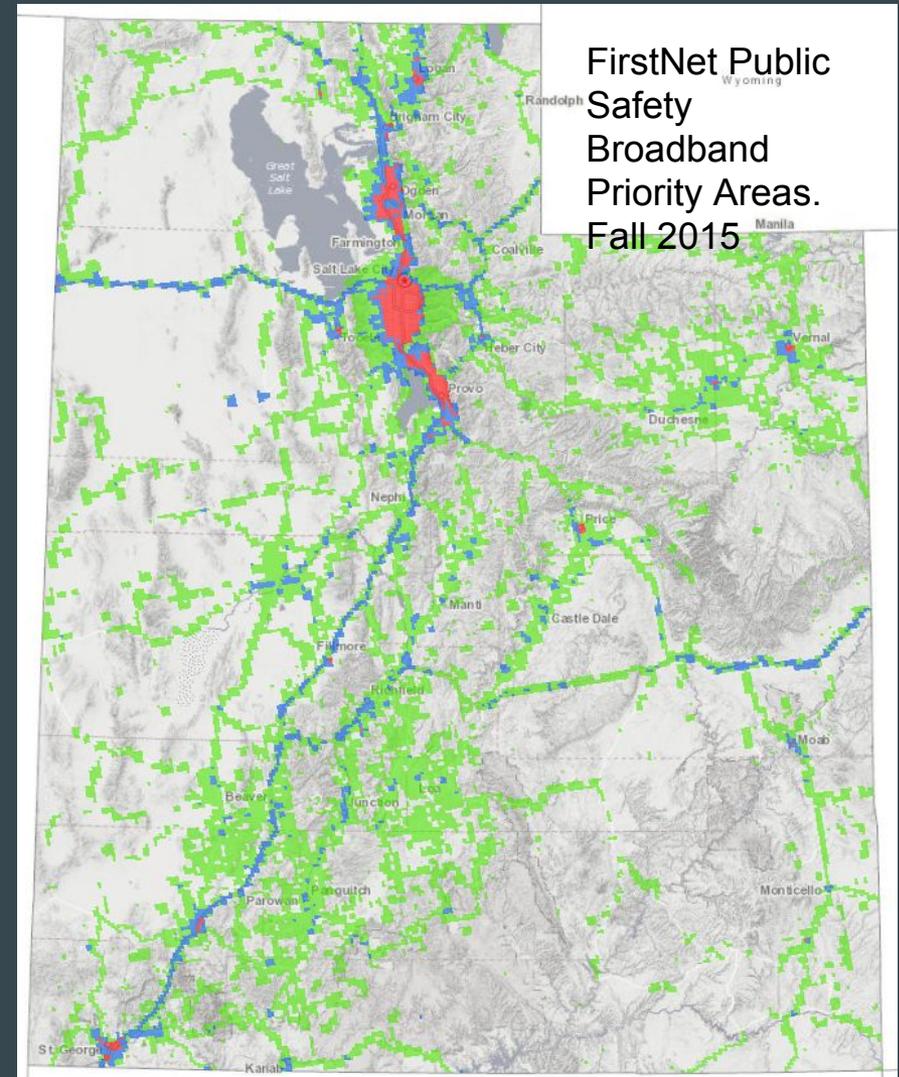
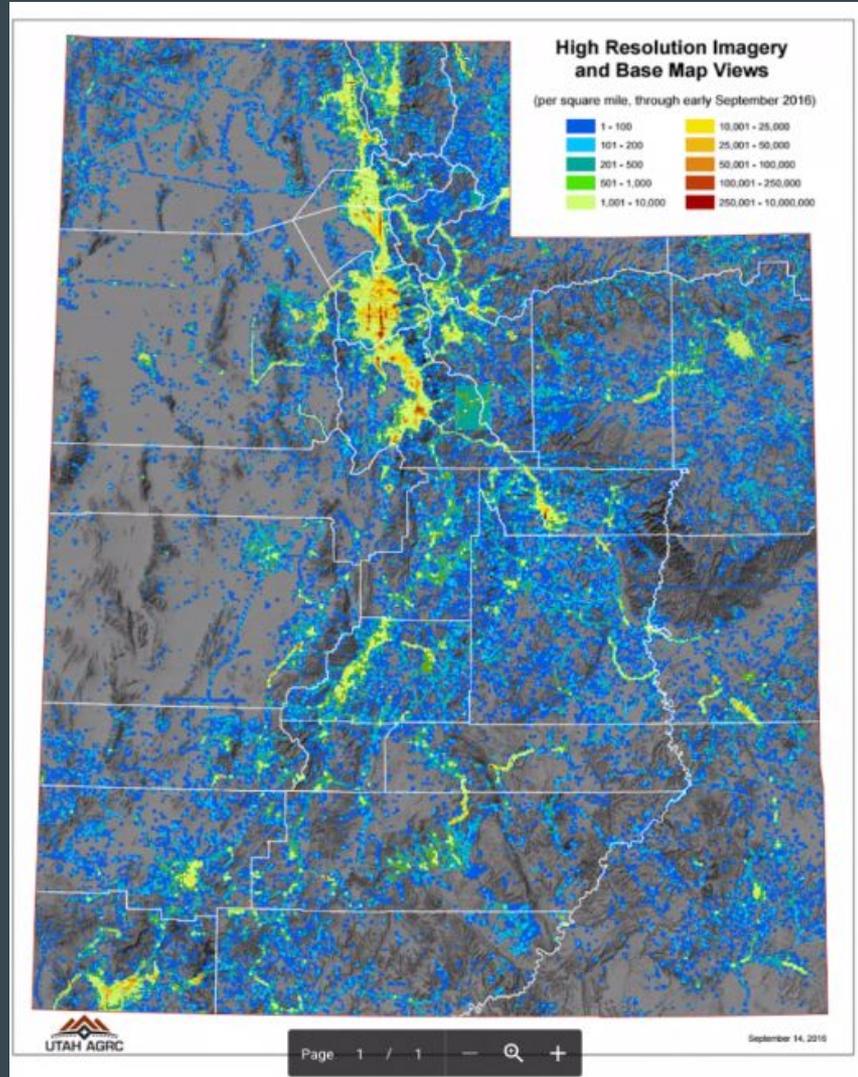
Who are the users?

How frequently is resource being used?

Where the areas of interest?



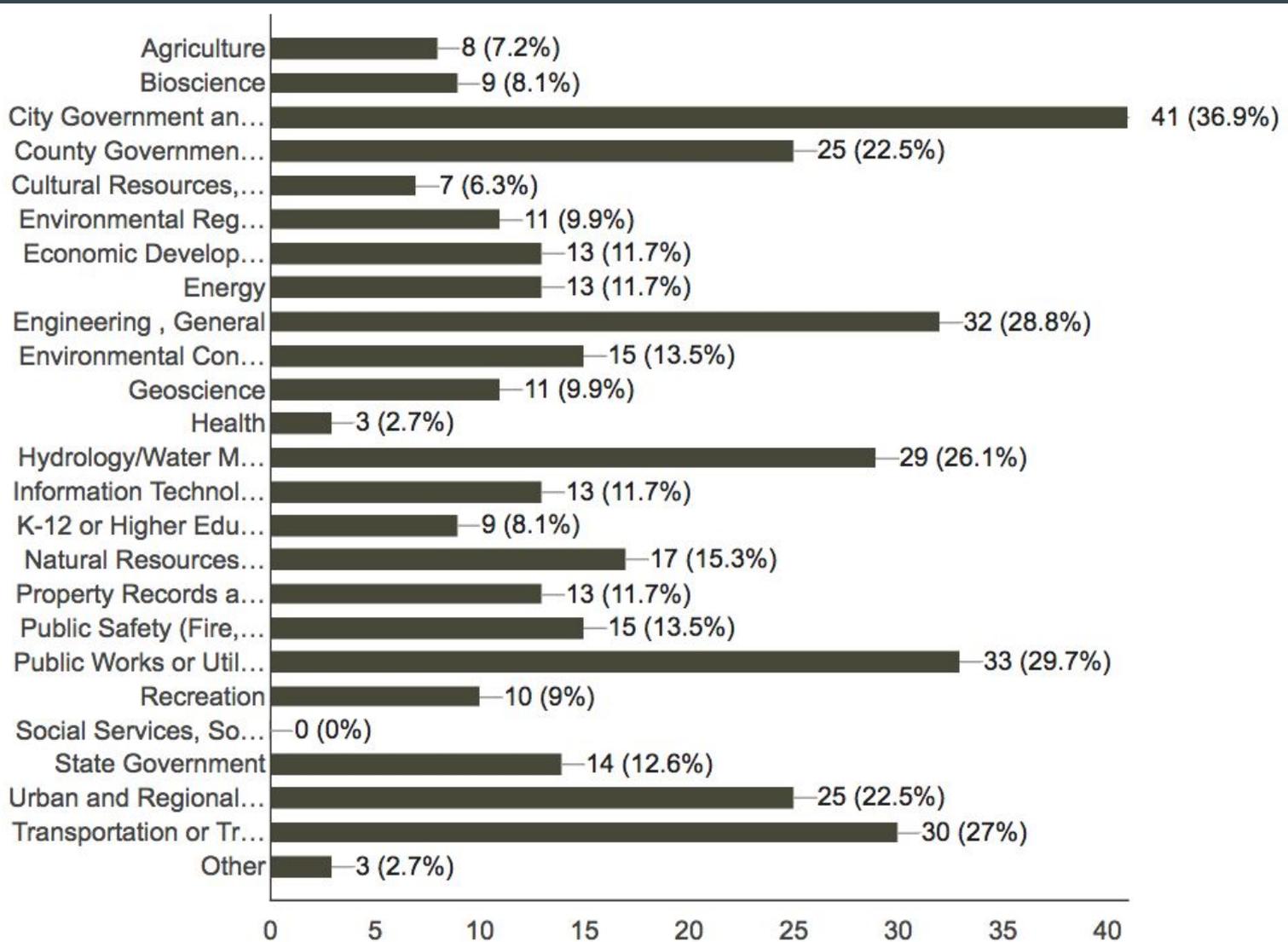
Interesting Aside? Imagery Use Correlates w/ Other Prioritization Analyses



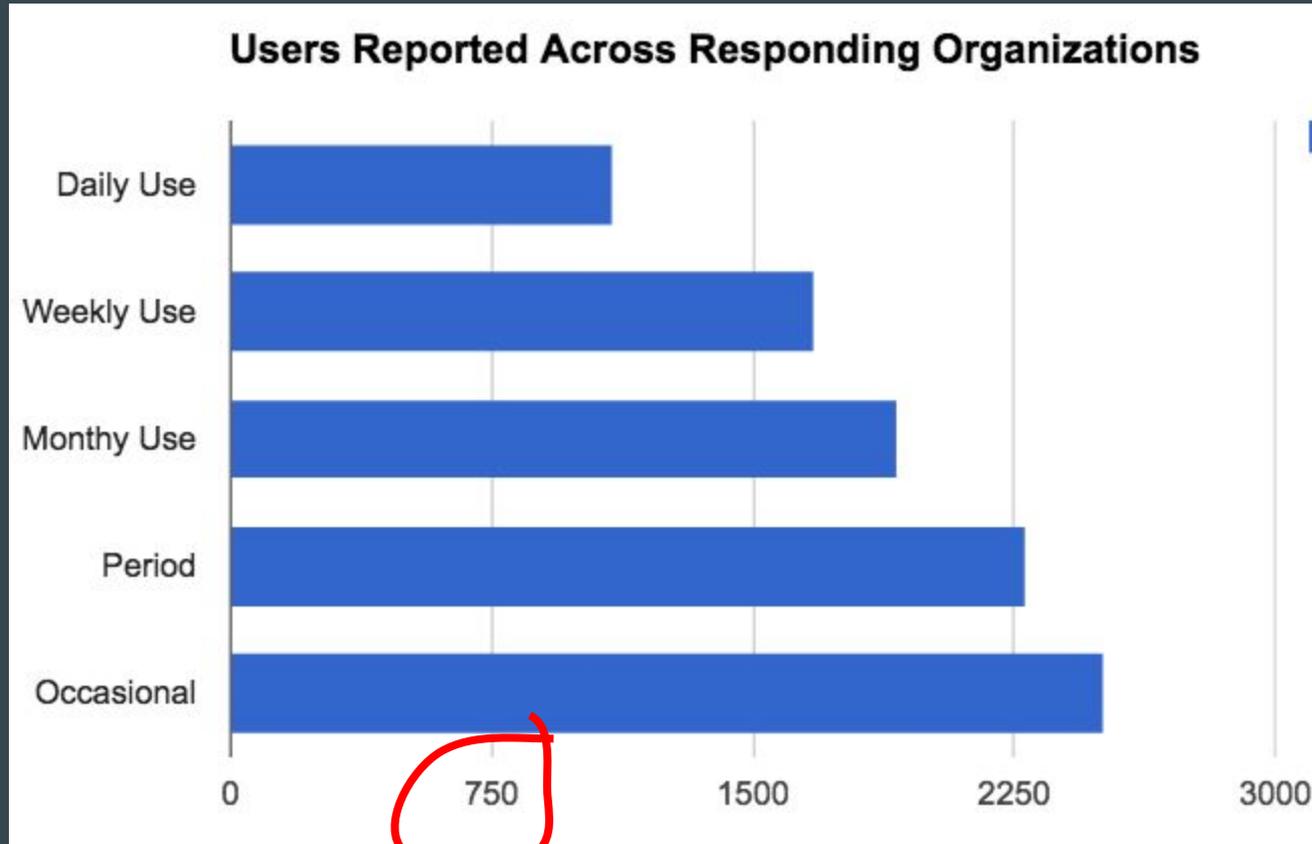
Summer 2016 Survey Respondents (N = 111 as of August 1, 2016)

Active Planning	DNR - Water Rights	Midvalley Improvement District	TransCore ITS, LLC
AECOM	Draper City	Millard County	UDOT
Allred Restoration, Inc.	Duchesne County	Mountain Regional Water District	UDOT - Traffic Operations Center
Alpine School District	Ephraim City	Mountainland AOG	Utah County
Transportation	Epic Engineering	Murray City	University of Utah
American Fork City	Far Western Anthropological Group	NRCS	University of Utah
Ames Construction Inc.	Forsgren Associates Inc	Office of the Utah State Auditor	University of Utah - Facilities
Basin Recreation	FSA APFO	Ogden City	Management
Beaver County GIS Dept.	Gerhart Cola	Parametrix (formerly InterPlan)	Utah AGRC
BIO-WEST, Inc.	Grand County	Park City Municipal Corp.	Utah Dept. of Agriculture and Food
Blue Stakes of Utah	Grand Water & Sewer Service	Preservation Documentation	Utah Dept. of Public Safety, DEM
Bowen, Collins and Associates	Agency	Resource	Utah Division of Water Quality
Box Elder County	Granger Hunter Improvement	Provo City	Utah Division of Water Resources
Brigham Young University	District	Questar Gas Company	Utah Geological Survey
Brown and Caldwell	Haskell Corporation	Salem City	Utah Housing Corporation
Cache County School District	HDR	Salt Lake City	Utah Reclamation Mitigation &
Transportation	Heber City Corp	Salt Lake City Streets Division	Conservation Commission
Canyons School District	Horrocks Engineers	Salt Lake County Surveyor's Office	Utah State University
Carbon County GIS	Iron County	San Juan County	Utah State University
Central Utah Water	Ivins City	Santaquin City	Utah Transit Authority
City of Blanding	Jones & Associates Consulting	Sandy City	Utah Wildlife Resources
City of Centerville	Engineers	SITLA	Wasatch County
City of Hurricane	Jones & DeMille Engineering	South Jordan City	Washington City
City of Moab	Juab County	South Salt Lake City	Washington County
City of Moab	Kaysville, Davis and Weber Canals	South Utah Valley Electric	Wayne County
City of Saratoga Springs	Kearns Improvement District	Southern Utah University	Weber Basin Water Dist
City of St George	Lehi City	Spanish Fork	West Jordan GIS Department
Cottonwood Heights	Meridian Engineering, Inc.	Springville City	West Valley City Admin/IT/GIS
Davis County Government	Michael Baker International	Summit County, Morgan County,	
DEQ/DERR		Morgan City	
DNR - FFSL		Sunrise Engineering Inc.	

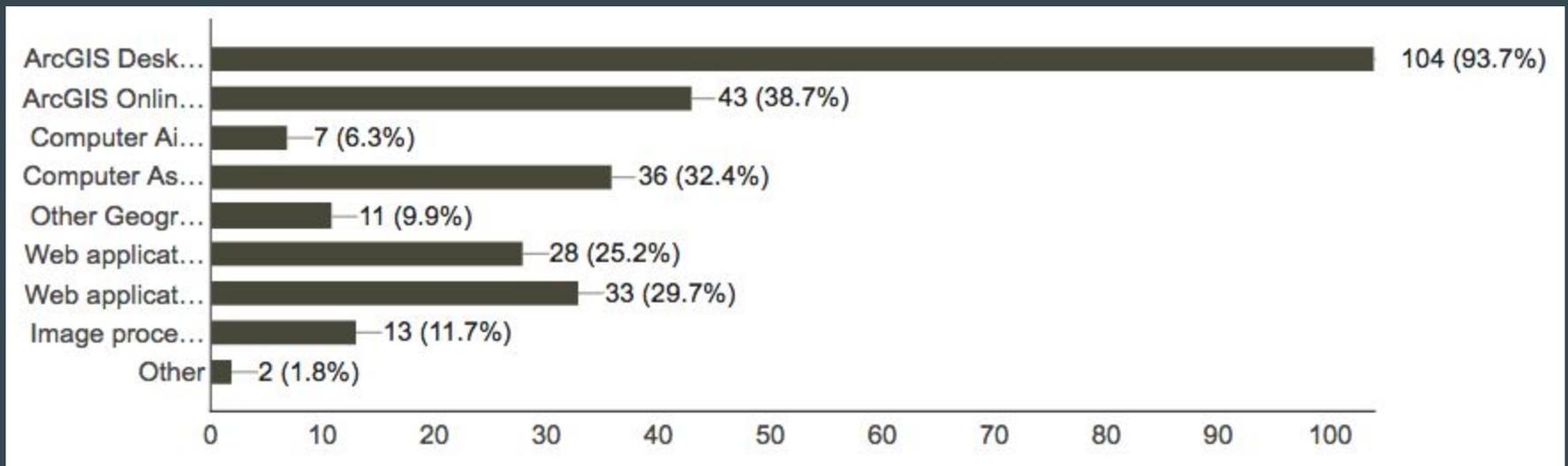
Application Sectors / Organizational Expertise



Users Reported, By Frequency of Use



Imagery Use: Platform Use (Organizations Reporting)

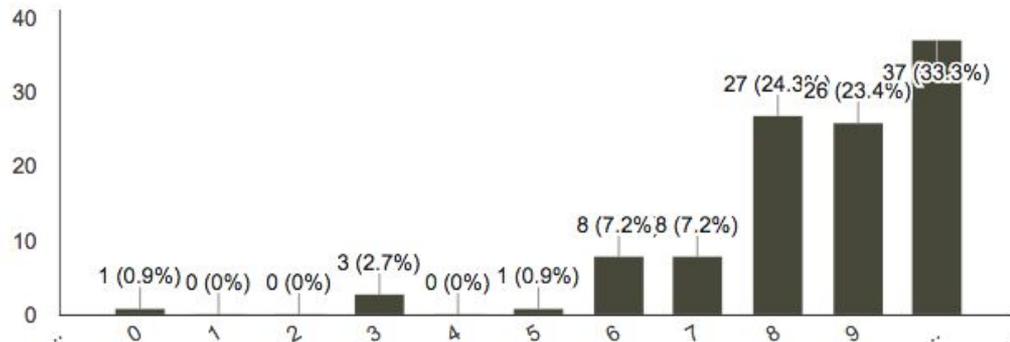


User Experience

Overall Satisfaction

On a scale of 0-10, please rate your OVERALL satisfaction with the licensed Google aerial photography and the web services that delivery it:

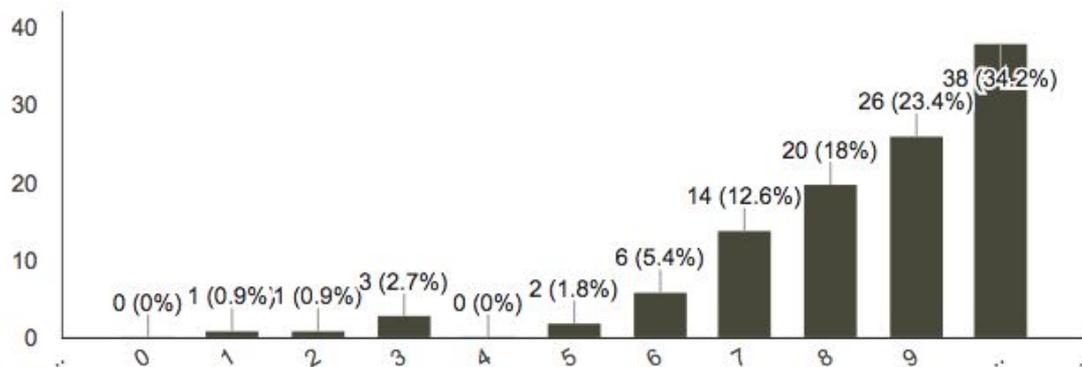
(111 responses)



Overall Value

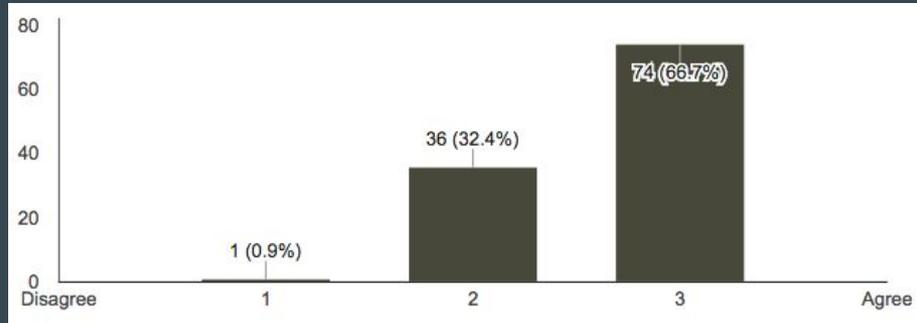
On a scale of 0-10, please rate the VALUE of the licensed Google aerial photography and the web services to your organization:

(111 responses)

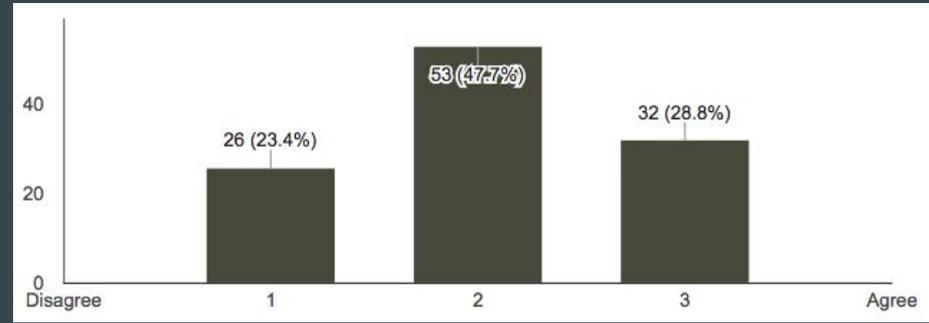


User Experience (continued)

License Terms Are Clear?



Coordinate Transformation is Clear?



Locational Accuracy (CE90 1m)?

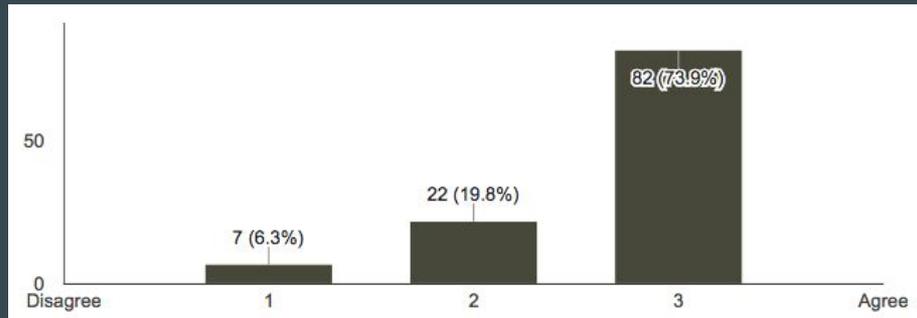
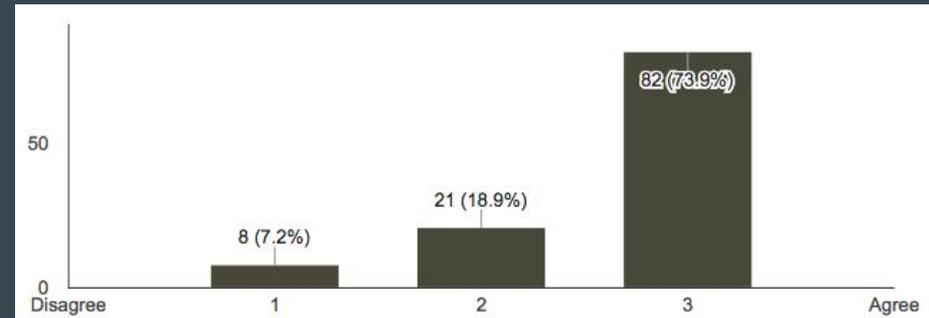
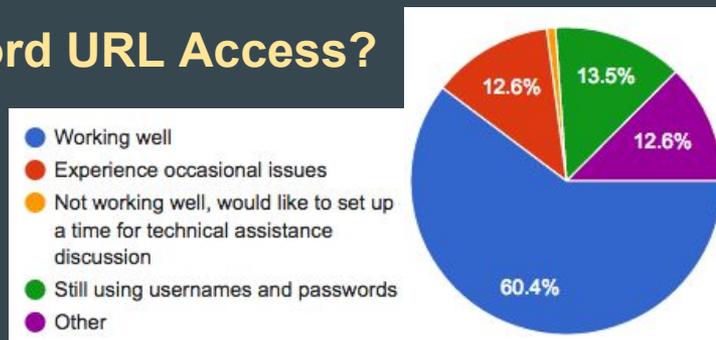


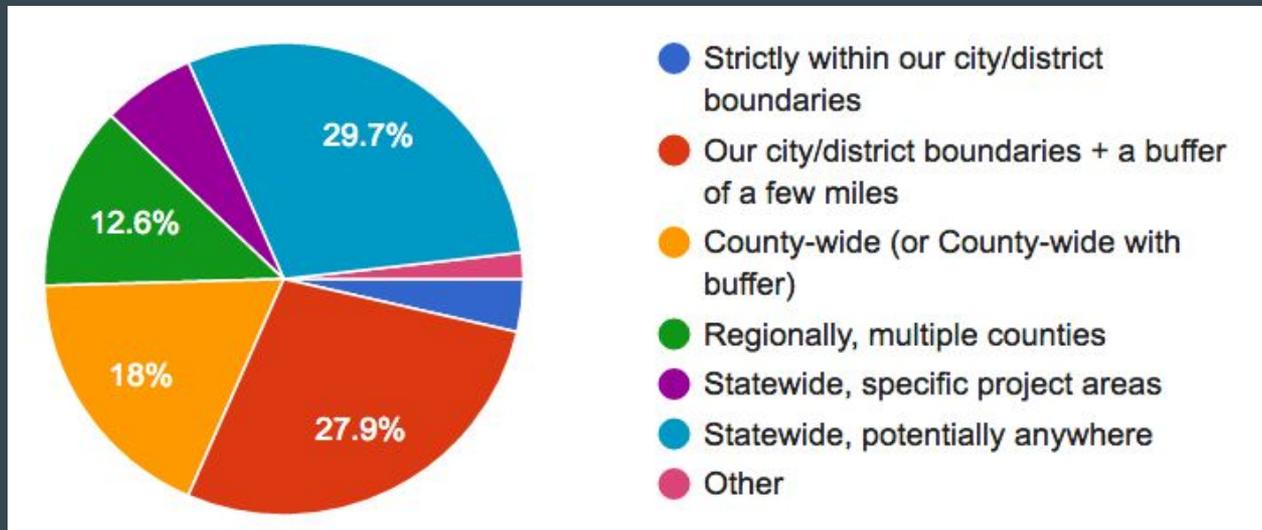
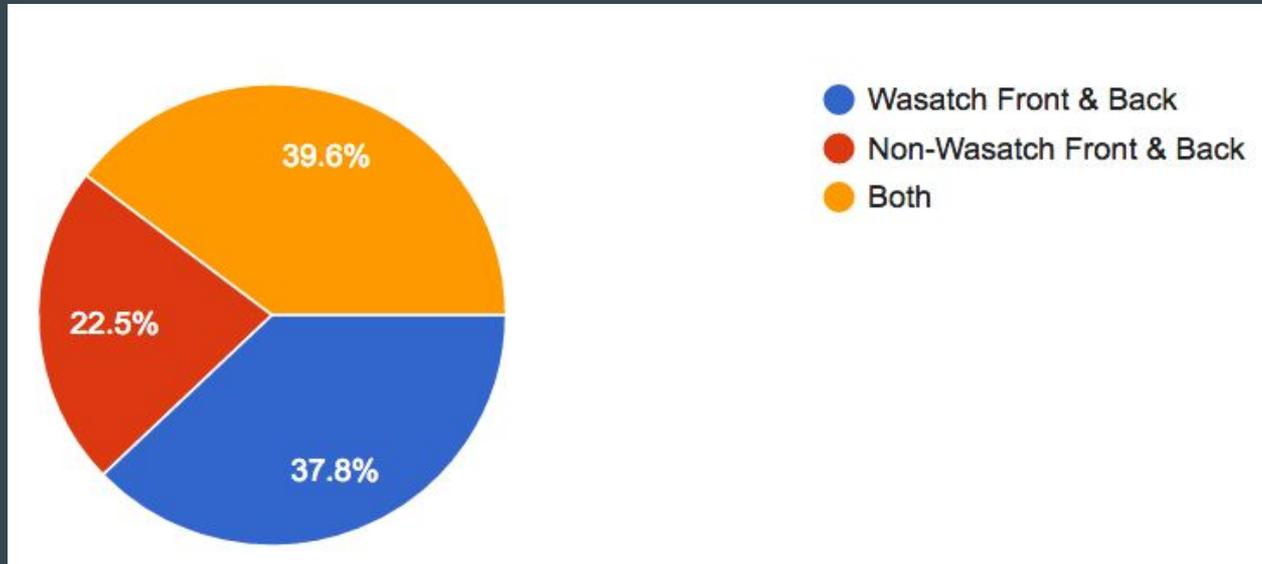
Image Quality to Expectations?



Quad Word URL Access?



Geographic Areas of Interest



Yes, contributed to initial
wide Google imagery license
(thank you!!)

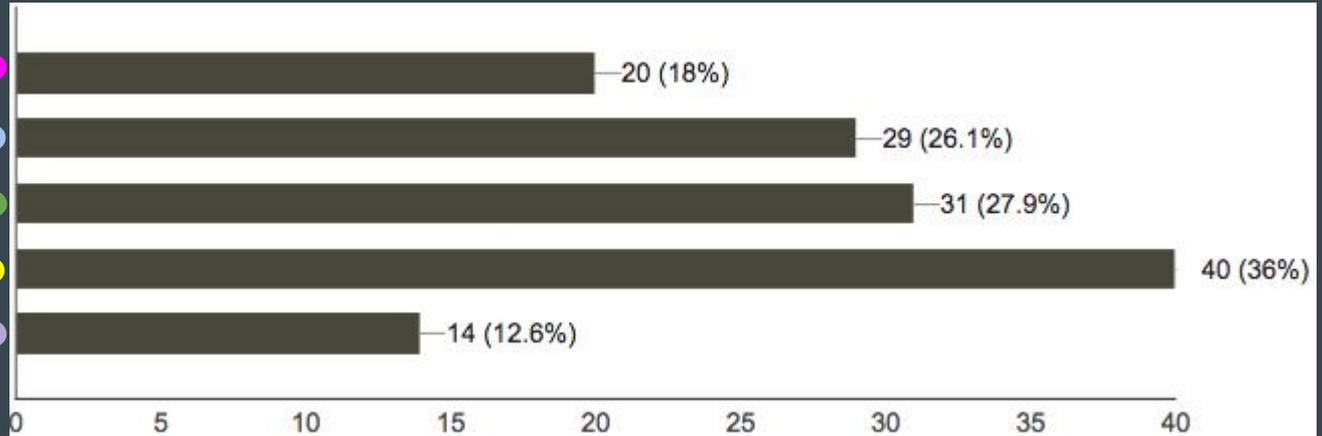
Past Participation in Imagery Acquisitions

Yes, contributed to a
multi-agency partnership
resulting in an openly
shared imagery product

Yes, funded an acquisition
or subscribed to a service
for exclusive use/resale

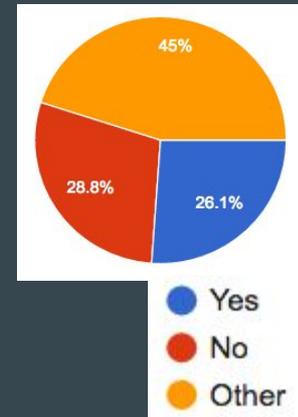
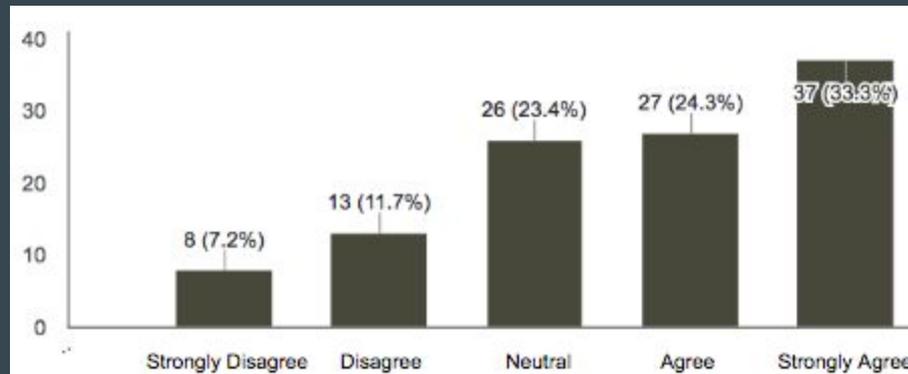
No

Don't Know

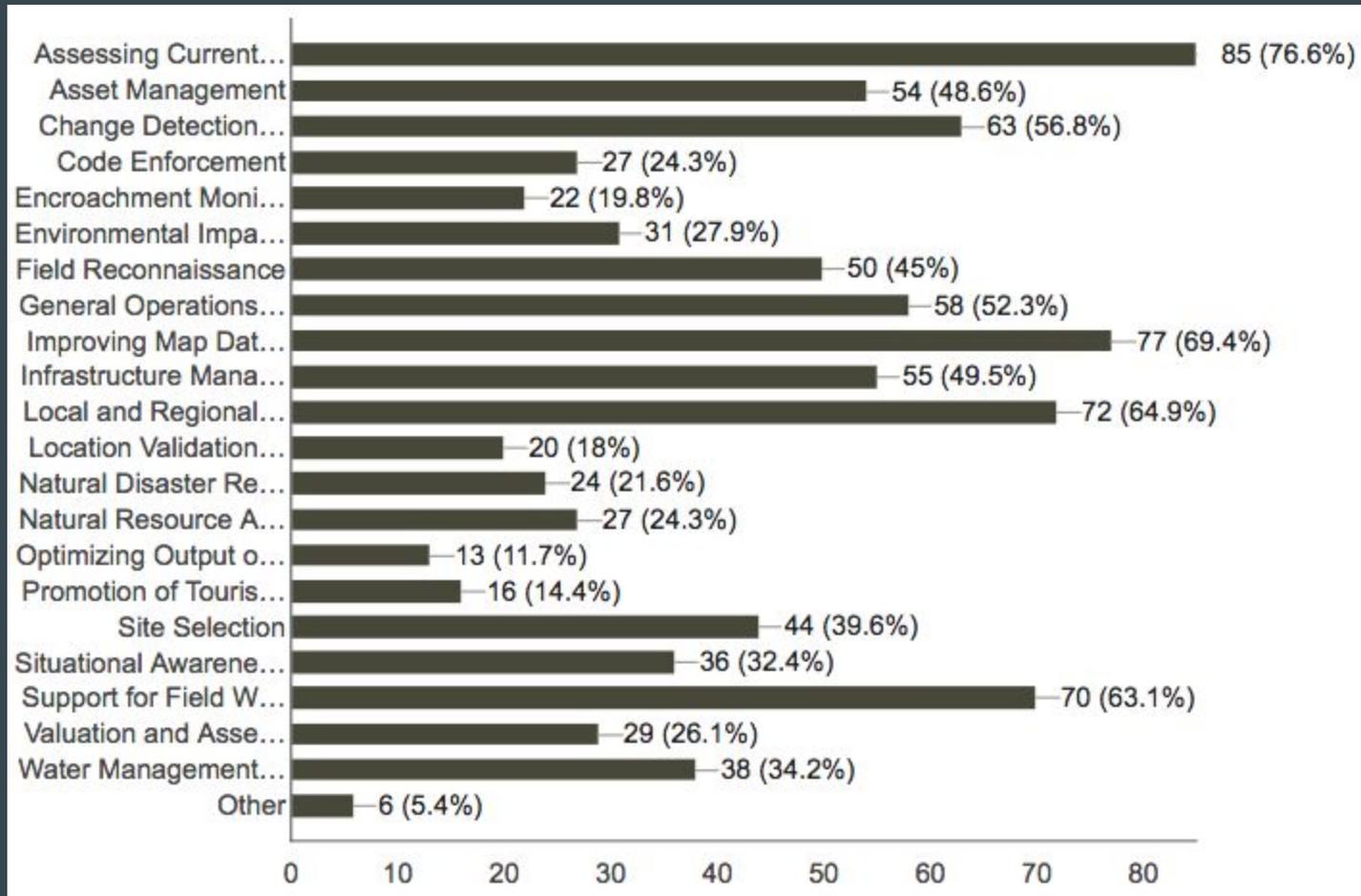


Participate in Funding Partnership for
non-settled & non-highways areas?

Google imagery eliminates or reduces additional imagery needs?

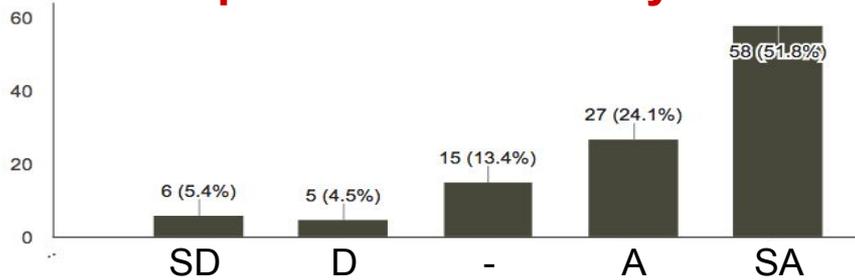


Use Cases for 6" Aerial Photography

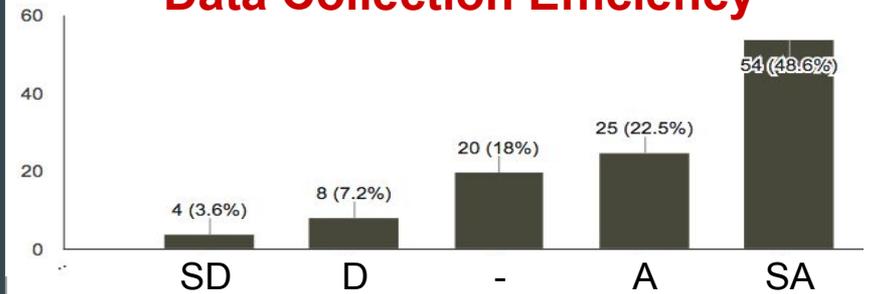


Benefits from High Resolution Imagery

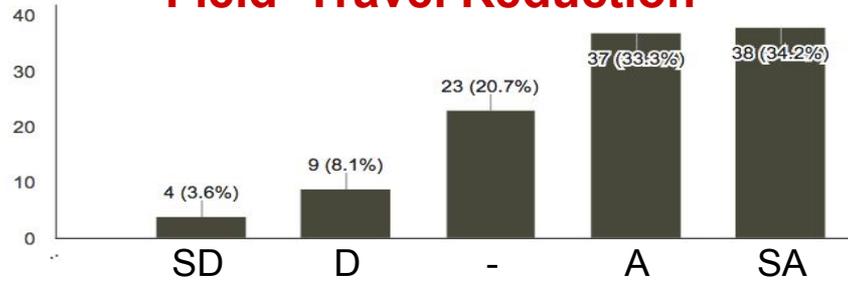
Improved Data Quality



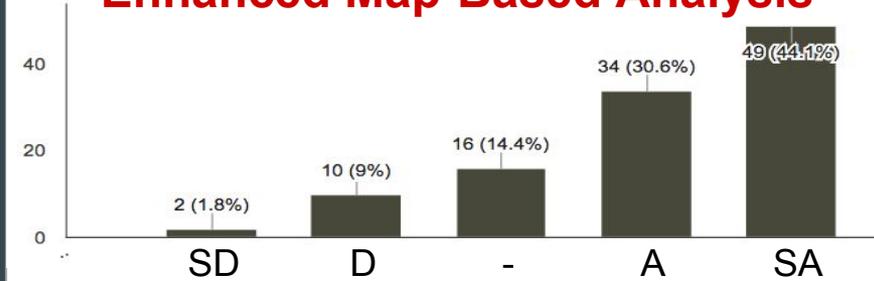
Data Collection Efficiency



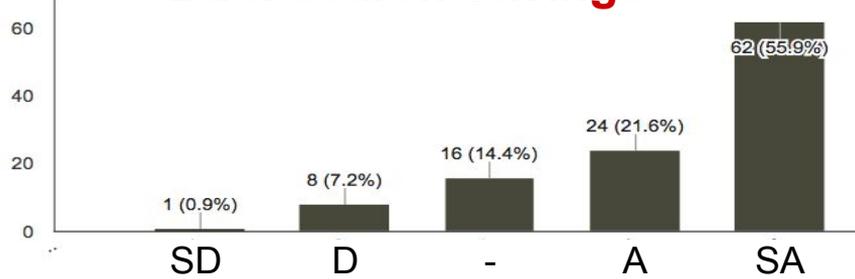
'Field' Travel Reduction



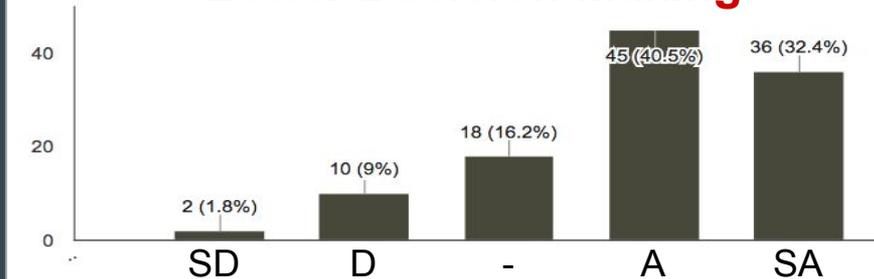
Enhanced Map-Based Analysis



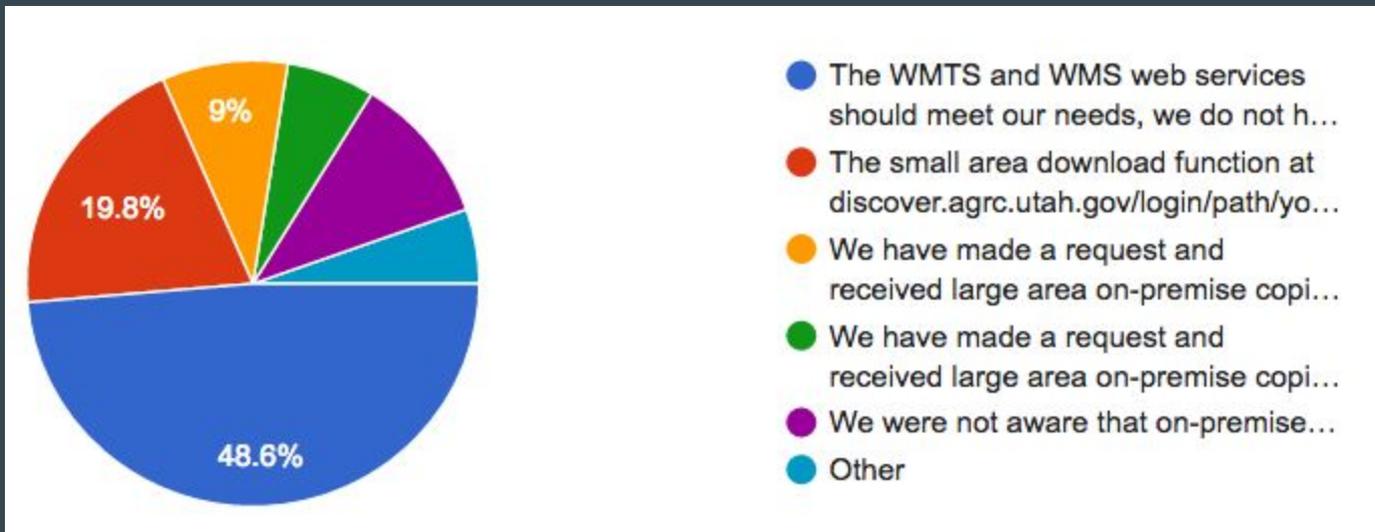
Data Search Savings



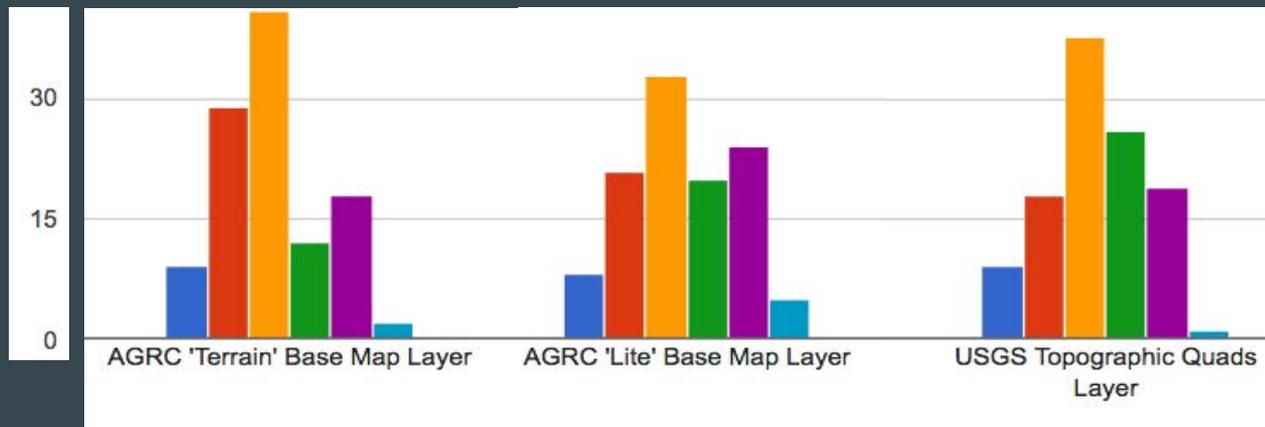
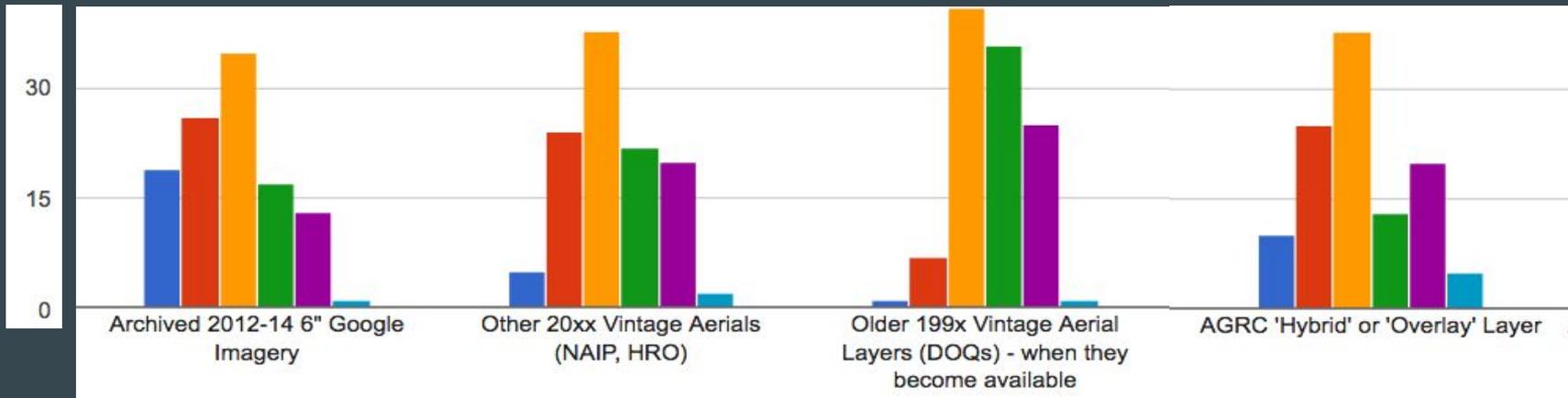
Better Decision-Making



Web Services v. Small Download v. Large Area Requests



Other Imagery and Base Map Layers



Qualitative Impacts

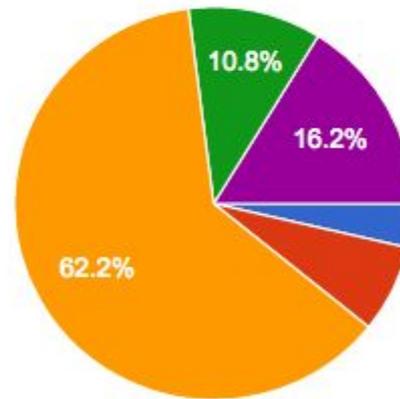
(Summary in Progress)

- Largest direct cost-savings (\$\$ and time)...samples
 - *I know we have used the data for a great deal of design work for the municipalities that we help. We have flown custom imagery before for \$30,000+ each time so just in that case alone the projects that I have augmented at least \$100,000. (Engineering Contractor)*
 - *An estimated 25 person hours each month (Small City)*
 - *\$3000 in time and fuel not having to travel from one end of the county to the other. (Rural County)*
 -
- Specific workflow improvements
 -
- Since 2015 license acquisition, has your organization purchased or planned to purchase in the future from another source
 -
- General Feedback
 -

Desired Urban Refresh Rate?

For aerial photography in URBAN (Wasatch Front) areas, your organization's general preference is best stated as:

(111 responses)

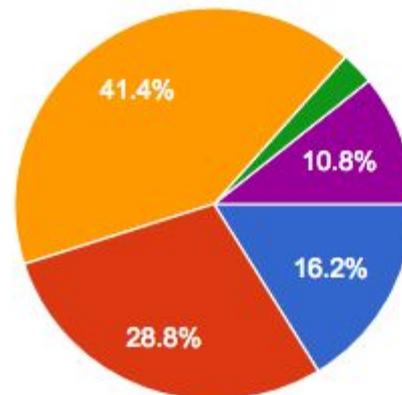


- 12-18" pixels are preferable if they can be collected much more frequently (satellite subscription)
- 12" pixel resolution are preferable if there is a significant cost or image quality
- 6" pixel resolution, annually, should continue to be the goal
- Finer resolution (less than 6"), annually, is needed and my organization...
- Other

Desired Rural Refresh Rate?

For statewide aerial photography in RURAL areas, your organization's general preference is best stated as:

(111 responses)



- 12-18" pixels are preferable if they can be collected much more frequently (satellite subscription)
- 12" pixel resolution are preferable if there is a significant cost or image quality
- 6" pixel resolution should continue to be the goal
- Finer resolution (less than 6"), annually, is needed and my organization...
- Other

Next Steps:

- Business Plan
- Where to acquire?
- How often to update?
- How to fund?
- Other Products?

