Pennsylvania Spatial Data Access

PASDA

User Input Session

Friday October 3rd, 2008

Penn Stater Conference Center

PASDA User Session

Purpose

The PASDA clearinghouse currently maintains in excess of 11 terabytes of spatial data and metadata from a broad array of data partners including the Pennsylvania Departments of Environmental Protection, Conservation and Natural Resources, Transportation, Health, and Agriculture; the Fish and Boat, Game, and the Historic and Museum Commission. Additional data providers include municipal, county, and regional governments such as: the City of Philadelphia, Chester County, Mifflin County, Lancaster County, Murrysville, Delaware Valley Regional Planning Commission, Juniata County, the Southwestern Pennsylvania Commission, SEDA-COG, Susquehanna River Basin Commission, and the Delaware River Basin Commission. In addition, PASDA provides access to data from Federal government agencies such as the U.S. Geological Survey, the Census Bureau, the Environmental Protection Agency, the Departments of Justice, Agriculture, and Commerce, NASA, and the National Weather Service. Finally, PASDA also provides access to substantial data assets of non-governmental providers including the Delaware Estuary Program, the Conservation Fund, the Western Pennsylvania Conservancy, the Natural Lands Trust, the Heritage Conservancy, the PA Breeding Bird Atlas, the GAP Analysis Program, and the Alliance for Aquatic Resources Monitoring. The combination of this data in a clearinghouse environment allows the Commonwealth to realize economies of scale, efficiency in identifying and accessing data, and a streamlined mechanism for data providers to share and offer access to their valuable data resources.

PASDA stores and manages this data in both a relational database and a traditional FTP environment that allow customization of data and remote access to data resources as well as standard FTP download. Management, maintenance, and storage of this data is one component of PASDA. The overarching purpose of the PASDA clearinghouse is to provide access to this stored data in an efficient, effective, and easy to use manner. In order to ensure that PASDA is meeting this goal, it is necessary to gather input from PASDA users and PASDA data providers and to build consensus on enhancements, functionality, and services so that PASDA performs at the highest possible level of operation.

The purposes of the user session was to acquire input from PASDA clearinghouse users, data stakeholders, and data providers that will:

- Contribute to the ongoing enhancement of the clearinghouse functions and services
- Provide clear benchmarks and goals for the clearinghouse based on verifiable user and data provider needs

- Validate existing clearinghouse services
- Foster a sense of unity and cooperation among PASDA stakeholders

Agenda and Attendees

Prior to session, invitees provided input on the GIS activities in their organizations, other organizations they collaborate with, and aspects of the GIS environment that make them successful. These are included in this report.

During the session at the Penn Stater, the topics covered ranged from website navigation and usability to data creation, sharing, and metadata.

In addition, users provided input on the services and value of the PASDA clearinghouse.

The attendees were as follows:

- 8 Local/county government representatives
- 4 Private industry/business representatives
- 4 Federal government agency representatives
- 5 Non-profit organizations
- 4 Regional government representatives
- 4 State agency/program representatives

The Value of PASDA

One of the primary goals of the effort was to gather input on the value of the PASDA clearinghouse and whether or not it has been successful, efficient, and effective. The following questions and responses address this topic:

Do you believe that having the PASDA clearinghouse has saved you or your organization time and money?

1. Yes Absolutely, without PASDA GIS would be ten times as slow and 100 times more expensive

2. Yes we check regularly for data updates and also refer many users who seek data

3. ABSOLUTELY!! PASDA is a welcomed tool for data distribution for the City of Philadelphia.

4. Yes

5. Yes it has. We often refer people to the site and have heard from people that have accessed our county data and contact us to request more data.

6. Absolutely saves time and money have a one stop shop for PA GIS Data and now it is worth more with the latest map services and news information.

7. Yes. PASDA creates opportunity for software companies such as ESRI by making data easily available and helping create demand for the use of GIS software to help users solve their problems and perform their daily work.

8. PASDA has saved my organization a tremendous amount of time. My organization also needs to find data in MD and NY and it is always very difficult to acquire data in those states. If only every state had a PASDA.

9. YES....With the cost of storage of data on the Web, and the ease of use of telling a person who calls in to check out the PASDA web site for info

10. Definitely. There's an amazing amount of data you can get for free, plus you don't have to spend the time and effort to track down the individuals that would give you the data. Also, it's great to be able to download and get what you want instantly rather than waiting on CDs, DVDs, etc.

11. Typically most Counties charge for their GIS data and you have to wait to receive the data.

12. Yes, thousands of dollars and many, many hours have been saved by our non-profit by using PASDA. We would not use GIS to the degree that we do without PASDA.

13. Yes. Try to go to other states and download or connect to spatial data at no cost to the user and you realize what a great resource PASDA is!!!! It's hard to quantify the value. We use is so much I almost take it for granted.

14. Yes, absolutely. Both for acquiring data and serving our data to the public.

15. The National Weather Service has worked with data obtained from the PASDA website, and this has saved us the time (and "time is money") of searching elsewhere for GIS data.

16. Yes! Allows quick retrieval of current data

17. Absolutely.

18. Absolutely

19. Yes. Time saved in answering requests for data directly translates to time spent maintaining core datasets.

20. Data distribution through PASDA has enabled GIS staff to focus more on data creation and maintenance; GIS user support and other activities more important to our mission

21. Yes most definitely! Our organization constantly uses PASDA and its resources daily. Not only has PASDA been a huge asset to us internally, we continually mention it to our clients and many of them use it as well.

22. Yes and it allows me to do what I should be doing at work as opposed to handling data requests.

23. I don't use PASDA on a consistent basis but when I do need it, I know I can find what I'm looking for. It usually helps me when I need it.

24. It provides a data distribution function that we would not be able to provide.

25. Yes because I was able to get deeper into your website than I had been before. I actually discovered some data that I can use when I get back to work.

26. Yes, the PASDA clearinghouse has saved our organization a great, great deal of time and money. We would receive so many requests for our data sets that it would be overwhelming. This allows us to better focus on our agency mission.

27. I want to express my thanks for the support the Commonwealth is providing to the Pennsylvania Spatial Data Access (PASDA) program. I am a resident of the Commonwealth and wholeheartedly support my tax dollars being invested in this program.Access to spatial data is essential for a broad spectrum of programs and initiatives from municipal services to environmental protection and business development. By making data readily and easily available Pennsylvania will be more able to compete with both other states and other countries. Please continue to fund PASDA.

How should PASDA best work toward adding additional data and data partners?

1.Continue with user input sessions!

2. I think once people visit PASDA and understand it usefulness, it won't be difficult to get organizations on board. However, I suppose some level of marketing is needed to simple get people to the site. Website links, e-mail newsletters (go green!!) and user group meeting should help.

3. Consider a conversation with the Counties concerning data sharing requirements

4. Find more proactive ways to promote the site functions.

5. This could be done through the website and perhaps an email.

6. I think it's important that PASDA continue to be connected to the PAGIS community to understand our needs and also participate in the national and global community to bring idea back to the Commonwealth.

7. I think PASDA is doing everything correctly. PASDA should continue along the same path and it will just keep getting bigger and better.

8. Outreach

9. Be able to express the benefits of PASDA to potential partners through newsletters, etc. Make them see the value and really want to participate.

10. Getting more Counties and their consultants to get one board,

11. PASDA has an excellent outreach program. Continue to listen to users requests of other data sources and pursue those possibilities.

12. Out and around. Good old relationship development.

13. unknown

14. Through outreach and requests to users - maybe include communication with PAMAGIC, state groups, local govts

15. Provide incentives for organizations to share information. Most of us probably realize that having PASDA host our data saves us time (=money). Some people however see revenue and value added to the data so having someone else distribute it reduces income. Change that paradigm.

16. Outreach!

17. You're doing a great job

18. I think PASDA should try to seek more local data partners like Allegheny County and DRBC. Use these as examples to try and convince other local government agencies to partner. Maybe the state could come up with a financial incentive or some other incentive to encourage others to participate.

19. Require complete metadata and updating. Keep advertising including the benefit of utilizing PASDA. Coordinate with the state GIS more since they, along with the Agencies, provide a great deal of the data.

20. Just continue to improve the site and listen to what the users want. The more you can successfully serve the users, the better your site will be.

21. Let the market decide! What data are consumers asking for? Determine that, then go after that data. Don't just collect data because people are providing it; then PASDA becomes nothing more than a backup site.

Collect the data consumers want, and focus on that data.

22. probably by holding a gis conference.

23. Perhaps combining your message with that of PAMAP.

24. Query users for digital data that they need, then search for that data and invite owners of that data to share their data, or at a minimum provide a link to their website.

What services, data, and resources do you expect should be available through PASDA in 5 years?

1. googe or ms virtual earth

2. I think that will in large part be tied to the State's data sharing policy.

3. More links to other sites, improved metadata and just more data.

4. More of the same, with functional use tweaks.

5. Updated base layers and most recent imagery and metadata. At some point it may be possible to connect with neighboring states for data sharing.

6. In five years all data available on pasda should be a series of well documented loosely coupled webservices that can be consumed by any application - geocentric or non geocentric - that understands webservices. Actually come on we need that now:)

7. PASDA is so far above and beyond any other GIS clearinghouse in my opinion. If PASDA stayed the same it would still be great. Maybe helping bordering states to achieve the same functionality in their clearinghouses would be a great help.

8. The ability to clip and connect LIDAR

9. Utilities information.

And the Stormwater infrastructure data that is currently being mapped by various municipalities throughout Pennsylvania for renewal of NPDES permits.

10. ALL data!!

11. More data easily and clearly accessible

12. More and better roads layers

An "Imagery Viewer" application for vector data.

13. Even better geography of base maps as a result of updates using PAMAP imagery & elevation. A state-wide layer of local roads that one can geocode to. Perhaps a batch geocoding tool where a user can upload address data and be provided with a table of X & Y coordinates - would be useful in business applications

14. Virtual Pennsylvania (hologram GIS)

Statewide Roads, Parcels

Online consumable web services.

15. Dynamic KML, automatic metadata harvesting, direct data replication from partners, more frisbees:)

16. Display of feature attributes in Google Earth services

17. I think it will be important for local data to be shared as well as developing more accurate statewide up to date planimetric data.

18. Cached map services. Better online mapping tools - the existing apps are good but recent advances in technology could make them even better.

19. I would expect that more and more data is going to be available online through downloads or through web services.

20. 24/7/365 services (5 9's availability for all services)

Much more reliance on services than download.

PASDA will be integrated into Pennsylvania's SDI rather than being a standalone component of it.

21. Support for google earth files...like kmz, etc

22. Parcels

Geospatial data clearinghouses, throughout the world, are considered Spatial Data Infrastructures. A "Spatial Data Infrastructure (SDI)" has been defined as being "fundamentally about facilitation of the exchange and sharing of spatial data from different levels in the spatial data community" and as "providing an environment within which organizations interact with technologies…They allow the sharing of data….and are seen as basic infrastructure, which supports sustainable development, economic development, and environmental management."

PASDA has been the SDI and the node on our national SDI (NSDI) since 1996. Has PASDA met the goals of the SDI as described above? Please explain.

1. Yes, it is the one place to go in PA to look for geospatial data.

2. I am not aware of any other centralized PA Spatial Data Infrastructure, so I think PASDA has fulfilled a need that is has not existed anywhere else in the state. This is good and should continue.

3. Yes, I believe it has.

4. I can't think of any way that you could do this any better. Just slight improvements on all the things you're currently doing.

5. I believe PASDA has met the goals of the SDI. Areas where it seems to have fallen short would be in those counties or regions of the state where developers of data are unwilling to share data.

6. Yes. What do we need to explain? Again Yes...

7. Yes, over and above.

8. YES

9. I can't say because I've only been in the field for one year. Generally, it meets my needs. It's a good site and the "customer service" has been pretty good.

10. Yes

11. PASDA is an easy to use web site that provides terabytes of information to the public for free. The fact that the data is free is the #1 method to disseminate the data to as many users as possible. Without PASDA, our organization would not be able to use GIS to the degree that we do.

12. Tough question. A simplistic understanding of spatial data infrastructure would suggest YES!

13. Yes, PASDA is the primary go-to source for GIS data in Pennsylvania and, especially with the new design of the site, has fulfilled this mission admirably.

14. The wealth of spatial data provided by PASDA fulfills the goal of "facilitation of the exchange and sharing of spatial data from different levels..." requirement.

Also, by getting groups together for session such as this one, PASDA is facilitating the opportunity for organizations to interact and share information and data.

15. Yes - PASDA continues to evolve and gets better each year. The applications are a great enhancement

16. Yes. Not really sure how to explain. You share information as the mission statement calls for.

17. Yes

18. Yes. PASDA has a history of providing cutting edge leadership in data sharing. I would say that PASDA is the standard for other states to follow in terms of the inward focus to creating data sharing in PA and outward focus to provide data access to other states and the federal gov't.

19. PASDA fulfills all of the functions as described

20. I think PASDA has done an excellent job serving as PA's SDI. There is a wealth of geospatial data and information available on the website.

21. Yes - first, no one else is doing it including the Commonwealth government. Next, you are meeting all the goals of an SDI, especially now with the development of Map Services as well as online apps.

22. Yes, most definitely.

23. PASDA is NOT the SDI for Pennsylvania!

PASDA is part of the SDI. It serves a specific function of the SDI relating to data discovery and distribution. It is not part of data production, it is not part of data policies, and it is certainly not part of SDI financing.

PASDA has met the goals of an NSDI clearinghouse node.

24. Yes because you host data from several agencies...however you need to get all these agencies together every once in a while...networking is crucial to information sharing.

25. Yes, in my opinion PASDA has met the goals.

26. Yes!

Please comment on the following vision statement:

"Pennsylvania Spatial Data Access (PASDA) is a comprehensive Spatial Data Infrastructure and digital library providing free, universal access to geospatial data and information by, for, and about the Commonwealth of Pennsylvania. Collaboration, cooperation, continuity, active engagement, and free access are the keystones of PASDA, which will continue to develop data access resources and innovative tools to enhance the use and benefits of geospatial data to the citizens of the Commonwealth."

1. Sounds about right overall, although when you say for, and about the Commonwealth of PA, my first thought is that it is geared for the state. Could remove Commonwealth of.

2. Sounds great to me.

3. You go!

4. The vision statement is to the point.

5. Does a good job at covering the "what" and "why" components of a mission statement. Does go far enough on the "how" - so how do you accomplish this? Also doesn't go far enough on the measurement component. How do you measure if you are actually satisfying your mission? # of hits per month, calls, accuracy of data etc. This is important when administrators ask you to justify why PASDA should continue to be funded.

6. I think that vision is a reality. It is a great data resource and is definitely the underlying backbone to GIS use in Pennsylvania.

7. Agree

8. As said previously, free access to data allows the most number of users. PASDA has developed tools that benefit both techies (Data Cart) and the general public (open data in Google Earth).

9. May "to the citizens of the Commonwealth and beyond"

It's Pennsylvania data but it has value to people outside of Pennsylvania too

10. Sounds about right to me. Appropriate use of the word "keystones"--nice Pennsylvania reference.

11. I think this is an excellent vision statement.

12. A good mission statement - stick with it

13. Looks great!

14. Pasda lives up to its mission statement

15. PASDA is THE leader in data sharing in PA and continues to fulfill their vision.

16. Describes PASDA well

17. I believe you definitely meet or exceed your vision statement. Keep up the good work.

18. That about covers it.

19. That's a vision statement that is being fulfilled. The fact that people can get free data of all kinds is one of the keys to success with PASDA.

20. Remove "Spatial Data Infrastructure and" and the vision statement is good. Keep it in and it highlights lack of knowledge about what SDI is.

21. I believe this is true from navigating and using your web site. The free access part is the best thing about your site. Keep up the good work

22. Sounds great!

23. Sounds good!

There are many external resources, applications, and services in the Commonwealth and beyond developed through other sources. What is the best way for PASDA to recognize and share these resources?

1. We need a GIS portfolio and the ability to keep it maintained and up to date.

2. Greater outreach effort. Overall the State is lacking in coordinating and being aware of what is going on throughout the State.

I think this is directly related to the lack of vehicle to GIS professionals to meet and discuss topical events. PAMAGIC fall short in its ability to reach out to a larger audience.

3. I suppose through user group meeting, but I think a soft of suggestion or comment box off the PASDA site would be good as well.

4. Continue what you are doing. Continue the work of data standards the PAMagic started, these standards are now needed for the ETL tools that regional agencies are developing to share their data across county boundaries.

5. I suppose through links on the website like your news area and related links section.

6. ESRI has started to move toward a resource center concept that collects information around a specific topic such as "geoprocessing" or a specific industry such as "water". Maybe consider this type of organization so that users can search for data however users could also begin to search by domain and then link to other resources.

7. I think PASDA should recognize them in the links, spotlight section now and then, and in the news section when applicable.

8. User Input session like this one allows for recognition and sharing of knowledge among many agancies

9. It would be nice if there were more links to

PA one Call if there was a better way to locate ultility information for preliminaty design on projects.

Also if possble to get a link to published Act 537 mapping produces for studies. To see what areas have sanitary sewer services and what areas are in need or have been flagged with having failed systems.

10. Assimiliate ALL data and take over the world!

Provide access through PASDA as resources allow and provide links to these other sources for everything else.

11. build relationships with these sources and either get their data on pasda, or work cooperatively with them to provide web services through pasda -- i.e. pasda acts in those cases, like a portal to other "connectable" data sets.

12. More Related Links?

13. Perhaps these additional resources and services can be added to the 'Related Links' section on the PASDA website.

14. perhaps under a "what's new" section, or to allow users to suggest items from other areas, or an open-ended forum for posting info or ideas

15. Blog?

16. on-line links

17. Not sure what you are refering to here but maybe some examples would have helped.

18. Spotlight on home page, list them in a categorized list. Periodic email blasts?

19. Use what's available and what people want. Also, support cooperation and sharing.

20. Online services catalog

21. provide links and information about those sites on your page

22. Provide links on your site. Your new home page is wonderful, perhaps things like this could be placed on the home page for a while.

Outreach & User Support

Should PASDA continue to work with local and regional governments and nonprofit / academic institutions (as well as state agencies) to further develop the state data inventory through the creation of metadata?

- yes. we need pasda to create metadata to fill the gaps
- yes, that should be the primary role.
- Although no one likes to create and maintain metadata, including myself, I think it's valuable enough to use as a mechanism for further developing the state data inventory.
- Yes
- Yes, assist through data standards
- Yes
- Yes
- Definitely, it is crucial to good GIS work.
- Yes
- Yes. It's a win win.
- Yes it would be great if more counties would publish their data on the website.

  Greene County has some great GIS data available in MapInfo as well as Fayette County.
- Yes, PASDA or some other organization needs to make sure metadata is created if the data is available to the public.
- YES!!!!
- Yes.
- Absolutely! Some of the most accurate data comes from counties, and conservancies are often the best source for environmental features and special habitats. PASDA does well with linking data from state agencies - keep it up!

- Yes... Perhaps the required data elements can be paired down to the most critical elements (who, what, when, where, why).
- Yes
- Absolutely. Discovery is often the hardest part of any GIS project.
- Absolutely
- Yes, I believe this is still an important venue.
- Metadata is critical and needs to be part of every data set produced
- Absolutely.
- Yes.
- Encourage metadata development by treating it as insurance (see question 80)
- Develop online data catalog
- yes
- Yes. Federal agencies should also be included.
- Annually.

PASDA works with grantees of the state, the GIS community, and serves business, industry and the general public as well as government agencies. How can we increase our visibility to ensure the maximum number of users, a continued positive return on investment, and improve information sharing in the Commonwealth?

- Define who your customers are. How often the customer uses PASDA. What do they use PASDA for. This will be invaluable information as budgets and resources continue to decrease. Return on Investment is mentioned in the question. What is the PASDA ROI? These are the questions that will more than liikely need to be answered.
- Keep up the outreach. The more useful the data you serve, the more word of mouth will spread your name.
- As the state creates more and more web sites, we should work to get PASDA on each of these web sites and not just a link buried somewhere on the site.
- Bigger profile and presentations at PAGIS Conference.
- By either more statewide base layers or partnerships at the county level for base data with more counties across PA.
- Re-introduce the PASDA onsite visits or increase them back to a level of 5+ years ago.
- I think PASDA is doing everything it can short of advertising.
- I do like the idea of a monthly newsletter, and it probably should be electronic

- "Advertise" on PA's website if you aren't already. I'm sure you have. Perhaps also visit educational conferences if that's not already taking place.
- Possibly hosting a GIS user conference possibly promoting PASDA with possible software and training grants.
- PASDA's data has been very useful in Act 537 studies and completing general mapping for DEP Planning Modules.
- Hats, t-shirts
- Attend conferences
- Make the evening news
- Pasda staff need to be out and around. building new relationships, getting new data. generally being aware of what spatial data is available and facilitiating access to it. either in the repository, with webservices, or links to other sources. the bottom line is, PASDA should promote itself as a repository and portal -- end user mapping applications are less important -- at least to me.
- Maintain contact with data providers and encourage providers and users to spread the word when possible.
- Outreach to data users and providers is key. PASDA's presence at conferences works, but consider other getherings such as CCAP, State Assoc of Municipal Officials, any conferences by conservancies or environmental groups, and tie ins with the PASDC. (I apologize if you are already doing this). Also, the universities are cranking out grads who have more exposure to GIS than 10 - 15 years ago. The grads will need to know how to find data once they start working
- Presentations at surveyor, engineering and other related group meetings.
- You seem to be doing a great job within the GIS Community - possibly an outreach program to schools (K-12)
- We need to get our politicians and news media more involved someway in using PASDA. This would help spread the word.
- The more links to PASDA that are out there, the better. Continued online app development and links directly to the apps.
- I think you need to keep reaching out to the people. The people could include everyone using geospatial data in the state. Your users will tell you what they want, what they'd like to see and how you're helping them do their jobs.
- Prepare a business plan. Document work to date, highlight statistics, highlight how this data is vital to all of PA's infrastructure, produce a 3 or 5 year strategic plan.
- Maybe hold a conference once per year that gathers all these agencies together and gets them talking. for ex weather service could have some data that another agency could use, or maybe that agency doesn’t understand the data or how to use it and so we could explain it better leading to more understanding and use. and

vice-versa...there may be data sets out there we could use but don't know what they mean or don't know how to use

- Work with all these groups so that they have links to PASDA on their websites.

Additional Comments Provided by Attendees

- I cannot say enough great things about PASDA. When I started at Allegheny County as the GIS Manager, a majority of the work done by the GIS group was fulfillment of map and data requests for the public. This effort was taking time away from other important aspects of GIS in the county such as our intradepartmental GIS support work and our enterprise GIS data and resource maintenance and management activities. Leveraging PASDA as a resource to distribute our data to the public has been AWESOME! We have seen a drastic reduction in the amount of public requests we handle for data distribution and map production. We just point the requestor to PASDA and rarely do we hear back from them. This is a testament to the usability of the PASDA site and is supported by the usage statistics for Allegheny County data; Over 2000 total downloads and over 22000 map service hits from April - August of this year alone! The PASDA staff has been great to work with and make it very easy for Allegheny County to publish and update our GIS data on PASDA. Keep up the great work!

- We might go months without using the PASDA resource but it's always something we come back to and the value and purpose it serves is something we strongly believe in.

- I want to express my thanks for the support the Commonwealth is providing to the Pennsylvania Spatial Data Access (PASDA) program. I am a resident of the Commonwealth and wholeheartedly support my tax dollars being invested in this program.Access to spatial data is essential for a broad spectrum of programs and initiatives from municipal services to environmental protection and business development. By making data readily and easily available Pennsylvania will be more able to compete with both other states and other countries. Please continue to fund PASDA.

- I must thank you for inviting me to participate in the survey, and of course, thanks also for the excellent service that you and the others at PASDA provide.

- I have been very involved in numerous GIS projects for the past 13 years or so and it is nice for me as well to be contributing to PASDA which I have utilized extensively over this time period. I think you are doing great things up there and I am more than happy to contribute however I can.

Factors that contribute to GIS Success in PA

The invitees of the user session provided additional answers to questions via e-mail. PASDA believed that it was important to have a sense of what they attendees felt contributed to their success in GIS in PA. Below are their answers:

- Access to Free Data (Most Critical)
- Training and GIS Community Support
- Other People's knowledge of what GIS can do
- Great communication, coordination and collaborations between departments
- A great staff with a diverse skill set.
- A robust hardware and software environment
- A host of geospatial web services
- Standards across the Enterprise
- Relationships with outside vendors
- Collaboration with other municipal governments
- Having the necessary personnel, teamwork and hardware/software infrastructure
- Data access—data and more data! We couldn't do our work without it.
- Advances in technology
- Data availability
- Adequate training
- Online resources (tech support as well as data services).
- Committed, experienced staff using a wide variety of software to work with a huge dataset. All this supported by past and present county leadership (commissioners and department heads).
- Map services from PASDA—we use them all the time, every day.
- Commitment on the part of the county commissioners to fund a program.
- Keeping up with technology and having supportive staff and county commissioners.

- Also working with neighboring counties to build and expand skills using ESRI software.
- Support from executive management, relatively stable funding, enthusiastic staff, and cooperative peer environment.
- GIS success has resulted from periodic classroom training (from PennState, ESRI, and others) and convenient access to useful GIS data from (almost needless to say) PASDA and DEP's internal Geospatial Network.
- Ability to define requirements and solutions, understand opportunities and barriers, understand the technologies, and make sense of data.
- PASDA a place to store my data and get data. Having it all in one place saves me time and money.
- Technical capabilities of staff
- Data/information resources (socio-economic and spatial)
- History of projects with state and local government
- Professional interest in geospatial applications
- Collaborative efforts with other organizations
- Access to wide range of content/domain specialists
- Our GIS Section's ability to create high quality cartographic products. Some examples of popular SRBC GIS products include the Susquehanna Map Package, the Northern Lancaster County Groundwater Study, and the newly revised SRBC Map and Data Atlas website (http://www.srbc.net/atlas). The SRBC Map and Data Atlas annually receives more hits than any other section on SRBC's website.

Who are you working with on a regular basis?

The invitees were also asked what organizations they worked with on a regular basis. Below are their answers:

- PennDOT
- NJDOT
- Cities/counties
- SEPTA

- PASDA
- PADEP
- Other land conservancies
- DCNR
- CCAP
- DVRPC
- ESRI MUG
- PAMAP
- Watershed Associations
- Townships
- Property Owners
- Appalachian Mountain Club
- Many counties
- State agencies
- Surveyors
- Engineers
- Game Commission
- Western PA Conservancy
- Municipal Government
- Federal and state agencies
- Conservancies
- Private companies
- Individuals and a wide variety of other GIS users.
- DCED
- Chamber of Commerce
- US ACE

- FEMA
- Federated GIS project in association with counties from the North and East Central Terrorism Task Forces, Luzerne, Wayne Counties
- Susquehanna River Basin Commission
- Trout Unlimited
- University of Pennsylvania
- Office of Surface Mining (Dept. of Interior)
- Penn State
- Federal agencies, state agencies, county government, municipal government, engineering/planning firms (practicing GIS), private industry (GIS users)
- PSATS
- Fish and Boat Commission
- PA Department of Public Welfare
- Harrisburg International Airport
- Legislative Office of Research Liaison
- Hershey Medical Center – College of Medicine
- Lower Susquehanna River Keeper
- Chesapeake Heritage Conservancy
- CREDC
- Center for Rural PA
- Pitt
- New York Department of Environmental Conservation (NYDEC)
- Maryland Department of the Environment (MDE)
- Army Corps of Engineers (USACE)
- Delaware River Basin Commission (DRBC)
- Environmental Protection Agency (EPA)

What GIS efforts are you undertaking?

PASDA also asked invitees to describe some of the projects, programs, and GIS related efforts they were working on. Below are their answers:

- Property Assessments
- Greenway Studies
- River Conservation Plans
- Educational
- An Updated 3 to 5 yr Strategic Plan for Enterprise GIS
- A Refresh of Orthophotography along with a LiDAR base
- Pictometry Refresh
- Zoning Conflation Project
- Migration of Enterprise GIS Environment
- Upgrade to SDE 9.2 (within a few months, 9.3)
- Upgrade from ArcIMS 9.2 to ArcGIS Server 9.3
- Migration of Database to Oracle 10gR2 on Windows 64bit OS
- Migration to new HP Hardware Environment (16 C-Class Blade Servers)
- Parcel maintenance for the county
- 911 support for new CAD system
- daily data maintenance (creation of a building layer, etc.)
- work on sewer/water/open space plans
- A wide variety of projects These include numerous web GIS efforts utilizing ArcGIS Server 9.3, general map production for mass distribution, numerous analytical projects with regarding to PA fisheries and fishing/boating access, and GIS database and software distribution.
- General mapping projects (routine or special request)
- Stewardship of BMR's original GIS dataset (historical mine permit boundary mylar system)
- Providing GIS technical and moral support to all five bureaus in DEP's mining program

- Scanning, cataloging, and (ultimately) georeferencing historical mine maps (WPA maps)

- I'm involved with many projects related to the use of GIS. At a generic level they include traditional needs analysis and strategic planning, database design, implementation planning, ROI calculation. Also I get the opportunity to work with organizations to support change management and assess the impact that GIS implementations can have in the short and long-term.

- Land use analysis for planning and zoning

- GIS interfacing with municipal governments

- Northumberland and Union County GIS Data and Mapping to include projects in the following
    - Economic Development, 911 CAD Mapping, Parcel Maintenance, and 911 Addressing
    - Regional GIS coordination, data compilation and distribution, planning projects (transportation, population, development, environment, etc)

- GIS Instruction at various levels - credit and non-credit - integration of GIS into various academic disciplines

- Annual Pennsylvania GIS Conference

- Pennsylvania Geospatial Policy Symposium

- Ft. Indiantown Gap Sustainable Range Conference Management

- PAMAP Training and Outreach Activities

- PAMAP County Partnership Survey

- OGCII Geospatial Reference Architecture Workshop

- PSATS Local Government GIS Workshops

- ESRI Central Pennsylvania User Group Hosting

- Pennsylvania Long Term Care Study Spatial Analysis

- Center for Rural PA Population Survey Analysis

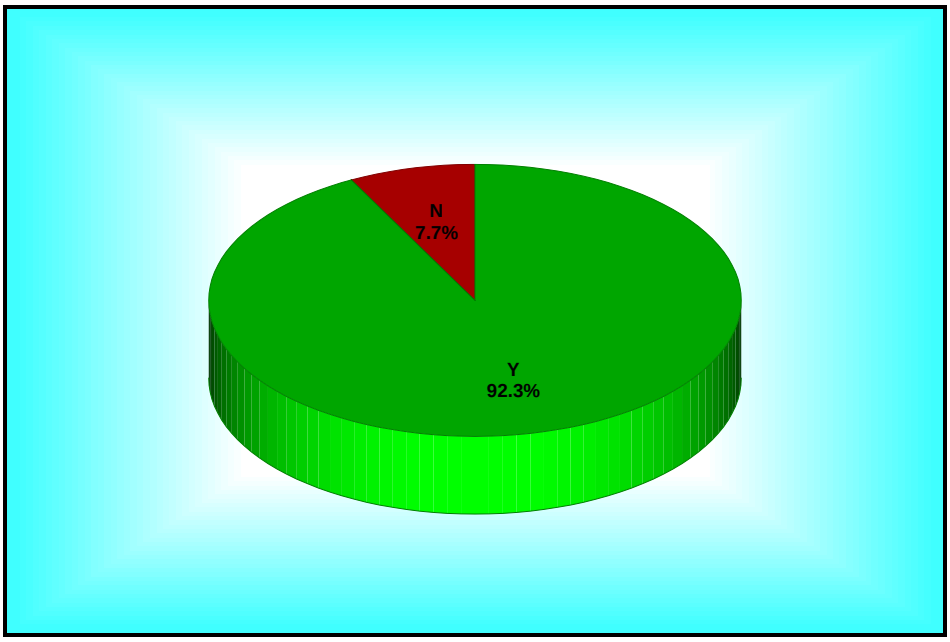
- HIV/AIDS Unmet Needs Spatial Analysis

- Susquehanna River Trail GIS and Website

- Dauphin County GIS Staff Training
- North Middleton Township GIS Staff Training
- York Economic Development GIS Staff Training
- Cushman-Wakefield GIS Staff Training
- Chesapeake Heritage Conservancy GIS Support
- Penn State Harrisburg Student/Faculty GIS Support
- PHMC Cultural Resources Database Development
- Olmsted AFB (Middletown, PA) Superfund Site GIS
- Harrisburg International Airport Market Survey Maps
- New Baldwin Corridor Coalition Mapping
- South Central Assembly Drive Shed Study
- Pennsylvania State Police GIS Survey
- Technical Assistance to PA State Data Center
- The GIS Section at SRBC predominantly focuses on map creation and analysis for water resource related projects within the Susquehanna River Basin. Some of SRBC's GIS projects include:
    - Total Maximum Daily Loads (TMDL)
    - The West Branch Remediation Strategy, Subbasin Surveys, Chesapeake Bay Nutrient and Sediment Monitoring
    - Water withdraw application studies, and potentially stressed areas
    - The oil and gas well drilling in the Marcellus Shale has also created a tremendous amount of work for the GIS Section. In the near future, we will be creating and/or updating flood inundation maps for a number of areas within the basin.

In order to get a picture of data creation efforts, the attendees were asked questions about data creation and sharing.

Do you create data?



Results Chart for "Do you create data?"

If so, what types of data do you create?

1. transportation, environmental, land use, aerial imagery, cultural features

2. As the City of Philadelphia we create a wide range of data sets that supports several city departments. For example, most of our major departments create boundary data, survey data, certain base data and just where are the items in this database or spreadsheet are located. The GIS Services Group, an group that provides services to the enterprise, also helps to bring data set to the City via contract that go out for RFP. For example, the City is currently contracted with Pictometry to capture orthophotography, LiDAR and a 3D pilot area of the City.

3. Parcel data, road centerlines, municipal boundries, land use layers, zoning layers, building points, floodplain zone elevation data, some contour and DEMs,

4. County GIS creating a wide variety of GIS layers to support the functions of our internal and external customers.

5. Responsible for updating and maintaining base layers such as parcels and street centerlines. Also develop various layers such as emergency service boundaries, critical facilities, hydrants, cemeteries, etc.

6. We create US and global demographic segmentation data.

7. Flood inundation layers, watersheds, water quality monitoring sites, water withdraw locations, etc.

8. basin specific data related to our Commission

9. I import GPS point data, and digitize line and polygon features.

10. Topographic Surveys

Boundarys Surveys

As built data

11. water quality, restoration projects

12. Socio-economic data captured via surveys and aggregation of administrative data. Administrative data is frequently geocoded and attributed as part of sponsored, applied research projects.

13. Vector data digitized from paper files/maps.

14. The National Weather Service generates meteorological data using the NDFD, which includes temperature, wind, dew point, sky cover, precipitation, etc.

15. Land cover, local demographic data (forecasted, not from Census), traffic counts / traffic volumes, trail info, local trip generators (hospitals, industrial parks, universities, businesses), utilities (public & water service areas), open spaces and recreation areas

16. Our office creates and maintains the following information:

Subdivision and Land Development Proposals submitted as part of the PA Act247.

We also maintain a future land use growth management boundaries dataset along with a village district dataset.

Aside from these layers we periodically create a wide variety of information as it pertains to our compreshensive planning and zoning amendment services our office provides to the local governments. These include:

Traffic Accidents

Bridge Locations

Highway Functional Classification

Bus Routes (using LRS)

17. na

18. Addresses, Centerlines, Districts (i.e. voting, school, municipalities, EMS Zones, etc.), Hydrography, and many others. See http://www.county.allegheny.pa.us/dcs/gis/available.aspx

19. parcels; boundaries (ie. municipal, voting districts, school districts, watersheds, water basins, etc.), addresses, streets,railroads, edge of pavement, hydrology

20. We create all kinds of data. Often it includes utility data, parcels, streets, stormwater, modeling, etc. This can range from statewide, regional, county, local and/or private data.

21. Statewide vector data sets related to fisheries and boating. All data is provided as shapefiles.

22. roads, parcels, hydro, buildings, etc. Most data is created for use by the county.

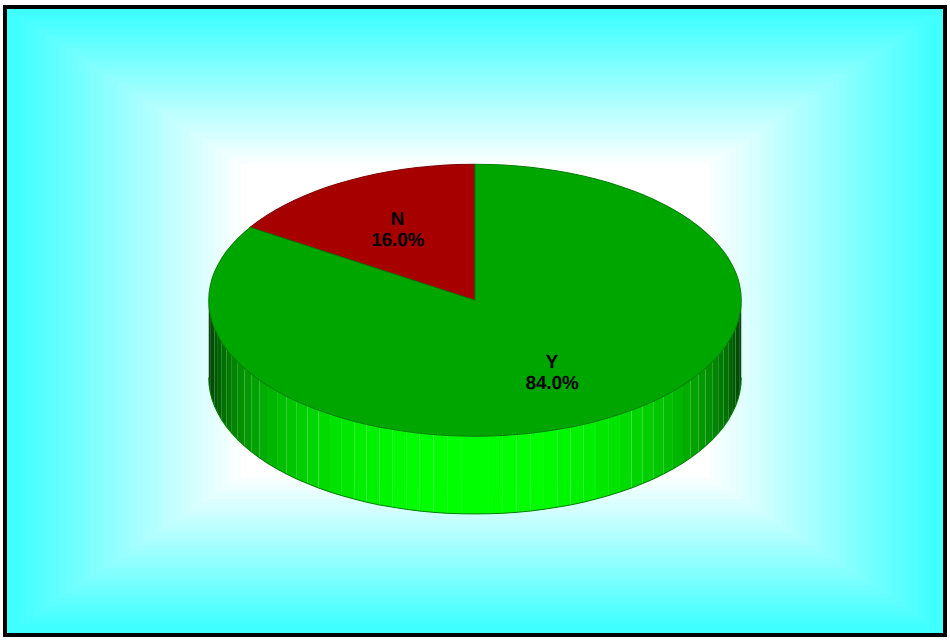
23. Imagery and elevation data

24. Gridded data of National Weather Service forecasts

25. Soils, hydrologic units, field boundaries (farm fields)

26. conservation practice locations

Do you create metadata?



Results Chart for "Do you create metadata?"

If not, why?

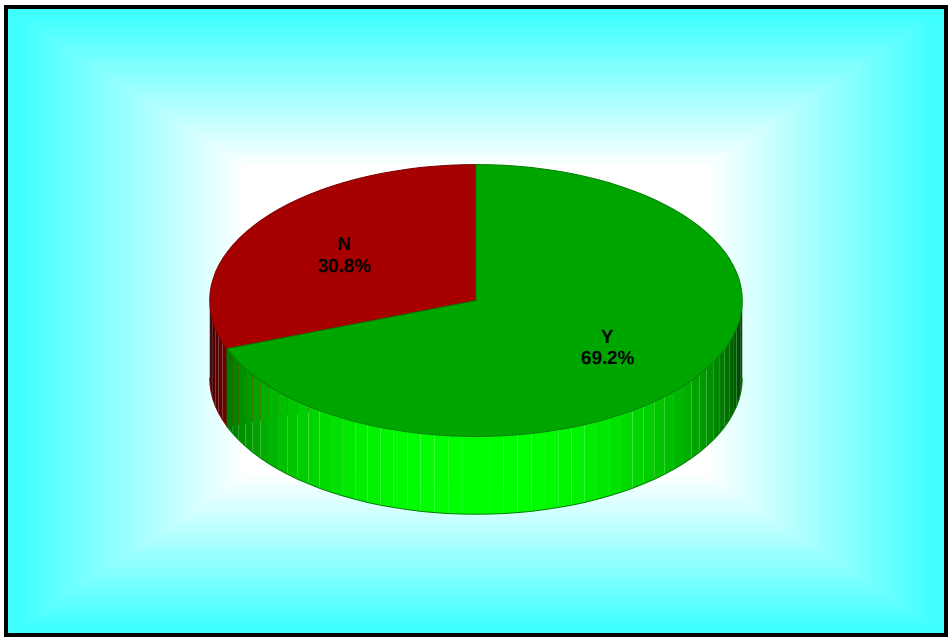
1. none

2. Data is used in AutoCAD mainly and no attributes associated with it.

3. Previous versions of the data that originates from my bureau have been served through PASDA for many years and already had metadata created and maintained by PASDA. Thank you for that!

4. we do our best to define attributes, data sources, data history, and update info, but may not be FGDC compliant

Do you share your data with PASDA?



Results Chart for "Do you share your data with PASDA?"

If yes, please take a moment and describe the benefits of sharing data via PASDA.

1. Component of the PA Spatial Data Infrastructure and feeds the National Spatial Data Infrastructure.

Minimizes data creation duplication and supports effective and efficient use of resources

2. Our data can be accessed by others via web services. It frees my staff from responding to data requests.

3. PASDA provides an excellent means for the City of free distribute our departments data at a one stop shopping location.

4. Allows potential data users to download data at no charge. Allows us to share data with adjoining counties. We can share data designs throug this venue.

5. Saves from us having to distribute the data to everyone. Clients will contact us if they have to have the most recent files.

6. PASDA offers data storage capabilities which minimizes space on our servers. I believe PASDA helps to provide our data to a larger audience.

7. Sharing of Data w/PASDA allows our Agency to upload data to PASDA and save space on our Web Page and it is a central clearinghouse for all GIS data....Having this centralized clearinghouse allows us to also obtain data from other agencies

8. Sharing through PASDA is highly convenient when supplying the data to those in the public who want it. PASDA is a user-friendly source that we can rely on to maintain the data and be available for public consumption.

9. Sharing our meteoroligcal data with PASDA provides another avenue for getting our weather data out tot he public/users.

Additionally, we use data from PASDA for some of our projects, and the sharing of data is a positive for both organizations.

10. PASDA Allows efficient access to select data that is non-proprietary, and saves time from staff fulfilling requests

11. This question is difficult to answer. Our office shared data through PASDA several years ago. We immediatly recognized the benefit of being able to refer our partners to the PASDA website instead of spending staff time doing data distribution.

Our County now has a policy against us distributing information as all data request go through a central point. As a result we haven't been able to provide updates or to provide additonal data layers.

12. Allowing staff to focus on data maintenance rather than on answering the public requests for data distribution.

13. has relieved staff of having to clip and distribute data so that other more important tasks can be performed - like outreach and data maintenance

14. We have many external data requests and this gives us a means to easily provide that data. In addition, our own web pages have links directly to the PASDA data sources.

15. We share some data but not all. Users can view and download data without having to get it through the county.

16. PASDA provides a recognized clearinghouse that many users know of and actively search, provides a fully public data access service, available to anyone, and thus provides a ready-made solution for providing data.

17. NWS forecasts can be downloaded and used by Emergency Management during accidents to see forecasts of winds in case of a toxic spill

18. Sharing data with PASDA allows us to more easily provide our data to Pennsylvania and other state residents. It actually saves us time and resources, allowing us to focus on other GIS tasks.

19. Collaboration, more extensive use of the data, exposure for our work

If you are a data creator and do not share your data through the PASDA clearinghouse what are the barriers to sharing that you have encountered?

1. Internal policies

2. We already share our data with PASDA.

3. Data created by the County is sold at a rate which helps to re coop the cost of creating the data.

4. none

5. We have not encountered any barriers we are a commercial data provider and our products are not for distribution via a clearinghouse.

6. I haven't had the occasion to share data on PASDA because a lot of our data is either sensitive or not all that useful to anyone but our small land and water conservancy.

7. Our data is never converted in GIS format.

The Data is maintained with AutoCAD Land Development Desktop.

8. other organizations have compiled some of the data

9. most of the spatial data that we produce comes from sponsored research. Access to that data is commonly restricted by ORP. It is also probably not generally useful to public users.

10. Not applicable

11. some barriers may be that the data is available for a small or select area, and that it must be used in the proper context

12. na

13. I work in the private sector therefore data we create is for our clients. We are restricted to what they require. Our clients have to grant us permission to release any information or data to other entities.

14. Liability, lost revenue to the county, unwillingness to allow commercial outfits making a large profit from the data. In addition, we serve our data from our own website for viewing purposes only (no downloads).

Would you be willing to contribute metadata to PASDA even if you cannot share your data directly? The metadata would provide interested users with a link to your organizations website.

1. Yes, but would like to get our web-based distribution process up and running first.

2. We are most certainly willing to share our metadata.

3. Yes

4. na

5. We are actually linked in a number of different ways to pasda and provide metadata already for some data products.

6. Absoultely, but the only reason I see for doing this is if you wanted to monitor who was requesting it or if you were charging a fee for the data.

7. yes

8. Yes, contributing metadata, without the actual data would be generally allowable and would provide a discoverable way to "catalog" research data. The metadata would, of course, include data provider/creator information which could be used to contact us for the actual data.

9. not applicable

10. Yes that is a good option, and the data creator can handle requests ona case by case basis

11. Absolutely.

12. na

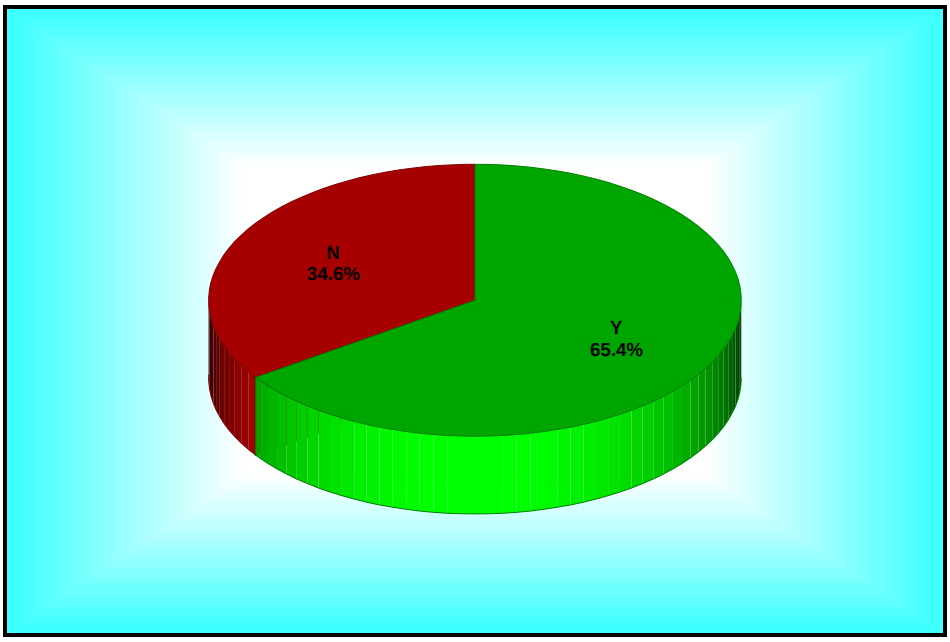
13. some data is withheld because of confidentiality - possible sharing would be a case by case matter, providing metadata would allow people to know that we have created the data

14. Yes, we would be willing to create meta-data for any data we create.

15. yes.

16. Some data we cannot distribute because of the privacy act, therefore providing metadata may not be useful.

Would metadata training be useful?



Results Chart for "Would metadata training be useful?"

What other clearinghouses or data publishers do you access regularly?

1. GTO gis database

2. NJGIN - the state of NJ geospatial clearinghouse

3. Now that I think about it, none!

4. ESRI Geography Network

5. USGS, GIS Depot, ESRI Geography Network

6. We interact with all of the US clearinghouses as well as most of the international clearinghouses. We also aggregate some of their data at other sites maintained by our organization.

7. Maryland Department of the Environment, Towson University, MERLIN Online, NY State GIS Clearinghouse, GeoCommunity, The National Map, GeoSpatial One Stop

8. NY State GIS Clearinghouse and MD Department of the Environment

9. For the work I do, I rely heavily on PASDA. Sometimes I deal directly with organizations like USDA, where I request online.

10. National Wetlands Inventory

FEMA

11. Office of Surface Mining

12. similar data repositories in other states

u.s. bureau of the census

noaa

usgs

13. None regularly. USGS on occasion.

14. PennDOT, USDOT, some data from other federal sources

15. Delaware Datamil

16. none

17. USDA Lighthouse

18. geospatial onestop

19. PASDA

20. US Census Bureau - largely for updated projection attribute data. As a state agency, I also access the state's enterprise geodatabase, although I more regularly use PASDA. Also we utilize ESRI Map Services regularly - honestly they run faster (9.3 caching).

21. I usually go to the source of the data to get the data.

22. Other state sites to compare services and data holdings, and compare our data offerings to theirs - MassGIS, Ohio, NYS, Kansas, etc.

Use Google and Microsoft services regularly.

USGS Seamless, CLICK, NED, DOP, and other data and services sites.

FEMA Map Services.

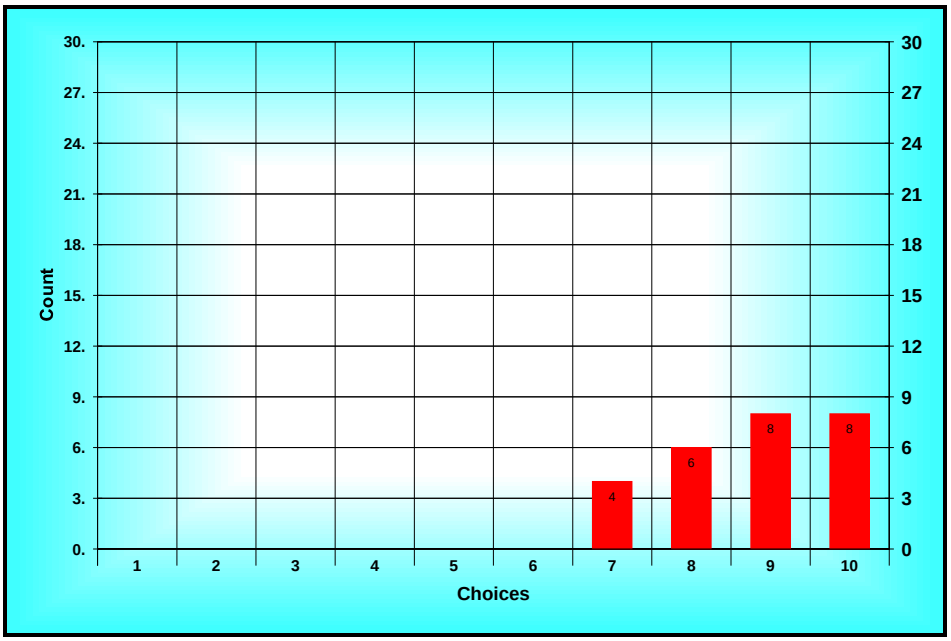
23. Just general shape files of boundaries and cities databases

The PASDA Website

As part of the overall input session, the users were asked to provide feedback on the PASDA website and functionality.

Is the purpose of the PASDA website clear?

Rank 1-10 with 10 having the highest value.



Results Chart for “Is the purpose of the PASDA website clear?”

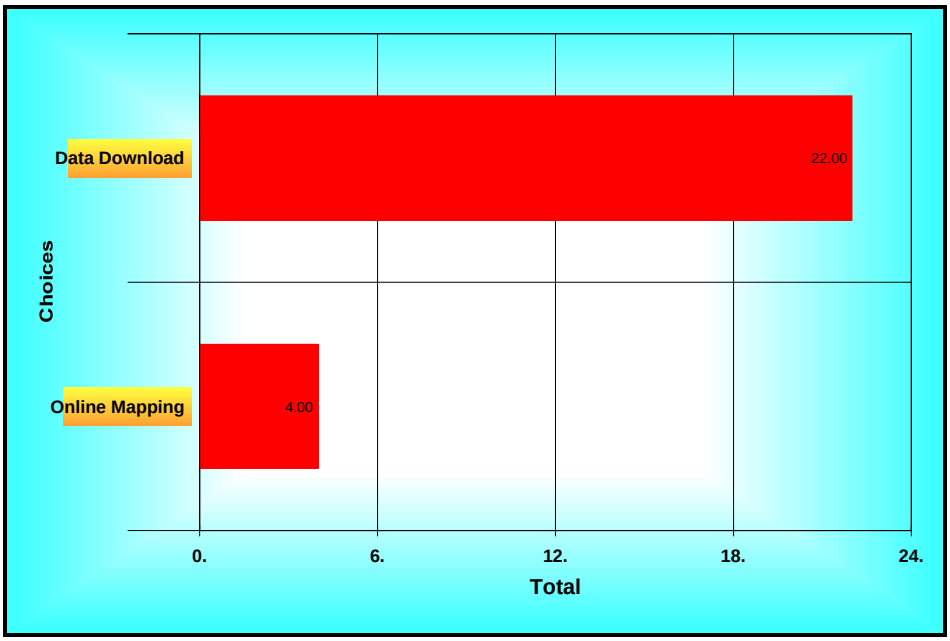
Is the website easy to read?

Results Spread

Choices	Count
1	0
2	0
3	0
4	0
5	1
6	0
7	1
8	11
9	11
10	5

What would you click on first?

Choices	Total
Data Download	22
Online Mapping	7



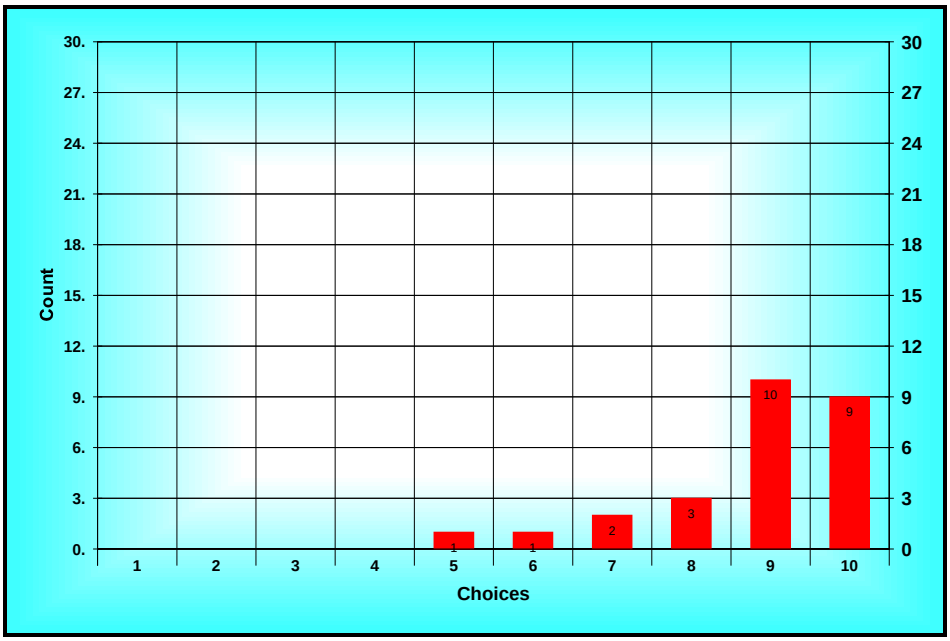
Results Chart for “What would you click on first?”

About PASDA

Results Spread

Choices	Count
1	0
2	0
3	0
4	0
5	1
6	1
7	2
8	4

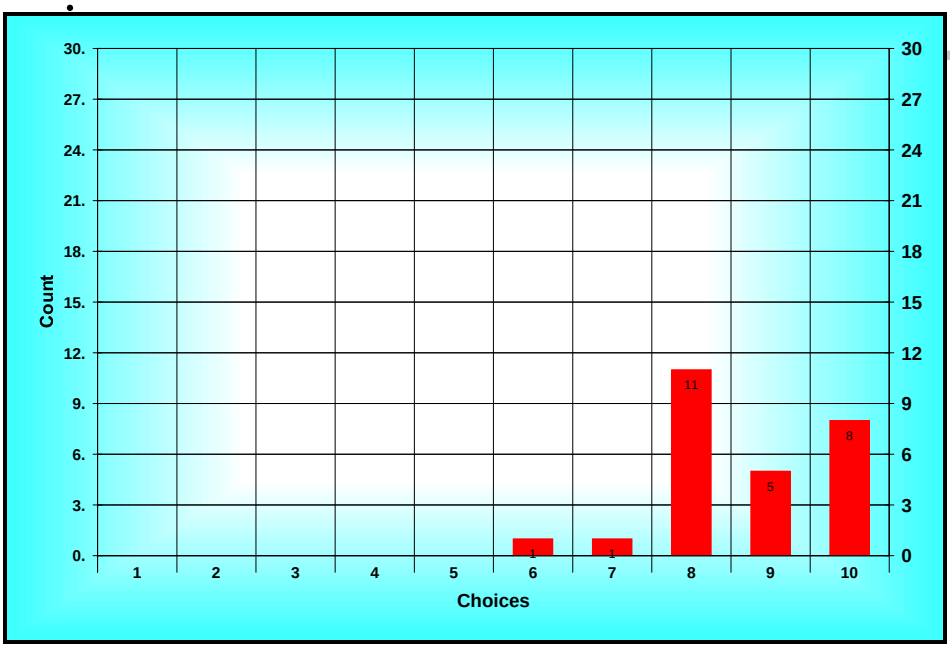
9	11
10	9



Results Chart for “About PASDA”.

Download Data

Choices	Count
1	0
2	0
3	0
4	0
5	0
6	1
7	1
8	11
9	5
10	8

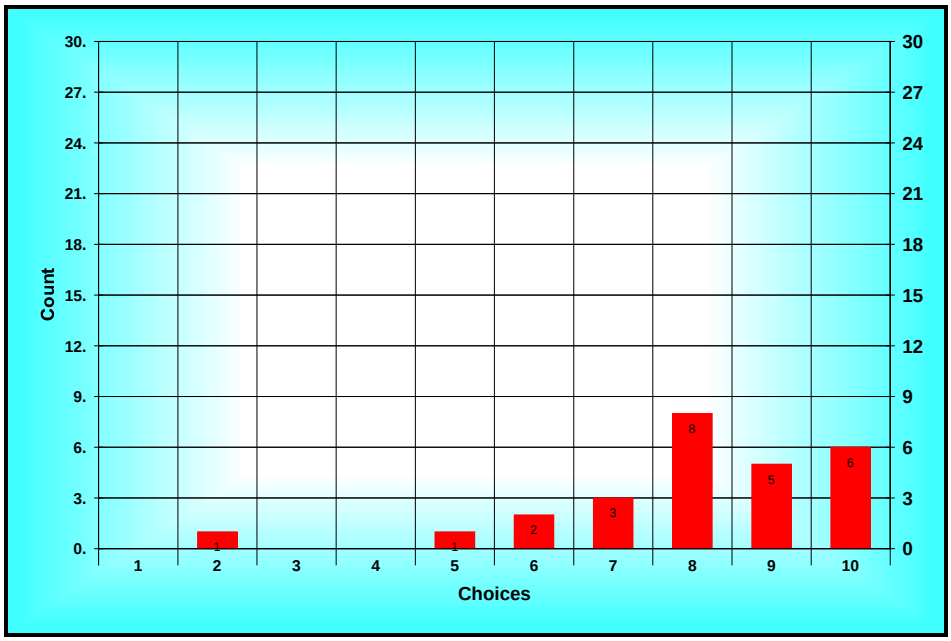


Results Chart for “Download Data”.

Online Mapping

Results Spread

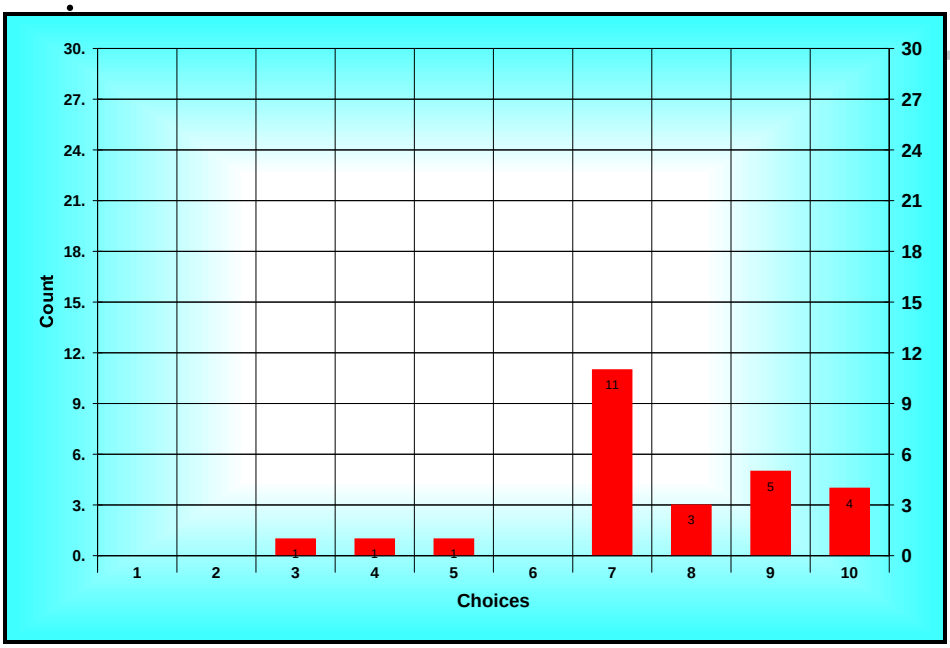
Choices	Count
1	0
2	1
3	0
4	0
5	1
6	2
7	3
8	8
9	6
10	6



Results chart for “Online Mapping”.

News & Events

Choices	Count
1	0
2	0
3	1
4	1
5	1
6	0
7	11
8	3
9	5
10	4

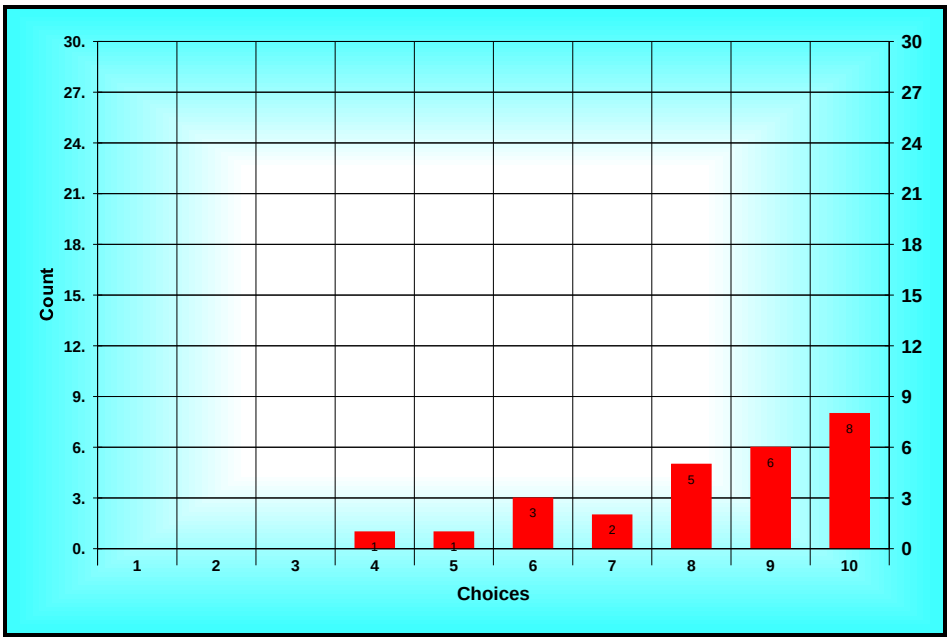


Results Chart for “News & Events”.

Related Links

Results Spread

Choices	Count
1	0
2	0
3	0
4	1
5	1
6	3
7	2
8	5
9	6
10	8

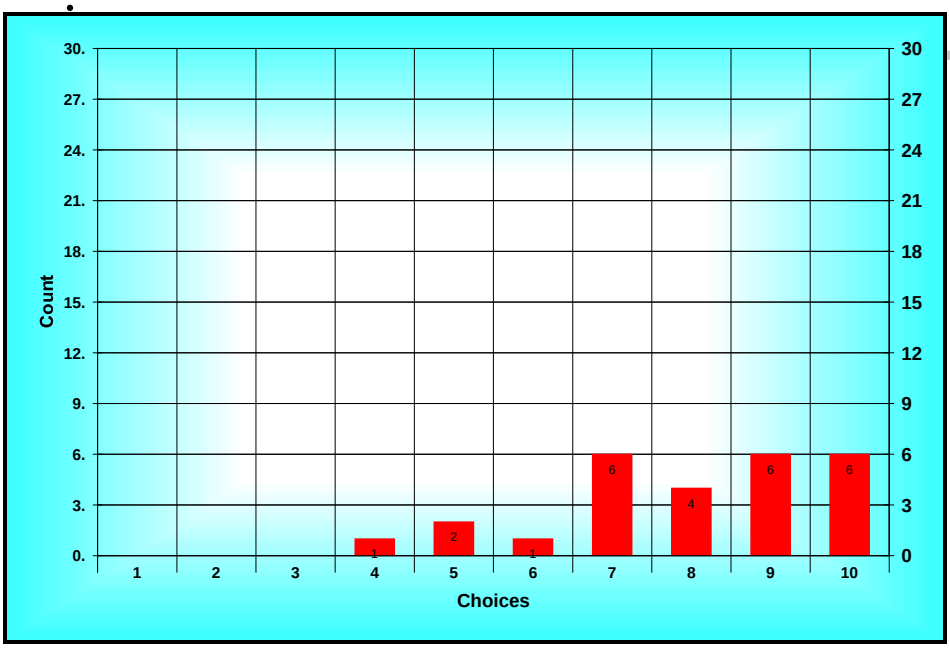


Results Chart for “Related Links”.

Help

Results Spread

Choices	Count
1	0
2	0
3	0
4	1
5	2
6	1
7	6
8	4
9	6
10	6

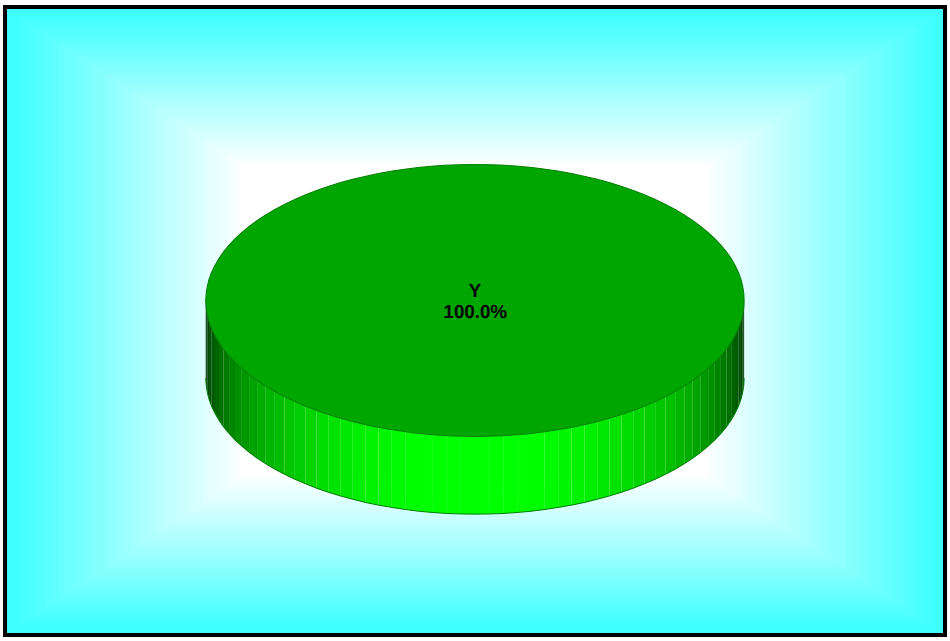


Results chart for “Help”.

Data Shortcuts and Searching

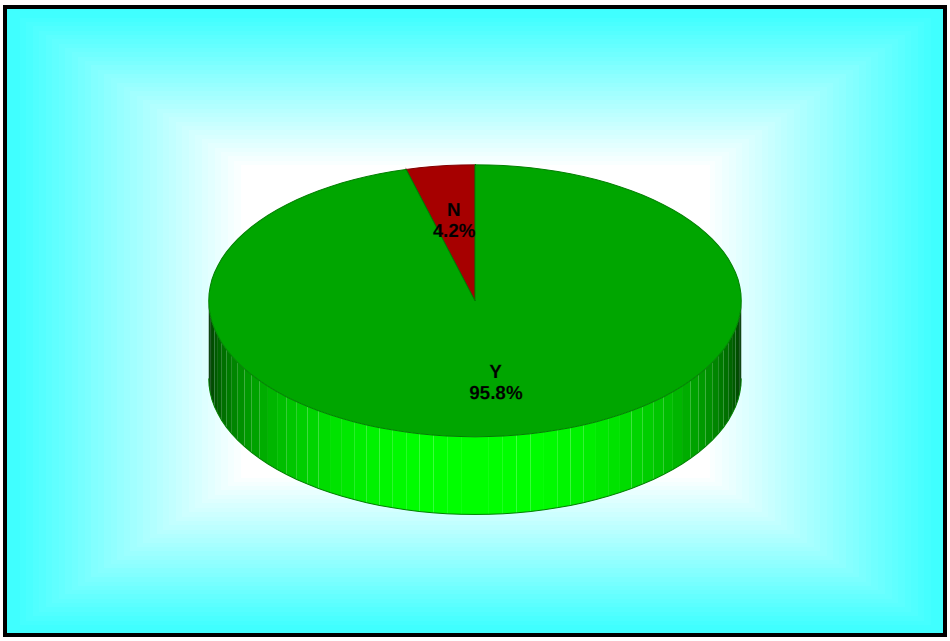
There are Shortcuts to data and services. Are these useful? Were they easy to find?

Choices	Count
Y	28
N	0



Results Chart for “There are Shortcuts to data and services. Are these useful?”

Are data search and data access points easy to find?



Results Chart for “Are data search and data access points easy to use?”

If not, do you have any suggestions for making it more user friendly or intuitive?

1. shortcuts should be part of the navigation on every page. once a user leaves the home page the shortcuts become invaluable as they can not be accessed.

2. No suggestion. I think the searches work fine.

3. na

4. The Online Mapping section confuses me because it offers too many options. I would keep it strictly as PA statewide mapping utilities. Utilities such as Google Earth and National Weather Service Map Services are not useful to me here. I think links to those sites in the related links section would be more useful. Clutter reduction.

5. Do you have a listing of all the data stored on PASDA?

6. Could experiment with a few different colors for links, tabs, or other site features to draw attention to them when needed.

7. i think it works well

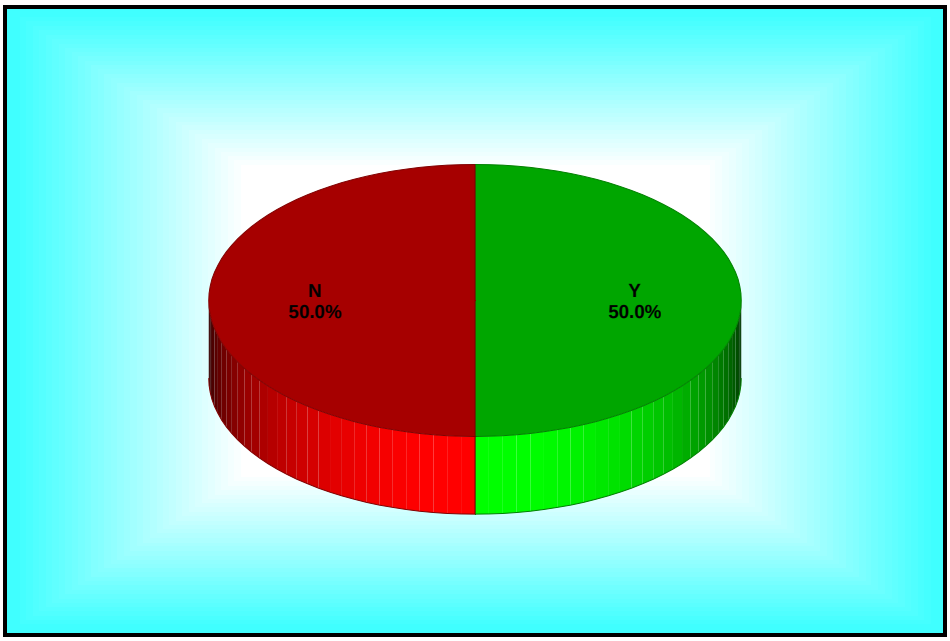
8. The Data search section is easy to find, however the search results return entirely too many items that are not closely related to the search criteria. I can filter out using the data categories but it still seem a bit cumbersome.

9. include county name with municipality name for clipping purposes

10. I think the most work needed is on the search engine and how results are displayed. For example, if you search for aerials, it lists every possible aerial source which can be overwhelming for non-regular users. In this example, some sort of categorization would help or maybe short descriptions as part of the search results (abstracts from the metadata maybe). Online Mapping should have a general description of what map services are. The online apps could use some cartographic review.

Would you like the ability to create your own "PASDA" environment/profile on the website? This would allow users to save settings, view previously downloaded data, and set preferences for your view.

Choices	Count
Y	14
N	13



Results Chart for “Would you like the ability to create your own PASDA environment?”

Please comment on the ability to create your own "PASDA" environment or profile on the website.

1. more useful would be a commonly used interfaced such as google earth, virtual earth

2. Would like to have the ability to personalize my viewing experience, like only viewing data from areas of interest.

3. I assume this will allow people to customize a part of PASDA with the City's own look and feel.

4. I would like to have PASDA require a subscription to download, which could give us more info about data downloaders.

5. It would be useful to have either a personal view that would allow me to track the status of various data sets that I use or an RSS feed or GeoRSS feed that would notify me when information is updated.

6. It might be a good idea to retrace where I've been or to find the same data again later, but I don't recall having to do that often. I search for so many different types of data all the time, I don't really have a primary or repetitive data need. Plus, I'm wondering about the time involved in setting this up.

7. This would allow us to not have to "start over" on a search for data...we would be able to save our search within our own "profile" and then be able to return to that search string and pull that data back up again in a shorter amount of time

8. For me, this would have no benefit but I don't think it's necessarily a bad idea.

9. As a survey company it would more convenient to find data and save our searches. We get alot of repeat work in the same geopgraphic locations.

10. As long as the speed of the web site does not slow down with the extra settings, it could be a useful function. I would not require the use of the profiles.

11. since I routinely go to pasda for similar kinds of data, a customized view of pasda would lead me directy to my most used functions and datasets. that said, this is no where near a "must have" for me. it would be nice, but i'd rather see you spend your limited development resources on other things. maybe other viewers like the one for pamap imagery. it would be nice to be able to view multiple datasets -- very much like you have it set up for imagery

12. Creating a profile could be a nice optional feature, but it's not really necessary. Data and services are already easy to find and download either once or repeatedly.

13. The ability to save settings/preferences and view previously downloaded data would be very useful for users.

The ability to view previously downloaded data could serve as a reminder to users about data from the PASDA site that they may have found useful in the past, or save a user from re-accessing data they may have already downloaded.

14. This would be helpful for consultants that provide services to local governments often, such as municipal plans, water / sewer planning and other services where the same type of base data is needed. Would speed up the download and access of data for their clients

15. Probably not worth the development effort. It'd be cool, but if it's at the expense of doing more advanced web gis apps I'd say forget it.

16. This would be great! How about adding an 'intelligent agent' to notify people when new data in their Area of Interest or when favorite datasets change?

17. I believe this could really valuable to the non-GIS daily user as well as us daily GIS users. It would also allow users quick and easy access to data, mapping and information that we use daily without having to reload, zoom, turn on, turn off or explore data.

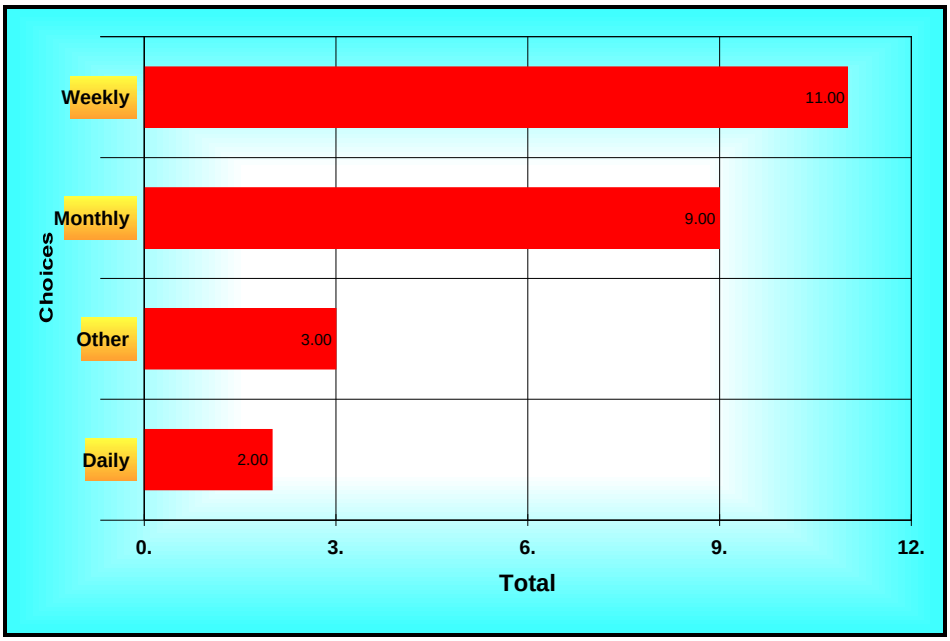
18. I'd rahter see everything to keep in touch with what's available. Continued streamlining of the site would help more than having your own profile, in my opinion.

19. This would be a nice function to have if I used it on a regular basis.

20. I wouldn't find this particularly useful, as each visit to the site is usually for a separate and distinct reason, not related to the previous visit. In fact, it may even be counter to the previous visit (i.e. download data one visit, review services the next.

How often do you access the PASDA website, data via PASDA, or services such as the Imagery Viewer, Map Services, or applications?

Choices	Total
Weekly	13
Monthly	9
Other	3
Daily	2



Results Chart for “How often do you access the PASDA website?”

Data Types and Use

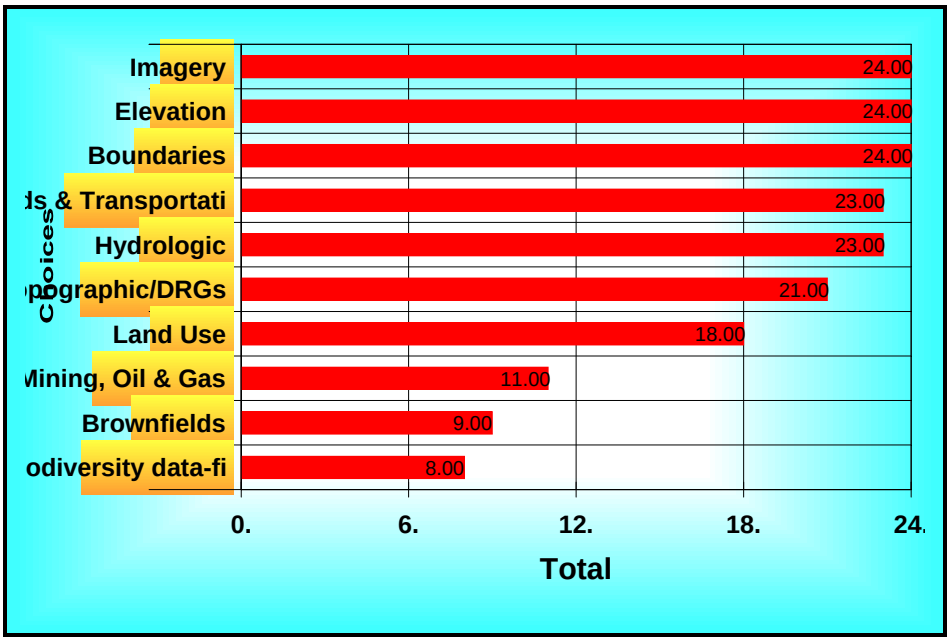
Users were asked to provide input on types of data used. Also, PASDA developed several questions related to the PAMAP program to help provide them with input on the use of their data.

What types of data do you use? Please select all that apply.

Table Sorted By Total

Choices	Total
Imagery	24
Elevation	24
Boundaries	24

Roads & Transportation	24
Hydrologic	24
Topographic/DRGs	22
Land Use	19
Mining, Oil & Gas	11
Brownfields	10
Biodiversity data-fish, birds	9
Habitat data-GAP	7

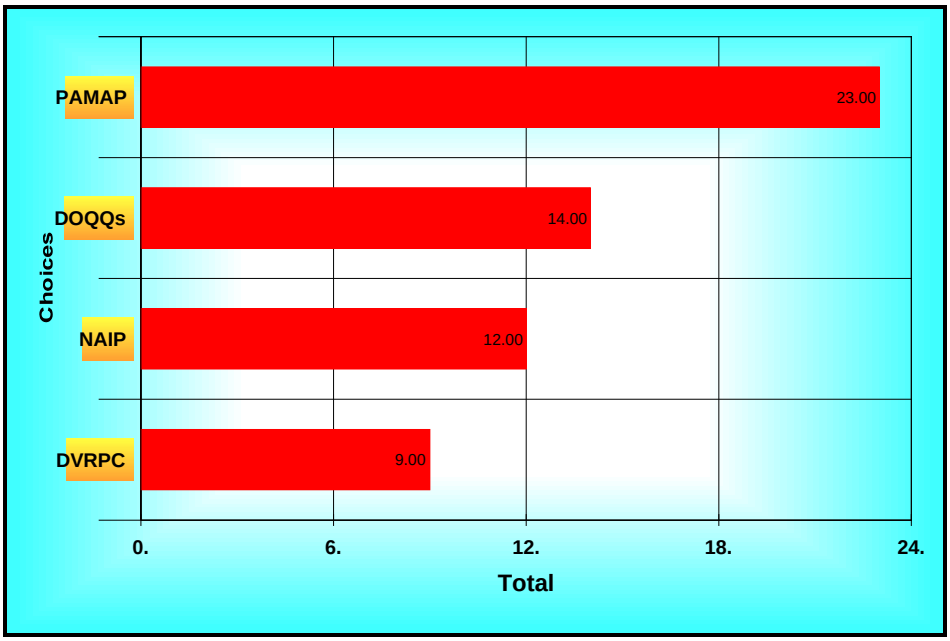


Results Chart for "What types of data do you use? Please select all that apply."

What types of imagery data do you use? Please select all that apply.

Results Spread

Choices	Total
PAMAP	23
DOQQs	14
NAIP	12
DVRPC	9

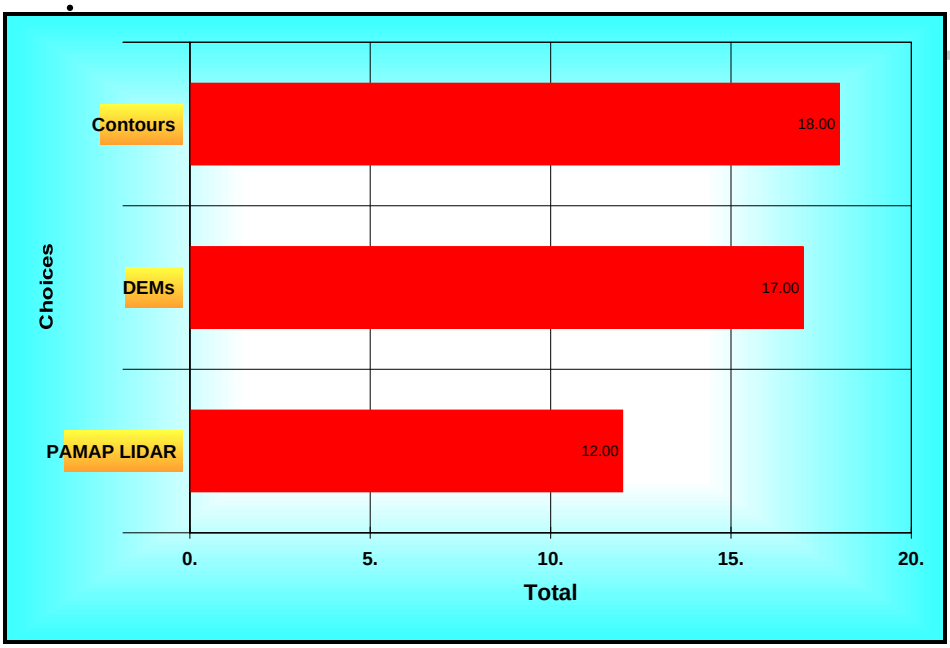


Results Chart for “What types of imagery data do you use? Please select all that apply.”

What types of elevation data do you use? Please select all that apply.

Results Spread

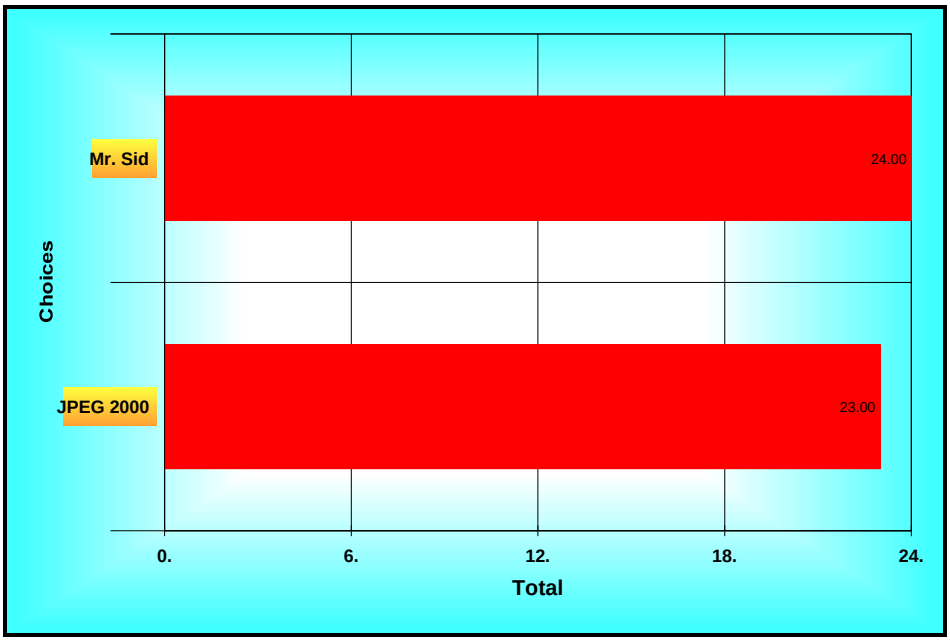
Choices	Total
Contours	18
DEMs	19
PAMAP LIDAR	12



Results Chart for “What types of elevation data do you use? Please select all that apply.”

Do you have the ability to use the following compressed imagery formats?

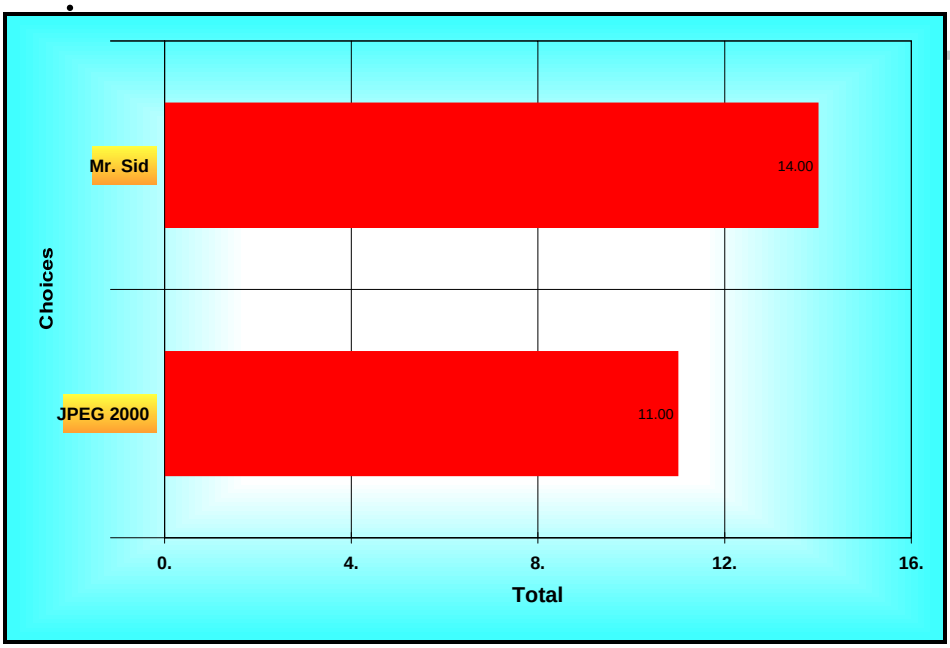
Choices	Total
Mr. Sid	25
JPEG 2000	23



Results Chart for “Do you have the ability to use the following compressed formats?”

Which do you prefer?

Choices	Total
Mr. Sid	15
JPEG 2000	11



Results Chart for “Which do you prefer?”

What additional types of data would you like to see made available?

1. parcels and buildings

2. parcels, but you already know that.

transit

cultural features

historic resources

3. Because we produce our own data, unfortunately, there not much data we look to PASDA for.

4. PennDOT planning partners tabular data.

5. Data that has style sheets or generic data models. This allow for the creation of a state wide cartographic look and feel or "brand" as well as facilitate the seamless - at least by attribute - use of data across the Commonwealth.

6. more county parcel layers, local roads with road names - should be available from 911 emergency management

7. I am a relatively new GIS user, so I can't say with a lot of experience what else I might want. I have always been impressed with the amount of data right now. I can usually find what I need for my mapping projects.

8. More Ultilties such water and sanitary sewer lines.

Natural Gas lines etc.

9. DEP SIS Water Quality Database

OSM AMLIS

Data from surrounding states (at least links to their data clearinghouse)

Underground mine maps

10. data for adjacent states. not necessarily entire states, but some distance into those states. when working on a project near the state boundary, good data abrubtly ends. this is not an easy thing to do. but if would be a super addition.

11. not sure

12. zipcodes for geocoding, business data outside of what is available from the Census & PASDC, public utility and infrastructure data (gas/oil, sewer, water, broadband, etc)

13. Land Parcels - with useful attribute information

Road Centerlines - with useful attribute information

14. Statewide voting districts, if they exist.

15. updated data from state agencies

16. The state needs to start developing more planimetric data from its imagery. A vast amount of the vector planimetric data that is out there is inaccurate and doesn't even match the new imagery when overlaid with it. We would also like to see more county and local data made available. Many counties & municipalities have GIS data but are not sharing it. We also need to get the LiDAR data up there.

17. As accurate elevation data as possible (ie LIDAR).

18. Data from municipal/local level - planning info such as growth boundaries, zoning, projected or future land use.

More county data - roads, buildings, parcels

Point data - landmarks, schools, hospitals, parks, etc.

19. cities and zipcode

stree address

20. Links to the county GIS departments, specifically to obtain parcel and other layers.

The PAMAP program funded through DCNR is a major contributor of data to PASDA. We are working with them to maximize the use of their data through the clearinghouse. What is the best way to provide access to this important data?

1. Mapping services and web services

2. When you refer to PAMAP are you refering to imagery only or other framework data? I think it would be useful to search and download all data by area. Investigate download alternatives for those who won't or can't download larger datasets.

3. I think in the same way you have been providing all other data on the PASDA, via download. However, you need to find the means to make the downloads fast.

4. FTP Download

5. Promotions of available products through email and at conferences.

Also look at potential value for use by regional (multi-county) organizations like terrorism task forces and MPO's.

6. Through data download or a map viewer.

7. I think PASDA is doing a great job with this type of data. The filesize is huge, so I like the online GIS server option. I like the ability to just download certain tiles, which saves server space on our end. Plus, if a user really wants a large area, the county mosaics download option is available, so I think PASDA is covering all the bases.

8. I think the shortcut on the main page is useful. However, once you click that, you not only get PAMAP imagery, but you also get local (Philadelphia for example). Maybe a link to PAMAP on the main page, then a viewer that had tools similar to ArcGIS, such as pan and zoom. These don't exist in the Imagery Navigator as far as I can tell. I'd make every attempt to emulate ArcGIS, because even non-GIS users are comfortable with pan and zoom tools.

9. I liked the beta testing online mapping application.

10. make selection of tiles as easy as possible. the new viewer helps with that but one is still faced with selecting and downloading one tile at a time. For instance, one can select all pamap tiles in a given quad but then must download them one by one. it would be nice to kick off a download, have it run for a few hours, and then end up with all the data.

11. The current Imagery Viewer and download tools are very effective as is. I know some people also greatly appreciate the ability to use PAMAP imagery with Google Earth. Using the image tiles in ArcMap and seamlessly in Google Earth are both important functions and serve as the two prime examples of using the data.

12. I think PASDA has it down - an index to ID sheets and wizard to download, a viewer for casual use & printing a site. The biggest issue may be to serve up the data in reasonable sized chunks to aid in speedy download

13. Whatever makes the most sense from a Technology standpoint (FTP?)

14. PASDA does a great job as it. Data can be downloaded or requested on media.

15. through the PASDA website

16. I believe it best served through the online viewers, the FTP site and the custom viewer interface that could be developed as mentioned earlier in this survey.

17. The most important key is for the data to be cached with 9.3 technology! Even on high speed Internet, the imagery takes way too long to display - users won't deal with this when things like Google Maps are around. If this is not possible, I think the download process needs to be streamlined a bit. For example, the average user doesn't know what year a certain County was flown for PAMap, yet when they go to the download process, they have to choose the year.

18. Data downloads and map services.

19. Multiple methods - download, services consumable by GIS software, services consumable by Google Maps/Earth and Microsoft VE, standards-based services (i.e. OGC) that can be packeaged into any application (doesn't require GIS software)

20. FTP,HTTP download

Is the continued update of statewide data (ortho imagery, roads, land use) valuable for the Commonwealth?

1. Depends on the data frequency of change. e.g. Elevation doesn't change that much. Therefore a 10-year cycle may be best for elevation. Data owner should be able to relay data frequency. Imagery may only be needed on a 3-5 year basis.

2. If you want people to use and even depend of PASDA as a data resource, it is critical that the data be as current and accurate as possible.

3. I would image that there are plenty of counties, municipalities, boroughs, etc. that do not have the means to capture this type of data on their own. Refreshes of the data would also be valuable to those that didn't capture data any particular year that PASDA or the commonwealth may be able to provide.

4. From a County standpoint, regularly updated imagery allows changes to the County, such as land use, ect.be better tracked. Updated imagery is extremely valuable in floodplain management and mitigation efforts.

5. Yes important

6. Latest road information would be most beneficial.

7. Updated data is valuable to many levels of government and private organizations. However the methods, frequencies of updates etc. are very different. This should be reviewed annually along with updates in technology to ensure that the most efficient and cost effective measures are utilized. Additionally user needs should be evaluated so that data is not captured at a scale that uneccessarily increases costs for tax payers.

8. Definitely, the ground is changing rapidly with development and it is critical to have the most up-to-date photography to perform accurate studies.

9. Yes

10. Definitely. However, I'd remove old data and make it by request only, strictly for the purpose of simplicity. I'd guess that most people want the latest data, and only would want historical data for special projects.

11. Yes

This information is constantly changing due to redevelopment.

Look at State College for example, new roads, commercial centers, housing developmetns.

12. It is valuable. The number of years between updates is debateable.

13. absolutely!! there are so many reasons why -- the commonwealth needs accurate, hi-resolution, current base maps for critical infrastructure, planning, econ dev, and many others.

14. Yes, absolutely. These three data categories are crucial for most if not all GIS users. Roads and highways in particular seems to be a type of data that PASDA could expand upon what is currently offered.

15. Although we do not use these speciaifc types of data very often at the National Weather Service, I can imagine that this type of data (especially land use) would be extremely valuable to a multitude of organizations involved in comprehensive land use planning, etc.

16. Absolutely! The PAMAP imagery & LiDAR, along with statewide collections of data that constitute a standard base map for virtually all projects and applications. Statewide acquisition of imagery and elevation is also the most cost effective for state agencies, counties, local governments, and other agencies. The large contracts associated with PAMAP also generated contracts for private GIS contractors in PA

17. Absolutely.

I suppose the only real folks who can answer that question are the statewide agencies that depend on critical basemap information being maintained an being made available in a consistent format.

18. yes

19. YES! YES! YES!

20. ABSOLUTELY

21. PaMap is vital to the geospatial community as well as many other industries, applications and uses. If the state and the Governor do not continue to support this program or the updates of the data (imagery, LiDAR, planimetrics, etc) this will ultimately hurt and hinder many programs across the commonwealth (DFIRM, E-911, municipal uses, etc).

22. Absolutely - this is a no brainer!

23. Absolutely. Everyone needs updated imagery. The counties need it, the state agencies need it and emergency personnel need it every day. Without current imagery, we cannot perform our jobs as efficiently.

24. Yes, it is vital infrastructure for all, not just GIS use.

25. yes

26. Yes, updated base mapping layers are very important. Pennsylvania really, really needs an up-to-date landuse layer.

What GIS software do you use?

1. ESRI software suite

2. ESRI

3. The City of Philadelphia is stanardized on ESRI ArcGIS software suite of products.

4. ArcMap 9.2

5. ESRI

6. ESRI ArcGIS Desktop and GIS Server

7. ESRI products.

8. ESRI ArcGIS 9.2 (ArcInfo, ArcView)

9. Arc GIS 9.2 SP4, (7 Concurrent Use and 7 Single Use) Arc Info, Spatial Analysis, 3D Analysis

10. ArcGIS 9.3

11. Arc View 9.2

12. Arcview GIS 9.2

AutoCAD Civil 3D 2008

Mapserver

qGIS

Mobile Mapper Office

MapWindow

GRASS

13. ESRI products

other miscellaneous open source, tools.

14. ArcInfo 9.2

15. ESRI ArcGIS, primarily.

16. ESRI ArcGIS, ArcServer, Envi, MapInfo

17. ArcGIS - Info,Editor,Map, ArcScene

ArcIMS 9.2

ArcSDE 9.1

Currently implementing ArcGIS Server

Annual maintenance contract for ESRI software around $70,000.00

18. ArcGIS

19. ESRI ArcGIS Desktop Suite, ESRI ArcServer, ESRI ArcIMS, ESRI ArcSDE, ESRI ArcPad & MrSID Compressor

20. ESRI ArcGIS 9.2

21. ESRI products

22. All ESRI - ArcGIS and extensions 9.3 ArcView to Arc/Info, ArcGIS Server 9.3, ArcPad 7.1.

23. ESRI products

24. ArcGIS and other ESRI software

ERDAS

Various elevation/LiDAR software - Mars, QuickTerrainModeler, GeoCue

25. ArcView 9.3

26. ArcGIS 9.2, Erdas

Do you use other types of software?

1. Oracle, SQL Server

2. We continue to use Microstation for some PennDOT mapping projects.

3. There are two or three departments at use other GIS Software that supports specific needs that ESRI Software does not or is just too expensive.

4. Not on a regular basis.

5. Mostly ESRI 3rd party solutions

6. Manifold occasionally.

7. Yes I use a variety of products related to map finishing, RDBMS software, UML software, and various development environments.

8. Some staff uses Google Earth but at a minimum.

9. No

10. Microsoft Office products, Adobe products- That's why I stressed standardizing your viewers so that they "look like" those software programs that are familiar to many people.

11. AutoCAD Land Development Desktop 2004

12. Microsoft Office

Firefox

13. database (access, oracle)

statistical analysis (spss, sas)

web development tools

14. Standard Microsoft programs (MS Office, etc.), Adobe Acrobat Pro, Photoshop

15. MS Office, customized Access databases with some programming, mashups with Google

16. Oblique Image Viewer (Multivision / Pictometry)

IAS

Recorder of Deeds Software (iCRIS)

17. no

18. Adobe Products for map production.

19. have had lots of requests from engineering firms about conversion of shapefiles to DXF - am investigating conversion tools

20. We use microsoft products, Google Earth, AutoCAD (CAD product), Microstation (CAD product), WaterGEMS (modeling software), SewerGEMS (modeling software), and Cartograpgh (asset managment software).

21. MS Office products, some CAD (Microstation, AutoCAD), graphics packages (i.e. Adobe Illustrator)

22. no

23. Microsoft Office - need easy way to include clean graphics/maps. By clean, mean wirhout accompanying site text, graphics, borders, etc.Something that can go straight from PASDA to a document.

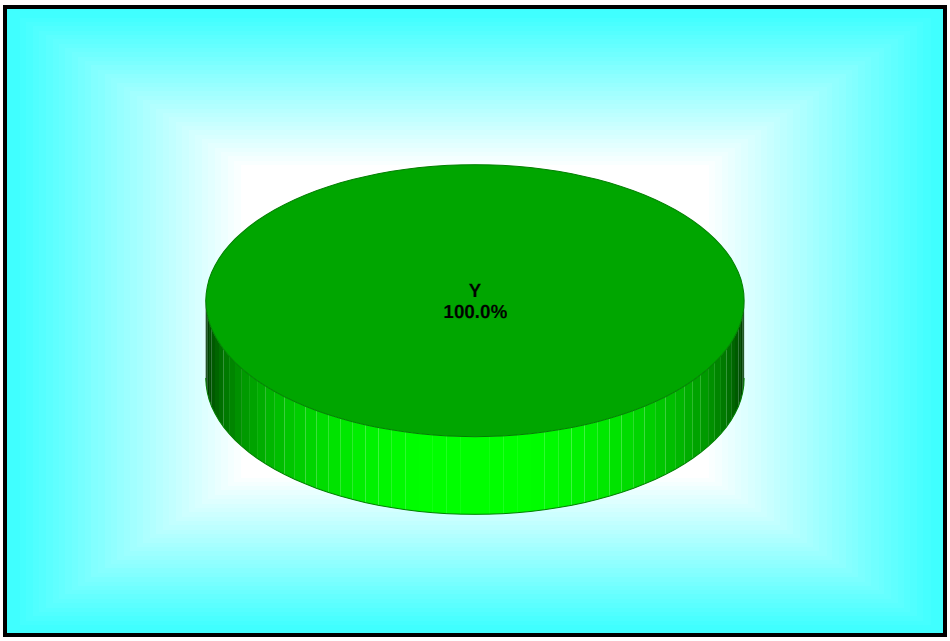
24. GRADS, degrib

Data Options for Selection, Display, & Download

The users were asked to provide input on various options for download and viewing of data.

Currently there are the following data search options: Keyword, Theme, Provider, and County. Are these options clear?

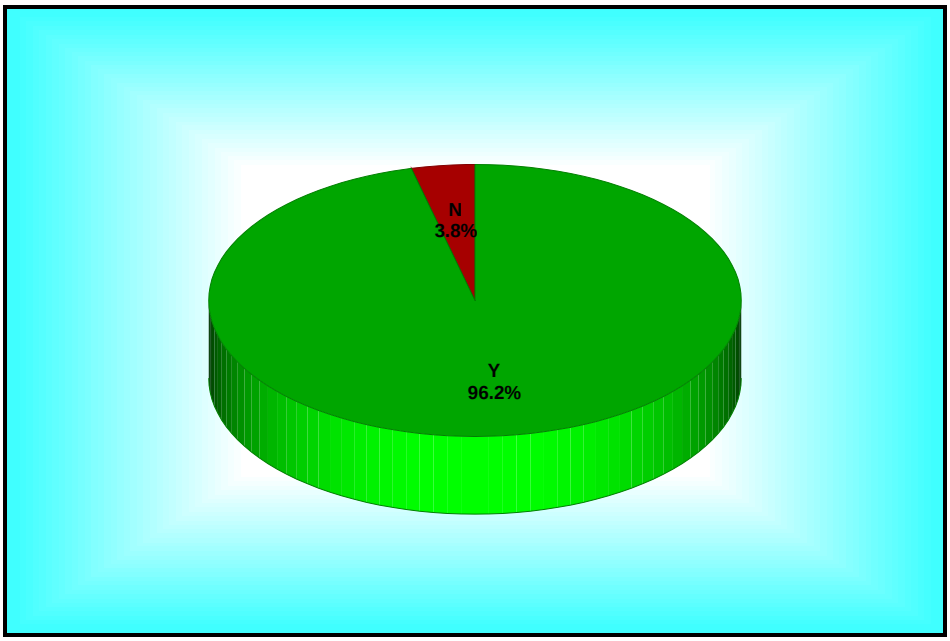
Choices	Count
Y	26
N	0



Results Chart for “Currently there are the following data search options. Are these clear?”

In addition, there are options to Browse Online Map Services or Browse All Data. Are these options clear?

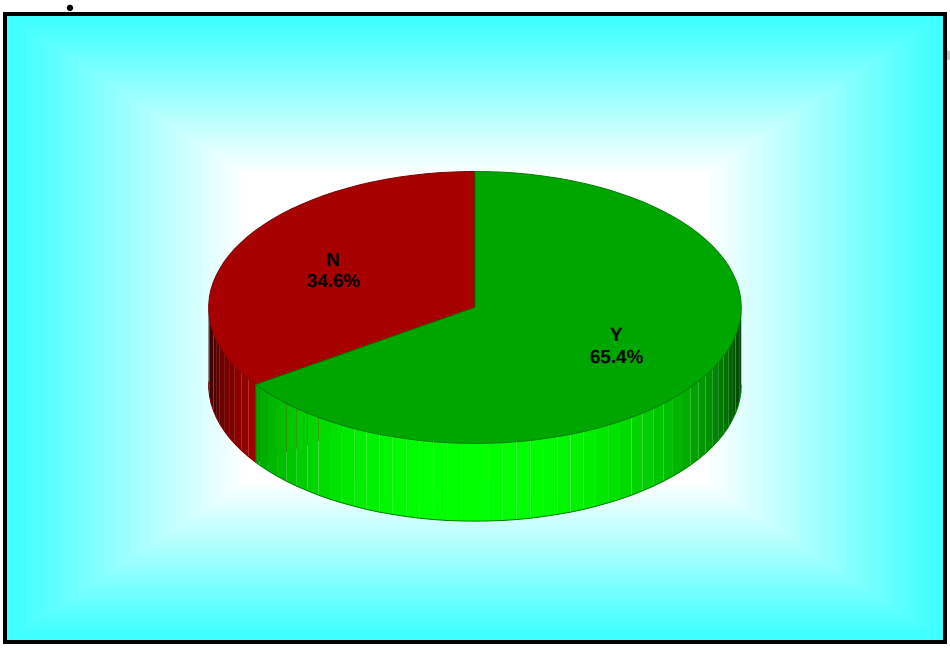
Choices	Count
Y	25
N	1



Results Chart for “In addition, there are options to Browse Online and Browse all data. Are these clear?”

Please do a search using each of the first four options and review your results. Did you retrieve the data you expected?

Choices	Count
Y	18
N	9



Results Chart for “Please do a search using each of the first four options and review your results. Did you retrieve the data you expected?”

If you did not retrieve the data you expected, why not?

1. U.S. Geologic Survey data returns when "fish" is entered as the keyword.

2. search by keyword - (trails) allegheny co. returned rail and road data. Perhaps trails are included.

search by theme - OK

search by data provider - OK

search by county - (Bucks) returned data from Chester and Philadelphia.

3. na

4. I'm assuming PASDA does not have what I was looking for.

5. I searched for roads from PennDOT in Dauphin County and I received 404 results with a number of datasets on wildlife and environmental resources. I thought it would only return PennDOT data at the very least. This was unexpected as I have had success with this search tool before.

6. When searching for data within "Dauphin County" I received data from many other areas NOT just Dauphin County...Specifically Lancaster County

7. I searched "Keyword" = "roads" And "County" = "Clinton". I got a list of random data that did not pertain to this search. Apparently, I don't understand the And and Or buttons correctly. It seems a lot of times that you need to know the data provider to get anywhere.

8. not applicable

9. each option worked well

10. Many unrelated items for the search criteria entered. If there was a way to filter out data that is created beyond a certain scale I think the results would be way more effective.

I'm searching for any information that crosses a county boundary that I'd like to use on a county scale (or even larger like a municipality). If I could tell the search not to show me data created at 1:2,500,000 and smaller I think it'd solve the issue.

11. When searching for data by county, you always get a lot more data then you need or want. The return results always contains data for other counties or statewide data sets have nothing to do with the county you were searching for. It then becomes cumbersome and time consuming to find the specific data you are looking for.

12. It always seems to come up with too much almost every time I search. I think a better search engine is needed to retrieve desired results. For example, if I type in "Lakes" and I am a novice user, I wouldn't really know what to download out of all those options. If this can't be changed then more info is needed with the resuls - something like what Google does with their results.

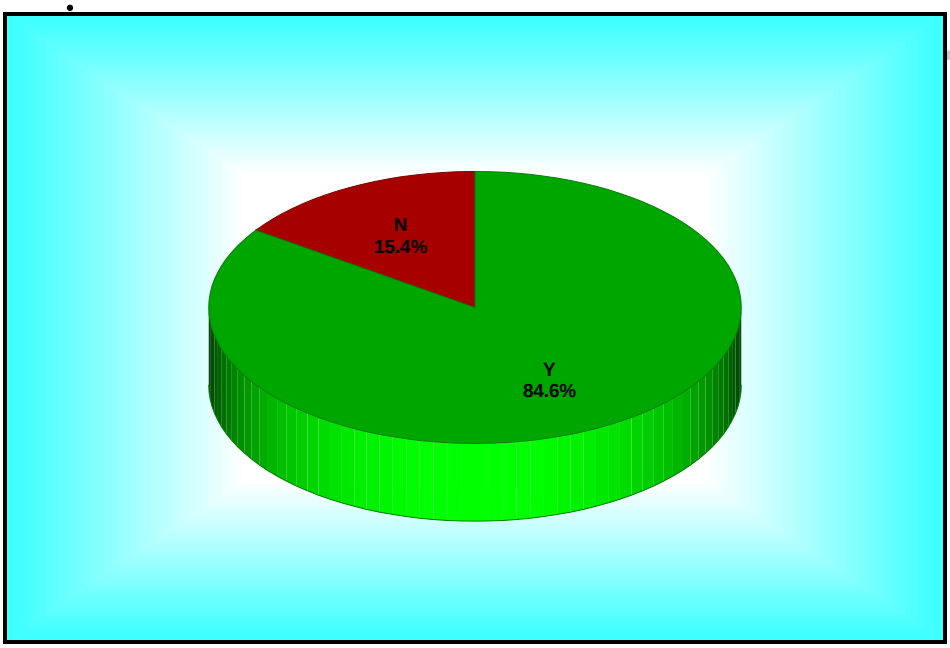
13. Keyword searches produced different results than a Theme search for the same text (.e.g a weather keyword produced results different from the Meteorology theme). A Theme search produced different results than a Provider search (e.g. Provider list contained theatic data that was not retrieved by the Theme search)

14. Sometimes you show a map and it's not intuitive that you have to drag a rectangle to see deatail...like the moth map. i just saw the township outlines and did not know I had to draw a rectangle to actually see the data...it should be a clickable map.

15. I did an address search and it did not find the addresses.

Reviewing the results of your searches, are they presented in an easy to understand manner?

Choices	Count
Y	23
N	4



Results Chart for “Reviewing the results of your searches, are they presented in an easy to understand manner?”

If the results of your searches are not presented in an easy to understand manner, why not?

1. na

2. I think it's just very confusing to a non-GIS user because it returns things that don't have any relevance to the search unless you really know what data you're looking at. For example, when I search for roads in a particular county, I don't want bat study data to be returned. This just doesn't make sense.

3. The results are listed by organization; however, the user may not know which organization would have created the data. It may make more sense to organize by sub-topic.

4. not applicable

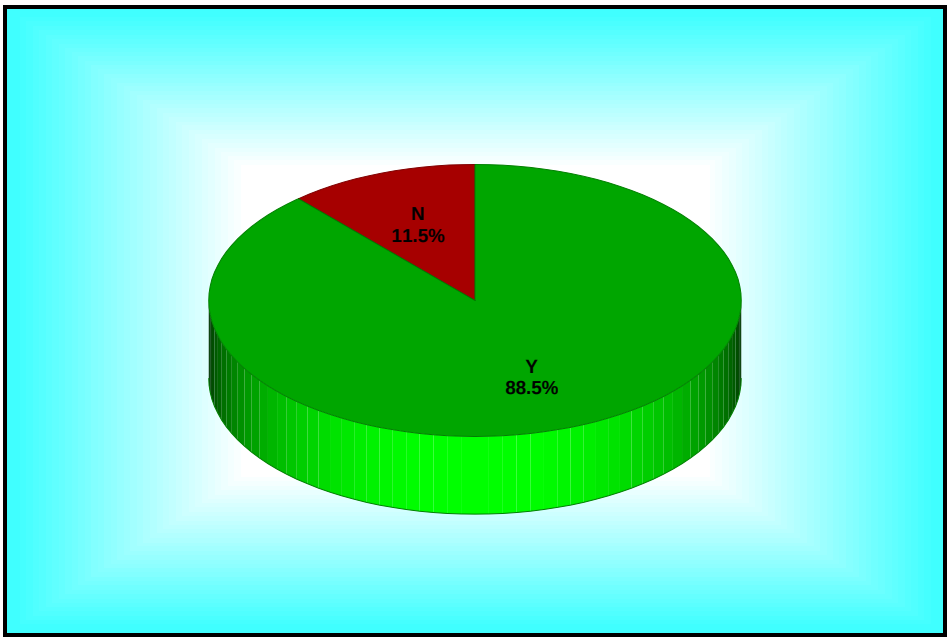
5. everything was easy to understand. I think even first time users would be OK

6. Categorize the display of the results by data provider. The lists can often be long and some sort of breakdown would help.

7. I can figure out the organization (sorted by provider) but this may not be clear to all users, and there is no way to re-sort the search.

The results include links to the metadata, applications, FTP download, and map services where applicable. Is this clear?

Choices	Count
Y	24
N	3



Results Chart “The results include links to the metadata, applications, FTP download, and map services where applicable. Is this clear?”

If the results are not clear, why not?

1. Can not see the legend at the top when user scrolls down. Legend at top does not pop out

2. na

3. The icons are clear, but why is it that you can only add some items to your cart, and others you have to download one by one?

4. not applicable

5. everything looked good

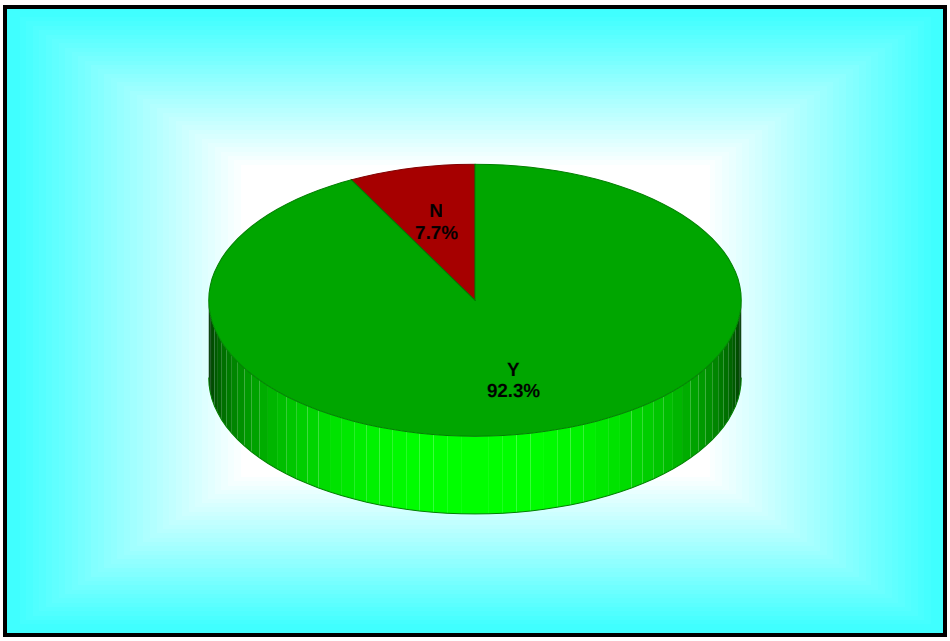
6. Results are clear.

7. Applications, FTp, and services are represented by icons in the right column. Metadata is provided by clicking on the data title. This is not consistent.

Do you find having a map-based search interface for all data useful?

Results Spread

Choices	Count
Y	25
N	2



Results Chart “Do you find having a map-based search interface for all data useful?”

Please explain why having a map-based search interface for all data is useful.

1. To help find data that I'm looking to access.

2. Allow you to view datasets that cross multiple boundaries or could be used to search county subsets if that data becomes available.

3. It is fairly intuitive.

4. na

5. You can see everything available for location rather than do many keyword searches.

6. In many cases you know area of interest is important but you may not know the county name etc. It also helps with ad-hoc data explortation and enables you to

narrow down your search. Also because everyone in the room today is a GIS person...

7. It helps to see what the data really is, instead of downloading a dataset and finding out it really wasn't what you thought it was or might contain.

8. We have all become comfortable with "WYSIWYG" What you See Is What You Get.

9. It would be extremely useful if it were intuitive to the user. I think the idea is great, but it just needs some tweaking.

10. The user may know the location before they know the address, county or township.

11. When you are beginning a project in a particular area, you can see all the data available very easily.

12. usually working in a specific area. seeing that info displayed on a map makes it easier to visualize what is available and how it looks, i.e., how dense point data is, how precise polys are, how is the resolution of raster data.

13. It would be very useful to incorporate a spatial component even to the search process, as we are dealing with geospatial data.

If nothing else, it would be nice to get some sort of visual preview (e.g. thumbnail image) of certain data before downloading to ensure it is really what users want.

14. if you are working on a project for a specific site, you can quickly go to the site & see what (or if anything) is available

15. Often times we'll work on projects on the border of our county and it's nice to be able to zoom in and specify a very specific section of the area of interest.

I'd also like to see the ability to weed out data from the search results that was created at a small scale. If I zoom in to a municipality and select a small area, I'd rather not see nationwide or world data.

16. one-stop-shop

17. Not really sure, but some people seem to like it.

18. enables one to identify area of interest and eliminate superfluous data

19. Having the map-based search allows users to narrow down their search very specifically instead of having to sort through lists of data. I prefer a map-based search over reviewing a list of results.

20. I want to find all data holdings in a particular area, and the search by County is not sufficent. I may want to search in a smaller area. Or, the County search produces incorrect results (a search on Allegheny lists the Appalachian Trail centerline, not close to the county)

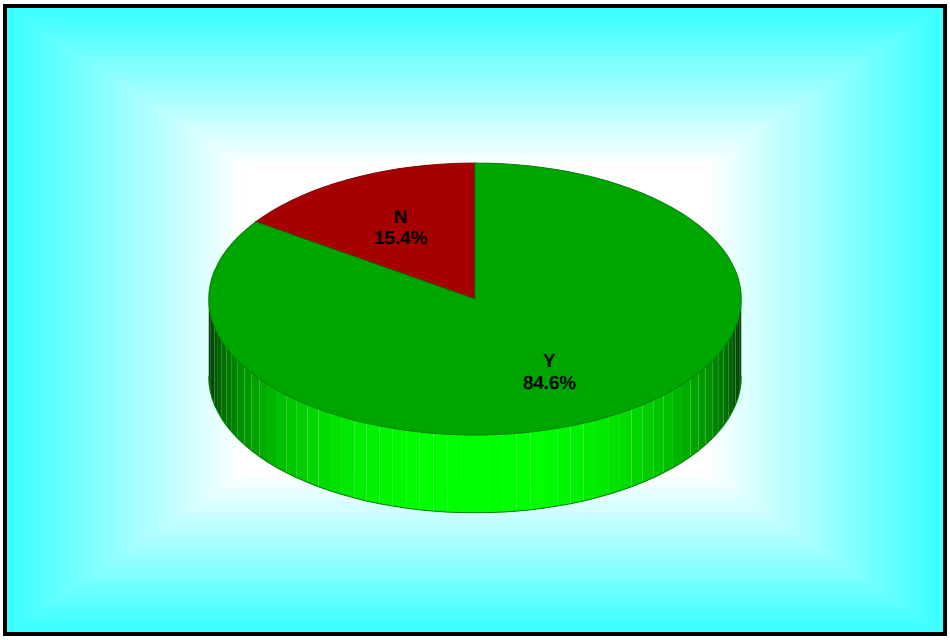
21. you can quickly get to the area you are interested.

22. As a geodata administrator, I am more interested in your download features.

There are two additional data filters on the left of the results page. Are these easy to understand?

Results Spread

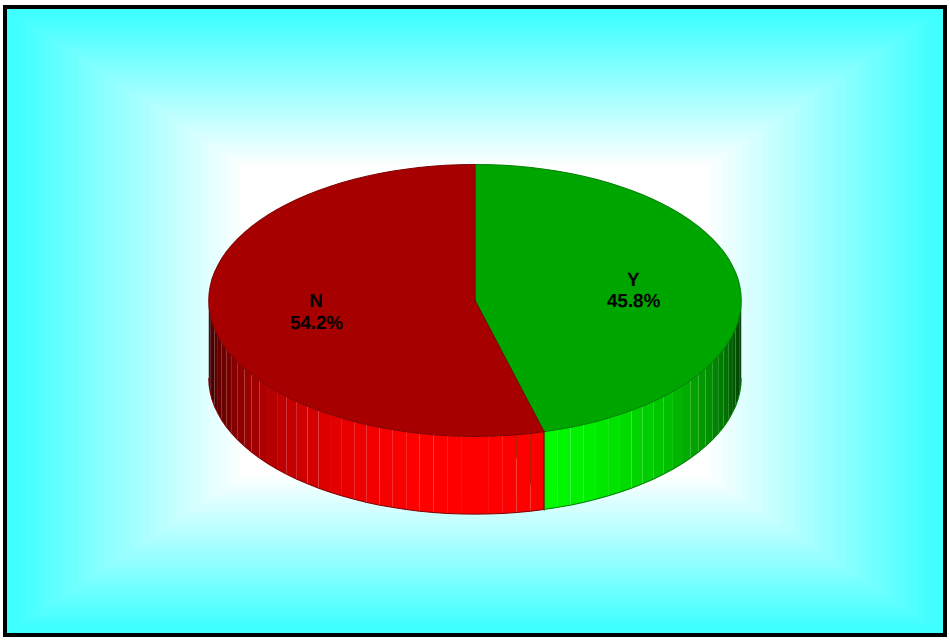
Choices	Count
Y	22
N	4



Results Chart "There are two additional data filters on the left of the results page. Are these easy to understand?"

There are two additional data filters on the left of the results page. Should additional filters and advanced searches be created?

Choices	Count
Y	11
N	13



Results Chart “There are two additional data filters on the left of the results page. Should additional filters and advanced searches be created?”

Please comment on additional data filters.

1. Gazetteer
2. filter by data provider/originator, filter by data scale/accuracy
3. An additional link could be the availability of a web serivces.
4. Maybe a filter by county or by provider since my original search by these variables did not work properly.
5. You can utilize the "Clip and Reproject" on your data
6. I think that the ability to filter by county would be great. That's what I thought the "Search by County" dropdown in the search tool was for, but it didn't seem to work properly.
7. Additional filters would allow users to further narrow search results, epecially if sub-topics are ulitized.
8. Although there is nothing inherently wrong with the data filters, traditionally I have not used them or paid attention to them.
9. i can't think of additional filters at this time, but I am sure someone else may come up with something.
10. Map Scale (show me all data created for a region at a scale of 24000 and larger)

11. Look good to me.

12. year of production

13. Anything that could possibly alleviate the mutliple data sets that return when searching by county.

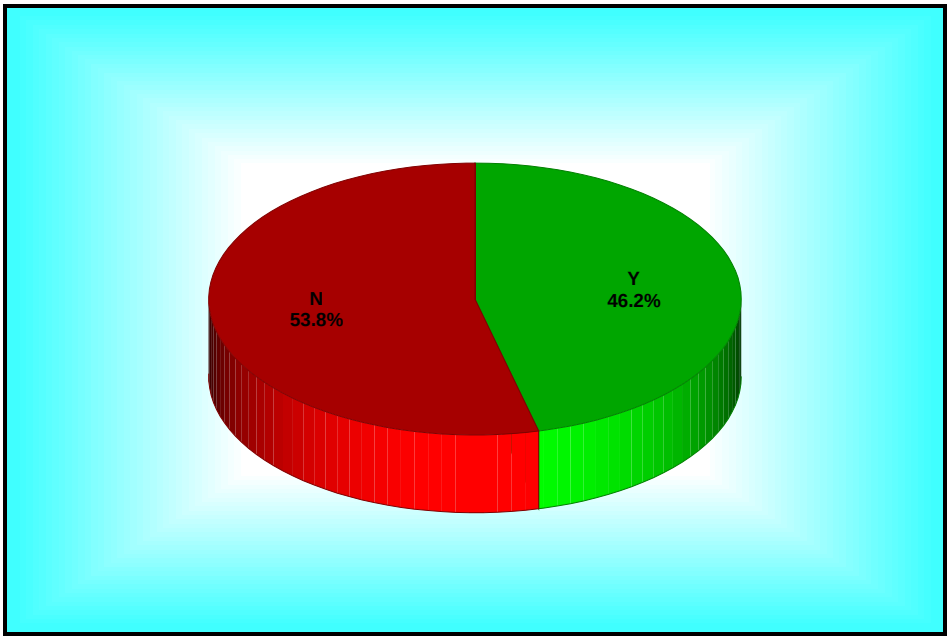
14. These are not obivous to the novice user. Simple explanations would help.

15. I never even saw the data filters until today. I'm sure they are helpful in narrowing down a search.

16. I don't use the additional filters.

The Data Wizard also includes a Data Cart function that enables users to select data, add data to a cart, clip, reproject, and zip together all the data. Have you used the Data Cart?

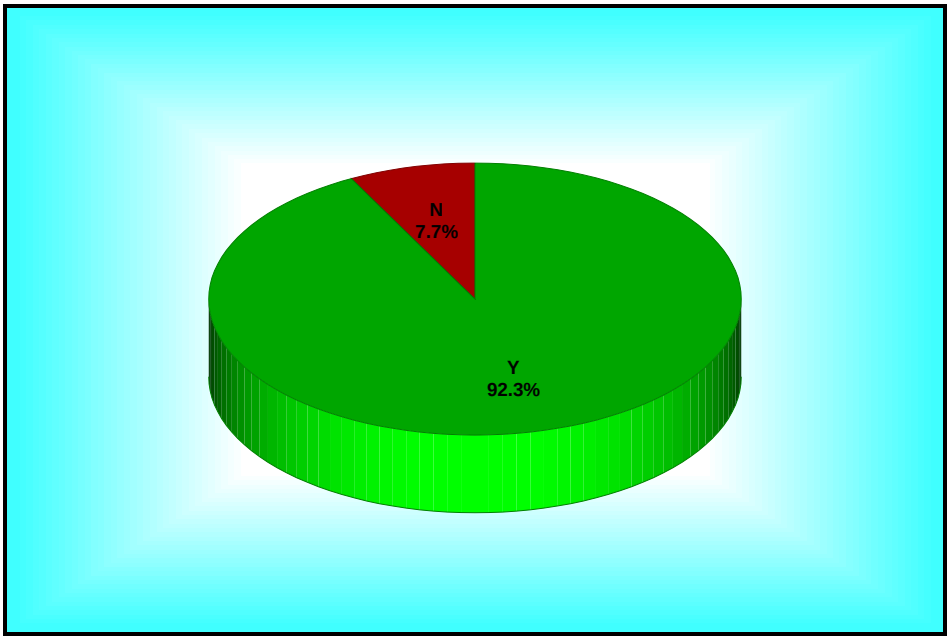
Choices	Count
Y	15
N	14



Results Chart for "The Data Wizard also includes a Data Cart function that enables users to select data, add data to a cart, clip, reproject, and zip together all the data. Have you used the Data Cart?"

Select some data sets and add them to your Data Cart then view the results (Do Not Download the Data). Are these steps intuitive and clear?

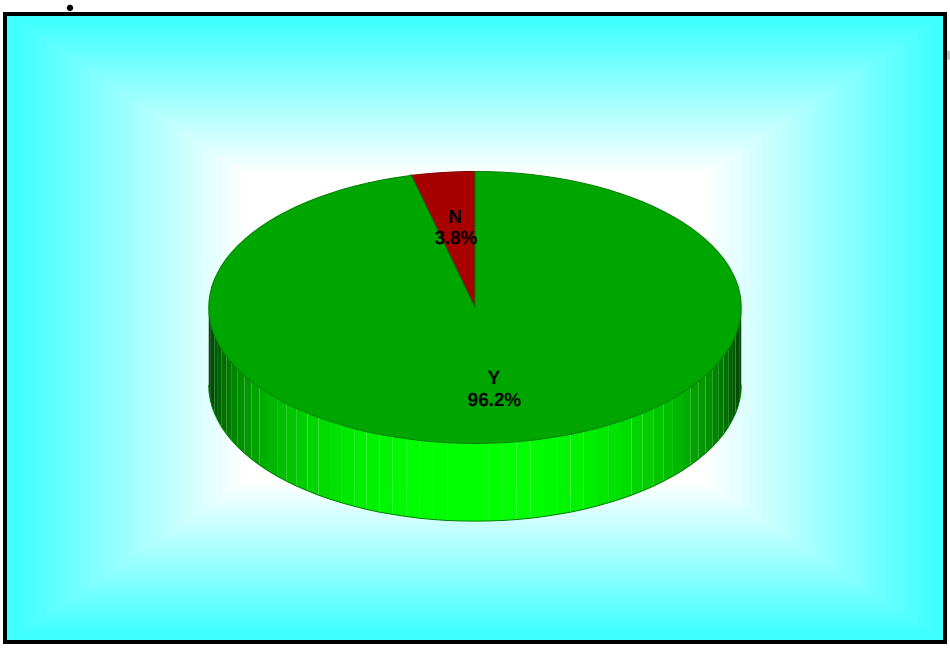
Choices	Count
Y	25
N	2



Results Chart for "Select some data sets and add them to your Data Cart then view the results (Do Not Download the Data). Are these steps intuitive and clear?"

Does the ability to customize data (for example, clipping and reprojecting in the Data Wizard) add value to the data currently available through PASDA?

Choices	Count
Y	26
N	1

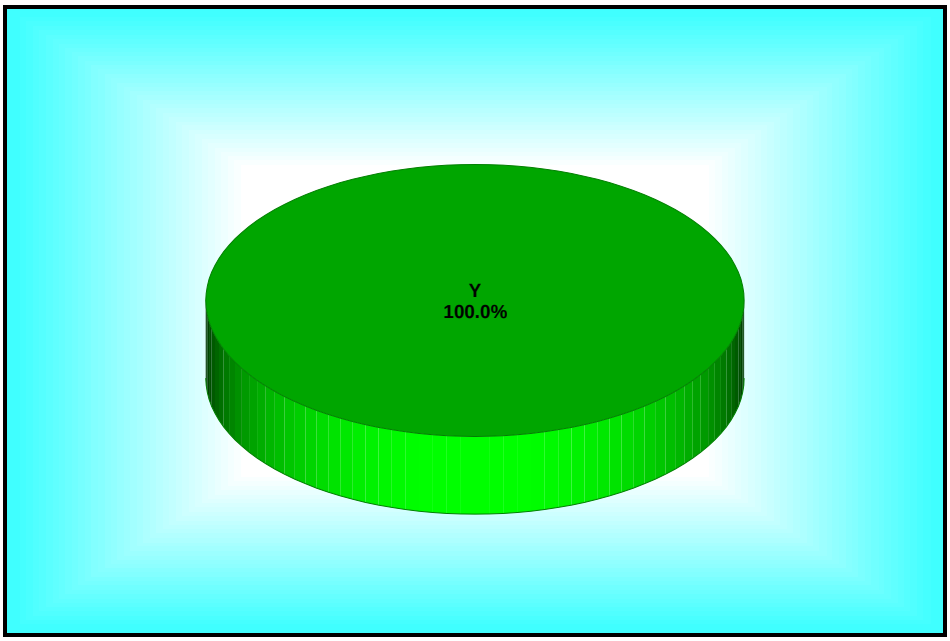


Results Chart for “Does the ability to customize data (for example, clipping and reprojecting in the Data Wizard) add value to the data currently available through PASDA?”

Is the ability to download multiple datasets simultaneously (i.e., using the Data Cart function of the Data Wizard) a valuable function of PASDA?

Results Spread

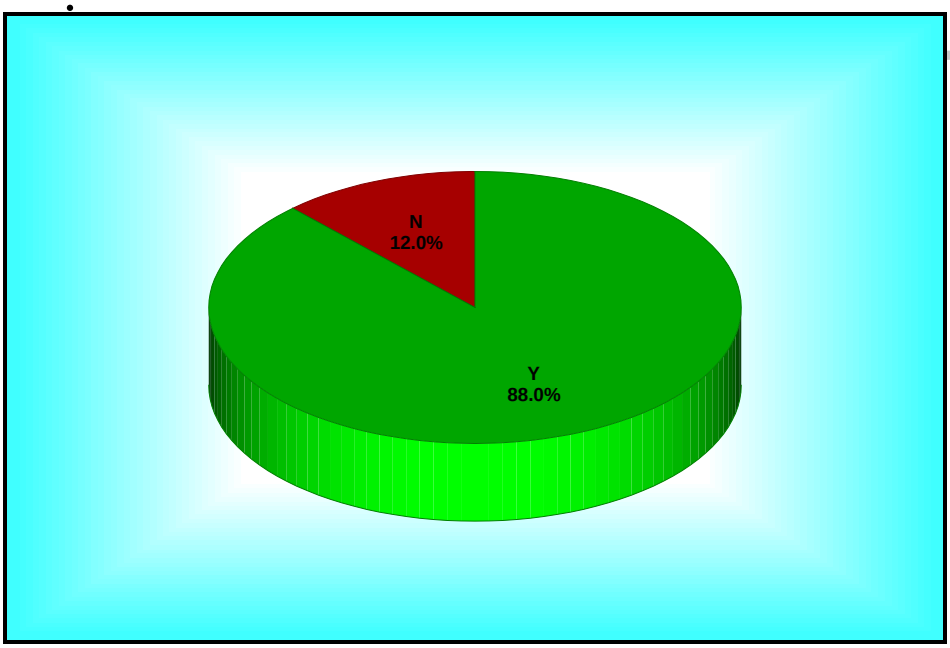
Choices	Count
Y	27
N	0



Results Chart for "Is the ability to download multiple datasets simultaneously (i.e., using the Data Cart function of the Data Wizard) a valuable function of PASDA?"

Currently only vector data is available in the Data Cart. Would you like the ability to select raster data sets and stage a continuous download?

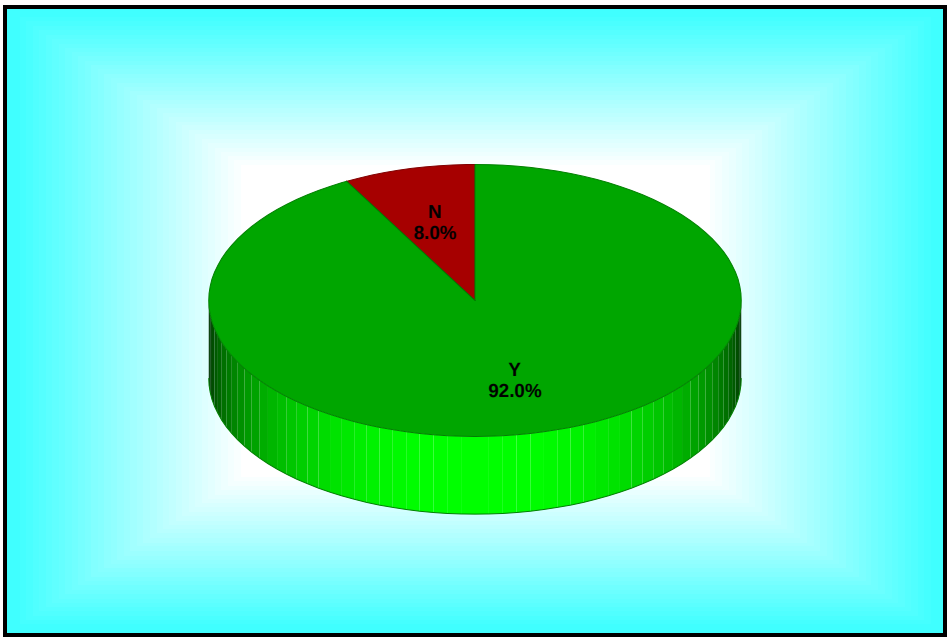
Choices	Count
Y	24
N	3



Results Chart for “Currently only vector data is available in the Data Cart. Would you like the ability to select raster data sets and stage a continuous download?”

Currently only vector data is available for clipping. Would you like the ability to clip raster data?

Choices	Count
Y	24
N	2



Results Chart for "Currently only vector data is available for clipping. Would you like the ability to clip raster data?"

If so, please explain to what geographic extent you would like to clip the data, i.e., watershed, block, etc.

1. Conduct a proof of concept first before making a raster download available as a service. If users have to sit and wait a significant amount of time this service may not be valuable.

2. regional mpo boundaries

3. I think as small as possible would be good.

4. Clip by county

5. municipality, PennDOT district

6. Municipality

7. political boundary

8. I would download rasters primarily based on watershed boundaries.

9. By HUC, By Area, By Watershed

10. All of the above would be very useful. The ability to clip by county and even municipal boundary is very useful. It's a time saver.

11. Watershed or by municipality

12. Similar to current Data Wizard. I would add the ability to set your own extents.

13. municipality, watershed, user defined area, admin districts of government agenies -- essentially, any geography that can be defined by files contained in pasda

14. not applicable

15. raster data sets can be quite large, so smaller clip increments may be necessary. When you consider statewide issues, even counties may be too large to clip color orthos. If it is raster data other than PAMAP orthos, maybe the PAMAP tile index would be sufficient, or perhaps a DOQQ boundary or quandrangle boundary. Even if you were working on a municipal plan, you often require data outside of the municipality, and even some townships are quite large

16. It'd be nice if data could be clipped by one or more features of :

Municipality

Watershed

County

17. USGS quads seem logical. Please identify what county the municipality is in for the 'clip' option.

18. by municipality (with County identified)

19. Watersheds or a on-screen graphic.

20. Watershed and municipality

21. Clipping rasters would be a great benefit to the user. In many instances, users just want a small area of imagery that doesn't take up a lot of space.

22. Defined areas - municipality, watershed, county

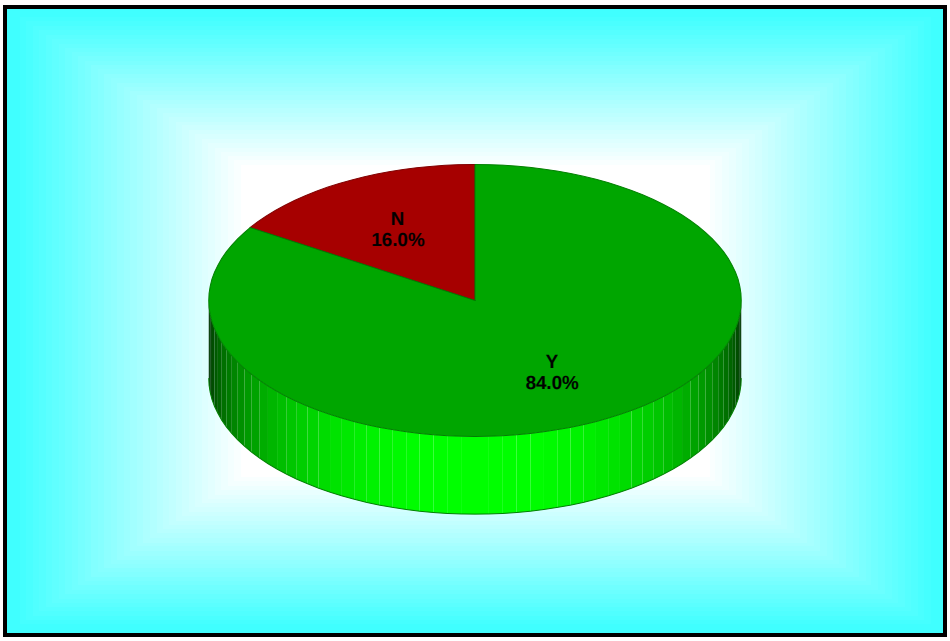
User-defined area - selection box

23. county

24. Watershed

Would you like to be able to bundle certain components of data such as LIDAR, contours, etc?

Choices	Count
Y	22
N	4



Results Chart for “Would you like to be able to bundle certain components of data such as LIDAR, contours, etc?”

What additional boundaries would you like to clip data to?

1. regional mpo boundaries
2. By any geopolitical boundary
3. Municipalities
4. See # 55
5. ability to create a dynamic boundary
6. I think PASDA covers the base clip layers. Any other clip layers would be too user specific.
7. HUC, Watershed
8. Municipal Boundaries
9. Your own extents
10. should be able to clip any pasda available dataset.
11. None come to mind.
12. maybe a user define polygon that can be graphically entered, or perhaps to buffer a feature such as a municipality, section of road / stream, or a radius from a user-defined point
13. shapefiles

14. Parcel 'Mapsheet' indexes? I know these are very individualize for each county, but it is the way many people naturally chunk up the data in their minds.

15. municipality (by county)

16. A graphic box or shape to be drawn on the screen or possibly even an uplaoded shapefile.

17. Neighborhoods, trail networks, etc.

18. township, zipcode, fips code

In which output formats would you like to see data available through PASDA, i.e. shapefiles, CAD, etc?

1. shapefiles, CAD, Mr. SID

2. personal geodatabases, shapefiles

3. Shapefile and Geodatabase

4. cad

5. shapefiles

6. industry standard formats.

7. shapefiles, Mr. Sid for images

8. shapefiles

9. I think that giving the user a choice is a great idea. A good example is that one dataset I was looking at was only available in coverage format, which is really a hassle when working in ArcView as opposed to Info. I spent a lot of time converting them to shapefiles, as ArcView told me I had to.

10. Shape

e00

dxf

11. shapefiles

jpeg2000

tif

12. current formats are fine

13. All ESRI formats (current and legacy when necessary), CAD could be useful for some.

14. .shp, .dxf, Jpeg2000 for imagery, and maybe MrSID

15. shapefile, personal geodatabase

16. CAD would make my life easier.

17. DXF would be most helpful for consumers of our data
18. Geodatabase, shapefiles, CAD
19. Geodatabase
20. Shapefiles is fine.
21. Shapefile

file-based personal geodatabase (for multiple data sets)

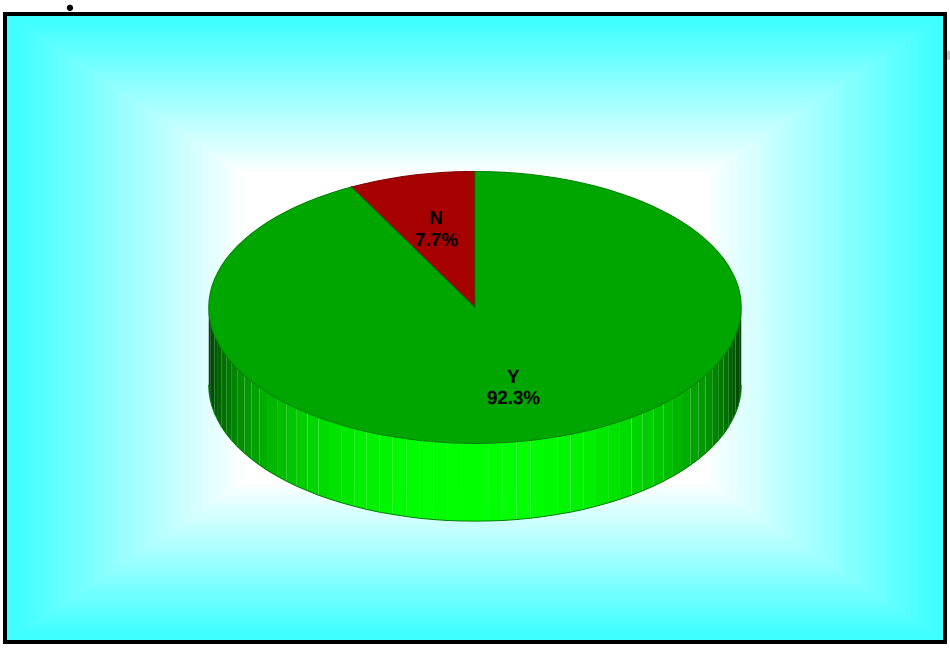
22. shapefiles, grib
23. shapefiles, geodatabases

Online Mapping & PA Imagery Navigator

Users were asked for input on web based mapping and the PASDA Imagery Navigator (formerly Imagery Viewer)

There are several options for locating imagery through the viewer. These include: zoom to a county, type in an address, find a quad by name, and click and identify. Are these options clear?

Choices	Count
Y	26
N	2



Results Chart for “There are several options for locating imagery through the viewer. These include: zoom to a county, type in an address, find a quad by name, and click and identify. Are these options clear?”

Are there additional search options you would like to see?

1. I think the options you have are fine.
2. Municipality, lattitude and longitude
3. LAT/LONG Search
4. no
5. Major watersheds, municiaplities
6. Find Municipality
7. muncipality
8. by sketching a polygon, draw a box/circle.
9. The current options seem adequate.
10. perhaps a search on a place name using GNIS
11. No.
12. by City
13. Zoom to Latitiude/Longitude I think would be extremely valuable .
14. Maybe search by stream or city/town.
15. Find by address is problematic. First, the text box does not clear when you type in it, so you have to delete the existing text. Second, it is counterintuitive to

new standards. When searching for an address on Mapquest, Microsoft, etc., I do not have to separate the Zip code from the street address. I also do not need to know the zip code, I can type a place name or even a landmark. This function has to be brought up to exisitng standards that are used by millions, not GIS standards used by thousands.

For quad name, there should be a list of quads and not require the user to supply the name, What if spelling is off?

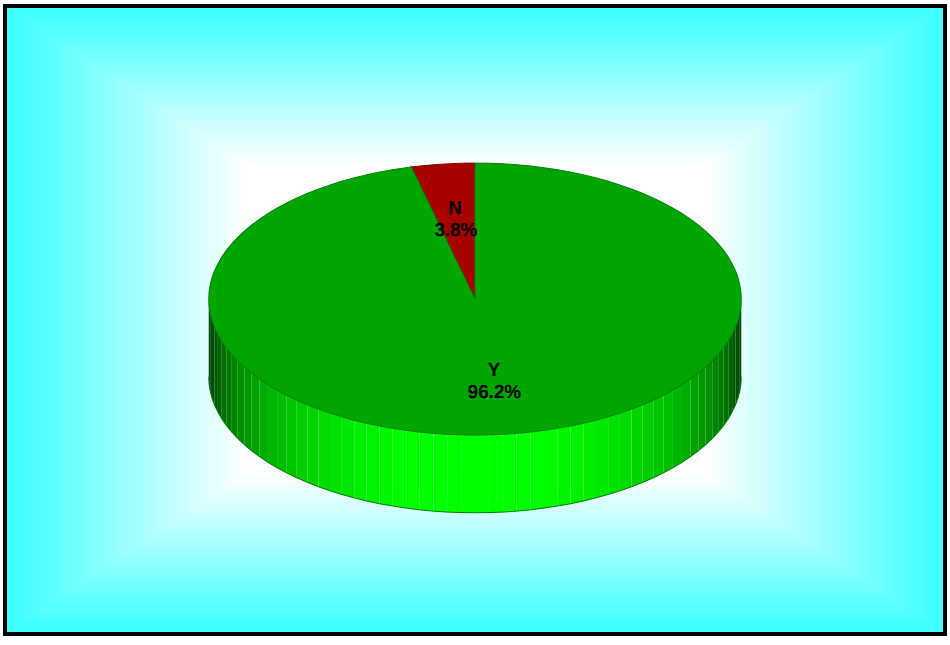
Include parks, forests, etc.

Include municipalities.

16. Watershed

The right navigation includes several options for turning imagery on/off and selecting specific collections. Is this useful?

Choices	Count
Y	26
N	1



Results Chart for "The right navigation includes several options for turning imagery on/off and selecting specific collections. Is this useful?"

Are there other options that should be included?

1. Google Earth type of interface

2. It seem that there needs to be more explanation up front of the resolution and accuracy. Maybe links next to each option to get specifications about the imagery available.

3. Need some sort of title at the top of the nav menus describing the functions

4. no

5. None that I think of.

6. Connect to PennPilot historic aerials

Historic topos

7. be able to bring in and display other pasda "layers"

8. The viewer seems effective as is.

9. how about the ability to pan across the screen, instead of just re-centering the map (ala Google maps)

10. No.

11. The ability to download data that falls into a custom polygon graphic drawn by the end user.

12. Links to short descriptions or metadata would be helpful at this point since there are numerous options.

13. no

14. 'All Off' is misleading. You can't have more than one on, so you can't turn 'all' off, just the one you've selected.

I would not include Toppgraphic Maps under Imagery, it should be other collections.

Include municipal boundaries

Include state forest, gamelands, parks, etc.

15. I would like to be able to pan. The refresh is quite slow compared to some other online mapping such as google earth and maps.live.com

What other viewing capabilities would you like to have developed?

1. None

2. Not sure

3. Pan the view

4. The ability to click on a quadrangle (for example), and have it directly download would be very useful. Or...even have it go into your cart.

5. Imagery Viewer is good. Being able to view ALL data on PASDA (in a separate and/or combined viewer) would be the next step.

6. i think the viewing options are adequate

7. No. The focus of the application is great as is.

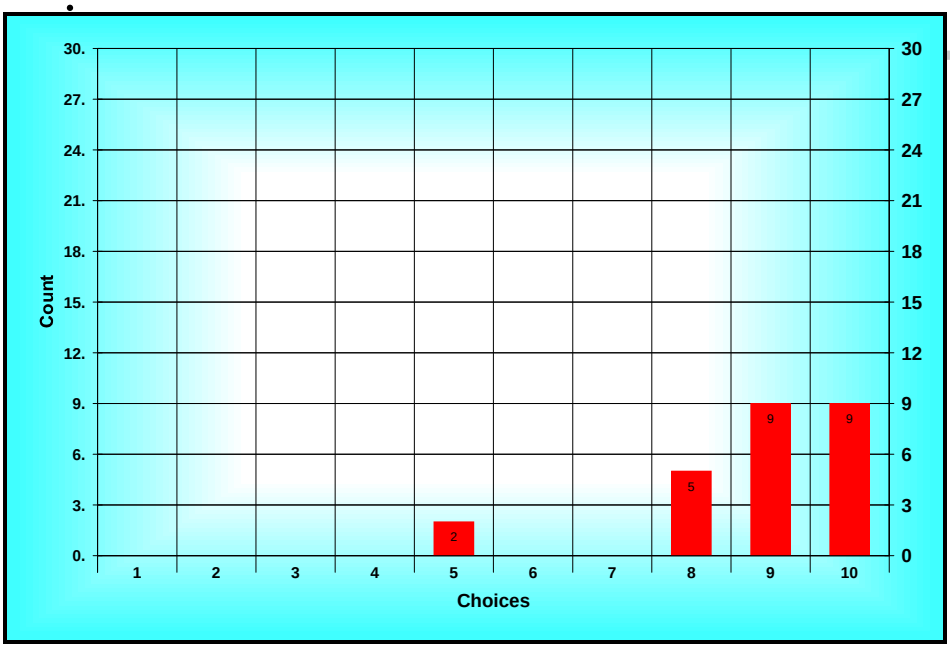
8. The abiltiy to possibly upload or view data search returns/results into the online viewers.

9. Need to move to the Microsoft/Google type navigation controls instead of legacy GIS controls

10. turn on and off layers

Currently the Pennsylvania Navigator allows the user to see and access any and all available imagery and raster data for a particular location. On a scale of 1-10 (with 10 being the highest), how useful is it to have access to all available imagery in one application versus collection by collection or provider driven?

Choices	Count
1	0
2	0
3	0
4	0
5	2
6	0
7	0
8	5
9	9
10	11



Results Chart for “Currently the Pennsylvania Navigator allows the user to see and access any and all available imagery and raster data for a particular location. On a scale of 1-10 (with 10 being the highest), how useful is it to have access to all available imagery in one application versus collection by collection or provider driven?”

Please comment on user's ability to see and access any and all available imagery and raster data for a particular location.

1. We don't care who the data provider is and all imagery should be in 1 application available from PASDA

2. There is a lot of imagery out there and it's good to have one stop shopping and a easy way to quick turn on and off the years you need.

3. This allows the user to know what is available for that location.

4. This is the best way to do it, well done!

5. It is fabulous!!

6. makes navigation and search easier

7. It provides one stop shopping, the ability to compare and contrast different types of imagery and timeframes. This is the best way to provide access in my opinion.

8. Having the ability to see and access any and all available imagery and raster data on a particular location allows for a one stop shop of data for a particular location

9. One-stop-shop for rasters - super easy! Need to do the same for vectors.

10. The Imagery Viewer is a great innovation. Highly convenient for advanced or novice users to access imagery.

11. excellent - allows user to see historic views of sites

12. Very easy

13. I like it!

14. user is able to select the best imagery for the intended purpose from one spot

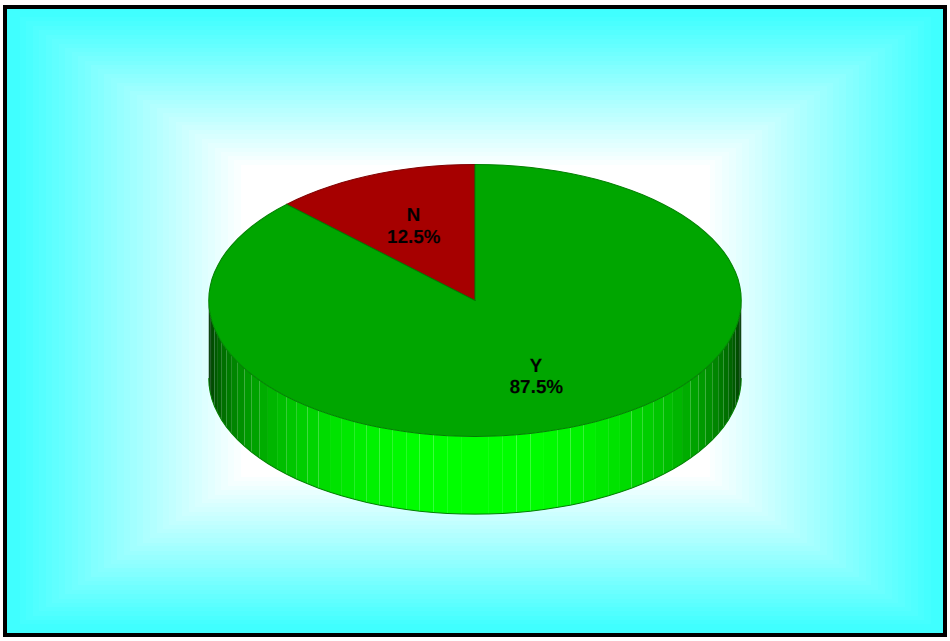
15. Often times it is useful to see not only current imagery but also historic or older imagery to determine or view change over time. Also different types of imagery produce different types of interpretation such as infrared vs black & white vs color imagery.

16. It's good but sometimes it takes a long time to load the data.

17. This allows the user to look at a site over time. They can see what imagery is leaf on versus leaf off. Different applications require different types of imagery.

Currently, you can create a pdf file of your image. Would it be useful to have this option for vector data as well?

Choices	Count
Y	22
N	3



Results Chart for "Currently, you can create a pdf file of your image. Would it be useful to have

this option for vector data as well?”

What should appear in the map template?

1. legend and map. ability for user to enter a title, to print the map

2. source date, legend, scale, north

3. The standard map elements... north arrow, title, legend, scale bar, etc.

4. Title,scale,legend

5. If you have some way of delivering symbology (layer file)with the data, a pdf would not be as useful. There are too many steps between raw data and a cartographic product.

6. Legend, North Arrow

7. minimum carto requirements for a quality map - legend, scale - all types, data source, standa titles etc.

8. Legend, scale bar, north arrow, time stamp, data sources

9. Space to type Project Name

Township and County

10. Location map

Date of imagery/topo

Creator of data

Legend

North arrow

scale bar

11. Common map elements: scale bar, legend, north arrow, etc.

12. a legend, date map created, ability to include a title, if possible legend should include source of raster & vector data, date of imagery if it is used, and hopefully the ability to change some symbology

13. All standard map elements

14. Title, Scale, Legend, Publication data (ala online mapping copyright info accetate layers)

15. The abiltiy to enter a title and north arrow.

16. Source info,

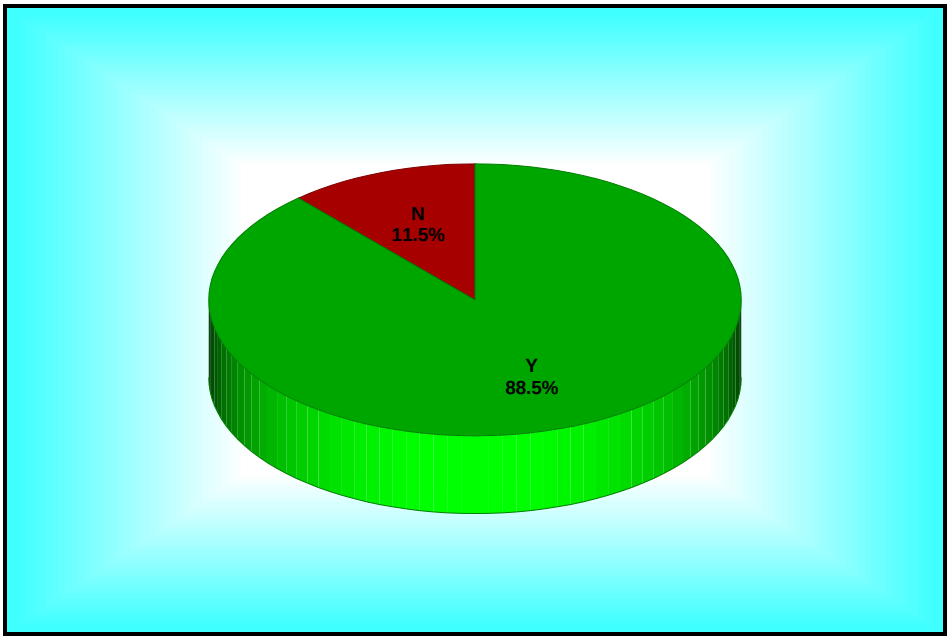
17. scale bar, north arrow, legend, PASDA (as source), source of data.

18. As little as possible.

19. We typically don't create pdf files. We download data, utilize our own tools to create custom maps that we then create a pdf from.

There are several options for downloading imagery. Are these options clear?

Choices	Count
Y	24
N	3



Results Chart for "There are several options for downloading imagery. Are these options clear?"

Do you have any suggestions or improvements for downloading imagery?

1. When you choose click a point it is not clear the extent of the area you are downloading.

Not sure if this occurs but giving someone an estimate of time to download would be useful, with an option to receive data via cd/dvd.

2. Not now

3. Map Services

4. no

5. No

6. I understand the size and volume of the files and I think PASDA does an excellent job in being a portal to download this data....I think the files and the size of those files are the limitation NOT the download capabilities

7. Maybe a visual window that is basically like a cart that shows the tiles you've chosen to download.

8. Selected Area Tiles should be labeled

9. more batch downloading capabilities

10. I preferred the previous "Identify and Download" button and window that the Viewer had before the most recent revision.

11. not really - with imagery, you have to deal with the image or tile sizes. Maybe making different formats avaialble for various software. A non GIS-user may just want a standard JPG of their site to use in presentation or report

12. JPG2000, I guess.

13. The ability to download data based on a custom graphic polygon.

14. The more streamline the better. I think the Zoom to Lat/Long option would be very helpful

15. It's nice to be able to download various images at the same time.

16. Need to allow for multiple selections and downloads (batch)

17. We dowload a lot of imagery and there have been no problems.

PASDA provides access to a wide variety of map services created from our provider's data. Which services do you use the most?

1. aerial imagery

2. It would be good if I could have the imput of other City employees, but since I don't will have the map service is about it when we need more information about what's going on in the entire state.

3. Weather, roads, contours

4. census viewer

5. WMS services (maps.pasda.psu.edu)

6. Floodplain mapping and the Wetlands

7. PA Navigator

8. weather

9. Have not yet used the map services, but I plan to do so.

10. imagery

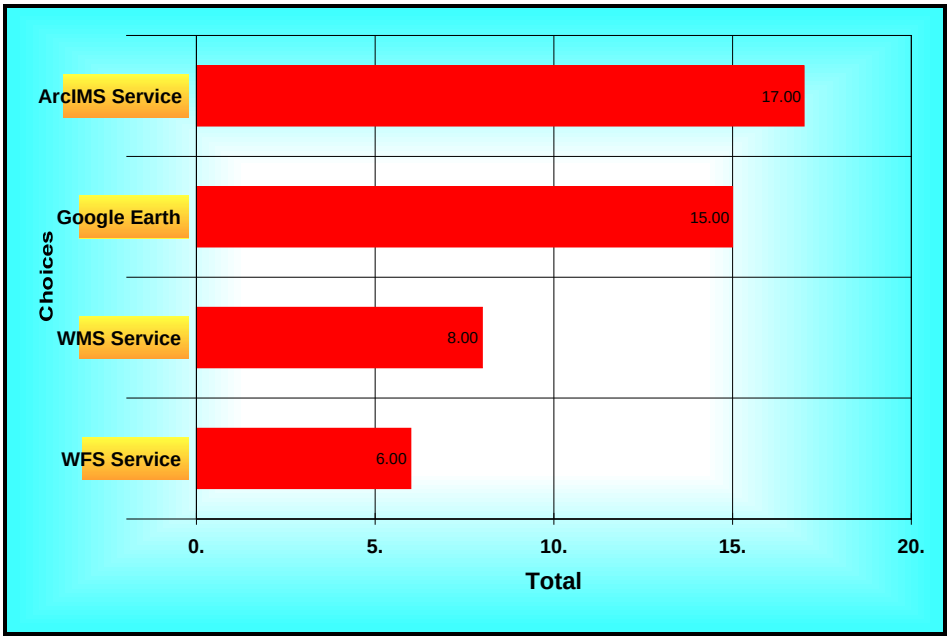
11. KML
12. PennCAT & Google Earth
13. PA Map, USGS Topos
14. imagery, usgs quads
15. Imagery

PennDOT roads

Boundaries

Are you more likely to use which of the following?

Choices	Total
ArcIMS Service	18
Google Earth	15
WMS Service	8
WFS Service	6



Results Chart for “Are you more likely to use which of the following?”

PASDA also utilizes Google Earth as a means for visualizing data. Are there other options you would like us to explore?

1. MS Virtual Earth, Pictometry, ArcGIS Server map services

2. virtual earth - has better cartography

3. Not at this time.

4. Virtual earth because of the Pictometry/Birds Eye view

5. Map served through individual counties

6. ArcGIS Explorer

7. I can't think of any, PASDA does a great job already at offering online GIS Servers, web mapping services, and the Google Map option. I don't think there is anything left.

8. No

9. no...just make more of your visualiztion tools "google" like -- kml based.

10. MS Virtual Earth?

11. Google Earth is a good option. There are numerous non-GIS folks who have adapted Google Earth and are really putting it to work

12. NASA Worldwind, Maps.live.com collection, Dynamic vector KML in Google Maps with labels, Tile Map webservices for PAMAP datasets, other fun nerdy stuff like that.

13. Microsoft's virtual earth only because ESRI has now partnered with them and I believe big things will be coming out of that partnership.

14. Google Maps - state agencies are not allowed to use Google Earth.

15. no

16. List or describe other options such as WorldWind.

17. Google Earth is a good supplement but should not replace GIS

Google Earth is sometimes suggested as a substitute for GIS. What do you think of this assumption?

1. Google Earth can only substitute the presentation component but it can not meet other critical needs such as download capabilities, map services for GIS technical user, and other services. A google earth is more for the non-GIS user who has a need to view data to make informed decisions. Those making google earth assumptions need to understand the requirements and have the requirements

provided by valid individuals across PA. Compare apples-to-apples, not oranges to apples.

2. Google Earth serves an important function to allow people, especially non-GIS people, to quickly view spatial data. People are familiar with its appearance and functionality. There are many things a GIS can do above and beyond the capabilities of Google Earth

3. I honestly think it depends on ones purpose and need. I find that Google sometimes do better job or a worst job of displaying data the way I need it at the time. It just depends on the user.

4. Not yet, it is a digital map with limited GIS functions

5. I think it is great for getting from point A to B and allowed some error. Too much error to replace GIS.

6. It's an incorrect assumption. GE is a valuable tool for visualization. However GIS is not just visualization.

7. I think it is good for novice or beginning GIS users, but it is far from a professional GIS replacement.

8. Google Earth is an excellent "online" FREE application that allows you to view data on a map online...However you are very limited to analysis and additional manipulation and layering of that map without GIS

9. I think it's somewhat fair, but the quality of data is not the same. It's low resolution imagery and you can't work with it. It's very easy to use and navigate though.

10. Google Area is a quick map.

11. It is simple to use, good basemap, and provides nice visualizations for free. However, you need other software, commercial or open source, to create data easier and perform more complex tasks.

12. I can be a substittue depending on the application. google like apps and java scriipt/kml based apps are becoming more common. to make pasda more familiar to non gis users, pasda should build more of its visualization tools using the google api

13. Google Earth is obviously popular with non-GIS users, and some claim that it can do everything a GIS application can and more. I have not used Google Earth extensively, but I suspect that is not true.

P.S. I would probably try to learn a bit more about Google Earth and perhaps use it, but it is not approved software for Commonwealth employees and we have been barred from using it.

14. For a user who does not require indepth use and analysis of data, Google Earth may meet their mapping needs. However, Google Earth cannot be considered a substitute or replacement for GIS.

15. GE is not a replacement for GIS. You can view, print, search & route, but there are spatial & data processing functions that cannot be performed in GE.

16. Loaded question.

Google is a substitute for Simple Map Viewers.

17. AWFUL! It is an excellent visualization tool for end users, but it is NOT an Information System.

18. Analysis is not possible - it is easy for the non-GIS person to understand

19. Even though it is a GIS application, it is wrong and misleading.

20. As a GIS user, I think it's bogus. It then makes GIS sound like just a mapping program as opposed to an analysis tool which is what it really is. This is a big problem in terms of support for GIS and utilizing it how it should be

21. I think it's wrong. GIS is much greater and more comprehensive than Google Earth and imagery. People want the most updated data. I realize that PASDA doesn't always have the most current data available but the data on Google is even further behind. In addition, PASDA offers more localized and detailed/site specific data than Google ever could.

22. Correct assumption, because it all depends on how you define GIS. Clearly, mass numbers of people consider it mapping and useful, regardless of what GIS practicioners may think.

23. It certainly is cheaper :)

24. Yes, it is a very, very simplistic GIS, used mostly for viewing.

There are many external resources, applications, and services in the Commonwealth and beyond developed through other sources. What is the best way for PASDA to recognize and share these resources?

1. We need a GIS portfolio and the ability to keep it maintained and up to date.

2. Greater outreach effort. Overall the State is lacking in coordinating and being aware of what is going on throughout the State.

I think this is directly related to the lack of vehicle to GIS professionals to meet and discuss topical events. PAMAGIC fall short in its ability to reach out to a larger audience.

3. I suppose through user group meeting, but I think a soft of suggestion or comment box off the PASDA site would be good as well.

4. Continue what you are doing. Continue the work of data standards the PAMagic started, these standards are now needed for the ETL tools that regional agencies are developing to share their data across county boundaries.

5. I suppose through links on the website like your news area and related links section.

6. ESRI has started to move toward a resource center concept that collects information around a specific topic such as "geoprocessing" or a specific industry such as "water". Maybe consider this type of organization so that users can search for data however users could also begin to search by domain and then link to other resources.

7. I think PASDA should recognize them in the links, spotlight section now and then, and in the news section when applicable.

8. User Input session like this one allows for recognition and sharing of knowledge among many agancies

9. It would be nice if there were more links to

PA one Call if there was a better way to locate ultility information for preliminaty design on projects.

Also if possble to get a link to published Act 537 mapping produces for studies. To see what areas have sanitary sewer services and what areas are in need or have been flagged with having failed systems.

10. Assimiliate ALL data and take over the world!

Provide access through PASDA as resources allow and provide links to these other sources for everything else.

11. build relationships with these sources and either get their data on pasda, or work cooperatively with them to provide web services through pasda -- i.e. pasda acts in those cases, like a portal to other "connectable" data sets.

12. More Related Links?

13. Perhaps these additional resources and services can be added to the 'Related Links' section on the PASDA website.

14. perhaps under a "what's new" section, or to allow users to suggest items from other areas, or an open-ended forum for posting info or ideas

15. Blog?

16. on-line links

17. Not sure what you are refering to here but maybe some examples would have helped.

18. Spotlight on home page, list them in a categorized list. Periodic email blasts?

19. Use what's available and what people want. Also, support cooperation and sharing.

20. Online services catalog

21. provide links and information about those sites on your page

22. Provide links on your site. Your new home page is wonderful, perhaps things like this could be placed on the home page for a while.

Should PASDA host regularly scheduled metadata training sessions and, if so, where? Would your organization be willing to host a session?

1. Yes, training is invaluable as long as the student creates metadata afterwards. No use in holding training sessions if people are not going to create metadata.

2. If the demand is there it would be a good service to provide. We have hosted a session in the past and would be willing to do so again if necessary.

3. Metadata sessions would be great. I guess for my own selfish reasons, I would say the meeting should be held anywhere between Philly and Harrisburg. And, yes, Philly would be willing to host.

4. Yes and Yes

5. Training sessions at PAGIS.

What's new sessions at PAGIS.

Training at regional level.

Maybe on the hosting.

6. To have one for different regions of the state per year I think would be adequate. Union County training center would be one idea location for a workshop.

7. Yes I still feel this is very important. My organization is ESRI and I have a seminar room that can hold 49 people and with two weeks notice can make it available to you at no cost. - Jim

8. I think PASDA should keep hosting metadata training. I attending a training session on metadata given by Chris Peiffer. It helped alot to understand what information goes where in the metedata form. I also worked with Chris on creating a metadata protocol for out organization. This is a very important aspect of GIS and training needs to be available.

9. Yes...Metadata training sessions would allow for a consistant approach to writing Metadata

10. Yes. It is extremely frustrating when taking on a large project with a lot of acquired data with no information. Yes, I'm stating the obvious.

11. Yes

12. Host training sessions as needed throughout the state. We could host a session.

13. not something I would attend --- unless some new and innovative metadata tools come down the line.

14. Training would probably be a good idea. However, making users more aware of the metadata tutorial on PASDA might go a long way as well.

15. Would probably not be a bad idea do hold occasional metadata training sessions.

16. I think they would be useful due to the growing number of GIS staff at counties and municipalities. Check with the SPC in Pittsburgh, or Allegheny County, they host various GIS workshops

17. I think training sessions are a fantastic idea! I can't speak on behalf of Chester County, but the Planning Commission might be willing to reserve a room to host training..

Oh, the topic must be something OTHER THAN METADATA!

18. YES! Anywhere municipalities and/or their GIS contractors meet. Yes; I am sure that Kathryn Reed would be thrilled to teach the 130 municipalities in Allegheny County about the importance of metadata.

19. we would be delightedto host metadata training sessions to encourage our various departments and municipalities to use and create metadata

20. Eventhough I believe metadata is important, I still believe end users will continue not to create it because it takes too much time and it is a painful process. Therefore, I think these training sessions would not be well attended.

21. PA Fish and Boat could host - we can hold meetings with up to 75 people in Harrisburg.

22. Yes. I think not enough attention is given to metadata. It's one of the most important parts of the data and despite not wanting to do it, people should know how to create it. Yes, we'd be willing to host a session.

23. Yes, but the emphasis should be much less on details of collecting, entering, and using metadata, and much more on the value of metadata. Metadata protects an organization's investment in data, and this needs to be the message to elected officials and others who provide budgets. Metadata must be a budgeted function as it is an insurance policy protecting the organizations's assets when knowledgeable staff leave. Problem now is that current staff know the data and don't have resources allocated for metadata creation and maintenance. When the staff leave (inevitable), their accumulated knowledge leaves with them and new staff must re-learn everything about the data.

24. yes...have no idea how metedata would help me. not trained in GIS. i would like training here at the penn stater

25. No.

What other regularly scheduled sessions would you like to see PASDA host?

1. Perhaps not regular sessions but with increased outreach you could publish email newsletters keeping us informed about what people are doing. A good role would be to give people a heads up as to what is being planned at all levels (state, regional, local) so that there can be increased cooperation. Maybe not your role.

2. Data standards work, to grow PGDSS

3. PASDA works well for me as it is. However one suggestion would be perhaps technical sessions.

4. Use of webservices in the desktop.

5. Data sharing between agencies, data creation - delegation so we know what is already available and what everyone else is doing to reduce data duplicity and add to data integrity.

6. General Public info sessions on data that is available on PASDA

7. none really. spend your time bringing in more and better data. use your time to build new relationships with new contributors.

8. not sure

9. Any kind of GIS-training sessions would be useful. Perhaps each year a variety of GIS topics, software, etc could be the focus of training offered by PASDA.

10. Actually, keep up with the "What's New" on the home page, or continue sending periodic emails on new features & data on PASDA. I like the tutorials on ArcExplorer, using web services and others that PASDA already has

11. A "Status of GIS in the State" would be really nice. There are many subgroups PAGIC, PAMAGIC, PAGIS that it'd be great to see the folks doing great work more than once a year (PAGIS Conference).

12. Any kind of awareness and 'live' PASDA use tutorial would be great. Maybe webcasts or videos of typical use scenarios?

13. introductory sessions for groups or individuals unfamiliar with PASDA

14. I believe with the release of the new LiDAR data the state and PASDA will be faced with lots of questions on what is and how to use this data. I think this will be a hot topic for training sessions.

15. I think you could do training online.

16. Use of map services - how can i leverage these and avoid downloading everything?

17. i would like some GIS training. some beginner to intermediate classes, maybe a 2 day session with hands-on training how to use ArcView. learn how to bring in data sets and manipulate them to make maps or extract information.

18. This evaluation session is nice!

Should PASDA continue to work with local and regional governments and nonprofit / academic institutions (as well as state agencies) to further develop the state data inventory through the creation of metadata?

1. yes. we need pasda to create metadata to fill the gaps

2. yes, that should be the primary role.

3. Although no one likes to create and maintain metadata, including myself, I think it's valuable enough to use as a mechanism for further developing the state data inventory.

4. Yes

5. Yes, assist through data standards

6. Yes

7. Yes

8. Definitely, it is crucial to good GIS work.

9. Yes

10. Yes. It's a win win.

11. Yes it would be great if more counties would publish their data on the website.

Greene County has some great GIS data available in MapInfo as well as Fayette County.

12. Yes, PASDA or some other organization needs to make sure metadata is created if the data is available to the public.

13. yes!!!!

14. Yes.

15. Absolutely! Some of the most accurate data comes from counties, and conservancies are often the best source for environmental features and special habitats. PASDA does well with linking data from state agencies - keep it up!

16. Yes... Perhaps the required data elements can be paired down to the most critical elements (who, what, when, where, why).

17. yes

18. Absolutely. Discovery is often the hardest part of any GIS project.

19. absolutely

20. Yes, I believe this is still an important venue.

21. Metadata is critical and needs to be part of every data set produced.

22. Absolutely.

23. Yes.

1. Encourage metadata development by treating it as insurance (see question 80)

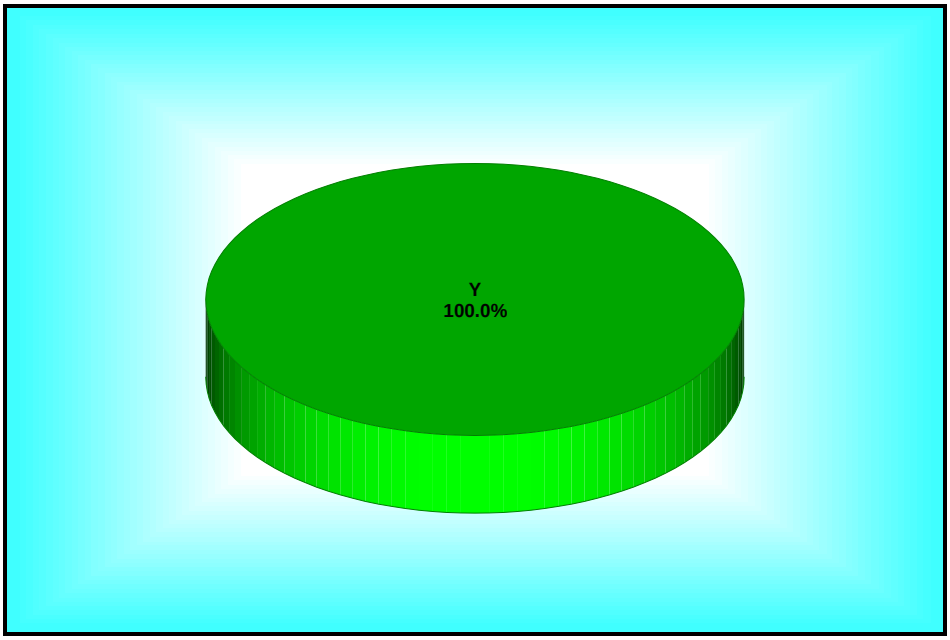
2. Develop online data catalog.

24. yes

25. Yes. Federal agencies should also be included.

Should PASDA continue to host user input sessions?

Choices	Count
Y	27
N	0



Results Chart for "Should PASDA continue to host user input sessions?"

How often?

Number of responses to this question (n): 26

1. 1 time per year

2. If these could be done remotely you could do them more frequently. While it is nice to get together once in a while you could reach a larger audience via web

3. It seems after the first couple of sessions you may have enough information that you could begin to have these sessions once every two years.

4. Once a year

5. Every 1 or 2 years at PAGIS

6. Yearly

7. Once per year works.

8. every 3 - 5 years

9. every three years or on an as needed basis

10. Once a year is good. I'm sure there's a LOT of work involved taking suggestions into consideration and working to improve the site- not to mention the day to day questions! It's good to see that you really care about how effective your clearinghouse is and value user input.

11. Twice a year or their have been significant programming changes.

12. yearly, or as-needed

13. answered yes above. but you may be able to get just as much feedback with a webform. not sure we had to be here in person to do this. you could ehnance the web form with some video or podcasts to share with the group new developments.

14. Annual or semi-annual?

15. Once or twice a year would probably be appropriate.

16. probably annually, or maybe twice a year if you feel that there is enough interest

17. 6 Month intervals would be great and would help us to network too as we'd begin to see similar faces.

18. every other year

19. Continuous -- web based user surveys (like this one), annual stakeholder meetings (like this one!).

20. annually or as technology or general GIS developments dictate

21. Annually

22. Annually - technology is changing rapidly enough to warrant annual meetings. Maybe biannually in person and online surveys in between?

23. A couple times a year???

24. Annually

25. one a year

26. Annually.

PASDA works with grantees of the state, the GIS community, and serves business, industry and the general public as well as government agencies. How can we increase our visibility to ensure the maximum number of users, a continued positive return on investment, and improve information sharing in the Commonwealth?

1. Define who your customers are. How often the customer uses PASDA. What do they use PASDA for. This will be invaluable information as budgets and resources continue to decrease. Return on Investment is mentioned in the question. What is the PASDA ROI? These are the questions that will more than liikely need to be answered.

2. Keep up the outreach. The more useful the data you serve, the more word of mouth will spread your name.

3. As the state creates more and more web sites, we should work to get PASDA on each of these web sites and not just a link buried somewhere on the site.

4. Bigger profile and presentations at PAGIS Conference.

5. By either more statewide base layers or partnerships at the county level for base data with more counties across PA.

6. re-introduce the PASDA onsite visits or increase them back to a level of 5+ years ago.

7. I think PASDA is doing everything it can short of advertising.

8. I do like the idea of a monthly newsletter, and it probably should be electronic

9. "Advertise" on PA's website if you aren't already. I'm sure you have. Perhaps also visit educational conferences if that's not already taking place.

10. Possibly hosting a GIS user conference possibly promoting PASDA with possible software and training grants.

PASDA's data has been very useful in Act 537 studies and completing general mapping for DEP Planning Modules.

11. hats, t-shirts

attend conferences

make the evening news

12. pasda staff need to be out and around. building new relationships, getting new data. generally being aware of what spatial data is available and facilitiating access to it. either in the repository, with webservices, or links to other sources. the bottom line is, pasda should promote itself as a repository and portal -- end user mapping applications are less important -- at least to me.

13. Maintain contact with data providers and encourage providers and users to spread the word when possible.

14. outreach to data users and providers is key. PASDA's presence at conferences works, but consider other getherings such as CCAP, State Assoc of Municipal Officials, any conferences by conservancies or environmental groups, and tie ins with the PASDC. (I apologize if you are already doing this). Also, the universities are cranking out grads who have more exposure to GIS than 10 - 15 years ago. The grads will need to know how to find data once they start working

15. Presentations at surveyor, engineering and other related group meetings.

16. you seem to be doing a great job within the GIS Community - possibly an outreach program to schools (K-12)

17. We need to get our politicians and news media more involved someway in using PASDA. This would help spread the word.

18. The more links to PASDA that are out there, the better. Continued online app development and links directly to the apps.

19. I think you need to keep reaching out to the people. The people could include everyone using geospatial data in the state. Your users will tell you what they want, what they'd like to see and how you're helping them do their jobs.

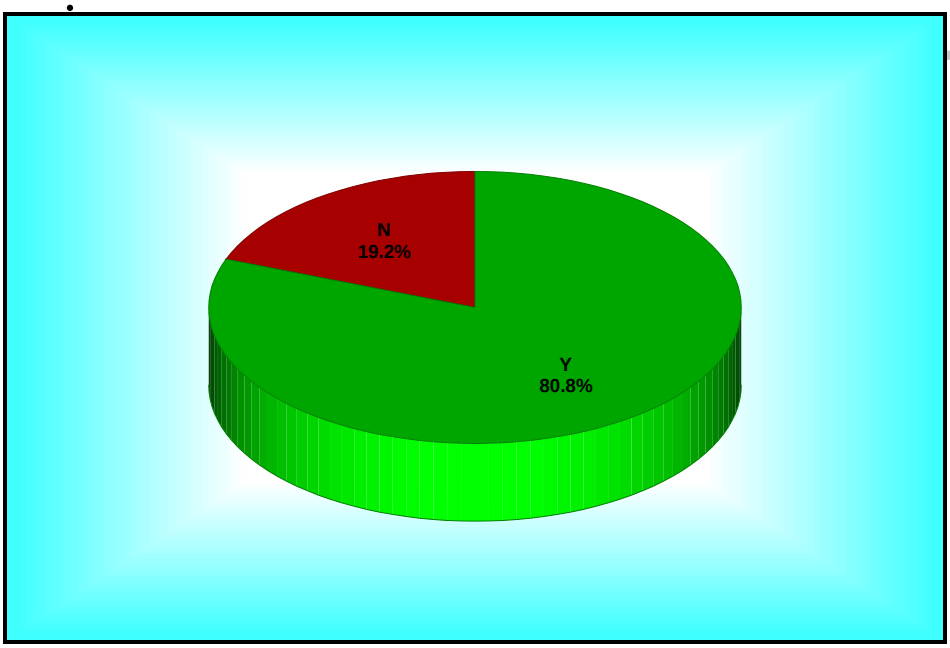
20. prepare a business plan. Document work to date, highlight statistics, highlight how this data is vital to all of PA's infrastructure, produce a 3 or 5 year strategic plan.

21. maybe hold a conference once per year that gathers all these agencies together and gets them talking. for ex weather service could have some data that another agency could use, or maybe that agency doesnt understand the data or how to use it and so we could explain it better leading to more understandign and use. and vica-vers...there may be data sets out there we could use but don't know what they mean or don't know how ti use

22. Work with all these groups so that they have links to PASDA on their websites.

Would a monthly newsletter of new data, services, and resources on PASDA be useful to you?

Choices	Count
Y	23
N	5



Results Chart for “Would a monthly newsletter of new data, services, and resources on PASDA be useful to you?”

Are there other mechanisms of communication that PASDA can use to help keep our data providers and users informed?

1. PAMAGIC Communique. There are already too many newsletters. Lets standardize on 1 source -- PAMAGIC and all provide monthly updates via the PAMAGIC route

2. Although I can't believe I'm going to say this, but maybe e-mail newletters that are sent quarterly.

3. Digital email newletter highlighting the what's new stuff.

4. The new websit resolves issues of communication as long as it is frequently updated.

5. RSS feeds would be very useful.

6. I think the monthly newsletter should be distributed via email.

7. An E-newsletter.

8. If there are changes to the PNDI websties mapping website or other state agencies websites.

9. articles in the newsletters of other organizations, presence at educational events, maybe outreach to school and other higher ed institutions.

10. Newsletters and user input sessions are most likely the best.

11. Perhaps an e-mail list to which users can subscribe. This could keep users updated on the latest "goings-on" at PASDA.

12. email newsletters would work well - people can skim them for the highlights and move on to the site to learn more (kind of like the PSU alumni email newsletters). While this may be a chore for invalid emails & "out of the office" replies, but still worth it. Get on the agenda for programs by tertiary GIS users and local government officials

13. Newsletter would be nice, but monthly may be too often. I think a quarterly eNewsLetter would be enough to keep us current and to keep the newsletters content packed.

If possible maybe an online PASDA user forum could be made available where folks can post announcements, questions, etc. It'd be similar to the GIS Pros Group except that it'd be online and all posts could be emailed to all users in the various forum(s).

14. as far as a monthly newsletter, consider an electronic newsletter vs. wasting paper and money. an electronic version would be something that could be forwarded easily by users and would increase visibility.

15. Blog.

16. PaMAGIC Matters (newsletter)

17. Email blasts

18. email

19. Question 86 - electronic newsletter.

RSS feed(s)

20. maybe email would be better than newsletter, that way you have links to click on

In previous user sessions, it was recommended that a PASDA advisory board be created with representatives from various stakeholder groups. What organizations should participate on this board?

1. This would be a level of governance that needs to fit into the Commonwealth's existing governance

2. Do not see the benefit of this

3. State agencies, counties,

4. Take a cross section of today's session and add more private sector and municipal reps.

It could be a virtual board that is tasked through email and web meetings and meets 1 or 2 times per year.

5. At least one representative from all of the following local, state, and federal governments, ESRI, non profit, consortiums and COGS.

6. I think another question should be asked first which is what is the purpose of the advisory board. That will drive the types of individuals and organizations you would require on an advisory board. An example would be that you are focused on ongoing funding, or focused on data governance etc. Different individuals would be required to provide the appropriate advice.

7. PADEP, SEDACOG, the river basin commissions, universities, and private industry

8. GIS users within the State, Municpal, and Local Government

9. Be sure to include organizations outside of government - private industry, non-profits, etc.

10. NO BOARD. that will slow you down. you should solicit direction and ideas from the entire community. YOU don't want a BOARD or advisory committee!!!!!!

11. All data providers should be involved or represented somehow.

12. State and perhaps a slection of county governments, state universities, perhaps a representative from some of the larger private GIS firms in the Commonwealth.

13. local govts, state agencies, enviro groups, researchers, and private consultant / engineering firms

14. I'm not sure what steakholder groups there are.

County Governments

State Governments

Penn State

ESRI Philadelphia

15. State agencies (DCNR, PAFBC, PGC, PADOT, DEP); Federal and private agencies -

16. Government (Local, State, Fed), Non-profit, academia, industry group reps.

17. data creators and data consumers from al levels of government, the academic community (other than Penn State) and consultants

18. I think the advisory board would have to represented from all aspects of the geospatial community (private, government, academia, local government, etc.)

19. Frequent data providers - representatives from each piece of the user community - federal, state, local govt, private consultants.

20. state, local governments, businesses, non profits, etc.

21. Both data providers and data consumers. Without consumers, there is no need for the clearinghouse.

Providers - the folks at the user session

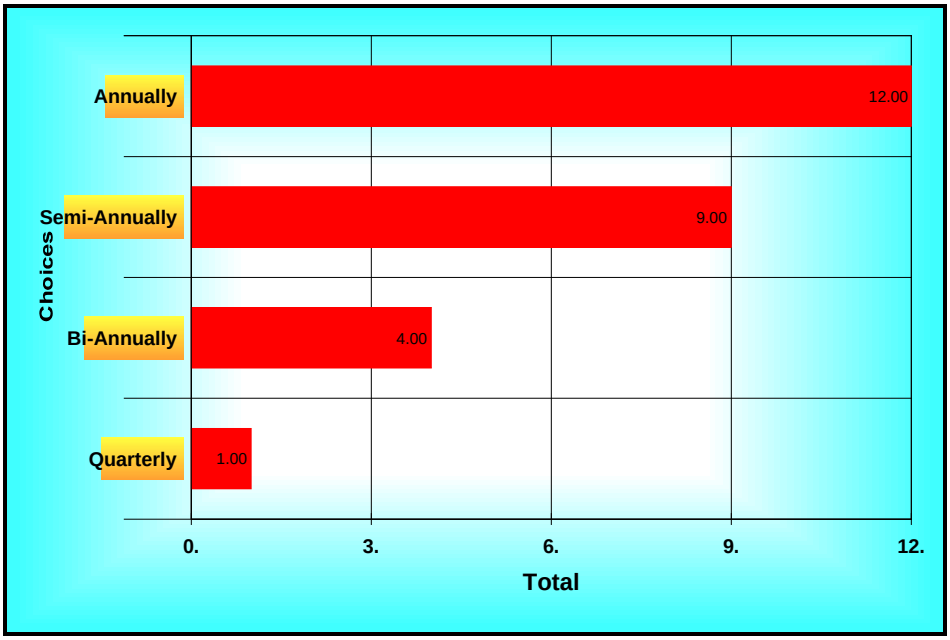
Consumers - more representation from engineering firms, planning firms, non-profits, oil/gas exploration. All the folks you get emails from.

22. An advisory board limits representation. I would rather see an annual meeting like this, and/or an online option that all could answer a questionnaire like this.

If you or your organization participated, what meeting interval would be most appropriate?

Table Sorted By Total

Choices	Total
Annually	13
Semi-Annually	9
Bi-Annually	4
Quarterly	1



Results Chart for "If you or your organization participated, what meeting interval would be most appropriate?"

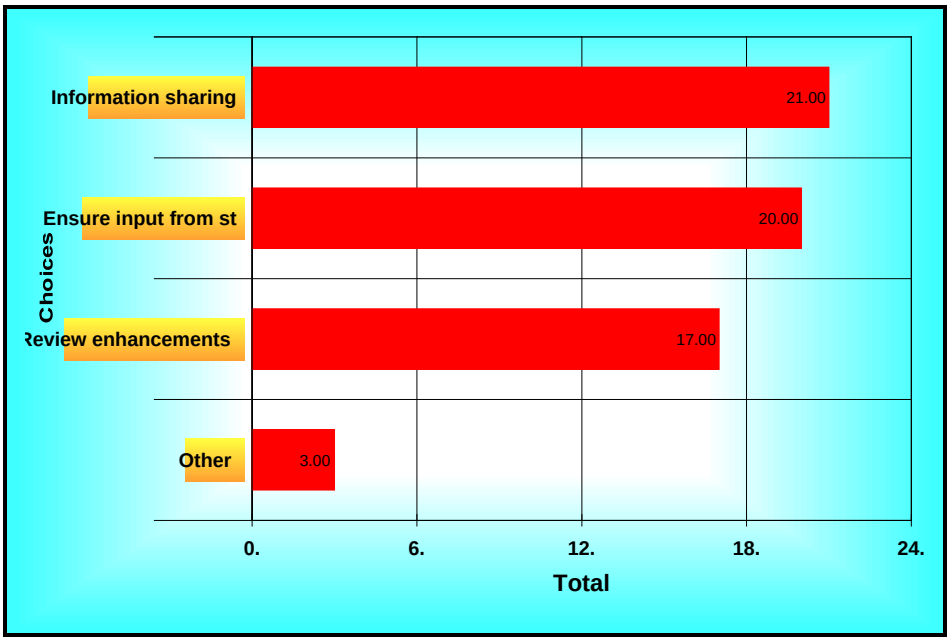
What would be the primary role of this group? Select all that apply.

1. advocate to other users in regional GIS network.

2. I think the role would be close to "b." but these individuals should be responsible for looking towards the future and best practices.

3. Monitor currency/quality of the data. Some organizations don't even know what they have on PASDA, perhaps because of personnel changes at their organization, etc.

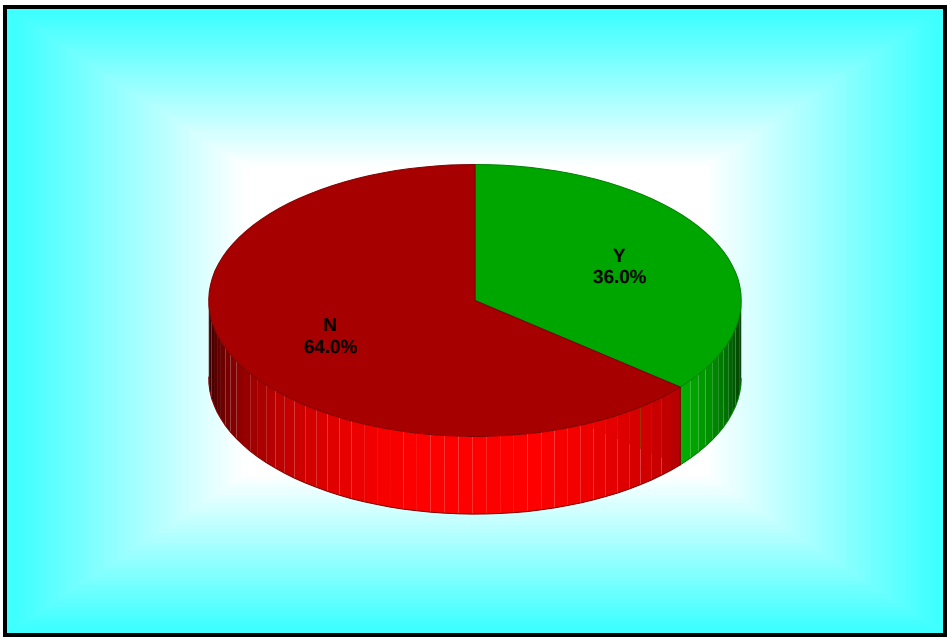
Choices	Total
Information sharing	22
Ensure input from stakeholder groups	21
Review enhancements and assist in planning	17
Other	3



Results Chart for "What would be the primary role of this group? Select all that apply."

Have you accessed the numerous PASDA tutorials and online user assistance sections of PASDA?

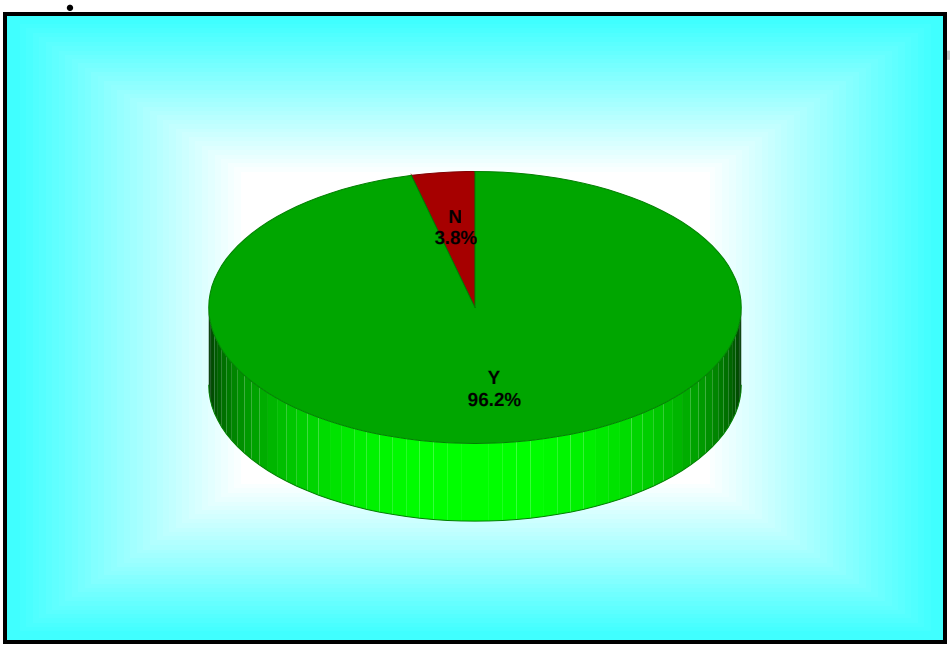
Choices	Count
Y	12
N	16



Results Chart for “Have you accessed the numerous PASDA tutorials and online user assistance sections of PASDA?”

Should PASDA continue to develop tutorials, online user assistance and links to tools and resources?

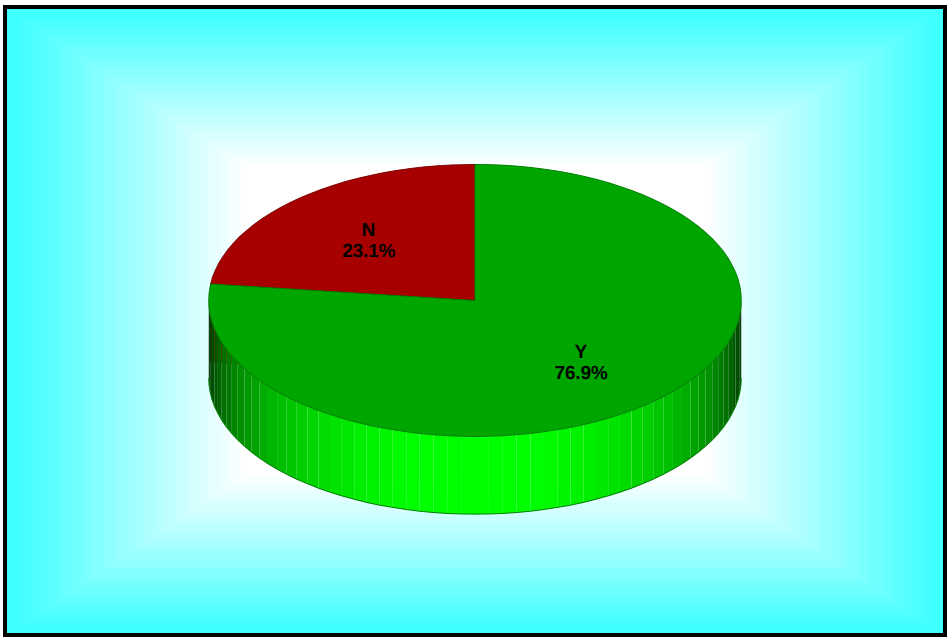
Choices	Count
Y	26
N	1



Results Chart for “Should PASDA continue to develop tutorials, online user assistance and links to tools and resources?”

Would it be useful to create a Question and Answer database that can be queried by users?

Choices	Count
Y	21
N	6



Results Chart for "Would it be useful to create a Question and Answer database that can be queried by users?"

Summary

The PASDA user session brought together individuals from diverse organizations across the state. These stakeholders have provided extensive input on the value of PASDA, its services, its data partners, and areas in which the clearinghouse could grow. The final points that these results support include:

- PASDA is one of the primary keys to successful GIS in Pennsylvania
- PASDA data partners provide an invaluable resource by sharing their data with the PASDA clearinghouse.
- PASDA saves time, money, and effort by serving as a "one stop" location for accessing, storing, visualizing, and retrieving data in the Commonwealth.
- GIS users in the Commonwealth support ongoing development of a base map (such as PAMAP imagery, LIDAR) for Pennsylvania.
- PASDA needs to expand its outreach, particularly to local governments, to the level it was in previous years to support data sharing and metadata development.
- GIS supports and enables cooperation and collaboration among different organizations and is the glue that holds these entities and their efforts together.

Finally, the PASDA staff would like to thank all the attendees of our user session for their time, suggestions, comments, and ideas.