

# ORURISA Members' Training Needs Survey

September 17, 2018

## Introduction

At its May 2018, Board of Directors Retreat, the Oregon-Southwest Washington Chapter of Urban-Regional Information Services Association decided to survey chapter members to better understand training needs and interests. A team of board members<sup>1</sup> drafted survey questions for the board to review and finalized the survey after incorporating their comments. The survey opened August 1 and closed Aug. 27, 2018 after receiving 151 responses. The rate of response is unknown, because active membership cannot be readily determined. The chapter maintains an email list of about 1500 members, but active membership—defined as participating in chapter activities or paying chapter dues—may be significantly lower.

## Context for this survey

This is the first of three surveys members will be asked to complete. This survey deals with training needs; the next survey will consider various paths for moving ORURISA forward, in terms of benefits and expectations that accompany membership in ORURISA. The final survey will explore members' interests in volunteering and other opportunities to increase the value of ORURISA membership. All three surveys are projected to be completed in 2018.

## Highlights

- Virtually all respondents (91%) said they need training to improve their GIS skills (Q1). The top five training needs they identified were Python (67% of respondents), basic programming (48%), project management (44%), LiDAR (42%), and data collection and processing for drones (34%) (Q3).
- Half of respondents will pay up to \$250, and nearly half will travel up to 75 miles, to attend training (Q2). Sixty percent (60%) identified “full-day workshop” as their preferred format for training (Q4). Binning the “most” and “somewhat” preferable responses to Question 4 indicates either option is preferable to online or multi-day training events.
- There appears to be ample interest across the range of the training topics provided (Q3).
- Of several incentives suggested to encourage attending training, the most persuasive appears to be low or no cost to attend (identified as most or somewhat important by 78% of respondents) (Q6).
- About half of the respondents affirmed receiving training at several events sponsored by ORURISA or one of its sections or special interest groups; however, forty two percent (42%) said they had never received ORURISA-sponsored training.

For more information contact John Bragg, Coastal Training Program Coordinator, South Slough National Estuarine Research Reserve, PO Box 5417, Charleston, Oregon, 97420.

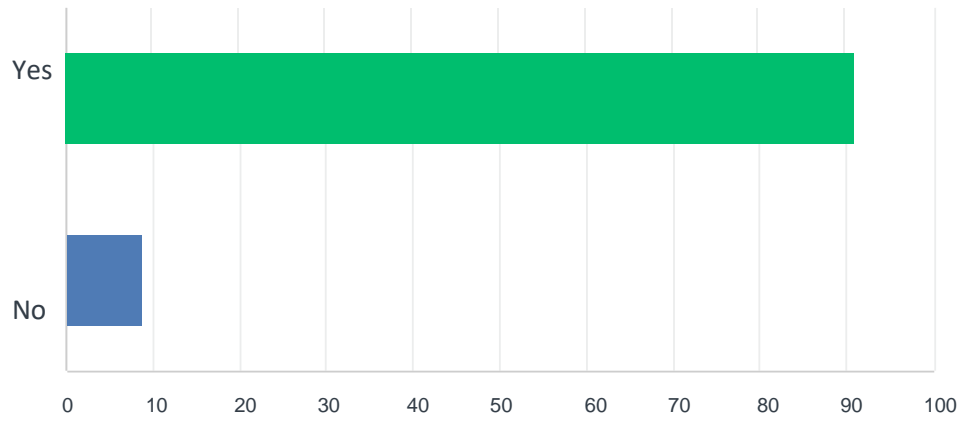
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<sup>1</sup> Cy Smith, Theresa Burcsu, Robb Kirkman, Lesley Hedgewald, Alexa Todd, John Bragg

### Q1 Do you need training to improve your GIS skills?

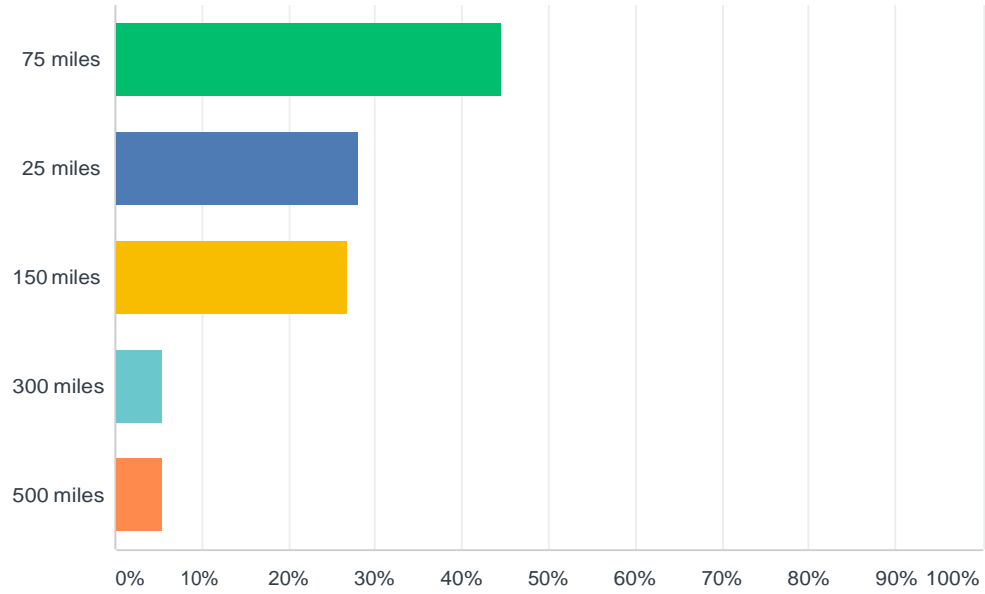
Answered: 149 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	91.28%	136
No	8.72%	13
TOTAL		149

## Q2 How far are you willing to travel for a full day of training?

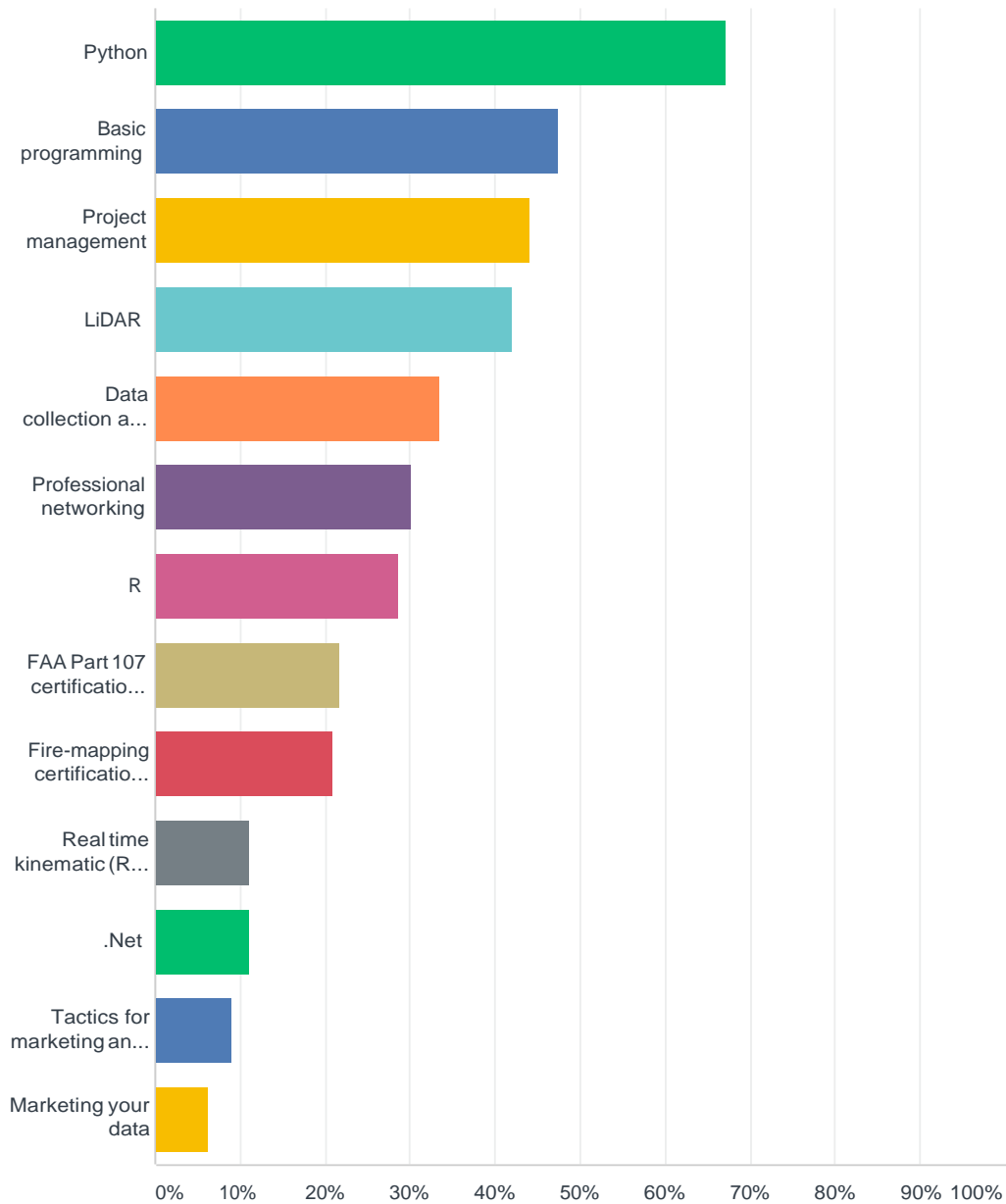
Answered: 146 Skipped: 5



ANSWER CHOICES	RESPONSES	
75 miles	44.52%	65
25 miles	28.08%	41
150 miles	26.71%	39
300 miles	5.48%	8
500 miles	5.48%	8
Total Respondents: 146		

### Q3 Which of the following are training needs for you?

Answered: 143 Skipped: 8

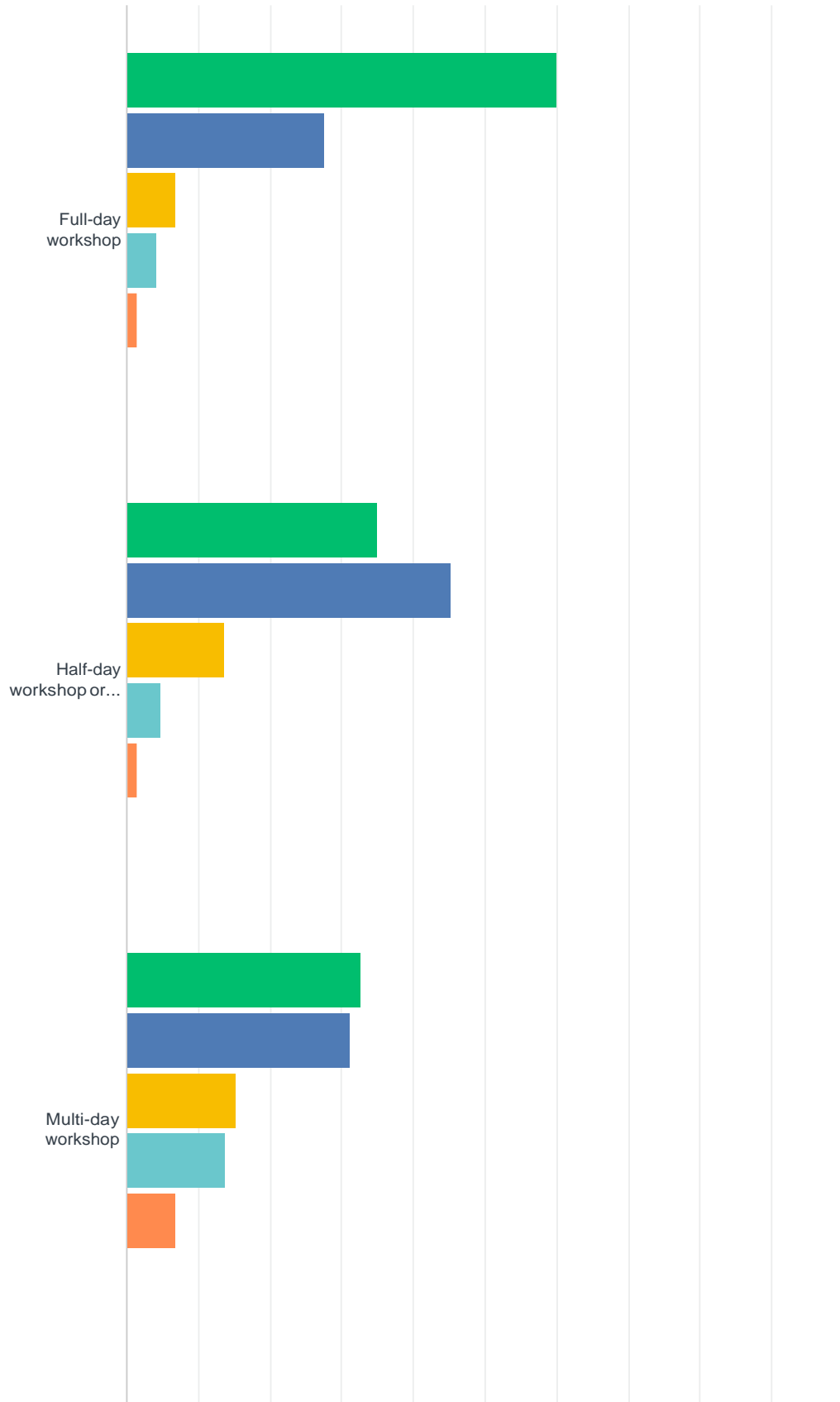


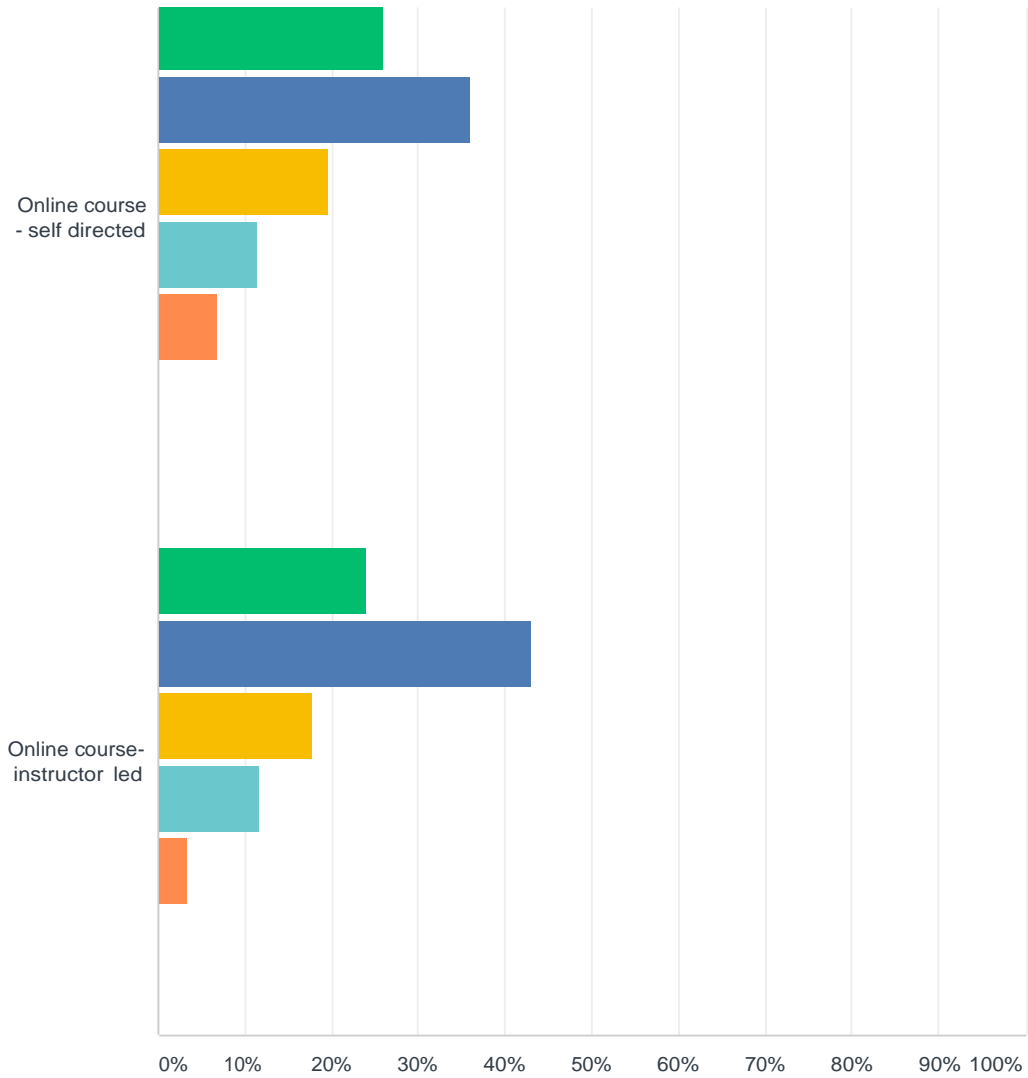
ANSWER CHOICES	RESPONSES	
Python	67.13%	96
Basic programming	47.55%	68
Project management	44.06%	63
LiDAR	41.96%	60
Data collection and processing for UAS (drone)	33.57%	48
Professional networking	30.07%	43

R	28.67%	41
FAA Part 107 certification workshop for UAS (drone)	21.68%	31
Fire-mapping certification workshop	20.98%	30
Real time kinematic (RTK) surveying	11.19%	16
.Net	11.19%	16
Tactics for marketing and promoting your data	9.09%	13
Marketing your data	6.29%	9
Total Respondents: 143		

# Q4 As a format for training, how preferable is each of the following?

Answered: 148 Skipped: 3



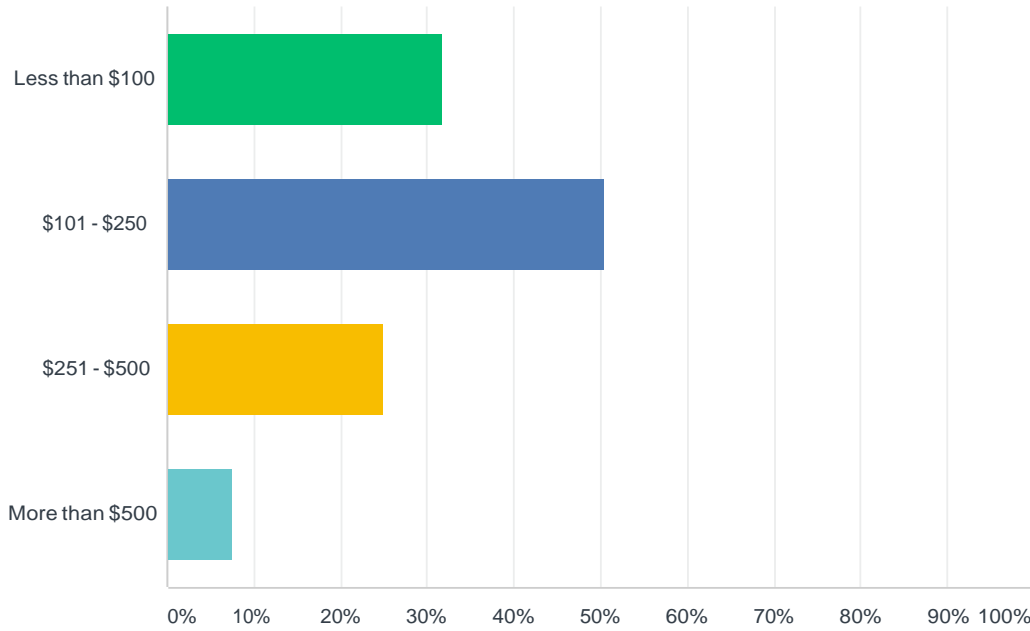


■ Most   
 ■ Somewhat   
 ■ Neutral   
 ■ Less   
 ■ Least   
 ■ Does not apply

	MOST	SOMEWHAT	NEUTRAL	LESS	LEAST	DOES NOT APPLY	TOTAL
Full-day workshop	60.00% 87	27.59% 40	6.90% 10	4.14% 6	1.38% 2	0.00% 0	145
Half-day workshop or course	34.93% 51	45.21% 66	13.70% 20	4.79% 7	1.37% 2	0.00% 0	146
Multi-day workshop	32.64% 47	31.25% 45	15.28% 22	13.89% 20	6.94% 10	0.00% 0	144
Online course - self directed	25.85% 38	36.05% 53	19.73% 29	11.56% 17	6.80% 10	0.00% 0	147
Online course- instructor led	23.97% 35	43.15% 63	17.81% 26	11.64% 17	3.42% 5	0.00% 0	146

# Q5 How much are you willing to pay for a full day of training?

Answered: 145 Skipped: 6

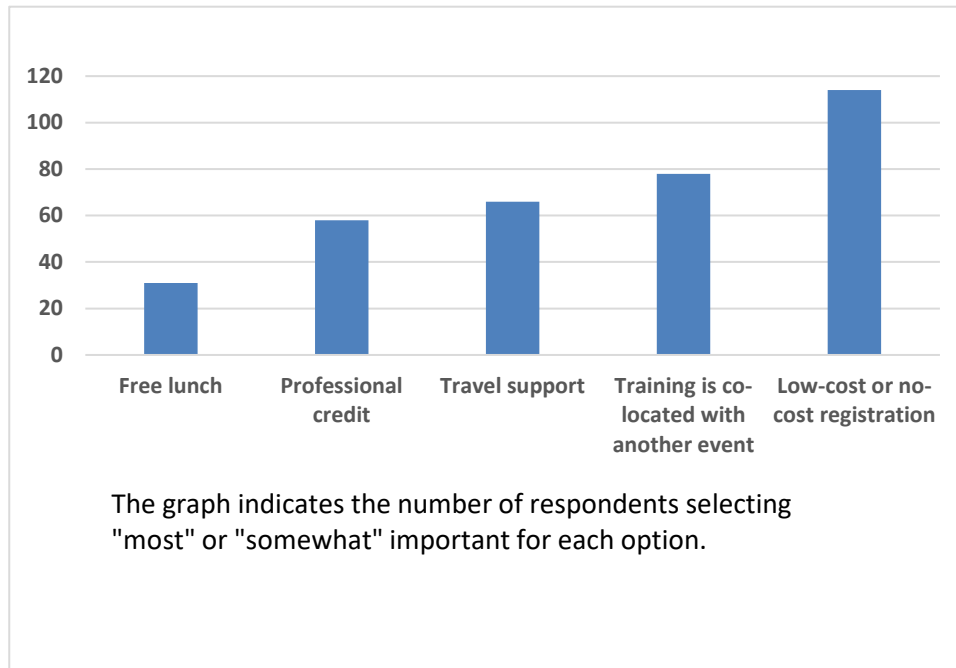


ANSWER CHOICES	RESPONSES	
Less than \$100	31.72%	46
\$101 - \$250	50.34%	73
\$251 - \$500	24.83%	36
More than \$500	7.59%	11
Total Respondents: 145		



## Q6 As an incentive to training, how important is each of the following?

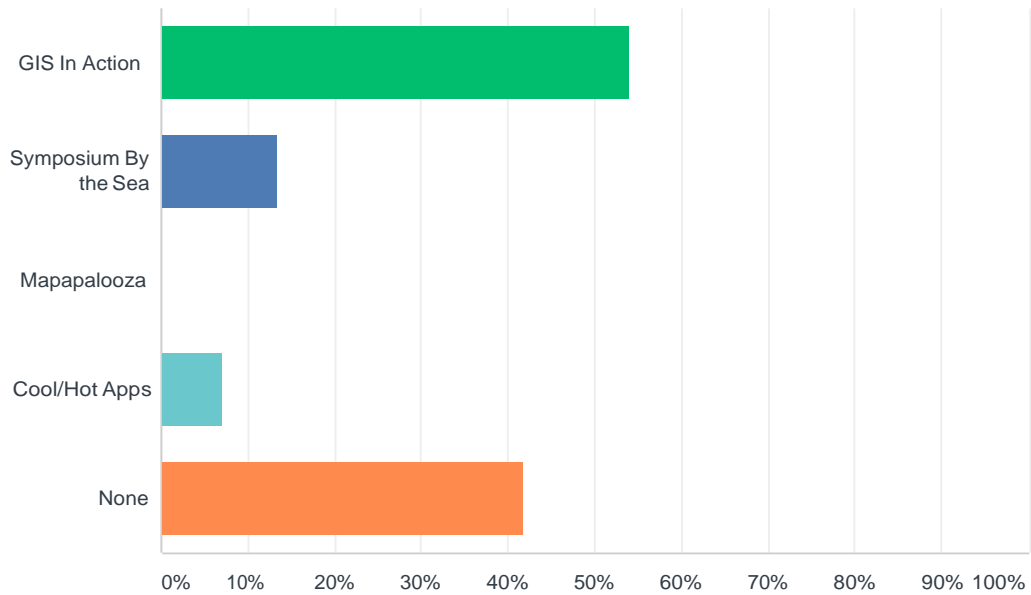
Answered: 148 Skipped: 3



	MOST	SOMEWHAT	NEUTRAL	LESS	LEAST	TOTAL	WEIGHTED AVERAGE
Free lunch	6.16% 9	15.07% 22	37.67% 55	11.64% 17	29.45% 43	146	3.43
Professional credits	9.66% 14	30.34% 44	28.28% 41	11.72% 17	20.00% 29	145	3.02
Travel support	13.89% 20	31.94% 46	26.39% 38	12.50% 18	15.28% 22	144	2.83
Training is co-located with another workshop or Event	11.64% 17	41.78% 61	33.56% 49	7.53% 11	5.48% 8	146	2.53
Low-cost or no-cost to register	41.78% 61	36.30% 53	11.64% 17	4.79% 7	5.48% 8	146	1.96

## Q7 At which of the following have you received training?

Answered: 141 Skipped: 10



ANSWER CHOICES	RESPONSES	
GIS In Action	53.90%	76
Symposium By the Sea	13.48%	19
Mapapalooza	0.00%	0
Cool/Hot Apps	7.09%	10
None	41.84%	
Total Respondents: 141		

## Appendix - Summary of Selected Comments

Respondents were invited to leave additional comments. Comments on Questions 1 and 3 provided additional information about training needs and are summarized in Figure 1.

**Figure 1**

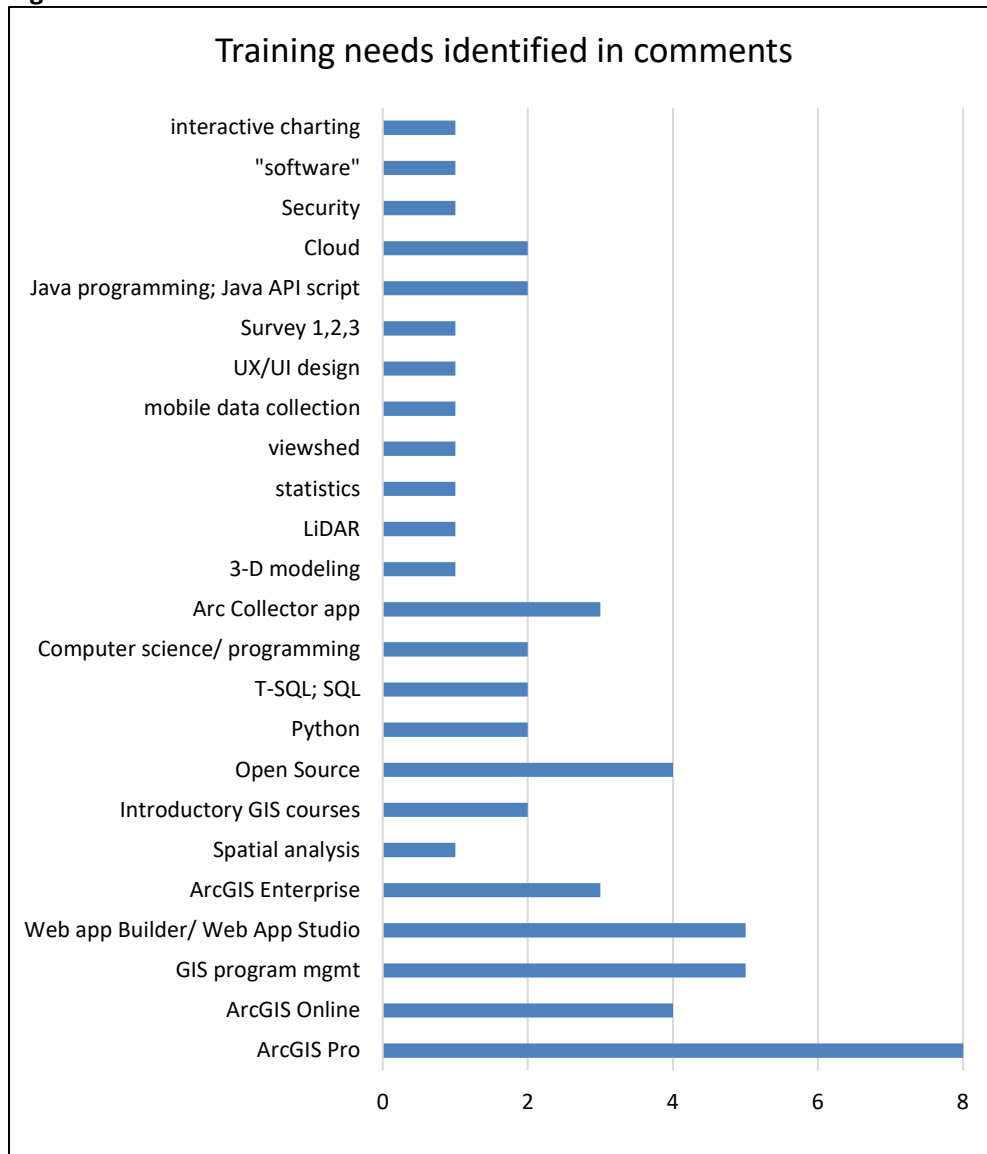


Table 1 (below) provides a selection of all comments. For brevity courtesy comments are not included. Highlighted strikethrough and bracketed type was edited for clarity.

**Table 1**

**1. Do you need training?**

GIS program management

WebApp builder and development

There is always more to learn! some intro to GIS courses for my co-workers would also be helpful

Need to learn ArcGIS Pro, how to do predictive modeling  
GIS Pro training, please.  
on open source software (i.e. QGIS integrated python scripting)  
Multiple platforms other than ESRI related.  
T-SQL for SQL Server and Computer Science related tracks  
learning ArcGIS Online and Collector app currently

## **2. How far are you willing to travel?**

easier justification if training is close. no airline costs, hotel...  
overnight stays and extended travel not as easy for approval  
My company does not pay for training.  
depends on the training, obviously  
This is contingent on the particular training and the cost.  
Training must be budgeted for a year in advance/company policy.  
I already live in a small town and travel is a part of rural life.  
would prefer a destination that is in Portland and near frequent transit  
Further for a multi-day course/event  
such as Portland or Eugene  
300-500 if carpooling

## **3. Training needs for you?**

GIS program management  
other spatial analysis: networking, 3D modeling: viewshed, lidar to building, Statistics  
web app development  
ArcGIS Pro  
mobile data collection  
basic and advanced training in the following areas: network connectivity, surface / raster interpretation, surface  
water modeling, ArcGIS Pro migration, data analytics (data science / analysis)  
ArcGIS Enterprise configuration and maintenance, WebApp Builder, WebApp Studio  
Web programming  
UX/UI design  
ArcGIS online skills  
Setting up ArcGIS online for my small organization Using Arc Collector and Survey 123 for data collection  
Integrating Arc Collector with ArcGIS online  
Data management (including deciding on data stewardship, preservation, and update standards to meet state's  
expectations)  
Intro GIS courses for co-workers  
My needs are perhaps more basic than others -- best practices around data management, organization, storage to  
improve workflow.  
ArcGIS Pro  
Emerging Technologies  
GIS Data administration, gis data web delivery  
JavaScript; ArcGIS API for JavaScript 4.x and the subsequent languages to support it (to create widgets); workflow  
and techniques for ArcGIS Pro; Security of services, using any kind of cloud environment, types of information that  
should be more discrete;

Proper user account management using ArcGIS Enterprise - how to deal with tier 1 and 2 users  
Software updates and changes  
ArcGIS Pro  
ArcGIS Javascript API, ArcGIS Server  
Free open source software, not all can afford ESRI  
open source web mapping, advanced python, advance interactive charting  
GIS App development for cloud based GIS (ArcGIS Enterprise/ArcGIS Online)  
ArcGIS  
SQL Server T-SQL language and SSRS  
Using the Collector App

#### **4. Preferred training formats**

I live more than 2 hours drive from the nearest urban center so online training is preferable  
Depends on complexity of training. Simpler material is good for completely on-line. More advanced is better for classroom training.

**It all really depends on what the course is.**

In person is better than online

easier to work on GIS in groups with instructor. Online is not as easy to maintain and harder to troubleshoot

Depends on the content and complexity

I prefer workshops, however, since my company doesn't pay & I cannot take time off, I am limited to online courses.

getting out of the office is best - no distractions - online courses can be self paced but, are easy to be preempted or interrupt and then not being able to complete training

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Frankly, it would be determined by how closely the workshop/training content overlapped with the needs of my organization.

Any multi-day workshop would have to be within driving distance, as overnight stay is hard to fund.

Again/any & all training must be budgeted for and approved a year in advance.

Getting away from office interruptions and focusing on the learning is best, always.

It's a challenge for me to take time out of my work schedule

#### **5. How much will you pay for a full day of training?**

dependent on approval

Depends on the content and complexity; student pricing preferred

I have already spent my personal limit on training, earning a master's level certificate in GIS. I cannot recoup additional training costs in my current field.

I'm a student with limited funding.

As a one-man-shop, emerging from the worst year of my 24 years in business, money for training is tight.

and more than likely if it costs anything, my agency won't pay for it

More of what my boss would be willing to pay.

Budget is a huge issue - short notice events are difficult to get approved

would only go above \$250 if highly relevant

Budgets, budgets

I work for a non-profit, and cannot afford expensive courses

## 6. Incentive to training

No comments

## 7. Training events you've attended

ESRI Conference, other local training workshops, online free MOOCs and tutorials

None of the above to date

You should think a little bit harder on paying trainers a decent wage.

ESRI UC, GISPro, local workshops, ITC Symposium

NW GIS User's Conference

ESRI UC

ESRI UC and Dev Summit

Unable to attend due to not knowing when events are - budgeting issues.

SWUG - Southwest User Group Santa Fe, NM

Planning to attend Symposium By the Sea this year

ESRI UC and their instructor-led and online courses

## 8. Any other comments?

people's ability to get training is often split amongst entire departments so that training is not available when it's wanted or needed.

Short, focus, low cost training is preferable.

Are members able to provide help for older workers to actually get jobs as GIS staff? I am not close enough to retirement, but came to GIS later in my work, after starting as a "geographer".

Training is hard to maintain with other project demands. Outside training is easiest to devote time to, but cost is a prohibitive factor.

There are some industries (e.g. archaeology) where salaries are low. Training and conference costs are minimally or not covered by companies. I have attempted to volunteer, but these positions fill up quickly.

We should be sponsoring training sessions that are hosted by other groups. This could be online - or - at a sight. It could also be in conjunction with other events. How about multi-tiered membership with multi-tiered support attached to various levels of membership.

I filled out the survey previously, but forgot to include training suggestions for what I listed here:) consider this an addendum.

I won't ever go to the GIS in Action again. I love how the Symposium By the Sea has been managed.

Please, I cannot stress enough that many people or even small communities, water districts and the like ~~can~~ [can't] afford to use ESRI related products. please help with these areas.

GISP is not worth the time invested and isn't much separation when we also have certificates available from ESRI