AWS Container Security Survey 2020

156 responses
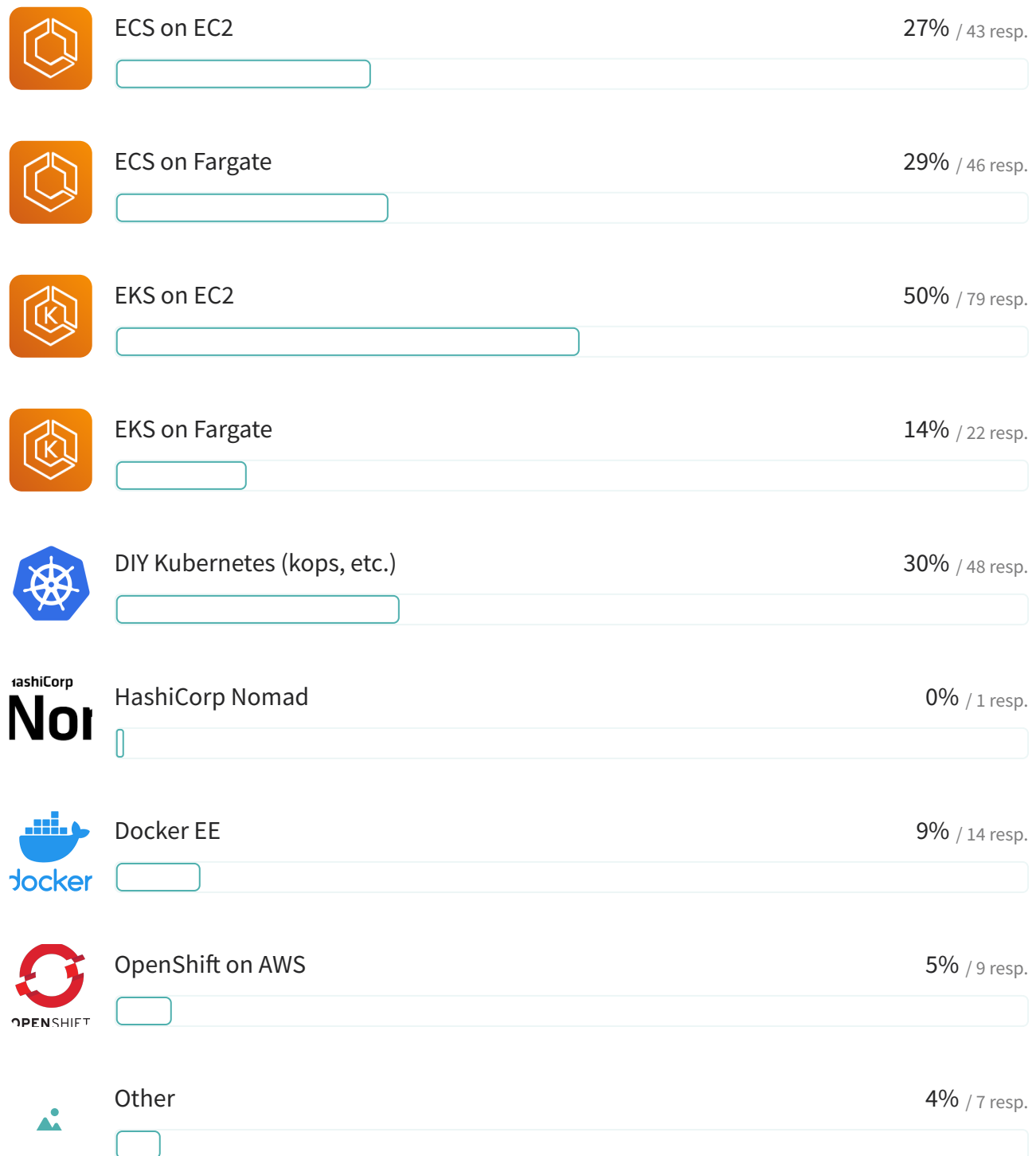

What I do

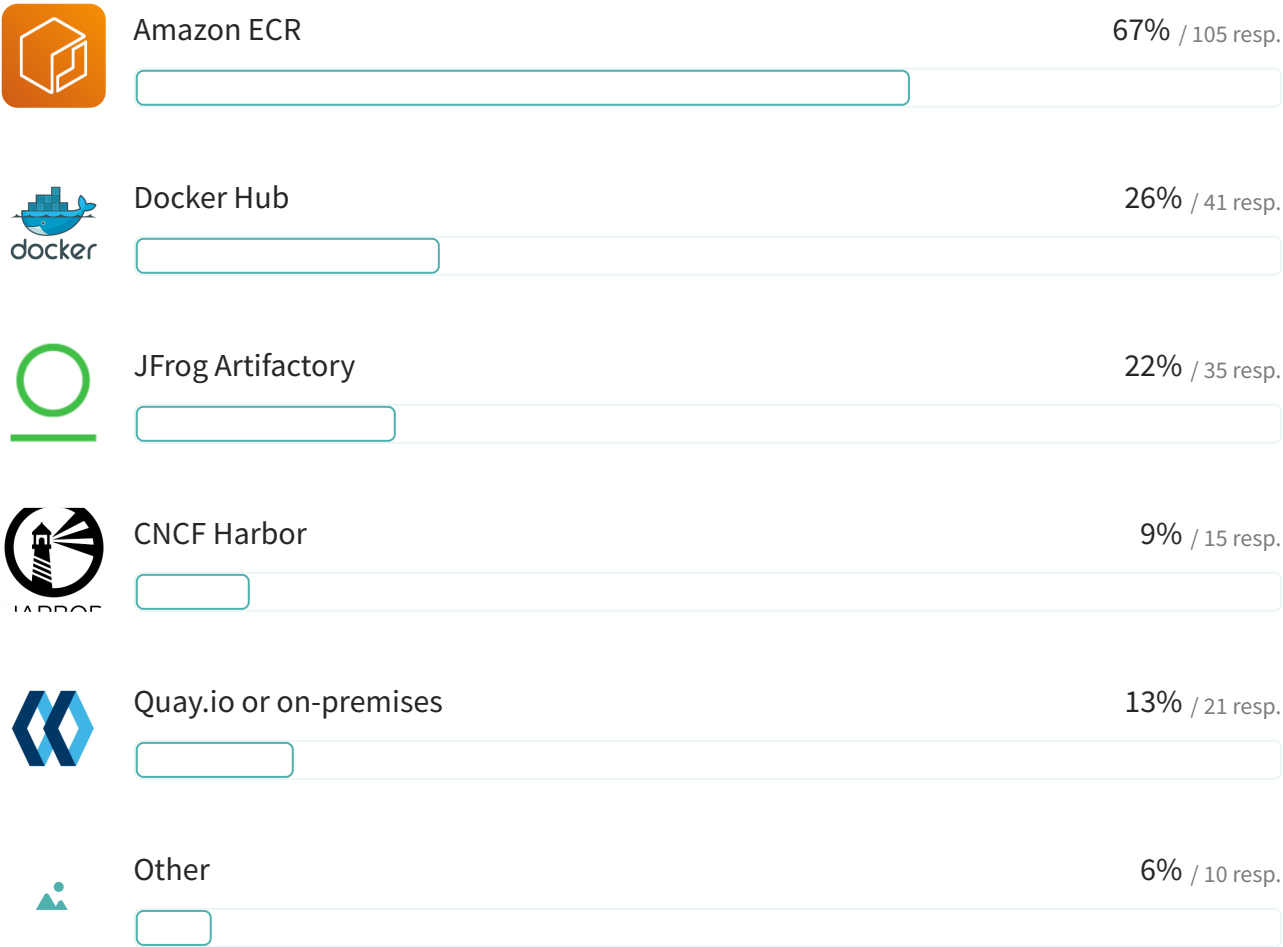**153** out of **156** answered

1 Mainly operations   **17%** / 27 resp.

2 Mainly development   **9%** / 15 resp.

3 InfoSec   **24%** / 37 resp.

4 Site Reliability Engineer/DevOps   **52%** / 80 resp.

5 Release management   **3%** / 5 resp.

6 Testing/Quality Assurance   **0%** / 1 resp.

7 Architect   **34%** / 52 resp.

8 Other   **0%** / 0 resp.
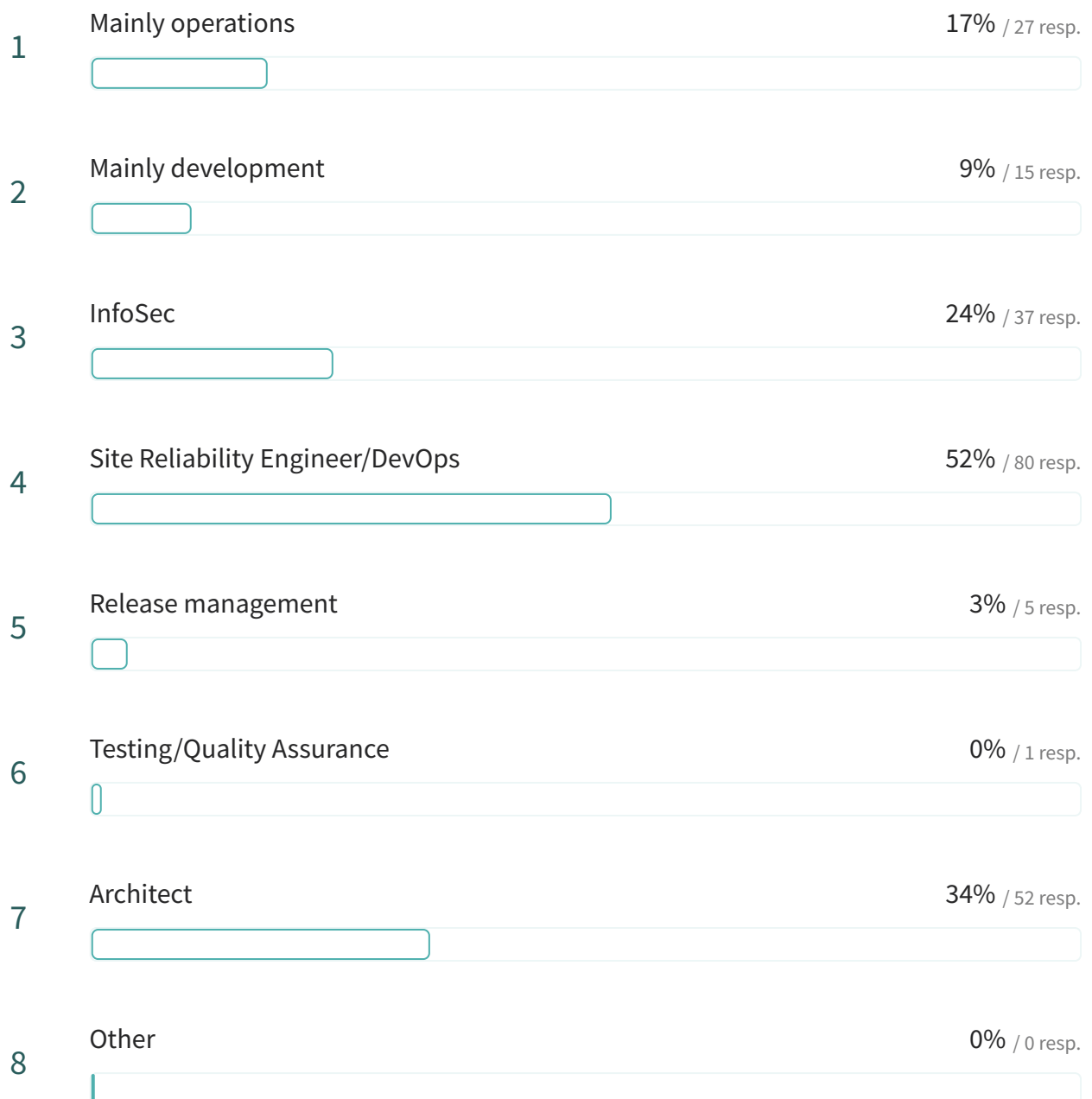
How do you run your containers on AWS?

156 out of 156 answered

ECS on EC2	27%	/ 43 resp.
ECS on Fargate	29%	/ 46 resp.
EKS on EC2	50%	/ 79 resp.
EKS on Fargate	14%	/ 22 resp.
DIY Kubernetes (kops, etc.)	30%	/ 48 resp.
HashiCorp Nomad	0%	/ 1 resp.
Docker EE	9%	/ 14 resp.
OpenShift on AWS	5%	/ 9 resp.
Other	4%	/ 7 resp.

Where do you keep your artifacts around?

Amazon ECR		67% / 105 resp.
Docker Hub		26% / 41 resp.
JFrog Artifactory		22% / 35 resp.
CNCF Harbor		9% / 15 resp.
Quay.io or on-premises		13% / 21 resp.
Other		6% / 10 resp.

Are you scanning your container images?

Native ECR scanning	**40%**	/ 62 resp.
DIY Clair	**13%**	/ 21 resp.
DIY Trivy	**11%**	/ 18 resp.
Aqua Security	**8%**	/ 13 resp.
StackRox	**1%**	/ 2 resp.
Sysdig Secure	**10%**	/ 16 resp.
Prisma Cloud (Twistlock)	**7%**	/ 12 resp.
Nope, not scanning images (yet)	**24%**	/ 38 resp.
Other	**7%**	/ 12 resp.
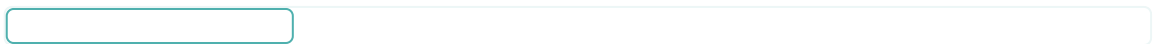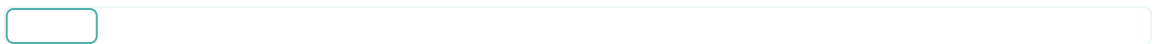
Are you scanning containers at runtime?

153 out of 156 answered

CNCF Falco   17% / 27 resp.

Aqua Security   4% / 7 resp.

Prisma Cloud (Twistlock)   6% / 10 resp.
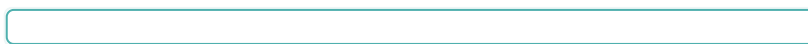
Twistlock Defender   6% / 10 resp.

NeuVector   1% / 2 resp.
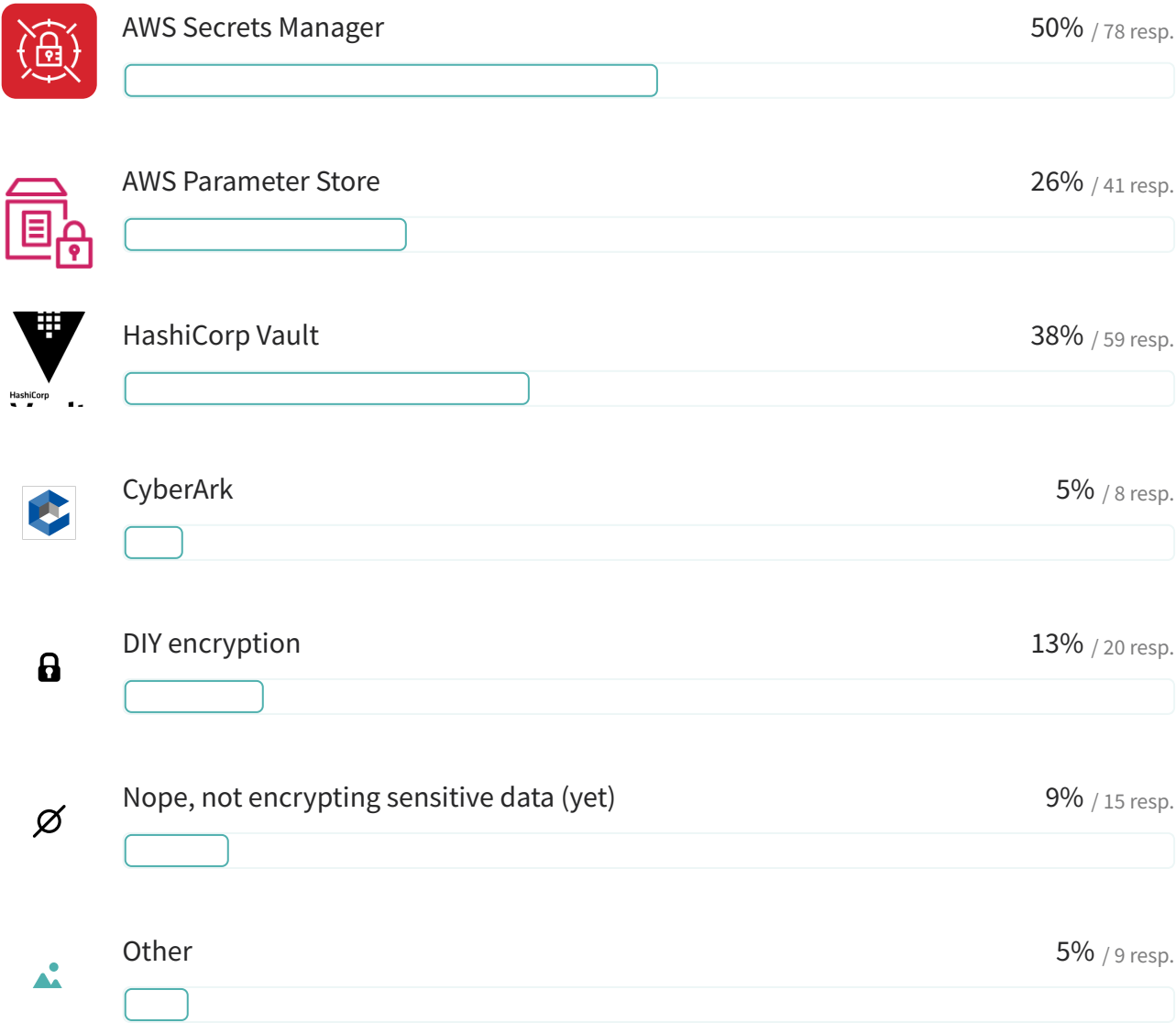
Nope, not scanning containers (yet) 70% / 108 resp.

Other   3% / 5 resp.

How are you managing sensitive data?

154 out of 156 answered

AWS Secrets Manager — 50% / 78 resp.

AWS Parameter Store — 26% / 41 resp.

HashiCorp Vault — 38% / 59 resp.

CyberArk — 5% / 8 resp.

DIY encryption — 13% / 20 resp.

Nope, not encrypting sensitive data (yet) — 9% / 15 resp.

Other — 5% / 9 resp.

Are you signing container images?

151 out of 156 answered

CNCF Notary   9% / 14 resp.

CNCF TUF-based   3% / 5 resp.

Nope, not signing my images (yet)   89% / 135 resp.

Other   0% / 0 resp.

How are you managing your supply chain?

152 out of 156 answered

CNCF in-toto   2% / 4 resp.

Grafeas   1% / 2 resp.
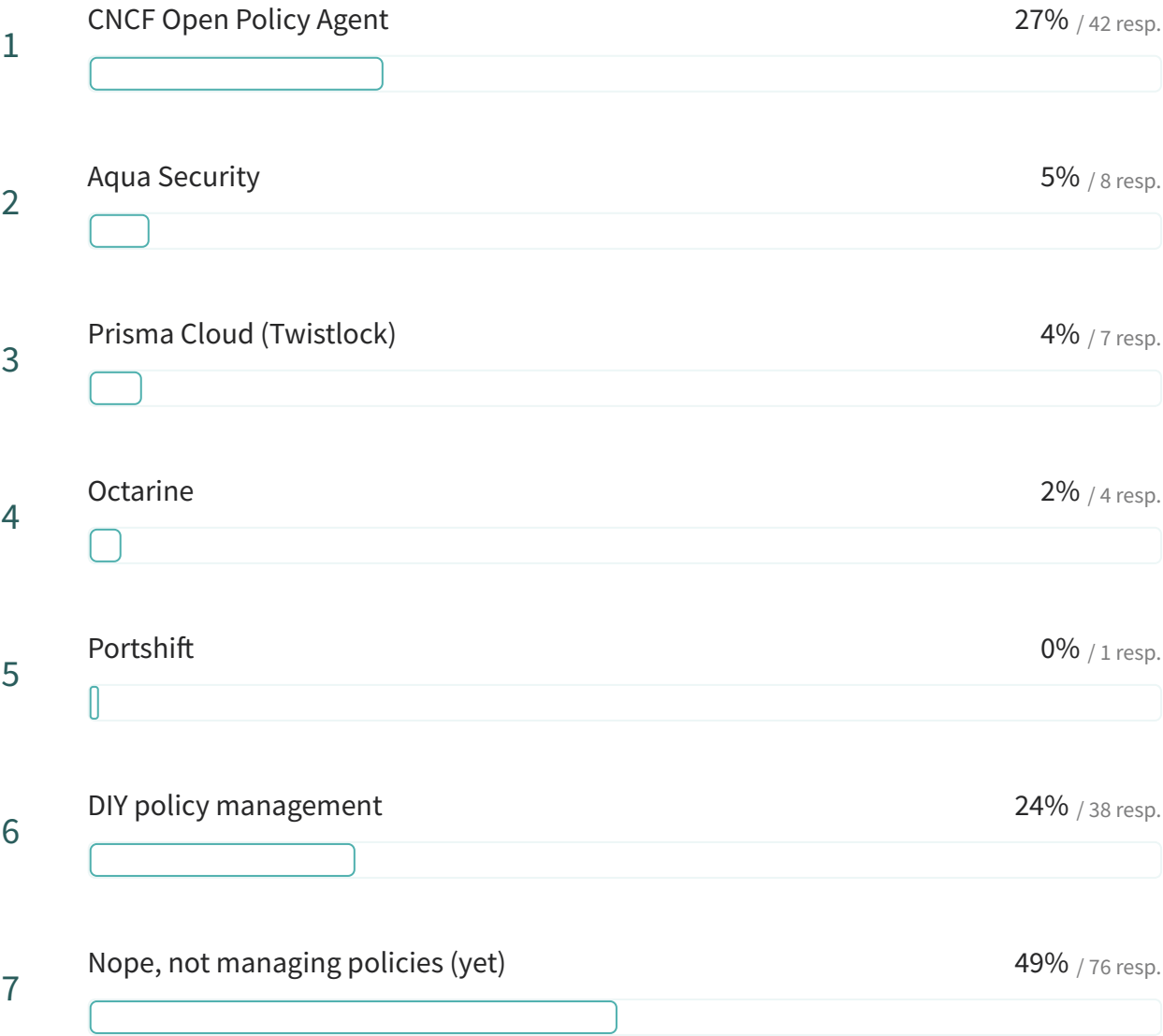
Nope, not managing my supply chain (yet)   93% / 142 resp.

Other   3% / 5 resp.

Are you enforcing policies?

155 out of 156 answered

1 CNCF Open Policy Agent
27% / 42 resp.

2 Aqua Security
5% / 8 resp.

3 Prisma Cloud (Twistlock)
4% / 7 resp.

4 Octarine
2% / 4 resp.

5 Portshift
0% / 1 resp.

6 DIY policy management
24% / 38 resp.

7 Nope, not managing policies (yet)
49% / 76 resp.

Are you filtering network traffic?

155 out of 156 answered

1   At ingress, for example Load Balancer, API Gateway, Kubernetes Ingress, etc.   78% / 121 resp.

2   Amazon EC2 security group or network ACLs   67% / 104 resp.

3   Within a cluster, between containers (East-West)   25% / 40 resp.

4   Cluster-external to containers (North-South)   23% / 36 resp.
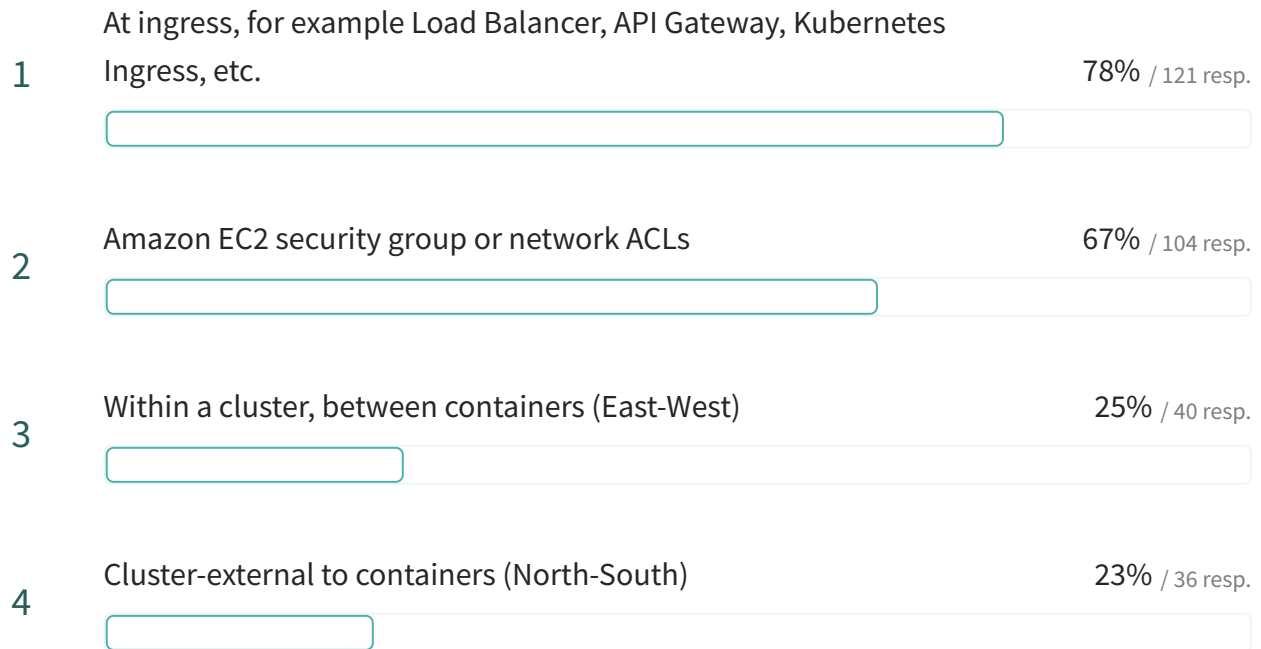
Are you using Kubernetes?

156 out of 156 answered

1   Yes   77% / 121 resp.

2   No   22% / 35 resp.
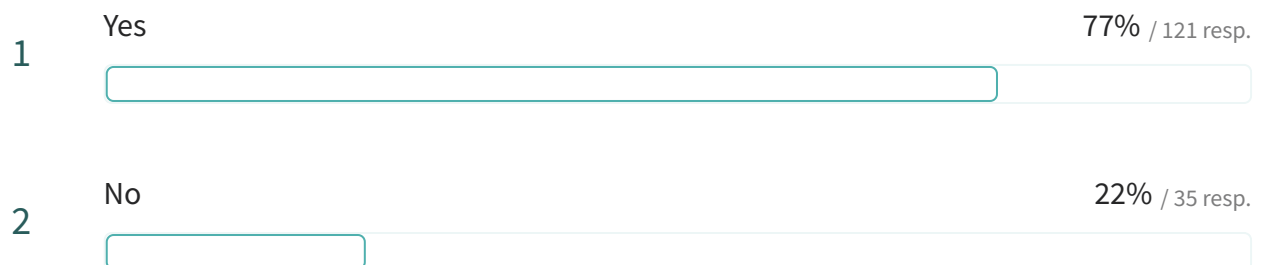
GitOps

121 out of 156 answered

1 Yes   64% / 78 resp.

2 No   35% / 43 resp.
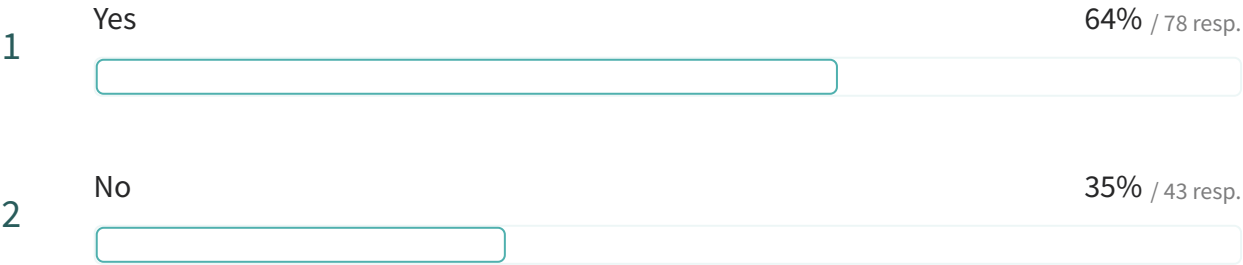
Kubernetes: network policies

119 out of 156 answered

1 Weave Net   6% / 8 resp.

2 Calico   35% / 42 resp.

3 Cilium   10% / 12 resp.

4 DIY eBPF   2% / 3 resp.

5 Nope, not using Network Policies (yet)   37% / 44 resp.

6 Via a service mesh   21% / 26 resp.

7 Other   3% / 4 resp.
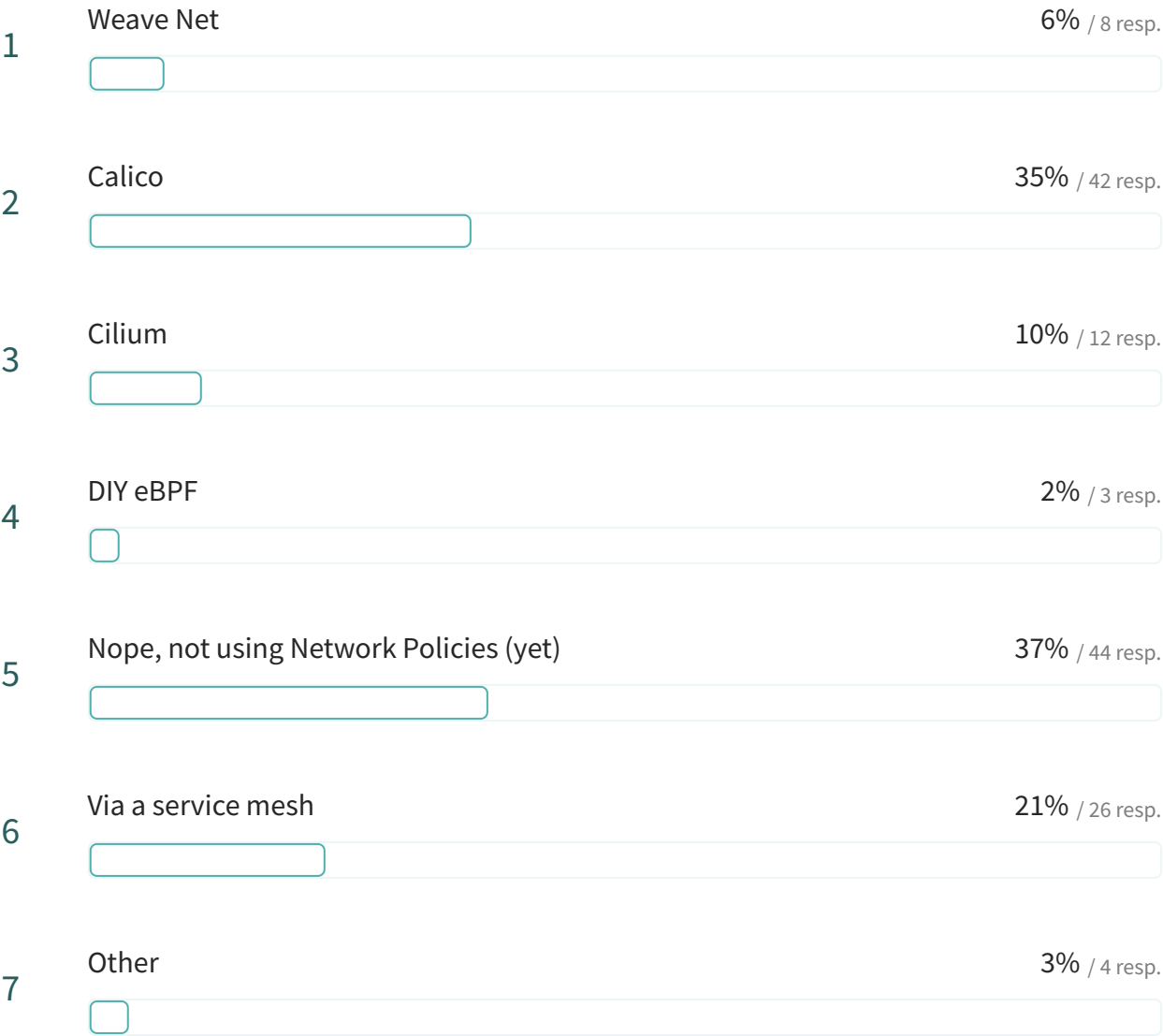
Kubernetes: pod security policies

120 out of 156 answered

1 Yes, PSP   45% / 55 resp.

2 No   37% / 45 resp.

3 I will skip PSPs and will adopt Gatekeeper or similar   15% / 19 resp.

4 Other   0% / 1 resp.
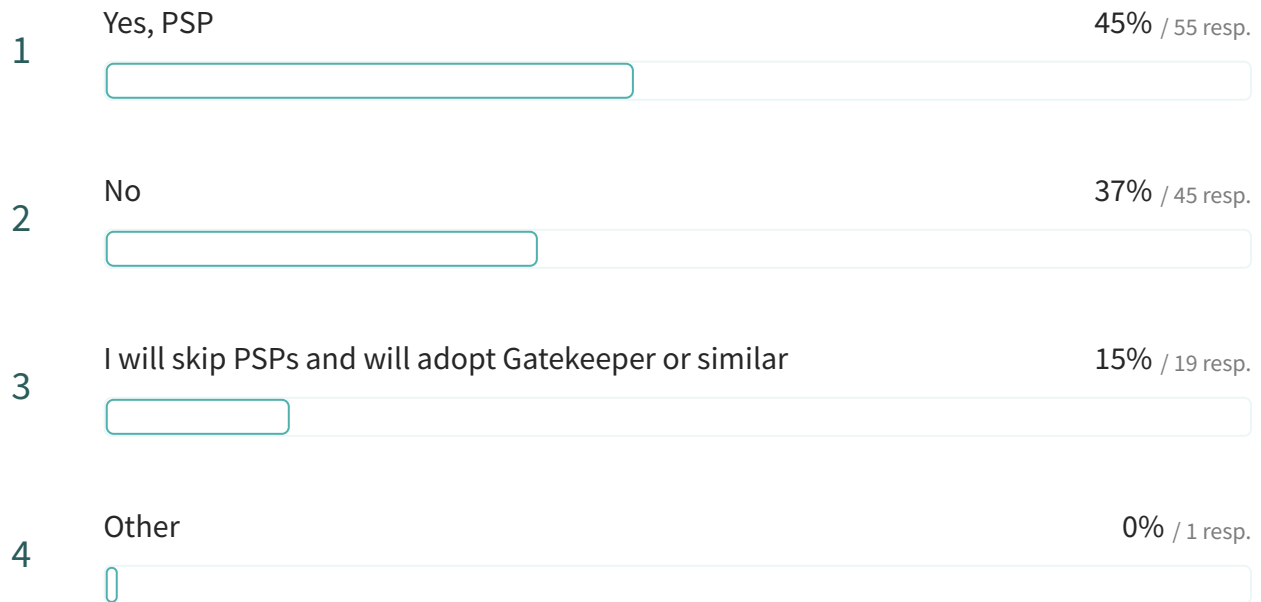
Kubernetes: user management

120 out of 156 answered

1 IAM users/roles   80% / 97 resp.

2 Active Directory/LDAP   20% / 24 resp.

3 SSO (OpenID Connect/dex, etc.)   29% / 35 resp.

4 Other   1% / 2 resp.
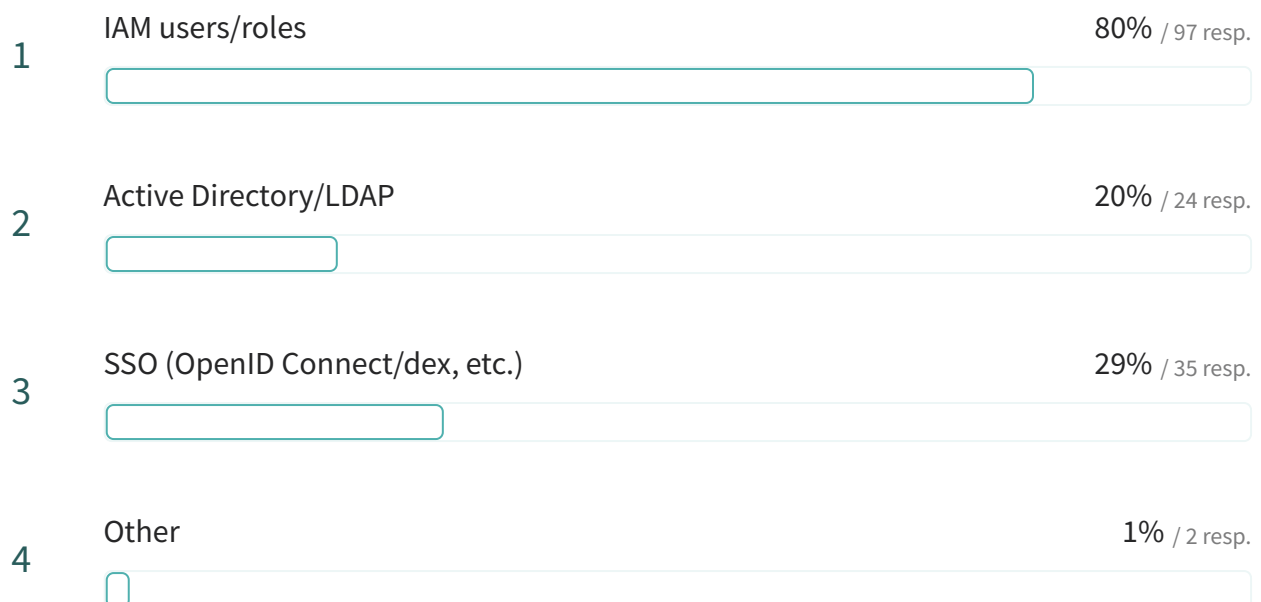
Kubernetes: least-privileges AWS services access

117 out of 156 answered

1   IAM roles for service accounts (IRSA)   54% / 64 resp.

2   kube2iam   14% / 17 resp.

3   kiam   6% / 7 resp.

4   I'm assigning the IAM role to the nodes   21% / 25 resp.

5   Other   3% / 4 resp.