

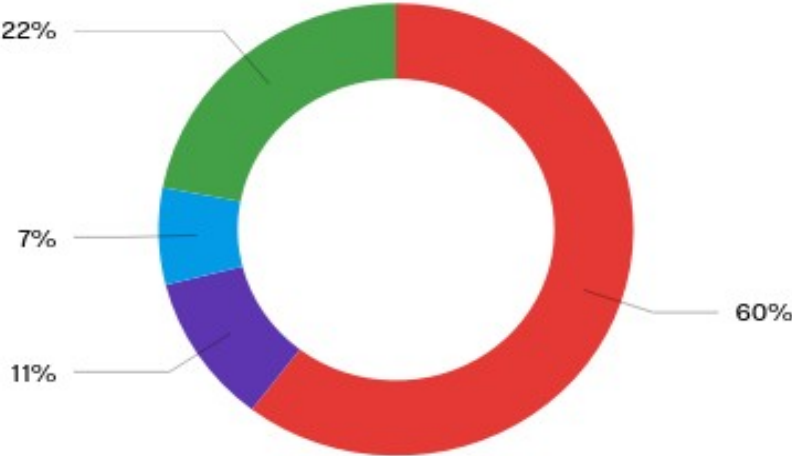
# Shorter Summary

Digital Workforce Survey

October 17th 2016, 8:54 am CDT

## Q2 - Which of the following best describes your occupation?

Answer	%	Count
Industry professional	60%	96
Primarily industry professional; also teaching in a college/university	11%	17
Primarily college/university faculty/instructor; also working in the industry	7%	11
College/university faculty/instructor	22%	35
Total	100%	159



- Industry professional
- Primarily industry professional; also teaching in a college/university
- Primarily college/university faculty/instructor; also working in the industry
- College/university faculty/instructor

## Q24 - 50 States, D.C. and Puerto Rico

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Alabama	0.00%	0	0.00%	0	0.00%	0	100.00%	2	2
Alaska	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Arizona	0.00%	0	0.00%	0	0.00%	0	100.00%	1	1
Arkansas	0.00%	0	0.00%	0	0.00%	0	100.00%	1	1
California	50.00%	2	25.00%	1	0.00%	0	25.00%	1	4
Colorado	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
Connecticut	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Delaware	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
District of Columbia	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Florida	50.00%	2	0.00%	0	0.00%	0	50.00%	2	4
Georgia	0.00%	0	0.00%	0	0.00%	0	100.00%	1	1
Hawaii	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Idaho	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Illinois	33.33%	1	0.00%	0	33.33%	1	33.33%	1	3
Indiana	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Iowa	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Kansas	0.00%	0	0.00%	0	0.00%	0	100.00%	2	2
Kentucky	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Louisiana	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Maine	0.00%	0	0.00%	0	100.00%	1	0.00%	0	1
Maryland	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
Massachusetts	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Michigan	66.67%	2	0.00%	0	0.00%	0	33.33%	1	3
Minnesota	72.92%	70	13.54%	13	7.29%	7	6.25%	6	96
Mississippi	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Missouri	50.00%	1	0.00%	0	0.00%	0	50.00%	1	2
Montana	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Nebraska	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Nevada	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
New Hampshire	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
New Jersey	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
New Mexico	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
New York	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
North Carolina	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
North Dakota	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Ohio	50.00%	1	0.00%	0	0.00%	0	50.00%	1	2
Oklahoma	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Oregon	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Pennsylvania	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
Puerto Rico	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Rhode Island	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
South Carolina	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
South Dakota	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Tennessee	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Texas	25.00%	1	0.00%	0	0.00%	0	75.00%	3	4
Utah	0.00%	0	0.00%	0	100.00%	1	0.00%	0	1
Vermont	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Virginia	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
Washington	50.00%	1	0.00%	0	0.00%	0	50.00%	1	2
West Virginia	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Wisconsin	75.00%	6	12.50%	1	0.00%	0	12.50%	1	8
Wyoming	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
I do not reside in the United States	40.00%	6	0.00%	0	0.00%	0	60.00%	9	15

**Q25 - What is the size of the community where your primary work is located?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Less than 50,000	61.70%	29	4.26%	2	10.64%	5	23.40%	11	47
50,000 - 250,000	64.86%	24	8.11%	3	5.41%	2	21.62%	8	37
Over 250,000	58.11%	43	16.22%	12	4.05%	3	21.62%	16	74

**Q26 - How many hours does it typically take you to get to the nearest international airport from your primary work location?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Less than 2 hours	60.45%	81	11.19%	15	6.72%	9	21.64%	29	134
2 - 4 hours	62.50%	15	8.33%	2	4.17%	1	25.00%	6	24
Over 4 hours	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

**Q8 - How many employees work in your company? (Choose '1-20' if you are independent consultant.)**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
1-20	66.67%	6	33.33%	3	0.00%	0	0.00%	0	9
21-50	100.00%	2	0.00%	0	0.00%	0	0.00%	0	2
51-300	82.35%	14	17.65%	3	0.00%	0	0.00%	0	17
More than 300	87.50%	49	12.50%	7	0.00%	0	0.00%	0	56

## Q5 - How old is your company?

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
0-3 years	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
4-7 years	80.00%	4	20.00%	1	0.00%	0	0.00%	0	5
8-15 years	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
More than 16 years old	87.50%	56	12.50%	8	0.00%	0	0.00%	0	64
I am not sure.	66.67%	2	33.33%	1	0.00%	0	0.00%	0	3

**Q23 - Does your company consider Agile and related skills/experiences as a factor in hiring decisions?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Yes	76.47%	39	23.53%	12	0.00%	0	0.00%	0	51
No	95.00%	19	5.00%	1	0.00%	0	0.00%	0	20
I am not sure.	100.00%	11	0.00%	0	0.00%	0	0.00%	0	11

Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
Does your company consider Agile and related skills/experiences as a factor in hiring decisions?	1.00	3.00	1.51	0.72	0.52	82



**Q7 - When did your company first become aware that Agile and related skills/practices should be a factor in hiring decisions?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
0-3 years ago	83.33%	20	16.67%	4	0.00%	0	0.00%	0	24
4-7 years ago	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
8-15 years ago	80.00%	4	20.00%	1	0.00%	0	0.00%	0	5
More than 16 years ago	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
I am not sure.	37.50%	3	62.50%	5	0.00%	0	0.00%	0	8

Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
When did your company first become aware that Agile and related skills/practices should be a factor in hiring decisions?	1.00	5.00	2.10	1.45	2.09	48

**Q6 - To the best of your knowledge, please rate where the following practices/skills lie in relation to your company's context, needs, and/or views.**

Industry professional

Question	Unfamiliar		Emerging		Mainstream		Declining		Obsolete		Total
ITIL (IT Infrastructure Library)	33.33%	22	13.64%	9	34.85%	23	15.15%	10	3.03%	2	66
Project Management	5.71%	4	17.14%	12	70.00%	49	7.14%	5	0.00%	0	70
Continuous Integration	10.14%	7	36.23%	25	50.72%	35	2.90%	2	0.00%	0	69
Test Driven Development	17.65%	12	33.82%	23	44.12%	30	1.47%	1	2.94%	2	68
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	62.32%	43	15.94%	11	18.84%	13	1.45%	1	1.45%	1	69
Infrastructure as Code	49.28%	34	30.43%	21	17.39%	12	1.45%	1	1.45%	1	69
COBIT (Control Objectives for Information Technology)	67.65%	46	8.82%	6	10.29%	7	11.76%	8	1.47%	1	68
Virtualization	14.49%	10	20.29%	14	65.22%	45	0.00%	0	0.00%	0	69
Container Technology	46.38%	32	31.88%	22	17.39%	12	4.35%	3	0.00%	0	69
Lean User Experience (UX)/ Design Thinking	22.39%	15	43.28%	29	32.84%	22	1.49%	1	0.00%	0	67
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	4.35%	3	59.42%	41	33.33%	23	2.90%	2	0.00%	0	69
Continuous Delivery	21.74%	15	42.03%	29	36.23%	25	0.00%	0	0.00%	0	69
Web- or Cloud- scale Engineering	28.99%	20	46.38%	32	20.29%	14	4.35%	3	0.00%	0	69
eXtreme Programming	60.29%	41	13.24%	9	13.24%	9	7.35%	5	5.88%	4	68
Scrum	20.29%	14	20.29%	14	50.72%	35	5.80%	4	2.90%	2	69
Kanban	33.33%	23	26.09%	18	34.78%	24	4.35%	3	1.45%	1	69
TOGAF (The Open Group Architecture Framework)	69.12%	47	10.29%	7	11.76%	8	7.35%	5	1.47%	1	68
Microservices DevOps	47.06%	32	41.18%	28	7.35%	5	2.94%	2	1.47%	1	68
Configuration Management Technical	39.13%	27	26.09%	18	33.33%	23	1.45%	1	0.00%	0	69

Practices											
IT Service Management	17.14%	12	15.71%	11	64.29%	45	2.86%	2	0.00%	0	70
PMBOK (Project Management Book of Knowledge)	53.62%	37	10.14%	7	20.29%	14	14.49%	10	1.45%	1	69

### Primarily industry professional; also teaching in a college/university

Question	Unfamiliar		Emerging		Mainstream		Declining		Obsolete		Total
ITIL (IT Infrastructure Library)	23.08%	3	15.38%	2	53.85%	7	0.00%	0	7.69%	1	13
Project Management	0.00%	0	9.09%	1	90.91%	10	0.00%	0	0.00%	0	11
Continuous Integration	15.38%	2	38.46%	5	46.15%	6	0.00%	0	0.00%	0	13
Test Driven Development	16.67%	2	33.33%	4	50.00%	6	0.00%	0	0.00%	0	12
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	69.23%	9	15.38%	2	15.38%	2	0.00%	0	0.00%	0	13
Infrastructure as Code	60.00%	6	10.00%	1	30.00%	3	0.00%	0	0.00%	0	10
COBIT (Control Objectives for Information Technology)	58.33%	7	8.33%	1	16.67%	2	8.33%	1	8.33%	1	12
Virtualization	7.69%	1	23.08%	3	69.23%	9	0.00%	0	0.00%	0	13
Container Technology	33.33%	4	58.33%	7	8.33%	1	0.00%	0	0.00%	0	12
Lean User Experience (UX)/ Design Thinking	33.33%	4	33.33%	4	33.33%	4	0.00%	0	0.00%	0	12
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	16.67%	2	25.00%	3	58.33%	7	0.00%	0	0.00%	0	12
Continuous Delivery	25.00%	3	25.00%	3	50.00%	6	0.00%	0	0.00%	0	12
Web- or Cloud- scale Engineering	33.33%	4	33.33%	4	33.33%	4	0.00%	0	0.00%	0	12
eXtreme Programming	45.45%	5	36.36%	4	9.09%	1	0.00%	0	9.09%	1	11
Scrum	8.33%	1	33.33%	4	58.33%	7	0.00%	0	0.00%	0	12
Kanban	50.00%	6	41.67%	5	8.33%	1	0.00%	0	0.00%	0	12
TOGAF (The Open Group Architecture Framework)	81.82%	9	9.09%	1	0.00%	0	9.09%	1	0.00%	0	11

Microservices DevOps	41.67 %	5	41.67%	5	16.67%	2	0.00%	0	0.00%	0	12
Configuration Management Technical Practices	18.18 %	2	36.36%	4	45.45%	5	0.00%	0	0.00%	0	11
IT Service Management	33.33 %	4	8.33%	1	58.33%	7	0.00%	0	0.00%	0	12
PMBOK (Project Management Book of Knowledge)	25.00 %	3	25.00%	3	33.33%	4	16.67%	2	0.00%	0	12

Primarily college/university faculty/instructor; also working in the industry

Question	Unfamiliar		Emerging		Mainstream		Declining		Obsolete		Total
ITIL (IT Infrastructure Library)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Project Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Integration	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Test Driven Development	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Infrastructure as Code	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
COBIT (Control Objectives for Information Technology)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Virtualization	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Container Technology	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Lean User Experience (UX)/ Design Thinking	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Delivery	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Web- or Cloud- scale Engineering	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
eXtreme Programming	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Scrum	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Kanban	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
TOGAF (The Open Group Architecture Framework)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Microservices DevOps	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Configuration Management Technical Practices	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
IT Service Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
PMBOK (Project Management Book of Knowledge)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

## College/university faculty/instructor

Question	Unfamiliar		Emerging		Mainstream		Declining		Obsolete		Total
ITIL (IT Infrastructure Library)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Project Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Integration	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Test Driven Development	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Infrastructure as Code	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
COBIT (Control Objectives for Information Technology)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Virtualization	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Container Technology	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Lean User Experience (UX)/ Design Thinking	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Delivery	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Web- or Cloud- scale Engineering	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
eXtreme Programming	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Scrum	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Kanban	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
TOGAF (The Open Group Architecture Framework)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Microservices DevOps	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Configuration Management Technical Practices	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
IT Service Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
PMBOK (Project Management Book of Knowledge)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

## Q9 - Please rate the following statements.

### Industry professional

Question	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree		Total
My state's workforce is well prepared to support the new digital economy.	1.49%	1	28.36%	19	26.87%	18	32.84%	22	10.45%	7	67
Interns require too much effort and cause a distraction.	13.43%	9	46.27%	31	23.88%	16	13.43%	9	2.99%	2	67
My software development and deployment pipeline is based on current Agile/DevOps/Cloud practices (e.g. Scrum and/or Kanban, test driven development, continuous integration, continuous deployment, Infrastructure as a Service, etc.).	4.92%	3	18.03%	11	18.03%	11	34.43%	21	24.59%	15	61
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	6.06%	4	19.70%	13	42.42%	28	24.24%	16	7.58%	5	66
My state's educational system is producing a large enough	8.96%	6	40.30%	27	31.34%	21	17.91%	12	1.49%	1	67

workforce for digital firms.												
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Primarily industry professional; also teaching in a college/university

Question	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree		Total
My state's workforce is well prepared to support the new digital economy.	0.00%	0	33.33%	4	33.33%	4	33.33%	4	0.00%	0	12
Interns require too much effort and cause a distraction.	8.33%	1	50.00%	6	25.00%	3	8.33%	1	8.33%	1	12
My software development and deployment pipeline is based on current Agile/DevOps/Cloud practices (e.g. Scrum and/or Kanban, test driven development, continuous integration, continuous deployment, Infrastructure as a Service, etc.).	11.11%	1	33.33%	3	0.00%	0	22.22%	2	33.33%	3	9
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	0.00%	0	41.67%	5	50.00%	6	8.33%	1	0.00%	0	12
My state's educational system is producing a large enough workforce for digital firms.	0.00%	0	41.67%	5	41.67%	5	16.67%	2	0.00%	0	12



Primarily college/university faculty/instructor; also working in the industry

Question	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree		Total
My state's workforce is well prepared to support the new digital economy.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Interns require too much effort and cause a distraction.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
My software development and deployment pipeline is based on current Agile/DevOps/Cloud practices (e.g. Scrum and/or Kanban, test driven development, continuous integration, continuous deployment, Infrastructure as a Service, etc.).	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
My state's educational system is producing a large enough workforce for digital firms.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

College/university faculty/instructor

Question	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree		Total
My state's workforce	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

is well prepared to support the new digital economy.												
Interns require too much effort and cause a distraction.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0
My software development and deployment pipeline is based on current Agile/DevOps/Cloud practices (e.g. Scrum and/or Kanban, test driven development, continuous integration, continuous deployment, Infrastructure as a Service, etc.).	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0
My state's educational system is producing a large enough workforce for digital firms.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0

**Q16 - Please rate the following statements.**

Industry professional

Question	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Total
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
My state's educational system is producing a large enough workforce for digital firms.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
IT, MIS, CS or CIS curricula at my college/university well represent current industry practice.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Primarily industry professional; also teaching in a college/university

Question	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Total
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
My state's educational system is producing a large enough workforce for digital firms.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

IT, MIS, CS or CIS curricula at my college/university well represent current industry practice.	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
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Primarily college/university faculty/instructor; also working in the industry

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total
My state's educational system is producing a workforce for digital firms that is well prepared in terms of desired competencies and learning outcomes.	0.00% 0	0.00% 0	16.67% 1	66.67% 4	16.67% 1	6
My state's educational system is producing a large enough workforce for digital firms.	0.00% 0	33.33% 2	0.00% 0	66.67% 4	0.00% 0	6
IT, MIS, CS or CIS curricula at my college/university well represent current industry practice.	0.00% 0	16.67% 1	33.33% 2	50.00% 3	0.00% 0	6

College/university faculty/instructor

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total
My state's educational system is producing a workforce for digital firms that is well prepared	0.00% 0	11.54% 3	23.08% 6	53.85% 14	11.54% 3	26

in terms of desired competencies and learning outcomes.												
My state's educational system is producing a large enough workforce for digital firms.	3.85%	1	42.31%	11	30.77%	8	23.08%	6	0.00%	0	26	
IT, MIS, CS or CIS curricula at my college/university well represent current industry practice.	3.85%	1	15.38%	4	11.54%	3	30.77%	8	38.46%	10	26	

**Q20 - To the best of your knowledge, rate the extent to which the following topics are covered in your curriculum.**

Industry professional

Question	Not Covered		Covered But Not Extensively		Covered Extensively		Unsure / Not Applicable		Total
ITIL (IT Infrastructure Library)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Project Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Integration	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Test Driven Development	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Infrastructure as Code	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
COBIT (Control Objectives for Information Technology)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Virtualization	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Container Technology	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Lean User Experience (UX)/ Design Thinking	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Delivery	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Web- or Cloud- Scale Engineering	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
eXtreme Programming	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Scrum	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Kanban	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
TOGAF (The Open Group Architecture Framework)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Microservices DevOps	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Configuration Management Technical Practices	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
IT Service Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
PMBOK (Project Management Book of Knowledge)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Primarily industry professional; also teaching in a college/university

Question	Not Covered		Covered But Not Extensively		Covered Extensively		Unsure / Not Applicable		Total
ITIL (IT Infrastructure Library)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Project Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Integration	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Test Driven Development	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Infrastructure as Code	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
COBIT (Control Objectives for Information Technology)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Virtualization	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Container Technology	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Lean User Experience (UX)/ Design Thinking	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Continuous Delivery	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Web- or Cloud- Scale Engineering	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
eXtreme Programming	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Scrum	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Kanban	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
TOGAF (The Open Group Architecture Framework)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Microservices DevOps	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Configuration Management Technical Practices	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
IT Service Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
PMBOK (Project Management Book of Knowledge)	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

Primarily college/university faculty/instructor; also working in the industry

Question	Not Covered		Covered But Not Extensively		Covered Extensively		Unsure / Not Applicable		Total
ITIL (IT Infrastructure Library)	50.00%	3	33.33%	2	0.00%	0	16.67%	1	6
Project Management	16.67%	1	0.00%	0	66.67%	4	16.67%	1	6
Continuous Integration	66.67%	4	16.67%	1	0.00%	0	16.67%	1	6
Test Driven Development	33.33%	2	33.33%	2	16.67%	1	16.67%	1	6
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	60.00%	3	20.00%	1	0.00%	0	20.00%	1	5
Infrastructure as Code	40.00%	2	40.00%	2	0.00%	0	20.00%	1	5
COBIT (Control Objectives for Information Technology)	60.00%	3	20.00%	1	0.00%	0	20.00%	1	5
Virtualization	0.00%	0	20.00%	1	60.00%	3	20.00%	1	5
Container Technology	33.33%	2	33.33%	2	16.67%	1	16.67%	1	6
Lean User Experience (UX)/ Design Thinking	60.00%	3	0.00%	0	20.00%	1	20.00%	1	5
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure,	0.00%	0	66.67%	4	16.67%	1	16.67%	1	6



Google Compute)									
Continuous Delivery	50.00%	3	33.33%	2	0.00%	0	16.67%	1	6
Web- or Cloud- Scale Engineering	16.67%	1	33.33%	2	33.33%	2	16.67%	1	6
eXtreme Programming	33.33%	2	66.67%	4	0.00%	0	0.00%	0	6
Scrum	66.67%	4	33.33%	2	0.00%	0	0.00%	0	6
Kanban	83.33%	5	0.00%	0	0.00%	0	16.67%	1	6
TOGAF (The Open Group Architecture Framework)	66.67%	4	16.67%	1	0.00%	0	16.67%	1	6
Microservices DevOps	66.67%	4	16.67%	1	0.00%	0	16.67%	1	6
Configuration Management Technical Practices	50.00%	3	0.00%	0	33.33%	2	16.67%	1	6
IT Service Management	50.00%	3	33.33%	2	0.00%	0	16.67%	1	6
PMBOK (Project Management Book of Knowledge)	50.00%	3	16.67%	1	16.67%	1	16.67%	1	6

### College/university faculty/instructor

Question	Not Covered		Covered But Not Extensively		Covered Extensively		Unsure / Not Applicable		Total
ITIL (IT Infrastructure Library)	20.00%	5	56.00%	14	12.00%	3	12.00%	3	25
Project Management	3.85%	1	38.46%	10	57.69%	15	0.00%	0	26
Continuous Integration	34.62%	9	42.31%	11	19.23%	5	3.85%	1	26
Test Driven Development	26.92%	7	42.31%	11	26.92%	7	3.85%	1	26
Next Generation Deployment Techniques (e.g. Feature Flags, Canary Environments)	65.38%	17	19.23%	5	0.00%	0	15.38%	4	26
Infrastructure as Code	64.00%	16	20.00%	5	4.00%	1	12.00%	3	25
COBIT (Control Objectives for Information Technology)	42.31%	11	34.62%	9	11.54%	3	11.54%	3	26
Virtualization	8.00%	2	56.00%	14	36.00%	9	0.00%	0	25
Container Technology	61.54%	16	26.92%	7	3.85%	1	7.69%	2	26

Lean User Experience (UX)/ Design Thinking	26.92%	7	53.85%	14	15.38%	4	3.85%	1	26
Cloud "Infrastructure as a Service" Platforms (e.g. Amazon EC2, Microsoft Azure, Google Compute)	3.85%	1	57.69%	15	34.62%	9	3.85%	1	26
Continuous Delivery	42.31%	11	42.31%	11	3.85%	1	11.54%	3	26
Web- or Cloud- Scale Engineering	38.46%	10	42.31%	11	15.38%	4	3.85%	1	26
eXtreme Programming	30.77%	8	34.62%	9	23.08%	6	11.54%	3	26
Scrum	23.08%	6	38.46%	10	34.62%	9	3.85%	1	26
Kanban	46.15%	12	42.31%	11	3.85%	1	7.69%	2	26
TOGAF (The Open Group Architecture Framework)	57.69%	15	19.23%	5	11.54%	3	11.54%	3	26
Microservices DevOps	64.00%	16	28.00%	7	4.00%	1	4.00%	1	25
Configuration Management Technical Practices	36.00%	9	44.00%	11	12.00%	3	8.00%	2	25
IT Service Management	19.23%	5	65.38%	17	11.54%	3	3.85%	1	26
PMBOK (Project Management Book of Knowledge)	19.23%	5	53.85%	14	19.23%	5	7.69%	2	26

**Q19 - Which of the following statements best describes your curriculum's approach to Agile//DevOp?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
We do not cover Agile or DevOps	0.00%	0	0.00%	0	50.00%	2	50.00%	2	4
We teach Agile only as part of Project Management	0.00%	0	0.00%	0	0.00%	0	100.00%	1	1
We cover Agile techniques in classes other than Project Management	0.00%	0	0.00%	0	15.38%	4	84.62%	22	26
Don't know/not applicable	0.00%	0	0.00%	0	0.00%	0	100.00%	2	2

**Q21 - Which of the following statements best describes your curriculum's approach to version control?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
We teach version control (as in source control and package management) through applied labs or other hands-on approaches	0.00%	0	0.00%	0	25.00%	4	75.00%	12	16
We teach version control in classes other than Project Management, but primarily in terms of theory and principles	0.00%	0	0.00%	0	0.00%	0	100.00%	10	10
We do not address version control	0.00%	0	0.00%	0	33.33%	2	66.67%	4	6
Don't know/not applicable	0.00%	0	0.00%	0	0.00%	0	100.00%	1	1
We teach version control only as part of Project Management	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

**Q23 - Which of the following statements best describes your curriculum's approach to Github?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Our program does not use or discuss Github	0.00%	0	0.00%	0	11.11%	1	88.89%	8	9
Our program uses or teaches with Github in some manner	0.00%	0	0.00%	0	29.41%	5	70.59%	12	17
Don't know/not applicable	0.00%	0	0.00%	0	0.00%	0	100.00%	7	7

**Q24 - Which of the following statements best describes your curriculum's approach to virtualization and Cloud??**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Our program does not use or teach virtualization and/or Cloud	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Our program teaches virtualization and/or Cloud, but does not provide hands-on experience	0.00%	0	0.00%	0	0.00%	0	100.00%	9	9
Our program provides hands-on experience with virtualization and/or Cloud	0.00%	0	0.00%	0	23.53%	4	76.47%	13	17
Our program uses virtualization and/or cloud as an instructional enabler (e.g. software-defined virtual environments to learn systems techniques, programming, networking, database, and/or other skills)	0.00%	0	0.00%	0	28.57%	2	71.43%	5	7
Don't know/not applicable	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0

**Q27 - Do you have any involvement in placing interns in the industry?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Yes	0.00%	0	0.00%	0	25.93%	7	74.07%	20	27
No	0.00%	0	0.00%	0	12.50%	1	87.50%	7	8

**Q22 - How do you rate the industry's receptiveness of interns from your college/university?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Not receptive	0.00%	0	0.00%	0	100.00%	1	0.00%	0	1
Somewhat receptive	0.00%	0	0.00%	0	33.33%	1	66.67%	2	3
Very receptive	0.00%	0	0.00%	0	15.00%	3	85.00%	17	20
Not sure	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0



**Q25 - How long have you been teaching in higher education?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Less than one year	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
1-5 years	0.00%	0	0.00%	0	20.00%	1	80.00%	4	5
6-10 years	0.00%	0	0.00%	0	33.33%	1	66.67%	2	3
Over 10 years	0.00%	0	0.00%	0	16.00%	4	84.00%	21	25

## Q26 - How would you describe your familiarity with Agile?

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Extremely familiar	0.00%	0	0.00%	0	16.67%	1	83.33%	5	6
Very familiar	0.00%	0	0.00%	0	22.22%	2	77.78%	7	9
Moderately familiar	0.00%	0	0.00%	0	16.67%	2	83.33%	10	12
Slightly familiar	0.00%	0	0.00%	0	0.00%	0	100.00%	4	4
Not familiar at all	0.00%	0	0.00%	0	50.00%	1	50.00%	1	2

## Q27 - How would you describe your familiarity with DevOps?

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Extremely familiar	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0
Very familiar	0.00%	0	0.00%	0	33.33%	1	66.67%	2	3
Moderately familiar	0.00%	0	0.00%	0	33.33%	4	66.67%	8	12
Slightly familiar	0.00%	0	0.00%	0	8.33%	1	91.67%	11	12
Not familiar at all	0.00%	0	0.00%	0	14.29%	1	85.71%	6	7

**Q29 - Thank you for completing this survey.  
 Would you like to receive this survey results?**

Question	Industry professional		Primarily industry professional; also teaching in a college/university		Primarily college/university faculty/instructor; also working in the industry		College/university faculty/instructor		Total
Yes	55.93%	33	10.17%	6	10.17%	6	23.73%	14	59
No	65.52%	38	12.07%	7	1.72%	1	20.69%	12	58

## Q28 - Please enter your email.

Industry professional

Email (Optional)
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