

LOCATE

INDUSTRY SURVEY



DEMOGRAPHICS

In what capacity are you involved in underground utility locating?

Designer (engineer)	8%
Excavator	24%
Locator working for a Facility Owner	40%
Private Locator	6%
Other	8%
Other: Facility Owner	6%
I am not actively involved in the locating process	8%

Job Function

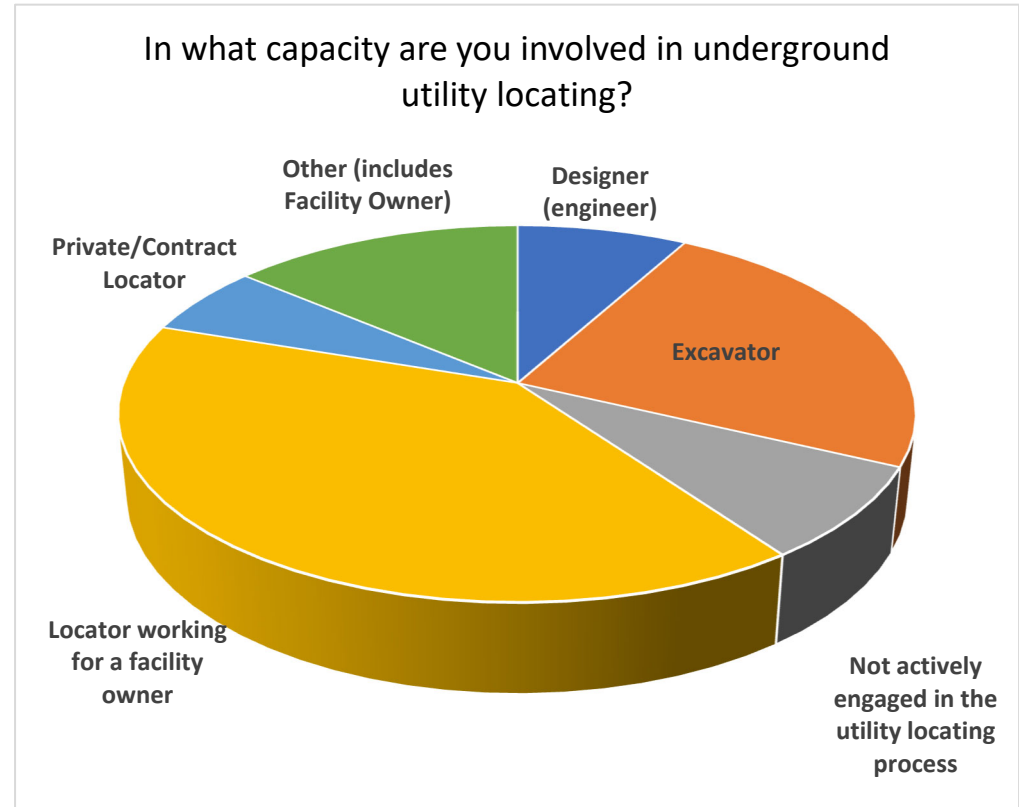
Executive (Owner, CEO, COO, CFO, President)	14%
Middle Management (Supervisor, Foremen)	33%
Upper Management (Director, Manager)	13%
Field Operations (Technician, Locator, Operator)	40%

Which category best describes the type work you do?

Communications	5%	Locating	15%
Electrical	4%	One Call	2%
Engineering	8%	Other	4%
Excavating	16%	Public Works	11%
Gas & Oil	7%	Trenchless Technology	1%
Government/Regulatory	7%	Water & Sewer	19%

Where do you work?

Canada	<1%
US	99%
Other	<1%



How much education should a locate technician have?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All		D	E	N	L	P	O		E	U	M	F
A broad-based locator certification program including both classroom and field testing is necessary	60%		59%	69%	66%	53%	66%	59%		68%	53%	61%	58%
A third-party training company should be used to ensure no “bad habits”	14%		13%	9%	11%	16%	14%	16%		7%	18%	16%	13%
Company training programs are fine	16%		23%	11%	13%	19%	7%	19%		20%	16%	13%	17%
Field training is sufficient	11%		5%	11%	11%	12%	14%	9%		5%	12%	10%	12%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov’t/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
A broad-based locator certification program including both classroom and field testing is necessary	63%	70%	49%	74%	64%	52%	67%	64%	62%	47%	80%	50%
A third-party training company should be used to ensure no “bad habits”	17%	20%	14%	6%	12%	21%	4%	0%	15%	19%	0%	23%
Company training programs are fine	8%	10%	26%	13%	21%	12%	20%	18%	15%	15%	0%	15%
Field training is sufficient	13%	0%	11%	6%	3%	15%	9%	18%	8%	19%	20%	13%

How often should a locate technician receive continued training or certification?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All		D	E	N	L	P	O		E	U	M	F
Annually	48%		54%	53%	39%	44%	52%	53%		47%	40%	52%	49%
2-5 years	45%		41%	45%	55%	47%	38%	42%		52%	52%	40%	44%
5-10 years	4%		3%	3%	5%	6%	7%	3%		2%	5%	4%	5%
Never	2%		3%	0%	0%	4%	3%	2%		0%	3%	3%	2%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
Annually	54%	50%	50%	48%	55%	41%	62%	55%	50%	41%	50%	37%
2-5 years	42%	45%	42%	49%	45%	56%	31%	27%	44%	50%	50%	52%
5-10 years	0%	5%	3%	3%	0%	3%	4%	9%	6%	7%	0%	8%
Never	4%	0%	5%	0%	0%	0%	3%	9%	0%	2%	0%	3%

What tools do you use or require for locating buried utilities?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All	D	E	N	L	P	O	E	U	M	F
All of the Above	3%	6%	1%	5%	3%	7%	5%	2%	3%	2%	4%
Electromagnetic Locator	53%	48%	51%	45%	56%	55%	48%	38%	56%	57%	53%
GIS or A/R	13%	13%	10%	20%	15%	3%	13%	2%	12%	16%	14%
Ground Penetrating Radar	8%	19%	12%	5%	5%	14%	5%	26%	4%	8%	7%
Magnetometer	3%	10%	3%	5%	1%	3%	2%	0%	4%	1%	4%
Maps and As-builts	5%	0%	0%	0%	9%	7%	2%	2%	9%	4%	4%
Sonde or RFID Marker	5%	3%	0%	0%	4%	0%	23%	2%	7%	6%	5%
Other	11%	0%	23%	20%	8%	10%	2%	28%	4%	8%	9%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
All of the Above	0%	6%	9%	3%	0%	5%	6%	0%	0%	0%	0%	2%
Electromagnetic Locator	80%	53%	52%	53%	58%	36%	79%	57%	57%	31%	40%	48%
GIS or A/R	5%	6%	12%	6%	10%	32%	1%	0%	0%	31%	0%	18%
Ground Penetrating Radar	5%	12%	18%	14%	13%	5%	7%	0%	14%	4%	20%	1%
Magnetometer	0%	0%	6%	2%	0%	5%	0%	14%	0%	2%	0%	6%
Maps and As-builts	0%	0%	0%	0%	0%	9%	3%	0%	0%	13%	0%	7%
Sonde or RFID Marker	5%	12%	3%	3%	13%	0%	3%	0%	14%	2%	40%	6%
Other	5%	12%	0%	19%	6%	9%	1%	29%	14%	17%	0%	13%

Other responses include:

Coat hangers	5%	Visual indicators	19%
Copper Rods	5%	Shovel	14%
Divining Rod	24%	Common Sense	5%
Knowledge of facility location	10%	Vac Truck	5%
Metal Detector	14%		

On a monthly basis, how often must a site be relocated due to marks being destroyed?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All		D	E	N	L	P	O		E	U	M	F
0-1 times	43%		51%	54%	49%	37%	28%	46%		71%	46%	41%	36%
2-5 times	40%		38%	39%	34%	43%	45%	38%		21%	42%	40%	45%
5-10 times	9%		8%	3%	14%	12%	14%	7%		5%	8%	10%	12%
10+ times	7%		3%	5%	3%	9%	14%	10%		3%	4%	9%	7%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
0-1 times	30%	35%	46%	55%	41%	65%	11%	36%	63%	55%	33%	50%
2-5 times	48%	35%	41%	36%	41%	29%	59%	45%	19%	38%	67%	34%
5-10 times	0%	15%	5%	5%	16%	3%	21%	0%	19%	6%	0%	6%
10+ times	22%	15%	8%	4%	3%	3%	8%	18%	0%	2%	0%	10%

On a monthly basis, how often does a ticket cover a seemingly unnecessarily broad area?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All		D	E	N	L	P	O		E	U	M	F
0-1 times	34%		43%	68%	18%	27%	22%	32%		71%	44%	42%	28%
2-5 times	36%		24%	23%	55%	26%	22%	25%		24%	26%	22%	27%
5-10 times	7%		16%	4%	18%	14%	11%	10%		0%	11%	7%	15%
10+ times	23%		16%	4%	9%	33%	44%	32%		5%	19%	29%	30%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
0-1 times	33%	32%	47%	60%	27%	71%	4%	18%	67%	55%	83%	34%
2-5 times	13%	37%	19%	32%	27%	13%	18%	18%	13%	21%	17%	38%
5-10 times	0%	11%	11%	5%	3%	13%	17%	9%	20%	15%	0%	11%
10+ times	54%	21%	22%	3%	42%	3%	61%	55%	0%	9%	0%	16%

On a monthly basis, how many times does a job site need to be relocated because the ticket has expired?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All	D	E	N	L	P	O	E	U	M	F
0-1 times	47%	61%	63%	61%	34%	29%	39%	81%	46%	39%	36%
2-5 times	41%	21%	25%	21%	43%	32%	31%	11%	32%	40%	38%
5-10 times	2%	9%	3%	6%	12%	18%	10%	4%	9%	8%	13%
10+ times	7%	6%	4%	6%	10%	18%	11%	4%	9%	9%	10%
Tickets don't expire in my state	2%	3%	3%	6%	1%	4%	8%	2%	3%	3%	3%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
0-1 times	42%	40%	47%	66%	30%	70%	28%	11%	60%	32%	83%	47%
2-5 times	29%	40%	24%	18%	42%	17%	44%	44%	27%	51%	17%	35%
5-10 times	13%	10%	15%	5%	12%	7%	11%	0%	0%	15%	0%	8%
10+ times	13%	5%	9%	5%	12%	0%	14%	44%	0%	2%	0%	10%
Tickets don't expire in my state	4%	5%	6%	5%	3%	7%	3%	0%	13%	0%	0%	0%

On a monthly basis, how often are utilities mismarked?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All		D	E	N	L	P	O		E	U	M	F
0-1 times	50%		51%	39%	60%	66%	46%	44%		60%	46%	56%	57%
2-5 times	40%		38%	38%	23%	25%	25%	30%		28%	34%	29%	28%
5-10 times	5%		3%	12%	9%	5%	11%	8%		2%	7%	8%	9%
10+ times	5%		8%	11%	9%	4%	18%	18%		11%	12%	7%	6%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
0-1 times	46%	35%	56%	42%	45%	70%	39%	45%	80%	75%	33%	67%
2-5 times	25%	35%	25%	41%	27%	21%	44%	18%	13%	17%	33%	25%
5-10 times	13%	20%	3%	7%	15%	3%	10%	18%	7%	2%	17%	5%
10+ times	17%	10%	17%	11%	12%	6%	7%	18%	0%	6%	17%	3%

Rank the risk these locating issues pose to damage prevention of underground utilities (excluding failure to locate or unreported damage).

All	1	2	3	4	5	6	7	8	9	10
Lack of training	50%	15%	12%	7%	7%	3%	3%	2%	1%	0%
Understaffing	10%	10%	7%	4%	3%	7%	7%	45%	5%	1%
Insufficient technology	5%	39%	13%	13%	9%	8%	3%	4%	3%	1%
Unlocatable utilities	19%	8%	9%	11%	8%	34%	5%	4%	1%	0%
Over-congestion	7%	12%	10%	42%	12%	8%	6%	2%	0%	0%
Deeper utilities	2%	5%	5%	7%	39%	16%	13%	9%	3%	0%
Shrinking easements and right of ways	3%	7%	37%	8%	11%	14%	8%	6%	4%	0%
Insufficient legislation or enforcement	4%	2%	4%	5%	6%	6%	46%	15%	9%	1%
Aging Workforce	0%	1%	1%	1%	3%	2%	7%	9%	68%	5%
Other	1%	1%	0%	1%	1%	0%	2%	1%	4%	88%

Engineer	1	2	3	4	5	6	7	8	9	10
Lack of training	53%	12%	19%	2%	7%	0%	2%	0%	0%	0%
Understaffing	5%	15%	5%	9%	0%	4%	7%	30%	10%	2%
Insufficient technology	5%	32%	5%	19%	9%	11%	4%	2%	4%	0%
Unlocatable utilities	23%	2%	10%	14%	9%	22%	7%	2%	0%	2%
Over-congestion	5%	20%	7%	28%	16%	9%	4%	2%	0%	0%
Deeper utilities	0%	7%	10%	2%	27%	18%	13%	9%	2%	0%
Shrinking easements and right of ways	5%	2%	36%	12%	9%	16%	4%	2%	2%	2%
Insufficient legislation or enforcement	3%	2%	2%	5%	11%	4%	39%	17%	2%	0%
Aging Workforce	0%	2%	0%	0%	0%	2%	2%	15%	54%	6%
Other	0%	0%	0%	0%	0%	0%	2%	4%	6%	67%

Excavator	1	2	3	4	5	6	7	8	9	10
Lack of training	53%	10%	14%	4%	8%	5%	2%	0%	1%	0%
Understaffing	8%	8%	8%	3%	5%	6%	7%	44%	5%	2%
Insufficient technology	6%	42%	13%	12%	8%	7%	2%	5%	3%	0%
Unlocatable utilities	21%	8%	7%	11%	4%	39%	5%	2%	1%	0%
Over-congestion	8%	11%	5%	49%	7%	8%	7%	2%	0%	0%
Deeper utilities	1%	7%	5%	7%	41%	13%	13%	6%	2%	0%
Shrinking easements and right of ways	3%	7%	38%	6%	14%	11%	7%	6%	6%	0%
Insufficient legislation or enforcement	1%	3%	5%	4%	4%	3%	46%	18%	8%	2%
Aging Workforce	0%	2%	2%	1%	3%	3%	3%	9%	65%	6%

Other	0%	1%	1%	0%	1%	0%	2%	2%	2%	83%
Not engaged in locate process	1	2	3	4	5	6	7	8	9	10
Lack of training	53%	15%	7%	9%	7%	2%	0%	2%	0%	0%
Understaffing	5%	10%	12%	5%	2%	4%	2%	45%	0%	2%
Insufficient technology	5%	46%	12%	9%	2%	4%	7%	2%	0%	4%
Unlocatable utilities	20%	5%	10%	5%	7%	38%	2%	0%	4%	0%
Over-congestion	5%	7%	7%	51%	7%	9%	0%	0%	2%	0%
Deeper utilities	0%	2%	0%	5%	42%	13%	4%	13%	8%	0%
Shrinking easements and right of ways	5%	2%	43%	5%	9%	4%	13%	6%	2%	0%
Insufficient legislation or enforcement	5%	2%	0%	0%	7%	9%	43%	9%	10%	0%
Aging Workforce	0%	0%	2%	0%	5%	2%	11%	6%	50%	6%
Other	0%	5%	0%	2%	0%	0%	2%	0%	4%	67%

Locator working for Facility Owner	1	2	3	4	5	6	7	8	9	10
Lack of training	44%	16%	10%	9%	6%	4%	4%	3%	1%	1%
Understaffing	11%	9%	6%	4%	1%	11%	8%	43%	5%	0%
Insufficient technology	5%	35%	16%	12%	11%	9%	3%	3%	2%	1%
Unlocatable utilities	20%	9%	10%	9%	10%	30%	5%	5%	1%	0%
Over-congestion	7%	13%	13%	36%	16%	6%	4%	2%	0%	0%
Deeper utilities	3%	5%	6%	9%	35%	15%	13%	9%	3%	0%
Shrinking easements and right of ways	4%	9%	33%	9%	11%	15%	7%	6%	2%	0%
Insufficient legislation or enforcement	5%	2%	4%	7%	6%	7%	43%	15%	7%	1%
Aging Workforce	0%	1%	2%	2%	2%	2%	6%	9%	69%	4%
Other	1%	1%	0%	2%	1%	0%	1%	0%	3%	86%

Private Locator	1	2	3	4	5	6	7	8	9	10
Lack of training	51%	14%	10%	7%	4%	4%	1%	1%	3%	0%
Understaffing	10%	13%	6%	4%	4%	1%	3%	47%	3%	1%
Insufficient technology	6%	42%	10%	14%	10%	7%	1%	3%	1%	1%
Unlocatable utilities	10%	7%	10%	7%	10%	38%	4%	7%	0%	0%
Over-congestion	7%	6%	13%	42%	6%	8%	11%	1%	0%	0%
Deeper utilities	4%	1%	4%	7%	44%	14%	8%	9%	0%	0%
Shrinking easements and right of ways	0%	9%	40%	8%	6%	12%	7%	7%	4%	1%
Insufficient legislation or enforcement	4%	3%	3%	1%	4%	5%	47%	9%	12%	1%
Aging Workforce	3%	0%	0%	3%	3%	1%	8%	4%	62%	5%
Other	1%	1%	0%	0%	3%	0%	0%	1%	4%	77%

Other	1	2	3	4	5	6	7	8	9	10
Lack of training	57%	23%	6%	3%	3%	0%	0%	0%	3%	0%
Understaffing	20%	13%	9%	0%	3%	3%	6%	30%	3%	0%
Insufficient technology	0%	39%	13%	12%	3%	9%	0%	8%	5%	0%
Unlocatable utilities	10%	6%	9%	24%	9%	20%	3%	3%	3%	0%
Over-congestion	3%	10%	9%	30%	21%	6%	3%	5%	0%	0%
Deeper utilities	3%	0%	0%	3%	29%	20%	17%	8%	3%	0%
Shrinking easements and right of ways	0%	3%	31%	9%	9%	17%	3%	5%	8%	0%
Insufficient legislation or enforcement	3%	0%	9%	3%	6%	6%	36%	14%	5%	0%
Aging Workforce	0%	0%	3%	3%	3%	0%	14%	5%	47%	3%
Other	0%	0%	0%	0%	0%	3%	0%	0%	0%	72%

Executive	1	2	3	4	5	6	7	8	9	10
Lack of training	59%	11%	13%	3%	3%	2%	4%	0%	1%	0%
Understaffing	3%	8%	2%	6%	2%	6%	6%	51%	4%	1%
Insufficient technology	7%	47%	13%	11%	9%	3%	4%	1%	0%	0%
Unlocatable utilities	13%	6%	6%	9%	5%	44%	4%	1%	1%	1%
Over-congestion	5%	10%	2%	50%	12%	9%	4%	1%	0%	0%
Deeper utilities	5%	3%	10%	6%	42%	14%	7%	4%	1%	0%
Shrinking easements and right of ways	5%	6%	46%	6%	9%	6%	4%	3%	6%	1%
Insufficient legislation or enforcement	0%	5%	5%	2%	5%	5%	49%	13%	6%	1%
Aging Workforce	0%	0%	0%	0%	6%	3%	1%	10%	61%	6%
Other	2%	0%	0%	0%	0%	0%	3%	1%	6%	74%

Upper Management	1	2	3	4	5	6	7	8	9	10
Lack of training	45%	14%	14%	7%	9%	4%	2%	1%	1%	2%
Understaffing	12%	13%	8%	4%	1%	6%	8%	35%	8%	0%
Insufficient technology	4%	36%	9%	17%	11%	10%	1%	5%	5%	0%
Unlocatable utilities	21%	4%	14%	8%	8%	31%	5%	4%	2%	0%
Over-congestion	6%	15%	8%	38%	6%	11%	7%	5%	0%	1%
Deeper utilities	1%	7%	4%	8%	34%	17%	12%	8%	4%	0%
Shrinking easements and right of ways	7%	5%	34%	4%	17%	10%	8%	7%	2%	0%
Insufficient legislation or enforcement	2%	3%	3%	8%	7%	5%	39%	16%	9%	3%
Aging Workforce	1%	1%	3%	1%	2%	0%	10%	9%	57%	7%
Other	0%	1%	1%	2%	2%	0%	1%	3%	4%	78%

Middle Management	1	2	3	4	5	6	7	8	9	10
Lack of training	1	2	3	4	5	6	7	8	9	10
Understaffing	50%	12%	12%	5%	7%	4%	4%	2%	2%	0%
Insufficient technology	11%	9%	7%	4%	4%	8%	4%	43%	6%	1%
Unlocatable utilities	4%	36%	17%	11%	9%	8%	4%	5%	2%	2%
Over-congestion	17%	9%	10%	10%	11%	28%	6%	4%	1%	0%
Deeper utilities	7%	14%	11%	40%	13%	5%	6%	1%	1%	0%
Shrinking easements and right of ways	1%	4%	2%	7%	36%	18%	14%	10%	2%	0%
Insufficient legislation or enforcement	2%	8%	34%	10%	9%	17%	6%	4%	6%	1%
Aging Workforce	6%	1%	4%	4%	4%	5%	46%	17%	7%	1%
Other	0%	1%	1%	4%	2%	2%	6%	8%	65%	5%

Field Operations	1	2	3	4	5	6	7	8	9	10
Lack of training	47%	17%	9%	10%	7%	3%	2%	2%	1%	0%
Understaffing	10%	11%	8%	3%	4%	8%	8%	41%	2%	2%
Insufficient technology	6%	37%	13%	13%	8%	11%	2%	3%	3%	1%
Unlocatable utilities	21%	8%	8%	14%	7%	30%	5%	4%	1%	0%
Over-congestion	7%	9%	16%	36%	16%	6%	5%	2%	1%	0%
Deeper utilities	2%	4%	7%	7%	36%	13%	14%	10%	4%	0%
Shrinking easements and right of ways	1%	9%	32%	10%	9%	15%	9%	9%	3%	0%
Insufficient legislation or enforcement	4%	2%	5%	5%	8%	8%	41%	14%	10%	1%
Aging Workforce	1%	1%	1%	1%	2%	4%	7%	8%	68%	4%
Other	0%	0%	0%	1%	1%	1%	2%	1%	2%	87%

Communications	1	2	3	4	5	6	7	8	9	10
Lack of training	40%	23%	11%	4%	7%	7%	0%	0%	0%	0%
Understaffing	20%	15%	4%	0%	3%	7%	3%	28%	3%	0%
Insufficient technology	12%	27%	15%	11%	7%	0%	0%	13%	3%	0%
Unlocatable utilities	0%	8%	11%	21%	10%	23%	3%	6%	0%	0%
Over-congestion	12%	8%	11%	39%	10%	7%	0%	0%	0%	0%
Deeper utilities	4%	0%	0%	0%	34%	10%	23%	6%	3%	0%
Shrinking easements and right of ways	0%	4%	33%	7%	0%	17%	13%	9%	0%	0%
Insufficient legislation or enforcement	8%	4%	4%	4%	10%	3%	32%	9%	6%	0%
Aging Workforce	0%	0%	0%	0%	0%	3%	3%	3%	58%	6%
Other	0%	4%	0%	0%	0%	3%	0%	0%	0%	65%
Electric	1	2	3	4	5	6	7	8	9	10
Lack of training	52%	18%	4%	4%	8%	0%	4%	0%	0%	0%

Understaffing	5%	14%	4%	4%	0%	4%	11%	36%	0%	0%
Insufficient technology	0%	36%	17%	17%	4%	8%	0%	4%	0%	0%
Unlocatable utilities	29%	0%	9%	8%	8%	31%	0%	0%	0%	0%
Over-congestion	5%	9%	13%	38%	12%	4%	4%	0%	0%	0%
Deeper utilities	0%	9%	0%	0%	36%	12%	7%	11%	3%	0%
Shrinking easements and right of ways	5%	5%	35%	13%	8%	12%	4%	4%	0%	0%
Insufficient legislation or enforcement	0%	0%	0%	0%	4%	8%	44%	7%	10%	0%
Aging Workforce	0%	0%	0%	0%	0%	0%	0%	11%	55%	3%
Other	0%	0%	4%	0%	0%	0%	0%	0%	0%	63%

Engineer	1	2	3	4	5	6	7	8	9	10
Lack of training	49%	13%	17%	0%	9%	2%	2%	2%	0%	0%
Understaffing	8%	18%	2%	7%	0%	5%	9%	28%	9%	2%
Insufficient technology	0%	33%	2%	21%	12%	11%	7%	2%	2%	0%
Unlocatable utilities	28%	0%	10%	12%	9%	20%	4%	2%	2%	2%
Over-congestion	0%	18%	12%	31%	7%	14%	4%	4%	0%	0%
Deeper utilities	0%	10%	7%	5%	33%	7%	18%	7%	2%	0%
Shrinking easements and right of ways	5%	3%	37%	5%	7%	18%	7%	4%	2%	2%
Insufficient legislation or enforcement	8%	3%	2%	7%	9%	7%	29%	17%	4%	0%
Aging Workforce	0%	0%	2%	2%	2%	2%	2%	11%	51%	8%
Other	0%	0%	0%	0%	0%	0%	2%	4%	9%	65%

Excavator	1	2	3	4	5	6	7	8	9	10
Lack of training	60%	9%	11%	4%	9%	2%	1%	0%	1%	0%
Understaffing	5%	11%	9%	0%	1%	5%	7%	47%	6%	1%
Insufficient technology	6%	43%	14%	12%	10%	5%	2%	2%	1%	0%
Unlocatable utilities	15%	10%	6%	9%	4%	41%	6%	2%	1%	0%
Over-congestion	6%	10%	4%	51%	5%	11%	6%	2%	0%	0%
Deeper utilities	1%	5%	5%	9%	39%	14%	10%	8%	2%	0%
Shrinking easements and right of ways	3%	6%	41%	5%	18%	8%	4%	4%	6%	0%
Insufficient legislation or enforcement	1%	1%	5%	6%	4%	4%	49%	14%	6%	2%
Aging Workforce	0%	1%	1%	0%	4%	2%	4%	8%	64%	6%
Other	0%	0%	0%	0%	1%	0%	4%	2%	2%	79%

Gas & Oil	1	2	3	4	5	6	7	8	9	10
Lack of training	38%	17%	11%	5%	3%	5%	8%	2%	2%	0%
Understaffing	9%	9%	14%	3%	3%	5%	5%	34%	2%	2%
Insufficient technology	9%	23%	11%	8%	13%	13%	3%	5%	5%	0%
Unlocatable utilities	12%	17%	11%	5%	8%	23%	8%	5%	0%	0%
Over-congestion	9%	11%	17%	32%	11%	8%	3%	0%	0%	0%
Deeper utilities	6%	6%	0%	11%	26%	13%	18%	7%	0%	0%
Shrinking easements and right of ways	3%	6%	25%	14%	16%	8%	5%	7%	5%	0%
Insufficient legislation or enforcement	9%	3%	3%	8%	0%	8%	30%	17%	7%	0%
Aging Workforce	0%	0%	0%	3%	8%	3%	5%	2%	55%	5%
Other	3%	3%	0%	0%	0%	0%	0%	0%	2%	70%

Government/Regulatory	1	2	3	4	5	6	7	8	9	10
Lack of training	56%	11%	11%	8%	3%	0%	0%	0%	5%	0%
Understaffing	12%	3%	6%	5%	3%	8%	3%	44%	2%	0%
Insufficient technology	6%	49%	11%	5%	5%	10%	0%	0%	2%	2%
Unlocatable utilities	6%	9%	8%	11%	13%	33%	3%	5%	0%	0%
Over-congestion	3%	11%	6%	46%	8%	3%	8%	2%	2%	0%
Deeper utilities	3%	0%	6%	5%	37%	18%	10%	5%	2%	0%
Shrinking easements and right of ways	0%	9%	44%	5%	11%	10%	0%	5%	5%	0%
Insufficient legislation or enforcement	6%	0%	0%	3%	5%	3%	53%	7%	5%	2%
Aging Workforce	3%	3%	0%	0%	3%	0%	5%	12%	52%	2%
Other	3%	0%	0%	0%	0%	0%	3%	0%	2%	70%

Locator	1	2	3	4	5	6	7	8	9	10
Lack of training	46%	18%	11%	7%	7%	1%	1%	1%	3%	2%
Understaffing	18%	14%	8%	7%	1%	4%	5%	30%	5%	1%
Insufficient technology	0%	26%	23%	12%	9%	9%	4%	4%	5%	2%
Unlocatable utilities	14%	11%	9%	12%	7%	25%	10%	5%	1%	0%
Over-congestion	8%	15%	7%	32%	24%	3%	4%	3%	0%	0%
Deeper utilities	1%	4%	4%	4%	28%	22%	15%	10%	4%	0%
Shrinking easements and right of ways	6%	7%	23%	11%	9%	21%	5%	9%	4%	0%
Insufficient legislation or enforcement	4%	1%	11%	5%	9%	5%	35%	16%	5%	0%
Aging Workforce	0%	1%	0%	0%	0%	3%	9%	11%	60%	5%
Other	1%	0%	0%	5%	0%	0%	3%	0%	3%	77%

One Call	1	2	3	4	5	6	7	8	9	10
Lack of training	33%	23%	21%	0%	6%	0%	0%	0%	0%	0%
Understaffing	17%	8%	14%	0%	6%	6%	0%	21%	0%	0%
Insufficient technology	8%	23%	0%	33%	0%	0%	0%	0%	5%	5%
Unlocatable utilities	33%	8%	14%	0%	13%	12%	0%	0%	0%	0%
Over-congestion	0%	15%	0%	20%	6%	12%	11%	0%	0%	5%
Deeper utilities	0%	0%	14%	0%	13%	18%	0%	21%	0%	0%
Shrinking easements and right of ways	0%	0%	14%	0%	19%	12%	11%	5%	0%	5%
Insufficient legislation or enforcement	0%	8%	0%	7%	0%	0%	28%	5%	15%	0%
Aging Workforce	0%	0%	0%	7%	6%	6%	6%	5%	25%	5%
Other	0%	0%	0%	7%	0%	0%	6%	0%	10%	33%

Other	1	2	3	4	5	6	7	8	9	10
Lack of training	42%	5%	14%	14%	4%	0%	0%	8%	0%	0%
Understaffing	5%	10%	0%	0%	4%	8%	0%	38%	4%	4%
Insufficient technology	0%	45%	14%	9%	4%	8%	4%	0%	0%	0%
Unlocatable utilities	21%	5%	5%	9%	4%	25%	4%	4%	4%	0%
Over-congestion	11%	5%	24%	27%	9%	8%	0%	0%	0%	0%
Deeper utilities	5%	5%	0%	9%	35%	8%	4%	4%	7%	0%
Shrinking easements and right of ways	11%	5%	29%	14%	9%	0%	8%	4%	4%	0%
Insufficient legislation or enforcement	0%	10%	0%	0%	0%	13%	32%	12%	7%	0%
Aging Workforce	0%	0%	0%	0%	4%	4%	20%	0%	41%	0%
Other	0%	0%	0%	0%	4%	0%	0%	0%	0%	61%

Public Works	1	2	3	4	5	6	7	8	9	10
Lack of training	45%	20%	9%	10%	2%	3%	3%	2%	2%	0%
Understaffing	5%	5%	4%	5%	3%	12%	5%	45%	5%	0%
Insufficient technology	15%	34%	14%	9%	8%	3%	3%	3%	3%	2%
Unlocatable utilities	22%	5%	7%	9%	12%	30%	3%	3%	2%	0%
Over-congestion	0%	5%	18%	36%	17%	3%	8%	3%	2%	0%
Deeper utilities	5%	9%	4%	7%	36%	18%	5%	6%	2%	0%
Shrinking easements and right of ways	2%	14%	35%	12%	7%	10%	5%	2%	6%	0%
Insufficient legislation or enforcement	2%	2%	2%	3%	3%	8%	46%	16%	5%	2%
Aging Workforce	2%	0%	4%	2%	2%	2%	10%	5%	59%	3%
Other	0%	2%	0%	0%	2%	0%	0%	2%	2%	78%

Trenchless Technology	1	2	3	4	5	6	7	8	9	10
Lack of training	57%	13%	11%	0%	0%	0%	0%	0%	0%	0%
Understaffing	14%	0%	0%	10%	0%	8%	0%	21%	0%	0%
Insufficient technology	0%	63%	11%	0%	0%	0%	0%	0%	0%	0%
Unlocatable utilities	14%	0%	0%	10%	9%	25%	0%	0%	0%	0%
Over-congestion	0%	0%	0%	40%	0%	0%	15%	0%	0%	0%
Deeper utilities	0%	0%	0%	0%	27%	0%	8%	7%	7%	0%
Shrinking easements and right of ways	0%	0%	33%	0%	0%	8%	0%	7%	7%	0%
Insufficient legislation or enforcement	0%	0%	0%	0%	18%	0%	23%	0%	0%	6%
Aging Workforce	0%	0%	11%	0%	0%	8%	0%	0%	27%	0%
Other	0%	0%	0%	0%	0%	0%	0%	7%	0%	31%

Water & Sewer	1	2	3	4	5	6	7	8	9	10
Lack of training	46%	11%	10%	10%	7%	6%	5%	2%	0%	0%
Understaffing	8%	8%	8%	3%	4%	6%	9%	42%	4%	1%
Insufficient technology	2%	45%	9%	12%	10%	11%	2%	5%	1%	0%
Unlocatable utilities	27%	5%	11%	10%	4%	34%	1%	3%	1%	0%
Over-congestion	12%	13%	9%	38%	11%	7%	4%	2%	0%	0%
Deeper utilities	0%	1%	10%	12%	40%	12%	10%	7%	2%	0%
Shrinking easements and right of ways	2%	9%	37%	5%	9%	13%	14%	6%	1%	0%
Insufficient legislation or enforcement	2%	3%	3%	3%	6%	5%	41%	14%	12%	2%
Aging Workforce	0%	1%	1%	3%	2%	0%	6%	9%	64%	4%
Other	0%	1%	0%	0%	1%	0%	0%	0%	5%	83%

When hiring a Private/Contract Locator, what is the priority?

D: Designer (engineer) | E: Excavator | L: Locator working for a Facility Owner | P: Private Locator | O: Other | F: Other: Facility Owner | N: Not actively involved in the locating process

E: Executive | U: Upper Management | M: Middle Management | F: Field Operations

	All		D	E	N	L	P	O		E	U	M	F
Price	7%		0%	6%	9%	7%	11%	9%		2%	5%	8%	8%
Quality	57%		56%	48%	57%	65%	68%	44%		49%	54%	63%	56%
On-time performance	18%		17%	30%	20%	13%	4%	19%		31%	18%	16%	15%
Risk reduction	17%		28%	15%	14%	16%	14%	24%		15%	24%	13%	18%
Other	1%		0%	2%	0%	0%	4%	4%		4%	0%	0%	2%

C: Communications | E: Electric | D: Engineer | X: Excavator | G: Gas & Oil | R: Gov't/Regulatory | L: Locator | N: One Call | O: Other | P: Public Works | T: Trenchless Technology | W: Water & Sewer

	C	E	D	X	G	R	L	N	O	P	T	W
Price	14%	11%	3%	6%	0%	3%	9%	9%	13%	9%	17%	5%
Quality	57%	67%	62%	45%	63%	50%	62%	73%	50%	49%	67%	60%
On-time performance	29%	11%	8%	32%	17%	23%	12%	0%	19%	22%	0%	15%
Risk reduction	0%	11%	27%	15%	17%	23%	16%	18%	13%	18%	17%	20%
Other	0%	0%	0%	1%	3%	0%	1%	0%	6%	2%	0%	0%

Our thanks to PelicanCorp for helping to underwrite the cost of this research. Individual responses are not shared with the underwriter or sold in any way. Infrastructure Resources employees assisting with research will have access to responses as needed.