Initial Report

Last Modified: 02/09/2016

1. Qualtrics Panel or Other Survey?

#	Answer	Bar	Response	%
1	Qualtrics Panel		57	55%
2	Other Survey		46	45%
	Total		103	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.45
Variance	0.25
Standard Deviation	0.50
Total Responses	103

2. Which one of the following best describes your business? (select one)

#	Answer	Bar	Response	%
1	General Contractor		56	54%
2	Specialty Trade Contractor		42	41%
3	Other (please specify)	•	5	5%
4	My company is not a construction contractor		0	0%
	Total		103	

Other (please specify)
concrete construction
Field tank erection and repair
Insurance
Safety Inspector for gas and oil industry

Statistic	Value
Min Value	1
Max Value	3
Mean	1.50
Variance	0.35
Standard Deviation	0.59
Total Responses	103

$3. \ \ \text{If you selected "Specialty Trade Contractor," please select the one that best describes your work (select one):}$

#	Answer	Bar	Response	%
1	Poured Concrete Foundation and Structure Contractor		1	2%
2	Structural Steel and Precast Concrete Contractor		0	0%
3	Masonry Contractor		0	0%
4	Glass and Glazing Contractor		0	0%
5	Roofing Contractor	=	2	5%
6	Siding Contractor	=	2	5%
7	Painting and Wall Covering Contractor		3	7%
8	Plumbing and Heating Contractor		6	14%
9	Electrical Contractor		5	12%
10	Flooring Contractor	•	1	2%
11	Tile and Terrazzo Contractor		0	0%
12	Carpentry Contractor		6	14%
13	Drywall/Insulation Contractor		3	7%
14	Other (please specify)		7	17%
15	Sheet Metal and Air Conditioning Contractor		6	14%
	Total		42	

Other (please specify)

Fire alarm contractor

Sheet Metal and Air Conditioning Contractor / Plumbing and Heating Contractor

Electrical, Data, Millwright, Steel Fab, Sheet Metal, Piping, Plumbing, HVAC, Fire Sprinklers, Service & Maintenance

Mechanical, Electrical & Civil (Industrial)

Boilermaker - Installation & repairs to industrial equip (e.g., towers, drums, tanks, furnaces, S&T exchangers)

HVAC and Mechanical Piping

Combined Sheet Metal, Plumbing Heating and Electrical contractor

Statistic	Value
Min Value	1
Max Value	15
Mean	10.62
Variance	12.58
Standard Deviation	3.55
Total Responses	42

4. How many construction workers does your company typically employ?

#	Answer	Bar	Response	%
1	Less than 5		12	12%
2	6-10		13	13%
3	11-25		17	17%
4	26-50		17	17%
5	More than 50		44	43%
	Total		103	

Statistic	Value
Min Value	1
Max Value	5
Mean	3.66
Variance	2.05
Standard Deviation	1.43
Total Responses	103

$\textbf{5. LIFTING LIMITS} \ \ \, \text{Does your company have a weight limit for lifting or carrying heavy materials?}$

#	Answer	Bar	Response	%
1	Yes		41	40%
2	No		62	60%
	Total		103	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.60
Variance	0.24
Standard Deviation	0.49
Total Responses	103

$\pmb{6.} \quad \text{What is that limit?}$

#	Answer	Bar	Response	%
1	35 lb		2	5%
2	50 lb		19	46%
3	75 lb		8	20%
4	100 lb		11	27%
5	Other (please specify)		1	2%
	Total		41	

Other (please specify)

verbal limit of 75

Statistic	Value
Min Value	1
Max Value	5
Mean	2.76
Variance	0.99
Standard Deviation	0.99
Total Responses	41

7. How is this limit enforced? (select all that apply)

#	Answer	Bar	Response	%
1	Heavier materials are labeled with warnings		16	39%
2	Safety officer or health and safety committee members enforce the limits		18	44%
3	Foreman or site supervisor enforce the limits		24	59%
4	Collective bargaining agreement includes the requirement		9	22%
5	Reinforced at daily huddles/Job Safety Analyses		20	49%
6	Other (please specify)	•	1	2%

Other (please specify) Written safety procedures

Statistic	Value
Min Value	1
Max Value	6
Total Responses	41

$\pmb{8.} \ \ \text{Why did your company set weight limits for lifting? (select all that apply)}$

#	Answer	Bar	Response	%
1	Workers' Compensation Insurance premium modifications		16	39%
2	Collective bargaining agreement requirement		8	20%
3	Owner/general contractor requirement		13	32%
4	Scientific evidence of the value of setting weight limits		14	34%
5	Other (please specify)		8	20%

Other (please specify)

Recommendation from insurance to help manage soft tissue injury risk

Effort to follow OSHA ergonomic focus

discussions amongst other similar contractors

Prevent employees from getting hurt

Previous employment recamendations

Too many workers being hurt.

It is the weight of a full can of welding rod. When properly lifted can be easily transferred to its required location. this limit is well under the 110 lbs of an oxygen cylinder which is an object that personnel on the site were requiarly lifting and we felt posed considerable risk.

Functional capacity evaluation

Statistic	Value
Min Value	1
Max Value	5
Total Responses	41

$9. \ \ \text{If your company does not have a limit, why not? (select all that apply)}$

#	Answer Bar	Response	%
1	Too difficult to enforce	21	34%
2	Too many materials would be subject to the limit	11	18%
3	Not sure what limit to set	25	40%
4	Not sure it would be effective in preventing injuries	16	26%
5	Would require more investment in material handling equipment	4	6%
6	Material handling equipment cannot always be available on the jobsite	11	18%
7	Material handling equipment is not commercially available for the types of materials and equipment handled by employees	6	10%
8	Material handling equipment is too expensive	2	3%
9	Would require more materials to be handled by two person teams and more labor	9	15%
10	Other (please specify)	12	19%

Other (please specify)

our deliveries are stacked on the roof by the truck driver we do not lift very heavy materials

If the material is too heavy for an employee we use equipment to move the material

We're too macho for that

We observe OSHA regulations as they pertain to lifting.

We don't lift heavy materials

Lack of have a safety department or someone in charge of safety.

We don't do much lifting

Common sense approach

Employees are trained in the buddy system

Specifying a limit does not necessarily reduce the risk. Example: lifting a 50# object which is located far away from the body horizontally from the ground to elbow height 5x in one hour is likely not a "safe" lift for one person.

Expectation is for worker to be able to handle componets of reasonable size / weight. Training (apprentice school, O-T-J) & common sense should prevail. Because of size / weight of components we typically handle, we maintain a robust supply of material handling equipment (come-a-longs, chain falls, air hoists). We support all projects with adequate amounts of mobile equipment (fork-lifts, lulls, carry deck crane, hydraulic cranes, etc.)

Always have material handling equipment on hand

Statistic	Value
Min Value	1
Max Value	10
Total Responses	62

#	Answer	Bar	Response	%
1	Workers' Compensation Insurance premium modifications		32	52%
2	Collective bargaining agreement requirement		20	32%
3	Owner/general contractor requirement		25	40%
4	Scientific evidence of the value of setting weight limits		20	32%
5	Regulatory requirement		31	50%
6	Other (please specify)		9	15%

Other (please specify)

I have no reason to-my men will do whatever it takes to get the job done

how it is shipped to us

Observe OSHA.

A guarentee it would reduce injuries which at the current time are non existant.

We wouldn't do this- we'd use NIOSH lifting equation

Our decission to set a limit

Setting a weight limit would require that the weight of each component be prominently identified or readily available. Additional costs would be encountered if manufacturer / supplier / shipper does not comply.

To reduce injuries

Availability of equipment to allow efficient drywall installation

Statistic	Value
Min Value	1
Max Value	6
Total Responses	62

$11. \ \ \text{STORAGE OF MATERIALS ON SITE} \ \ \text{Are materials to be handled manually typically stored off the ground, between knee and waist height?}$

#	Answer	Bar	Response	%
1	Yes		56	54%
2	No		47	46%
	Total		103	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.46
Variance	0.25
Standard Deviation	0.50
Total Responses	103

$12. \ \ \ \ Why does your company store materials off the ground, between knee and waist height? (select all that apply)$

#	Answer Bar	Response	%
1	Workers' Compensation Insurance premium modifications	13	23%
2	Collective bargaining agreement requirement	5	9%
3	Owner/general contractor requirement	19	34%
4	Scientific evidence of the value of storing materials off the ground	20	36%
6	To protect the materials	34	61%
7	Other (please specify)	7	13%

ther (please specify)	
t sure why	
sier to move materials.	
sier for workers to handle	
u dont have to bend over too deep	
ese materials are handled by forktrucks	
prevent employees from getting hurt	
proves lifting ergonomics, and facilitates safety awareness	

Statistic	Value
Min Value	1
Max Value	7
Total Responses	56

13. Why doesn't your company store materials off the ground, between knee and waist height? (select all that apply)

#	Answer Bar	Response	%
1	No equipment or simple structures to support materials off the ground	18	38%
2	The supplier who delivers the materials determines how they are stored	11	23%
3	Storage off the ground level may create a safety hazard	14	30%
4	Not enough space to accommodate off ground storage	20	43%
5	No good evidence that storage off the ground will help prevent injuries	3	6%
6	Work processes will only allow for storage on the ground	11	23%
7	Other (please specify)	14	30%

Other (please specify)

materials are kept in a safe place and/or near where they will be used

nobody cares about such trifles as our safety

would take too long

Again, no one in my company enforcing these types of rules.

It is done when possible; but there are many times when it is not possible due to site conditions

We store little or no material

When possible we do. Just now always possible

we store heavier materials on racks easily accessible by forklifts

In certain areas, we are able to do this consistently (ie, cut shops). We do this when we can, but it's not common to see given the dynamics of the project environment

When we can we do but not always, almost always

Because we do not focus on the benefits of proper storage.

Maintenance Outage work where areas are not designed for material storage.

Material is stored in carts/baskets. Easy to move. The cart/basket heights vary and not always between knee and waist.

Always have lifting equipment available-skid steers, track holes, front end loaders, sidebooms

Statistic	Value
Min Value	1
Max Value	7
Total Responses	47

14. What would cause your company to store materials off the ground, between knee and waist height? (select all that apply)

#	Answer	Bar	Response	%
1	Workers' Compensation Insurance premium modifications		14	30%
2	Collective bargaining agreement requirement		11	23%
3	Owner/general contractor requirement		24	51%
4	Scientific evidence of the value of storing materials off the ground		11	23%
5	Regulatory requirement		25	53%
6	To protect the materials		22	47%
7	Greater availability of equipment or simple structures to support materials off the ground		16	34%
8	Other (please specify)		7	15%

Other (please specify)

how the material is shipped to us

Lower insurance premiums possibly.

If we have the ability to do so, we will-depends on the environment we are working in

type of containers, ability to do so such as object shape or size, small piece to bigger piece and such.

A cost evaluation between the savings for storing materials off the ground vs costs for structures / facilities to store materials off the ground. In the competitive labor market we deal in, Clients would have to stipulate requirement for all suppliers / contractors to ensure a level playing field.

On site storage availability

Heavy materials could present a greater hazard being stored at height

Statistic	Value
Min Value	1
Max Value	8
Total Responses	47

$15. \ \ \text{PLANNING} \ \ \text{Are strategies to minimize manual materials handling incorporated into site planning? (select one)}$

#	Answer	Bar	Response	%
1	Yes, before the project starts		26	25%
2	Yes, when the project is underway		18	17%
3	Yes, both before the project starts and when it is underway		45	44%
4	No, materials handling strategies are not incorporated into site planning		14	14%
	Total		103	

Statistic	Value
Min Value	1
Max Value	4
Mean	2.46
Variance	1.03
Standard Deviation	1.02
Total Responses	103

$16. \ \ \text{How are strategies to minimize manual materials handling incorporated into the planning of work? (select all that apply)}$

#	Answer	Bar	Response	%
1	Coordination with suppliers on where and how materials will be placed on site		36	42%
2	Materials delivery and storage is located as close as possible to where it will be used		60	70%
3	Material handling equipment is included in the bid and work plan		43	50%
4	Clear, level pathways are planned for the transport of materials to where they are used		42	49%
5	Storage of materials between knee and waist height is included in the plan		25	29%
6	Training is required for how to use the material handling equipment properly		45	52%
7	Heavy materials are clearly labeled with weights		27	31%
8	Heavy materials are clearly labeled with warnings to not move by hand or by yourself		26	30%
9	Materials handling training is provided for workers and supervisors to reinforce the goal of minimizing manual handling		40	47%
10	Materials handling is reviewed frequently at safety and production meetings		39	45%
11	Other (please specify)		2	2%

Other (please specify)

We don't typically use heavy materials

Many shop fabricated components are not clearly labeled although drawings are available to estimate weight. Piece mark weights on shipping tickets are not always complete or verified for accuracy.

Statistic	Value
Min Value	1
Max Value	11
Total Responses	86

$17. \ \ \ Why doesn't your company incorporate strategies to minimize manual materials handling into the planning of work? (select all that apply)$

#	Answer Bar	Response	%
1	Contractors have little control over where suppliers drop materials	2	15%
2	It is difficult to coordinate and direct deliveries, particularly with a large number of subcontractors	5	38%
3	Keeping pathways clear is difficult in construction	2	15%
4	Material handling equipment is too expensive	1	8%
5	Factoring in materials handling costs would put us at a competitive disadvantage in the bidding process	1	8%
6	Not sure if the benefits are worth the effort	3	23%
7	Do not have experience planning to reduce manual materials handling	5	38%
8	Other (please specify)	1	8%

Other (please specify)

Our people focus on getting the material delivered to the job site. They don't understand the importance of staging material in a safe manner.

Statistic	Value
Min Value	1
Max Value	8
Total Responses	13

#	Answer	Bar	Response	%
1	Workers' Compensation Insurance premium modifications		6	46%
2	Collective bargaining agreement requirement		3	23%
3	Owner/general contractor requirement		5	38%
4	Scientific evidence of the value		2	15%
5	Regulatory requirement		6	46%
6	To protect the materials		7	54%
7	Bidding requirement		2	15%
8	Evidence that doing so will have a positive financial impact		8	62%
9	Other (please specify)		0	0%

Other (please specify)

Statistic	Value
Min Value	1
Max Value	8
Total Responses	13

 $19. \quad \text{COMMUNICATIONS} \quad \text{Where do you go to get information about health and safety? (Rank your top 5 choices. Write "1" in the blank next to the source you use most frequently, "2" next to the next most frequently used, etc. up to 5)}$

#	Answer															Total Responses
1	OSHA – Occupational Safety and Health Administration	38	18	6	9	2	0	0	0	0	0	0	0	0	0	73
2	OSHA Consultation Service	7	5	5	5	8	0	0	0	0	0	0	0	0	0	30
3	NIOSH – National Institute for Occupational Safety and Health	2	14	10	4	7	0	0	0	0	0	0	0	0	0	37
4	CPWR – The Center for Construction Research and Training	1	4	5	9	9	0	0	0	0	0	0	0	0	0	28
5	Supplier/vendor	2	4	10	6	4	0	0	0	0	0	0	0	0	0	26
6	Manufacturer	7	7	6	6	6	0	0	0	0	0	0	0	0	0	32
7	Trade publications (magazine articles, newsletters, etc.)	5	2	2	6	10	0	0	0	0	0	0	0	0	0	25
8	Trade shows	1	1	0	2	3	0	0	0	0	0	0	0	0	0	7
9	Other contractors	4	5	10	14	7	0	0	0	0	0	0	0	0	0	40
10	Contractor association	8	12	10	9	9	0	0	0	0	0	0	0	0	0	48
11	Union	2	1	5	5	2	0	0	0	0	0	0	0	0	0	15
12	Insurance company	8	11	11	3	8	0	0	0	0	0	0	0	0	0	41
13	Job specifications	5	10	10	10	7	0	0	0	0	0	0	0	0	0	42
14	Other (please specify)	6	1	2	0	2	0	0	0	0	0	0	0	0	0	11
	Total	96	95	92	88	84	0	0	0	0	0	0	0	0	0	-

Other (please specify)

dootor

depends on the jobsite layout

youtube videos or googling topics for our weekly staff meetings.

safety websites

Local regulatory requirements

Other Safety personnel

Industry best practices

Various on-line resources

safety director

Self investigation

Clinics

Statistic	OSHA – Occupational Safety and Health Administration	OSHA Consultation Service	NIOSH – National Institute for Occupational Safety and Health	CPWR – The Center for Construction Research and Training	Supplier/vendor	Manufacturer	Trade publications (magazine articles, newsletters, etc.)	Trade shows	Other contractors	Contractor association	Union	Insurance company	Job specifications	Other (please specify)
Min Value	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max Value	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean	1.89	3.07	3.00	3.75	3.23	2.91	3.56	3.71	3.38	2.98	3.27	2.80	3.10	2.18
Variance	1.35	2.41	1.50	1.38	1.30	2.09	2.51	2.57	1.47	1.89	1.50	1.91	1.65	2.56
Standard Deviation	1.16	1.55	1.22	1.17	1.14	1.44	1.58	1.60	1.21	1.38	1.22	1.38	1.28	1.60
Total Responses	73	30	37	28	26	32	25	7	40	48	15	41	42	11

 $20.\,$ What are the top 5 best ways to provide you with information about safer tools, equipment, materials, and work practices? (Rank your top 5 options by writing a "1" in the space next to the option you most prefer, a "2" in the space next to the next most preferred option, etc. up to 5)

#	Answer														Total Responses
1	Email	13	9	11	7	13	0	0	0	0	0	0	0	0	53
2	Websites	16	10	11	14	5	0	0	0	0	0	0	0	0	56
3	Regular mail	1	2	2	7	3	0	0	0	0	0	0	0	0	15
4	Webinars	4	5	10	4	5	0	0	0	0	0	0	0	0	28
5	Seminars/meetings	7	12	12	13	12	0	0	0	0	0	0	0	0	56
6	Trade publications (magazine articles, newsletters, etc.)	8	10	7	7	9	0	0	0	0	0	0	0	0	41
7	Trade shows	2	6	8	6	8	0	0	0	0	0	0	0	0	30
8	Toolbox talks	11	10	10	8	7	0	0	0	0	0	0	0	0	46
9	Phone apps	1	0	3	1	4	0	0	0	0	0	0	0	0	9
10	Training programs	25	18	11	8	6	0	0	0	0	0	0	0	0	68
11	Video programs	3	9	3	7	9	0	0	0	0	0	0	0	0	31
12	Texts	1	2	2	1	0	0	0	0	0	0	0	0	0	6
13	Other (please specify)	3	0	0	0	0	0	0	0	0	0	0	0	0	3
	Total	95	93	90	83	81	0	0	0	0	0	0	0	0	-

Other (please specify)

experince

networking with other construction safety person that are in the field application

Safety Expo

Statistic	Email	Websites	Regular mail	Webinars	Seminars/meetings	Trade publications (magazine articles, newsletters, etc.)	Trade shows	Toolbox talks	Phone apps	Training programs	Video programs	Texts	Other (please specify)
Min Value	1	1	1	1	1	1	1	1	1	1	1	1	1
Max Value	5	5	5	5	5	5	5	5	5	5	5	4	1
Mean	2.96	2.68	3.60	3.04	3.20	2.98	3.40	2.78	3.78	2.29	3.32	2.50	1.00
Variance	2.31	1.86	1.40	1.67	1.80	2.12	1.63	1.95	1.94	1.73	2.03	1.10	0.00
Standard Deviation	1.52	1.36	1.18	1.29	1.34	1.46	1.28	1.40	1.39	1.32	1.42	1.05	0.00
Total Responses	53	56	15	28	56	41	30	46	9	68	31	6	3

$21. \ \ \text{GENERAL MSD QUESTION} \ \ \text{How would you describe your level of knowledge of hazards that cause musculoskeletal disorders among construction workers?}$

#	Answer	Bar	Response	%
1	Very knowledgeable		29	30%
2	Somewhat knowledgeable		44	45%
3	A little knowledgeable		16	16%
4	Not knowledgeable at all		8	8%
	Total		97	

Statistic	Value
Min Value	1
Max Value	4
Mean	2.03
Variance	0.80
Standard Deviation	0.90
Total Responses	97

$22. \ \ \text{How would you describe your level of knowledge of how to prevent musculoskeletal disorders among construction workers?}$

#	Answer	Bar	Response	%
1	Very knowledgeable		24	25%
2	Somewhat knowledgeable		48	49%
3	A little knowledgeable		19	20%
4	Not knowledgeable at all		6	6%
	Total		97	

Statistic	Value
Min Value	1
Max Value	4
Mean	2.07
Variance	0.69
Standard Deviation	0.83
Total Responses	97

$23. \ \ \, \text{DEMOGRAPHICS What type of construction work does your company perform? (select all that apply)}$

#	Answer	Bar	Response	%
1	New commercial		52	54%
2	New residential		47	48%
3	Industrial		36	37%
4	Commercial renovation/retrofit/repair		52	54%
5	Residential renovation/retrofit/repair		43	44%
6	Heavy and highway		13	13%
7	Other (please specify)	•	4	4%

Other (please specify) roofing, doors and windows Field tank erection and repair Gas and Oil- pipeline, refinery, station Waterfront and foundation

Statistic	Value
Min Value	1
Max Value	7
Total Responses	97

24. How long has your company been in business?

#	Answer	Bar	Response	%
1	Less than 1 year		0	0%
2	1 to less than 2 years		1	1%
3	2 to less than 5 years	_	5	5%
4	5 to less than 10 years		15	15%
5	10 years or longer		76	78%
	Total		97	

Statistic	Value
Min Value	2
Max Value	5
Mean	4.71
Variance	0.37
Standard Deviation	0.61
Total Responses	97

25. Do you primarily employ union labor?

#	Answer	Bar	Response	%
1	Yes		47	49%
2	No		47	49%
3	Not Sure		2	2%
	Total		96	

Statistic	Value
Min Value	1
Max Value	3
Mean	1.53
Variance	0.29
Standard Deviation	0.54
Total Responses	96

 $26. \ \ \,$ If you would be willing to be contacted to share more details about your experiences with us, please click yes below:

#	Answer	Bar	Response	%
1	Yes		50	52%
2	No		47	48%
	Total		97	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.48
Variance	0.25
Standard Deviation	0.50
Total Responses	97