Executive Summary

As members know, workforce has become a barrier to growth in the construction and industrial materials industry. The California Construction and Industrial Materials Association (CALCIMA) conducted an online Member Workforce Survey during the period May 21 – June 11, 2018.

The survey was conducted to identify the types of positions members are experiencing difficulty in hiring and to inform development of and potential tactics for a strategic workforce initiative.

The majority of survey respondents indicated difficulty in filling one or more of their top hourly positions.

Of the eighty-three (83) total survey respondents, the majority report difficulty filling six out of the top ten reported hourly positions.

The top three types of hourly positions respondents reported having trouble filling were truck driver (59%), mechanic (57%) and heavy equipment operator (46%). Also in the top ten were electrician (30%), welder (29%), laborer (28%), load/scraper operator (27%), industrial maintenance worker (23%), lab technician (14%) and facility maintenance worker (14%).

Top three salaried positions respondents reported difficulty filling were plant manager (35%), engineer (29%), and project manager/supervisor (27%).

The survey also sought to identify the top five core skills/competencies members look for in new hires. Respondents ranked safety (41%), truck driving (37%), basic construction materials knowledge (29%), diesel mechanics (16%) and problem solving (10%) the highest.

The top five certifications respondents would like to see include driver (53%), basic employability skills (46%), safety (45%), introduction to construction materials (37%) and basic communications skills (33%).

Mechanic (33%) and laborer (24%) were the top two internships respondents can or already offer. Others noted were engineer, lab tech, operations, environmental and safety.

Visit calcima.org/survey to see the full survey results.
Q1: What types of hourly employees does your firm employ? Please mark all that apply.

- Mechanics: 90%
- Heavy Equipment Operators: 80%
- Admin Support: 76%
- Truck Drivers: 73%
- Laborers: 72%
- Dispatchers: 67%
- Scale House Personnel: 66%
- Load/Scraper Operators: 61%
- Lab Technicians: 59%
- Quality Control Personnel: 57%
- Facility Maintenance Workers: 55%
- Welders: 54%
- Electricians: 48%
- Safety Personnel: 46%
- Industrial Maintenance Workers: 45%
- Tax/Accounting/Finance Personnel: 34%
- IT Personnel: 30%
- HR/Training Personnel: 28%
- Millwrights: 19%
- Other (please specify): 10%
- Iron Workers: 4%
Q1: What types of hourly employees does your firm employ? Please mark all that apply.

Answered 83
Skipped 0

- 90% Mechanics
- 80% Heavy Equipment Operators
- 76% Admin Support
- 73% Truck Drivers
- 72% Laborers
- 67% Dispatchers
- 66% Scale House Personnel
- 61% Load/Scraper Operators
- 59% Lab Technicians
- 57% Quality Control Personnel
- 55% Facility Maintenance Workers
- 54% Welders
- 48% Electricians
- 46% Safety Personnel
- 45% Industrial Maintenance Workers
- 34% Tax/Accounting/Finance Personnel
- 30% IT Personnel
- 28% HR/Training Personnel
- 19% Millwrights
- 4% Iron Workers
- 10% Other (please specify)

Q1: Other Responses:
1. Instrumentation technicians
2. Conveyor Belting splicing and vulcanizing
3. Heavy equipment mechanic
4. Construction Foreman
5. Plant operators
6. Manufacturing workers
7. Chemical Processing Operators
8. Plant operators/technicians
Q2: If your firm is having trouble filling hourly positions, please indicate the types you are having trouble filling. Please mark all that apply.

Answered 79
Skipped 4

- Truck Drivers: 59%
- Mechanics: 57%
- Heavy Equipment Operators: 46%
- Electricians: 30%
- Welders: 29%
- Laborers: 28%
- Load/Scraper Operators: 27%
- Industrial Maintenance Workers: 23%
- Lab Technicians: 14%
- Facility Maintenance Workers: 14%
- Dispatchers: 14%
- Quality Control Personnel: 13%
- Scale House Personnel: 9%
- Millwrights: 9%
- Safety Personnel: 8%
- Admin Support: 6%
- Other (please specify): 4%
- IT Personnel: 4%
- Tax/Accounting/Finance Personnel: 3%
- HR/Training Personnel: 3%
- Iron Workers: 1%
Q2: If your firm is having trouble filling hourly positions, please indicate the types you are having trouble filling. Please mark all that apply.

Answered 79
Skipped 4

59% Truck Drivers
57% Mechanics
46% Heavy Equipment Operators
30% Electricians
29% Welders
28% Laborers
27% Load/Scraper Operators
23% Industrial Maintenance Workers
14% Dispatchers
14% Facility Maintenance Workers
14% Lab Technicians
13% Quality Control Personnel
9% Millwrights
9% Scale House Personnel
8% Safety Personnel
6% Admin Support
4% IT Personnel
3% HR/Training Personnel
3% Tax/Accounting/Finance Personnel
1% Iron Workers

4% Other (please specify)

Q2: Other Responses
1. Heavy equipment mechanics
2. Yard Personnel with class B License
3. Plant operator/technicians
Q3: If your firm is having trouble filling salaried positions, please indicate the position types you are having trouble filling. Please mark all that apply.

<table>
<thead>
<tr>
<th>Position Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Managers</td>
<td>35%</td>
</tr>
<tr>
<td>Engineers</td>
<td>29%</td>
</tr>
<tr>
<td>Project Managers/Supervisors</td>
<td>27%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>24%</td>
</tr>
<tr>
<td>Estimating Personnel</td>
<td>17%</td>
</tr>
<tr>
<td>Superintendents</td>
<td>16%</td>
</tr>
<tr>
<td>Safety Managers</td>
<td>14%</td>
</tr>
<tr>
<td>IT Personnel</td>
<td>10%</td>
</tr>
<tr>
<td>Environmental Managers or Scientists (Geologists,...)</td>
<td>10%</td>
</tr>
<tr>
<td>Accounting/Finance Personnel</td>
<td>10%</td>
</tr>
<tr>
<td>Business Development/Sales Personnel</td>
<td>6%</td>
</tr>
<tr>
<td>HR/Training Personnel</td>
<td>5%</td>
</tr>
<tr>
<td>Land Use Managers</td>
<td>2%</td>
</tr>
<tr>
<td>Lawyers</td>
<td>0%</td>
</tr>
<tr>
<td>Chemists</td>
<td>0%</td>
</tr>
</tbody>
</table>

Answered 63
Skipped 20
Q3: If your firm is having trouble filling salaried positions, please indicate the position types you are having trouble filling. Please mark all that apply.
Answered 63
Skipped 20

35% Plant Managers
29% Engineers
27% Project Managers/Supervisors
17% Estimating Personnel
16% Superintendents
14% Safety Managers
10% Accounting/Finance Personnel
10% Environmental Managers or Scientists (Geologists, Biologists)
10% IT Personnel
6% Business Development/Sales Personnel
5% HR/Training Personnel
2% Land Use Managers
0% Chemists
0% Lawyers

24% Other (please specify)

Q3: Other Responses
1. Sales (4)
2. Quality Control Supervisors
3. Technical Service Specialists
4. Environmental Managers
5. Fleet Maintenance Manager
6. Department Managers Quarry, Mill....
7. Production Mgr
Q4: Please rank in order of importance the top five core skills/competencies you look for in your workforce new hires:

Answered 82
Skipped 1

<table>
<thead>
<tr>
<th>Skill</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>41%</td>
</tr>
<tr>
<td>Truck Driving</td>
<td>37%</td>
</tr>
<tr>
<td>Basic Knowledge of Construction Materials</td>
<td>29%</td>
</tr>
<tr>
<td>Diesel Mechanics</td>
<td>16%</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>10%</td>
</tr>
<tr>
<td>Customer Services</td>
<td>8%</td>
</tr>
<tr>
<td>Mechanics</td>
<td>8%</td>
</tr>
<tr>
<td>Working with Others</td>
<td>8%</td>
</tr>
<tr>
<td>Job Task Planning</td>
<td>6%</td>
</tr>
<tr>
<td>Writing</td>
<td>5%</td>
</tr>
<tr>
<td>Thinking Skills</td>
<td>4%</td>
</tr>
<tr>
<td>Business Basics</td>
<td>4%</td>
</tr>
<tr>
<td>Basic Welding Skills</td>
<td>4%</td>
</tr>
<tr>
<td>Communications</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
<tr>
<td>Significant use of Memory</td>
<td>0%</td>
</tr>
<tr>
<td>Reaching Text</td>
<td>0%</td>
</tr>
<tr>
<td>Math</td>
<td>0%</td>
</tr>
<tr>
<td>Document Use</td>
<td>0%</td>
</tr>
</tbody>
</table>
**Q4: Please rank in order of importance the top five core skills/competencies you look for in your workforce new hires:**

<table>
<thead>
<tr>
<th>Skill/Competency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety – Basic safety principles; practical experience running equipment, plants, and vehicles</td>
<td>41%</td>
</tr>
<tr>
<td>Truck Driving – Commercial driver’s license</td>
<td>37%</td>
</tr>
<tr>
<td>Basic knowledge of construction materials – rock, sand, concrete, asphalt, and rock sizes and quality, inputs (fly ash, etc.), mineral veins, overburden, extraction, processing, trucking</td>
<td>29%</td>
</tr>
<tr>
<td>Diesel Mechanics – Familiarity with diesel equipment/maintenance/repair</td>
<td>16%</td>
</tr>
<tr>
<td>Problem Solving - Coming up with solutions to challenges</td>
<td>10%</td>
</tr>
<tr>
<td>Customer service – Understanding and embracing service mentality</td>
<td>8%</td>
</tr>
<tr>
<td>Mechanics - Familiarity with small tools/mechanic</td>
<td>8%</td>
</tr>
<tr>
<td>Working with Others - Interacting to get the job done</td>
<td>8%</td>
</tr>
<tr>
<td>Job Task Planning and Organizing - Working independently to plan and organize daily tasks</td>
<td>6%</td>
</tr>
<tr>
<td>Writing - Conveying ideas by writing text</td>
<td>5%</td>
</tr>
<tr>
<td>Thinking Skills- Making decisions, solving problems, planning and organizing tasks</td>
<td>4%</td>
</tr>
<tr>
<td>Business Basics – Familiarity with business environment and expectations, sales, ordering, and invoicing practices</td>
<td>4%</td>
</tr>
<tr>
<td>Welding - Basic welding skills</td>
<td>4%</td>
</tr>
<tr>
<td>Communications - Conveying or exchanging information verbally</td>
<td>2%</td>
</tr>
<tr>
<td>Document Use - Reading and interpreting documents to extract information</td>
<td>0%</td>
</tr>
<tr>
<td>Math - Working with numbers to perform calculations; tons, yards, conversions</td>
<td>0%</td>
</tr>
<tr>
<td>Reading Text – Reading documents of varying complexity</td>
<td>0%</td>
</tr>
<tr>
<td>Significant Use of Memory - Performing tasks that call upon greater memory use</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
</tbody>
</table>
Q5: Please identify particular certifications and/or degrees you would like to see created or you feel are currently needed or required:

Answered 78
Skipped 5

53% Driver – industry certification/ready to take commercial license
46% Basic employability skills - industry certification
45% Safety – industry certification
37% Introduction to construction materials – industry certification
33% Basic communication skills - industry certification
26% Environmental - understanding of regulatory framework, operational impacts and reclamation
23% Construction technology – degree (two year)
18% Project management – degree (two year)
10% Other (please specify)

Q5: Other responses
1. Mechanics Technical Training Certifications
2. Supervisor Skills - new supervisors
3. Electrical Technicians
4. Some sort of book keeping certification. Book keepers have become harder to find than commercial drivers.
5. SHRM-CP
6. Welding
7. Material Sciences/ Testing - industry certification
Q6: We can/already offer paid internships in the follow career pathways:

Answered 55
Skipped 28

33% Mechanic
24% Laborer
18% Industrial Maintenance
64% Other (please specify)

Other Responses (internships)

1. Batch
2. CiM student interns every summer
3. Civil Engineering
4. College interns
5. Construction Management
6. Construction training (civil)
7. Customer Service
8. Dispatch
9. Driver (2)
10. Economics
11. Electric/Instrumentation/Control
12. Engineering (8)
13. Environmental (2)
14. Estimators (2)
15. General Management
16. Masonry
17. Mining
18. Lab Techs (3)
19. Land Management
20. Office work
21. Operations (3)
22. Plant Engineers/Management (2)
23. Project Engineers Assistant
24. Project Management (3)
25. Quality Control (4)
26. Safety or IH (2)
27. Sales (2)
28. Technical Service
29. Transportation
Q7: Additional Comments

1. In general, a career path for high school graduates to enter into management and technical/craft based programs or apprenticeships is the highest long term need for the business.

2. Employee personality seems to be the most important quality. We need people who "get along w/ others" are "team players", can give good "customer service", understand and "follow directions".

3. There is a severe shortage in essentially every blue collar position available and a problem of apathy within the current workforce that will apply for the open positions.

4. Commercial drivers are our largest employee base and where we have our most urgent current needs.

5. We have to find ways to attract qualified drivers.

6. Industry needs to highlight the idea these blue collar positions are open to both men and women.

7. Hard finding people willing to get their hands dirty.

8. Thanks for asking.

9. Thanks for working on this issue.

10. Difficult labor market for non-union qualified heavy equipment operators and industrial millwrights.