

# Who's going to fix the rigs?



By PRESTON INGALLS  
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***You've heard it before — oilfield labor remains a major issue as we look ahead to the next 10 years.***

**T**he cool Texas morning was punctuated with the sound of rapid knocking on the rig supervisor's trailer. "Eddie...Eddie! We've got a problem."

Eddie McNeil, considered an old hand these days with 15 years experience, arose from the bed and stumbled to the door. He opened the door to see Rig 27's driller Chuck Hollister, standing there. Eddie, trying to focus, glanced down at his watch to see 3:00 a.m., rubbed his eyes and replies, "Y-e-a-h. What is it, Chuck?" "Eddie, I hate waking you up but we have a major hydraulic issue and the rig is down. We have tried figuring it out for the last 45 minutes but it is a no-go. I tried calling Sam, but he is in Cancun on vacation this week and he is out of cell range or he's just not picking up."

Eddie, arising from a deep sleep, shook his head to attempt some clear thought and comprehend what was going on. "Well Chuck, did you call Al — he's our Hopper man?" Chuck, a little bewildered asks, "Eddie, I know you aren't awake yet, but don't you remember?

Al took a job with Comax Drilling last week. He's not with us — remember?" "Oh yeah. Darn, I forgot. Okay Chuck, so who the heck do we have left that can get this rig back up? We already have had three breakdowns this week and the company man is scheduled here tomorrow and I just don't want to go through that again." Eddie responds.

Chuck asks, "The mechanic roster is on the doghouse wall. Gotta minute to go look with me?"

Eddie, with a deep sigh responds, "Sure, let me get my boots on and grab my hard hat and I will be there in a few minutes. I'm going to look at the rig first to see if I can figure out the problem."

Fifteen minutes later, Eddie climbs the steps to the doghouse to see Chuck standing in front of the mechanics roster taped to the wall. He was shaking his head back and forth. Chuck turns to Eddie and shrugs his shoulders in disgust, then lets out a few choice colorful words. "Eddie, look at this roster, man. Sam



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is on vacation and isn't picking up our call. Al left for Comax last week for three bucks an hour more. Those guys are our Hopper experts. That leaves Willie Henderson, the fab welder. He doesn't know hydraulics though. We also have Cal Harmon, the worm — he has only been out of mechanics school for 6 months and Paco Hernandez, the oiler. We lost Dave Robinson six months ago to Davidson and Thrasher Well Services. Man, we are in a pickle and this seems to be getting worse."

Think this is an exaggeration? Think again. This could be a common issue in the next few years as we're already seeing it across North America.

You've heard it before; oilfield labor remains a major issue as we look ahead to the next 10 years. Much has been said about the shortage of labor, but efforts to correct it seem to be sporadic and more tactical than strategic. Projections by the Department of Labor's Bureau of Labor Statistics for the next eight years reveal that despite a projected .2 percent annual decline in demand for most rig positions, the need for mechanics will actually grow 5 to 8 percent. However, over the next eight years we are facing an estimated 40-50 percent shortfall in meeting these needs. We can't even meet current needs.

It's not just an oil patch dilemma. Overall, the United States has been experiencing a severe shortage of skilled workers for quite some time. Nearly one-third of all Americans — 76 million people — were born between 1946 and 1964. These baby boomers are retiring in record numbers over the next five years. Currently, we are only able to provide 5 to 6 replacements for each 10 retirees we lose.

Canada is experiencing the same issues. With over \$120 billion in oil and gas capital projects on the books for the next 10 years in Alberta, the Canadians are projecting a shortfall of 100,000 jobs during that period.

Let's look at the facts in the United States. Manpower Inc., one of the largest placement firms in the world, identified the **Top 10 hardest jobs to fill**, as reported by U.S. employers for 2008, as the following: (note the #3, #4 and #7 jobs that relate to the oil and gas industry):

1. Engineers
2. Machinists/Machine Operators
3. Skilled Trades (welders, pipefitters, etc.)
4. Technicians
5. Sales Representatives
6. Accounting & Finance Staff
7. Mechanics
8. Laborers
9. IT Staff
10. Production Operators


According to the National Center for Education Statistics (NCES) there has been a sharp decline in students taking industrial arts classes, comprised of fabrication of wood and/or metal, small engine repair, automobile maintenance and technical drawings. According to the NCES, between the years of 1982 and 1998, students taking vocational classes dropped from 14.1 percent to 3.9 percent while students taking



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technology classes (computers, for example) soared dramatically. The rationale is, of course, that we are moving away from manufacturing and more toward service and information. That is true. However, the flaw is that we are not enticing enough kids to assume blue-collar jobs like that of a mechanic, welder or machinist.

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Without the hands-on opportunities provided by the schools, the emphasis is on kids spending increasingly more time interfacing with their computers, cell phones, Xbox and other forms of technology. Gone are the days of working on a simple V6 engine under the shade tree on a Saturday afternoon. Kids just don't want to get their hands dirty and therefore steer away from skilled trade professions. Most have little interest in fixing things as many of us did as teenagers. Parents find it much more prestigious to say, "My son is in the computer industry," than "my son is a mechanic," although the pay is more likely to be higher for the later.

With many families sourcing out their lawn care to lawn maintenance firms, kids will miss the opportunity to tear down and work on that Briggs & Stratton lawn mower. Today's televisions, radios and blenders last longer and are often "throw aways," so getting a chance to tinker just isn't there.

Another contributing element to this issue is the declining number of males entering the workplace as a percent of the total workplace, as shown in the U.S. Labor Department's Bureau of Labor Statistics graph. Since between 98 to 99 percent of the oilfield mechanics are men, this adds to our maintenance shortage.

Labor force participation rate for men and women, 1956-2006 and projected 2016




Joel Leonard is a contributing editor to *Plant Services Magazine* and has spoken to numerous government officials and industry leaders in the United States, Canada and Europe about the maintenance crisis facing all industries from aviation to automotive to oil and gas. He leads the MPACT Learning Center in Greensboro, North Carolina, and is the founder of Skill TV. He states, "Many complain that our society's view of the maintenance of yesterday hasn't caught up with the realities of today and as a result business growth is stalled. The biggest issue in the maintenance world is the marketing of maintenance. We have to educate our society about the true purpose and function of maintenance."




Leonard points out the old-fashioned and dated "grease monkey" stereotype is gone. "Companies need technicians to perform maintenance on mechanical systems, but they also need people to maintain electrical and electronic systems and microprocessor-based Programmable Logic Controllers (PLCs) while tracking activities using a computerized maintenance management system," He says, "They need technicians who can use predictive maintenance like vibration analysis, ultrasonic leak detection and infrared thermography."

Leonard advises that if we don't address the shortage of skilled personnel, it's going to affect the overall economy. Our ability as a nation to produce will stall without the skilled personnel. 🏠

**ABOUT THE AUTHOR:** Preston Ingalls is president/CEO of TBR Strategies LLC, a Raleigh NC-based maintenance and reliability consulting firm specializing in the oil and gas production industry.




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