Are tightening budgets forcing more supers into the shop? An exclusive GCI study tells how courses are keeping equipment running.

Jim Pavonetti considers himself lucky to have a full-time mechanic on staff.

Statistically-speaking, as the superintendent of Fairview Country Club in Greenwich, Conn., a “private high-end course with a high budget,” there’s a good chance a full-time mechanic would be necessary to keep the facility running smoothly, even in the face of a few tight economic years.

Still, Pavonetti has done his share of time in the garage at previous clubs, including his very first superintendent’s position, and he’s no stranger at Fairview’s when the need arises. In either camp, he’s not alone, as our research found out.

During the first quarter of 2011, GCI queried North American golf course superintendents about the equipment maintenance trend they were experiencing at their respective facilities. Of the nearly 370 superintendents who completed the survey, three quarters have a full-time mechanic on staff. Here are the trends between the Have’s and Have Not’s. – The editors

75% of superintendents surveyed have a full-time mechanic on staff
Jason Manfull, superintendent at Crow Valley Golf Club in Davenport, Iowa, handles the occasional mowing and cultivation equipment repair, like nearly 65 percent of superintendents with a full-time mechanic. In addition, 55 percent say an assistant superintendent handles some maintenance and repair duties, and less than 15 percent use an outside mechanic or equipment dealer to troubleshoot problems and keep equipment running.

"Most supers can do the basics," he says. "I don't know anyone who can't set up or work with a greensmower." When repairs get more complex, Manfull relies on his experienced mechanic.

More than a quarter (28 percent) of supers who have a full-time mechanic on staff indicated an assistant mechanic, part-time mechanic, foreman and other laborers handle repair and maintenance responsibilities, too.

For Jim Myers at Seattle's Plateau Club, that staff is necessary. "We definitely have a need for a full-time guy," he says. "We could use a full-time and a part-time equipment manager, with all our equipment, all the grinding, the weld and fabricate things," says Pavonetti of his mechanic. "He comes in an hour before the crew and leaves after them, and has everything set for us. It's a pretty good system. With $2.5 million in equipment here, to have a guy watching over it full time would be prudent."

Regarding their equipment, facilities with full-time mechanics budget, on average, around $27,500 annual for equipment maintenance and repair mechanics an average salary of $42,900, with around $70,000 on the high-end of the compensation spectrum and $27,000 on the low-end, the data says. Regarding salary, it should be noted that GCI’s research did not break down facility or fleet size when analyzing compensation.

An on-staff mechanic likely contributes to the quick turn-around rate for broken equipment, with 82 percent of superintendents indicating idle equipment remains out of commission for only 24 hours, and very rarely longer than one week.

Having a full-time mechanic gives Myers the flexibility to have someone working on equipment the moment it goes down, and sometimes well beyond regular hours to keep the staff moving the next day.

"It's necessary, especially during the season, and you're out trying to mow and do aerification and something breaks down, and you've got to have it back up and running within a very limited window," Myers says. "Sometimes he's been in the shop until 11 p.m. getting equipment ready and is back getting it onto the field at 5:30 the next morning."

"He really does it all for us," says Pavonetti of his mechanic. "He comes in an hour before the crew and leaves after them, and has everything set for us. It's a pretty good system. With $2.5 million in equipment here, to have a guy watching over it full time would be prudent."

Regarding their equipment, facilities with full-time mechanic purchased the majority of their mowing and cultivation equipment (80 percent) rather than leased it (20 percent). Likewise, they tended to purchase this equipment new (83 percent) rather than used (17 percent).

As the equipment ages, Manfull’s mechanic proves useful time and again. "It allows us to be so much more efficient with what we have," says Manfull. "We don't have to worry about breakdowns and relying on someone else to fix it. If we didn't have a mechanic we wouldn't be able to give as much attention to the course with our equipment."

Even in terms of repair cost, a full-time mechanic makes the process easier for Pavonetti. "He does all the pricing and the work involved in finding what parts are needed and will come in to tell me where it's at," he says. "I'd rather go without an assistant than without a mechanic."

Lastly, an in-house mechanic encourages equipment innovation. Nearly half (47 percent) of superintendents fabricate materials and tools in house.

"It's about having the time for troubleshooting or solving problems. It's nice to have an equipment manager that can weld and fabricate things," says Myers. "We do so much fabrication, it's unreal. Recently we basically fabricated a whole trailer to our specs, from tires to hitch to whatever."
At courses without full-time mechanics, who handles the maintenance and repair responsibilities?

"To the best of my skills, I'm the mechanic," says Dan Mulder, superintendent of Landsmeer Golf Club in Orange City, Iowa, who is one of the 60 percent of superintendents who indicated they handle all maintenance and repair issues. "Our budget just doesn't allow us to hire a mechanic."

"About 80 to 90 percent of the time, it's something I can handle myself." Dan Mulder, superintendent of Landsmeer Golf Club in Orange City, Iowa

Another 30 percent had an assistant superintendent handle various repair and maintenance duties. And according to the data, less than 20 percent employ a part-time or seasonal maintenance person. Only a small percentage – around 10 percent – contracted with a local equipment dealer to assist in troubleshooting equipment issues.

Though his own history as a mechanic comes from working on vehicles or time spent in the course's garage, Mulder is working with an assistant to train him in the basics he can already cover. He also has a good relationship with a local distributor, who he calls on for quick advice when he's unable to work a repair out himself.

"What I find myself doing is I'll do everything I possibly can. If it gets to the point that I can't do anything with it, it goes to the dealer," says Mulder. "About 80 to 90 percent of the time, it's something I can handle myself."

Fifteen percent of respondents indicated their equipment doesn't receive regular maintenance, less than 2 percent grimly responded that broken equipment just doesn't get fixed.

"I feel confident we have our equipment in pretty good shape," says Mulder. "Sometimes it's just the preventative eye care you can give it just checking it over every day."

Similar to their colleagues with full-time mechanics, these superintendents are rather proficient with repair duties when equipment does go down, with 66 percent indicating broken equipment remains down for only about 24 hours, and another 29 percent say equipment is typically back in action within a week.

"It's a really hard time when you're trying to work on the turf, like spraying or fertilizer, and something goes down, you have to start asking yourself, 'Should I be working on this or on the golf course?' Where do I spend my time?" asks Mulder.

And like facilities with full-time mechanics, those courses without more often purchased their equipment (83 percent) than leased it (17 percent), the data says. However, unlike those other facilities, courses without a full-time mechanic didn't purchase new equipment at such a high rate (62 percent "new equipment" vs. 38 percent "used equipment").

However, unlike maintenance departments with on-staff mechanics, these crews are not as resourceful cobbling together unique equipment solutions on site. According to the data, only 25 percent of superintendents indicated they fabricate their own materials and tools.

"During the season, it's very stressful," says Mulder. "But during the winter, I actually consider it fun. You have time to work on it and solve your own problems."

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**Who handles equipment maintenance and repair issues?**

- 60% Superintendent
- 30% Assistant superintendent
- 25% Other
- 15% Equipment doesn't receive regular maintenance
- 11% Local equipment dealer
- 1% Broken equipment doesn't get fixed

*Editor's note: "Other" responses were comprised primarily of part-time mechanics.*

**How long does broken equipment remain idle?**

- 66% 24 hours
- 29% 1 week
- 4% 2 weeks
- 1% Longer than 2 weeks

**Do you fabricate your own tools in house?**

- 25% Yes
- 75% No

**Purchase vs. Lease**

- 83% Purchase
- 17% Lease

**New vs. Used**

- 62% New equipment
- 38% Used equipment
The Frugal Mechanic's Top 5

Maintenance budgets have been slashed, and more than once for many of us. There is no money or at least very little - left for capital equipment purchases. Unemployment has struck one if not two people you know. Many of us are asking: Is this the new normal for our industry and our professions?

My advice: Let’s get back to basics. Let’s polish our collective A-games. This can be your day to shine and the day your employers are glad they have you on their payrolls. So I want to encourage you to leave your warm and fuzzy comfort zone behind and follow “Weidler’s Top 5 Equipment Maintenance Tips.”

No. 5 Tools for the job
Success comes from tools, and knowledge is one of them. Fill your toolbox and your mind because money is not the only answer when it comes to equipment maintenance and repair. But a full set of tools is necessary to do the job. Computers today are so important for the equipment manager, and the Web can save you from embarrassment. Don’t be the guy who won’t ask for help or advice. Your industry peers or factory-support team are more than willing to lend a hand.

No. 4 Pre-clean inspection
At the end of every season when the mowing is done and we want to fall into a winter slumber, I remind myself that I am entering my busiest time of the year. Each and every piece of equipment should be brought in and put up on the lift. Then blow it off with compressed air to remove any clippings that get caught up in the frame or components.

This creates a mess, but what you may find will make it all worthwhile. Check hydraulic hoses for shiny spots - the old residual of hardened water has the tendency to turn the hoses white where they were rubbing. Check all hydraulic lines (metal) for rub points - these can be shiny or rusty. If you have light contact, check your mounts. If they’re OK, just slice a small section of rubber hose and place between the affected area. If you find major contact, record this for your winter maintenance. Check the frame for rusty areas - this is where a crack has developed. Record this for your winter maintenance. You can also mark the crack with a paint marker. Check for electrical corrosion at contact points. This will be a green-blue color for brass and copper connection, or white for aluminum connections. Record all of your findings for later maintenance.

No. 3 Clean all electrical connections
Remember battery terminals and cable ends, then use a protecting spray. Dielectric grease all other electric connections. Of course, this is the time when battery condition is checked and water is added.

No. 2 Repair instead of replace
Learn more about components and what makes them tick. Rebuild that hydraulic ram; they’re not hard. Install new brushes in that starter and check the commutator end for dead spots or shorts. Don’t forget to replace the bearings. Most failures in valve bodies are o-rings and sticking components can be cleaned in mineral spirits. Learn to rebuild that engine. You can have the machine shop hone or bore the cylinder for a new piston. Or you can hone it yourself. Just remember it has to be cleaned before reassembly. Open up that transmission - it is only gears, bearings and seals.

No. 1 Use your imagination
This is where the fun is. Listen carefully to issues or suggestions. Be the go-to guy. As crews dwindle we have to be creative to get the job done. Don’t just put Band-aids on things – solve problems. Be creative and inventive to solve problems – it’s worked for me. A sprinkler head trimmer was made out of a used band saw blade, used flower bed edging and one bolt. A set of “bear claw blades” came from the worst set of rotary blades I had and a handful of woodruff keys.

John Weidler is equipment manager at Ironbridge Golf Club in Glenwood Springs, Colo., and a contributor to GCI.