



Fairview Health Services

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INDUSTRY-DRIVEN APPRENTICESHIP

CASE STUDY

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ABOUT THE AUTHOR

Tamar Jacoby is president of Opportunity America, a Washington-based nonprofit working to promote economic mobility—work, skills, careers, ownership and entrepreneurship for poor and working Americans. A former journalist and author, she was a senior writer and justice editor at *Newsweek* and, before that, the deputy editor of *The New York Times* op-ed page. Her articles have appeared in *The New York Times*, *The Wall Street Journal*, *The Washington Post*, *The Weekly Standard* and *Foreign Affairs*, among other publications. She is the author of “Someone Else’s House: America’s Unfinished Struggle for Integration” (Free Press, 1998). Her edited volumes include “Reinventing the Melting Pot: The New Immigrants and What It Means To Be American” (Basic Books, 2004) and “This Way Up: New Thinking About Poverty and Economic Mobility” (American Enterprise Institute, 2017). Since 2008, she has also been president of ImmigrationWorks USA.

ABOUT THE ORGANIZATION

Opportunity America is a Washington-based nonprofit promoting economic mobility—work, skills, careers, ownership and entrepreneurship for poor and working Americans. The organization’s principal activities are research, policy development, dissemination of policy ideas and working to build consensus around policy proposals.

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PREFACE

Changing technology, growing skills mismatches and weak wage growth are drawing attention to the need for more sophisticated, more relevant career and technical skills, especially for workers who lack a four-year college degree. Among the most effective ways to raise skill levels and prepare workers for rewarding careers is with apprenticeships that combine classroom learning and paid on-the-job experience, teaching skills in demand across an industry. Yet it has proven surprisingly difficult to scale apprenticeship in the United States.

In 2018, just three-tenths of one percent of US workers were enrolled in civilian apprenticeship programs—about 450,000 apprentices, compared to nearly 20 million students in degree-granting postsecondary institutions.

President Donald Trump aims to dramatically increase this number by encouraging industry groups to develop and oversee programs, including in sectors that have not traditionally relied on apprenticeship training. An approach of this kind would align with a long American tradition of employer-sponsored, apprenticeship-like training that is not registered with state or federal agencies. Yet little is known about these programs—how widespread they are, how effective or whether and how they maintain quality standards absent regulation by the government. This study begins to address that gap.

The case study that follows is part of a larger project—a paper by Tamar Jacoby and Urban Institute fellow Robert I. Lerman that explores the landscape of independent earn-and-learn training, drawing on four case studies, a half-day convening of employers and employer associations and lessons from other countries with robust apprenticeship systems to reflect on the Trump administration's approach and offer recommendations for policy.

Among the most important findings of that broader study: newly available data from the US Department of Education's 2016 Adult Training and Education Survey (ATES) suggest that about the same number of American workers have participated in unregistered earn-and-learn training as in registered apprenticeship programs.

Like registered programs, independent offerings appear to be common in the construction trades, but also an array of other industries. Some are fostered and supported by national industry associations; others arise spontaneously, at the initiative of an enterprising employer. Employers who participated in the study were all but unanimous in explaining why they chose to offer unregistered earn-and-learn programs: the flexibility it gave them to meet rapidly changing business needs.

This case study is one in a series of four standalone profiles of quality unregistered apprenticeship programs in industries where the approach may be particularly prevalent: construction, advanced manufacturing, health care and automotive maintenance and repair.

Independent earn-and-learn training is a great and largely untapped opportunity: an effective and, for employers, relatively accessible way to upskill workers, improve the quality of jobs and increase productivity, while significantly expanding apprenticeship in the US.

The goal of the case studies and the paper is to explore this potential and propose how the nation can tap it for the benefit of workers and employers.

Fairview Health Services

AT A GLANCE

Fairview Health Services, the second-largest private-sector employer in Minnesota, fields some 34,000 doctors, nurses and support staff at 12 hospitals and more than 100 clinics across the state.¹ A national leader in health care employee training, the system supplements virtually nonstop recruitment with a strategy its staff call “grow your own”—several registered apprenticeship programs, pipelines to bring disadvantaged local residents into health care professions and upskilling to promote food service and janitorial staff to entry-level allied health jobs, among other initiatives.²

The system’s human resources leadership is strongly committed to registered apprenticeship.³ As one of the first major US employers to launch an apprenticeship program in a field that had not traditionally relied on that approach, Fairview won recognition from the Obama White House and two Obama-era US Department of Labor apprenticeship grants totaling more than \$1 million. Still, devoted as it is to the traditional model, in some occupations, for some trainees, Fairview prefers unregistered earn-and-learn training.

Among the most successful of its unregistered options: a six-month program for operating room nurses that combines class time, clinical labs and on-the-job experience and can lead, after two years, to an accredited national certification.

LABOR DEMAND

Nursing is a profession with a long cyclical history of surpluses and shortages. Today, there is no national shortage—nursing schools are keeping pace with nationwide demand.⁴ But nursing is a vast, varied field: there are dozens of categories of caregivers differentiated by level of education and certification, medical specialty, the type of patient served and the type of department or facility where the individual is employed—hospital, nursing home, specialty care clinic or other

venue.⁵ Supply and demand for nurses also varies by geographic region, and many states are experiencing shortages—sometimes severe shortages—of particular specialties.

Registered nurses (RNs) make up about 80 percent of the profession, according to the US Bureau of Labor Statistics, and nearly three million RNs are employed in the US today. Openings are expected to grow by 15 percent in coming years—more than twice as fast as the national average for all occupations.⁶ And wage rates suggest that Minnesota may be among the states experiencing RN shortages: it’s the only state not on the East or West Coast where the mean annual salary for registered nurses is in the \$75,000 to \$100,000 range—well above the national average of \$70,000.⁷

A subset of registered nurses, operating room nurses (ORNs) are among the specialties in short supply virtually everywhere. Also known as perioperative nurses, they number about 160,000 in the US today. Demand for their services is growing as the population ages and outpatient surgical clinics proliferate.

Yet according to annual surveys by the Association of Perioperative Registered Nurses (AORN), the profession faces a daunting wave of retirements: more than half of practicing perioperative nurses are more than 50 years old, with nearly 15 percent in their 60s.⁸ And training remains in short supply: though many nursing schools offer an overview of skills required in the operating room, few offer in-depth training of the kind Fairview administrators say they require of their perioperative staff.

Perioperative nursing calls on a broad range of skills. It’s a demanding, high-stress job, requiring someone with the energy and focus to work in an

environment where life is on the line and brusque, exacting surgeons expect perfect performance. It also requires teamwork. There are often a half-dozen professionals in the operating room during a procedure: from the surgeon and the anesthesiologist to an unlicensed surgical technician, along with several different kinds of nurses. When things go wrong or a patient's status changes, members of the team may communicate with nothing more than a glance, and the circulating preoperative nurse may be called upon to coordinate a split-second change of course. Still a third requirement, as the chief advocate for the patient and liaison to the patient's family, ORNs need people skills—empathy and an aptitude for interpersonal communication.⁹

Operating room nurses are in short supply virtually everywhere.

In a field where credentialing is highly valued—just look at the welter of initials in any accomplished nurse's signature—perioperative nurses have some leeway, and their qualifications vary. They must be registered nurses, and most hospitals prefer RNs with bachelor's degrees. Like all nurses, they maintain state licenses that must be renewed every two years—an unrelenting regimen that requires continual training. On top of that, AORN offers an accredited national certification, also based on continuing education—a Certified Nurse Operating Room (CNOR) credential. But estimates suggest that only about 20 to 25 percent of perioperative nurses maintain CNOR certifications.¹⁰

With or without the credential, operating room pay is generally good. Nurses work for hourly wages and often make a commitment to put in a certain number of hours each pay period. Though many nurses work part time, preoperative nurses among others frequently put in substantial overtime, and they're usually required to take "on-call" hours, making themselves available on nights or weekends, ready to come in on a moment's notice

for an emergency surgery.¹¹ All of this adds up, according to nurses and hospital administrators. Most estimates put median annual pay for operating room nurses in the \$60,000 to \$75,000 range.¹² And according to Beeth, total compensation, including overtime and on-call pay, can easily top \$100,000.

BACKGROUND

Several different trends and traditions led Fairview to unregistered earn-and-learn training for operating room nurses.

The first is Fairview's grow-your-own approach, now some three decades old and deeply ingrained.¹³ Not all hospitals choose this path: many rely on nursing and medical schools or lean heavily on international hiring—immigrant nurses from the Philippines and elsewhere. But Fairview's size and the scope of services it offers make the demand for talent incessant, and the system tries to use every tool at its disposal, including a variety of training and education programs estimated to cost some \$99 million a year.¹⁴

Fairview vice president of talent acquisition Laura Beeth calculates that she faces more than 1,400 openings a day across the system. They range from doctors and nurses to counselors for the system's mental health facility—the largest in the Midwest—and pharmacists for its prescription program, also one of the biggest in the region. Beeth fills about 165 jobs a week, only to watch another hundred-plus open up. And over the years, she has developed an array of strategies, short-term and long-term, to deal with these unending, widely varied labor needs.

One of her simplest stratagems is temporary workers: she hires 400 a week, including doctors, then works to persuade them to stay on as permanent hires. Another tactic: recruiting disadvantaged young people from Twin Cities neighborhoods. Fairview maintains summer camps for high school students and scholarships for adults attending community college. Diversity is a key criterion: the system

wants a staff that reflects its patient population—and as is, the ratio is far from aligned. Another major focus: promoting from within by upskilling existing employees—janitors and food service staff training to be medical assistants and surgical technicians—on Fairview time, with instruction paid for by Fairview.

A second factor that points Beeth toward earn-and-learn training: it's a long tradition in health care, particularly nursing. "On-the-job learning is part of our DNA," she says. "We've been running de facto apprenticeship programs for decades, long before they were called apprenticeship."

'On-the-job learning is part of our DNA. We've been running de facto apprenticeship programs for decades.'

This history starts in the Civil War era, when the increasing complexity of medicine required doctors to begin leaning on female assistants and the first nursing education emerged—usually a year or two of job shadowing at a local hospital. There was little or no class time; training was anything but standardized. Trainees often worked for free, grueling 12-to-18-hour shifts, six or seven days a week, until they qualified as registered nurses. Programs were systemized somewhat in the early 20th century, but as late as the 1960s, the majority of RNs still learned their profession at so-called "diploma nursing schools"—hands-on, on-the-job training in a hospital setting, where you earned a hospital diploma but no college or university degree.

The second half of the 20th century brought increasing professionalization and, with it, more academic training—standardized curriculum and for-credit courses, first at two-year colleges and then in a four-year setting. As recently as 2008, only about a third of RNs had bachelor's degrees.¹⁵ In 2010, an influential Institute of

Medicine (IOM) report showed that bachelor-degree nurses, or BSNs, delivered safer, more reliable health care, and the institute called on the profession to aim for 80 percent BSNs by 2020.¹⁶ The percentage of more educated nurses has risen sharply in the years since, but it still falls short of the IOM goal—and even with this increasing professionalism, much nursing training still takes place on the job.

No matter what degree nursing schools confer, they still teach a broad array of general skills, exposing students to as many different career options as possible but rarely going very deeply into any particular specialty. That further training invariably falls to employers: a hospital or other venue, where nursing graduates work for months or years under the supervision of preceptors—more experienced nurses who work alongside them, teaching them the ropes and helping them perfect hands-on techniques.

Bottom line: even as the profession has changed dramatically, becoming more professional and requiring more extensive, more sophisticated formal education, hands-on, on-the-job training remains an integral part of how nurses learn.

Operating room nurses are no exception. Though the job has grown more specialized and technically sophisticated, if anything, the need for on-the-job experience has increased through the years. But at the same time—the third trend driving Fairview toward the earn-and-learn model it relies on today—informal job shadowing and preceptor supervision is no longer seen as enough. The changing demands of the job require a more systematic, coordinated approach.¹⁷

Twenty-five years ago, Fairview had no program to train periop nurses. When an opening occurred, a nurse was hired and sent to a local technical or community college. Courses were short—a brief overview of the subject—and once classes were over, the trainee returned to the hospital for what could be several years of supervised on-the-job experience before they were qualified to work

independently. In the mid-1990s, as the Fairview system grew, Beeth decided she needed something better—a more structured, more reliable program she could offer in-house to a cohort of trainees.

A national search led her to the Colorado-based Association of periOperative Registered Nurses. A full-service trade association with 275 chapters and 42,000 members nationwide, AORN offers an array of services—everything from a peer-reviewed journal to lobbying, plus extensive training resources.¹⁸ Beeth zeroed in on Periop 101—a standardized curriculum that combines class time with clinical labs and on-the-job experience under the supervision of a preceptor. No one called it apprenticeship, and this was long before Beeth joined the vanguard of nontraditional employers launching registered apprenticeship programs. But it was in fact apprenticeship in everything but name.

Curriculum is offered online. Fairview supplements it with classroom discussions, lab demonstrations, videos and other learning aids, as well as time on the job.¹⁹ Originally stretched out over a year, this formal instruction—class and lab—now takes about six months. Students commit to a two-year work contract, and they're paid full-time, including for the hours they spend in class. Those who don't complete two years on the job must repay Fairview for the full cost of training. But most see their commitment through to the end, and nearly 20 years later, Beeth estimates that 80 percent of periop nurses currently employed at Fairview have come up through the AORN program.

HOW IT WORKS

Recruitment and screening. Periop 101 is highly selective, requiring admission to the program and an offer of employment from a hospital human resources department—one of five participating Twin Cities Fairview hospitals.

- Students must be licensed registered nurses, with bachelor's degrees preferred.

- The program is open to new hires and Fairview employees recommended by supervisors.
- Among the most important criteria: a strong desire to work in the operating room.
- Application process: extensive job shadowing and an interview by a panel of judges that includes hospital HR staff.
- More than 25 people apply for every slot, and acceptance is conditional on a job offer from a hospital.
- In years past, trainees had an average 10 years' nursing experience; strong desire to work in the OR is now seen as more important than experience.

Curriculum. The bedrock of the program—the key to its success—is the AORN curriculum, accepted nationwide as the industry standard. AORN regularly surveys its 42,000 members on the practices they use and what they find effective in the operating room, producing a curriculum that the organization calls “evidence-based.”²⁰

- Curriculum in use in 2,500 hospitals and ambulatory surgical clinics nationwide.
- Twenty-six online modules, 30 to 70 pages each.
- Modules include sterilization and disinfection, surgical draping and wound closure.
- Updated regularly based on feedback from trainers and input on practice in the field.
- Curriculum comes with videos, chapter tests, a final exam and online tracking of student progress.
- Also included: a train-the-trainer module for instructors.
- Fairview pays a biennial fee—\$30,000 for up to 50 trainee slots.

Classroom instruction. Fairview periop training staff pride themselves on the thoroughness of their instruction—spread over six months as opposed to a few weeks at some colleges—and what they add to the curriculum, including a variety of hospital experiences and exposure to working health care professionals.

- Fairview offers the program twice a year, typically four to 10 trainees per cohort.
- Course unfolds over 118 highly scripted days—eight hours a day, five days a week.
- First eight weeks are spent almost exclusively in class and lab, with later weeks almost exclusively on the job at a hospital site.
- Fairview supplements online modules with in-class review, discussion, skills demonstrations and practice.
- Frequent guest lecturers include hospital staff and equipment manufacturers.

Coordination of class and on-the-job learning.

The on-the-job component of the program begins in earnest after students have completed most of the AORN modules. This work-based experience is not formally coordinated with classroom learning, but it must meet exacting operating room procedural standards.

- Trainees assist at actual surgeries—not just shadowing, but performing basic duties.
- Each student is assigned a preceptor who watches them closely and intervenes when necessary.
- Coordination of classwork and hands-on learning is informal—there’s no training for preceptors.
- Most Fairview preceptors have come up through the program and know the curriculum.

- Trainees are encouraged to take responsibility for coordinating their own classroom learning and clinical practice—telling preceptors when they want or need exposure to a particular task.

Work commitment. Periop 101 students agree to work for a Fairview hospital for at least two years—well after qualifying as operating room nurses. Those who fail to honor this commitment pay a steep price.

- Students are full-time employees, earning a regular RN salary.
- They commit to two years on the job, or more if they choose to work less than full time.
- Either Fairview or the student may opt out of the agreement up to four months into the training.
- Students who opt out after four months must reimburse Fairview for the full cost of the program—\$8,000 plus interest.
- After two years, students are guaranteed a permanent job in the Fairview system.

Milestones. Periop 101 students earn recognition for completing the AORN curriculum. They also accumulate continuing education credits that help them maintain their RN licensure. A nationally recognized specialty certification is available after two years on the job, but relatively few nurses choose to sit for the test.

- End-of-course exam, taken online and benchmarked by AORN, is widely regarded as a national standard.
- Graduates earn 41.7 continuing education contact hours—more than enough to maintain RN licensure.
- Two years after graduating, students are eligible to sit for an assessment leading to a nationally recognized, accredited CNOR certification—a highly sought mark of distinction.

- Once earned, CNOR certification must be revalidated every five years—through contact hours, continuing education or retesting.
- Fairview encourages ORNs to take the test, offering financial incentives.
- Relatively few qualified trainees choose to sit for the exam.
- Nationally, some 34,000 of 160,000 periop nurses hold CNOR certifications.²¹

METRICS AND RESULTS

Periop 101 is a highly selective program, but most of those who are admitted complete the training and land jobs in hospital operating rooms.

There's little question about the relevance of the instruction or the rigor of the metrics used to evaluate students. AORN standards are industry-tested and undisputed in nursing circles. Hiring hospitals also have every reason to be exacting. Yet very few students wash out or fall by the wayside—testimony to the rigor and efficacy of the training.

The challenge: persuading more graduates to earn a nationally accredited credential.

The first important milestone occurs four months into the program—the cutoff point for trainees who are not succeeding or have learned they aren't cut out for the operating room to drop out of training and reimburse the hospital. Fairview administrators say that fewer than 10 percent of trainees make this decision.

A second benchmark: the end-of-course exam, which is standardized and administered online by the curriculum provider, AORN. Students are given three chances to pass. Some 90 percent succeed the first time. Those who fail are shown

the questions they got wrong and tutored by instructors. According to Fairview staff, virtually 100 percent pass eventually and graduate from the program.

Nearly all—98 percent—remain on the job after graduation. Fairview does not track retention after completion of Periop 101, but according to Beeth, once nurses go to work in the operating room, very few leave before retirement.²²

Over 17 years, 245 Fairview nurses have graduated from Periop 101, and Beeth estimates that 80 percent of the ORNs working in the system's hospitals have come up through the program.

COMPARED TO REGISTERED APPRENTICESHIP

Beeth works hard to keep up with the national debate about workforce issues, and she first caught wind of emerging interest in registered apprenticeship at a meeting of the National Governors Association in 2015. Among the featured speakers were representatives from the German and Swiss embassies in Washington, advocating a registered approach for sectors like health care that hadn't traditionally relied on it, and Beeth immediately saw an opportunity. Among other things, it was clear this was a growing trend and that it would mean additional funding for training programs.

Beeth had no idea how arduous a path it would be. Developing the program wasn't difficult. She focused in on one of Fairview's most pressing needs. The lion's share of Fairview nurses—especially its nonwhite nurses—have only associate degrees, and hiring policies mandated by the 2010 Institute of Medicine directive on bachelor-degree nurses were threatening to drive them out of the system's hospitals to lower-paying, lower-prestige nursing-home jobs. Beeth's answer was a registered apprenticeship program to upgrade associate-degree nurses (ADNs) to BSNs, earning them not just a journeyman certificate, of questionable value in the health care sector, but a bachelor's degree.

The challenge was primarily political—what Beeth now describes as “an incredibly complex process” of recruiting allies and securing their buy-in. She mapped the competencies required for bachelor-degree nurses onto college curricula, coordinated accreditation at 26 Minnesota colleges, solicited support from 13 unions and enlisted the state’s 17 workforce development boards to help get the word out about the new program. This paved the way for state approval and \$850,000 of state funding. Then, in 2015 and 2016, came two US Department of Labor apprenticeship grants totaling \$1,225,000—part of the Obama administration’s push to expand registered apprenticeship in nontraditional fields.²³

Fairview’s Periop 101 earn-and-learn training would gain little or nothing from being registered.

In 2018, Fairview added two new registered programs, one for medical assistants, the other for surgical technicians. A third is on the way in 2019—for graduate-level specialty nurses. As of December 2018, 148 Fairview employees were enrolled in registered apprenticeship training.²⁴

Still, committed as she is to registered apprenticeship, Beeth doesn’t believe it’s for everyone—not always necessary for the job or appropriate for targeted trainees—and there are no plans to register Fairview’s ORN earn-and-learn training.

Among other reasons, Periop 101 is a relatively short program. Institutions offering the AORN curriculum can stretch or compress it to meet any schedule, and at Fairview it once took a year to finish. But more than a decade of experience has taught administrators that this isn’t necessary—six months is enough to complete the modules and all that Fairview adds to them, including lectures, videos, in-class discussion, skills demonstrations and more than 16 weeks of intensive on-the-job training with a preceptor.

A second reason not to register, according to Beeth: ORN trainees don’t need the wraparound supports she feels are necessary for ADNs and those training for an entry-level position like medical assistant. “You have to have different strategies for different people,” she says. Nurses training to be ORNs are highly educated, motivated and self-sufficient.

Registering the program might confer some additional advantages, including state and possibly federal funding. But Fairview maintains an ample workforce development budget, and Beeth has found other ways to pay for Periop 101 and another unregistered earn-and-learn program offered at Fairview, for health care information technology workers. The widely respected AORN curriculum guarantees that Fairview’s periop training meets industry standards. Decades of experience with preceptor-guided, on-the-job learning lend method and structure to the hands-on component of the program. So Beeth sees no intrinsic reason to put it through the registration process—registering is unlikely to improve either content or delivery.

Her one concern: in contrast to the associate-degree nurses who complete Fairview’s ADN-to-BSN apprenticeship, most Periop 101 students don’t earn an accredited credential. Their only path to certification requires sitting for the CNOR exam, and most choose not to do so.

CHALLENGES

Fairview’s unregistered earn-and-learn Periop 101 training is a highly successful program, targeted to the giant health care system’s unceasing needs and worth the investment and effort for nine out of 10 nurses who enroll.

The two essential elements that make it a success: AORN’s time-tested and widely respected industry-recognized curriculum and Fairview’s long experience with informal preceptorship—using untrained but experienced employees to mentor trainees on the job in the operating room.

In another setting or another sector with no tradition of mentoring, perhaps it wouldn't work as well to rely on a similarly unstructured on-the-job approach. But this does not appear to be a problem at Fairview.

The challenge at Minnesota system, if there is one, might be persuading more periop graduates to earn a nationally accredited credential. It's something of an issue for Beeth: "We're developing our employees," she says, "and we want them to come away with credentials—credentials that will be recognized everywhere, at any setting where they choose to work."

What isn't clear: just why so few Periop 101 graduates or other ORNs nationwide choose to sit for the CNOR exam. Fairview instructors say taking the test is expensive, also a "hassle" and a "big time commitment." Two years after completing formal training, nurses seeking certification must brush up on the curriculum and take a high-stakes online test, then continue with additional training or retesting every five years to keep their credential current.

One alternative—one potential answer for the concern about credentialing—might be to require certification for all operating room nurses. But the fact is neither nurses nor hospitals nationwide—even hospitals as sophisticated and demanding as Fairview—seem to view the accredited certification as essential. So perhaps the concern is unfounded; perhaps the AORN curriculum and its end-of-course test are all that's needed to guarantee quality.

CONCLUSION

Fairview Health Service's unregistered earn-and-learn training for operating room nurses is a classic apprenticeship program in everything but name. Students combine classroom learning with on-the-job experience. The highly structured curriculum meets exacting industry standards respected nationwide. Trainees are paid to learn, in class as well as on the job. And although the program is relatively short—just six months in duration—the CNOR requirement that graduates spend two years on the job before attaining an accredited credential suggests that the training is in fact commensurate in length with many registered apprenticeships.

Laura Beeth's work developing earn-and-learn training, registered and unregistered, for Fairview points to a strange paradox. Despite more than 150 years of history using on-the-job training to produce highly paid professionals, health care is considered a sector with little or no familiarity with apprenticeship. True, American hospitals and clinics have little experience with registered apprenticeship. But surely that's not the same thing as no experience—and perhaps the categories need some rethinking.

The essential lesson from Fairview: the core principles of the classic apprenticeship model can be applied successfully to shorter training programs, structured somewhat differently, that do not fit the mold required for registration or choose not to submit to the arduous, consensus-building process it entails. Fairview's Periop 101 earn-and-learn training would gain little or nothing from being registered. But it's hard to see how it could be substantially improved, and it ought to be recognized and replicated on a broader scale.

NOTES

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