States anticipate a boom in the cybersecurity industry, and many want in. With data collection and costly database breaches both on the rise, states have taken notice.

“We’ve seen it in private industry, we’ve seen it with Sony, we’ve seen it with foreign governments, we’ve seen it all over the place and what I’m afraid of is that we are going to see a much more serious attack,” said Florida Representative Ray Pilon (R).

That fear has made cybersecurity one of the nation’s fastest growing industries. Demand for information security professionals is growing 12 times faster than that for other jobs and is expected to increase by 53 percent in the next three years, according to Stanford University’s Peninsula Press, which covers Silicon Valley. However, there are not enough workers in the pipeline to meet the demand.

Lawmakers hope that through education and the formation of public-private partnerships, they can help the industry grow—along the way boosting their economies, increasing the number of stable, attractive jobs and encouraging graduates with degrees in cybersecurity and related fields to come to their states and stay.

In Florida, for example, the Legislature enacted a statute creating the Florida Center for Cybersecurity at the University of South Florida last year. The center plans to expand cybersecurity degree programs statewide, including a master’s program at the university, and create partnerships among businesses, higher education communities and industries where cybersecurity is a major player: finance, health care, utilities and the military.

During the 2015 session, at least 24 states considered cybersecurity bills. Nine of those states—Arkansas, Connecticut, Kansas, Maryland, Nevada, North Dakota, Texas, Utah and Virginia—enacted legislation, while Georgia and Rhode Island issued executive orders. Several of the bills authorize studies on cybersecurity breaches, the growth of the cybersecurity industry or measures to drive state economies through education and partnerships. The Maryland and Utah bills create commissions to look at the effects of breaches on infrastructure and develop data-security best practices. In Washington, pending legislation would create tax incentives for cybersecurity businesses and offer convertible debt and loan programs for students pursuing cybersecurity degrees.

It’s likely that only a few states will emerge as cybersecurity leaders, but in the meantime many will continue seeking ways to both protect their residents from online threats and lure this hot new industry.

—Samantha Moodie

Meter Readers Going the Way of Dinosaurs

Many utilities are saying good-bye to the analog meters they’ve used for decades to track customers’ home energy use. Instead, they’re turning to new “smart meters,” which, like analog meters, are usually installed in some out-of-view location at the home. But unlike the old meters, they record electricity consumption in real time and, like a smartphone, send the information via wireless signals to utilities for monitoring and billing. Utility companies like them because they eliminate the need to send someone out to read meters manually, saving them money, and smart meters can help identify power outages more quickly, allowing for faster restoration of service. Customers can use the real-time data to evaluate their electricity use and make changes to reduce their energy bills.

U.S. electric utilities installed about 52 million smart meters as of May 2015, according to the Energy Information Administration. But not all customers are ready to make the switch. Some want out of their local smart-metering programs, citing concerns about health—like cell phones, the meters use radiofrequency, or
Alterning Rules on Cannabidiol Therapies

The legalization of medical marijuana to treat various ailments has been a hot-button issue in a growing number of states in recent years. But the debate about cannabidiol, derived from marijuana plants, is just warming up.

Cannabidiol, commonly referred to as CBD, is an oil extracted from cannabis. It contains little, if any, THC (the psychoactive component that causes marijuana “high”) and is commonly used to manage rare, treatment-resistant forms of epilepsy, among other debilitating conditions. Parents of some affected children say they have seen a dramatic reduction in the number of development-stunting seizures their sons or daughters suffer after beginning a CBD regimen.

Paige Figi’s daughter, Charlotte, suffers from an uncommon form of epilepsy called Dravet syndrome, which affects about 1 in 30,000 children. Charlotte had more than 300 seizures a week before her CBD treatment began. She now suffers only two seizures per month, says Figi, who lives in Colorado. Though research is lacking, scientists suspect that CBD damps the excessive electrical and chemical activity in the brain that causes seizures.

“Charlotte’s Web” is a proprietary strain of cannabis named after Charlotte and used specifically to make CBD. The strain has very little THC—less than 0.3 percent—though other strains may also be used to make concentrated products. Charlotte’s Web is not widely available; most dispensaries choose not to stock it because of its limited appeal in the adult-use retail market.

The problem is, as a cannabis derivative, the oil extracted from any cannabis plant falls under the same legal restrictions as marijuana flower. By federal law, it is considered a Schedule I controlled substance, with no medical value, and cannot be prescribed.

Because Colorado has a comprehensive medical marijuana program, Figi can legally purchase CBD products. In most other states, the substance is still illegal. Fifteen states have Charlotte’s Web laws (some of which may not yet be operational) that allow families to acquire and use CBD without fear of prosecution. But in a number of those states, legal clarification is still needed. The laws protect people who possess or use CBD products from prosecution for marijuana possession and use, but the state may not provide a clear way to produce or purchase the products in-state. This means a person could potentially break another state’s law by removing the products from that state.

Six more states have Charlotte’s Web legislation in the works, as does Congress. The Figis have found themselves unwittingly active in the fight to allow families access to CBD treatment, which they say has more effectively managed Charlotte’s condition than conventional treatments. Charlotte’s mother stresses the difference between CBD and medical marijuana. “I don’t even say marijuana,” she says. “What we are talking about is so different.” Meanwhile, cannabis-based pharmaceuticals are already in use in Europe and are undergoing clinical trials in the U.S.

Those opposed to legalizing medical marijuana may see providing safe, legal access to cannabidiol products as an acceptable alternative. In the meantime, the conversation about it continues.

—Zita Toth

RF, transmissions to send information—data privacy and increased electricity bills. At least 17 states allow customers to opt out of smart-meter installation.

But as part of the opt-out, some states have created a tariff structure for customers who want to keep their analog meters instead of getting a smart meter. No surprise, customers oppose the idea of paying a fee to keep the meters they already have, but utilities contend the old meters are costly, requiring staff members and vehicles to perform readings. In Pennsylvania, which requires utilities to install smart meters, two bills (both pending) would allow customers to opt out of the smart-meter program and permit utility companies to issue one-time or monthly surcharges to recoup costs. Opt-out provisions typically are ordered by state public utility commissions and can be found in Florida, Georgia, Illinois, Maine, Maryland, Michigan, Nevada, Rhode Island, Texas and Wyoming. An opt-out bill is pending in Oklahoma.

Other states and utility companies have chosen not to establish a tariff, allowing customers to select their meters freely—for now. State statute lets Vermonters keep their analog meters and requires utility companies to remove previously installed smart meters for free per customer request. Maryland, Massachusetts and Texas also are considering bills that would allow ratepayers to keep their old meters or have smart meters removed at no cost. In some cases, utility companies themselves have chosen not to charge. Dominion Power of Virginia, for example, agreed to turn off the two-way communication and data-storage features of its smart meters for concerned customers.

Another very different approach to smart-meter rollouts can be found in New Hampshire, where statute requires that utilities receive written permission from ratepayers—an opt-in statement—before installing their smart meters. Similar bills are being considered in Ohio and New Jersey this session.

Whether states decide on opt-outs with fees, opt-ins or another option, all will try to balance individual choice and customer concerns with grid reliability, utility costs and energy efficiency.

—Alexander Mervak