WASHINGTON — Caleb Bennett was days away from starting the final semester of an associate degree at ITT Technical Institute outside Indianapolis last fall when he got word that the school had unexpectedly gone belly up.

Like thousands of ITT students, Mr. Bennett, an Army veteran with four years of service and a tour in Afghanistan, had paid for the schooling, books and even his family's housing with benefits he had earned under the Post-9/11 G.I. Bill. With the degree, he planned to enter a bachelor's program in electrical engineering and, eventually, to get a better-paying job to support his growing family.

Instead, Mr. Bennett found himself with only a week's notice, a pregnant wife and nearly two years of worthless credits paid from his non-reusable store of G.I. benefits. When a refund check from ITT bounced a month later, the young family's finances were thrown into chaos.

“It's a real big hit on the chin,” Mr. Bennett, 25, said recently. “But you just have to suck it up and get to it and hope something happens. Thankfully something did.”

That something came in the form of a sweeping set of changes to the G.I. Bill for post-Sept. 11 veterans like Mr. Bennett that passed the Senate by unanimous consent on Wednesday. A patchwork of fixes and coverage expansions years in the making, the measure restores education benefits to the thousands of veterans still reeling from the closings of for-profit schools like ITT and Corinthian Colleges while they were enrolled.

Other major provisions include the lifting of a 15-year limit on benefit use, as well as the expansion of tuition assistance and other benefits for Purple Heart recipients; certain National Guard and military reservists who deploy on active duty; families of soldiers who die in the line of duty; and veterans pursuing degrees in science, technology, engineering and math. A host of smaller changes modernize the benefits program.

Advocates of the legislation say it could directly affect more than half a million veterans over the next 15 years.

But the bill's beneficiaries are not limited to veterans. Its passage presents President Trump with another modest legislative victory in one of the few areas he has been able to find them: veterans issues. And to congressional lawmakers who have struggled to advance Republican priorities despite the party's control of both chambers, it offers a rare accomplishment to bring home to constituents over the summer recess.

“It is one of those bills that addresses a lot of irritating problems that have been festering around for a long time,” said Johnny Isakson, a Georgia Republican who is the chairman of the Senate Veterans' Affairs Committee. “It shows the intent of Congress to make sure that the benefits that come with being a veteran reflect the times.”

Mr. Trump is expected to sign the measure, which had already passed the House 405 to 0, in short order.

Congress enacted the original G.I. Bill of Rights, known as the Servicemen's Readjustment Act of 1944, to provide veterans returning from World War II with support for tuition, low-cost mortgages and low-interest business loans as a reward for their service. The bill was widely considered a success, helping to fuel the country's postwar economic boom and educate generations of veterans.

Lawmakers passed the current G.I. Bill, commonly known as the Post-9/11 G.I. Bill, in 2008, expanding benefits for those who served after Sept. 11, 2001. With benefits prorated based on the number of months served on active duty, the measure provides up to four academic years of tuition benefits in most cases, as well as housing and book stipends.

The latest bill has been in the works for several years, but gained steam amid a bout of bipartisan productivity on the congressional Veterans' Affairs Committees this spring. Except for a brief hiccup in April — when a proposal by the chairman of the House Veterans' Affairs Committee that service members pay to be eligible for the benefits prompted backlash from veterans groups — it was seen as a win for both political parties and the veterans groups. It helps that the Congressional Budget Office has projected that the bill will be cost neutral over 10 years, thanks largely to the slight reduction in monthly living stipends for college tuition recipients.
Leaders of advocacy groups that lobbied for the legislation said lifting the time cap on benefits would probably prove to be one of the most significant changes. Under current law, veterans must use their benefits within 15 years of separating from the military or lose them.

“The ending of the arbitrary date recognizes that we shouldn't punish veterans and their family members who want to go back to school later in life,” or have to go to work immediately upon returning to civilian life, said Jared Lyon, the chief executive of Student Veterans of America, an advocacy group.

Paul Rieckhoff, the founder and chief executive of Iraq and Afghanistan Veterans of America, one of the groups that led the push for the Post-9/11 G.I. Bill nine years ago, said many of the changes had been years in the making. Other desired fixes, he said, would still have to be fought for, like a provision to close a loophole that effectively encourages for-profit colleges to target veterans for their G.I. benefits.

“It's a good expansion, but we're not done,” Mr. Rieckhoff said. “The way we look at it, you have to gain ground when we can, and you have to defend ground when we can.”

Still, for many veterans enrolled in school or in waiting, the impact will be nearly immediate.

Jonathan Goldman, a former Marine reservist who received a Purple Heart after being injured by an I.E.D. explosion in Iraq, used G.I. benefits to help pay for his undergraduate degree at the University of Massachusetts Amherst. But because his tour overseas was a few days shy of a full year, he initially received only a fraction of what others can claim.

With his Purple Heart, Mr. Goldman will now be eligible for full benefits — a change he said would let him revive long-tabled hopes of going to law school.

“Financially, it's like a new lease on life,” said Mr. Goldman, 32. “It's debt-free going to law school. It's unheard-of.”

Mr. Bennett, the Indiana Army veteran who picked up an interest in engineering while overseas, said the measure offered a glimmer of hope after a painful year — even if the time and stability he had lost were unrecoverable.

“Now that I actually can go back to school and actually get my bachelor's,” he said, “hopefully, I will be able to finish out what I started.”

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A version of this article appears in print on Aug. 3, 2017, on Page A13 of the New York edition with the headline: Unanimous Senate Sends G.I. Bill Expansion to Trump