



AMERICAN COLLEGE OF CONSTRUCTION LAWYERS JOURNAL

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The Misguided Clamor For Mandated, Registered Apprenticeship Programs as a Panacea To Solve The Industry's Skilled Labor Shortage

I. Introduction

The American construction industry has been experiencing a severe shortage of skilled labor for the past several years. The problem, of course, has been exacerbated by the booming economy in general, and in the construction sector in particular. In recent years it has become particularly acute, with construction employers nationwide struggling to hire sufficient skilled labor to support their projects. Manpower, Inc., one of the world's leading employee staffing firms, for several years has identified the "skilled trades" as one of the most challenging positions to fill.¹ For every three tradespersons who retire, it is estimated that there is only one new skilled worker to fill the gap. Industry leaders commonly cite this shortage as one of the biggest threats to the future health of the industry and our ability to reverse decades of deferred maintenance on our country's infrastructure.

Long in the making, this shortage arose for several reasons. A dearth of skilled workers existed even before the Great Recession of 2008. And, ironically, the substantial loss of jobs in the construction industry caused by that Recession ultimately exacerbated the shortage once the economy rebounded. Thus, after employment levels in the industry plummeted from a peak of approximately 7.7 million in 2007 to a low of about 5.6 million in 2012, many of those displaced workers left the industry, never to return. Beyond that, the single biggest cause of this shortage has been the widespread retirement of baby boomers, coupled with an insufficient rate of replacement of those retirees by incoming, younger, employees. And it is widely accepted that one of the major drivers of this insufficient rate of replacement is the very strong cultural bias, which has emerged in this country over the past several decades, against vocational or technical education and in favor of four year college or university training, as the only worthy career avenue for the nation's youth.

The industry foresaw this confluence of factors. As the country rebounded from the 2008 Recession, federal and state agencies, private construction employers, labor/management committees, and industry trade groups, all actively encouraged our young people to join the building trades and increased apprenticeship training opportunities. There has been some improvement. For example, new apprentices entering into Registered Apprentice programs administered by the Office of Apprenticeship of the U.S. Department of Labor ("OA"), or state apprenticeship

agencies ("SAAs") authorized to administer such programs by the OA, grew from approximately 164,000 in 2013 to 238,000 in 2018, an increase of 45%.² The total apprentices in such programs rose from approximately 375,000 in 2013 to 585,000 in 2018, for an increase of approximately 56%.

These numbers sound encouraging. Yet, the dropout rate in such programs typically has approached 50%.³ And thus, the apprentices graduating in any given year over that time period experienced a more modest increase of 38%, from approximately 52,000 to 72,000.⁴ And, assuming that approximately 65% of those graduating apprentices trained in the building trades, in 2018 the nation graduated only approximately 13,000 more construction apprentices than in 2013.⁵ That is a proverbial "drop in the bucket" when considering an estimated 200,000 unfilled skilled employment positions each year.

II. We Are Losing The Battle to Reverse The Construction Industry's Skilled Labor Shortage

The thesis of this article is that we will continue to lose the battle to supply sufficient skilled construction labor, unless our industry finally confronts several longtime, embedded obstacles to increasing apprenticeship training. Some of the primary impediments include:

1. Continuing, unquestioned allegiance to Registered Apprenticeship programs as the gold standard and default model for apprenticeship training in the building trades;
2. Continuing support for the Apprentice/Journeyman ratio system, which severely, and unnecessarily, limits apprenticeship training opportunities in the building trades;
3. Condoning the "weaponization" of apprenticeship training opportunities by the building trades unions; and
4. Continuing to condone the dismally low rate of participation of women in the building trades.

A. It Is Time to Revamp the Registered Apprenticeship Model, and To Consider Alternative, More Flexible and Less Expensive Methods of Training

1. A Primer on Registered Apprenticeship Programs

To understand this argument, one must first start with a basic primer on Registered Apprenticeship programs.⁶ This is the model that has been promoted by the Office of Apprenticeship of the United States Department of Labor since the enactment in 1937 of the National Apprenticeship Act (a/k/a the "Fitzgerald Act"),⁷ and has long been the dominant model used by the building trades unions in this country. The Office of Apprenticeship oversees this approach to apprenticeship training, which services several industries, including most prominently the construction and manufacturing industries, with the majority of apprentices training in the building trades.⁸ Those in Registered Apprenticeship programs can develop a skilled craft through both classroom experience/related technical instruction (sometimes referred to as "RTI") and on-the-job (sometimes referred to as "OJT") training. The programs typically require three to five years, with approximately 2,000 annual hours of OJT training and 150 to 200 hours of RTI. These apprentices must be compensated on a "step system," so-called because of fixed, annual pay increases. Registered Apprenticeship programs typically are operated by construction employers, employer associations, and labor-management partnerships-the latter being the model for the building trades unions.

As noted, Registered Apprenticeship programs long have been the model of the building trades unions, which in 2019 represented only about 12.6% of the construction building trades.⁹ Each craft trade union throughout the country runs its own Registered Apprenticeship program through a labor-management committee, which administers the day to day aspects of the program, including related technical instruction. These programs are funded by payroll deductions taken from the paychecks of all local union workers in that trade, including journeypersons, under the local trade collective bargaining agreement (sometimes referred to as a "CBA"). This creates a constant source of significant funding to run these training programs, which can be very expensive, with the costs of training, wages and benefits for an apprentice over the course of four or five years approaching \$200,000 or more.¹⁰ Importantly, every local signatory contractor to that trade union is deemed to participate in a Registered Apprenticeship program, by virtue of being signatory to the local craft CBA, regardless of how often the contractor employs apprentices in that trade from the local union hiring hall and, indeed, regardless of whether it *ever* actually employs *any* apprentices.

How does the rest of the construction industry, so-called merit shop contractors (defined as contractors who are not signatory to any CBA with any of the building trades unions) address apprenticeship training? For starters, it is a myth that merit shop contractors do not believe in, or participate in, apprenticeship training. To the contrary, many are heavily involved in formal apprenticeships, and still more participate in training, but not through a formal system like a Registered Apprenticeship program. Merit shops operate many thousands of the more than 20,000 active Registered Apprenticeship programs.¹¹ They do so notwithstanding that their burdens substantially exceed those for signatory contractors, for several reasons. First, the merit shop industry has no collectively bargained mechanism for funding apprenticeship training through automatic deductions from the paychecks of its apprentices and journeypersons. Therefore, the merit shop contractor, many of whom are small businesses, directly carries all of the costs of operating Registered Apprenticeship programs, which, as noted, can be very expensive. Additionally, because tradespeople working for merit shop contractors typically do not move frequently from employer to employer, like many unionized tradespeople do, the merit shop contractor investing in a Registered Apprenticeship program for its employees knows that it alone will be responsible for providing a sufficient number of OJT hours for each apprentice. By contrast, the OJT hours of union apprentices often are provided by any number of signatory contractors. And, importantly, when taking on a new apprentice for training, the merit shop contractor knows that, if that apprentice successfully completes the program and becomes a journeyperson, that merit shop contractor will be expected to provide that graduated apprentice a full time job with the company. This is not the case with signatory companies, who know that graduating apprentices may be allowed to return to the union hiring hall to be hired out, if at all, by any other signatory contractor.

Importantly, many merit shop contractors choose not to operate Registered Apprenticeship programs because of the high costs, or otherwise, yet they nonetheless provide substantial, if less structured, apprenticeship training to their employees. These merit shop contractors do so day-in and day-out when they take on younger, inexperienced tradespeople. They often provide lunch and learn sessions, or after-hours related technical instruction. Or they may pay to send their inexperienced tradespeople to a local vocational training program, or to a local community college, to obtain such related technical instruction. And, as to on-the-job training, anecdotal evidence suggests that merit shop trained apprentices are often better trained than union apprentices. This logically grows out of the likelihood that the merit shop contractor, who hires a young apprentice, generally does so for the long haul. As a consequence, that apprentice likely will work during her apprenticeship years for the same company, with the same group of co-employees, who will likely have a much

greater interest in properly mentoring the young apprentice because that apprentice, properly trained, will be viewed as a key contributor in the future of that merit shop contractor.

There are countless merit shop apprentices in the building trades who are learning and mastering their technical skills this way. Many may well be learning their trades as well or perhaps even better than their unionized apprenticeship counterparts. And, this is true even though they are participating in more flexible, less regimented, and less expensive training than a Registered Apprenticeship program.

While the Registered Apprenticeship program for many years served the construction industry relatively well, it is far from perfect. A prominent and comprehensive 2014 study by the Aspen Institute on the completion and cancellation rates of apprentices in the building trades made this abundantly clear.¹² It highlighted that the historical cancellation rate of apprenticeship agreements in the United States in the building trades has hovered around 50%,¹³ a high rate of failure by any measure. Some reasons noted for this remarkably high rate of cancellation include:¹⁴

1. Many apprentices, who are not able to work the required 2,000 hours of on-the-job training each year, at reduced apprenticeship hourly pay, cancel in favor of other, more steady, better paying jobs;
2. Under-employed apprentices, who nonetheless persevere in their Registered Apprenticeship program, consequently can see years added on to their program;
3. Improper mentorship of apprentices;
4. Lack of proper on-the-job experience, including training on skills that match their book learning;
5. Hostility from journeypersons, who may see the apprentice as a competitor;
6. Reports of racial and sexual discrimination and harassment; and
7. Complaints that sponsors of Registered Apprenticeship programs in the building trades fail to provide sufficient credit, and in many cases any credit, for an entering apprentice's prior, related technical or on-the-job training.

2. The Need To Adopt More Flexible Apprenticeship Training To Overcome the Skilled Labor Shortage And Supplement Registered Apprenticeship Programs

There is a growing recognition among government and industry leaders that room must be made for more flexible, less expensive models for apprenticeship training rather than sole reliance on Registered Apprenticeship programs, if we are going to have any chance of solving the skilled labor shortage in this country. There are too many unfilled jobs due to a shortage of skilled labor across all industries (estimated at 6 million in 2017)¹⁵ to rely solely upon the expensive and rigid model of Registered Apprenticeship programs. As noted above, in 2018 there were approximately 585,000 apprentices in Registered Apprentice programs in this country, approximately 380,250 of whom (65%) were apprenticing in the building trades.

By contrast, on June 15, 2017, the President issued Executive Order #13801, entitled "Expanding Apprenticeships in America," which promoted more flexible apprenticeship training. The Trump Administration predicted that widespread adoption of "Industry Recognized Apprenticeship programs" would create an additional 5 million apprenticeship training opportunities in just the next five years.¹⁶ U.S. Secretary of Commerce, Wilbur Ross, compared this new approach favorably to the Registered Apprenticeship model, which he referred to as "... the 80-year-old apprenticeship system that serves few sectors well."¹⁷

Executive Order #13801 starts with the premise that America's education systems and workforce development programs need reform, particularly because higher education

is becoming increasingly unaffordable. Too many students are graduating with crushing student debt, but without the skills necessary to secure high paying jobs in today's workforce. It spells out the overarching reason for Industry Recognized Apprenticeship Programs (sometimes referred to as "IRAPs"): "... expanding apprenticeships and reforming ineffective education and workforce development programs ... to enabl[e] more Americans to obtain relevant skills and high-paying jobs."¹⁸ The intention is to have industry groups, who are thought to best understand the training and skills needs of their industry, play the primary role in designing the IRAPs to best impart the needed skills to apprentices in that industry. In essence, the design of IRAPs will be from the bottom up, and not from the top down. Thus, not dictated by the federal government and State Apprentice Agencies, contrary to Registered Apprenticeship programs, including those for the building trades.

This Executive Order created a task force of distinguished leaders in government, education, trade and industry groups, private companies in various industries, and labor unions, under the Department of Labor. It was tasked with identifying strategies and proposals to promote apprenticeship training for more people, in more industries, and to submit the results of its efforts. The task force convened in August of 2017 and issued its Final Report to the President on May 10, 2018.¹⁹ The report strongly supported a much more flexible, industry-created and administered approach to apprenticeship training. Unfortunately, nearly three years after the Executive Order, its recommendations still are bogged down in the federal rulemaking process.

The Final Report fleshes out the concept of Industry Recognized Apprenticeship programs. They clearly are intended to eschew many of the rigid requirements of Registered Apprenticeship programs, which result in a predictable drop-out rate of around 50%, and therefore likely deter many people. For example, no assumptions exist about the duration of an IRAP. If adopted in the construction industry, they might substantially reduce the years required to complete a program. Likewise, the Final Report clearly emphasizes giving full credit for prior, relevant technical training, which could further expedite graduating from such apprenticeships. Moreover, in a welcome change from the construction industry Registered Apprenticeship program model, the Task Force recommended that Industry Recognized Apprenticeship programs: "... should focus on mastery and competency, not just seat-time [for related technical instruction] or training hours."²⁰

The Task Force also formed a subcommittee on "Attracting Business to Apprenticeship." This subcommittee recommended persuading businesses of the value of streamlined, tailored and more flexible apprenticeship training, so that they will invest in IRAPs. This is very different from traditional, "top down" Registered Apprenticeship programs, which always have been a "take it or leave it" proposition for employers. And the Final Report also acknowledged some of the perceived negatives with the Registered Apprenticeship model, including: too much "paperwork and bureaucracy"; and "insufficient flexibility in program requirements within the Registered Apprenticeship program [model] ..."²¹

In short, given the critical shortage of skilled labor in the building trades, the insufficient number of people opting into traditional Registered Apprenticeship programs, the high rate of cancellation of apprenticeship agreements, and the disincentives to employers to avail themselves of that system due to its cost, paperwork, bureaucracy, and rigidity, the possibility of introducing Industry Recognized Apprenticeship programs to the construction industry was extremely encouraging and of possibly great moment. Accordingly, it was a great disappointment to many in the industry that, possibly as a result of lobbying from the building trades unions, the Task Force effectively blocked the construction industry from participating in this new and promising alternative model of apprenticeship training! Without any explanation whatsoever, the Task Force recommended that: "Industry-recognized apprenticeship

program participants cannot be considered as apprentices for the purpose of meeting the Davis-Bacon Act wage requirements," noting that "[t]his recommendation is specific to the construction industry."²² The effect of this recommendation was to remove any incentive to construction employers performing work on Davis Bacon Act projects to adopt an IRAP.

At the same time, the Task Force failed to meaningfully address the shortcomings of the Registered Apprenticeship program model, including its unacceptably high rate of cancellation. And while it "recommended that the U.S. Department of Labor should vet concerns about the existing Registered Apprenticeship system and take action to make improvements,"²³ the Final Report made no effort to identify such concerns, much less offer any suggestions for improvement.²⁴ Finally, although the Report claimed to have "... recommended several administrative reforms and changes that could be made to the Registered Apprenticeship system that would also expand apprenticeship utilization in the United States," it did not make good on that claim.²⁵ Rather, it merely offered three minor recommendations to tweak the implementation of the federal Workplace Innovation and Opportunity Act ("WIOA"), which offers limited financial support for certain costs of Registered Apprenticeship programs, but has been criticized as underfunded and bureaucratically difficult to access.²⁶

In summary, it is high time to re-evaluate the Registered Apprentice program model as it applies to our industry and to find ways to improve it to train more people in the skilled building trades, at less expense, and more expeditiously. At the same time, a major opportunity has been lost to introduce Industry Recognized Apprenticeship programs to the construction industry, with the potential to dramatically increase the number of young people apprenticing in the skilled building trades. The Task Force's Final Report in this regard frankly represents an abdication of its duties as envisioned by the Executive Order that created the Task Force.

B. The Apprentice/Journeyman Ratio System: A System Desperately in Need of Reform

The apprentice/journeyman ratio system in this country stands as the single biggest obstacle to expanding apprenticeship training in the building trades. It is an archaic system of economic protectionism supported by the organized building trades to protect the work of their journeymen, at the expense of newcomers to the industry, i.e., apprentices. It long has been justified as a means to protect the health and safety of apprentices, permit their proper on-the-job training, and assure the quality of their work.

Everyone seems to have at least a general, if vague, understanding of how this system works: mandatory ratios of apprentices to journeymen ("A/J") on a project site at any given time for any given employer.²⁷ These proportions restrict the apprentices who can obtain on-the-job training. But, they do not work the other way around. That is, they do not mean that, for every journeyman on the project, there must be at least one apprentice. So, barring some other legal or contractual provision, and even on union projects, a construction employer may hire as many journeymen as it wants, and no apprentices at all. These ratios typically are applied by the federal and state governments on all public projects and on some private jobs as well, as discussed further below. The focus here will be on how state governments typically apply these proportions.

Most states have some form of mini-Davis Bacon acts, which require contractors to pay prevailing wages on state public projects. Generally speaking, those states require that all contractors working for them comply with the apprentice/journeyman ratios set by a state's apprenticeship council, for each relevant trade. In turn, state apprenticeship councils generally set the ratios based upon the criteria in the collective bargaining agreements for the local trades, i.e., they adopt the union ratios.

Signatory contractors (those that have signed a CBA with one or more of the building trades unions), are required by their CBAs to work "within ratio" on all projects on which they work in a given state, whether on public or on private projects. Merit shop contractors need not work within ratio on private jobs, with one exception.

That exception is that most states enforce the apprentice/journeyman ratios, even on private projects, even as to merit shop contractors, *with respect to the licensed trades, so-called*. While the number of different trades can range from 20 to over 30, traditionally only a few require special licensing by state licensing boards. Licensed tradespersons typically involve only the electrical and certain mechanical trades, which have the highest likelihood of impacting the life/safety of other workers, the ultimate facility users, or the public. For example, a given state may license electricians, HVAC tradespersons, pipefitters, and some plumbers. With this overview, one can appreciate the broad net cast in terms of the application of apprentice/journeyman ratios in this country. Summarizing, they generally apply to:

- Federal construction projects;
- State public works;
- Projects, even private ones, as to signatory contractors; and
- All projects, as to the licensed trades.

Why contend that the apprentice/journeyman ratio system stands as the biggest obstacle to expanding apprenticeship training in the building trades? Consider that many states enforce apprentice/journeyman ratios like the following sample from Rhode Island:²⁸

<u>Licensed Trades</u>	<u>Commercial Construction</u>
Electrician	1:1 A/J; then 1:3 A/J
Pipefitter	1:1 A/J; then 1:3 A/J

<u>Unlicensed Trades</u>	<u>Commercial Construction</u>
Bricklayer	1:1 A/J; then 1:5 A/J
Carpenter	1:1 A/J; then 1:5 A/J
Painter	1:1 A/J; then 1:3 A/J
Plasterer	1:1 A/J; then 1:4 A/J

To be clear, a 1:1, then 1:5, ratio (Rhode Island bricklayers, for instance), means one apprentice to one journeyman for the first apprentice allowed on the job, and one apprentice to three more journeymen for each additional apprentice. So, for a masonry contractor to hire three apprentices, it must hire 11 journeymen. As is patently obvious, there is *no* logical reason to require this, other than to protect the share of work of journeyman bricklayers. The building trades unions contend that the formula ensures the safety of the apprentices and the public, and of assuring quality work. However, if *one* journeyman bricklayer working with *one* apprentice bricklayer can adequately protect the safety of that apprentice and the public, and assure quality work, then *there is no argument that can pass the red face test* that six journeyman bricklayers are needed on a job with two apprentice bricklayers to achieve the same protections. We have located no study, authoritative or otherwise, which supports these ratios. Rather, these collectively bargained ratios are meant to protect the market share of work for the longtime union tradespeople, i.e., the journeymen. Unfortunately, most states have blindly adhered to the apprentice/journeyman ratios collectively bargained by the building trades unions. They mandate those formulas on all public projects and even on private projects for the licensed trades.

This ratio system is the single biggest obstacle to expanding apprenticeship training because of a severe shortage of journeymen in construction. Contractors cannot hire apprentices, tomorrow's journeymen, because they cannot find, say, five more journeyman bricklayers in Rhode Island so that they may hire a *second* apprentice.

This ratio system effectively prevents them not only from taking on and training additional apprentices, but also from offering sufficient on-the-job training opportunities even for their existing apprentice employees-because they cannot hire enough journeypersons to comply with these nonsensical ratios. And, this problem has been widely publicized in recent years.²⁹

We cannot pretend that we will overcome the skilled labor shortage until we reform these ratios. But make no mistake about it, while promoting themselves as the staunchest supporters of expanding apprenticeship training opportunities, the building trades unions will not willingly relent an inch on this issue. Still, glimmers of hope appear; most Canadian provinces have relaxed the ratios to 1:1 A/J, or even 2:1 A/J. In some cases, 3:1 A/J, as long as the apprentices are in their final year.³⁰ And, some U.S. states have reformed Apprentice/Journeyman ratios to 1:1, including Iowa, Utah, North Dakota, Colorado, Nebraska and Wisconsin.³¹ Even more promising, Michigan now allows three electrical apprentices to work under one journeyperson electrician.³² And according to a study by the Canadian Centre for Policy Studies, this type of reform in the United States and most of the Canadian provinces has had "... no discernible impact on health and safety,"³³ and "... the available evidence does not support, and may even contradict, the claim that relaxing apprenticeship ratios negatively impact workplace health and safety."³⁴

C. The Industry Must Halt the Weaponization of State Laws Governing Apprenticeship by the Building Trades Unions.

At the state level, the building trades unions have flexed their political muscle in several states by creating barriers to merit shop contractors bidding on public projects. They tilt the playing field, while claiming to advance apprenticeship opportunities. In fact, they undermine apprenticeship training. A few examples will illustrate this reality.

1. Statutes requiring all bidders on public projects participate in Registered Apprenticeship programs for all trades within their workforce

The building trades unions increasingly sponsor such legislation, successfully in some cases, as in Rhode Island.³⁵ On the surface who can argue with the proposition that all participants in the industry should pull their weight in meeting the challenge of increasing apprenticeship training opportunities? And, what possibly could be wrong with using the market power of state governments to impose such requirements on public projects? After all, nobody is forcing contractors to bid. But, when one peels back a few layers of the onion, the problems emerge.

The Office of Apprenticeship of the U.S. Department of Labor has delegated the power to regulate apprenticeships to State Apprenticeship Agencies in several states. As to all others, the Office continues to regulate Registered Apprenticeship programs itself. And, in over 80 years, the Office of Apprenticeship has *never mandated* that any contractor must participate in a Registered Apprenticeship program for any reason-including to avail itself of the "privilege" of bidding on public projects, federal or state. So, Rhode Island's apprenticeship statute embodies a major departure. The Office of Apprenticeship and many State Apprenticeship Agencies long have offered *incentives* to contractors to participate in Registered Apprenticeship programs. That has been done by permitting contractors on projects governed by the Davis Bacon Act (and state versions)³⁶ to pay reduced hourly wages to any of their apprentices on those projects who actively participate in a Registered Apprenticeship program.

For merit shop contractors employing apprentices on these public projects who are not enrolled in a Registered Apprenticeship, even very junior apprentices, these laws require the merit shop employer to pay those non-registered apprentices at the

substantially higher journeyperson prevailing wage rate. The United States Supreme Court overruled a legal challenge to such a statutory scheme in California some years ago, concluding that legal *incentives* to enrolling one's apprentices in Registered Apprenticeship programs pass muster, while strongly suggesting that mandatory requirements would not.³⁷ More recently, the federal First Circuit Court of Appeals invalidated a city ordinance in Quincy, Massachusetts, which mandated that all bidders on Quincy public projects participate in Commonwealth of Massachusetts approved Registered Apprenticeship programs.³⁸

Turning back to the statute at issue, it imposes no additional burden on *any* signatory contractor. That is because the Office of Apprenticeship, and all State Apprenticeship Agencies, deem that *every* signatory contractor participates in a Registered Apprenticeship program simply by virtue of them being party to collective bargaining agreements for the trades in their workforce. These are the same collective bargaining agreements which recognize that trade's local labor/management committee apprenticeship training program, and which provide the mechanism for funding those training programs through mandatory deductions from every union trade worker's paycheck. And, this is true even if a given signatory contractor *never* hires any apprentices, on *any* jobs. So, absolutely nothing about this statute changes anything in the world of any signatory contractor that wants to bid on state public projects in Rhode Island; it is just business as usual.

The situation dramatically differs for merit shop contractors. They are not automatically deemed to participate in any Registered Apprenticeship program. Typically, they only achieve that status if they sponsor their own Registered Apprenticeship program, at their own expense, for one or more trades in their workforce. As noted above, many merit shop contractors do not sponsor their own Registered Apprenticeship program, for any number of reasons. Those reasons might include, but are not limited to: the contractor does not seek to grow its workforce, and is satisfied with its existing journeypersons; the contractor cannot afford to set up and sponsor a Registered Apprenticeship program; or it does not anticipate hiring enough apprentices, often enough, to sponsor a Registered Apprenticeship program.

These contractors, many of which had often successfully bid on and performed state work before passage of this statute, have since its passage been shut out of state projects in Rhode Island. Aside from the unfairness, the law diminishes apprenticeship opportunities because many merit shop contractors train their apprentices, just without an expensive and rigid Registered Apprenticeship program. Many of them are solid, highly competent, small businesses. The immediate fallout is fewer opportunities to provide their apprentices with on-the-job training. The longer term fallout is losing work, and likely driving some of them out of business. That consequence reduces the construction employers in Rhode Island training apprentices.

2. Statutes that require all bidders on public projects to participate in Registered Apprenticeship programs for all trades within their workforce, and must graduate a minimum number of apprentices each year

This legislation has been unsuccessfully introduced to the legislatures Rhode Island (several times) and Massachusetts, and is even more pernicious. It also makes no impact on any signatory contractor. Why? Because here, too, the Office of Apprenticeship, and all State Apprenticeship Agencies, deem every signatory contractor to have graduated all apprentices emerging from the apprenticeship programs sponsored by the trade unions within the signatory contractor's workforce! A given signatory contractor need never even hire an apprentice.

Many merit shop contractors that manage to afford to and do sponsor Registered Apprentice programs of their own, could not survive the results of such legislation. For

example, assume a small contractor with 20 tradespeople, working in two different trades. Assume this statute governs and requires that the contractor graduate at least one apprentice each year from its Registered Apprenticeship programs for each trade. Further assume they are both four-year apprenticeship programs. Finally, assume (very logically) that the contractor plans to grow its workforce slowly and incrementally in the coming years, by occasionally adding and training an apprentice in one or both of the two trades within its 20 person workforce.

This law would require the merit shop contractor to graduate two apprentices per year, which with its sunken investment, the contractor would be expected to keep on the payroll. Moreover, this employer would need to take on two new apprentices in each trade, accounting for the historical average cancellation rate of around 50%,³⁹ to anticipate at least one graduating four years later in each trade. The contractor needs eight apprentices in each of its two trades, for 16 total apprentices.⁴⁰ In five years it would be required to graduate 10 apprentices, thereby increasing its workforce to a minimum of 30 employees, up from 20, five years earlier. But that is before even factoring in Rhode Island's Apprentice/Journeyman ratios. If the two trades were, say, bricklayer and plasterer, then to productively put those 16 apprentices to work for on-the-job training, the company would need to hire an additional 36 journeyman bricklayers,⁴¹ and an additional 29 plasterer journeymen!⁴² This, in a labor market where contractors cannot fill all of their journeyman vacancies as it is.

This type of statute would impose *no* burden of any kind on *any* signatory contractor, including for instance one with only bricklayers and plasterers. At least one apprentice each year will graduate from both the local union bricklayer and union plasterer Registered Apprentice programs. And, there is no obligation on the part of that signatory contractor to ever actually hire any of those apprentices.

3. The push by the building trades unions to convert ordinary tradework, with few life/safety risks, into "licensed trades"

In recent years, the building trades unions have pursued a new strategy: they sponsor legislation to convert ordinary specialties, like sheet metal worker or insulators, into licensed trades. Unlike that of electricians and HVAC mechanics, such work poses few life/safety risks. They have scored some successes in New England, having converted sheet metal work into a licensed trade in Massachusetts and Rhode Island. This trend threatens to undermine, rather than promote, apprenticeship opportunities.

Take, for example, insulation work, one of the many building trades found in both signatory, and merit shop, contractors. On the union side, Registered Apprentice programs for insulators consume several years, (typically three), mandate hundreds of hours of technical instruction, and require up to 6,000 hours of on-the-job training. There is no need to impose such a long and drawn out process; the trade simply is not that complicated. Merit shop contractors train their insulators to attain journeyman competency in much less time. And, they do not require their young insulators to spend hundreds of hours of "seat time" in unnecessary, related technical instruction. Is there any doubt that the rigid, multi-year Registered Apprenticeship model deters young people pursuing that craft? Or, should there be any surprise at the 2006 and 2007 cancellation rate of new insulator apprentices in federally registered programs of 37%?⁴³

When an ordinary craft, like insulation work, is artificially converted into a licensed trade, all contractors, including merit shops, must honor the protectionist Apprentice/Journeyman formulas on all of their work, *including on private projects*. Because those ratios depress apprenticeship training, for reasons discussed above, broadening the application of those ratios by expanding the number of licensed trades will further limit apprenticeship training.

On the merit shop side of the industry, many HVAC and similar contractors will handle insulation work in-house, with properly trained insulators-whether the work is done back in the contractor's shop, or in the field. On HVAC projects, often the amount of insulation work in terms of hours of work and percentage of the contract price, is minor. The merit shop contractor can perform that work in house, efficiently, properly, and at minimum cost to the customer. Not so after insulation work is converted to licensed trade. Most states severely limit which companies are permitted to perform licensed trade work and require that the company employ a Master tradesperson. And, they often require that the Master be at least an officer of the company, and in many cases an owner.

It will not make economic sense for many merit shop contractors that perform incidental insulation work to hire a Master insulator and to obtain a corporate license to provide insulation services. Rather, they will cease performing this ordinary trade work, and will subcontract with a company that is so licensed. As a result, the contractor charges its customers more for the project, which makes the contractor less competitive. And, of course, the contractor no longer will provide insulation training to its employees.

By artificially converting insulation work into a licensed trade, these laws take sides and promote the apprentice training approach of the building trades unions. Common sense suggests that, if the merit shop model of apprenticeship training of insulators is basically legislated out of existence, leaving only the multi-year, rigid Registered Apprentice program option for learning this trade, fewer people will pursue training in this craft. Again, the net result is to reduce, not augment, apprenticeship training against the backdrop of the critical shortage of skilled labor in this country.

D. The Industry Must Finally, and Forcefully, Redress the Dismally Low Rate of Participation by Women in the Building Trades

The number of women in the building trades has hovered around 3% for decades, although women make up 47% of the American workforce. Nearly a half-century ago, the Office of Federal Contract Compliance Programs (OFCCP) of the U.S. Department of Labor, in 1976 issued regulations designed to integrate women into the construction trades, including setting a goal of 6.9% of the work hours on federal contractor's sites.⁴⁴ Women represent a huge, virtually untapped pool of potentially skilled trade workers of the future, which if accessed, could go far toward reducing the skilled labor shortage in this country. Moreover, women deserve to take advantage of the wages and benefits offered, which exceed the national average across most occupations.⁴⁵

Pervasive sexual discrimination and sexual harassment against women in the skilled building trades is one of, if not the primary, drivers for this unacceptably low rate of participation by women. The failure of government and the construction industry to put an end to this rampant hostility toward women is legally, and morally, unacceptable. And, if not out of moral decency, but rather out of pure self-interest, construction industry leaders should force a sea-change in the industry's attitudes toward women tradespeople-much the same way industry leaders forced a sea-change in the industry's attitudes toward unsafe workplaces and practices. Much like improvements in worker safety have translated to the bottom line of construction companies, finally making the construction workplace a welcoming place for women could trigger a flood of women into the industry and add to the bottom line for companies that cannot fill vacant skilled trade positions.

The nonprofit National Women's Law Center, which works to expand education and employment opportunities for women, has focused on the reasons for the dearth of women in the skilled building trades, and made recommendations for how to redress this wrong.⁴⁶ Additionally, the Labor Resource Center of the University of Massachusetts Boston has published a highly informative article on this topic, entitled

"Unfinished Business: Building Equality for Women in the Construction Trades," which includes the review and analysis of some 120 published and unpublished sources over a span of 30 years on the unfinished business of increasing the participation of women in the construction trades.⁴⁷ The National Women's Law Center summarized the situation as follows:

The share of women in the construction industry has remained shockingly low — under 3 percent — for decades, due in large part to the discrimination that blocks women from entering and staying in the field. Sexual harassment and hostility, lack of mentors, and stereotyped assumptions about women's capabilities all contribute to the problem ... more must be done to reverse this trend in construction, and the growth of women's participation in similar nontraditional fields shows that it is possible.⁴⁸

1. The Law

For many years, women in the workforce had no legal protections. That finally changed in the 1960's when women began entering the workforce in record numbers.⁴⁹ The women's movement resulted in laws being enacted mandating equal pay, prohibiting discrimination and harassment, and promoting equality in employment settings.⁵⁰ Title VII of the 1964 Civil Rights Act finally extended federal protections to include prohibiting discrimination based on sex. Then, in 1965, President Johnson issued Executive Order (EO) 11246 prohibiting federal and federally- assisted contractors and subcontractors "... from discriminating in employment decisions on the basis of race, color, religion, sex, or national origin."⁵¹

In 1978, the Carter Administration amended EO 11246 to set a goal for women of 6.9% of federal contractor's work hours.⁵² The Office of Federal Contract Compliance Programs ("OFCCP") is responsible for enforcing EO 11246. Its Compliance Manual specifies that compliance with EO 11246 requires contractors to:

- "ensure and maintain a working environment free of harassment, intimidation, and coercion ..."
- "[w]here possible, the contractor will assign two or more women to each construction project" and
- "Specifically ensure that all supervisory personnel are aware of, and carry out, its obligation to maintain such a working environment."⁵³

Also in 1978, the U.S. Department of Labor amended federal apprenticeship regulations to "prohibit discrimination on the basis of ... sex." The amendment required sponsors of apprenticeship training programs to establish goals and timetables and to institute recruitment efforts to increase the numbers of minority and women apprentices. Enforcement of these apprenticeship regulations lies with the Office of Apprenticeship of the U.S. Department of Labor, and with State Apprenticeship Agencies.⁵⁴

Notwithstanding these laws and regulations, as of 2011, some thirty-three years after the federal government established the 6.9% target, and legislated an end to sexual discrimination and harassment in the construction workplace, the rate of participation of women was still less than 3%, and "harassment, discrimination and intimidation continue[d] to be common experiences among women who are in the trades or seeking to enter them."⁵⁵

2. Apprenticeship Programs, A Primary Gateway for Women into the Building Trades, Are Not Historically Welcoming to Women

A big part of the problem is that apprenticeship and pre-apprenticeship training is one of the primary gateways for women to enter the building trades, and they have

inherent structural barriers to women achieving success through this gateway.⁵⁶ For a long time, this path to women was controlled by the building trades unions, which historically were not receptive to women.⁵⁷ Even more recently, women seeking to enter into apprenticeship programs in the building trades face the biases of the "old boys' network," also referred to as the "FBI"-meaning, you must have a Friend, Brother, or In-law, to get into a program.⁵⁸ Because of the structure of the process of applying for apprenticeship, there are many points where women may be blocked due to intentional discrimination, or un-intentional bias, including the interview process, administration of skills tests, and sponsorship. Sponsorship, involving the need for an experienced tradesperson to vouch for an apprenticeship candidate, can present a particularly high hurdle for women with no connections in the building trades. And once admitted to apprenticeship programs, women continue to face higher hurdles than men, described as follows:

In addition to hazing-like rituals that cross gender lines, women are usually alone among men who may see them as intruders in a man's world ... Women may lack familiarity with tools, have less math coursework in high school and college, and lack general knowledge about the trades. Furthermore, women often recount that it is particularly hard to secure jobs as apprentices ... in order to earn on-site job training and skills — something that is almost always a requirement of the apprenticeship program.⁵⁹

Indeed, once admitted to an apprenticeship training program, women also continue to experience greater disadvantages than men in terms of job placement and retention. Apprentices have to complete an average of about 2,000 hours per year of on-the-job training, to graduate. In some unions, business agents assign jobs. In others, the apprentice herself must find her own job. In either case, women are at a disadvantage due to widespread discrimination against women in the industry, and their lack of personal connections.⁶⁰ And, even having secured a job, women often have a harder time keeping it. Not infrequently, for instance, women tradespeople are hurt by a practice called "checker boarding," where they are sent to a job merely to fulfill a quota for women, only to be promptly laid off once the quota is attained, regardless of their skills or work performance.

Apprenticeship training programs are challenging enough even for men. Some of the complaints about Registered Apprenticeship programs include:

- The lack of proper mentoring/supervision;
- Resentment toward apprentices from journeypersons;
- Apprentices are often given make-work, and little meaningful on-the-job training; and
- Even those provided decent on-the-job training may only be trained in very limited ways based on the specialized work of his or her employer, which do not correspond to the breadth of related technical instruction they receive in class.⁶¹

When one couples these common challenges faced by all apprentices, with the particular disadvantages faced by women, small wonder that the (somewhat dated) data available confirm that women apprentices have a higher rate of cancellation of apprenticeship agreements than men.⁶²

3. Sexual harassment and the hostile workplace

It cannot be gainsaid that women in the building trades continue to face rampant sexual harassment. Indeed, this widely known fact may well be the single biggest impediment to more women apprenticing in the building trades, completing such programs, and remaining in the industry once they complete their apprenticeship

training. This problem was summarized by a leading study published by the Labor Resource Center of the University of Massachusetts Boston:

Both the culture and the physical structure of the construction site enable sexual harassment. (citation omitted) A construction site may have dark corners, trenches, and small spaces that are secluded from other work areas. The organizational structure also lends itself to situations that could enable sexual harassment. (citation omitted) Many tradespersons have a high degree of autonomy on the job and are left to do their respective assigned tasks without a great deal of supervision. These structural components lead to an environment of seclusion with limited supervision, which can result in a very dangerous situation for women. (citation omitted)⁶³

And as the National Women's Law Center reported:

A study by the U.S. Department of Labor reported that 88 percent of women construction workers experience sexual harassment at work, (citation omitted) compared to 25 percent in the general workforce (citation omitted) ... Some of the [archaic employment practices faced by women construction workers] include: negative stereotypes about women's ability to perform construction work; sexual tension injected into work contexts; intentions to reserve well-paid employment for men, 'who deserve it'; and reluctance by supervisors and other officials to discipline perpetrators of discrimination ...⁶⁴

There is simply no excuse for this. Government enforcement officials have let women, and the industry, down. And so have construction industry leaders. It is high time that government and industry leaders take affirmative steps to effectuate a sea-change in the way that they deal with sexual discrimination and harassment in the building trades.⁶⁵ When industry leaders finally wake up to the fact that women may hold the key to overcoming the pressing skilled labor shortage in this country, and realize it is in their economic self-interest to take action, then change may finally come. Much like it did once industry leaders realized it would cost them less to enforce strict safety measures to protect their workforce, than to treat worker safety as a mere afterthought, sexual discrimination, including in the apprenticeship programs, may finally abate for economic reasons, as well as moral imperatives.

III. Conclusion

The battle to overcome the skilled labor shortage in this country is winnable. But, not unless and until the industry acknowledges the real obstacles to rapidly training greater numbers of skilled tradespeople to take over for the retiring baby boomers-and faces them head on. Otherwise, all of the rhetoric in the world will not eradicate this labor shortage.

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Footnotes

- * Christopher C. Whitney, Pierce Atwood LLP, Providence RI, and Eileen M. Diepenbrock, Diepenbrock Elkin LLP, Sacramento CA.
- 1 Manpower, Inc. 2018 Talent Shortage Survey, https://www.manpower.no/globalassets/norway/no-kunde/kampanjer/talent-shortage/mg_talentshortage2018_lo.pdf.
- 2 Office of Apprenticeship, U.S. Department of Labor (2019 data). https://www.doleta.gov/oa/data_statistics2018.cfm. The OA does not separately report what percentage of these apprentices are training in the construction industry building trades, but an estimated 65% of apprentices are pursuing such training.

- 3 The Aspen Institute, Workforce Strategies Initiative, *Apprenticeship Completion and Cancellation in the Building Trades* (2013).
- 4 See footnote 2.
- 5 See footnote 2.
- 6 They are referred to as "Registered Apprentice programs" because they must register with, and comply with, apprenticeship regulations issued by the Office of Apprenticeship, and the various state apprenticeship agencies to which the OA has delegated oversight authority in some 25 states.
- 7 Aspen Institute at 5.
- 8 See text at note 2 (in 2018 there were approximately 585,000 apprentices enrolled in Registered Apprentice programs).
- 9 News Release, Bureau of Labor Statistics, U.S. Department of Labor, January 22, 2019, <https://www.bls.gov/news.release/union2.nr0.htm>, note 13.
- 10 Aspen Institute at 12.
- 11 The Aspen Institute, Workforce Strategies Initiative, *Apprenticeship Completion and Cancellation in the Building Trades* (2013) at 5; see also text at note 2 (reflecting 23,441 Registered Apprenticeship programs nationwide in 2018).
- 12 Aspen Institute at 5.
- 13 Aspen Institute at 4. The Aspen Institute study defined the term "cancelled apprentices" as follows: "... those whose training agreement with their sponsoring employer has ended. Apprentices or employers can initiate the process to end the training contract."
- 14 Aspen Institute at 30–39.
- 15 United States Department of Labor, Task Force on Apprenticeship Expansion, *Final Report to: The President of the United States* (May 10, 2018) ("Final Report") at 5, <https://www.dol.gov/apprenticeship/docs/task-force-apprenticeship-expansion-report.pdf>.
- 16 Executive Order 13801 (June 15, 2017), Executive Office of the President, <https://www.federalregister.gov/documents/2017/06/20/2017-13012/expanding-apprenticeships-in-america>.
- 17 Final Report at 5.
- 18 Executive Order 13801 (June 15, 2017), Section 1, Executive Office of the President, <https://www.federalregister.gov/documents/2017/06/20/2017-13012/expanding-apprenticeships-in-america>.
- 19 Final Report at 5.
- 20 Final Report at 35 (Recommendation 15).
- 21 Final Report at 34.
- 22 Final Report at 35 (Recommendation 17).
- 23 Final Report at 11.
- 24 Final Report at 11, 33.
- 25 Final Report at 11.
- 26 Final Report at 38 (Recommendations #23–26).
- 27 There is no universally agreed upon way to express these ratios as between the two alternatives: apprentices/journeyperson; or journeyperson/apprentices. This ambiguity can result in confusion. We use the more common formulation: apprentices/journeypersons, or "A/J."

- 28 Rhode Island Department of Labor and Training, Apprenticeship
(www.dlt.ri.gov/apprenticeship).
- 29 Daily Commercial News by Construct Connect, August 27, 2018 article entitled
"Ontario Electrical League Calls for Apprentice Ratio Reform" (discussing the League's
survey in which 73% of respondents said they would hire more apprentices if the
ratios were revised to 1:1, A/J); Frontier Centre for Public Policy, Backgrounder No.
117, January 2014, "Tapping Into Our Potential, Occupational Freedom and Aboriginal
Workers" (recommending even more significant ratio reform by advocating for a
universal 2:1, A/J ratio for all skilled trades, and noting that skewed
Apprentice/Journeyman ratios are forcing companies to lay off apprentices and/or
leave apprenticeship positions vacant).
- 30 Frontier Centre for Public Policy, Backgrounder No. 117 (January 2014), at 7.
- 31 "ABC WI issues statement on Apprenticeship Ratio Bill signing," (May, 2018),
<https://www.abcw.org/wisconsin-contractor-blog/what-two-legislative-wins-for-apprenticeship-means-for-wisconsin-contractors/>.
- 32 Frontier Centre at 7.
- 33 W.R. Lorimer, *Impact of Journeyman to Apprentice Ratios in Ontario's Electrician Trade*, Canadian Centre for Policy Studies (2012).
- 34 Lorimer.
- 35 R.I. General Laws §§ 37-13-3.1, State public works contract apprenticeship
requirements. The Rhode Island Department of Labor and Training has interpreted this
statute to require that all bidders must participate in Registered Apprenticeship
programs for all trades in their workforce, to bid on state projects, although that statute
arguably imposes no such requirement.
- 36 E.g., R.I. General Laws § 37-13-1 et seq.
- 37 California Div. of Labor Standards Enforcement v. Dillingham Const., N.A., Inc., 519
U.S. 316, 117 S. Ct. 832, 136 L. Ed. 2d 791, 20 Employee Benefits Cas. (BNA) 2425,
3 Wage & Hour Cas. 2d (BNA) 1255, 133 Lab. Cas. (CCH) P 58209 (1997).
- 38 Merit Const. Alliance v. City of Quincy, 759 F.3d 122, 59 Employee Benefits Cas.
(BNA) 1050 (1st Cir. 2014).
- 39 The Aspen Institute, Workforce Strategies Initiative, *Apprenticeship Completion and Cancellation in the Building Trades* (2013), at 5.
- 40 This example is for illustrative purposes. Some of these apprentices likely would quit,
so that the company would have fewer than 16 apprentices. Regardless, it illustrates
how unrealistic are such requirements, as to all but union signatory contractors.
- 41 The ratio for bricklayers in Rhode Island is 1:1 A/J; then 1:5 A/J, so to provide 8
bricklayer apprentices with on the job training would require 36 journeyman
bricklayers, as follows: 1 apprentice, 1 journeyman, 2nd apprentice, 6
journeymen, 3rd apprentice, 11 journeymen, 4th apprentice, 16
journeymen, 5th apprentice, 21 journeymen, 6th apprentice, 26
journeymen, 7th apprentice, 31 journeymen, and 8th apprentice, 36
journeymen.
- 42 The ratio for plasterers in Rhode Island is 1:1 A/J; then 1:4 A/J, so to provide 8
plasterer apprentices with on the job training would require 29 journeyman
bricklayers, as follows: 1 apprentice, 1 journeyman, 2nd apprentice, 5
journeymen, 3rd apprentice, 9 journeymen, 4th apprentice, 13 journeymen,
5th apprentice, 17 journeymen, 6th apprentice, 21 journeymen, 7th apprentice,
25 journeymen, and 8th apprentice, 29 journeymen.
- 43 Aspen Institute at 21, Diagram 5.
- 44

- National Women's Law Center, *Women in Construction, Still Breaking Ground*, 2014
National Women's Law Center ("Women in Construction") at 1.
- 45 Susan Moir, Meryl Thomson and Christa Kelleher, *Unfinished Business: Building Equality for Women in the Construction Trades*, 5 Labor Resource Center Publications (2011), https://scholarworks.umb.edu/lrc_pubs/5 ("Unfinished Business").
- 46 Women in Construction at 1.
- 47 Unfinished Business at 7 (adding that women working in construction are closer to wage parity than women across all fields nationwide) (citation omitted).
- 48 Women in Construction at 1.
- 49 Unfinished Business at 6.
- 50 Unfinished Business at 6.
- 51 Susan Moir, Meryl Thomson and Christa Kelleher, *Unfinished Business: Building Equality for Women in the Construction Trades*, 5 Labor Resource Center Publications (2011), https://scholarworks.umb.edu/lrc_pubs/5 ("Unfinished Business") at 6.
- 52 Unfinished Business at 6.
- 53 Unfinished Business at 6.
- 54 Unfinished Business at 7.
- 55 Unfinished Business at 7.
- 56 Unfinished Business at 8.
- 57 Susan Moir, Meryl Thomson and Christa Kelleher, *Unfinished Business: Building Equality for Women in the Construction Trades*, 5 Labor Resource Center Publications (2011), https://scholarworks.umb.edu/lrc_pubs/5 ("Unfinished Business") at 9.
- 58 National Women's Law Center, *Women in Construction, Still Breaking Ground*, 2014
National Women's Law Center ("Women in Construction") at 7.
- 59 Women in Construction at 8.
- 60 Women in Construction at 10.
- 61 The Aspen Institute, Workforce Strategies Initiative, *Apprenticeship Completion and Cancellation in the Building Trades* (2013) at 30–39.
- 62 Aspen Institute at 23, Diagram 8.
- 63 Susan Moir, Meryl Thomson and Christa Kelleher, *Unfinished Business: Building Equality for Women in the Construction Trades*, 5 Labor Resource Center Publications (2011), https://scholarworks.umb.edu/lrc_pubs/5 ("Unfinished Business") at 11.
- 64 National Women's Law Center, *Women in Construction, Still Breaking Ground*, 2014
National Women's Law Center ("Women in Construction") at 8.
- 65 For suggestions on how to bring about this sea-change, see Women in Construction at 9–13; Unfinished Business at 2–4, 18–23.

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