

Office of Regulatory Management
Economic Review Form

Agency name	Board For Contractors
Virginia Administrative Code (VAC) Chapter citation(s)	18 VAC 50-30
VAC Chapter title(s)	Individual License and Certification Regulations
Action title	Eligibility Requirement Amendment
Date this document prepared	January 29, 2024 (revised March 20, 2024)
Regulatory Stage (including Issuance of Guidance Documents)	Proposed (Action 6075 / Stage 10044)

Cost Benefit Analysis

Complete Tables 1a and 1b for all regulatory actions. You do not need to complete Table 1c if the regulatory action is required by state statute or federal statute or regulation and leaves no discretion in its implementation.

Table 1a should provide analysis for the regulatory approach you are taking. Table 1b should provide analysis for the approach of leaving the current regulations intact (i.e., no further change is implemented). Table 1c should provide analysis for at least one alternative approach. You should not limit yourself to one alternative, however, and can add additional charts as needed.

Report both direct and indirect costs and benefits that can be monetized in Boxes 1 and 2. Report direct and indirect costs and benefits that cannot be monetized in Box 4. See the ORM Regulatory Economic Analysis Manual for additional guidance.

Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)

<p>(1) Direct & Indirect Costs & Benefits (Monetized)</p>	<p>1. Under the proposed change, an individual would have the option of obtaining a “residential journeyman” class of tradesman license (plumber or HVAC tradesman). An individual could qualify for the license examination with two (2) years of practical experience in the trade and 160 hours of formal vocational training. The proposed new class of license reduces the experience requirement by two (2) years (50%), and the education requirement by 80 hours (33%). Applicants can substitute an additional one (1) year of experience each for 40 hours of education toward meeting the education requirement.</p> <p>2. Under the proposed change, an individual seeking licensure as a journeyman gas fitter could qualify for the license examination with 120 hours of formal vocational training. This is a reduction of 120 hours (50%) from the current requirement.</p> <p>3. Under the proposed change, individuals in the gas fitting trades (gas fitter, liquefied petroleum gas fitter, natural gas fitter provider) may substitute an addition one (1) year of experience for 40 hours of education toward meeting the education requirement. A minimum requirement of 40 hours of formal vocational education would still be required.</p> <p>4. Under the proposed change, an individual may qualify for the master license examination based on (i) having been licensed as a residential journeyman for three (3) years; (ii) having been licensed as a standard journeyman for one (1) year; or (iii) having nine (9) years of practical experience in the trade.</p> <p>5. Under the proposed change, an individual seeking licensure as an accessibility mechanic with more than three (3) years of experience may substitute one (1) year of experience for 20 hours of formal vocational training. A minimum requirement of 20 hours of formal vocational training would still be required.</p> <p>Direct Costs:</p> <p style="text-align: center;"><u>Agency Costs from Residential Journeyman Licensees</u></p> <ul style="list-style-type: none"> • It is anticipated the Board will need up to three (3) additional Licensing Specialist (Administrative and Office Specialist III) positions (Band 3) to process additional applications.¹
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¹ Board for Contractors program staff have estimated there could be as many as 1,400 additional licensing applications received each year following implementation of the residential journeyman class of license. The additional full-time staff members would be required due to the potential workload. The staffing estimate is based

	<ul style="list-style-type: none"> • The cost for three Administrative and Office Specialist III positions is \$139,500 for the first year. <ul style="list-style-type: none"> ○ It is assumed that this amount will increase by approximately 2% annually. ○ The cost reflects estimated salary compensation only, and does not include benefits compensation, taxes, or other related costs. • Additional administrative costs to notify public of regulatory change: \$5,500 (one time). <p style="text-align: center;"><u>Residential Journeyman Continuing Education</u></p> <ul style="list-style-type: none"> • Residential journeyman licensees will be required to complete three (3) hours of continuing education every three years in order to renew a license. • It is anticipated there will be at least 1,400 initial licensees a year. • The average cost of the continuing education class is \$90. • Assuming 75% of initial licensees (1,050) renew every three years, the agency anticipates costs of \$94,500 (number of renewals x \$90 continuing education fee) to licensees every three years. <p>Indirect Costs:</p> <ul style="list-style-type: none"> • No new monetizable indirect costs resulting from the regulatory change have been identified. <p>Direct Benefits:</p> <p style="text-align: center;"><u>Residential Journeyman</u></p> <ul style="list-style-type: none"> • A 240-hour formal vocational training program is estimated to cost \$10,660. <ul style="list-style-type: none"> ○ The average tuition for a community college vocational course \$2,000². Most such courses are three (3) credit hours (45 clock hours). Completion of a 240-hour program would require 5.33 courses to complete. (Average course cost x number of courses.) • An individual who qualifies for a residential journeyman tradesman license would not need to assume the total cost to complete 240 hours of formal vocational education. Such an
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on all nine of the Board’s full-time licensing specialist positions being filled, and a portion of the Board’s six part-time licensing specialist positions being filled.

² Independent providers may charge less for a formal vocational training course.

individual would save approximately \$3,518. (Cost of 240 hours x .33.)

- It is estimated that at least 1,400 individuals per year could qualify for the residential journeyman class of license.
- Estimated direct benefit: \$4,925,000 (Estimated savings x number of qualifying individuals).

Journeyman Gas Fitter

- An individual who qualifies for a journeyman tradesman license would not need to assume the cost to complete 240 hours of formal vocational education. Such an individual would save approximately \$5,330. (Cost of 240 hours x .50).
- It is estimated that at least 25 individuals per year could qualify for the journeyman gas fitter license under the proposed change.
- Estimated direct benefit: \$133,250 (Average savings x number of qualifying individuals).

Agency Revenue from Residential Journeyman Licensees

- It is anticipated the agency will experience an increase in revenue due to individuals applying for the residential journeyman license.
- It is estimated that at least 1,400 individuals per year could qualify for the residential journeyman license.
- The application fee is \$130.
- Estimated additional revenue for initial applications: \$182,000 per year.
- Assuming 75% of initial licensees (1,050) renew every three years, the agency anticipates additional revenue of \$141,750 (number of renewals x \$135 renewal fee) for each renewal year.

Indirect Benefits:

Residential Journeyman

- An individual who qualifies for a residential journey tradesman license would be able to enter the workforce as a licensee two (2) years earlier than as a standard journeyman.
 - A newly licensed tradesman typically earns \$25 per hour³. Based on a 30-hour work week, on an annualized basis, this is \$39,000 per year. (30 hours x 52 weeks x wage).

³ The pay range for a newly licensed tradesman ranges from \$25 to \$35 per hour.

	<ul style="list-style-type: none"> ○ An unlicensed laborer or apprentice in these trades typically earns \$15 per hour⁴. Based on a 30-hour work week, on an annualized basis, this \$23,400 per year. ● An individual who qualifies could earn \$15,600 amount in additional income per year. (Annualized licensed income – Annualized unlicensed income) or \$31,200 over two years. ● It is estimated that at least 1,400 individuals per year could qualify for the residential journeyman license. ● Estimated indirect benefit: \$43,680,000 over two years (Amount of additional income x number of qualifying individuals). ● Estimated value of time saved for individuals who qualify for a residential journeyman license is \$1,680,000. <ul style="list-style-type: none"> ○ Value of an hourly wage for an unlicensed individual is \$15 per hour. ○ Applicants would save 80 hours of time that would have been spent taking training. ○ The value of saved time is \$1,200 per person (Value of wage x hours saved.) ○ Value of time saved per person x number of individuals that could qualify for a residential journeyman license. 	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) \$949,109 (over five years)	(b) \$136,054,207 (over five years)
(3) Net Monetized Benefit	\$135,105,098 (over five years)	
(4) Other Costs & Benefits (Non-Monetized)	<p>Costs:</p> <ul style="list-style-type: none"> ● The potential for increased risk of damage to property or injury to persons due to lower training and education requirements. (Indirect.) ● Virginia workers and businesses may be less competitive in other states due to lowered standards. (Indirect.) ● Some firms may no longer be able to take on government projects because costs would increase due to the requirement to pay Davis-Bacon wages. (Indirect.) <p>Benefits:</p> <ul style="list-style-type: none"> ● Individuals in the gas fitting trades would gain the benefit of being able to substitute experience for formal vocational training to qualify for the journeyman examination. The minimum amount 	

⁴ The pay range for an unlicensed laborer or apprentice ranges from \$10 to \$15 per hour.

	<p>of training required would be 40 hours. For a liquefied petroleum gas fitter or natural gas fitter provider this is a reduction of up to 50% from the current requirement. For a gas fitter, this is a reduction of up to 83%. (Direct.)</p> <ul style="list-style-type: none"> • Individuals may qualify for a master license after being licensed as a residential journeyman for three years. Such individuals would not need to become licensed as a standard journeyman. (Direct.) • Standard journeyman licensees may qualify for the master license examination after being licensed for one (1) year; and would not need to provide proof of experience as a journeyman. (Direct.) • Individuals seeking to qualify for the master license examination based on experience alone may do so with nine (9) years of experience, a reduction of 10% from the current requirement. (Direct.) • Individuals seeking to qualify for an accessibility mechanic license who have more than three years of experience may substitute one (1) year of experience for 20 hours of formal vocational training. This would be a reduction of 25% from the current requirement for such individuals. (Direct.) • More individuals could become licensed as journeyman gas fitters without having to obtain a waiver from the Board or meet substantial equivalency requirements. (Direct.) • Contractor firms, particularly those whose business is primarily residential construction, may have additional labor in the trades available to hire and assign to residential projects. (Indirect.) • Continuing education providers may experience an increase in the number of participants as the result of an increase in the number of licensees. (Indirect.)
(5) Information Sources	1. Board for Contractors program staff.

Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)

(1) Direct & Indirect Costs & Benefits (Monetized)	1. Under the current regulation, an individual must have four (4) years of practical experience in the trade in order to qualify for the journeyman examination to become licensed as a tradesman (electrician, plumber, HVAC tradesman), or in one of the gas fitting trades. This experience is typically gained working under a licensed tradesman as a helper or laborer, or as an apprentice through a registered apprenticeship.
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2. Under the current regulation, an individual must have 240 hours of formal vocational training⁵ to qualify for the journeyman license examination to become a licensed electrician, plumber, HVAC tradesman, or gas fitter.

3. Under the current regulation, an individual can substitute experience in excess of four (4) years at a ratio of 20 hours for each year of experience, not to exceed 60 hours.

Direct Costs:

- There are no new monetizable direct costs associated with maintaining the status quo.
- Baseline direct costs under the status quo.
 - Completion of 240 hours of formal vocational training costs an average of \$10,660 per student.
 - The average tuition for a community college vocational course \$2,000. Most such courses are three (3) credit hours (45 clock hours). Completion of a 240-hour program would require 5.33 courses to complete. (Average course cost x number of courses.)

Indirect Costs:

- There are no new monetizable indirect costs associated with maintaining the status quo.
- Baseline indirect costs under the status quo.
 - An unlicensed individual who works under a licensee typically earns a lower wage than a licensed individual.
 - A newly licensed tradesman typically earns \$25 per hour. Based on a 30-hour work week, on an annualized basis, this is \$39,000 per year. (30 hours x 52 weeks x wage).
 - An unlicensed laborer or apprentice in these trades typically earns \$15 per hour. Based on a 30-hour work week, on an annualized basis, this \$23,400 per year.
 - An unlicensed worker in the trades earns an estimated \$15,600 less per year than a licensed worker in the trades.

Direct Benefits:

⁵ Courses acceptable to the Board must be completed through accredited colleges, universities, junior or community colleges; adult distributive, marketing and formal vocational training; Virginia Apprenticeship Council programs; or proprietary schools approved by the Virginia Department of Education. Formal vocational training includes courses in the trade administered at an accredited educational facility; or formal training, approved by the board, conducted by trade associations, businesses, the military, correspondence schools, or other similar training organizations.

	<ul style="list-style-type: none"> There are no new monetizable direct benefits associated with maintaining the status quo. <p>Indirect Benefits:</p> <ul style="list-style-type: none"> There are no new monetizable indirect benefits associated with maintaining the status quo. 	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) \$0	(b) \$0
(3) Net Monetized Benefit	\$0	
(4) Other Costs & Benefits (Non-Monetized)	<p>Baseline Costs:</p> <ul style="list-style-type: none"> Licenseses who take certain continuing education may have to take another course with the same content in order to meet formal vocational training requirements to add a trade specialty. This is not a frequent occurrence. The issue can be attributed in part to a misunderstanding in the regulant population regarding the distinction between courses designed for continuing education and courses designed for initial licensure. Regulants receive advertising from course providers who advertise continuing education courses, and mistakenly assume the courses can be taken to meet formal vocational training. (Indirect.) Currently, individuals seeking licensure as a gas fitter are not able to meet the 240 hours of formal vocational training requirement because there are no available programs of this length. Such individuals must either qualify based experience alone (currently a minimum of 10 years); or have their applications approved by the Board based on a waiver or substantial equivalency. (Indirect.) There are fewer individuals available to independently perform work for contractor firms. (Indirect.) <p>Baseline Benefits:</p> <ul style="list-style-type: none"> Individuals entering the marketplace as licensed journeyman tradesmen are sufficiently educated and experienced in the trades to independently perform work for contractor firms. (Direct.) Workers and businesses from Virginia can compete for work in other states without having to meet additional requirements. (Indirect.) 	

(5) Information Sources	1. Board for Contractors program staff.
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Table 1c: Costs and Benefits under Alternative Approach(es)

(1) Direct & Indirect Costs & Benefits (Monetized)	Refer to Box #4.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) N/A	(b) N/A
(3) Net Monetized Benefit	N/A	
(4) Other Costs & Benefits (Non-Monetized)	No less intrusive or less costly alternatives to achieve the purpose of the regulatory change were identified.	
(5) Information Sources		

Impact on Local Partners

Use this chart to describe impacts on local partners. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 2: Impact on Local Partners

(1) Direct & Indirect Costs & Benefits (Monetized)	N/A – See Box #3.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a)	(b)
(3) Other Costs & Benefits (Non-Monetized)	The proposed change is not anticipated to impose any direct costs on local partners. It is anticipated that as a result of the proposed change there may be an indirect cost imposed on local building departments. Local building	

	<p>departments rely on the Board’s licensing records to determine license validity before issuing construction permits. Local building departments would need to become familiar with the new residential journeyman class of license and possibly need to train their staffs that issue building permits regarding the new license class.</p> <p>It is anticipated the proposed change may indirectly benefit local schools as more students may seek out vocational training based on the potential to begin a career track sooner, possibly upon graduation.</p>
(4) Assistance	
(5) Information Sources	1. Board for Contractors program staff.

Impacts on Families

Use this chart to describe impacts on families. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 3: Impact on Families

(1) Direct & Indirect Costs & Benefits (Monetized)	N/A – See Box #3.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a)	(b)
(3) Other Costs & Benefits (Non-Monetized)	There are no anticipated direct or indirect costs to families. There are no anticipated direct or indirect benefits to families.	
(4) Information Sources		

Impacts on Small Businesses

Use this chart to describe impacts on small businesses. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 4: Impact on Small Businesses

(1) Direct & Indirect Costs & Benefits (Monetized)	See Box #3.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a)	(b)
(3) Other Costs & Benefits (Non-Monetized)	<p>As noted in the ABD, licenses and certifications are issued to individuals, and not to business entities. However, many licensees and certificate holders are likely owners or employees of business entities that meet the definition of “small business” in § 2.2-4007.1 of the Code of Virginia.</p> <p>The costs and benefits of this regulatory change are identified in Table 1(a). To the extent that additional costs are assumed by small business entities owned by licensees or that employ licensees, this regulatory change would impact small businesses.</p>	
(4) Alternatives	No less intrusive or less costly alternatives to achieve the purpose of the regulatory change were identified.	
(5) Information Sources		

Changes to Number of Regulatory Requirements

Table 5: Regulatory Reduction

For each individual action, please fill out the appropriate chart to reflect any change in regulatory requirements, costs, regulatory stringency, or the overall length of any guidance documents.

Change in Regulatory Requirements

VAC Section(s) Involved*	Authority of Change	Initial Count	Additions	Subtractions	Total Net Change in Requirements
30-40	(M/A):	0	0	0	0
	(D/A):	1	0	1	-1
	(M/R):	0	0	0	0
	(D/R):	11	1	0	+1
Grand Total of Changes in Requirements:					(M/A): 0 (D/A): -1 (M/R): 0 (D/R): +1

Key:

Please use the following coding if change is mandatory or discretionary and whether it affects externally regulated parties or only the agency itself:

(M/A): Mandatory requirements mandated by federal and/or state statute affecting the agency itself

(D/A): Discretionary requirements affecting agency itself

(M/R): Mandatory requirements mandated by federal and/or state statute affecting external parties, including other agencies

(D/R): Discretionary requirements affecting external parties, including other agencies

Cost Reductions or Increases (if applicable)

VAC Section(s) Involved	Description of Regulatory Requirement	Initial Cost	New Cost	Overall Cost Savings/Increases
30-40	An individual must have four (4) years of practical experience in the trade and 240 hours of formal vocational training to qualify for the license examination for a journeyman	Cost of 240 hours formal vocational training: \$10,660.	Cost of 160 hours of formal vocational training: \$7,142.	Cost savings on vocational training: \$3,518. A reduction of 33%.

	<p>tradesman license.</p> <p>Under the proposed amendment, an individual could qualify as a residential journeyman plumber or HVAC tradesman with at least two (2) years of practical experience in the trade and 160 hours of formal vocational training.</p>			
30-40	<p>An individual must have four (4) years of practical experience in the trade and 240 hours of formal vocational training to qualify for the license examination as a journeyman gas fitter.</p> <p>Under the proposed amendment, an individual could qualify as a journeyman gas fitter with at least four (4) years of practical experience in the</p>	<p>Cost of 240 hours formal vocational training: \$10,660.</p>	<p>Cost of 120 hours of formal vocational training: \$5,330.</p>	<p>Cost savings on vocational training: \$5,330. A reduction of 50%.</p>

	trade and 120 hours of formal vocational training.			
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Other Decreases or Increases in Regulatory Stringency (if applicable)

VAC Section(s) Involved	Description of Regulatory Change	Overview of How It Reduces or Increases Regulatory Burden
30-40	<p>The section is revised to create a new residential journeyman tradesman class of license.</p> <p>An applicant for examination as a residential journeyman electrician, plumber, or HVAC tradesman must furnish evidence to the Board the applicant meets one of the following experience and education standards:</p> <ul style="list-style-type: none"> • Two (2) years of practical experience in the trade; and 160 hours of formal vocational training. • Three (3) years of practical experience in the trade; and 120 hours of formal vocational training. • Four (4) years of practical experience in the trade; and 80 hours of formal vocational training. • Five (5) years of practical experience in the trade; and 40 hours of formal vocational training. • Six (6) years of practical experience in the trade. No education is required 	<p>The experience and education requirement for an individual to qualify for the journeyman examination is four (4) years of practical experience in the trade and 240 hours of formal vocational training in the trade.</p> <p>The proposed amendment reduces the experience requirement by two (2) years (50%), and the education requirement by 80 hours (33%). Applicants can substitute one (1) year of experience for 40 hours of education.</p>
30-40	Those seeking licensure as a journeyman gas fitter must have a minimum of four (4)	The experience and education requirement for an individual to qualify for the journeyman

	<p>years of practical experience; and 120 hours of formal vocational training. The requirement for formal vocational training is reduced from the current requirement of 240 hours.</p> <p>The provisions pertaining to those seeking a journeyman license in the gas fitting trades are revised to allow for experience substitutions.</p> <p>Those seeking licensure as journeyman liquefied petroleum gas fitters and natural gas fitter providers must still have a minimum of four (4) years of practical experience; and 80 hours of formal vocational training. However, an individual with five (5) years of experience may qualify with only 40 hours of vocational training.</p>	<p>gas fitter examination is four (4) years of practical experience in the trade and 240 hours of formal vocational training in the trade.</p> <p>The education requirement for the gas fitter examination is being reduced by 120 hours (50%).</p> <p>In addition, applicants for the journeyman gas fitter, liquefied petroleum gas fitter and natural gas fitter provider examinations may substitute some experience for education. An applicant may substitute one year of experience for 40 hours of education. However, an applicant must still have at least 40 hours of education if substituting experience.</p>
30-40	<p>Current subdivision A 5 is revised to reduce from 10 years to eight (8) years the number of years of experience needed for an individual to qualify for the journeyman license examination without meeting educational requirements.</p>	<p>For individuals seeking to qualify for the journeyman license examination without having completed vocational training, the experience requirement is reduced by 20%.</p>
30-40	<p>Current subsection B which provides for master qualifications is revised to provide a pathway to licensure for individuals who are licensed as a residential journeyman. Such individuals may qualify for the master license examination after having held a valid residential</p>	<p>Currently, an individual may qualify for the master examination by meeting one of the following:</p> <ul style="list-style-type: none"> • One (1) year of experience as a licensed journeyman. • Ten (10) years of practical experience in the trade

	<p>journeyman license for three (3) years.</p> <p>The current provision allowing for a standard journeyman license is revised to provide that such individual must have held a valid journeyman license for a minimum of one year.</p> <p>Current subsection B is revised to reduce the number of years an individual seeking to qualify as a master based on experience alone. An individual may qualify for the master examination based on nine (9) years of practical experience in the trade.</p>	<p>with no education required.</p> <p>The change regarding allowing a residential journeyman to qualify for the master examination after being licensed for three (3) years allows individuals to qualify for a master license without the need to upgrade to a standard journeyman license.</p> <p>The change providing that a standard journeyman can qualify for the master examination after being licensed for one year reduces the requirement for an individual to provide proof of experience as a standard journeyman.</p> <p>The change reducing the number of years of experience to qualify for the master examination without any education allows for more individuals to qualify for licensure.</p>
30-40	<p>Subsection G which provides for qualifications for accessibility mechanics is revised to clarify that an individual with more than three years of experience may substitute such experience at a ratio of one year for 20 hours of formal vocational training, not to exceed 60 hours.</p>	<p>Currently, an individual can substitute experience in excess of four (4) years at a ratio of 20 hours for each year of experience, not to exceed 60 hours. This change would allow an individual to substitute experience in excess of three (3) years.</p>

Length of Guidance Documents (only applicable if guidance document is being revised)

Title of Guidance Document	Original Length	New Length	Net Change in Length
N/A	N/A	N/A	N/A

