

# Progressing from Initial to Professional Educator Certification: Review of Connecticut's Current State, and Alternate Pathways to Professional Educator Certification

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## 1. Introduction

This memo begins with a discussion of potential criteria for assessing proposed alternate pathways to Professional Educator Certification (defined in Section 2. below), before surveying the current rules on progression to Professional Educator Certification in Connecticut. Next, this memo highlights three common alternate pathways to advanced educator certification found in other states, as examples of the kinds of proposals Connecticut might receive as contemplated by Public Act 24-41. It then refreshes the rationale for developing alternatives to the master's degree requirement (which is the predominant requirement for Professional Educator Certification in Connecticut today), before concluding with a brief outline of the path ahead for this body of work.

## 2. Key Criteria for Professional Educator Certification

Connecticut is one of many states that employ a **tiered** educator certification framework. The Southern Regional Education Board (SREB)'s 2020 Policy Brief—which reviewed the educator certification systems of Arkansas, Georgia, Maryland, Ohio and Wisconsin—noted that a tiered certification system gives “educators a career advancement path that does not require them to ... enter administrative or district management roles ... [mirroring]

what attracts candidates to other career fields—a *clear vision of development* [emphasis added] across the course of a career.”<sup>1</sup>

Essentially, a tiered certification system **motivates** educators to continue to develop and update their teaching knowledge and skills as they seek to advance in their careers, and unlock the benefits that come with achievement of a higher tier of certification (which might include, but need not be limited to, financial<sup>2</sup> advantages).

States that have tiered certification systems, like Connecticut, rely on Professional Educator Certification—defined<sup>3</sup> for the purposes of this memo as the highest level of mandatory educator certification in a state—as validation that an educator has reached a **threshold level of teaching experience and expertise (or competency) needed to be part of the profession for the long/indefinite term**.

It follows that these two purposes (motivation and validation) could serve as the criteria for assessing proposed alternate pathways to Professional Educator Certification in Connecticut.

### 3. Professional Educator Certification in Connecticut

Advancing to Professional Educator Certification is **required under Connecticut law** for educators wishing to stay in the profession for the long/indefinite term.

- Effective July 1, 2025, an Initial Educator Certificate in Connecticut will be valid for **10 years**.<sup>4</sup> At the end of the 10-year service period, an educator who does not meet the requirements to advance to Professional Educator Certification may be granted a one-year extension, for a maximum of **three times only**.<sup>5</sup>
- Holders of Provisional Educator Certificates (which will be phased out in Connecticut effective July 1, 2025 as well)<sup>6</sup> must meet the requirements for Professional Educator Certification by the expiration date of their current certification, or they will instead be eligible for an Initial Educator Certificate.<sup>7</sup>

In order for an educator holding an Initial Educator Certificate (or, where still applicable, a Provisional Educator Certificate) to progress to Professional Educator Certification, one must:

- have completed at least **fifty school months** of successful teaching in public or approved non-public schools;

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<sup>1</sup> Boren, M, and Jessica Snellings, (2020). “Learning from How Five States Designed Tiered Teacher Certification: What to Do and What Not to Do”, SREB Policy Brief, Southern Regional Education Board, Atlanta, GA, [https://www.sreb.org/sites/main/files/file-attachments/learning\\_from\\_5\\_states.pdf?1591992300](https://www.sreb.org/sites/main/files/file-attachments/learning_from_5_states.pdf?1591992300), 1.

<sup>2</sup> See Section 5b below.

<sup>3</sup> There is a need to define “Professional Educator Certification” because different states use the term differently. By way of example, Illinois’ standard educator certification is called the “Professional Educator License”; Illinois only has one tier of certification: Illinois State Board of Education, Professional Educator License, <https://www.isbe.net/Pages/Professional-Educator-License.aspx>.

<sup>4</sup> Public Act 24-41, Substitute House Bill No. 5436, 2024, sec. 1 (Connecticut).

<sup>5</sup> Connecticut State Department of Education, *Certification Alert: 2024 Legislation Affecting Educator Certification*, Jun. 2024, [https://portal.ct.gov/sdecertification/-/media/sde/certification/alerts/certalert\\_june2024.pdf?rev=642726610e434e5b87065935ccd5dfe3&hash=1C4A7E1B112A499DE0513A9CA3308ABE](https://portal.ct.gov/sdecertification/-/media/sde/certification/alerts/certalert_june2024.pdf?rev=642726610e434e5b87065935ccd5dfe3&hash=1C4A7E1B112A499DE0513A9CA3308ABE).

<sup>6</sup> Public Act 24-41, Substitute House Bill No. 5436, 2024, sec. 1 (Connecticut).

<sup>7</sup> Connecticut State Department of Education, *Certification Alert: 2024 Legislation Affecting Educator Certification*, Jun. 2024, [https://portal.ct.gov/sdecertification/-/media/sde/certification/alerts/certalert\\_june2024.pdf?rev=642726610e434e5b87065935ccd5dfe3&hash=1C4A7E1B112A499DE0513A9CA3308ABE](https://portal.ct.gov/sdecertification/-/media/sde/certification/alerts/certalert_june2024.pdf?rev=642726610e434e5b87065935ccd5dfe3&hash=1C4A7E1B112A499DE0513A9CA3308ABE).

- have satisfactorily completed the **teacher education and mentoring program**; and
- either **hold a master's degree or higher in an appropriate subject matter area or complete an alternate pathway** jointly approved by the State Board of Education (SBE) and the Connecticut Educator Preparation and Certification Board (the “Certification Board”).<sup>8</sup>

Currently, there are no alternate pathways (to the master’s degree) jointly approved by the SBE and Certification Board.

The Certification Board is tasked—by July 1, 2025—with developing the criteria used to assess proposals (which might come from local or regional boards of education, regional educational service centers, and/or educator preparation programs) for alternate pathways to Professional Educator Certification (the “Statutory Obligation”).<sup>9</sup>

## 4. Examples of Alternate Pathways

A number of states have developed alternate pathways for progressing to a higher educator certification tier. There are at least three common alternatives (to the master’s degree requirement) relied upon by other states:

- a. National Board for Professional Teaching Standards (NBPTS) Certification;
- b. Accrual of recognized professional development points/hours (PDPs); and
- c. Completion of designated/approved programs.

The following subsections briefly describe each alternate pathway in turn.

### a. NBPTS Certification

The NBPTS was founded in 1987 to offer a national, voluntary teaching credential certifying the accomplishment of a high level of professional teaching.<sup>10</sup> A number of states, such as California,<sup>11</sup> Maryland,<sup>12</sup> and Massachusetts,<sup>13</sup> recognize NBPTS Certification (alongside other options) as pathways for their educators to progress to a higher certification tier.

Given NBPTS Certification is one of the few national teaching credentials in the United States, there exists a body of research examining its relationship with teaching effectiveness. Cowan and Goldhaber (2016) noted that “the extant research on the effectiveness of National Board-Certified Teachers has generated **inconsistent results** [emphasis added].”<sup>14</sup> Horoi and Bhai (2018)—in a North Carolina study—found that NBPTS-certified teachers were **more effective** at improving student academic achievement on both **math** and **reading** assessments, though the effect

<sup>8</sup> Public Act 24-41, Substitute House Bill No. 5436, 2024, sec. 1 (Connecticut).

<sup>9</sup> Ibid, sec. 12.

<sup>10</sup> National Board for Professional Teaching Standards, *Mission & History*, <https://www.nbpts.org/about/mission-history/>.

<sup>11</sup> California Commission on Teacher Credentialing, *How to Clear Your Credential For California Prepared Teachers*, [https://www.ctc.ca.gov/docs/default-source/career-counseling/clear-credentials.pdf?sfvrsn=bff421b1\\_24](https://www.ctc.ca.gov/docs/default-source/career-counseling/clear-credentials.pdf?sfvrsn=bff421b1_24).

<sup>12</sup> Maryland State Department of Education, *Educator Certification Types*, <https://marylandpublicschools.org/about/Pages/DEE/Certification/Certification-Types.aspx>.

<sup>13</sup> Massachusetts Department of Elementary & Secondary Education, *Office of Educator Licensure*, <https://www.doe.mass.edu/licensure/>.

<sup>14</sup> Cowan, J, and Dan Goldhaber, (2016). “National Board Certification and Teacher Effectiveness: Evidence from Washington State”, *Journal of Research on Educational Effectiveness*, 9(3), 233-258.

sizes are small.<sup>15</sup> However, in an earlier study conducted on the Los Angeles Unified School District, Cantrell et. al. (2008) found—to the contrary—**no statistically significant differences** between **math** and **language arts** test scores of students taught by NBPTS-certified teachers and those taught by teachers who did not apply for NBPTS certification.<sup>16</sup>

Some researchers have highlighted that, whilst NBPTS Certification is relatively less costly than a master's degree program, it nevertheless incurs a financial cost and a significant time commitment.<sup>17</sup>

## b. Professional Development Points (PDPs)

Some states recognize the accrual of **a certain number of PDPs** for purposes of progression to a higher certification tier.

For instance, Tennessee recognizes the acquisition of 30 PDPs as a means to advance from a practitioner to professional license.<sup>18</sup> An activity is deemed to be eligible as a way of earning PDPs by the Tennessee Department of Education if it is “related to improving educator effectiveness” by developing content and/or pedagogical knowledge; enhancing educator effectiveness (e.g. coursework that supports understanding and use of data); or developing competency in student socio-emotional health and well-being.<sup>19</sup>

Examples of qualifying activities include (but are not limited to):

- professional learning clock hours;
- professional learning micro-credentials;
- continuing education units (CEUs);
- college coursework;
- teacher effectiveness ratings; and/or
- NBPTS Certification.

In Tennessee, **each option carries a unique weightage** in terms of PDPs. For instance, NBPTS Certification is worth 30 PDPs—in other words, NBPTS Certification itself would suffice to advance an educator to professional licensure in Tennessee. As for teacher effectiveness ratings, a score of 5 is equivalent to 20 PDPs; a score of 4 is

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<sup>15</sup> Horoi, I, and Moiz Bhai, (2017). “New Evidence on National Board Certification as a Signal of Teacher Quality”, *Economic Inquiry*, 56(2), 1185-1201.

<sup>16</sup> Cantrell, S, Fullerton, J, Kane, Thomas J., and Douglas O. Staiger, (2008). “National Board Certification and Teacher Effectiveness: Evidence from a Random Assignment Experiment”, NBER Working Paper 14608, National Bureau of Economic Research, Cambridge, MA, <https://www.nber.org/papers/w14608>.

<sup>17</sup> Horoi & Bhai, 2017. The total cost—inclusive of registration and certification fees—is well over \$2,000; there are additional fees for maintenance of certification at the end of every five-year certification cycle. NBPTS Certification requires the completion of assessments as well as submission of portfolios. National Board for Professional Teaching Standards, *Paying for Certification*, <https://www.nbpts.org/certification/paying-for-certification/>.

<sup>18</sup> It is worth noting that an alternative pathway to the accrual of PDPs is a Director of Schools recommendation. Tennessee Department of Education, *Licensed Educators*, <https://www.tn.gov/education/educators/licensing/educator-licensure/licensed-educators.html>.

<sup>19</sup> Tennessee Department of Education, PDP FAQ for Educators, <https://www.tn.gov/education/educators/licensing/licensing-faq/pdp-faq-for-educators.html>.

equivalent to 15 PDPs; and a score of 3 is equivalent to 10 PDPs. And, as a final example, one micro-credential is worth 6 PDPs.<sup>20</sup>

### c. Designated Programs

Some states recognize the completion of designated programs as a pathway to advance to a higher certification tier.

One example is Michigan. In order to progress from a Professional Teaching Certificate to an Advanced Professional Teaching Certificate,<sup>21</sup> an educator could—among a number of other options (including NBPTS Certification)—complete a state-approved teacher leader program or specialist preparation program.<sup>22</sup> These programs are offered by a variety of providers, including institutions of higher education (IHEs), state-level consortiums, and national institutes;<sup>23</sup> broadly, they seek to prepare educators to become master teachers, teacher mentors, or assessment and content specialists. The cost, duration, and modality of these programs vary—some are fully online whilst others are hybrid; and some are more akin to a credentialing course (for much fewer credits) than a master’s program.

## 5. Rationale for Considering Alternatives

The below subsections highlight prominent findings of studies examining the relationship between possession of a master’s degree and teaching effectiveness, and the benefits and unintended adverse impacts of the master’s degree requirement.

### a. Possession of Master’s Degree and Teaching Effectiveness

Based on available research, there appears to be **no consistent relationship** between educator attainment of master’s degrees **generally** and teaching effectiveness (as measured by student achievement).

- In a study of 75% of all grades 3-5 students in North Carolina between 1994 and 2003, Clotfelter, Ladd, and Vigdor (2007) found that having a master’s degree “exerts **no statistically significant effect** [emphasis added] on student achievement” if the teacher had entered teaching with a master’s degree, or earned it within five years of beginning to teach.<sup>24</sup>
  - Interestingly, the authors also found that teachers who earned a master’s degree more than five years after they started teaching were **less effective** than those without a master’s degree.<sup>25</sup>

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<sup>20</sup> Ibid.

<sup>21</sup> Note that progression to this certification tier in Michigan is optional for educators. Michigan Department of Education, *Teacher Recertification*, <https://www.michigan.gov/mde/services/ed-serv/ed-cert/cert-guidance/teacher-recertification>.

<sup>22</sup> Michigan Department of Education, *Advanced Professional Teaching Certificate*, <https://www.michigan.gov/mde/services/ed-serv/ed-cert/cert-guidance/teacher-recertification/advanced-professional>.

<sup>23</sup> Michigan Department of Education, *Directory of Educator Preparation Providers and Programs*, <https://mdoe.state.mi.us/moeecs/ProPrepProgramDetails.aspx?Id=426>.

<sup>24</sup> Clotfelter, Charles T., Ladd, Helen F., and Jacob L. Vigdor, (2007). “How and Why do Teacher Credentials Matter for Student Achievement?” NBER Working Paper 12828, National Bureau of Economic Research, Cambridge, MA, [https://www.nber.org/system/files/working\\_papers/w12828/w12828.pdf](https://www.nber.org/system/files/working_papers/w12828/w12828.pdf), 27-28.

<sup>25</sup> Ibid, 38.

- Horn and Jang (2017) conducted a more recent literature review and found that, while early childhood, primary, middle, and junior high school teachers who possessed a master's degree **did not have a larger effect on student reading achievement** compared to those possessing only a bachelor's degree, the **impact on K-6 student math achievement is less clear**.<sup>26</sup>
  - On the latter finding, the authors noted that although four studies found that “math achievement scores of students whose teachers had a master's degree were significantly higher than those of students whose teachers did not have a master's degree,” five other studies “failed to detect a significant relationship between students' math achievement and their teachers' educational attainment level.”<sup>27</sup>

As for **subject-specific** master's degrees, research findings **vary according to subject**—though there appears to be evidence of a positive correlation between possession of a math or science master's degree and teaching effectiveness.

- Goldhaber and Brewer (1997b, 2000)—relying on nationally representative data provided in the National Education Longitudinal Study of 1988—found a **positive association in mathematics achievement gains** [emphasis added] of students taught by teachers with master's degrees in mathematics; no effect was found where the master's degree was in a subject other than mathematics.<sup>28</sup>
- And, in an international meta-review, Coenen et. al. (2018) noted that “[i]n general, the best evidence available to date suggests that subject-specific ... master degrees **in math or science are positively related** [emphasis added] to student test scores.”<sup>29</sup>

## b. Benefits and Unintended Adverse Impacts of Master's Degree Requirement

Even if the relationship between possession of a master's degree and teaching effectiveness remains unclear, completing a master's degree program (particularly in a relevant subject area) is nevertheless an avenue for educators to **expand their own knowledge, skills, and qualifications** as they advance in their careers. Such continuing educator education is also a means to “stay current with evolving educational methodologies, technologies, and curriculum changes.”<sup>30</sup> Thus, requiring a master's degree for progression to Professional Educator Certification is one way to incentivize educators to improve their teaching competency.

It is also the case that, in practice, possession of a master's degree could **unlock employment and career advancement opportunities**. Hansen and Quintero (2017) observed that “[a] master's degree may advance a

<sup>26</sup> Horn, Aaron S., and Sung Tae Jang, (2017). “The Impact of a Graduate Education on Teacher Effectiveness: Does a Master's Degree Matter?” MHEC Research Brief, Midwestern Higher Education Compact, Minneapolis, MN, [https://www.mhec.org/sites/default/files/resources/teacherprep1\\_20170301\\_3.pdf](https://www.mhec.org/sites/default/files/resources/teacherprep1_20170301_3.pdf).

<sup>27</sup> Ibid, 2.

<sup>28</sup> Goldhaber, Dan D., and Dominic J. Brewer, (1997). “Evaluating the Effect of Teacher Degree Level on Educational Performance” Unpublished report, <https://files.eric.ed.gov/fulltext/ED406400.pdf>; Goldhaber, Dan D., and Dominic J. Brewer, (2000). “Does Teacher Certification Matter? High School Teacher Certification Status and Student Achievement”, *Educational Evaluation and Policy Analysis*, 22(2), 129-145.

<sup>29</sup> Coenen, Johan, et al., (2018). “Teacher Characteristics and Their Effect on Student Test Scores”, *Journal of Economic Surveys*, 32(3), 848-977, 859.

<sup>30</sup> ASU CareerCatalyst, *Unlocking the Potential of Teacher Continuing Education*, Oct. 2023, <https://careercatalyst.asu.edu/newsroom/career/unlocking-the-potential-of-teacher-continuing-education/>.



teacher's salary up to \$5,000."<sup>31</sup> And Chang et. al. (2020) noted that advanced degrees "are often the most efficient (if not the only) way for teachers to earn ... salary upgrades."<sup>32</sup> Indeed, in Connecticut most teacher collective bargaining agreements (CBAs) require possession of a master's or higher degree in order to advance up the salary schedule.<sup>33</sup> In other words, a master's degree requirement for Professional Educator Certification is aligned with the financial incentives already in play in Connecticut.

That said, a few studies suggest that a master's degree requirement may have a **negative impact on educator diversity**.

- In terms of educator **recruitment**, Hansen and Quintero (2017) pointed out that "graduate degrees may ... form a type of **indirect structural barrier for entry into the teacher workforce** [emphasis added], at least among Hispanic [teacher candidates]."<sup>34</sup> One reason posited by the authors for this is that, because minority groups have been shown to incur greater debt in pursuit of their bachelor's degrees compared to White candidates,<sup>35</sup> they might be more cautious about joining a profession that would require them to eventually obtain a master's degree (and incur more debt) in order to advance their careers. More generally, pursuing a master's degree is prohibitively expensive—costing upwards of \$40,000 on average in the United States<sup>36</sup>—and a significant deterrent for low-income candidates.<sup>37</sup>
- In terms of educator career **progression**, because the educational attainment of minority groups has generally tended to fall behind White and Asian candidates,<sup>38</sup> requiring a master's degree for progression to Professional Educator Certification might **disproportionately affect minority educators' ability to advance their careers**, compared to their White counterparts.

The above-described body of research raises concerns about the master's degree as the sole requirement for Professional Educator Certification which forms the basis for exploring alternate pathways to Professional Educator Certification.

## 6. Concluding Thoughts and the Path Ahead

When determining the approval criteria to assess proposed alternate pathways to Professional Educator Certification, the Certification Board should be guided—at least in part—by the overarching purpose of a tiered

<sup>31</sup> Michael Hansen & Diana Quintero, *How Extra Pay for Graduate Degrees May Influence the Teacher Diversity Gap*, Sept. 2017, Brookings, <https://www.brookings.edu/articles/how-extra-pay-for-graduate-degrees-may-influence-the-teacher-diversity-gap>.

<sup>32</sup> Chang, M., et al., (2020). "Do Advanced Degrees Matter? A Multiphase Mixed-Methods Study to Examine Teachers' Obtainment of Advanced Degrees and the Impact on Student and School Growth", *Georgia Educational Researcher*, 17(1), 62-89.

<sup>33</sup> See, for example, Hartford Board of Education & Hartford Federation of Teachers, *Collective Bargaining Agreement 2025-2028*, [https://core-docs.s3.us-east-1.amazonaws.com/documents/asset/uploaded\\_file/3630/HPS/5331568/The\\_Hartford\\_Federation\\_of\\_Teachers\\_-\\_HFT\\_July\\_1\\_2025\\_-\\_2028.pdf](https://core-docs.s3.us-east-1.amazonaws.com/documents/asset/uploaded_file/3630/HPS/5331568/The_Hartford_Federation_of_Teachers_-_HFT_July_1_2025_-_2028.pdf).

<sup>34</sup> Hansen & Quintero, 2017.

<sup>35</sup> Judith Scott-Clayton & Jing Li, *Black-white Disparity in Student Loan Debt More Than Triples After Graduation*, Oct. 2016, Brookings, <https://www.brookings.edu/articles/black-white-disparity-in-student-loan-debt-more-than-triples-after-graduation/>.

<sup>36</sup> Melanie Hanson, *Average Cost of a Master's Degree*, Nov. 2024, Education Data Initiative, <https://educationdata.org/average-cost-of-a-masters-degree>.

<sup>37</sup> Dan Weisberg, *To Close the Teacher Diversity Gap, Start With Education Schools*, Feb. 2018, The New Teacher Project, <https://tntp.org/blog/to-close-the-teacher-diversity-gap-start-with-education-schools/>.

<sup>38</sup> Ryan, Camille L., and Kurt Bauman, (2016). "Educational Attainment in the United States: 2015", U.S. Census Report P20-578, U.S. Department of Commerce, Washington D.C., <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf>.

educator certification system; and relatedly, the role Professional Educator Certification plays within it. This memo posits two criteria that the Certification Board might consider (in addition to other relevant criteria the Certification Board might develop): the extent to which the proposed pathways (1) motivates educators to improve their teaching knowledge and skills, and (2) validates a threshold level of teaching expertise.

As our understanding of how both teachers and students learn—as well as the policy environment and socio-economic contexts—evolve over time, there will be a need to ensure that the criteria the Certification Board ultimately proposes are not set in stone; but rather can nimbly adapt to changing conditions in responsive ways. For this reason, the use of guidance—as opposed to legislation or regulations—might be more appropriate in this instance, given the relatively onerous and lengthy processes required to introduce legislation or regulations. In fact, guidance is typically used to clarify how legislative rules (in this case, the legal provision for an alternate pathway to Professional Educator Certification) will be implemented in practice (in this case, what the criteria for approving those pathways would be).<sup>39</sup>

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<sup>39</sup> See, Pierce v. Lantz, 113 Conn. App. 98, 102 (Conn., 2009) (stating that regulation or legislation is inappropriate to address “statements concerning only the internal management of any agency and not affecting private rights ... available to the public” which should instead be policy guidance.)