



February 28, 2018

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Ms. Kelly Grace  
New York State Education Department  
89 Washington Avenue, 975 EBA  
Albany, NY 12234

**RE: EDU-52-17-00009-P (Creation of new certification area and tenure area in the classroom teaching service for computer science)**

Dear Ms. Grace:

I am writing on behalf of the New York State Council of School Superintendents to provide comments on [proposed regulations](#) to create a new certification area and tenure area in the classroom teaching service for computer science.

On balance, we are skeptical of the proposal. We are concerned that its adoption would impede innovation by school districts in meeting rapidly growing demand. We are dubious that a new certification area will draw an adequate supply of candidates, given the career options available to students with demonstrated proficiency in computer science. Ideally, creation of new certification areas should be deferred until a fuller reconsideration of existing certification and tenure areas can be completed.

A recent article in *Education Week* asked, "How, exactly, are the nation's public schools – already stretched thin, riddled with inequities, and oft-derided as failing – supposed to keep up with the dizzying changes in Silicon Valley? Where are schools supposed to find teachers who know how to run a classroom, can program in Python, and are willing to work for \$40,000 a year?" (*Education Week*. "Computer Science for All: Can Schools Pull It Off?" Feb. 19, 2018).

The quote defines some of the essential challenges schools will face. Many districts are already reporting difficulty finding an adequate supply of qualified teachers. The problems are especially great in small, rural districts. For example, in a summer 2017 Council survey, 72 percent of North Country superintendents reported that finding qualified teachers is a significant problem for their schools.

With computer science, we foresee two factors feeding future shortages. One is that many persons with aptitude and skill in the field will have other career options which they will choose instead. The other is that we question how many solely computer science teaching positions there will be in most districts, making the field less attractive and thereby compounding shortages.

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A new certification area may be useful as a pathway into teaching for people seeking a second career and that would help with shortages. But we envision that ultimately requiring all districts to employ as teachers of computer science *only* individuals possessing the new certification will lead to “haves” and “have nots.” More affluent districts would find professionals with the required qualifications, sometimes by hiring them away from smaller, poorer districts. We have heard this has transpired following some past regulatory initiatives – from the superintendents of affluent districts doing the hiring.

Many of our members report that they have teachers now who are performing impressively as teachers of computer science and they do not believe a new certification area can guarantee better instruction in the area. Both to at least partially avert future shortages and to allow effective current teachers to continue their work, we recommend that the “continued eligibility” provision (proposed section 80-3.14) be extended indefinitely for all teachers employed before September 1, 2022.

At the same time, it is imperative to assure that teachers in computer science are effective. We believe that this can best be done through a “micro-credential” approach, allowing teachers certified in fields such as mathematics, science, business, and technology education to gain an extension allowing them to teach computer science. Also, the field of computer science will continue to evolve rapidly, so whether the required credential is to be full certification or an extension to other certification, assuring that teachers of computer science remain current with developments in the field is essential. This might be done by expressly requiring that a portion of required professional development hours for credentialed computer science teachers be devoted to computer science.

Finally, a few of our members have remarked that efforts to advance instruction in computer science should “start with standards” – define what we are trying to teach. Then teacher preparation programs should be encouraged to embed some aspects of computer science pedagogy in preparation for all teachers. Our members add that students should not have to wait until middle or high schools to have learning opportunities in computer science.

We appreciate the Department’s effort to promote effective teaching of computer science and will do our best to make whatever policy is adopted serve all our students well.

Sincerely,



Robert Lowry

Deputy Director for Advocacy, Research and Communications