

Abstract Submitted
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Sowing Seeds: Growth of Physics Teacher Education at The College of New Jersey (TCNJ)¹ NATHAN MAGEE, AJ RICHARDS, LAUREN MADDEN, MELISSA CHESSLER, The College of New Jersey — The physics department at TCNJ has adopted physics teacher education as a core mission of the department and we are working to build a consistently productive, sustainable, and high-quality program. We have averaged approximately 5 physics teacher certifications over the past 5 years, and are striving to grow the size and diversity of the program. Hallmarks of the TCNJ program are: 1) multiple paths: a four-year B.S. “dual major” in physics and secondary education leading to physics certification, and a 15 month MAT degree leading to physics certification for recent physics grads or career-changers; 2) significant effort dedicated to student recruitment from varied populations; 3) broad and integrated support by physics and education faculty and administration; 4) practical support for field experiences from a well-resourced school of education; 5) early and diverse experiences for development of pedagogical content knowledge; 6) building scientist identity: most future teachers engage in physics research; 7) scholarship and stipend support for most students; 8) early career teacher mentoring and network building. We advocate that most aspects of this model can be adapted to many other small-college physics departments where physics teacher education is not currently thriving. In addition to direct benefits to local and regional physics education at the secondary level, building a clear curricular path toward physics teaching can support robust enrollments and an enduring student pipeline for undergraduate physics departments at primarily undergraduate institutions.

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