

**To:** Chairwoman Turner and the Senate Education Committee

**From:** Christopher Emigholz – Director of Education & Workforce Development Policy  
New Jersey Business & Industry Association (NJBIA)

**Date:** February 9, 2009

**Re:** **S-2159 (Turner) – Establishes Loan Redemption Program for STEM Teachers**

---

Good afternoon, and thank you for posting this bill and working with NJBIA on it. My name is Christopher Emigholz, NJBIA's Director of Education & Workforce Development Policy, and on behalf of our 22,000 members, I am testifying in strong support of S-2159, especially with the amendments that may be adopted to include technology education teachers. NJBIA is committed to improving the quality of New Jersey's workforce, and by encouraging future teachers to pursue science, math and technology education, this bill will help do that. The Association applauds Senator Turner for this innovative way to fill a potential hole in this critical group of New Jersey educators.

Science, math and technology education are important to the future workforce because STEM (**S**cience, **T**echnology, **E**ngineering and **M**athematics) teachers teach the skills that are largely lacking in the current workforce. The NJPRO Foundation just released a report on improving the State business climate entitled "Economic Policies and Solutions" in which it cited the availability of skilled employees as the top concern among employers. Yet in interviews and focus discussions, employers complained about the lack of skilled technical workers in NJ. The report even specifically recommended the expansion of the technically skilled workforce. Furthermore, NJBIA's 2006 Business Outlook Survey showed that less than 1/3 of New Jersey employers were satisfied with the quality of the communications skills, motivation, math and science skills, critical thinking skills and time management skills of their entry-level employees, and only about 1/3 of employers were satisfied with all employees straight out of high school. STEM teachers help addresses the lack of technical workers as well as all those deficient workplace skills, and it ultimately will develop higher skilled high school graduates. The aforementioned NJPRO report on improving the economy, even includes a recommendation to expand emphasis on STEM subjects in all New Jersey schools. The STEM teachers supported in this bill can ask students to critically think and solve problems, expose them to the skilled trades, get them motivated and engaged with more hands-on activities, push them to express and write about high-level problems and their ideas and creations to solve them, force them to see the applications of math and science, make them manage projects and experiments as well as many more desperately needed workforce-preparing skills.

Unfortunately, New Jersey is facing a potential shortage of these important teachers, because many are nearing retirement, not enough are entering the field and more may be demanded of them in the future with the looming high school redesign. The State must do all it can to encourage potential teachers to enter these vital education discipline because the workforce needs them. New Jersey's future engineers, pharmaceutical researchers, architects, utility technicians, inventors and manufacturers will benefit from this bill, because it is a great first step to increase the pool of STEM teachers. And the even better part of this bill and STEM teachers is that all students and careers reap the rewards of a STEM background. As an example, NJBIA often hears that all employees, not just those in high-paying math and science jobs, need more problem-solving skills and a better understanding of math, so the entire workforce is better prepared with a better STEM education because those skills that help the future engineer will also help countless other careers as well.

NJBIA thanks you for your support of S-2159, a bill that has the potential to improve New Jersey's teaching force and workforce.