



# “What economic policies may increase the quality of education in the United States?”

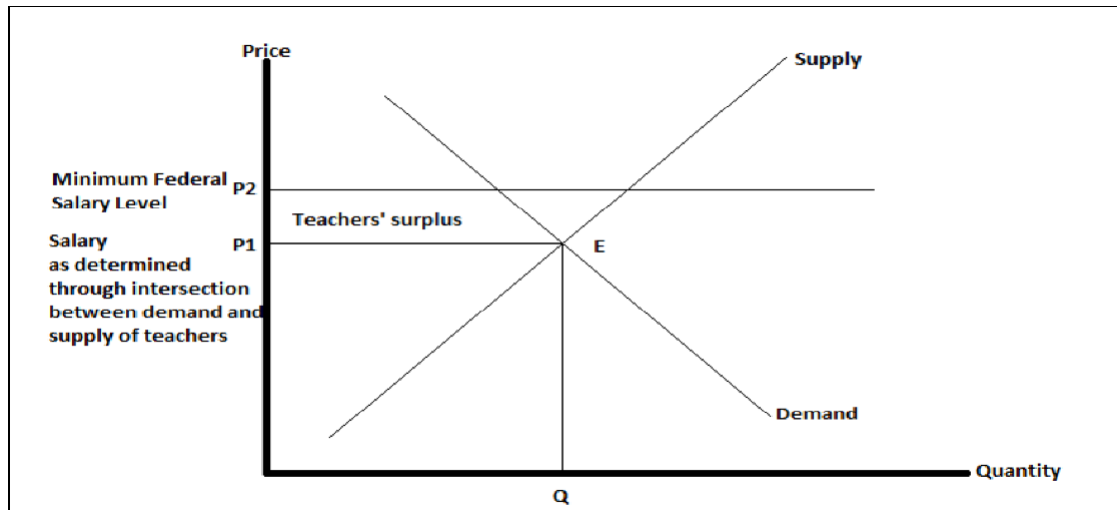
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John Dewey, the father of American public education, once said, “If we teach today’s students as we taught yesterday’s, we rob them of tomorrow” (Shrivastava, 2021). Despite promising beginnings, however, during the latter half of the 20<sup>th</sup> century the system experienced measurable setbacks, where racial and gender segregation was widely prevalent, and many teachers were unqualified (Schneider, 2016). After decades of reform efforts, including the enactment of thousands of laws and regulations and hundreds of billions of dollars invested in addressing these issues, American public education faces a plethora of predicaments (Wolk, 2011). American standardized test scores remain significantly below-average relative to comparable nations. In 2009, U.S teenagers ranked 25<sup>th</sup> out of the 34 OECD countries in mathematics, 17<sup>th</sup> in science and 14<sup>th</sup> in reading achievement (Fryer, 2011). Consequently, there is a clear need to address the myriad challenges facing the American public education system.

One of the most crucial elements in an effective education system is the teachers: effective guidance and support is critical to successful educational outcomes. However, American teacher salaries are comparatively low: according to the Economic Policy Institute teachers make 20% less than other occupations with similar levels of qualifications. Consequently, turnover rates in American education are extremely high, with 25% of teachers leaving annually (Hadavi, 2020). A study conducted by UC Davis professors in 2000 estimated that a 10% increase in teachers’ wages would reduce student dropout rates in the US by between 3% and 6% (Loeb & Page, 2000). The lack of intensively qualified teachers is a critical issue facing most American educational institutions (García & Han, 2022). Therefore, increasing financial compensation for teachers would attract qualified individuals who would otherwise choose other professional pathways. However, it should be noted that increasing teachers’ salaries would require active economic intervention of wage flooring for the educational sector. Given budget constraints, schools often reduce qualification standards: with only 52% of the 3.3 million public school teachers possessing graduate degrees (Face The Facts, 2012). Investing in teacher education and compensation yields long-term benefits to

public education. In Finland, for example, all teachers are required to have earned a Masters' degree, including pedagogical studies and teaching practice (Toolbox Finland, 2020). Finnish students consistently score near the top of international assessment rankings (e.g. PISA). Thus, a dearth of high-quality teachers is a pressing issue that negatively impacts overall academic performance. However, by setting a wage floor greater than or equal to the equilibrium wage for qualified teachers (*ceteris paribus*) schools are more likely to attract qualified candidates. This scenario is illustrated in the figure below:



*Figure 1: Price Flooding*

In the diagram above, the labour market for teachers is at equilibrium  $p_1$ , while the proposed minimum wage will elevate it to  $p_2$ . This regulatory intervention sets equilibrium at a level where supply exceeds demand, educational institutions can access a surplus pool of skilled educators, enabling them to focus their attention on other issues. Implementing a minimum salary at the federal level would also raise the perceived value of the teaching profession. In Finland, educational standards rose after 1960 when teaching became widely recognized as an attractive profession due to governmental incentives (Sahlberg, 2010). By increasing demand for qualified instructors and providing adequate compensation, the profession may undergo a significant rise in its perceived value, creating financial and social incentives for highly-educated people to enter the teaching profession.

Another approach to improve American public education involves subsidizing teachers' educations. Higher education is an investment contingent upon the expectation of financial rewards. Lessening the risk of assuming an unsustainable debt burden and offering stable employment could encourage more young people to choose this path (Collectif, 2017). However, it is important that prospective teachers are contractually-bound to work for a set period in exchange for this subsidy in order to avoid people taking advantage of the system.

To address systemic educational imbalances, it is equally crucial to deploy resources and teachers in schools in undeserved areas. One example policymakers can refer to is the Teacher Loan Forgiveness Program, an initiative that offered student loans write-offs up to \$17,500 for teachers in low-income and unprivileged areas. However, eligible teachers must be employed full-time as a teacher for five years and hold at least a Bachelor's Degree (Baluch, 2022).

A third strategy involves equipping teachers with high-quality resources enabling them to perform at their full potential; increase educational spending to expand the range of tools and resources to raise educational standards. Allocating resources to curriculum development that inculcates students with the theoretical and practical skills needed to thrive in a fast-changing globalized world. Antiquated curricula and insufficient emphasis on cultivating technological prowess and critical thinking abilities does a huge disservice to students, especially in a system dominated by rote learning. (Takrouiri, 2020). Schools must ensure that educational curricula evolve parallel with contemporary socioeconomic and technological trends, namely a labor market in which problem-solving, creative thinking, and collaboration are increasing by the minute, yet these areas are often overlooked. Ensuring that subjects like Computer Science are part of the curricula, could be vital towards redefining the foundation of education and equipping students with these versatile skills (Partovi, 2018).

The policy interventions outlined above are aimed at ensuring the availability of high-quality teachers and resources to raise academic standards. However, these interventions are unlikely to bear fruit unless combined with a strategy to keep teachers motivated. An effective intervention in this context is to reward the teachers based on their performance. If aligned with quantitative performance measures (O.E.C.D., 2009), these incentives could enhance teachers' engagement. Fiscal incentives like bonuses and performance-based salary increments are proven sources of extrinsic motivation

(Díez et al., 2020; Chipato, 2018). Teachers can also be motivated intrinsically through a productive and stress-free work environment and good work/life balance contingent upon their contributions (Sansone & Harackiewicz, 2000). Teachers who derive motivation from the combined application of these sources are likely to be more engaged and committed to supporting their pupils. Therefore, a proper reward system could help raise American educational standards. In Singapore, public education is underpinned by the theory that "rewards equal the contribution." Thus, educational institutions collaborated with students, parents, and stakeholders to assess teachers' performance, rating instructors to determine their compensation. This system proved crucial towards Singapore's ability to build a world-class education system (Steward, 2020). These findings reveal the potential of how a sense of being rewarded translates into commitment and delivery.

Beyond performance-based incentives for teachers, it is equally important to incentivize high-performing

schools. The United States attempted this approach during the Obama administration, with the "Race to the Top" initiative: a program to incentivize innovation and spur healthy competition across educational institutions in the country (Holzer, 2018). The post-implementation reports revealed that the program delivered on expectations, engaging institutions in an effort to raise educational standards across the board. Highlighting model schools also created a foundation for innovation that met with worldwide recognition (Hess & McShane, 2018). Future educational reform efforts could learn from and develop upon this approach.

Although the above interventions could result in improved academic outcomes, they are indirect methods to achieve this. On the other hand, policymakers can directly impact academic achievement through incentivizing students. For instance, the government could increase funding for educational institutions and obligate them to set rewards for students in line with their academic performance (Chi & Bustillo, 2021). Academic performance can be quantitatively assessed through the grading system. (Buchanan, 2015; Henning et al., 2014). Therefore, a reward system could engage the students in healthy competition, increasing attentiveness and commitment. Accurately determining students' rewards would benefit from the 'hyperbolic discount theory' which explains that valuation of the reward decreases with time (Behavioral Economics, 2018). If students lack sufficient motivation or lack knowledge of the long-term returns to schooling (Fryer, 2011), short-term incentives would be needed to create engagement.

Policymakers can refer to the incentive-based strategies proposed by Harvard's economic professors, Allan & Fryer (2011), who demonstrated how minor incentives for routine achievements by students yield tangible results. For instance, students are likely to feel motivated when provided with small monetary incentives for completing homework promptly or performing well on a routine assessment. Rewards granted at frequent intervals hold a comparatively higher valuation for students and encourage them to set short-term milestones while keeping long-term goals in mind. A successful example of a similar program is Pizza Hut's 1984 Book It program, rewarding students who achieved reading milestones with pizzas. (Hollan, 2022). Such incentive programs combine fun and concrete educational outcomes.

Ultimately, the United States needs a multidimensional approach to addressing the systemic issues plaguing public education. The incentive programs recommended here must also recognize the structural inequalities that may limit their potential impact. Therefore, these economic interventions will require comprehensive oversight to ensure that resources are distributed fairly and efficiently. Equitable distribution of resources is essential to bringing quality to the educational sector in its purest sense. As Dewey argued, effective educational systems not only shape the future of our students, but the future of our civilization.

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