

## **America's Educational System Lags Behind Europe While U.S. University Systems Excel**

**Dr. Anil Kumar Palla**

Campbellsville University

1 University Dr, Campbellsville, KY 42718, USA

**Dr. Keith Spears**

Campbellsville University

1 University Dr, Campbellsville, KY 42718, USA

**Dr. Eric S Harter**

Campbellsville University

1 University Dr, Campbellsville, KY 42718, USA

### **Abstract**

---

*America is one of the greatest nations on the globe, but the public-school system is falling behind school systems in Europe. The research indicates that even some under developed European countries score higher than America in student performance. Despite this failing in the public-school system, America's university system is the best in the world. The research uncovered several causes for poor student performance including low teacher salaries, overcrowded classrooms, U.S. educational policies, and a lack of accountability. Universities in America excel because of competition surrounding academic performance, cost, and a diverse educational system. To improve the performance of American public schools, teachers must be paid more, and the government must spend more money on educating students. Teachers should no longer teach to the exam, but provide students with a well-rounded education with high quality instruction where students are encouraged and coached to succeed. The best solution is to follow the Finnish approach where teachers are offered attractive salaries and benefits, which increase competition in the industry. Using this approach teachers are better trained, which in turn improves student performance scores.*

---

**Key Words:** Student Performance, Wages, Teachers, American universities, European school systems

Over the last few decades, the American public-school system has been reformed to improve the performance of students. Despite being recognized as the greatest economic nation in the world, America's public schools fall short in comparison to European school system. On the other hand, the country's universities are some of the best in the world. Public schools in America face a host of problems not faced by European school systems. Teachers are underpaid, schools in lower socio-economic communities are in disrepair and classrooms are overcrowded. Schools are not adequately funded, and current educational policies serve to create further barriers for students. Teacher disgruntlement is spreading nationwide with teacher strikes evident of the discourse.

Academics is the focus in European countries. Unlike American schools, millions of resources are not spent on sport programs while the student's education suffers. In Europe, academic achievement is earned and valued. Students are driven to achieve and the teacher field is competitive. In America, teachers are paid minimally, impacting negatively on their performance. Such issues are not the case in American universities. America's higher education system is capitalist with a focus on profit (Hochschild & Scovronick, 2004). Universities support high academic achievement to attract paying students.

The goal of this research project is to understand why America's public schools are not equal to or better than European schools even while American universities excel. The following research paper will examine the performance of American and European school systems to understand why American schools are falling behind many other countries, lowering the performance of students. It will also examine American universities to discover the reason behind their academic achievements and success despite low achievement scores in the public-school system. Current educational policies in America will also be examined to measure their contribution to America's public-school system failures.

### **American Public-School System**

Currently, there are 50 million public school students in grades kindergarten through twelfth grade being educated in 100,000 public school buildings (Ladner, 2015). The federal government underinvests in the public school infrastructure, but has created policies that require schools to achieve high grades or suffer consequences. Every year, there is a 38-billion-dollar gap between the money received by schools in comparison to what would be considered for proper funding. Based on the research, 24% of public schools are in disrepair, and many of these schools can be found in lower socio-economic communities. (Ladner, 2015)

America's public-school system continues to fall behind the European school systems. According to the National Report Card, America's students are lagging in literacy, reading, science and mathematics. American Legislative Exchange Council report card states that American students are lagging behind (Ladner, 2015). Since 2003, there have been improvements in proficiency in states across the nation, but many states still scored D's and F's (Ladner, 2015). The state of Alaska, Kansas, South Carolina, Louisiana, Oklahoma, Oklahoma, and Idaho scored a D grade for overall students' performance while Georgia and Alabama had a failing grade (Ladner, 2015).

States with charter school laws had higher proficiency over states which do not allow for charter schools. Most charter schools score A's and B's in proficiency of students (Ladner, 2015). "In 2015 they gave the charter school laws of four states—Arizona, Indiana, Michigan and Minnesota, plus the District of Columbia—an A grade (Ladner, 2015, p. 17). These schools do not have caps on salaries and are not restricted by state testing requirements. Public schools did not fair as well as charter schools in America. Public schools in lower income communities had the worst scores.

The research indicates middle class to wealthy students score much higher than low income students (Ladner, 2015). Lower income students have many disadvantages to students in other income brackets (Grady & Bielick, 2010). These students' score lower than schools from higher income brackets. In fact, 51.5% of lower income students will complete school with lower than a C average (Ladner, 2015). Standardized testing scores show 39% of lower income students will score in the bottom bracket of graduating students (Ladner, 2015). The lowest scores are in reading followed by science and mathematics.

In low income schools, on average, 55.1% will not meet state standards while 42.5% will be in the bottom half of state report cards (Ladner, 2015). In the state of Illinois, 32% percent of low income schools are failing (Ladner, 2015). Low income students represent 18% of the student population in the state (Fuller, 2015). Race is a major indicator of lowered performance (Goldin & Katz, 2010). A large majority of students in lower income schools are African American or Hispanic. Research shows half of lower income students will not have high school level reading skills when they reach this academic level (Fuller, 2015). Statistics show that 28.8% of students from lower income families, will drop out of school, with only 6.1% drop out rate for students from higher income families. (Fuller, 2015).

There is a clear connection between poverty and poor academic performance in public schools. Lower class students are denied access to extra-curricular activities and technology (Goldin & Katz, 2010). Gaps in ACT and SAT scores highlight failures to provide low income students with equal education to middle and upper-class students. ACT scores showed 63% of students from upper class families score high on all three testing benchmarks (Fuller, 2015). Only 19% of lower class students met these benchmarks (Fuller, 2015). In California in 2014, two-third of lower income students did not meet proficiency standards for the SAT (Fuller, 2015).

### **European School System**

European school systems score higher than American public-school systems, but students in East Asian countries score higher than America and Europe across every subject. The Program for International Student Assessment (PISA) evaluates student performance in countries across the globe. Finland is the second highest scoring country in Europe (Sahlberg, 2007).

Iceland scored in the top ten with East Asian countries. Student performance in this country scored 529 out of 600 on the PISA report (OECD, 2012). Estonia students out performed other European countries along with Liechtenstein.

The only American states to score in the top 500 were the states of Massachusetts and Vermont (OECD, 2012). Poland, Netherland, Switzerland, Ireland, Germany, Belgium, United Kingdom, France, Austria, and the Czech Republic are all the European countries that scored 500 or more on the PISA report card. The United States ranked 492 on the PISA report card with the state of Florida scoring the lowest next to countries like Russia and Turkey. Dubai scored the lowest on education despite the wealth of the country. China scored 587<sup>th</sup> and was ranked number on the globe in student performance (OECD, 2012). The following table depicts the most recent PISA scorecard.

	United States	United Kingdom	Ireland	Finland	France	Netherlands	Poland	Czech Republic
Science	489	515	508	563	495	526	501	490
Math	474	495	501	548	488	507	495	524
Reading	495	495	517	547	496	532	528	495
Overall	487	510	512	557	489	527	520	508

In mathematics, science, and reading, America scored lower than many European countries. Russia, Slovakia, and the Czech Republic scored higher than America in mathematics but lower in reading. In science, Slovenia, Czech Republic, and Latvia scored higher than the United States, but America scored higher than Spain and Italy (OECD, 2012). America scored lower across the board than most European countries. America ranked lower than the OECD average despite being a top economic earner. Research by Bishop (2010) reflects that Northern European students in secondary/high school fair far better than American students.

According to research, the European teenager will graduate at a rate 10% higher than that of American students (Bishop, 2010). The research indicates higher graduation rates are the result of program funding, higher teacher salaries, program evaluations, teaching coaching, and no incentives for teachers and principals (Bishop, 2010). Teachers in northern Europe are trained to coach and mentor students instead of just lecturing the student on the information available in state-wide testing (Adams, 2003). Students are taught that school is socially valuable and they are rewarded for their efforts with college entry and good jobs (Fuchs & Wößmann, 2004).

According to the research, America fell behind European countries in graduations and overall scores. U.S. seniors lagged behind Netherland by 99 points in mathematics, 91 points behind Swedish high school graduates (OECD, 2012). Education policy was found to be the biggest indicator of changes in mathematic scores. In European countries, students must take exit examinations to show they are prepared to progress to the university level. Academic achievement is a low priority for teachers and educational facilities in America. In return, students do not perform as well as students in Europe.

Eastern Asian countries score higher than America and their European counterparts because of the total focus on student academic achievement. Diversity, teacher quality, teacher salaries, spending per pupil, vocational training, and priority given to academic achievement were the key drivers of lower student performance in America (Bishop, 2010, p. 4). Other important indicators were class size, time devoted to instruction and learning, and engagement by students (Krueger, 2002).

### **Performance American University Systems**

America's higher education institution is one of the best in the world. Students across the globe apply to go to American colleges, seeking a high-class education. One reason for America's high performing collegiate system is cost. Students pay for college educations in America resulting in competition. According to the Center for Measuring University Performance (2016), schooling in universities is defined by student performance. Universities and colleges attract students based on student achievement scores.

Students are sold an opportunity to obtain a good education in return for a good future career. For the student to be accepted to the university, they compete with other students for entry even though they must pay for the opportunity. Cost for attendance in American universities and colleges is high especially for top universities. To compete for students, universities introduce innovative technologies (Gorski, 2014). Despite requiring students to pay, universities are also state and federally funded, but there is little interference from the government.

The Department of Education does not regulate colleges like in other countries, resulting in more flexibility (Gorski, 2014).

Another strength of the American college is diversity. A diverse educational system and student body has led to a wide range of career choices for students with universities capable of supporting these educational efforts (Gorski, 2014). Universities are flexible and allow students to pursue several degree opportunities. Students changing their majors will not have to start again because many courses can transfer to a new degree program (Gorski, 2014). This is not the same for universities in Europe and other locations across the globe.

American universities embrace minority students opening opportunities for every citizen and citizens across the globe. The number of international students in American universities grow every year. In 2015, there were 974,926 international students attending American colleges and universities (Barta et al., 2017). This number grew by 4.8% (Barta et al., 2017). In 2013, 819,644 international students attended American higher education schools (Barta et al., 2017). A large majority of students come from China and India followed by South Korea and Saudi Arabia. The most popular universities for international students are in New York and California (Barta et al., 2017). From 2014-2015, international students contributed 30 billion dollars to the higher education industry (Barta et al., 2017).

### **Teachers Wages and Student Performance**

Teachers play a vital role in educating students. The approach goes a long way to determining the level of performance by teachers (Fryer, 2011). Higher teacher pay was connected to higher student performance in one report (Allegretto et al., 2004). Higher teacher pay has been linked to greater accountability and is beneficial for attracting higher quality teachers (Allegretto et al., 2004). Researchers examined the Illinois school system to determine if teacher salaries improve performance. Teachers in Illinois are paid a higher salary, and receive bonuses for student performance (Hess, 2004). Annually, in the states, teacher's pay exceeds 64,000 per year (Yount, 2017).

All the research indicates teacher pay raises work well for the short term (Flanigan & Grismmer, 2006.). Pay along with high quality instruction increase the likelihood of good student performance (Figlio, 2002). Hoxby & Leigh (2004) suggest teaching quality is influenced by the teacher's aptitude as well as their teaching style. High performance standards are also necessary to student success (Linn, 2003). Teachers create the environment for student learning, but barriers can make this difficult (Grismmer, 2006). These challenges include class size and class resources. Class sizes impact the time the teacher spends with the student (Krueger, 2002). Students who struggle will take up more of the teacher's time.

In a 2008 report, teachers' pay in Europe was shown to be higher than that of American teachers. Teacher salaries in Europe range for 3,600 to 4,500 per month (Galgóczy & Glassner, 2008). In America, teacher salaries are much lower. In Europe, teacher pay on average is \$48,000 per year (Galgóczy & Glassner, 2008). On Average in America, teachers are paid closer to \$31,496 (Galgóczy & Glassner, 2008). Lower salaries have been linked to poor teacher performance as well as quality of educators. When teachers are paid lower salaries, schools cannot attract highly qualified teachers.

Class size is another indicator for America's student inferior performance in comparison to European schools. According to Krueger (2002), class size impacts the quality of education received by the student in America, and it is common for class rooms to be overcrowded making it difficult for the teacher to expend time with each student. Most European school's systems do not face struggles with overcrowding. The educational system provides an adequate number of teachers to students, helping to prevent the problem.

### **U.S. Educational Policies**

Educational reform has not created its intended result, which was to improve student performance across the entire population. New legislation, known as the No Child Left Behind Act, was created to increase performance of students. The goals of the legislation were higher academic achievements, highly qualified teachers, safe classrooms, and all students will graduate (Centre on Education Policy, 2006). The NCLB requires states to test students to make sure they are meeting proficiency goals (Centre on Education Policy, 2006). Schools and school districts are held accountable for failure to meet established standards. As a result, the focus has shifted to testing to ensure the school can meet their educational obligations.

The shift to state wide testing has resulted in teachers teaching to the test. This means teachers now only cover the required testing material in math, science, and reading (Popam, 2004). As a result, students no longer have access to arts, music, and other courses that would develop their natural abilities. This focus on national assessment over teaching and developing the student has impacted student performance (Jurges, 2004). New standardized tests do not improve student scores across the student population, but has lowered the scores of students who once excelled. The tests lowered the standards from most students.

The new educational policy has created high stakes testing requirements negatively impacting school districts that fail to comply (Amrein & Berliner, 2002). The law did not reform teacher pay scales, just placed a larger burden on the teaching field. Teachers are expected to obtain higher education to provide high quality education, but they are not sufficiently compensated. Schools were supposed to become more accountable, but instead they have shifted their focus to ensuring students meet the testing requirements over all else. The student no longer receives a well round education and does not have the same drive to succeed.

Even though the research has revealed many failures involving the No Child Left Behind Act, it has not been repelled, instead of making changes, new standardized test requirements will be rolled out for teacher. These tests will be aligned with the new common score standards. Higher standards will only equal more students not reaching the performance goals. Common core established the standards for English proficiency and mathematics (Centre on Education Policy, 2006). These standards are higher than previously implemented performance standards implemented in the past.

### **Recommendation**

There are many challenges that must be addressed with the American public-school system to meet the proficiency standards displayed by European countries. According to Ladner (2015), states and the federal government must be willing to invest more in education to improve student performance. The focus needs to be on paying teachers better salaries to increase competition, which will in turn improve teacher quality. More money needs to be invested in schools and there should be an ample number of teachers in comparison to the student population. U.S. educational policies need to be reformed so the focus is not on teaching to the exam but providing students with a well-rounded education.

Higher student performance is the result of higher quality instruction (Flanigan & Grissmer, 2006). When teachers are paid minimal wages, they provide students with minimal performance. The research revealed; however, higher wages alone will not support performance for the long-term. Teacher incentives in the state of New York include good pay, benefits, and teacher bonuses (Fryer, 2011). Teachers are paid based on their education, knowledge, and experience. New policy development and reform would focus on teacher pay and teacher qualifications (Aho et al., 2006).

Finland has one of the best educational systems in the world. The country supports system-wide excellence through “building upon ideas of sustainable leadership that place strong emphasis on teaching and learning, intelligent accountability, encouraging schools to craft optimal learning environments” (Sahlberg, 2007, p. 147). Teachers are pivotal to the success of this learning environment. Teacher are accountable for pushing students to perform and are rewarded with attractive salaries. Competition is another pivotal factor of the countries success. High teacher salaries increase the competition for the job. This competition improves teacher quality, which in turn improves instructional quality (Aho et al., 2006).

America should model their education system on the Finnish approach. If America would increase the competitiveness of the teaching field, the country could produce results like European countries instead of falling behind (Sahlberg, 2007). Teachers are key to student performance. They must provide excellent leadership and quality instructions. Developing teachers and increasing pay wages will improve the student’s access to a better education, which in turn will improve their levels of performance. America must invest more in their teachers, so student performance can be elevated to the quality received by university students.

## References

- Adams, R. J. (2003) Response to ‘Cautions on OECD’s recent educational survey (PISA). *Oxford Review of Education*, 29(3), 377–389
- Aho, E., Pitkänen, K. & Sahlberg, P. (2006). Policy development and reform principles of basic and secondary education in Finland since 1968 (Washington, DC, World Bank)
- Allegretto, S., Corcoran, S., Mishel, L., (2004). *Teacher Pay: Where Does it Stand?* Washington, DC: Economic Policy Institute.
- Amrein, A. L. & Berliner, D. C. (2002) High-stakes testing, uncertainty, and student learning, *Education Policy Analysis Archives*, 10(18)
- Barta, P., Chen, T., Jou, D., McEnaney, C. & Fuller, A. (2017). How International Students Are Changing U.S. Colleges. *Wall Street Journal*
- Berry, J. & Sahlberg, P. (2006) Accountability affects the use of small group learning in school Mathematics. *Nordic Studies in Mathematics Education*, 11(1), 5–31.
- Bishop, J. (2010). *Which Secondary Education Systems Work Best? The United States or Northern Europe.* Ithaca, NY: Cornell University
- The Center for Measuring University Performance. (2016). *Top University Report*. Retrieved December 17, 2017 from <https://mup.asu.edu/sites/default/files/mup-2016-top-american-research-universities-annual-report.pdf>
- Centre on Education Policy. (2006). *From the capital to the classroom: year 4 of the No Child Left Behind Act* (Washington, DC, Centre on Education Policy).
- Figlio, D. (2002). Can Public Schools Buy Better Qualified Teachers? *Industrial and Labor Relations Review*, 55(4), 686-699.
- Flanagan, A. & Grissmer, D. (2006). *Effect of Teacher Pay on Student Performance Working Paper*. Pittsburgh, PA: Rand Education
- Fryer, R. (2011). *Teacher Incentives and Student Achievement: Evidence from New York City Public School*. Boston, MA: Harvard University
- Fuchs, T. and Wößmann, L. (2004) “What Accounts for International Differences in Student Performance? A Reexamination using PISA Data.” CESifo Working Paper 1235 (Munich, CESifo)
- Fuller, B. (2015). *Poverty and Race: How Do Students Backgrounds Affect their School Performance?* Berkeley, CA: UC Berkeley
- Galgóczi, B. & Glassner, V. (2008). *Comparative study of teachers’ pays in Europe*. Brussels: ETUI-REHS Research Department
- Goldin, C. & Katz, L. (2010). *The Race between Education and Technology*. Boston, MA: Harvard University Press
- Goldstein, H. (2004) International comparisons of student attainment: some issue arising from the PISA study, *Assessment in Education: Principles. Policy and Practice*, 11(3), 319–330.
- Gorski, B. (2014). *The Three Great Strengths of U.S. Higher Education*. Retrieved December 17, 2017 from <http://www.internationalstudentguidetotheusa.com/articles/three-great-strengths-of-us-higher-education.htm>
- Grady, S. & Bielik, S. (2010). *Trends in the Use of School Choice: 1993 to 2007*. National Center for Education Statistics, April 2010. Retrieved December 16, 2017 from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010004>
- Grissmer, D. (2006). *Effect of Teacher Pay on Student Performance: Findings from Illinois*. Pittsburgh, PA: Rand Education
- Hargreaves, A. (2003) *Teaching in the knowledge society: education in the age of insecurity* (New York, Teachers College Press)
- Hess, F.M. (2004). *Teacher Quality, Teacher Pay*. Policy Review. Retrieved December 16, 2017 from [http://www.policyreview.org/apr04/hess\\_print.html](http://www.policyreview.org/apr04/hess_print.html)
- Hochchild, J. & Scovronick, N. (2003) *The American dream and the public schools*. Oxford, UK: Oxford University Press.
- Hoxby, C. & Leigh, A. (2004). Pulled Away or Pushed Out? Explaining the Decline in Teacher Aptitude in the United States. *American Economic Review*, 94(2)
- Jacobs, B. A. (2001) Getting Tough? The impact of high school graduation exams. *Educational Evaluation and Policy Analysis*, 23(2): 99-122.

- Jurges, H., Schneider, K & Buchel, F. (2003). The effect of central examinations on student achievement: Quasi experimental evidence from TIMSS." CESifo Working Paper 939 (Munich, CESifo)
- Krueger, A. (2002). "Understanding the Magnitude and Effect of Class Size on Student Achievement." In Mishel, L. & Rothstein, R. eds. *The Class Size Debate*. Washington DC: Economic Policy Institute
- Ladner, M. (2015). Report Card on American Education, 20<sup>th</sup> Edition. Arlington, VA: American Legislative Exchange Council
- Lakdawalla, D. (2002). "The Declining Relative Quality of Teachers." Working Paper No. 8263. Cambridge, MA.: National Bureau of Economic Research.
- Lemke, R., Hoerander, C. & McMahan, R. (2006) Student assessment, non-test-takers, and school accountability, *Education Economics*, 14(2), 235–250
- Lillard, D. & DeCicca, P. (2001) Higher Standards, More Dropouts? Evidence within and across Time. *Economics of Education Review*. 20(5), 459-73
- Linn, R. (2003). Performance Standards: Utility for Different Uses of Assessments. *Education Policy Analysis Archives*, 11(31).
- Loeb, S. & Page, M. (2000). "Examining the Link Between Teacher Wages and Student Outcomes: The Importance of Alternative Labor Market Opportunities and NonPecuniary Variation. *Review of Economics and Statistics*, 82(3).
- McCombs, J.S., Kirby, S.N., Barney, H., Darilek, H., Magee, S. (2004). Achieving state and national literacy goals, a long uphill road: A report to Carnegie Corporation of New York. TR-180-EDU. Santa Monica, CA: RAND.
- Novoa, A. & Yariv-Mashal, T. (2003) Comparative research in education: a mode of governance or a historical journey? *Comparative Education*, 39(4), 423–439
- Organization for Economic Cooperation and Development. (2012). [OECD]. PISA Student Performance Report Card. Retrieved December 17, 2017 from <http://www.oecd.org/pisa/keyfindings/PISA-2012-results-snapshot-Volume-I-ENG.pdf>
- Popham, J. W. (2004) America's failing schools: how parents and teachers can cope with No Child Left Behind. New York, NY: Routledge Falmer
- Rivkin, S. G., Hanushek, E. A., and Kain, J. F. (2005). Teachers, Schools, and Academic Achievement. *Econometrica*, 73(2)
- Rockoff, J. E. (2004). The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data. *American Economic Review*, 94(2), 247-252
- Sahlberg, P. (2007). Education policies for raising student learning: the Finnish approach. *Journal of Education Policy*, 22(2), 147-171
- Snow, C.E. & Biancarosa, G. (2003). Adolescent literacy and the achievement gap: What do we know and where do we go from here? New York, NY: Carnegie Corporation of New York
- Springer, M. G., Ballou, D., Hamilton, L., Vi-Nhuan Le, J.R. & Lockwood, D. et al. (2010). Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching." Conference paper, National Center on Performance Incentives
- Stoddard, C. (2003). Adjusting Teacher Salaries for the Cost of Living: The Effect on Salary Comparisons and Policy Conclusions. Mimeo, Montana State University.
- Vigdor, J. L. (2008). Teacher Salary Bonuses in North Carolina. Conference paper, National Center on Performance Incentives.
- Whoriskey, P. (2006). "Fla. To Link Teacher Pay to Students Test Scores. Retrieved from [http://www.washingtonpost.com/wpdyn/content/article/2006/03/21/AR2006032101545\\_pf.html](http://www.washingtonpost.com/wpdyn/content/article/2006/03/21/AR2006032101545_pf.html)
- Wößmann, L. (2003a). Central Exit Exams and Student Achievement: International Evidence." No Child Left Behind? The Politics and Practice of School Accountability. Eds. Martin West and Paul Peterson, Washington, DC: Brookings Institution Press
- Wößmann, Ludger. (2003b) "Central Exams as the "Currency" of School Systems: International Evidence on the Complementarity of School Autonomy and Central Exams." DICE Report. *Journal for Institutional Comparisons*, 1(4), 46-56, 200
- Yount, B. (2017). Average teacher, administrator pay in Illinois jumps as student performance stays flat. Retrieved December 17, 2017 from [https://www.ilnews.org/news/schools/average-teacher-administrator-pay-in-illinois-jumps-as-student-performance/article\\_7edf6c80-c493-11e7-a12b-1b456ac23467.html](https://www.ilnews.org/news/schools/average-teacher-administrator-pay-in-illinois-jumps-as-student-performance/article_7edf6c80-c493-11e7-a12b-1b456ac23467.html)