

Reevaluating Higher Education and Lifting the Math and Science Mystique

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Education for All

The industrialization of the United States in the late 19th century was due in part to immigrants, somewhat uneducated but none the less possessing the right skills, who unwittingly provided much of the valuable manpower for the post civil war industrialists to amass great fortunes. The subsequent “Gilded Age”, as it is hankered for since then, resulted in a great chasm between rich and poor. This perception, real or not, precipitated progressive reformers, particularly in the early 1900s to promote socialistic principles of wealth redistribution emblematic of the progressive era. There is an ongoing debate as to whether progressive government reforms achieved the goals of the ideology expected but regardless of the outcome America was left with economic and education mechanisms in place that still affect our 21st century society.

Roosevelt attempted to move the Republican Party toward [Progressivism](#) with increased regulation of businesses. Roosevelt’s “[Square Deal](#)” presents a domestic policy that promised the average citizen a “fair share” under his policies and that meant a fair share of the education system.

During this era compulsory education had become part of American society as practical means to feed the industry needs but looking upon it in retrospect the notion of “government” mandated education has negative connotation much the same as mandated healthcare has today. The difference is that education was fostered and funded locally by school district complemented by several state equalization schemes rather than the federal government but this notion has gradually transformed over the last few decades. The Federal government has poked its influence into education propagating a national need to compete with other societies, particularly in the area of math and science. No child left behind was one such national movement that rendered overbearing federal government intrusion into what quality education should be and how funding it becomes a whip to achieve political ends. But there is much more behind this façade than meets the eye: taking this further into the secondary education of the professionals of our society I see a worrisome effect on engineers, accountants, physicians etc. systematically being molded into agents of the stats in universities, those acting as spawning grounds for political ideology and funding.

The federal government rests on the undeniable fact that Roosevelt’s mandatory education laws fostered the growth of a greatly advanced society that catapulted the nation to wealth and power with its skilled workforce. I agree to a point but note here that the word skilled is not necessarily synonymous with the word educated. Historically, a central government’s obsession with improving the education system has often been at odds with political ideology. Specifically, the Hitler youth movement was a frightful demonstration of socialist ideology using such leverage to propagate national goals. This is nothing new. Communist governments did the very same post world war II and they

still do this today. In this day and age any federal government striving to control the system can only lead to rigid pedagogy in a “free” education system thus stifling and limiting the ‘sacred’ free thought. This begs the question of how we prevent a looming federal takeover of education curriculum and by extension the core of professions, legal, financial and medical.

Taxes and Education Unavoidable Dependency

Putting federalism aside for the moment, let’s look at very core of our education system which actually today starts in preschool. What is the mindset of the local school districts in dispensing education for the masses? The whole education model is set into a paradigm of funding and of who calls the shots with curriculum, school facilities and the educator workforce. Consequently the politics of education is a nasty mix of funding patterns with mandates, equalization schemes tempering wealthy versus poor communities and an overbearing unwieldy national teachers union’s influence – all of which can be subtly stated as problematic.

School districts invariably set their budgets to capture the local availability of tax revenue which is the major feeder of school budgets – too often it is at the expense of wiser expenditures or to placate the demand of education unions or just the plain whims of the district that just gotta have a swimming pool (and would take it a personal insult if it happens to be shorter than 70 feet). Did you ever notice that school taxes never recede? There are other reasons for this but the key culprit is an overriding perception that funding equates quality education and this perception allows school districts an unchallenged free-pass access to any tax revenue that can come its way. Most funding of school districts comes from a property tax that is tied to inflation of the property values for increments in the budget. Considering all the stakeholders in the education paradigm, it cries for an evenhanded federal funding stream and a levelheaded funding approach that distributes the wealth of education to the entire national society. Indeed, that is the definition of progressive utopia.

Consider this craziness: some reputable land assessors occasionally have been known to ‘massage’ the property assessments in said district up – no monkey business intended, only basing it on their keen unbiased perception of the district’s evident affluence – maybe they’ve seen nicer cars driving by, or nicer houses being built, or were intoxicated by the cherry blossom in a new park established by the city – all can be forgivingly attributed to a slight, very humane, wishful thinking on their part since they reside in the area. Subsequently property taxes go up accordingly, and the district’s schools can be ranked high on prestigious schools lists and thus garner more of the municipal budget. Regrettably for them, state equalization methods actually trim complementary state funding as a school district escalates in wealth and furthermore, the school taxes must go up.

We all know the one about the farmer who kept cutting his horse oat rations and was deeply disappointed with it when it croaked on him just before delivering his best work yet. But have you heard the one about the schoolmaster who sated up his horse, cosseting it to heart wrenching inexpediency? In the name of multifaceted, pluralistic, unmediated learning the schoolmaster promptly rolled up his sleeves and plunged into lavish education, one that will score him nice points with the PTA, sparing no expense and emphatically integrating synchronized swimming, tom-tom drumming and horseback

riding in the curricula. Problem is, when the day came to cash in the pledge to his board and PTA he couldn't afford the stables or the riding practice field – they also now became too costly and the school taxes continued going up!

Why pester you, the weary, politics nauseated reader with the nagging education issues again? In the wake of the presidential election there has been vigorous debate as to the election of a Democrat with socialist tendencies in spite of a dismal economy. The Democratic Party's propagated deficiency in education played a large part in that assertion.

There is the general aura that we as a nation are technically deficient feeding the imperative for us to forge a more "intelligent" work force if we are to keep our competitive edge in a global marketplace. That is debatable, but further to this end lays the unspoken criticism of state education in failing the American student, giving license to the federal government usurping the states as the framers of education policy. This is even more troubling because there is a difference between skill and education. It was skills coupled with freedom of thought to propel America to such growth. It was education that played the catalyst to drive craftsman and artisans into making things that free people want and need. Today the narrow-mindedness of centralized, one-shoe-fits-all standardization of education will fail if it is pursued. It already has.

The Math and Science Paradigm

The government often points to our deficient math and science scores but does this really mean we are a deficient work force less capable of achieving what our predecessors achieved in the late nineteenth century? The campaign for democrats spoke voraciously of the need for improving our education system. This seems strange when the federal government cannot hire one local teacher, or set curriculum, but nevertheless clearly sets forth an enhanced role of the federal government in education, whatever that will be. There are two approaches to this: one is to just pipe more borrowed money into the system with strings attached, the other is to use the leverage of more socialistic government to dictate programs and curriculum and circumvent local government's role and the free thinking education community in the process. Federal funding of education carries this myriad of problems.

A Profit - Loss Game

We can look at education in society from different points of view. In the very beginnings of civilization the collective knowledge of the world and its surroundings developed from man's ability to conquer basic tasks. All of which lead to a social order in which the sharing of knowledge for some gain was inherent - let's call this continual activity "*the game*". The origins of the game could be viewed as the social order evolved by developing the skills of human survival, hunting, farming and the constituting of complex society forming into today's economic paradigm of capitalistic mechanized society. Within either of those games, the prehistoric era or modern paradigm the element of education played a fundamental part.

It is a self-preservation necessity for government to keep its social game going and even more important to keep the game's integrity intact. Without a game to regulate, government is for the most part moot, ineffective and prone to mere demagoguery. The attack on our social order that came on September 11th was instigated by another society

that estimated that a disruption in our social order (our *game*) could effectively defeat or upset our way of life. One key mental factor of the attackers' motivation was that in their minds they played a 'heroic' role in a warped David and Goliath scenario. Unfortunately it worked.

After it happened, the government expended great sums bolstering the economic structure of our social order. The game was and is central to our being. If it had not been, it would not have recovered. However the progressive ideology stands at odds with these very ends of education. The focus on who gets educated versus what they are educated to do has taken over center stage. There was and is a professed government mandate to educate the lesser of our society, primarily borne out of the civil rights movement and affirmative action mandates. This is not to say government should not be interested in educating all who want and education or to achieve a racial and economic balance. The problem comes from the diminution of taught skills and narrowing of curriculum focus. Basically, the greater government involvement in education the less innovation we get in the body of knowledge being taught. Education does not consist of only math and science but also entails craftsmanship and skills, and yet government is obsessed with math and science scores!

Government acts much like the "House" in a casino. Sometimes it is a player but its primary function is to maintain the games. When the house is a player, betting odds are in favor of the house, creating a reliable profit stream for the house. Players in the casino recognize this as necessary to maintain the game where they have a chance at profits, however less than the house. Government is dependent on two things to fund education a reliable tax base and growth in the value equation. Without these elements the costs associated with education as it is structured today cannot be maintained. Therefore, from an education point of view, the game has a stake in the knowledge gained by its players. It would seem evident that a stagnation of knowledge and the coincident innovation that is borne from it will have an extremely detrimental effect on the game.

Assume that the innovations of another society surpassed us. Where would we be? This notion conjures up the birth of the atomic age, the Manhattan project. Had the brain trust of knowledge failed us or had the enemy succeeded in developing atomic weapons before we did, the outcome may have been different and our version of the game would now be someone else's version. Government realizes that keeping it youth educated is an integral part of society and in this context, the cost of state sponsored education can be viewed as an investment that pays invaluable dividends in technological development and social order and unfortunately sometimes in feeding a political ideology. Funding of the education process, while unshakably justified, has always been problematic and it predates the mandatory processes of education but education is funded with society's marginal revenues, and inflation; that is revenue that comes from profits or increases in value. Ironically, the principles behind the very system that provides funds for education processes are among the most little understood elements of our society.

No one likes to invest their money into anything unless it brings tangible results, some kind of return on investment that is measurable. In a republic form of government, which is not a pure democracy, a brain trust of elected officials are given the power to tax and responsibility to spend those taxes for the benefit of the nation as a whole. Education in my opinion is seen as a necessary and worthwhile expenditure but not as an investment. This is because there is no quantification of the nation's return on this investment. The

term investment is used here to purposely imply its original meaning but there is a notable difference in perception between a worthwhile expenditure and a pure investment. Education expenditures are much like being a trustee where you have the welfare of the beneficiary at issue and you are guided by your responsibility as a trustee. An investor makes a deliberate expenditure of cash with the expectation that he will be richer for the decision. He takes calculated risks and can quantify that risk in sophisticated mathematical terms. An investment is generally a profit making activity and the activity itself involves commerce in one form or another. If an individual approaches the cost of education, it is often in terms of the notion that, over one's lifetime, earnings power is substantially increased as a result of that investment. Surveys often track the progress of educated people, the degree of education and the margin of earnings attributed to the cost of their education. This is done even at the lowest levels of education, preschool. The quality of education tends to lessen the risk of a lower economic return and it is safe to say that private education is often sold on that basis.

Appearances, Prestige and Social Status: Another Game

What makes one institution of learning more desirable than another and is there risk involved in the decision? Often it is merely reputation of the school but reputation is usually built on some kind of reliable quality. Others recognize that the education community itself creates a sort of fraternity business association that yields a fertile ground of opportunity for those who associate with it. All of this is nothing new but looking at the entirety of public education we can analytically approach government expenditures in this context.

What does the government gain from its investment in education? Allowing, for a moment to drift into a somewhat non-quantifiable result, consider the Manhattan project the atomic bomb. Here is one concentrated investment in education. Although the payoff to some may seem to be death and destruction, the reality is that our modern world is profitably connected to that invention of death. It is unfortunate that war is the setting for many of man's great innovations. For example, the development of plastic surgery techniques were attributed to surgeons reattaching noses hacked off in battle and during World War I, advanced techniques were needed for restoring badly disfigured soldiers. Even the use of the MASH like battlefield hospital was a development during the Napoleonic wars. It seems the cost of war in economic terms can in part be an investment in education. Returning to the atomic weapons development, the cost of which was \$0000000000, the reality of the expenditure was the cost of providing a sophisticated laboratory with learned and *scholarly individuals engaging in Constructivist learning*.

Here we unfold for the first time ever, the uncorroborated yet exclusive study comparing two twin brothers who have been separated at birth – one stayed with his poor, underprivileged inner-city black family, the other was adopted by a suburban upper-middle class white family. Who do you think got farther in life? Well, let me save you the anticipation: The middle-class family spared no expense and really coddled their adopted son with the best school money can get – here he could take his pick of an offensive affluence of course choices, from horse riding, to soufflé fluffing to 'Guitar Hero' iconizing (while pole dancing was left as an elective). The second twin was dropped in the tough-love arms of public school and had to make do with the shamefully Twitterless sphere, stuck with mundane algebra and teeth grinding lackluster geometry. Five years in,

the private school went bust and its students got dispersed to other, lesser, schools, where they had to devastatingly cope with a non-vegan cafeteria. Today the first twin is a washed-up semi-celebrated golf TV pundit. The second brother, the poor one, is an esteemed mechanics engineer.

The Need for Education Costs Examination

The cost of formal education from K to college must be thoroughly examined. Elements or components of educational cost must be identified and the necessity of these costs must be weighed, correlations between costs must be identified and cost behavior must be observed. Observe now at how government views college education and student loans. Essentially, this is federal funding of universities and it is a matter of time before universities are reluctant to take an antigovernment position. Education costs should also be classified by module. For example, History - what is the cost of teaching our students the History Curriculum? A close examination will reveal an identifiable cost to each element of module of curricula we establish.

Curricula costs noticeably differ by school or school district. For example, the cost to teach the entire history module required by State or other curriculum authority must experience fluctuations. Assuming the probability that there are variance and correlative aspects to educational costs between schools, there is a need to establish standards in the cost classifications particularly as they relate to the specific curriculum being taught. These standards must evolve into budgeting principles and like any useful benchmark standard they must be flexible and easily give effect to change.

These changes should be established by an overall "standards board" which would be a representative body of selected individuals that test and review standards and issue pronouncements on a regular basis. In other words we should have budgeting standards which the teaching community and the financial community agree on. The board should consist of representative from the stakeholders of society, government, business, social order and ethical disciplines. In the latter groups, a judicious choice would include correctional system representatives and representative from armed services. The idea is to capture the brain trust of all of the possible elements of education, be it a K through 12, a business apprenticeship program or a prison rehabilitation program. Each of the aforementioned has significant input into curriculum as well as standards. The costs associated with education must be tempered by the alternative cost to society of failure. For example, if the US Army has to retrain an individual to read after the education system failed to achieve an acceptable proficiency level, there is a cost associated with that which taxpayers ultimately pay. Overall, an investment in education at the formative stages of life to achieve certain levels of proficiency may actually be returned in saved costs of retraining individuals either in a military or correctional setting. Corporate training programs that are forced to include some level of remedial training would be less costly.

A cost benefit rule should be established in budgeting educational expenditures in the goal we establish for the objects of our educational effort. Unfortunately, this concept, at the most efficient level, will exclude some worthwhile curriculum but not one dictated by the federal government. We may sacrifice teaching music if we see that subject as noncontributory factor in overall development. This is a serious drawback to this type of educational management. However, the only means to temper this pitfall is by using

representative standards to maintain non-quantifiable elements in the curricula so that arts and skill are not overlooked.

Is There a ‘Perfect’ School?

Charter schools are a paradox. How does a profit making organization run a school on considerably diminished budget as compared to the behemoth public school system and accomplish better results. The answer is obvious without too much investigation. Simply stated, the cost of the bureaucracy is inherent in government run schools and results in useless expenditures with little benefit.

So how do we ‘assemble’ the best (financially speaking) school – to start with, station it on cheap farmland, in the heart of a district where the population traditionally avoids taxes or declares false income; then build it from recycled plywood which is a preferred subsidized building material; fifth graders would be employed in teaching second-graders, their earnings put aside in a college tuition fund; simple pencils, notebooks and Montessori bead boards are utilized while the mentally-stifling PC’s are kept out of the premises in the depraved outside world; dismissing this absurdist allegory with an ascendant overly-comfortable scoff won’t change the bitter facts: a thorough substantiated comparison to a fishermen school on a raft in Taipei, will still dishearteningly find the American public school coming up short.

So what are we to do? Education guidelines and budgeting principles go hand in hand. What is to be taught is not the purview of the government but government does have the responsibility to provide the environment for educational excellence and nothing more. We as a free society and a free market must decide what to prioritize in curricula. Freedom is the key word here but at what cost? We can’t prioritize kite flying when there is no market or interest in the activity. The market will be the one to dictate the educational needs. In the field of accounting the profession dictates much of what accounting students need to master to maintain the profession at a high standard. This approach should be adopted starting at the lowest levels of educational spectrum. It is not how much money that is spent on education but how and why it is expended. Reading this article, quite a few self-anointed education oracles would stand up and try to rebuff all this and probably denounce the author as a defeatist killjoy – ‘we are doing just that!’, would be the spinmeisters’ blazing kneejerk retort. Is that so?! So why do ‘anonymous’ government insiders leak portentous statistics to the opposite on a weekly basis? This is the core of the dysfunction. Simply stated, we need a brain trust of non government educators to suggest direction and standards of budgeting for education. Most of all we must include education of all capabilities and interest. Math and science cannot serve as the only yardstick our system goes by. Or should we really be, yet again, quantifying an innately entitled qualitative section of our society?

References

- Patrick R. Colabella, CPA (2008), *The Effect of Public School District's Property Values on State Educational Funds*. St John's University, New York School of Education
<http://proquest.umi.com/pqdweb?did=1819761961&sid=1&Fmt=2&clientId=79356&RQT=309&VName=PQD>
- Brown versus Board of Education. (1954). 347 US 483 294.
- Bryant, J. J. (1994). *The Effects of Local Taxes on Economic Behavior in the Housing Market*. Texas Tech University, 145 (Publication AAT 9426743).
- Brueckner, J. K., & Saavedra, L. A. (1997). *Do Local Governments Engage in Strategic Property-Tax Competition?* Chicago: University of Illinois.
- Colabella, P. R., & Coppinger, R. J. (1999). Global Institute for Taxation Papers. *The Withdrawals Tax*. Jamaica, NY: St. John's University.
- Crampton, F. E. (1993, April). *The State of New York School finance 1993: Equity and Efficiency at the Crossroads*. Presented at annual meeting of the American Educational Research Association. Atlanta, GA.
- Farm Subsidy Study. (1977). Index of Property Tax Non-Uniformity Among School Districts in New York State. New York State Division of the Budget, Education Study Unit. Albany, NY.**
- Funk, P. E. (2000). *Shortchanging Small Schools: Nebraska School Finance Policy. The Impacts of LB 1114 and LB 806 on State Aid and Property Tax Revenues for Nebraska Public School Systems by School Size*. Center for Rural Affairs.
- Gilliland, C. E. (1983). *An Analysis of Wealth Effects of Property Tax Reform Texas*, A&M University, 174 (Publication AAT 8408430).
- Gold, S. D. (1992, February). *How much did State Taxes Really Go up in 1991*. In State Fiscal Briefs Rochester Institute of Government, Center for the Study of States. Rochester, NY.
- Green, R. K., & Reschovsky, A. (1994). Fiscal assistance to municipal governments. In D. A. Nichols (Ed.), *In Dollars & Sense: Policy Choices and the Wisconsin Budget* (Vol. 3, pp. 91-117). Madison, WI: The Robert M. LaFollette Institute of Public Affairs.
- Hovey, H. (May 1996). The Property Tax in the 21st Century. *The Finance Project: Working Paper Series*. Washington, DC.
- Johnson, M. S. (1984). The impact of property tax revaluation of wealth-based state aid to schools: A case study of Tompkins county, New York. Economics of Education Review, 3(1), 45-54.**
- Ladd, H. F., & Harris, E. W. (1995). Statewide Taxation of Nonresidential Property for Education. *Journal of Education Finance*, 105-123.
- Lentz, C. (1999). Predicting school referenda outcomes: Answers from Illinois. *Journal of Education Finance*, 24(4), 459-482.
- Meyer, N. (1995, January). *The Real Property Tax and K-12 Education*. National Public Policy Education Conference, University of Idaho.

- Murphy, A. F. (2000). *A study of the fiscal impact of school district consolidation upon the 23 non-operating school districts within the state of New Jersey*. Seton Hall University, College of Education and Human Services, 174 (Publication AAT9961750).
- National Education Association. (2003). *Protecting Public Education: From Tax Giveaways to Corporations*. Property Tax Abatements, Tax Increment Financing, and Funding for Schools. Washington, DC: National Education Association.
- New York State Comptroller's Office. (2006). *New York school districts data: 1995 to 2006*. Albany, NY.
- New York State Board of Regents. (1995, February). *Study on the Generation of Revenues for Education*. Albany, NY: New York State Education Department.
- Oates, W. E. (1969). The Effects of property taxes and local public spending on property values: An empirical study of tax capitalization and the tiebout hypothesis. *The Journal of Political Economy*, 77,(6), 957-971.
- Paul, D. (1975). *The Politics of the Property Tax*. Lexington, MA: DC Health and Co.
- Purcell, J. D. (1980). *The Effects on the Property Tax When Full Market Value is Used as a Basis for Assessed Valuations of Properties in a Selected School District in New York State*. State University of New York at Albany, 130 (Publication AAT8021976).
- Reback, R. (2002). *Capitalization under school choice programs: Are the winners really the losers?* Columbia University, NY.
- Reynolds, W. R. (1986). *A case study: The transition of an independent school from small rural to suburban status*. East Texas State University, 177 (Publication AAT8622064).
- Rubinfeld, D. L. (1977, February). Voting in a local school election: A micro analysis. *A Review of Economics and Statistics*, 59(1), 30-42.
- Ryan, T. W. (2005). *An examination of community type and school tax levy referenda in Missouri*. St. Louis University (Publication AAT3211631).
- Scheuer, J. (1995). *Options in school finance reform in New York State education priorities panel*, NY.
- Schroeder, L. (1981, January). Property tax equalization rates: Implications of their use in tax inequality cases in the City of New York. *American Journal of Economics and Sociology*, 40(1), 79-95.
- Silky, W. D. (1990). *School district merger and economy of scale: An examination of policy and practice in New York State*. Syracuse University, 168 (Publication AAT9111887).
- Swaine, D. G. (2002). *New England fiscal facts* (periodical). Federal Reserve Bank of Boston, 28.
- Tiebout, C. M. (1956). A pure theory of local expenditures. *The Journal of Political Economy*, 64(5), 416-424.

- Von Mises, L. (1998, October). Inequality of wealth and incomes. *Freedom Daily*.
- Waddell, J. R. (1997). *A radical case interpretation of the impact of Alabama equity funding reform on an economically disadvantaged school system*. The University of Alabama, 188 (Publication AAT 9821567).
- Weicher, J. C., & Wolff, E. N. (2000). *Wealth in America: Perspectives on its growth and distribution*.
- Widerquist, K. (2001). The regressive effect of star. *Educational Priorities Panel*