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**Glass, Gene V. (2008) *Fertilizers, Pills, and Magnetic Strips: The Fate of Public Education in America*. Charlotte, NC: Information Age Publishing**

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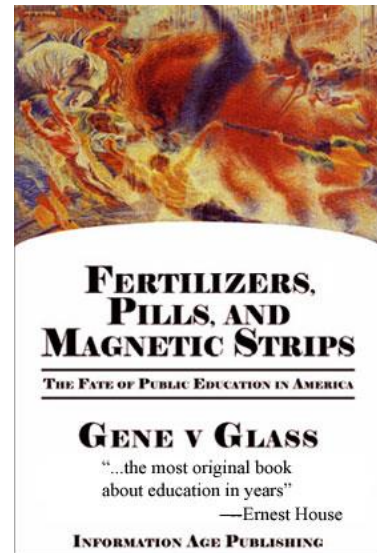
**June 17, 2008**

In the spirit of *Guns, Germs, and Steel: The Fates of Human Societies* by Jared Diamond, which explains the history of the West's geopolitical hegemony within a complex dialectic of technological advancements, Gene Glass's new book *Fertilizers, Pills, and Magnetic Strips: The Fate of Public Education in America* examines how over the past 100 years advancements in agricultural and medical technologies and the implementation of non-money-based credit systems have played a critical role in provoking social and educational change in the U.S.

[For another review of this book, see the essay review by Benjamin Levin.](#)

Editor's Note: The following review was solicited and first published under the editorship of Pat Hinchey, Co-Editor of *Book Smarts*, and appeared first in *Book Smarts* at <http://www.book-smarts.net>.

Regents' Professor at Arizona State University, a member of the National Academy of Education, and the brains behind the widely used research methodology meta-analysis, Glass sets the stage for understanding the history of educational reform in the U.S. in Part 1 of the book, *The Drumbeat of Reform*, which consists of two chapters: "The Endless Narrative of Education Reform," and "Transforming Education: *Ordo Ab Chao*." Here, the author reveals how the conservative education reform movement over the past 50 years has concocted and maintained the idea of a national crisis in order to give credence to its own preconceived ideological and economic agenda. Through extensive analysis, he exposes how the strategy of "If you want to fix it, declare it broken" (p. 21) has been realized over the past few decades through the politicization of testing agencies like NAEP, and the manipulation of domestic and international test score data to make it appear that public schools in this country have been failing. He argues that conservatives have created general hysteria around what has been described as a nation at risk, and then used *Ordo ab Chao*—order out of chaos—as a response in "deceptive and manipulative ways in order to seize power" (p. 21) and to introduce and sustain support for large-scale privatization of public education as the solution to our national "crisis." Glass is convinced that the end game here isn't about excellence in education; rather, he contends that this is actually about relegating the poor to under-funded, over-burdened, and devalued public schools, while granting tax breaks and private educational privileges for the more economically advantaged—an interesting form of class warfare that funnels public monies into private pockets, leaving the public sector virtually empty handed.



**Gene V Glass**

Throughout his analysis, Glass provides copious footnotes to help the reader further investigate his claims. The book also has an accompanying Website that offers more analysis and detail at <http://lounge.infoagepub.com/gglass>.

Part 2, *Fertilizers, Pills, and Magnetic Strips* begins to dissect these three elements and their societal influence. As a theoretical lens, Glass uses cultural materialism à la anthropologist Marvin Harris, which combines Karl Marx's focus on the means of production and Thomas Malthus' exploration of demographics to explain fundamental transformations in society. This section of the book consists of four chapters. The first, Chapter 3, "Fertilizers and Tractors: The Rural to Urban Migration" explores how food production at the turn of the century was dramatically increased due to chemical advancements in fertilizers and the invention of motorized tractors. However, mechanization also decreased the demand for agricultural workers and as a consequence, coupled with poor federal agricultural policies, rural labor on a mass scale was forced to migrate to urban industrial centers. As part of government efforts to meet the needs of such

dramatic demographic shifts, public schools were undergoing fundamental change and their charge was heavily influenced by industrialists. As the author describes:

The comprehensive high school that emerged in the early decades of the 20th century sought to train children from the middle and lower economic classes in how to be factory workers. Schools began to teach industrial education, a type of training that provided factories with pretrained workers at public expense.

During this period and subsequently, the National Association of Manufacturers became a powerful player in setting education policy. (pp. 67-68)

Nowadays, the National Association of Manufacturers and organizations like the Business Roundtable, the National Alliance of Business, the U.S. Chamber of Commerce, and the American Business Conference continue to lobby heavily to support their own interests, often to the detriment of the American people. And why all this talk about helping to give the children of the United States a fighting chance to compete in a global economy? In spite of all the rhetoric about national security and lending a hand to the youth of this nation by fighting for a better system of public education, U.S. corporations are huge fans of outsourcing jobs and exploiting cheap semi-skilled labor both domestically and internationally. Meanwhile, back at home most of the jobs in what is now a predominantly service economy don't require a sophisticated education.

Chapter 4, "Pills... That Prevent Conception or Extend Life," explains how technological advancements in medicine have prolonged human life and increased the population size. Worried about today's dwindling public resources and support for public schools, Glass projects that the stakes are getting higher as "The aging of the U.S. population can be expected to impact public education through competition for funds between medical care and other sectors of the public economy" (p. 82).

Chapter 5, "Magnetic Strips: Easy Credit and the American Economy," offers insight into how big banking, through the invention of the credit card, has created a colossal personal/family debt in this country that currently exceeds \$800 billion. The author emphasizes the simple equation that when people are deep in debt they are much less willing to financially support public facilities and institutions such as schools. For Glass, "The crisis in elementary and secondary education is not a crisis in achievement, but rather a crisis in cost, or more properly, a crisis in the willingness of the middle class to support a long-standing institution" (pp. 119-120).

Chapter 6, "America is Growing Browner, Older, and Deeper in Debt," looks at changes in racial demographics in the U.S. Glass pays particular attention to increases in the Hispanic population as a result of U.S. foreign policy, economic dealings like NAFTA that have destroyed local economies in Mexico and pushed people across the border, and higher birth rates in part influenced by religious beliefs about birth control. The author points out that what's also different about the growth of the Latino/a population is the average age therein, which is younger as compared to the rest of the population. As public schools get browner, Glass ponders what will happen when

Older, White Americans entering their retirement years with diminishing assets and the prospect of continued work will be asked to support the public institutions that increasingly will be serving a younger, browner clientele. One may hope for a generous spirit among these older Americans; however, no one should be surprised if they demur. (pp. 115-116)

Within the current racist, classist, xenophobic climate where the public supports building walls along the southern border between Mexico and the U.S. and there is enormous anti-immigrant sentiment, there's little chance for such solidarity and support.

Part 3, *What Accountability Means*, is made up of three chapters: "Robots, Cars, and 4BR/2.5B," "Reforming the Schools: Making Some Cheap and Others Private," and "Accountability and Ethnicity." Here, the author elaborates on some of his earlier arguments about technological advancements, material acquisition, and comfort. The most intriguing question presented in this section deals with accountability in education management and evaluation which, like many other progressive scholars, he deplors as "an attempt to embarrass educators and discredit public

education” (p. 203). But what’s new here is that Glass focuses on the variance in severity of accountability from state to state:

I wish to advance the hypothesis that accountability pressures are adopted and applied selectively across the U.S. in response to the growth of racial and ethnic minorities in the populations of individual states.... The severity of education accountability measures varies in relation to the percentage Hispanic or Non-White population growth in the state. (p. 208)

The book provides a comparison between Maine, a low stakes predominantly white state, and Texas, a high stakes racially diverse state, and how racially and ethnically subordinated groups are affected by these different programs. This micro-study begs serious questions about the inherent racism in educational policy and, as the author suggests, merits more investigation.

Part 4, *Looking Forward*, closes with a chapter entitled “What is the Fate of Public Education in America?” In a tone that he embraces as a healthy cynicism, but not pessimism, Glass predicts that contemporary education policy around school choice, high-stakes testing, tuition tax credits, privatization and commercialization proposals, and English-only practices will be the lay of the land for the foreseeable future as the private sector will continue to hold the reins of the prevailing reform movement and reap the lion’s share of the federal and state monies directed towards public education. That is, unless a critical public steps up. This is what’s particularly interesting about Glass’s analysis: he doesn’t simply rely on revealing the greed of smash and grab capitalism; ultimately, this is a book about how the general public responds politically to technological advances and demographic shifts in society. Clinging to the possibilities of a real participatory democracy, Glass leaves open the question of whether peoples’ self interests—which obviously are always influenced but not necessarily determined by larger structural and ideological forces—will continue to be complicit in dismantling what’s left of a national sense of community, or whether we will begin to support in the name of liberty the kinds of equality and public sphere that make us all free. That’s surely an easier contradiction to reconcile than leaving citizenry, democracy, and the unpredictable influences of innovation in the hands of very predictable private financial institutions and interests.

Optimism requires awareness, so if you’re looking for a place to begin to understand so as to be able to transform the underlying forces that have been shaping public policy as it pertains to education in the United States, *Fertilizers, Pills, and Magnetic Strips: The Fate of Public Education in America* is a great place to start.

## About the Reviewer

Pepi Leistyna is Associate Professor of Applied Linguistics Graduate Studies at the University of Massachusetts Boston, where he coordinates the research program and teaches courses in cultural studies, media literacy, and language acquisition. He speaks internationally on issues of democracy, public education, and social justice, and he is the North American representative of the Association for Cultural Studies. His forthcoming book is entitled *Public Schooling: A Battleground for Class Warfare*; his recent documentary film with the Media Education Foundation, "Class Dismissed: How TV Frames the Working Class," was recently honored with the Studs Terkel Award by the Working-Class Studies Association.

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**Pepi Leistyna**

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