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US Health Care's Biggest Problem: AMA Monopolization of the Physician Labor Supply

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Abstract
This paper describes the illegal monopolization of medical education by progressives. This research briefly reviews the historical beginnings of the medical industry in the United States. It gives particular attention to the impact progressives such as Abraham Flexner, Arthur Dean Bevan, John D. Rockefeller, and Andrew Carnegie had on medical education, along with the American Medical Association and state and federal legislation. The resulting monopolization of medical education has constrained the supply of general and family practice physicians and is a felony violation of the 1890 Sherman Antitrust Act. This brief history lays the groundwork for future research on market concentration in the health care industry, as well as supply-side effects of medical specialty choice by graduate medical residents.

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I. Introduction

The control of any industry via one entity's ownership of a factor of production constitutes a monopoly. The result in the market, when the entity controls the entry and exit of its competition, is upward pressure on the price of goods or services in that industry. A highly concentrated market, which is the hallmark of monopolistically competitive markets, rarely benefits consumers, for they have no choice but to purchase goods and services from the monopolist. Consumers' inability to find comparable substitutes also means they will pay a higher market price than if there were market competition. A monopolist, of course, rarely wishes to give up control of the industry because it controls the market price through the supply of the goods or services it offers. To hold on to its control, typically, the monopolist will seek help from a powerful agent, usually government legislation, to secure it from competition.

Usurping market forces and altering a free market in favor of a government-controlled or single-entity-controlled market can take decades for the casual observer to notice. Once a single entity controls the market, it is a monopoly: competition is eliminated. Few people alive today realize that the medical industry currently ensconced in the United States is far from a competitive market simply because the fight for control of the medical industry began over 170 years ago, was largely over by 1925, and the resulting medical environment is dominated by one entity, the American Medical Association (AMA). By definition, the AMA is a monopoly because it has sole control of the one crucial factor of production: the labor supply of physicians. To see how this monopoly happened, we must reexamine the actions of progressive physicians in the mid-1800s,[1] the actions of the AMA, and the resulting legislative privilege and regulatory capture that allowed the AMA to control medicine as we know it today.

After Americans won their independence, the colonial medical licensing laws, installed by the British during the colonies' founding, were largely repealed. This repeal resulted in an explosion of free-market, entrepreneurial, American-trained, homeopathic physicians. In the early days of the American Republic, these free-market physicians competed directly with progressive European-trained physicians and were the preferred medical experts to consult by the vast majority of Americans (Hamowy 1979).[2] By the mid-1850s, the

[1] I use the word "progressivism" to refer to any socioeconomic and political system wherein the individual is not free to be self-determinant. I include all forms of top-down authoritarian philosophies, such as socialism and Marxism, since at its root all forms of authoritarian "-isms" are tyrannical (McCutcheon 2019). I use these words interchangeably to describe non-free-market ideology. Progressivism (statism, collectivism, communism, socialism, etc.) is an ideology imported from Europe largely after Karl Marx wrote his tome, *Das Kapital* (McCutcheon 2019). I define a free-market capitalist as anyone supporting individual self-determination and free choice in market decisions.

[2] Hamowy (1979) calls free-market physicians "heterodox" and progressive physicians "orthodox," but the distinction is irrelevant. Orthodox physicians, many of whom received their medical training at European universities, could not compete in the American medical playing field. They relied on systematic bloodletting, blistering, and the administering of massive doses of metallic compounds such as mercury, antimony, and other mineral poisons as purgatives. (From 1825 onward, physicians who received their medical training in state-controlled European universities in Germany, France, and the United Kingdom and brought the ideals of state-controlled medicine to America are progressive-socialists.) I use the terms "progressive" and "socialist" interchangeably, as both

highly competitive nature of free-market medicine threatened the livelihoods and wealth of progressive physicians.

In an effort to remove their competition, progressive physicians revived the European guild system (Hamowy 1979): they formed a medical union called the American Medical Association. As the spokesman of orthodox (progressive-socialist) physicians, the AMA's stated goal at its first congress in 1847 was to control the labor supply of physicians (entrance into and exit from medical education) in order to enhance the earning power of practicing physicians (Hamowy 1979).

The AMA focused on three simultaneous targets: "1) the establishment of medical licensing laws in all states to restrict entry into the medical profession and alleviate the uninhibited competition that was rampant in the United States during this century; 2) [the] use [of] state legislation to destroy the hundreds of for-profit medical schools and replace them with far fewer not-for-profit medical schools; 3) [the] use [of] both of the above to eliminate homeopathic physicians and other heterodox medical sects because they represented unwelcome competition to orthodox physicians" (Hamowy 1979). Thence began a fifty-year effort to elect wealthy physicians to every state legislature. A wealthy physician could leave his practice and patients to subordinates in order to participate in state legislatures, whereas a poor physician could not afford to run for state office. Once elected, the wealthy physicians would enact state law to protect the AMA-sanctioned not-for-profit medical

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terms refer to people who support state control of an industry, and in the case of the medical industry, who support the elimination of individual choice and self-determination of health care decisions. It was this set of physicians who organized into the AMA and sought to eliminate their heterodox competition from medicine (Hamowy 1979; Ben-David 1960).

Heterodox medicine was developed and patented in 1813 by a New Hampshire farmer, Samuel Thompson, a self-taught botanical physician (Drake 1830; Hamowy 1979). The form of medicine promoted by heterodox (capitalist) physicians typically relied on the use of observation of the medical disease and treatment with botanical remedies, proper diet, personal hygiene, and bed rest (Hamowy 1979). These doctors, and the for-profit medical schools they founded, depended on capitalism and the forces of demand and supply to regulate the medical industry. Stiff competition weeded out the physicians who could not produce desired medical results. In other words, the capitalist medical environment produced physicians who excelled at producing healthy patients, and those physicians earned a larger patient pool and higher incomes. The capitalist medical environment also exceled at eliminating from the medical industry physicians who could not produce a healthy patient pool (Hamowy 1979).

universities, thereby giving the AMA total control over the entry and exit of graduate medical trainees (Hamowy 1979).

Since the end of World War I, every physician currently practicing in the United States has trained in an AMA-sanctioned medical school (McCarty 1971; Savitt 2006). No other entity competes with the AMA. Controlling the supply of physicians forces consumers to purchase medical services with little or no availability of substitutes and at higher prices than would occur in a less-concentrated industry.

This historical research is important for two reasons. The first is because the only way to break up a monopoly is to expose the monopolist's behavior in such a way that it is transparent to consumers and legislators that the control of that industry harms consumers. After revealing the monopolist, we can take steps to deconstruct it and restore the market to its competitive form. The second reason is more important: we have left our roots of free-market medicine so long in the past that our countrymen have forgotten that competitive markets will, eventually, weed out the bad actors. Loud voices on the political left are insisting that a competitive market in medicine won't work (even though the United States hasn't had one in over a century). Therefore, "for the common good," our country must have a single-payer, government-controlled health care system.

To return our medical industry to a competitive market, we must remember how we strayed from its path. Therefore, in the following four sections, I briefly reexamine the history of how, with state-level legislative privilege, the AMA gained vise-like control of the physician labor supply. I reveal the role played by wealthy American industrialists and their foundations (the Carnegie and Rockefeller foundations) in funding medical education during the late nineteenth and early twentieth centuries. I scrutinize the influence the AMA acquired over physician labor during the twentieth century. Finally, rather than hope for a government solution, I show that grassroots changes at the individual physician level may be a partial solution to the physician shortage.

II. A Brief History of the Legislative Privilege Cultivated by the AMA

At the turn of the nineteenth century, the United States boasted four medical schools: the University of Pennsylvania (founded in 1765), King's College (1767), Harvard (1782), and Dartmouth (1797). There

was little federal government oversight during this period because the power of regulation resided in each separate colonial government. After the American Revolution, it resided in the state governments. In addition, colonial medical laws were largely removed by post-American Revolution state legislatures, resulting in rampant entrepreneurship in medicine (Hamowy 1979).[3]

From 1810 to 1840, twenty-six medical schools were established, with an additional forty-seven opening from 1840 to 1876. It is unknown how many physicians resided and practiced in the United States during these years, but by 1850, the ratio of physicians to citizens was 1 to 568 (Hamowy 1979). By 1870, approximately 62,000 people practiced medicine, approximately one physician for every 755 citizens (Hamowy 1979).[4] Of these, approximately 8,000 were free-market physicians practicing homeopathy and eclectic medicine (Hamowy 1979). The other 54,000 were orthodox physicians who relied heavily on systemic treatments consisting of bloodletting, blistering, and the administration of massive doses of poisons such as mercury and antimony (Hamowy 1979). Many patients of orthodox physicians died, making these doctors unpopular with rural and city folk alike. The free-market physicians, by contrast, relied on botanical remedies, steam baths, and rest—essentially, therapeutic medicine and diagnosis through observing the patient. This type of medicine was developed and patented by Samuel Thomson, a New Hampshire farmer, around 1813, and was quite popular with both rural and city folk (Hamowy 1979).

America's competitive market in medicine produced more physicians than Britain, France, Austria, and Germany combined (Hamowy 1979). Physicians advertised by handbills and in newspapers, and price transparency and word of mouth drove Americans to the physicians who produced the healthiest patients—which, because they eschewed bleeding, blistering, and poisons, were the free-market physicians, like Thompson. Competition in metropolitan areas was stiff, and the best physicians became very wealthy (Drake 1830; Hamowy 1979). But overall, American

[3] The average life span was about thirty-five years, with few people living beyond fifty. The most explosive growth in life expectancy occurred after potable water became readily available to the majority of the US population at the end of the 1800s (Senior Living 2018).

[4] The ratios were substantially higher in these European countries: England, 1 to 1,666; Germany, 1 to 3,225; France, 1 to 3,780, Italy, 1 to 1,639; Austria, 1 to 2,932 (Hamowy 1979).

physicians were poor and not held in high esteem like their European brethren, according to Flexner, because America had too many doctors. Ample supply drove down the price each could charge, reducing physicians' income unless they wanted to work harder and see more patients.

In 1847, in an effort to control the medical industry and limit the supply of physicians, 230 wealthy physicians from forty medical societies and twenty-eight wealthy colleges and universities established uniform standards for medical education, training, and practice (Hamowy 1979). The AMA was founded in the course of the medical conventions of 1847 and 1848, as progressive ideology began to permeate the medical community. During these two years, and behind the scenes, progressive physicians in the AMA worked to increase the association's membership and lobby state legislatures to support accreditation of nonprofit medical schools, quietly implementing steps to socialize the medical industry (McCarty 1971).[5]

After the Civil War, by 1876, there were seventy-seven medical schools in the United States. Dozens more opened before the turn of the twentieth century. The common business model for a nineteenth-century American medical school was as a for-profit commercial business, where a medical student would pay the instructor to teach him medicine. Entrance standards for these schools were, by today's standards, nonexistent; students with an eighth-grade education were regularly admitted.[6] All these medical schools were considered

[5] Following in the footsteps of their European medical brethren, the AMA forbade physicians to act in an entrepreneurial fashion: it forbade them from advertising and posting prices for services, two tools they had relied on to attract business to their practices. Only physicians certified by the AMA would be allowed to practice medicine (AMA 1847 Code of Ethics). After the dissolution of the for-profit medical schools in the early 1900s, only the medical schools sanctioned by the AMA would be allowed to function. Thus physicians, in their practices, were prevented from responding to the price mechanism. Through these actions, combined with state and federal legislative policy, the AMA gave itself a monopoly in the medical industry.

[6] Remember what century we are talking about: the 1800s. Most of the county's population lived on farms, and if a child finished all eight grades, they were considered well educated. Most children didn't make it that far, because they learned the basic reading, writing, and arithmetic they needed to be farmers by third grade. A child who completed all eight grades might become a school teacher. Otherwise, unless a child's parents were very wealthy and could afford to send them to university—or unless one of the local tradesmen took them in as an apprentice, which was rare—career options were limited, and children were expected to return to the farm to help run it. Those who did enter university did

commercial, for-profit businesses, and it was common practice that the founding professors owned them. According to McCarty (1971), Americans thought that a "good" medical school was a profitable one.[7]

Hidden from public sight during the post-Civil War years, wealthy physician members of the AMA were being elected to the state legislature. Their purpose was to carry out the AMA's three-fold attack on free-market medicine by passing medical licensing laws to restrict the entry and exit of new physicians into and out of medical school and by enacting regulations prohibiting for-profit schools from doing business (Hamowy 1979).[8] A candid report from the committee on educational standards at the 1847 Philadelphia meeting stated, "The very large number of physicians in the United States, a number far larger in proportion to its population than in any other country perhaps of which we have a correct knowledge, has frequently been the subject of remark. . . . And, if we add to the

not receive a well-rounded liberal education like we have today. They took classes in classics, rhetoric, Latin, Greek, ethics, mathematics, metaphysics, and natural philosophy (Schmidt 1936).

[7] In 1910, Abraham Flexner wrote the history of the for-profit schools in a condescending tone: "The schools were essentially private ventures, money-making in spirit and object" (p. 7). "In the wave of commercial exploitation which swept the entire profession so far as medical education is concerned, the original university departments were practically torn from their moorings" (p. 8). I've read Flexner's report many times. The first time I read it, I did not understand why it seemed that he held for-profit medical schools in such low regard, preferring the not-for-profit schools to them if the same good education could be had in either type of school. Flexner stated that "the better medical education at a not-for-profit medical school" was why the for-profit schools should be removed from the United States. I believe Flexner anticipated that in the free market, the not-for-profit medical schools would lose out to the for-profit schools; Flexner expected that socialized medicine would never take root in America—he truly believed the European model of socialized medicine was superior to free-market medicine.

[8] Recall that the three-fold attack consisted of: (1) the establishment of medical licensing laws to restrict entry into the profession (which would also restrict competition for the patient's dollar); (2) destroying the for-profit medical schools and replacing them with fewer not-for-profit medical schools (which would further restrict the labor supply of new physicians) that required more years of schooling; (3) elimination of the free-market physicians *in toto* because competitive forces were unwelcome to those who could not compete (Hamowy 1979). Hamowy cites Dr. Chaillé, Professor of Physiology & Anatomy at the University of Louisiana: "the profession has good reason to urge that the number [of medical graduates] is large enough to diminish the profits of its individual members, and that if educational requirements were higher, there would be fewer doctors and larger profits for the diminished number."

40,000 the long list of irregular practitioners (the homeopathic physicians) who swarm like locusts in every part of the country, the proportion of patients will be still further reduced. No wonder, then, that the profession of medicine has measurably ceased to occupy the elevated position which once it did; no wonder that the *merest pittance in the way of remuneration is scantily doled out even to the most industrious in our ranks*, and no wonder that the intention at one time correct and honest, will occasionally succumb to the cravings of hard necessity" (emphasis added) (Hamowy 1979).

In 1867, the AMA endorsed a resolution urging its members to "use all their influence in securing such immediate and positive legislation as will require all persons . . . desiring to practice medicine, to be examined by a State Board of Medical Examiners in order to become licensed for that purpose" (Hamowy 1979). Alabama, shattered by the Civil War, proved to be the key log in offering a template for the AMA to use in its quest to control the labor supply of physicians. Dr. Jerome Cochran remolded the remains of the Alabama AMA into a cohesive, politically effective state guild and held as its ultimate objective the complete administrative control over all public health matters in the state (Hamowy 1979).

Cochran noted that the real character of the association was to be the medical legislature, with its highest function to use the state government's power to direct the medical profession in the state (Hamowy 1979). Cochran himself was elected to the Alabama legislature and, once there, led the charge passing legislation, which soon made the Alabama Medical Association an arm of the state government. It had the power to regulate the practice of medicine and administer public health affairs (Hamowy 1979). Once Cochran had the template of how to get the job done, the rest of the AMA members used it in their respective states, duplicating it for the next quarter century.

From 1870 to 1910, wealthy AMA physicians were elected to their respective state governing bodies to the point where, during the first ten years of the twentieth century, the AMA's leadership sought to establish a federal department of health centralizing power over the medical industry. Alarmed at the notion of centralized medicine, a handful of free-market physicians organized their own union, calling it the National League for Medical Freedom (Hamowy 1979). They warned of federal domination of medical care and the creation of a vast, centralized bureaucracy by the advocacy of a national health department (Hamowy 1979). But the AMA's vision of medical care

was perfectly consistent with the establishment of centralized health care and public health administered by an army of nonelected bureaucrat-physicians (Hamowy 1979). By 1910, all the country needed was a little push to get it moving in the direction of socialized medicine.

III. The Role Wealthy American Industrialists Played in the Destruction of Free-Market Medicine

McCarty's research expounds upon the early nineteenth century perception, accepted by a few educators like Abraham Flexner and Arthur Dean Bevan, that the profit motive was pernicious and something to be eliminated (Flexner 1910, chaps. 1, 3; McCarty 1971).[9] From 1850 onward, progressive-minded physicians returning from Europe, having associated with medical experts there and adopted progressive ideology, decided that the American characteristic of rugged individualism was an undesirable trait for learned physicians. The vast wealth produced by the Industrial Revolution prompted the establishment of many college and university medical schools. By the end of the nineteenth century, approximately 161 medical schools dotted American communities (McCarty 1971). But, even with the explosive growth of medical education institutions, the total supply of physicians was insufficient to serve the populace.

Due to the shortage of physicians during the nineteenth century, physicians with practices in metropolitan areas could be assured of becoming quite wealthy. Positions as hospital teachers were coveted because these positions provided revenue and a larger number of patients than could otherwise be expected (McCarty 1971). This profit motive irritated progressive physicians and sullied their ideal of what the medical profession should be.

Intense competition during the nineteenth century among university medical schools resulted in lowered entrance standards and reduced fees to attract more students. During this period, universities and colleges were supported only through the fees collected from students. Thus, as schools reduced fees to attract more students, professors' wages went down, precipitating a decline in the number of instructional hours. The resulting increase in the number of students graduating with a "medical degree" flooded the market, and

[9] The Flexner report illuminates the general condescending attitude that he and his ilk held against free-market medicine and anyone supporting such.

intense competition for patients forced health care prices to plummet (McCarty 1971).[10] The nature of essentially unregulated medicine meant that a good physician would stay in business, and a bad physician would be driven out of the market (McCarty 1971).

In the mid-1800s, American physicians traveling to the European medical community began bringing to American medical schools a new progressive medical ideology (Flexner 1910, p. 9; Schmidt 1936; Ben-David 1960).[11] Contrary to the mid-nineteenth century medical ideology held by American physicians, the new European progressive medical ideology viewed wealthy physicians as gauche. The European medical community demanded a high level of philanthropy to cleanse the conscience of doctors who "enriched themselves from people's suffering and illness" (Flexner 1910; Schmidt 1936; DAH 2003). In 1847 and 1848, progressive medical education and the nationalization of the medical industry were hot discussion items for medical convention discussions. Universities and colleges did not want to change their curricula, but sent their delegates to the conventions hoping to protect themselves from such changes. No one wanted to be first to install a curriculum demanding higher standards from incoming students, because that would reduce the number of students enrolled in their institution. The for-profit institution needed the large number of students paying fees, or the institution would go bankrupt (McCarty 1971).

The saving grace for established progressive medical schools was the Industrial Revolution and the advent of the "endowment" from wealthy benefactors. From 1894 to 1900, wealthy entrepreneurs endowed their favorite universities with over $220 million (in 1880s money), with little of it being given to for-profit hospital schools (McCarty 1971). Wealthy benefactors like Rockefeller and Carnegie

[10] In 1890, 15,400 students graduated from medical school, followed by another 25,000 ten years later (McCarty 1971). Until 1913, nearly all medical institutions, whether supported by a university or not, were commercial, for-profit businesses.

[11] Flexner 1910, p. 9, states: "An annual and increasing exodus to Europe also did much to repair the deficiencies of students who would not have neglected better opportunities at home. The Edinburgh and London tradition, maintained by John Bell, Abernathy, and Sir Astley Cooper, persisted well in to the century (the mid-1800s). In the thirties (the 1830s), Paris became the medical student's Mecca, and the statistical and analytical study of disease, which is the discriminating mark of modern scientific medicine, was thence introduced into America by the pupils of Louis, the younger Jackson, "dead ere his prime," Gerhard, and their successors. With the generation succeeding the civil war, the tide turned decisively towards Germany, and thither continues to set."

were contemptuous of for-profit medical schools, as were their European brethren, who were embracing the teachings of Marx, Engels, and Weber (Flexner 1910; Schmidt 1936).[12] In other words, without the endowment of millions of dollars, the not-for-profit medical schools surely would have failed to thrive, as the for-profit medical schools failed to thrive for lack of wealthy benefactors. The first three of these reformed medical schools—Harvard College (now Harvard University), the University of Pennsylvania, and the University of Michigan—were challenged in 1893 when Johns Hopkins opened as the premier progressive medical school. It quickly became the standard against which all other US medical schools were measured. Slowly, over the next fifty years, American medical schools transformed into socialist centers for medicine (Flexner 1910; Schmidt 1936; DAH 2003). Ownership of university hospitals was put into the hands of administrators and their generous donors, thereby eliminating the profit motive from medicine (Schmidt 1936; Ben-David 1960).

Toward the end of the nineteenth century, loud voices, including those of Flexner and Bevan,[13] said that the supply of physicians in America was too large and was an abomination. Flexner and Bevan claimed that the majority of physicians were poorly trained (Flexner 1910; Schmidt 1936; McCarty 1971; Savitt 2006.) In 1904, Bevan was made chairman of the AMA's Council on Medical Education, and with Flexner's aide, he continued to press for medical education reform and socialized health care for decades (McCarty 1971). One must bear in mind that professors who attended university in Europe, by and large, did so because they admired the European university system and ideologies around which they were formed and

[12] Why would wealthy industrialists, who earned vast sums of money as capitalists, scorn a for-profit medical school? My opinion is that they were not satisfied with being merely wealthy: they wanted to be nobility as well. From 1880 to the early 1920s, European nobility married the sons and daughters of the American Industrialists to use the American money to restore their lost wealth, while the American sons and daughters gained the coveted status of nobility. For example, Consuelo Vanderbilt, daughter of one of America's richest men, married Charles Spencer-Churchill, the future Ninth Duke of Marlborough, in 1895; she was one of nine American daughters that married into the British peerage (Serratore 2013).

[13] Flexner earned a bachelor of arts in 1886 from Harvard University, a master of arts from Harvard in 1906, and studied at the University of Berlin from 1907 to 1908 (Spangler 2010). Flexner's brother, Simon Flexner, worked for the Rockefeller Foundation from 1901 to 1935. It is probable that Simon, who worked for the Rockefeller Foundation, encouraged the Carnegie Foundation to hire Abraham after Abraham published *The American College: A Criticism* in 1908.

administered (Schmidt 1936; Ben-David 1960). When they returned to American colleges and universities, they imported the knowledge and collectivist ideology they gathered from their European colleagues (Schmidt 1936; Ben-David 1960; McCutcheon 2019). So it was with Flexner. It was well known that he admired the British and German university systems and socialist ideology; Flexner admitted as much in his famous 1910 report (Flexner 1910; Schmidt 1936; Ben-David 1960).

Flexner was very familiar with the English, French, and German university systems, having visited the British universities of Oxford, Cambridge, Rugby, and Eaton, and the University of Berlin. After spending 1907–08 at the University of Berlin, he was hired by the Carnegie Foundation for the Advancement of Teaching (hereafter shortened to the Carnegie Foundation) and spent the next year or so visiting all 155 medical colleges and universities in America to evaluate them using the German medical university system as a benchmark (Flexner 1910; Schmidt 1936; Ben-David 1960; Spangler 2010). It was at this time that Flexner became convinced that American higher education, medicine in particular, needed complete reform (DAH 2003).[14] He was certain that American for-profit colleges and universities needed to be more progressive in ideology and pedagogy (Flexner 1910; Schmidt 1936; Ben-David 1960). Being of similar opinion, the Carnegie Foundation, in conjunction with the Council on Education of the American Medical Association, the Association of American Medical Colleges, Johns Hopkins University, and the Rockefeller Foundation, hired Flexner to expose the American medical collegiate system as inadequate because the majority of medical colleges were for-profit businesses. These organizations' secondary purpose was to plant the European collectivist ideology into the American university and collegiate system (Schmidt 1936; Ben-David 1960).[15]

[14] Wrapping the nationalization of the American health care system in platitudes of high mindedness and excoriating the current state of affairs is a common first step that socialists take to control an industry (Hamowy 1979). This was the same sentiment progressives and socialists had regarding the American public school system circa WWI, since the way to control the populace was via the education system (Micozzi 1993).

[15] The ultimate purpose of Flexner's report, I believe, was to interest the wealthy industrialist in supporting not-for-profit medical schools and eschewing for-profit medical schools, the legislative efforts having succeeded in routing the competitive nature of the medical labor supply.

In 1913, after producing his landmark report, Flexner was hired by the Rockefeller Foundation as assistant secretary and secretary of the general education board, a post he maintained until 1925.[16] From 1925 to 1928, Flexner was the director of the division of studies and medical education for the General Education Board. Both Rockefeller and Carnegie accumulated their vast wealth by running highly efficient, top-down, authoritative businesses, which were called technologically advanced business methods and were held in high regard by many in the Progressive Era (Markowitz and Rosner 1973). Universities that wanted to start medical schools, or whose medical schools needed funding, appealed to the Rockefeller and Carnegie Foundations, as medical reformers, to endow only universities and colleges that followed the progressive agenda (Markowitz and Rosner 1973).

The Rockefeller Institute was the model of efficient organizational bureaucracy and represented the centralization ideals from Europe. The institute was the industrialist's vision of medical research efficiency, and thus became the paragon of future medical research centers. By 1914, Rockefeller endowed his institute with over $12 million so that the funds used to control research activities would be granted as the committee recommended. It was in this manner that a few men with progressive ideology within the Rockefeller Institute determined the direction of American medical research (Markowitz and Rosner 1973). The Rockefeller Institute was closely associated with certain "powerhouse" university centers: Harvard, Yale, Johns Hopkins, Pennsylvania, Columbia, New York, Chicago, McGill, Wesleyan, and Western Reserve all supplied advisors to the institute (Markowitz and Rosner 1973). Flexner's process of granting funds was directed specifically at existing schools in the Northeast and Midwest that followed the progressive agenda (Markowitz and Rosner 1973). Schools in the South were generally not supported (Markowitz and Rosner 1973). As early as 1903, the AMA recognized the institute's potential for shaping and controlling medical education in the United States (Markowitz and Rosner 1973).

[16] The Rockefeller Foundation, like the Carnegie Foundation, supported numerous causes (libraries, hospitals, etc.) with the vast wealth created by its founder. Donating money to support only the not-for-profit medical schools sanctioned by the AMA, and not the for-profit hospitals that were not sanctioned by the AMA, fundamentally altered medical education and had a direct impact on the AMA's control of the physician labor supply.

The Rockefeller Institute, under Flexner's guidance, and the Carnegie Foundation, under the direction of Dr. Henry Pritchett, used their endowments to forever alter the relationship between the university medical schools and their associated hospitals (Irby et al. 2010). For example, in May 1914, the *Journal of the American Medical Association* reported that the Board of Trustees at Vanderbilt University, rather than the General Conference of the Methodist Church, had the authority to select the persons to fill vacancies. In this manner, the medical department of Vanderbilt secured from the Carnegie Foundation, in 1913, a gift of $1 million (Markowitz and Rosner 1973). Rockefeller himself gave $500,000 to Yale University School of Medicine in 1914, on the "condition that the school obtain complete teaching and medical control of the New Haven Hospital (a public hospital) and that the teachers in the main clinical branch be placed on full-time or university basis" (Markowitz and Rosner 1973).

These monetary gifts to medical schools by Rockefeller and Carnegie opened the floodgates of charitable gifts by other industrialists. As secretary to the Rockefeller Foundation's General Education Board from 1913 to 1928, Flexner actively directed and channeled more than $500 million from private donors to American medical schools, quite probably with the proviso that these schools become, or remain, bastions of progressive ideology (Markowitz and Rosner 1973).

Neither the Rockefeller Institute nor the Carnegie Foundation endowed the for-profit medical schools, a deliberate decision meant to put them out of business (Markowitz and Rosner 1973; Encyclopaedia Britannica 1998). The average physician practitioner focused on individualistic personal medical care in a free-market system of medicine. The private practitioner was the bulwark of this system; he was located in a small, isolated geographic area and ran his practice as a business in a competitive market (Markowitz and Rosner 1973). Isolated in rural communities, the private physician practitioner could not take advantage of the medical and technological advances happening in cities at the turn of the twentieth century and felt challenged by the new breed of physicians graduating from "real medical colleges" (Markowitz and Rosner 1973). Graduates of the new medical school system became the second generation of reformers in the AMA; they were part of the Progressive Era of physicians keen on ridding the country of laissez-faire medicine (Markowitz and Rosner 1973). These reformers sought to organize physicians and centralize their own power in order to

effect progressive change via legislation (Markowitz and Rosner 1973).

Shortly after Flexner's report was published, Edward Watson wrote in June 1910 that the Carnegie Foundation assumed the "right to manage the medical profession, to overthrow its traditions, and rebuild it along Socialistic (!) lines" (Markowitz and Rosner 1973; Watson 1910).[17] Thereafter, the Rockefeller Foundation endowed universities and colleges that reflected the collectivist ideology for higher education. With the aid of Flexner's 1910 "Medical Education in the United States and Canada" report, the Progressive Era with the idea of socialized medicine began its encroachment into America as states across the United States enacted licensing laws mandating accreditation only for medical schools operating in the not-for-profit business model. Flexner stated in his 1910 report, "The country needs fewer and better doctors, and the only way to get them better is to produce fewer" (McCarty 1971). Any university operating a for-profit medical school would not be accredited (DAH 2003).

All of these efforts to control the medical industry by supplanting for-profit hospitals with state accredited, nonprofit institutions, limiting the number of graduating physicians, and reducing the number of entrants to medical schools were one of the two prongs used to import socialism into America. Writes McCarty (1971):

> By 1910 the public and philanthropists were both willing to support medical education. Before schools could expect them to do so, however, the medical profession had to *reduce the number* of schools, raise educational standards, and *close profit-oriented institutions*. *The long mistaken but popular notion* that medical schools were essentially businesses operated for the benefit of those who controlled them *had to be transformed* into the idea that *medical education served a social necessity* and as, therefore, *a social function operated for the benefit of the people*. The whole medical profession had to stand together, *forcing exploiters from the scene*. When the medical profession performed its duty to the public, the public would perform its duty to the medical profession. (emphasis added)

Flexner *said* he wanted fewer medical schools producing fewer doctors. His excuse for forcing such a change was that the current

[17] Edward W. Watson was an opponent of Flexner's and Pritchett's efforts to realign the American medical system from free-market capitalism to socialized medicine (Markowitz and Rosner 1973).

state of medical education was deplorable.[18] What he really wanted was for German-style socialized medicine to be operational in the United States.

The final nail in the coffin of for-profit medical education was a claim by Flexner that medical doctors used at the front in World War I were poorly trained. He sought to expose the failure of commercial medical schools to adequately train medical students, most of whom were trained in the for-profit commercial medical schools. This factor, more than any of the loud voices and Flexner's 1910 report, contributed to the demise of the "for-profit" business model for medical school in the medical industry. The multiyear, multipronged attacks on commercial medical education finally killed the competitive, unregulated markets in medicine; the majority of the for-profit medical schools died before the end of World War I.

Woven in and around Flexner's activities, and coordinated with the Rockefeller and Carnegie Foundations, were the elite of the AMA. Since the AMA's founding in 1848, it has always been the desire of this group to control the supply of physicians entering the medical practice market (Rose 1986). It is difficult not to conclude that their fundamental goal was to transform the American medical system into socialist medicine as taught and practiced in Europe, else why would Flexner have been given carte blanche endowing not-for-profit medical schools and completely exclude for-profit medical schools?

This research, as a whole, reveals a subtle insight: perhaps the ultimate purpose of Flexner's 1910 report was to demonize and debase the remaining for-profit American medical colleges and universities so that a shift to socialized medicine would be viewed as a necessary "reform." It is a fact that millions of dollars given to the Rockefeller and Carnegie Foundations were intentionally directed, by Flexner and Pritchett respectively, only to medical schools that would take up the cause of socialized medicine (Markowitz and Rosner 1973; Hamowy 1979; Encyclopaedia Britannica 1998). It is not difficult, therefore, to conclude that Flexner's report was directed at these donors so they would be able to soothe their conscience that even though they had earned their wealth in a capitalist economy,

[18] Around the turn of the twentieth century, with an excess of 134,000 practicing physicians in the country, the per capita physician ratio was approximately 1 to 568 and was considered an "oversupply" of physicians by Henry S. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching (McCarty 1971).

they could pat themselves on the back that they had used part of their vast fortunes for the "common good" of socialized medicine.

IV. The AMA's Influence on the Physician Labor Supply from 1910 to the Present

Soon after Flexner's 1910 report, AMA medical schools raised their entrance standards. This action reduced the number of incoming medical students. By the mid-1920s, the public, most of whom lived in rural areas, began to notice the reduction in the supply of general practice physicians. Students entering medical school began choosing specialties in medicine, reducing the number of graduating general practitioners and family physicians (McCarty 1971; Savitt 2006). Fewer doctors chose to live in rural areas, preferring, instead, to live in metropolitan areas where they could charge higher fees and make more
money. This preference precipitated a maldistribution of physicians across America.

The reduced supply of available doctors got so noticeable to the public, that, as McCarty (1971) states:

> By the middle of the decade, the closing of schools, the education of fewer physicians, the growth of specializing, and the refusal of young doctors to locate in rural communities created an acute mal-distribution of medical care. Many rural communities found themselves with either an old, ill-trained doctor or none at all. *The people who lived in those communities naturally blamed their suffering on what they thought had caused it, the reform movement itself. They believed that the constant demands for fewer schools and fewer students had caused a shortage of physicians in the United States and that they suffered while the cities did not.* Bevan's insistence in 1921 that more schools be closed and [Nathan Porter] Colwell's contention that the ratio of physicians to the population was still grossly out of proportion helped matters not at all. (emphasis added)

When the medical community, specifically Bevan and Colwell via a series of journal articles, pointed out that rural residents did not have community physicians because their community physicians had been drafted into the military and were on the WWI battlefields in Europe, the public was not satisfied. (Rural residents were advised to continue visiting city doctors.) It mattered little to rural residents what the causes were, and whether the problem was called "a

shortage of doctors," or "a mal-distribution of medical care," the fact remained that many of them were without physicians (McCarty 1971; Savitt 2006). The people living in the countryside struck out at medical education and demanded that the medical community open more schools and admit more students. By 1925, their demands for more and better doctors threatened to undermine the advances medical schools had made in several states. While one state legislature had already lowered its state's standards of medical education, several others considered doing the same thing in the hope of luring even inferior physicians into the countryside (McCarty 1971; Savitt 2006).

Starting in about 1925 and continuing for ninety-four years, the AMA has attempted to convince the public that any increase in the supply of physicians would severely threaten the quality of medical care and increase the cost of medical care via duplication of services. They use this excuse even today, preferring to have a reduced supply of physicians—and the accompanying maldistribution of the physician labor supply and increases in doctor visits—to an adequate or even oversupply of physicians (McCutcheon 2009; Mann 2017; Liebowitz 2019). This restriction in the physician labor supply violates the basic economic theory of the law of supply and necessarily means that the price of doctor visits must increase in the market for medical services.

Unseen by the general public, soon after Flexner's report was published, the AMA sponsored several accrediting committees, among them the Liaison Committee on Medical Education (LCME) and the Accreditation Council for Continuing Medical Education (CME in 1904, and ACCME later). Both committees worked in the early years to coordinate state and federal legislation to secure monopoly control over all medical education in the United States. The LCME acts as an accrediting body for educational programs at schools of medicine in the United States and Canada and is *the* accrediting body for programs leading to the MD degree in the United States. The ACCME sets and enforces standards in physician continuing education within the United States. It acts as the overseeing body for institutions and organizations providing continuing medical education activities.

In addition, over the last nine decades, the AMA has colluded with state and federal governments in writing education policy in an attempt to more equally distribute general practice physicians across the country using several different methods. Medical schools reduce the number of positions available in selected specialties in graduate

medical resident education and offer more openings in general (family) practice. Medical schools now offer incentives to anyone who will choose general practice as their graduate resident specialty, including tuition forgiveness for choosing that particular practice or for relocating to rural areas after matriculation. The upshot? All of this top-down control and restriction of the supply of physicians has contributed to the rising price of physician services over the last century.

To this day, the AMA remains a powerful legislative lobby at the state and federal levels (Rose 1986; AAMC 2018). Their sole purpose, from the economist's point of view, is to keep the supply of physicians constricted. This restricted supply means a continual shortage of physicians, and it means that the market price for physician services will remain higher than an unregulated competitive price. The AMA is solely responsible for the production of physicians. This means that by definition, the AMA is a monopoly.

For comparison, I offer the Supreme Court case of the *United States v. United Shoe Machinery Corp.* 110 F. Supp. 295 (D. Mass. 1953) *aff'd per curiam* 347 U.S. 521 (1954) (Stelzer 1986). In this case, the US government sued United Shoe Machinery Corporation for violating sections one, two, and four of the 1890 Sherman Antitrust Act. United Shoe was charged with "monopolizing interstate trade and commerce," "monopolizing the distribution in interstate commerce of numerous . . . shoe factory supplies," "attempting to monopolize the distribution in interstate commerce of . . . other such supplies," and "attempting to monopolize and monopolizing the manufacture and distribution in interstate commerce of tanning machinery used in the manufacture of shoe leather" (Stelzer 1986). United Shoe's problem was that they made *the best* shoemaking machines and leased them to shoemaking companies. United Shoe did business with 75–85 percent of shoemaking companies, and it had only a few competitors. By 1947, United Shoe owned thousands of patents for shoemaking machines, many of them invented or innovated by their employees (Stelzer 1986). The court found that from 1912 to 1947, the aggregation of all the patents blocked potential competition, thereby furnishing them a trading advantage. It also served as a hedge, or insurance, against unforeseen competitive developments (Stelzer 1986). By leasing the shoemaking machines to the shoemaking companies, United Shoe had created barriers to entry by any competitor into the shoe machinery field (Stelzer 1986).

The reader may anticipate where this line of thought is going. The AMA has contrived since the mid-1800s to secure for itself, using legislative prerogative and regulatory capture, monopoly control of medical education in the United States. Medical schools controlled, accredited, and governed by AMA guidelines, and aided by state and federal legislation, educate and produce the country's labor supply of physicians (Light 2004). N. S. Davis devised this goal as the AMA's founder and developed the two-pronged strategy to control the profession and avoid charges of monopoly. It involved the establishment of licensing boards outside the profession. AMA members would choose licensing board members, and licensees would be required to have graduated from a certified medical school. By 1898, every state in the union had an act and a licensing board. The AMA charged each board with eliminating any competing medical education except for that acknowledged by the AMA (Light 2004).

Flexner's report was the second assault against the free-market competitive American medical system. It intended to inflame the public's opinion against competitive free-market medical education and attract the interests of wealthy industrialists like Rockefeller and Carnegie, who would then donate vast sums of money in support of noncompetitive medical education (Light 2004).

Flexner's report used the excuse of producing well-trained physicians to effect change in medical colleges and universities. Aided by wealthy progressive industrialists, his efforts resulted in the monopolization of the medical education industry. No college or university may create a medical school, or even a curriculum, without the express permission of the AMA and its accrediting bodies, and the school must follow state and federal laws that were mostly constructed in the 1880s and that forbid for-profit medical schools.[19]

[19] Flexner also did not want competition from alternative forms of medical training and fought for years to keep medical residents away from allopathic, homeopathic, and osteopathic medical education (Flexner 1910). While the AMA does not recognize osteopathic practitioners (DOs) as medical doctors (MDs), it is a distinction without a difference. In 2005, Jordan Cohen, MD, the president of the Association of American Medical Colleges, stated that osteopathic (DO) and allopathic (MD) graduates are sought after by many of the same residency programs, hold privileges at many of the same hospitals, and are found on the faculties of each other's medical schools. Institutions awarding a DO are accredited by the Commission on Osteopathic College Accreditation (COCA), while the MD is awarded by institutions accredited by the Liaison Committee on Medical Education (LCME); both the LCME and COCA are controlled by the

This progressive monopoly control of the physician labor supply did not end with medical schools. McCarty reveals, "The progressive spirit swelled up in the medical profession and overflowed into general education" (1971). Not only did the massive socialist reforms alter medical education, progressive reforms spread to 99 percent of all other universities and colleges, transforming them from fee-for-service businesses to publicly funded establishments completely dependent on the generosity of wealthy donors when their receipts from state and federal coffers run short (McCarty 1971).

The zeitgeist of progressive medical ideology spread throughout the medical industry, and medical educators inspired by their success pressed for more reform throughout the country. "Many men, most of them members of the medical profession, were responsible for the changes; and, like other progressives, they depended completely upon the power of the public will," writes McCarty (p. 131). They believed in progress or, as Richard Hofstadter put it, activism (McCarty 1971). They believed that the evils of medical education would not remedy themselves, and that "it was wrong to sit by passively and *wait for time to take care of them*" (emphasis added) (McCarty 1971). This sentiment echoes across the twentieth century by the progressive medical elite in the development of managed care (Scofea 1994), the implications for the physician labor force (Rivo et al. 1995), and the fully implemented 2010 Affordable Care Act (Kongstvedt 2016), while completely ignoring the effects of nationalized health care on a country's coffers and its citizens' available medical care (Donnelly 2016).

V. Possible Solutions to the Physician Labor Supply Shortage

The monopolization of the physician labor supply has done exactly what Flexner said it should do: curtail and limit the number of physicians practicing medicine. From 1960 to 1980, allopathic medical schools increased from 85 to 126, and the number of medical graduates doubled from 7,081 to 15,113. In the decade from 1965 to 1975, the number of practicing allopathic physicians grew from 235,303 to 316,491 (Salsberg and Forte 2002). The Graduate Medical Education National Advisory Committee (GMENAC) concluded in 1980 that with approximately 460,000 practicing physicians, the nation faced a "potentially serious surplus" and recommended

Accreditation Council for Graduate Medical Education, which is controlled by the AMA. The degrees are legal equivalents.

limiting the number of medical school positions and severely restricting the number of international medical graduates (Salsberg and Forte 2002).[20]

The GMENAC forecasted that the number of physicians would grow to approximately 536,000 by 1990, increasing to 643,000 by 2000 (Salsberg and Forte, 2002).[21] Further, the AMA feared that the expansion of managed care, with its emphasis on primary care, would lead to an even greater surplus of physicians, taking the 238 physicians per 100,000 population ratio even higher; the Council on Graduate Medical Education, COGME, recommended 138 physicians per 100,000 (Salsberg and Forte 2002). Rosenblatt noted that in 1995, the physician-to-population ratio for rural communities was 53 per 100,000, while in large metropolitan areas, the ratio was 304 per 100,000. In 2000, while 20 percent of the US population lived in rural areas, only 9 percent of practicing physicians lived there, too (Rosenblatt 2000). He speculated that privately operated managed care systems would hesitate to move into rural areas providing health care to uninsured rural communities (Rosenblatt 2000).

Since the mid-1920s, rural communities have continued to lack practicing physicians. In 2000, the physician to 100,000 population ratio had increased to 278 (Salsberg and Forte 2002). While rural communities saw a 61 percent increase in physicians in their areas, metropolitan areas experienced a 74 percent increase. Physicians preferred to practice in highly populated areas, which saw an increase of 260,000 physicians, rather than in rural communities, which saw an increase of 30,000 (Salsberg and Forte 2002). Physicians specializing in nonprimary care and practicing in metropolitan areas (anesthesiology, radiology, and surgery) earn twice or three times the income earned by primary care physicians in the same metropolitan areas (family practice, pediatrics, and obstetrics), while physicians practicing in rural areas earn much less regardless of specialty choice (MGMA 2015).

The large physician surplus anticipated in 2000 by the AMA did not materialize (Brotherton et al. 2002; Salsberg and Forte 2002). Further exacerbating the physician shortage in rural areas was a decline in resident physicians with J-visas (Brotherton et al. 2002). People in rural communities began searching for alternatives to a

[21] Unfortunately, while the medical school graduate growth rate was 12 percent from 1980 to 2000, the US population growth rate was 24 percent.

physician and by 2013, 41 percent of rural Medicare beneficiaries saw a physician's assistant or a nurse practitioner (Ewing and Hinkley 2013). The National Conference of State Legislatures' estimated shortage of rural primary care providers is in the thousands (Ewing and Hinkley 2013). States with large rural areas explored expanding the scope of practice for nonphysician providers, while Rep. Ruiz (D-CA) and Rep. Roe, MD (R-TN) introduced a new bill in the US House of Representatives with this aim in mind (Ewing and Hinkley 2013; Weil 2019).

It would be nice if federal political action could solve this, but by focusing their efforts on state-level medical licensing laws rather than federal legislation, the AMA obtained a widely decentralized spider web under its control (Hamowy 1979). Perhaps a grassroots approach would work better, and the solution may be closer than we think.[22]

In response to the 2009 Affordable Care Act (ACA), thousands of physicians left AMA membership and developed their own medical businesses in family medicine, calling their coalition direct primary care (DPC). The hallmark of DPC is transparent pricing and inexpensive monthly membership fees, which reduces the price consumers pay for family practice medical care by 75 to 80 percent. It is a relatively "new" business model for medicine and harkens back to a time when physicians competed against each other for patients. The number of DPC physicians has increased by over 300 percent since 2012; there are over 1,500 DPC practices in the United States with approximately 18 percent of all physicians using this medical business model (McCutcheon and McCoy 2019). There were zero DPC physicians in 2005.

As this medical business model becomes more well known, it is possible that the current supply of general or family physicians will alter their practice and hasten the restoration of competitive markets, which will reduce prices in medicine for the general public (McCutcheon and McCoy 2019). Case studies with decades of panel data are few to be had without working directly with a DPC physician who is willing to reveal their patient data for econometric analysis. Hence, data on cost savings, the effectiveness of DPC individualized health care for patients, and the profitability of the DPC business

[22] In 1975, the Federal Trade Commission charged the AMA with monopolistic control of pricing within an industry thereby violating antitrust laws (see *Goldfarb v. Virginia State Bar*). The AMA was forced to remove all prohibitions on advertising (Tomycz 2006).

model are few, and none are available to this author at the time of this writing. In an effort to compete with physicians in DPC networks, physician members of the AMA voted in June 2015 to support complete price transparency in their individual businesses (AMA press release 2015). These actions do not address the primary issue, that of the AMA's control of physician labor supply entering medical school. Yet, over time, if enough physicians leave the AMA's umbrella, perhaps physician-legislators may take the steps necessary at the state level to alter legislation and return medical education to a more competitive market (McCutcheon and McCoy 2019).[23]

VI. Conclusion

Researchers in the past have illuminated the AMA's monopoly control over the physician labor supply, but no action has occurred to deter it from continuing on its path of controlling this factor of production. Why is it important, now, to take another look at the AMA's monopoly control of this crucial input? When Hamowy published his research in 1979, the idea of socialized medicine was repugnant to Americans, and the idea that the government would actively seek to take over the medical industry was preposterous.

Timing is everything. The AMA's cumulative actions for the past 150 years, accumulating legislative privilege at the state level and ridding the country of free-market medical education, have now put the United States in the crosshairs of implementing single-payer socialized medicine. This research clearly shows that AMA policies have achieved their goal of controlling the number of positions open at medical schools. This has a deleterious impact on the physician labor supply. Monopolization of the labor supply impedes market function, increases the concentration of companies operating in that market, and increases the market price of health care.

This paper's primary purpose has been to contextualize and scrutinize the AMA's monopolization of the physician labor supply through legislative privilege and regulatory capture.[24] Second, and perhaps more important in bringing down the cost of health care, this paper has emphasized the need to reforge the roots of free-

[23] DPC is a fast-growing alternative to single-payer health care. McCutcheon and McCoy report that from 2012 to 2018, the number of DPC physicians increased by over 400 percent (McCutcheon and McCoy 2019).

[24] This research deliberately sets aside for future researchers an investigation into the demographic changes brought about by changes in government policy and the changes brought about by the AMA's attention to diversity.

market medical education. Price transparency and competition in medical education will allow the physician labor supply to increase naturally according to market forces. Support for for-profit medical education as a business model will increase the number of teaching hospitals and schools, which will increase the number of physicians. These actions will drive down the price of office visits, and therefore the cost of basic health care, as the physicians compete for patients.[25]

Relying on free-market forces, we can ignore the loud voices on the political left (who insist that a competitive market in medicine won't work) and begin the work to eliminate the idea that a single-payer, government-controlled health care system is the best medicine.

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[25] In an April 2018 report, the AAMC projected a shortage of 43,000 to 121,000 physicians by 2030 and suggested that the government allocate more funds to support 3,000 new residency positions for 2019–2024. The AAMC's solution is for government to be more involved monetarily, not to return to a business model that includes for-profit medical education. Clearly, more than a century of preventing market forces from working is harming medical education.

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