# Classical Views of the Academy: Education in Adam Smith's Wealth of Nations

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This paper examines Adam Smith's writings in the Wealth of Nations concerning his observations of higher education during his time. It is striking how many of the same criticism exist today that were also examined by Smith. Theoretically Smith's views of education were that self-governance and external control of universities were both fraught with dangers, and all depended on the ethical views of the faculty. Church and governmental control of universities appear to Smith to present elements foreign to academic advancement. He was also convinced that the values of the faculty must be focused on sound scholarship and teaching if self-governance was to succeed. The modern literation on education is very consistent with Smith's views. In other words, as much as things change, the more they remain the same.

## INTRODUCTION

Education has been the topic of intense scrutiny, both in the press and politically. The debate concerning education tends towards partisanship without any real progress being made concerning the critical issues. It is within this environment of political rhetoric and emotional discourse that education has been examined since the birth of public education in the United States. Too often the harshest critics have been from those with vested interests in public education, business, taxpayers, and politicians. Self-interest certainly has played a role in the discourse, and therefore it seems appropriate to examine what the motivations are in education. The purpose of this paper is to examine the writings of one of the founding fathers of capitalist thought concerning education.

Conventions abound in academia, not the least of which is a certain reverence for the work of those scholars who have gone before. Scholarship is rarely revolutionary, it is more typically an evolution of ideas over time. There is probably no greater example of this, than the economics profession. Economists seem almost obliged to often cite the work of the classic scholars in the field, as though the obligation gave instant credibility to the current scholar's thoughts.

Adam Smith is often thought of as the father of modern capitalism. The mercantilist system of which he was a part gave way to capitalism only after the publication of his *An Inquiry into Nature and Causes of the Wealth of Nations*. This work not only is the intellectual boundary between capitalism and mercantilism but it offers a systematic analysis of an economic system including the topics of trade, production, and the allocation of scarce resources. What many scholars do not realize is that it also extends to education – a service which is subject to production and allocation. He was apparently

sufficiently concerned about education that he thought its problems worthy of considerable analysis. Perhaps because education, in the time of Smith was not a service that was universally consumed, the chapters concerning education are often overlooked by economists.

The examination of Smith's views about education have a remarkable parallel to much of what is debated today. From this standpoint, an examination of education in the Wealth of Nations may provide some interesting, if not useful, insights into what the father of capitalism thought of education as he observed it at the beginning of American Revolution.

#### **EDUCATION AND ADAM SMITH**

In his *Theory of Moral Sentiments*, Smith observed that there are both amiable and respectable virtues to be observed in people, and it is the interaction of these virtues that give rise to principled "sentiments" concerning issues. It is these virtues that give rise to self-interest which, in turn, is the centerpiece of Smith's arguments concerning education. Smith writes (Smith, 1759, p. 23):

Upon these two different efforts, upon that of the spectator to enter into the sentiments of the person principally concerned, to bring down his emotion to what the spectator can go along with, are founded two different sets of virtues. The soft, the gentle, the amiable virtues, the virtues of candid condescension and indulgent humanity, are founded upon one: the great, the awful and respectable, the virtues of self-denial, of self-government, of that command of passions which subject all the movements of our nature to what our own dignity and honour, and propriety of our own conduct require, take their origin from the other.

Smith views on education recognize this tension between the two virtues described. The correctness of our conduct arises from these sets of virtues, and results in his views of the academy and the professorial conduct therein.

Adam Smith wrote An Inquiry into the Nature and Causes of Wealth of Nations in 1776 during the Age of Enlightenment. Smith's work is the dividing line between mercantile and capitalist economic reasoning. The mercantile school of thought rested upon foundations of trade and assumed that there was a fixed pool of resources over which economic agents competed. Smith suggested that this view was at odds with the empirical evidence of the day. In fact, the distribution of goods and services was important, but people had the ability to produce goods and services – a thought somehow missed by most scholars of the day. Thus, Adam Smith rejected the mercantilist view that economics was a zero sum game. In fact, his world was one in which production, a constantly expanding sum game, was the basis for aggregate economic well-being (Dilts, Samavati and Rahnama, 2005).

Smith was concerned with all aspects of the process by which economic well-being was brought into existence. It should therefore be no surprise that Smith's examination of production ranged widely across the industries of the day. His work in philosophy and morality was mainstream in its examination of the commercial interests of the day (Heilbroner, 1972). However, it must be remembered that since 1751 Adam Smith had been a professor at the University of Glasgow and by the 1760s was a well-known philosopher (Heilbroner, 1972, pp. 44-45). The industry in which Adam Smith worked was academe. He was a philosopher and a scholar, but perhaps more importantly he was a teacher. Heilbroner asserts that: "He (Smith) was beloved of his students, noted as a lecturer – even Boswell came to hear him – and his odd gait and manner of speech gained the homage of imitation. Little busts of him even appeared in booksellers' windows." (Heilbroner, 1972) The evidence that has come down to us over the ages suggests that Adam Smith valued education, and was, in fact, a popular and effective teacher. From this fact, it is only natural that there should be significant discussions of education to be found in the Wealth of Nations. Smith observed (Smith, 1776):

If the authority to which he [professor] is subject resides, not so much in the body corporate [community of scholars, e.g., college] of which he is a member, as in some other extraneous persons, in the bishop of the diocese for example; in the governor of the province; or perhaps, in some minister of state; . . . An extraneous jurisdiction of this kind, besides is liable to be exercised both ignorantly and capriciously. In its nature it is arbitrary and discretionary, and the persons who exercise it, neither attending upon the lectures of the teacher themselves, nor perhaps understanding the sciences which it is his business to teach, are seldom capable of exercising it with judgment. From the insolence of office too they are frequently indifferent how they exercise it, and are very apt to censure or deprive him of his office wantonly, and without any just cause. The person subject to such jurisdiction is necessarily degraded by it, and, instead of being one of the most respectable, is rendered one of the meanest and most contemptible person in the society. It is by powerful protection only that he can effectually guard himself against the bad usage to which he is at all times exposed; and this protection he is most likely to gain, not by ability or diligence in his profession, but by obsequiousness to the will of his superiors, and by being ready, at all times, to sacrifice to that will the rights, the interest, and the honour of the body corporate of which he is a member . . .

Prescriptions for free will and positive exercises of self-interest are what is often most remembered of the *Wealth of Nations*. However, self-interest and the freedom to exercise it does not always guarantee constructive results (from two different sets of virtues). Smith warns of an "extraneous jurisdiction "when it is exercised without an understanding of the science that is being taught. Apparently, the historical record shows that the French universities of the day were known to suffer from this exercise of extraneous jurisdiction. Smith observed in his day the unfortunate proclivity of some authorities to interject their views into the educational system, and unfortunately many of those views may not have been educated views — but founded in political or religious zealotry which, unchecked, were destructive to the educational processes.

Unfortunately, in modern times, we seem to have no shortage of examples where such religious constraints are imposed on education. For example, "Creationism" is a religious idea that politicians have substituted into the science curriculum in a few states where religious fundamentalism is also a powerful political force. State legislatures or school boards substituting their own personal faith or political understanding, for the knowledge of the scientist is precisely the type of extraneous jurisdiction Smith warned about 230 years ago. (Moore and Cotner, 2009). Reform of schools and the quality of education continue to be the topics of political discourse and are not limited to the interjection of religious views.

Smith also concerned himself with the degradation of professors. Too often there is the temptation for professors in this business-model scheme, to be regarded as rank and file labor, to be managed, directed, and inspected to assure their conformity with the university's business plan. Academic freedom replaced with efficient operations, freedom of inquiry subservient to business image, highly visible sports programs the calling card of a university, rather than the quality of education is the environment in which some scholar find themselves. It is a world Adam Smith presumed to be degrading to most scholars. However, little research has been done to determine how wide-spread these issues are. Routinely there are examples of administrations which have pushed-back against business considerations overwhelming the educational mission of the university. Yet empirical evidence is scant concerning how often matters academic are given priority over the marketing of athletics or credit for life experience. What evidence exists is mostly derived from case studies with mixed results. Some suggesting that the principles upon which the university is founded have been eroded as reliance on private money has increased, while others suggest quite the opposite (Buckbinder and Newson, 1990; Robbins, 2008).

Today there are discussions of the motivations of professors. Critics are quick to point out that the faculty of many institutions are unionized and have only their narrow self-interest at heart. Others are more generous and believe there to be ample self-sacrifice in the universities for the good the

advancement of knowledge and students. Smith discussed what he perceived to be the motivations of a significant number of college professors in 1776 (p. 718):

... It is the interest of every man to live as much at ease as he can; and if his emulations are to be precisely the same, whether he does, or does not perform some very laborious duty, it is certainly his interest, as least as interest is vulgarly understood, either to neglect altogether, or, if he is subject to some authority which will not suffer him to do this, to perform it in as careless and slovenly a manner as that authority will permit. If he is naturally active and a lover of labour, it is his interest to employ that activity in any way, from which he derives some advantage, rather than in the performance of his duty, from which he can derive none.

Often it is difficult to determine what motivates people to do the things they do – college professors are no exception. If is interesting that the "virtues" in *Moral Sentiments* provide for Smith a foundation for his observed faculty motivation. In the above citation Smith identifies the difference between extrinsic and intrinsic motivations. He describes extrinsic motivation in professors as their reactions to the demands of authority. Modern organizational behavior scholars have refined this basic idea into at least two kinds of authority, aversive control of behavior (punishment for poor performance) and positive control (incentives and rewards). However, even the modern organizational behaviorists recognize that Smith's conclusions are correct, extrinsically motivated people will perform the required duties only within the perimeters in which authority can be exercised and maximize their ease otherwise. (De Lange, 2013). Intrinsically motivated people (lovers of labour) perform the aspects of their duties which they inherently value, extrinsic incentives and duty having little to do with their performance, except by chance. (Benabou and Tirole, 2003). In other words, what attracts a person to the academy may be the "labour" of which Smith speaks. Unfortunately, the rigors of the "labour" may be too much for some, and others may have come to the academy for less than laudable purposes. Recent research suggests that intrinsic motivation may be essential in developing stakeholder related mechanisms necessary for universities to prosper (De Lange, 2013). Even so, there is a growing body of literature which challenges the idea that intrinsic motivation is necessary for universities to make progress (Bouwma-Gearhart, 2012). Again, empirical evidence is incomplete and few conclusions can be drawn concerning the motivations of various faculty cohorts in seeking a scholarly employment (Dilts, Samavati and Rahnama, 2005).

Smith's analysis suggests that authority is ineffective with extrinsically motivated professors, and that administrative authority from outside of the community of scholars is likely to be counter-productive. Smith describes an alternative manner of governing academic institutions (1776, p. 718):

If the authority to which he [professor] is subject resides in the body corporate, the college, or university, of which he himself is a member, and in which the greater part of the other members are, like himself, persons who either are, or ought to be teachers; they are likely to make a common cause, to be all very indulgent to one another, and every man consent that his neighbour may neglect his duty, provided he himself is allowed to neglect his own. In the university of Oxford, the greater part of the public professors have, for these many years, given up altogether even the pretense of teaching.

Smith suggests that there is a proclivity for professors to, either implicitly or explicitly, agree to rather minimal standards of professional performance for their colleagues and themselves. This cartel arrangement is based upon the premise that professors will maximize their "ease" as discussed above. Professors who are "lover(s) of labour" whose object of affection is their teaching and research are unlikely to be motivated to enter into arrangements whereby they pledge to suffer their colleagues to do none of that for the benefit of themselves being excused from their academic duties. Unfortunately there is little empirical research to suggest whether such cartel arrangements exist. Clearly, the cartel can have unique characteristics, such as the ignoring of teaching duties in favor of research in publish or perish

institutions, or the ignoring of research in self-proclaimed teaching only schools. The truth of the matter is an empirical question deserving scholarly attention.

Smith observes (1776, pp. 732-33):

. . . Masters, however, had been found, it seems, for instructing the better sort of people among those nations in every art and science in which the circumstances of their society rendered it necessary or convenient for them to be instructed. The demand for such instruction produced, what it always produces, the talent for giving it; and the emulation which an unrestrained competition never fails to excite, appears to have brought that talent to a very high degree of perfection. In the attention which the ancient philosophers excited, in the empire which they acquired over the opinions and principles of their auditors, in the faculty which they possessed of giving a certain tone and character to the conduct and conversation of those auditors; they appear to have been much superior to any modern teachers. In modern times, the diligence of public teachers is more or less corrupted by the circumstances, which render them more or less independent of their success and reputation in their particular professions.

What comes down to us about Greek traditions suggests that there was a rich tradition of instruction; however, the fate of at least two of the more famous Greek philosophers became intertwined with politics in Athens. One must admire Professor Smith's sense of the efficacy of ancient philosophic endeavor. However, it is doubtful that Socrates would join in Smith's appraisal of ancient Athens and their views of academic freedom. Adam Smith, the optimist and the incurable capitalist, suggests that our salvation is to be found in the invisible hand, i.e., competition. The remedy for the corruption of Smith's contemporaries is clear to him, they must be held accountable based upon their "success" in teaching and "reputation in their particular profession." At worst, corruption is the result of the circumstances in which the scholars of Smith's day found themselves. Administration external to the particular community of scholars (college or discipline), salaries paid independent of their teaching and professional reputations, bureaucratic rules, and the perverse incentives (for extrinsically motivated professors) and unreasoned restraints (for the intrinsically motivated professors) these circumstances create. The prescription, according to Smith, is the competition that occurs between scholars who are intrinsically motivated by the requirements of their profession and success in the instruction of their students. But this assumes that the professorial intrinsic values correlate with their duties. It may also be that extrinsically motivated professors could be provided with sufficient academic incentives that they too could be counted upon to perform research and teach. The problems faced in academe today seem to be reflected in Smith's writings on the subject however, the redress of the problems Smith reported seems as distant now as they were in 1776.

It should come as no surprise that Adam Smith was convinced that self-interest was the primary motivator. On the other hand, his disquisition on markets and on education rely on the same self-correcting principle as his virtues in *Moral Sentiments*. The market principle is simply that freedom to select teacher, program, and/or school would allow the students' self-interest to cause the best in academe to prosper while those who were slothful would not be in demand. Perhaps the student would select that professor who demanded less for passing the course and that the amiable virtues may actually overwhelm the awful and respectable virtue of self-governance. Rather the virtue of self-government (associated with intrinsic motivation) would also produce the self-correction required for a vibrant academy. Whether it is the market view or the self-governance of the academy which provides the necessary regulation, of course, depends on the cost of information concerning educational quality, and scholarly output. The motivation of professors is to be discovered only with the appropriate data. These issues have serious implications for income distribution and the availability of quality education – all of these issues are serious matters, and are empirical questions beyond the scope of this work.

## MODERN REFORM MOVEMENTS

The need for reform is subject to debate. There is validity in many of the claims that some high schools graduate students who cannot read, and there are occasional scandals about college athletes being directed to "Mickey Mouse" courses, but there is little systematic evidence concerning the dimensions of these crises. First, and foremost, there needs to be the gathering of evidence and systematic analysis of that data before claims are made about the quality of education. Once this information is in hand, then and only then can reform be considered.

Smith's analysis appears to be prophetic though he states that education is necessary to the political and economic well-being of a society. The reform movement of the 1980s produced the *Nation at Risk* report which was an aggregate assessment of education and its success. This report focused on aggregate evaluation of the industry, and again suggested that education had failed in its primary mission to provide quality education to the nation's student population – for many of the same reasons Smith identified. The problem with this examination is that it lacked systematic data gathering and analysis. Over the decades since its appearance the same criticisms are also explained by the manner in which education is funded and the disparities in educational opportunity created by disparities in economic opportunity.

Twenty years later *No Child Left Behind*, was the politicians' solution to their alleged educational deficiencies. The jury is still out on that one, but it seems clear as of this writing that there are rebellions (upstate New York and others) concerning the efficacy of this reform. The politically popular policy prescription *de jure* all have one thing in common – they fail to identify the negative influence of extraneous authority on the quality of education as Smith had warned. Further, there is still little known of the motivation of the concerned educators (their virtues – which many critics doubt they have much in the way of virtue). Without accounting for these issues little progress is likely to be made. Also afoot has been a recent introspection in academe. Scholars and administrators have become more active in examining the variables which give rise to faculty and institutional responsibility (Thornton and Jaeger, 2008).

# PROFESSORIAL NATURE

The Academy is focused on the acquisition and imparting of knowledge; it is not buildings, computers, and athletic programs. It is no better nor worse than the individual scholars that comprise the whole of the faculty. Theories concerning professorial values abound (Wilshire, 1987). However, there is little that can be concluded from the available empirical evidence. The evidence suggests that there are both extrinsically and intrinsically motivated professors and students (Allen, 1980, Benabou and Tirole, 2003) There is also evidence to suggest that abilities and training effect performance in addition to either the incentives or the values possessed by professors (Becker, 1974). Therefore, there is a tension that has been observed in Smith's time and will continue to be observed between the "lover's of labour" and those whose action are extrinsically motivated (Levin, 2006). There is also evidence to suggest that faculty members do act in their own economic self-interest, and sometimes even in cases where academic ethics are brought into question (Robie, Kidwell, and Kling, 2003).

Adam Smith's observations may well be accurate in modern times, as much of his analysis of markets may be. How accurate is an empirical question, and what evidence has been uncovered to this point is cause to take Smith's work seriously. For example, Centra (1975) has found that when colleagues are charged with the responsibility to appraise teaching they frequently have a propensity to hold their colleagues to relatively low standards of instructional performance (Weaver, 1989; Crane 1965) Too often, professors have argued that they are teaching faculty and there is no reason for them to be active in the consistent publication of research results in refereed journals (or equivalent validation of academic merit in the arts and certain of the humanities). This argument is very much the type of behavior described by Adam Smith for faculty members whose purpose it is to maximize their leisure. Quality teaching institutions have long recognized that scholarly activity is the foundation upon which instruction is based and the scholarship must be validated through the publication of original research in refereed

journals of quality (Siegfried, 1972; Hagstrom, 1971; Cole and Cole, 1967). The validation of scholarship is what provides academic reputation for the institution in academic circles, which, in turn and in large measure, determines the reputation of the institution among potential students and the students' potential employers (Adams, 1976). In fact, this is the system presently observed in most institutions. There is a formal evaluation of the untenured assistant professor to determine if they have demonstrated competence in teaching and research and are likely to continue to perform at those levels. If the promotion and tenure process is effective, then the "lovers of labour" described by Smith will be tenured and promoted, and those who shirk their duties will not. The key is not to make tenure mistakes. Tenured faculty serve on the committees to make the promotion and tenure decisions, and if they were awarded tenure on a weak case, they may well return the favor to assure that the majority of faculty share their views and performance – just as Smith described. In the modern academy competing philosophers do not cater to the young nobility, this is a much broader market today. Academic reputation, admission standards, and costs all serve to thin the crowd, however, that does little for academic quality control. The tenure system was created to limit extraneous interference in scholarly activities, but the modern institution now relies on this tenure system to assure individual faculty member quality. Tenure-review and other such fads do not replace the absolute need for these tenure decisions to be done well, based on sound academic standards – this is the modern equivalent of Smith market operation.

Academe will be no more successful than the scholars who are attracted to intellectual pursuits. Intrinsic motivation to pursue a scholarly life-style and to contribute to one's discipline is the ideal for professors, but within the constraints that both teaching and research are valued. If extrinsically motivated there must be clear academic standards that provide for professors doing their duty to establish their professional reputation and to carefully attend to their teaching duties. The purpose of tenure is to protect academic freedom, but the decision to tenure is supposed to be based upon professional attainment and success in teaching – and evidence of promise that the faculty member will meet new heights in their academic performance. The academy must properly select and retain those individuals whose performance is consistent with the academic accomplishments expected by the profession, the institution and their colleagues.

In matters of academic consequence there must be self-governance, rather than extraneous authority. That self-governance, however, must be predicated upon a competent faculty seeking to serve the community of scholars and not their own crude economic self-interest. Administration is generally charged with applying the criteria created by faculty for matters academic, and the day-to-day business functions of the institution. There is a balance between the authority of the faculty and the administration. Unfortunately this balance is often the source of tension. Individual institutions have their own history and their own institutional arrangements concerning the relationship between the faculty and the administration. Herein lies one of the potential sources of resolving the tensions Smith described. The balance between faculty authority and administrative is subject to testing and the ebb and flow of institutional politics. It is this quality of the university that may well allow for development of more effective means of academic and administrative governance that will impact the quality of tenure decisions and, hence faculty expectations (Wood and Des Jarlais, 2006; and O'Meara, 2004). Perhaps faith in the market is a good thing, but perhaps more importantly democratic institutions focused on providing quality teaching and research can provide the same efficient solutions – perhaps democratic ideals are a substitute for markets in this application.

Self-governance works as a solution, only as long as the majority of faculty work for the improvement of research and teaching. Smith remained to be convinced that this could always be relied upon. No doubt there are a proportion of faculty members who place their vulgar self-interest above their professional interests and their duties. The only solution to this problem is the quality of the people who serve academe. Most institutions have given lip-service (some more) to high academic standards and continued professional growth. Selection and retention of faculty members is of critical importance in obtaining those dedicated scholar-teachers who will perform their duties because of their love of labor. Tolerance of faculty members who rely upon academic freedom to shirk their duties probably is the single greatest cause of the current academic crisis. From this view tenure review for purposes of culling those

faculty members who do not vigorously pursue intellectual contributions and quality instruction is probably necessary in many places. It may be that with fair warning the offending faculty members may reform themselves, but if academe is not their passion, it may be that other occupations should be pursued by these individuals.

Adam Smith's observations concerning the behavior of faculty in the eighteenth century university are worthy of consideration today. Moreover, to understand these issues is prerequisite for many institutions and their faculties to understand themselves and therefore to develop policies and behaviors consistent with academic quality, hence to fulfill their academic potential. Much of the work of Smith simply suggests theoretical constructs which are interesting, require empirical examination as repeatedly suggested in this paper. It appears that scholars are on the trail of empirically examining many of these issues but there is much more to be done (Kezar, 2005). Allowing the fate of academe to rest in the hands of a jury of politicians or others with a vested negative view education is unwise when evidence can be gathered and analyzed.

## **CONCLUSIONS**

Adam Smith was a philosopher who happens to be remembered for his path-breaking work on capitalism. This paper has presented some of his ideas on education and his views of the plight of education in 1776. Much of what Smith wrote could have been penned at many other times during the history of western civilization, including today. Perhaps it is somewhat comforting to know that much of the current criticism of academe is easily identified in ancient discourses on the subject. There is certainly nothing new about controversy concerning the academy.

Educational reform is not a matter of revolution. Revolution rarely produces sustainable positive results with such social institutions as universities. Legislative remedies or other extraneous authorities have failed over the last two hundred years to produce the results that critics of academe have desired. The university community is aware of and has debated the failings of the educational system in this country and has for at least the last thirty years contributed to a growing body of scholarly literature concerning how to achieve the educational quality desired by academe's constituents.

The focal point of Smith's criticism are consistent with the criticisms offered since. The current debate within academe parallels Smith contentions and focuses on making the promotion and tenure process produce the results intended. Those who are scholars and teachers and who will continue to grow in those roles are to be tenured and promoted under most promotion and tenure policies. If these "lovers of labour" are promoted and tenured and, in turn, make those decisions in future promotion and tenure cases based on sound academic standards, Smith's fears will have been effectively addressed – an academe well served. However, there will continue to be those whose criticisms of academe will still gain attention in the press, but for reasons unrelated to the efficacy of our academic product.

#### REFERENCES

Adams, Hazard (1976) The Academic Tribes. New York: Liveright Press.

Allen, Robert F. (1980) "A Note on the Economic Meaning of Correlations Between Teaching and Research Outputs." Journal of Economic Education. (Spring) 49-54.

Becker, William, (1974) "The University Professor as a Utility Maximizer and Producer of Learning, Research, and Income," Journal of Human Resources. (Spring) 107-15.

Benabou, Roland and Jean Tirole (2003) "Intrinsic and Extrinsic Motivation," The Review of Economic Studies. Vol. 70, No. 3, 489-520.

Bouwma-Gearhart, Jana (2012) "Research University STEM Faculty Members' Motivation to Engage in Teaching Professional Development: Building the Choir Through an Appeal to Extrinsic Motivation and Ego," Journal of Science Education and Technology. Vol. 21 (5) 558-570.

Buckbinder, Howard and Janice Newson (1990), "Corporate-University Linkages in Canada: Transforming a Public Institution," *Higher Education*. Vol. 20 (4) pp. 355-379.

- Cartter, A.M. (1966). An Assessment of Quality in Graduate Education. Washington, D.C.: American Council on Education.
- Centra, J.A. "(1965) Colleagues as Rates of Classroom Instruction," *Journal of Higher Education* Vol. 46 (3) 327-337.
- Cole, S. and J.R. Cole, (1967) "Scientific Output and Recognition: A Study in the Operation of the Reward System in Science," *American Sociological Review* (June) 377-390.
- de Lange, Deborah (2013) "How do Universities Make Progress? Stakeholder-Related Mechanisms Affecting Adoption of Sustainability in University Curricula," *Journal of Business Ethics*. Vol. 118 (1) 103-116
- Dilts, D., H. Samavati and M. Rahnama. (2005) "Distant Reflections on Current Problems: Ethics and Economics in the Business of Higher Education," *Journal of Business and Leadership: Research, Practice and Teaching.* Vol. 1, (1). 37-44.
- Crane, D., (1965) "Scientists at Major and Minor Universities: A Study of Productivity and Recognition," American Sociological Review. (October) 699-714.
- Hagstrom, H.O. (1971) "Inputs, Outputs and the Prestige of University Science Departments," *Sociology of Education*. (Fall) 375-97.
- Heilbroner, Robert L. "The Worldly Philosophers, fourth edition" New York: Simon and Schuster, 1972.
- Kezar, Adrianna, (2005) "Consequences of Radical Change in Governance: A Grounded Theory Approach," *Journal of Higher Education*, Vol. 76 (6) 634-668.
- Levin, John S. (2006) "Tensions Between Education and Economic Values," *Journal of Higher Education*. Vol. 77 (1) 62-88.
- Moore, Randy and Sehoya Cotner, (2009) "The Creationist Down the Hall: Does It Matter When Teachers Teach Creationism?" *BioScience*. Vol. 59 (5) 429-35.
- O'Meara, Kerry A. (2004) "Beliefs About Post-Tenure Review: The Influence of Autonomy, Collegiality, Career Stage, and Institutional Context," *Journal of Higher Education*. Vol. 75, (2) 178-202.
- Robbins, Jane, (2008) "Toward a Theory of the University: Mapping the American Research University in Space and Time," *American Journal of Education* (February) 243-72.
- Robie, Chet, Roland Kidwell and James Kling, (2003) "The Ethics of Professorial Book Selling: Morality, Money and 'Black Market' Books," *Journal of Business Ethics*, Vol. 47 (2) 61-76.
- Siegfried, J.J., (1972) "The Publishing of Economic Papers and Its Impact on Graduate Faculty Ratings," *Journal of Economic Literature*, (March) 31-49.
- Smith, Adam, (1776) "An Inquiry into the Nature and Causes of the Wealth of Nations," 1776, New York: Modern Library, Cannan Edition, 1937.
- Smith, Adam (1759) "The Theory of Moral Sentiments," Oxford: Oxford University Press 1976.
- Thornton, Courtney and Audrey Jaeger, (2008) "The Role of Culture in Institutional and Individual Approaches to Civic Responsibility at Research Universities," *Journal of Higher Education*. Vol. 70 (2) 160-82.
- Weaver, F.S., (1989) "Scholarship and Teaching," Educational Record, (Winter) 54-58.
- Wilshire, Bruce, (1987) "Can the University Defend the Values Upon Which It Stands?" *Journal of Higher Education*. Vol. 58 (3) 249-60.
- Wood, Melinda and Christina Des Jarlais (2006), "When Post-Tenure Review Policy and Practice Diverge: Making the Case for Congruence," *Journal of Higher Education*. Vol. 77 (4) 561-588.