# THE POLITICAL ECONOMY OF PERFORMANCE FUNDING

Daniel W. Lang

University of Toronto

An essay prepared for the
Taking Public Universities Seriously Conference
University of Toronto, December 3-4, 2004

**Introduction**

It has now been more than a decade and a half since Guy Neave introduced the phrase "the Evaluative State" (Neave 1988). At that time Neave was reflecting on a variety of practices and policies that had been installed to assist universities and, more often, the states that supported them, to cut the higher educational suit to fit the public purse cloth by quantitative measurement. Also at that time, most of the measures, although flawed, were accepted as temporary but necessary rough justice.

A decade later Edward Rau presented a small but important paper that asked: "Performance Funding in Higher Education: Everybody seems to love it but does anybody really know what it is?" (Rau 1999). The title of Rau's paper was telling. By the turn of the century, practices that previously had been tolerated on an assumption that they were ephemeral and would go away, were not only still in use but were also more popular, at least among governments and other agencies that provided financial subsidies to higher education. Moreover and perhaps more importantly, Rau's research indicated that despite a decade of experience, mainly of the trial and error variety, performance funding was poorly understood and, in the views of many, still seriously flawed.

Even the language of performance funding is problematic. Performance funding, performance indicators, accountability, Total Quality Management, benchmarking, best practice, incentive funding, performance budgeting, performance reporting, performance agreements -- they all seem at once to be different and the same. In addition to not knowing exactly what performance funding is, we are not certain that it works, or, if it does, why.

**An Illustrative Anecdote**

The purpose of these introductory comments is to locate performance funding in a larger context of the structure and purpose of public higher education. Performance funding is not a new idea, except perhaps in terminology. One could argue that it is typical of any principal-agent relationship that surrounds a production function for which there is a public subsidy. One could further observe that what is labeled "performance funding" at the beginning of the 21st century is not substantially different from enrolment-sensitive funding formulas that were first devised at the beginning of the 20th century, or the PPBS and zero-based budgeting schemes that were introduced in the 1950s (Serban 1998).

Let us take recent events in the Province of Ontario as an introductory example. The province has a system of "key performance indicators" that are used to allocate less than two per cent of the operating funding available to the province's colleges and universities. What now is in place in Ontario may not really be either performance indicators or performance funding. The emphasis here is on the word *performance.* To understand this we have to return to some of the broad economic ideology that a conservative government brought to the public sector when it took office in 1995, much of which a liberal government that followed left in place.

The fundamental spending question for any government, indeed for any public institutions like universities, is "How much is enough?" This question becomes more essential and more difficult as the availability of public funding becomes more constrained. Although there are many opinions about why funding is constrained and whether or not it ought to be, the reasons are unimportant here. The point is that as long as funding is limited, decisions

have to be made about when, in the case of post-secondary education, enough capacity, or enough quality, or enough breadth, or enough distribution has been funded. Scale, breadth, quality, and distribution, when added to efficiency, constitute the basic factors in the political economy of a system of higher education. When resources are limited, how can an efficient balance be struck among those factors?

In the private, for-profit sector, this question usually is answered by signals from a market. As Simon Marginson has demonstrated, there can be markets within a public sector too (Marginson 1997). But for most public universities, there is, at most, a quasi-market, and usually less than that. For universities, like most public institutions, the majority of funding usually comes from sources other than those persons who actually receive the goods or services that the institutions provide. As high as university tuition fees have become in the eyes of some, they still are not true prices in the sense that they do not indicate the real cost of the education that they nominally purchase. The same is true of heavily endowed private universities. If students (or, for that matter, employers and politicians) do not know the real cost of education they cannot know its net economic worth and relative social benefit, and they usually don't.

What does this little exposition of market behaviour have to do with performance indicators and performance funding, and a particular event in one Canadian province? It explains why the province's conservative government began its first mandate with a particular interest in de-regulation and higher user fees, which in the end is what a tuition fee is. The idea was to bring as much market behaviour as possible to the public sector, and then to let the respective markets thus created answer the "How much is enough?" question.

For universities, however, the markets were still imperfect. Even as tuition fees rose, the real cost and, in turn, the real net worth of various programs remained disguised. *De*-regulation was really *re*-regulation as programs were placed into new categories to which different fees and fee regulations then were applied. But fee differentiation, unlike the provincial funding formula of the day, was based more on prospective earnings of graduates than on the costs of production. Students as consumers still could not apply a reliable market test. Moreover, and much to the consternation of a government ostensibly committed to free markets, students as consumers seemed to be making their very worst market choices about educational programs that were being offered by private post-secondary vocational schools. For the PVS sector, rates of employment were dropping while their rates of loan default were rising.

What was to be done? The government's answer was to supplement the information about market choices, and here is the key point, by introducing performance indicators, which were formally termed "Key Performance Indicators" or KPIs. The basic idea behind the key performance indicators was that students as consumers needed to know more about the province's colleges and universities. When Michael Spence received the Nobel Prize in 2001, he was asked by a journalist "whether it was true that you could be awarded the Nobel Prize in Economics for simply noticing that there are markets in which certain participants don't know certain things that others in the market do know?" (Spence 2001). The answer, of course, was yes: the degree of asymmetry, if not simple, was surprising. In economic terms, the market for higher education is highly asymmetrical. This is exemplified by research on college choice that reveals erroneous but forceful perceptions that applicants have about the selection process (McDonogh 1997, Lang and Lang 2003).

Thus the original idea behind the Key Performance Indicators was to strike a balance of information between buyers and sellers in a market for higher education. That being the objective, the first deployment of performance indicators in Ontario was for the purpose of public information. The reasoning was that if the information provided by performance indicators was added to the information already available in the market from universities and colleges, students would then make better choices, and, in theory anyway, select programs and institutions with higher employment rates, lower default rates, and so on. Thus at the time that the Key Performance Indicators were designed and introduced, they had nothing directly to do with accountability, with funding, or with modifying institutional behaviour -- all of which were normally associated with performance indicators elsewhere, and with which they would later be associated in Ontario.

The next step in the evolution of Key Performance Indictors in Ontario was to cast the indicators as standards. As public information, the performance indicators displayed results in ranked order, but there was no indication of what amounted to satisfactory or unsatisfactory performance. They were something like the lists on the David Letterman show: each quip is funny but the audience is left to decide which is the funniest. So complicated break points were introduced at which some funding liabilities -- but not rewards -- would come into play. This use of performance indicators as standards did not really add much to public information. In fact, they never were really explained to the public. Moreover, functionally, they were aimed mainly at the private vocational school sector.

At about this time the government introduced a program called ATOP (Advanced Technology Opportunity Program) that was designed to induce colleges and universities to

expand their capacities in certain areas like computer engineering, and to induce students to select those programs over others. What does this have to do with our discussion of the evolution of performance indicators and performance funding? The answer is "a lot" because ATOP was an implicit repudiation of the government's market *cum* key performance indicators experiment in higher education. The government in practical effect, if not conscious admission, decided that it could not trust the market to balance supply and demand in areas that it believed were critical to economic growth. The market had to be "fixed" and the means that the government chose were those that one normally associates with a centralized command economy. The Key Performance Indicators ceased to be instruments for informing students as consumers. Without modification the indicators were re-deployed as "carrots and sticks" incentives in a centrally planned regulatory system.

The ATOP program thus coincided with the next step in the evolution of performance indicators and performance funding in the province. The primary purpose of Ontario's Key Performance Indicators would no longer be to inform students as consumers or to set standards. The purpose was to provide a basis for allocating a portion of annual operating funding. Two per cent of the provincial operating grant to universities was set aside for allocation on the basis of annual performance as measured by the Key Performance Indicators. Although their purpose again changed, the indicators themselves did not.

Perhaps this evolution of ends but not means should not be surprising. Governments also are buyers in the higher education market (or perhaps in two higher education markets because research follows a different production function). To the extent that governments provide subsidies to colleges and universities in order to increase productivity and stimulate economic growth, they are making investments from which they expect certain returns. In

these cases the purchase is of education, or in economic terms, of increased human capital. In the case of the ATOP program the government decided, market signals notwithstanding, that the provincial economy required more graduates in certain science and technology disciplines, and deployed a regime of performance funding to ensure that institutions and students would behave accordingly.

Compared to other jurisdictions, Ontario's use of performance indicators could be construed in different ways. Their purpose could be to influence institutional behaviour without direct government intervention, and thus with a healthy respect for institutional autonomy. Or their purpose could be to allocate funding more reliably than funding formulas do. The proof of the pudding is in the eating. Just as public subsidies and private endowments discount and disguise tuition fees as prices, the amount of funding attached to the Key Performance Indicators in Ontario bore no particular relation to the costs that colleges and universities had to incur in order to alter their performance according to the indicators. This fact suggests that the real point of indicator-regulated performance funding sometimes is to influence institutional behaviour instead of to measure institutional behaviour.

The same fact reveals a conundrum that is often typical of performance funding that is allocated on the basis of performance indicators. If the funding allocated under the Key Performance Indicators does not relate to the performances that the indicators are putatively meant to change, how can colleges and universities afford to modify their behaviours to align with the indicators? The fact that this conundrum exists at all is a reason for suggesting that the example of Ontario reveals something different from performance indicators and performance funding *per se.* The most apt description would

appear to be that, at least sometimes, "performance" means "compliance" with government policies aimed at cost efficiencies in units of output, the cost of student loan defaults, and satisfying labour market demand. Even if this description is less than perfect, it suggests that the language of performance funding requires more precision.

**The Lexicon of Performance Funding**

*Performance indicators*, as the example of the Province of Ontario demonstrates, are not necessarily associated with *performance funding*, at least not directly. A jurisdiction may deploy performance indicators without deploying either performance funding or performance budgeting. This use of performance indicators alone is often called *performance reporting.* Performance indicators unconnected to performance funding may be installed for several different reasons.

*Market symmetry.* As in the case of the Province of Ontario's initial installation of performance indicators, their purpose may be to "level the playing field" of a higher education market by injecting information that otherwise might not be available to students as consumers, or might not be available at all. This use of performance indicators depends on several presumptions.

The first is that universities modify their performance as organizations in response to competition (Ben-David 1972, Dill, 1997). The second assumption is that competition is greatest when colleges and universities are relatively independent. Ben-David (1972), Clark (1998), MacTaggart (1998), and Altbach (2004), have all advanced similar cases for institutional autonomy *cum* competition. This implies a performance paradigm rooted in organizational behaviour and system structure. From this follows an intriguing paradox: as governments pursue improved institutional performance through the construction of more

highly regulated and planned systems of higher education they may in practical fact be discouraging the competitive market behaviour that stimulates innovation and responsiveness.

The third assumption is that tuition fees, even when discounted, must be high enough to simulate prices, and in turn market choices on the part of students as consumers. It is theoretically true that, in the absence of tuition fees, students will still incur major opportunity costs and realize large returns on their private investments, but this requires a level of economic literacy that most students do not have (McDonogh 1997, Sedaie 1998,).

*Ccomparison.* Colleges and universities throughout much of the world are regularly compared to one another. Sometimes they do this by their own choice, usually either to benchmark their costs and performance or to determine their competitive market positions. At other times they are compared and ranked by the press, a practice that most colleges and universities, on the one hand decry, and, on the other hand, cannot resist (Just 2002).

At yet other times, usually in the name of accountability, governments whose systems of higher education are centralized compare colleges and universities, at least those within their own systems. Sometimes the systems themselves are compared, in which case quality often is not the primary index. Often the degree of diversity within each system becomes a point of comparison, usually with respect to questions about how differentiation among institutions might be measured and promoted, and how distinctive institutional missions and roles might be recognized within each system.

Measuring performance in terms of quality and diversity is not easy. This is not only a matter of objective quantification and comparison. It also has a lot to do with how universities change in order to improve performance. What events and conditions might

cause a university to change its organizational behaviour? This is not a matter of simple instrumentalism. For example, as Pike's research (2004) demonstrates, infusions of resources do not necessarily improve or signify quality in higher education. Frederiks and Westerheijden (1994) came to a similar conclusion after studying the results of performance funding in the Netherlands.

Robert Birnbaum, who has written extensively about diversity in higher education identified two different paradigms – "natural selection" and "resource dependence" -- that may explain institutional behaviour (Birnbaum 1983). In both cases, the forces that lead to change are essentially external. Because they are external, they inherently involve comparison.

*Best practice and benchmarking.* Benchmarking in higher education is an import from business in the for-profit sector. In the view of some, although benchmarking did not originate in higher education, it has become a virtually mandatory practice for colleges and universities (Alstete 1995). Benchmarking sometimes looks very similar to comparison. On close examination, however, we see that they are different. Comparisons are almost always organizational, that is, the indicators measure in various ways the performance of institutions or, in some cases, faculties and schools within institutions. However, the best "practices" that benchmarks measure are processes (Birnbaum 2000).

Benchmarking for best practice, because it focuses on processes, is the most laborious utilization of performance indicators. It can also be the most risky. It is laborious (and, in turn, expensive) because of the large amounts of data that must be collected and statistically analyzed (Gaither, Nedwick, and Neal 1994; Lang 2002). It is risky, because, in the absence of a corollary effort to insure that best practices are drawn from institutions

that are peers, there can be no assurance that what is a best practice in one institution can be a best practice in another (Lang 2000). As Robert Birnbaum observed, when that happens, a benchmark that is converted into to performance indicator is for practical purposes arbitrary (Birnbaum 2000).

*Performance funding* does not have to be based in performance indictors. Indeed, one can argue reasonably that performance funding is, when stripped of management jargon, formula funding based on outputs instead of inputs (Layzell and and Caruthers 1999, Lang 2004). For example, an enrolment-sensitive funding formula can be based either on enrolments of students as degree candidates -- that is, as inputs -- or of students as degree recipients -- that is, as outputs.

Output-based incentive or performance formulas are usually combined with other types of formulas that are used to allocate most of the funding available for distribution; a portion is withheld and allocated on the basis of performance. In these cases performance is measured in a number of ways, such as programs accredited, performance of graduates on standardized tests, the evaluation of programs and services, peer evaluation, and success in attracting competitive research grants and contracts. Separate funding -- often called an "envelope" -- is set aside for each category of performance or policy incentive. For each envelope or incentive there is then a formula.

Incentive funding, or performance funding, formulas are the most policy oriented of funding formulas. They are not neutral. On the one hand, this type of formula respects institutional autonomy in the sense that a college or university may choose to ignore the incentive and forego whatever funding it might have provided. But on the

other hand, the express purpose on an incentive or performance formula is to modify institutional behaviour.

Although technical, there are two fundamental aspects of incentive and performance formulas that affect their effectiveness in terms of the institutional behaviours that they engender. The first aspect is not so much about the formula's funding algorithm as it is about the source of the funds that the formula allocates. If the funds available for allocation are new or additive, the incentive is truly a carrot that institutions may, literally, take or leave according to their autonomous judgement. If, however, the funds available for allocation come from existing public grants to colleges and universities, the incentive may be as much a stick as a carrot, and as such will be harder for institutions to ignore, regardless of their autonomy.

The other fundamental factor that influences the effectiveness of incentive and performance formulas has to do with cost. To a casual observer an incentive or performance formula will look a lot like a composite formula: a series of separate funds and a separate algorithm for each fund. They are, however, basically different. The first is that incentive and performance formulas virtually never operate alone to allocate all of the public funds available to colleges and universities in a given post-secondary system. Incentive and performance formulas account for only a small fraction -- usually less than ten per cent, and often as low as only one or two per cent -- of public funding for colleges and universities. The second difference follows from the first: many incentive and performance formulas are distinct only in the sense that they allocate funds earmarked for a particular purpose. Their allocative arithmetic may be the same as that of the larger formula with which they are associated. For example, an

incentive or performance formula aimed at increasing rates of graduation will use the number of graduates instead of total enrolment as its coefficient. But the program weight that it assigns to each graduate to reflect differences in costs will be the same as the weight in the enrolment-based formula with which it is associated. In other words, the measure of volume is different but the cost is not. Even when the measure of cost is different, incentive and performance formulas almost always use one or more of the major forms of formula funding (Burke 1998).

The third difference is the most basic. Composite funding formulas that include incentive and performance components are used when high degrees of accuracy in costing and funding are desired. In terms of costs, incentive and performance formulas are more inaccurate than any other type of funding formula. The amounts of funding set aside for the outcomes or other behaviours that any given incentive or performance formula is put in place to engender often bear no realistic connection to the costs of any given outcome. Let's again use rates of graduation. To improve rates of graduation a college or university might take several steps that involve additional expense, for example, more academic counselling, writing labs, math labs, teaching assistants, and financial aid. The list could be longer, but the length of the list of measures that might be taken to improve rates of graduation is not the point. The point is the cost of the list. If the amount of funding set aside does not reflect, at least approximately, the cost of the institutional performance for which the formula calls, the incentive will be ignored. Indeed, performance and incentive funding often is ignored (El-Khawas 1998; Rau 1999; Schmidtlein 1999; Schmidt 2002; McColm 2002).

*Performance budgeting* is often identified with performance funding, but in fact is quite different. The two are linked by their use of performance indicators. Performance budgeting, which is much more frequently deployed than performance funding, allows the discretionary use of performance indicators by government funding agencies to supplement allocations to institutions. The key word in this definition is "discretionary": there is no arithmetic or formulaic connection between an institution's performance as measured by the indicators and the supplementary allocation that it receives. Performance budgeting thus is much more de-stabilizing and unpredictable than performance funding, even though they use virtually the same arrays of performance indicators.

**Inputs, Throughputs, Outputs, and Outcomes: The Anatomy of Performance Funding**

Critics of performance funding often claim that it only about outputs, and in turn that it is only about those outputs that can be conveniently measured (Gaither, Nedwek, and Neal, 1994; Ewell 1998). There are instances in which those assertions are borne out. In fact, however, performance funding is more complex, involving a variety of inputs, throughputs, and outcomes, as well as outputs. The table that follows is an expanded version from a study that was conducted by Bottrill and Borden (1994). This table is not inclusive. It is not meant to be. There are literally hundreds of performance indicators for higher education (Taylor, Meyerson, and Massy, 1993; Taylor and Massy, 1996). The purpose of the table is to describe the texture and variety of performance indicators. It is possible to over-generalize about performance indicators. Performance indicators are different because they measure different performances, only some of which are

| **Input Indicators** | **Process Indicators** | **Output Indicators** | **Outcome Indicato** |
|---|---|---|---|
| market share of of applicants | student workload | graduation rate | employer satisfaction with graduates |
| student:faculty ratio | persistence and retention | number of graduates passing licensing | job placement of graduates |
| funding per student | class size | cost per student | reputation measured externally |
| faculty workload | student evaluation of teaching | rate of PhD completion | graduate satisfaction |
| amount of space | peer review of curricula | research publication | patents and royalties from research |
| quality of space | peer review of teaching | | research citations |
| percentage of faculty with doctorates | peer review of research | | |

outputs. The table is also important because, in terms of causality, it demonstrates that the connections between performance funding and the institutional behaviours that they are supposed to engender are more often than not indirect. Let us take the table's several research indicators as examples. The number of faculty who hold earned doctorates is an *input* to the research production function, just as research grants would be. Next, the *process* of research can be measured by peer review. The research process -- in terms of either quality or efficiency -- can be the same regardless of the significance of the results of the research. The most common measure of research *output* is the rate of peer reviewed publication. One might expect the performance

indicator continuum to stop there. But there is another step: *outcomes,* which can be thought of as measures of the significance or added value of research.

This is another example of the problem that market asymmetry poses for performance indicators and performance funding. Superficially, research might seem to be the area of university performance that is most amenable to performance funding. It isn't.

Much of the complexity of developing measures of research performance or productivity in universities can be understood by reference to economic concept of *principal* and *agent.* This is usually called the *agency problem.* With a few exceptions principals fund research but do not conduct it themselves. Instead, they purchase research from agents, who may be seen as either individual researchers in universities or as the universities themselves. Funding agencies as principals may have different motives and expectations from those of researchers as agents. It is difficult, if not impossible, for the sponsors of research to know and, more to the point, evaluate the actual processes of research. As Michael Spence might have said in this context, the market for university research is ineluctably and inherently asymmetrical. But to a considerable degree, as our table illustrates, it is those processes that productivity is about.

Experts who think a lot about agency relationships recommend contractual arrangements that are based on outcomes (instead of process) as a means of limiting opportunistic behaviour on the part of agents. Opportunistic behaviour, whether implicit or explicit, diminishes productivity; at least, that is what the sponsors of research fear. The objective, therefore, becomes an alignment of the funding agency's interests with the agent’s interests.

That sounds a lot like performance funding based on performance indicators. It also seems simple and straightforward until one considers that the process of conducting research is poorly suited to the normal understanding of the *principal – agent* relationship. Principals, as the financiers of research, normally think in terms of outputs. The processes by which the outputs are created are essentially unimportant to the principals. Ends count, means do not. The logic of this suggests that performance funding that focuses on process amounts to unproductive micro-management.

Nevertheless, of the four elements of performance funding *cum* performance indicators, it is most important to understand process. The sub-title of James Scott's *Seeing Like a State* (1998) explains the special significance of process in understanding performance funding. The sub-title is *How Certain Schemes to Improve the Human Condition Have Failed.* Scott did not discuss performance indicators and performance funding explicitly, but if he had, he might have described them as "social simplifications" under his heading "limits of measurement." Scott presents a series of plans that not only failed to improve the human condition but also made it worse, for example, the Soviet collectivization of agriculture. Performance funding is not on that scale but it may nevertheless be a social simplification subject to the limits of measurement. The key to each of the fiascoes that Scott dissects was a failure to understand process. For example, Soviet central planners did not have enough knowledge of how certain crops were grown to know which ones would be successful under large-scale collectivized agriculture and which ones, regardless of political or economic ideology, could be grown only on small-scale family farms. In terms of Scott's metaphor, what the state "saw" and what the farmers "saw" were

different. The state saw a political control and compliance problem while the farmers saw an agricultural process.

This lesson about process and the sight of the state can help us better understand performance funding. The rate of graduation provides a good example. It is a performance indicator in most performance funding schemes, and it is a lot more complicated than it at first seems to be. The process dimension of the rate of graduation does not begin with what otherwise might seem obvious: quality of teaching, class size, academic services, and so on. It begins with the selection of students for admission. The most straightforward and least costly means of improving rates of graduation are to raise standards for admission and introduce more selective and more predictive selection processes. After that, improvements in instruction, academic services, financial aid, and other interventions come into play. The simple measure of rate of graduation does not necessarily "see" these processes. Moreover, the measurement may misconstrue the process. For example, an increase in the rate of graduation that was induced by raising standards for admission would not be the result of any actual change in an institution's educational performance, but it would nevertheless be rewarded with performance funding.

Another example of the state's inability to "see" process can be found in the Province of Ontario's initial attempt to deploy performance indicators without performance funding. As previously discussed, in that case the government through the lens of market capitalism assumed that students would choose colleges and universities differently if they had more and better information about institutional performance as measured by three indicators: rate of graduation, rate of graduate employment, and rate of default on student loans. The scheme didn't work; students did not use the information and did not change

their patterns of choice. The fact that the government did not "see" the process by which students choose colleges and universities was not due to a lack of information about the process. There is plenty (McDonogh 1997; Hossler, Schmit, and Vesper 1999; Lang and Lang 2002). Instead, the lack of sight was due to the lens, or what Scott called the "hieroglyphics of measurement" that can cause governments to over-simplify and over-unify processes that are neither simple nor uniform. One need only to look through an issue of either the *U.S. News & World Report's* or *Maclean's* annual survey and ranking of colleges and universities to see how complex and disparate the process of choice really is.

**The Track Record of Performance Funding**

Performance funding of various stripes has been in place in North America since the mid-1970s. Before then some funding formulas had performance components that could have powerful steering effects, mainly to encourage or discourage the expansion of enrolment (Darling et al. 1989). Beginning in the mid-1990s the Nelson A. Rockefeller Institute of Government conducted a series of surveys of the use of performance funding in the United States. The deployment of performance funding grew rapidly from 1979 to 2001, at which time it was in place in some form in 19 states. However, between 2001 and 2003, four states discontinued the practice, and none has been added since. Also, of the remaining 15 states where performance funding is still in place, two use it for two-year colleges only. Thus, as of 2003, performance funding for universities was in use in only 13 American states, or in about two thirds of the historical high.

In approximately the same period in Canada, two provinces -- Alberta and Ontario -- introduced performance funding. In both of the Canadian cases, although performance

funding remained in place, the amounts of funding allocated on the basis of performance were reduced to nearly negligible levels.

The Rockefeller Institute, in speculating about the leveling off or actual decline in the use of performance funding in the United States, said that:

> The volatility of performance funding confirms the previous conclusion that its desirability in theory is matched by its difficulty in practice. It is easier to adopt than implement and easier to start than to sustain. (Burke, Rosen, Minassians, and Lessard, 2000)

What makes performance funding volatile? One explanation has already been mentioned: the amounts of funding associated either with performance funding generally or with specific performance indicators usually do not correspond with the cost structures of the performances that are being measured and putatively rewarded. For example, given the efforts that a university would have to exert in order to raise rates of graduation -- smaller classes, enhanced academic services, supplementary financial aid -- the costs that the university would have to incur might be greater than the additional income that those efforts would generate. This is a greater problem if the purpose of performance funding is to modify institutional behaviour by means of incentives. If the purpose is compliance or accountability, the problem is less serious.

Also in terms of cost structures, performance funding often fails to take into account the fact that universities have long production cycles. For example, the typical undergraduate program takes four years to complete; many programs take longer. For that reason universities are something like super-tankers: it takes a long time to change their direction, even when they are willing to change in response to financial incentives. Let us

again take the rate of graduation as an example. First, the rate of graduation is not a simple sum of annual retention rates. Most graduation rate performance indicators are not calculated until one or two years after the normal program length, for example, after the sixth year for a four-year program. This allows for the inclusion of students who "stop out" or temporarily switch from full-time to part-time status, but who nevertheless eventually graduate. Thus, even if a university makes every possible authentic effort to increase its rate of graduation, the results of those efforts will not be seen until several years later. But performance funding universally operates annually. This means that a university must incur costs long before it receives supplementary "performance" revenue to cover those costs, and even then usually partially instead of fully.

Even the delayed recovery of costs is problematic. One of the reasons most often cited for the disinclination of some universities to take performance funding seriously is uncertainty about the future (Burke and Modarresi 2000; McColm 2002). Will the definition and calculation of performance indicators change over time? Will the amount of funding attached to performance change? Will new indicators be introduced that offset older indicators? These concerns about stability are not unfounded. In Ontario, for example, the performance funding *cum* performance indicators program changed four times in eight years.

Some jurisdictions deal with the problem of costing by limiting the number of indicators so that the performance funding available to each indicator will be higher and therefore closer to a reflection of the actual costs of the performances that it measures. This, however, creates a Catch-22 problem. As the array of performance indicators narrows, the indicators cover less of each university's total performance, which in turn

makes the measurement of institutional performance less reliable and performance funding less influential. Context is crucial in appreciating the complexity of this problem. With one exception, no Canadian province or American state allocates more than 3.4 per cent of its total funding for post-secondary education through performance funding. Some allocate as little as one per cent. It is difficult to imagine any manipulation of an array of performance indicators that could realistically match the performance measured with the actual costs of that performance. According to the Rockefeller Institute's surveys of performance funding, this problem fits the old adage about the weather: "everybody talks about it, but no one does anything about it." Not one of the stakeholder groups surveyed -- from state governors and legislators to deans and chairs of faculty senates -- thought that the amount of funding allocated by performance funding was too large. The almost unanimous consensus was that funding was too small, but the surveys also report no plans to increase the allocation (Serban 1997). In some cases it has become smaller (Burke and Minassians 2003).

What lessons can we learn from trial and error? As the Rockefeller Institute reported on the basis of its annual surveys, about 25 per cent of the American states that deployed performance funding have since abandoned it (Burke and Minassians 2003). Sweden, the Netherlands, and Australia introduced various versions of performance funding, only to either abandon them or change them fundamentally. Australia, which is an example of replacement instead of abandonment, ended up with an arrangement that was basically performance budgeting instead of performance funding. Under that arrangement, a uniform national system of performance indicators was replaced by a system that allows each institution to select and declare its own performance indicators in periodic *performance agreement* negotiations with government.

An examination of the experience of the American states that installed performance funding and later discontinued it, and of those states that in the same period kept it in place indicates some factors that lead to success or failure. A very important conclusion was that performance funding worked in jurisdictions in which the performance indicators emphasized quality, and did not work where the emphasis was on efficiency (Burke and Modarresi 2000). Efficiency was particularly problematic in terms of the measurement of administrative cost and faculty workload (Burke 1997).

The track record of performance funding is good when the following conditions are met:

- Performance indicators are carefully chosen, definitive, and neither too numerous nor too few.
- Institutional diversity is preserved.
- Government priorities are stable and for the long-term.
- Funding is realistic relative to the expected performances.

(Stein 1996; Ewell 1998; Burke and Modarresi 2000).

What is interesting about this list is that it could apply just as aptly to formula funding generally as to performance funding specifically (Serban 1998, Lang 2005). Some performance funding schemes comprise performance indictors that are virtually identical to those that one would expect to find in a composite funding formula. The list that follows is drawn from the performance funding program used by the State of Texas (Ashworth 1994):

- Number of undergraduate degrees @$97.64
- Number course completers @$4.41
- Number minority students @$51.48

- Number minority graduates @$449.99
- Number of graduates in top 50% on GRE, LSAT, MCAT tests @$312.45
- Number of tenure track faculty in in lower division courses @$333.33

This is not the complete list of performance indicators used in the Texas performance funding program, but it is indicative of the types of indicators used, and the precision of the assignments of funding to each indicator. If the "if it walks like a duck, swims like a duck, quacks like a duck, it's a duck" test were applied to the Texas performance funding program, it could just as aptly be called a formula funding as performance funding.

The detail of the Texas scheme is important for more than reasons of precision. It allows a university to use the performance indicators for purposes of strategy and planning as well as budgeting because the financial outcomes of responding to the various indicators can be forecast. This provides the stability and long-term perspective that effective performance funding requires. If one objective of performance funding is to modify institutional behaviour more or less permanently, a stable and long-term connection between funding and performance is essential.

This type of funding – whether one labels it performance funding or formula funding -- has another dimension that sometimes, despite its effectiveness, makes it less attractive to government. In some jurisdictions governments and funding agencies are becoming wary of incentive and performance funding. There are two reasons for this: one political and one financial. The political reason is that this form of funding, some governments are beginning to realize, can work in two directions. If a specific performance target is set, is visibly measurable by a performance indicator, and is financed by earmarked funding, the effects

of inadequate funding can be measured as well institutional performance. In other words, the government's performance as a funding agent becomes visibly measurable too. More to the point, it may just as easily become a political liability as an asset.

The other reason is that a tight, realistic, and predictable fit between performance indicators and performance funding generates what amounts to entitlement funding. In other words, the more successful performance funding in this form is in terms of raised institutional performance, the more it costs. Open-ended funding schemes make governments nervous, especially those in tight fiscal circumstances (Wildavsky 1975, Blakeney and Borins 1998). This perhaps explains the growing preference that the Rockefeller Institute's surveys reported for performance budgeting over performance funding, The preference is significant. In the institute's 2003 survey states were asked about the likelihood that they would adopt either performance funding or performance budgeting in the future. Only five states said that it was "likely" that they would adopt performance funding, while 13 said that performance budgeting would be their likely choice (Burke and Minassians 2003). A few said that they might adopt both.

Since it was government that initiated the interest in performance funding, it should not be surprising that, after 20 years of deployment, it is government that is most satisfied by the track record so far. Universities are the least satisfied, mainly because of the intrusions that performance funding makes into their autonomy, and because of the lack of symmetry between the economic assumptions about performance indicators and performance funding and the actual fact of university cost structures and functions. Other stakeholders -- system administrators, governing boards, "buffer" agencies -- are in between. At all levels, there is concern that performance funding promotes monocultures

that undermine diversity. This concern, it is important to note, arises when performance funding works, not when it doesn't. Given the fundamental objectives of performance funding, performance funding works when universities respond to it by modifying their behaviours and, ideally, by internalizing the priorities and causal relationships that the intersections of performance indicators and performance funding represent. We know that universities often do not respond in these ways, and why. The response seems to have been greatest in those jurisdictions in which performance funding was not preceded by formula funding or some other form objective, systematic budgeting for higher education. South Carolina is the American jurisdiction that has used performance funding the most, and whose budgeting processes prior to the introduction of performance funding were highly political and incremental. As the president of one university in the state said about the pre-performance funding era, "As long as I can remember, legislators financed higher education by poking money through a hole in the fence." (Schmidt 1999). The degree of satisfaction with performance funding is thus relative, depending on the alternatives available to it.

**The Future of Performance Funding**

The future of performance funding for colleges and universities is easier to foresee generally than specifically. Generally, is it not likely that governments will or should become less interested in accountability, with which performance funding is often closely associated. Nor, given the track record, is it likely that many more jurisdictions will turn to performance funding. There is such a plethora of performance indicators from which governments can choose -- the number is literally in the hundreds -- that it is not probable that new and better measurements will be devised.

There is no reason to expect that, again generally, those jurisdictions that have already deployed performance funding will allocate more money through it. Performance funding that is installed to change institutional behaviour by incentive is expensive. This might not appear to be the case a first glance, since relatively small percentages of public funding for colleges and universities flow through this type of funding device. But the small percentage is indicative of the point: funding for the institutional performances that incentive funding is supposed to engender is often too small to provide the intended incentives. The result is that colleges and universities sometimes ignore the incentives or find them too costly to comply with. This is not likely to change because, whether for reasons of globalization and economic theory or of lack of wealth, public funding for higher education is declining in many jurisdictions in which performance funding is in use. The decline in public funding often is accompanied by increases in other forms of funding, usually higher tuition fees. One result is that governments are in some cases becoming minority partners in the financing of colleges and universities. Public grants are becoming public subsidies to institutions that are more autonomous out of necessity as they the institutions are forced to rely more and more on alternative sources of funding. This will further weaken the impact of performance funding on institutional behaviour. At the same time it may strengthen the role of accrediting agencies because, in terms of accountability, they have broader audiences. Some performance funding schemes already use accreditation standards as indicators.

These developments in the scale and role of public funding might lead to three specific changes in the shape of performance funding, jurisdiction by jurisdiction. First, enrolment-based performance indicators will become more prevalent because they most

closely reflect the role of public funding as a subsidy to ensure student accessibility, and because other types of formula funding usually imply a higher degree of financial responsibility than governments either can or wish to assume. Second, performance funding will allow more permutations and combinations among performance indicators institution-by-institution in order to respect institutional autonomy and promote diversity over isomorphism. For example, in a given jurisdiction, there might be a smaller array of core or compulsory indicators and a larger array of indicators from which institutions may choose according to their missions, mandates, and priorities. Third and last, if tuition fees continue to rise, performance funding may revert to one of its original roots: accountability by means of student choice within a regulated market. Some American states have already moved in the direction of what is sometimes called *performance reporting* (Burke and Minassians 2003). Other than a new terminology, performance reporting is simply the deployment and wide publication of performance indicators without any connection to funding. The indicators are not new. What is new is their broad and universal propagation. In a sense, performance reporting may essentially be a movement of government into what has so far been the private sector world of journalistic surveys and rankings that have been very successful commercially. One does not have to spend much time examining the statistical detail of, say, the *U.S. News & World Report* annual surveys to realize that their indices are very similar -- sometimes identical -- to performance indicators. That examination will also show that the system of "weights" by which the magazines place institutions in ranked order are similar to the priorities that governments place among performance indicators.

Finally, there are some voices that are beginning to argue that public systems of higher education are becoming too big, too highly centralized, and too complex to be

managed successfully by anyone. (Callan 1994; MacTaggart 1996; Gaither 1999; Berdahl 2000). Gary Rhoades (2000) characterized this as "managerial myopia." James March (1994) used the phrase "limited rationality" to describe the inability of large, centralized organizations to make universally competent decisions. Public universities, specifically because they are public, are typical of what Scott (1998) called "complex inter-dependencies" that cannot easily be reduced to the schematic system-wide visions that performance funding often represents. These views may lead to three changes in performance funding. Two have already been discussed: fewer compulsory performance indicators and more discretionary indicators that can better matched to different institutional roles, and the disconnection of performance indicators from funding. The third is a retreat from the imposition of system-wide "best practices" by the use of performance indicators as benchmarks. Ironically, the strongest incentive for universities to seek best practices systematically may not be the addition of performance funding specifically but the reduction of funding generally.

**References**

Alstete, J. W., *Benchmarking in Higher Education: Adapting Best Practices to Improve Quality*, Washington, D.C.: ASHE-ERIC, 1995.

Altbach, Philip, "The Costs and Benefits of World-Class Universities," *Academe*, June 2004, pp. 1-5.

Ashworth, Kenneth, "The Texas Case Study," *Change*, November/December 1994, pp. 9-15.

Ben-David, Joseph, *American Higher Education*. New York: McGraw-Hill, 1972.

Berdahl, Robert. "A View from the Bridge: Higher Education at the Macro-Management Level," *The Review of Higher Education*, Vol. 24, No. 1, (2000), pp. 103-112..

Birnbaum, Robert, *Management Fads in Higher Education,* San Francisco: Jossey-Bass, 2000.

Blakeney, Allen, and Sandford Borins, *Political Management in Canada,* Toronto: University of Toronto Press, 1998.

Bottrill, Karen, and Victor Borden, "Examples from the Literature," *New Directions for Institutional Research*, Vol. 82, Summer (1994), pp. 107-119.

Joseph Burke, *Performance Funding Indicators: Concerns, Values, and Models for Two- and Four-year Colleges and Universities*, Albany: Nelson A. Rockefeller Institute of Government, 1997.

Joseph Burke, Jeff Rosen, Henrik Minassians, and Terri Lessard, *Performance Funding and Budgeting: An Emerging Merger: The Fourth Annual Survey*, Albany: Nelson A. Rockefeller Institute of Government, 2000.

Joseph Burke and Shahpar Modarresi, "To Keep or Not to Keep Performance Funding: Signals from Stakeholders," *The Journal of Higher Education*, Vol. 71, No. 4, (2000), pp. 432-453.

Callan, Patrick, "The Gauntlet for Multicampus Systems," *Trusteeship*, May-June, 1994, pp.

Clark, Burton R., *Creating Entrepreneurial Universities*. Oxford: Pergamon 1998.

Darling, A.L., M. D. England, D.W. Lang, and R. Lopers-Sweetman "Autonomy and Control: A University Funding Formula as an Instrument of Public Policy," *Higher Education*, Vol. 18, No.5, 1989, pp. 559-584

Dill, David, "Effects of Competition on Diverse Institutional Contexts," in Marvin Peterson, David Dill, and Lisa Mets, eds., *Planning and Management for a Changing Environment*, San Francisco: Jossey-Bass, 1997, pp. 88-105.

El-Khawas, Elaine, "Strong State Action But Limited Results: Perspectives on University Resistance," *European Journal of Education*, Vol. 33, No. 3, 1998, pp. 317-330.

Ewell, Peter, "Achieving High Performance: The Policy Dimension," in William Tierney, ed., *The Responsive University*, Baltimore: Johns Hopkins University Press, 1998, pp. 120-161.

Frederiks, Martin, and Westerheijden, D., "Effects of Quality Assessment in Dutch Higher Education, *European Journal of Education*, Vol. 29,No. 2, 1994, pp. 181-200.

Gaither, G., Nedwek, B., and Neal, J., *Measuring Up: The Promises and Pitfalls of Performance Indicators in Higher Education*, Washington, D.C.: ASHE-ERIC, 1994.

Hossler, Don, Jack Schmit, and Nick Vesper, *Going to College: How Social, Economic, and Educational Factors Influence the Decisions that Students Make*, Baltimore: Johns Hopkins University Press, 1999.

Lang, Daniel, "Formulaic Approaches to the Funding of Colleges and Universities," in Nina Bascia, Alister Cumming, Amanda Datnow, Kenneth Leithwood, and David Livingstone, eds., *International Handbook on Educational Policy*, Manchester, U.K.: Springer, 2005.

Lang, Daniel, "Responsibility Center Budgeting and Management at the University of Toronto," in Douglas Priest et al, eds, *Responsibility-Centered Budgeting Systems in Public Universities*, Northampton: Edward Elgar, 2002 pp. 109-136.

Lang, Daniel, "Similarities and Differences: Measuring Diversity and Selecting Peers in Higher Education," *Higher Education*, Vol. 39, No. 1 (2000), pp.93-129.

Lang, Katherine and Daniel Lang, "'Flags and Slots': Special Interest Groups and Selective Admission," *Canadian Journal of Higher Education*, Vol. XXXII, No. 2 (2002), pp. 103-142.

Layzell, Daniel, and J. Kent Caruthers, "Budget and Budget-Related Policy Issues for Multicampus Systems," in Gerald Gaither, ed., *The Multicampus System: Perspectives and Prospects*, Sterling, Va.: Stylus, 1999, pp. 110-127.

MacTaggart, Terrence. *Seeking Excellence Through Independence*, San Francisco: Jossey-Bass, 1998.

March, James, *A Primer on Decision Making*, New York: Free Press, 1994.

Marginson, Simon, *Markets in Education*. St. Leonards, NSW: Allen & Unwin, 1997.

McColm, Marjorie, "A Study of Performance Funding of Ontario CAATs," Ed.D. thesis, University of Toronto, 2002.

McDonogh, Patricia et al., "College Rankings: Who Uses Them and With What Impact?" paper presented at the Annual Meeting of the American Educational Research Association, March 1997.

McDonogh, Patricia, *Choosing Colleges*, Albany: SUNY Press,1997.

Neave, Guy, "The Evaluative State Reconsidered," *European Journal of Education*, Vol. 33, No. 3, (1998), pp. 264-284.

Pike, Gary, "Measuring Quality: A Comparison of *U.S. News* Rankings and NSSE Benchmarks," *Research in Higher Education*, Vol. 45, No. 2 (2004) pp. 193-203.

Rau, Einhard, "Performance Funding in Higher Education: Everybody seems to love it but does anybody really know what it is?" paper presented at the EAIR 21st Annual Forum, Lund University, Sweden, 1999.

Rhoades, Gary, "Who's Doing It Right? Strategic Activity in Public Research Universities," *The Review of Higher Education*, Vol. 24, No. 1, (2000) pp. 41-66.

Schmidt, Peter, "Most States Tie Aid to Performance, Despite Little Proof That It Works," *The Chronicle of Higher Education*, February 22, 2002, pp. 21-22.

Schmidtlein, Frank, "Assumptions Underlying Performance-based Budgeting," *Tertiary Education and Management*, Vol. 5, 1999, pp. 159-174.

Scott, James, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, New Haven: Yale University Press, 1998.

Sedaie, Behrooz, "Economic Literacy and the Intention to Attend College," *Research in Higher Education*, Vol. 39, No. 3 (1998), pp. 337-364.

Serban, Andreea, *Performance Funding for Public Higher Education: Views of Critical Stakeholders*, Albany: Nelson A. Rockefeller Institute of Government, 1997.

Serban, Anreea, "Precursors of Performance Funding," in Joseph Burke and Andreea Serban, *Performance Funding for Public Higher Education: Fad or Trend?*, San Francisco: Jossey-Bass, 1998, pp. 15-24.

Spence, Michael, "Signaling in Retrospect and the Informational Structure of Markets," Nobel Prize Lecture, Stockholm, Sweden, December 2001.

Stein, R. B., "Performance Reporting and Funding Programs," in Gerald Gaither, ed., *Performance Indicators in Higher Education: Current Status and Future Prospects*, College Station: Texas A&M University Press, 1996.

Taylor, Barbara, Joel Meyerson and William Massy, *Strategic Indicators for Higher Education: Improving Performance*, Princeton: Peterson's, 1993.

Taylor, Barbara, and William Massy, *Strategic Indicators for Higher Education*, Princeton: Peterson's, 1996.

Wildavsky, Aaron, *Budgeting: A Comparative Theory of Budgetary Processes*, Boston: Little, Brown, 1975.