ACCOUNTING DISCOURSE AND TEXTUAL PRACTICES OF RULING: A STUDY OF INSTITUTIONAL TRANSFORMATION AND RESTRUCTURING IN HIGHER EDUCATION

by

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ABSTRACT

This is a study of accounting as a documentary practice of knowledge. It is also a study of organizational change and institutional transformation in postsecondary education. These two themes are combined through an investigation of the use of accounting texts in restructuring in the Ontario college system.

The analysis is organized into two main parts. The first part sketches an historical overview of accounting as a text-based form of knowledge that has developed concomitantly with capitalist economic relations. The present-day organization of accounting as a conceptual and textual practice of representation is also examined, with a focus on the kinds of visibility produced in accounting statements and the ways these texts mediate organizational work processes and inter-organizational relations of property and obligation.

The second part uses an institutional ethnography approach to investigate the use of accounting as a practice of knowledge in the administration of the Ontario college system in the early 1990s. State policies of privatization and fiscal retrenchment were promoting a competitive market in adult vocational training. Colleges were pulled into this market in pursuit of federal funds and, from the other side, pushed by budget freezes and cuts in provincial funding. College administrators responded to these changes, and tried to

participate successfully in market relations, by positioning their colleges to be more "entrepreneurial," "efficient," and "businesslike" in operation and orientation. Accounting played a central role in this restructuring. New practices of managerial accounting produced the observability of organizational work processes in ways that fitted them to the new interpretive frame of "efficiency" and "customer orientation." How they did this is explored through a close focus on one college's introduction of program costing, an accounting exercise that establishes unit costs for each academic program. This examination of the production and use of a new documentary form of knowledge offers a view of restructuring as it occurs through the text-mediated activities of actual people.

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PART I — OVERVIEW AND INTRODUCTION

CHAPTER ONE
INTRODUCTION

> ...[T]here is little doubt that accounting is increasingly one of the more influential bodies of expertise in a number of Western nations. . . . This is of profound sociological and institutional significance, rather than a matter of concern only to technical specialists and those within the discipline of accounting. (Miller 1995: 30-31)

> Accountability in the public sector is now increasingly defined in terms of outputs, value for money and monitored standards of effectiveness, efficiency and productivity. (Townley 1996, 565)

The practice of accounting is fundamental to the coordination of economic and administrative relations in contemporary capitalist society, yet the study of this practice has largely been left to accounting theorists and specialists. This is an oversight. Accounting as a documentary form of knowledge mediates activities of large-scale organization, state and economy in ways that are consequential for whether people have jobs, whether there will be affordable housing in the region, whether elective surgery will be cancelled once again at the local hospital, and so on. The investment, managerial and governmental policy decisions affecting these outcomes are made with reference to, among other resources, the knowledge and forms of visibility constructed in accounting documents.

We are at a time of significant restructuring in the way the public sector and the delivery of public services in Western nations are organized. This takes many forms, including direct cuts in funding and services, deregulation, privatization, new ways of managing the work processes of public sector organizations, and new relations of accountability, in which levels of funding are tied to reported performance. The practice of

accounting figures prominently in this restructuring. It is increasingly a central resource in managerial efforts to identify and improve "efficiency"[1] and "value for money."

The study reported here investigates accounting as a documentary form of knowledge central to contemporary relations of ruling and as it was being used in restructuring taking place in the Ontario college system in the early 1990s. Using the method of institutional ethnography, the study works through interviews and textual analysis to examine how state policies, implemented through changes in funding, brought new demands into the colleges, which college managers interpreted as the need to become more "efficient" and "market-oriented." The study highlights one college's attempt to introduce a cost accounting technique that would produce the observability of college processes in ways that supported these managerial efforts. Through this focus on an accounting practice and its use by college personnel, the study thus displays an instance of restructuring in action, as it occurs through the practice of actual people.

This first chapter lays the groundwork for the chapters to come with a discussion of general trends in public sector and higher education restructuring and the new managerial practices that bring this about. It introduces the objectives of the study and locates it in relation to other work in the areas of restructuring and accounting.

RESTRUCTURING THE PUBLIC SECTOR

Public sector restructuring is happening all over the world, carried out by governments of all political orientations. It is being brought about in response to – and as a constituent of – the globalization of finance, production and trade. Increasingly, state policies are directed toward aligning the national economy with global relations of capitalism

(Dominelli and Hoogvelt 1996). The neo-liberal agenda organizing this restructuring favours a smaller public sector (lower taxes, lower national debt and less state restriction on capital accumulation), increased private ownership (more capital accumulation) and the expansion of market relations as a mechanism for organizing the distribution of scarce resources (Teeple 1995). If governments don't voluntarily pursue restructuring along these lines, they may find themselves pressured into it by the threat of capital flight, or in the case of debtor nations, obliged to undertake public sector restructuring as part of the structural adjustment requirements imposed on them by the International Monetary Fund.

Privatization is a key strategy in the restructuring of the public sector, and one that has been used to significant effect in reshaping higher education in a number of Western nations. Privatization is best understood as a cluster of strategies that bring market mechanisms into areas not previously so organized and open up spheres of activity to capital accumulation. These strategies include selling public corporations, with their assets, to private shareholders; increased contracting out of government work to private consultants or private businesses; and the introduction of funding procedures that set up quasi-market relations between state agencies and among departments within agencies (Lane 1995). Another type of privatization is "load-shedding." This common form of privatization by attrition occurs when the state reduces its financial support for certain services, or stops paying altogether, thus creating a demand for the private delivery of the services. A related form of "load-shedding" involves transferring service costs to private citizens through user fees and tuition raises (Rae 1996).

Postsecondary education is identified within the neo-liberal ruling agenda as having a crucial role to play in building a nation's or region's global competitiveness. Adjusting the

national economy to the demands of global economic relations proceeds in part through policies focussed on producing the right kinds of workers, experts and citizens. One element of this has to do with lowering expectations for what the state will provide in the way of social welfare so that people are more ready to accept non-standard or low-wage employment (Bakker 1996). Another element has to do with turning out people with the right high-technology skill sets and strengthening the knowledge base of industry, a goal which underlies interest in restructuring higher education, both research and teaching, so that it serves the economy (and large corporations) in more direct ways. Bensimon (1995) reports that large corporations in the U.S. have been actively working with major universities to develop their "capacity to educate [managerial and professional] workers according to [company] specifications" (p. 595). This is not just a matter of skilled knowledge in areas of expertise, such as engineering or computer science, but of initiation into forms of managerial practice and workplace organization, such as Total Quality Management. The vice-president of DuPont, in commenting on DuPont's relations with major universities, put it like this: "We want people who can come into DuPont and hit the ground running – people who have learned the culture, mechanics and metrics of continuous improvement" (quoted in Bensimon 1995: 599). Getting colleges and universities to adopt, consciously and enthusiastically, the position of supplier (of labour, of technology) to industry is the policy objective behind a number of changes to the financing of public postsecondary education, changes which have the effect of driving colleges and universities into closer and more dependent relations with the private sector.

An important early step in this restructuring has been the development and circulation of documents that introduce a new interpretive scheme for looking at the purpose and

achievements of colleges and universities. Reports and white papers document the ways the current organization of postsecondary education in any given jurisdiction fails to meet the needs of employers, the economy and by extension the well-being of the region or nation. These reports thus bring the terms of the ruling agenda into local sites and specific institutional relations. They introduce a powerful frame, setting the terms of discussion, serving as warrant and guide for government policy-making aimed at the restructuring of postsecondary education, and establishing the terms in which college and university work will be evaluated. In Ontario some influential frame-setting reports in that were particularly relevant for the college sector were Labour Market Development in the 1980s (Canada, Ministry of Employment and Immigration, 1981) and Competing in the New Global Economy (Ontario, Premier's Council, 1988). From time to time, new reports extend or reinforce the frame. Recently, the World Bank has issued a report that calls for higher education to be "oriented to the market rather than to public ownership or to governmental planning and regulation" (quoted in Graham 1998). According to Graham, the World Bank's agenda, as set forth in its report, dominated the policy frameworks generated at the World Conference on Higher Education sponsored by UNESCO in October 1998 (see UNESCO 1998).

RESTRUCTURING HIGHER EDUCATION[2] IN CANADA

Canada does not have a centralized system of higher education, and there is not a single project of restructuring being implemented. Education in Canada, including higher education, comes under provincial jurisdiction, and each province funds and administers (and restructures) public higher education in its own way (Jones 1997). Yet although higher education is not a federal responsibility, it is still an area of policy interest and spending at

the federal level (Cameron 1997). Federal funding and federal policy come into the various provincial college and university sectors indirectly through transfer grants to the provinces and directly through the funding of research at universities and vocational training at colleges. Any one college or university will thus have funding relationships with two levels of state.

At the level of the broadest generalization, restructuring in higher education in many jurisdictions in Canada, whether initiated by the provinces or prompted by federal policy, shares two goals related to the neo-liberal agenda: 1) to pull more private resources into funding postsecondary education, either supplementing or replacing public money; and 2) to get postsecondary education harnessed to strategies of economic growth (Rae 1996). For the most part, these goals are being implemented through policies that push the postsecondary sectors to become more "entrepreneurial" or self-supporting through changes to the amount and formats of funding (Cantor 1992, Dean 1987, Dennison 1995, Keast 1995, Knowles 1995, Michael and Holdaway 1992, Rae 1996, Small 1995). This is a kind of privatization, in that more college and university activities come to be paid for by private rather than public funds and managed through contract relations. The three main ways that private money gets into higher education are: raised tuition fees (a form of load shedding); philanthropy (endowments and gifts); and "entrepreneurial" activities[3] (contract training and research; technology transfer to the private sector; the marketing of space, services and educational materials)(Rae 1996).

The federal state and some of the provincial governments have been employing two main strategies as a way to bring about the goals outlined above. One strategy is simply to reduce the amount of money available through traditional funding routes – transfers to the

provinces, provincial operating grants to universities and colleges, federal research grants, government purchased vocational training. The other strategy involves changing the terms and procedures for allocating funding, in ways that establish market or quasi-market relations and new forms of accountability.

At the time of my research in the early 1990s, restructuring in Ontario colleges was being driven by both strategies: by cuts in provincial government operating grants[4] as well as by changes in the ways colleges could obtain access to federal government spending on training. New federal programs to fund job training effectively broke the near-monopoly held by the colleges and drew them into a competitive market that now included private training businesses and other public sector and voluntary organizations, such as school boards and the YMCA. Not only did colleges end up with a lower portion of the total federal spending in their area, but they had to engage in competitive relations of tender, often competing against non-unionized training providers, in order to secure the contracts they did get. The cuts to the provincial operating grant carried another set of pressures and managerial tasks. The provincial funding formula has a built-in incentive to increase enrollment – if a college doesn't increase enrollment vis-à-vis other colleges, it will get less money in subsequent years. College managers had to find ways to cope with reduced budgets without cutting back on the number of students they could admit. It was in the context of these two demands – participating in market relations and maintaining a level of activity on less funding – that they were developing new managerial practices and adopting a new managerial conception of the college as a "business."

THE MANAGERIAL TURN

Public sector restructuring is pursued as a strategy within global market relations, which have a generalizing tendency, bringing about similar economic forms in different countries. The managerial discourse used in implementing or responding to public sector restructuring is also global in circulation, and a common agenda can be discerned throughout the wealthy industrial nations of the OECD (Lane 1995). Thomas (1996) describes the prescriptions and practice of the "New Public Management"[5] as promoting:

> a belief in the superiority of private-sector approaches; development of a stronger external orientation; . . . the need to change the culture of the public sector; . . . the development of a focus on the customer or client as the chief source of feedback on how well the organization is doing; . . . the development of more robust performance measurement systems and the use of more imaginative types of incentives to promote improvements; a reshaping of the boundaries between the public and private sector through privatization, contracting out and partnerships; and the demonstration of greater responsiveness to ministers, as well as greater accountability to legislatures and the public (pp. 10-11).

The UK under Thatcher went a distance toward implementing this NPM through forms of "contract government" which, according to Dominelli and Hoogvelt (1996), involve:

> the definition of overall strategic goals and the identification of sequential performance objectives within these; the operationalization of performance targets; the clear and detailed specification of input and output measures and the costing of these, including a critical scrutiny of "value for money"; concrete specification of the relevant contributions and responsibilities of all the actors involved; and, among other things, the formulation of reporting and monitoring tools (p. 78; see also Walsh 1995).

The New Public Management is based in part on managerial theories and managerial forms drawn from approaches developed in the private sector, such as Total Quality Management (TQM), Continuous Quality Improvement (CQI) or Business Process Redesign (BPR). These are widely-used approaches to the restructuring of organizational work processes in the private sector. In conjunction with "asset restructuring" (mergers and acquisitions or the

selling off of divisions), they are intended to boost profitability and market share (i.e., capital accumulation) through the redesign of work processes in ways that minimize expenses while meeting or exceeding "customer expectations" (a notion that links quality to exchange value). Imported into the public sector these approaches are used to lower public expenditure and restructure service delivery. Although there are differences in the approaches, particularly in the rate of organizational change (BPR goes for quick and radical change), there are central features in common (based on Rush 1995):

a) a conceptual focus on "customers" both external to and internal to the organization. This involves reconceptualizing and, to some extent reorganizing, many if not all organizational activities (support and administration as well as production or service) as work processes involving identifiable inputs, outputs and customers.[6]

b) heightened managerial attention to the work process of providing goods and services to "customers" in terms of measurable cost, speed, quality, customer satisfaction.

This reconceptualization and reorganization is realized in the local setting of any particular organization by way of:

a) documentary practices that discover and represent in calculable and comparable terms relevant administrative objects such as measurable inputs and outputs, unit costs, transaction volumes, rates of error or wastage, length of time for service delivery, customer satisfaction, efficiency, etc. As a class of documentary practices, these are called "performance indicators."

The challenge for managers is realizing the ideal program summarized in (a) and (b) using the stuff of the actual organization, its work processes, its idiosyncratic people. This is where (c) performance indicators and other documentary forms come in. They organize

a way of knowing about the organization that intends[7] the interpretive schemata of NPM, BPR, TQM, or CQI and that renders organizational events actionable in specific ways.

Performance indicators as a documentary practice of knowledge are produced through a combination of verbal and numerical representation; they are quantifying, abstracting, standardizing, not only within an organization but across numerous organizations. They realize the conceptualization of the work processes of the organization as made up of nameable and quantifiable inputs and outputs. "Outcome" measures have to do with what is produced or done (the output), and are read as indicators of "quality." In higher education, that could be numbers of students who don't complete their degrees, numbers of students who get jobs within six months of finishing their program, dollar value of research grants per full time faculty, teaching evaluation ratings, and the like (Johnes and Taylor 1990). "Process" measures establish a relationship between measurable inputs and measurable outputs, and are often expressed as unit costs: these are the measures that are read as indicators of "efficiency." Examples of process measures are cost per student per day for a specific degree program, cost to process one student application, cost to produce one cafeteria meal. These unit costs may be accompanied by measures of process speed (particularly for administrative functions): average time to process one student application, turnaround time in sending thank-you letters to donors, and so on.

Quantification as such is not new in the world of business or even in the public sector (see Porter 1995). Cost accounting – which is the set of techniques used in producing process measures that show unit costs and other measures of "efficiency" by relating activities and accomplishments to costs incurred – is not new either, at least as a general strategy. What we see, however, with performance indicators is a trend toward the quantified representation of

more and more aspects and activities of an organization. In theory, any organizational process can be conceived of as a service or product available to customers, whose inputs, outputs, timeliness, costs and quality can be measured and subjected to managerial surveillance through performance indicators.

What actually does get worked up through performance measures varies. In the restructured higher education sectors of the U.K. and Australia, for example, where levels of funding are tied to reported performance, there is an emphasis on measures to do with outcomes and "process efficiencies" in the main areas of mandated activity, teaching and research. These measures are imposed on individual universities and technical colleges as part of the reporting requirements that hook them into funding relations (Johnes and Taylor 1990, Miller 1995, Peters 1992, Sizer 1982 and 1988, Townley 1996). According to Rae (1996), the province of Alberta is also moving in that direction. In the U.S., on the other hand, the use of performance indicators was pioneered by private colleges and universities which do not receive direct state funding (Barrow 1995, Meyerson and Massy 1994, Tuckman and Johnson 1987), although public universities are also moving in that direction as a result of changes in state funding policy. There, performance indicators are selected by management (often with the advice of BPR consultants), and administrative and support functions are often the object of heightened attention. So performance measures might focus on constructing costs and outputs to do with purchasing, the registrar's office, physical plant, etc., as well as on process costs and outcomes in the areas of teaching and research.

A related textual practice is "benchmarking." This draws on standardized performance measurement data from multiple organizations to establish an industry or class standard against which the performance of individual organizations can be measured (Rush

1994). Comparing the reported performance of different schools or agencies is a key element of state policies that use performance indicators in the establishment of quasi-market relations involving competition for state funds; however, private colleges and universities, like private businesses, are also interested in comparing their organizations' performance with that of others. "Benchmarks" are the reported performances that are recognized to be the best for a sector or industry or for a class within that (e.g., small colleges or large research universities). Managers use these benchmarks in evaluating and setting performance targets for the organization. In the U.S. there is a whole industry devoted to collecting, assembling and distributing benchmark data to interested organizations, and this includes colleges and universities.

THE STUDY

In Ontario in the early 1990s, college managers were just beginning to adopt New Public Management strategies as they viewed the policy and funding changes coming from the provincial and federal governments, read the current reports and figured out what they needed to do. Here is how three managers at one college described the situation:

> You know, we also have to respond to the criticisms that are in uh various reports about the lack of responsiveness of public sector training, or the lack of relevance of the training. It's important that we look at those criticisms because there are, there is validity in some uh and ensure that our institution is much better positioned to provide, you know, flexible, responsive, relevant training for employers and employees on the job, and that we can provide a cost-effective, viable service to employers. (Vice President, Fulton College[8])

> My division, my department, continuing education, has a central role coordinating all that, trying to ensure that there are systems in place, there is evaluation that takes place, that there are benchmarks that we establish in terms of customer or student satisfaction, and that there are cost expenditure reports that we then measure ourselves against as a sort of standard, and measure one another against and get a sense of performance, one against the other. And that's a whole new mentality for the college system, at least for us it is, this business of measuring performance and trying to come to terms with

> it. We've tended to hide in the past I believe behind the – you know, the rhetoric of education and not come to terms with the fact where we really have to say, are you as a user of this service, happy with it? What would you change? (Dean, Fulton College)

> Academics are peculiar beasts. They live in a world of, let me get on with doing my job, and don't bother me with dollars and money. Unfortunately the current system is putting us in a position of being a business. Okay? We're a business. And we have to very carefully balance the humanistic side of our aspect against the bottom line. (Administrator, Fulton College)

Here we have three different speakers, all occupying different managerial positions within Fulton College. From their standpoints, institutional processes taking shape extra-locally are given to them and to their college; as managers they are responsible for devising, implementing, and monitoring the organizational processes that hook the college into these institutional relations. We can see these givens in the speakers' references to reports criticizing colleges and calling for them to become more "relevant" and "cost-effective" and to a "current system" that puts them "in a position of being a business."

We can also see in the managers' comments some of the thinking and work they are doing as managers to reshape the work processes of the organization. This is not always stated in a way that allows us to see direct managerial practice; instead, we are left with questions. What, for example, is involved in "positioning" the college "to provide . . . flexible, responsive, relevant training?" What is involved in producing and using "cost expenditure reports" as a standard of measurement? What is the "new mentality" and how are managers trying to inculcate it among the "peculiar beasts" on their staffs? What is involved in "being a business"?

The study reported here opens these comments up for exploration. Chapter five looks at how it was that the system was "putting the colleges in the position of being a business." Chapters six, seven and eight look at some of the managerial strategies that college

administrators were adopting as they tried to introduce the "new mentality," become more "flexible" and "cost-effective," and "balance the humanistic side . . . against the bottom line." Specifically, the study examines how techniques of accounting as a documentary practice of knowledge were used to construct new methods of knowing about college activities in ways that fitted them to the interpretive schema adopted by the managers.

But, before getting to chapter five and the college system, the study examines the history and current practice of accounting as a documentary form of knowledge. Accounting is not specific to the Ontario college system, or higher education, or Canada, but is an internationally used technology of knowledge and control. It is available to administrators in Ontario colleges because it already organizes the field of relations in which they find themselves. Therefore, in order to examine how accounting techniques are being taken up by college managers responding to and accomplishing the restructuring of higher education, it is necessary first to understand accounting as a social resource and fundamental constituent of capitalist relations of state and economy.

THE LITERATURE

I have found two scholarly discourses to be the most relevant to my research interests as described above, and these are the discourses to which my work is addressed. One is the critical[9] literature on restructuring in the public sector and higher education; the other includes sociological and critical studies of accounting. Both of these discourses provide material that I have drawn on in developing my understanding of public sector restructuring and accounting as a documentary form of knowledge that figures prominently in that restructuring. These discourses have also been useful in another way: through the

identification of gaps or limitations I saw there, I have come to know more clearly what I wanted to do in my study. The discussion that follows sketches in the main themes and topics of these literatures and the limitations I wanted to address through my research.

Studies of Restructuring

The critical literature on restructuring in the public sector and postsecondary education mainly comes from Australia and the UK, which have centralized postsecondary sectors and where large-scale restructuring has been under way for over a decade (see for example Considine and Painter 1997; Dominelli and Hoogvelt 1996; Gammage 1993; Harvey and Knight 1996; Henkel 1997; Middlehurst 1992; H. Miller 1995; Peters 1992; Lieven 1991; Munro 1995; Nixon 1996; Pratt and Silverman 1988; Pusey 1991; Townley 1996; Walford 1987; Walsh 1995; Wilkinson and Willmott 1995; Yeatman 1990). These analyses and studies tend to focus at a general level, explaining state policies and strategies and describing restructuring trends and effects. Very few that I have come across to date focus on seeing this happening in specific settings (but see Pratt and Silverman's 1988 ethnographically-based study looking at how British colleges of further education were responding to new funding policies).

Writing critically about restructuring in higher education in the U.S. there are Barrow (1995), Bensimon (1995), Shumar (1997), Simsek and Louis (1994), and Slaughter and Leslie (1997) among many others. In the U.S., restructuring and the development of a market orientation in postsecondary education are happening through multiple avenues, since higher education is both decentralized and divided between the private and public sectors. Interesting material is coming from the U.S. as well as from Australia, Canada and the U.K.

on "academic capitalism," technology transfer, intellectual property and the development of new relations between research universities and industry (see Slaughter and Leslie 1997; Currie and Newson 1998; Etzkowitz, Webster and Healey 1998). However, these studies are mainly concerned with universities engaged in advanced "technoscience" research; they are not directly relevant to the situation at the colleges.

Regarding the restructuring of postsecondary education in Canada, there is a growing literature describing changes in state policy and the shift toward "entrepreneurialism" in colleges and universities (see for example Cantor 1995; Dean 1987; Dennison 1995; Dennison and Levin 1987; Good 1996; Muller 1990a, 1990b; Keast 1995, 1996; Knowles 1995; Leven and Dennison 1989; McWilliam 1990; Meaghan 1996; Michael and Holdaway 1992; Newson and Buchbinder 1988; Rae 1996; Small 1995; Tudiver 1996). Much of this work focusses at the policy level or describes general trends. Very little of it involves a close empirical focus on the textual administrative and managerial practices that bring these changes about. The most critical portion of the literature identifies a shift toward corporate managerial practices (sometimes referred to as "managerialism") as a main piece of this restructuring, but it does not go far enough in describing that shift.

For example, Muller, writing about college restructuring in British Columbia in the 1980s, mentions that "education officials involved sought to re-organize instructors and teaching in order to increase 'efficiency' and 'productivity'" (Muller 1990a: 33). Tudiver (1996:49) identifies "corporate style management" in administration and finance as a key element of change in Canadian universities. Meaghan (1996: 26) writes that "[u]nder the ideology of economic rationalism, public sector bureaucracies were restructured as a way to achieve greater output with the use of the same or fewer resources." These comments identify

that something consequential is going on, but they don't specify exactly what it involves as a matter of practice. How are instructors and teaching reorganized in ways that intend the managerial objects of "efficiency" and "productivity?" What does corporate style management in administration and finance actually involve as practice, and how is that different from earlier administrative forms? How do public sector organizations actually go about "doing more with less," using NPM discourse as a resource?

The notion of "corporate managerialism" functions as the proverbial black box: it is blamed for the negative consequences of restructuring, such as job loss, limitations on faculty autonomy, and the shift toward non-standard employment, but exactly what it consists of in practice goes unexplored. It sometimes appears as if critical or progressive researchers withdraw in distaste from looking too closely at managerial practice. Perhaps this distaste is further reinforced by the term "managerialism," which invites a line of analysis that treats it as a kind of free-floating ideology that infects college and university managers, rather than an identifiable set of conceptual, textual and communicative practices. For that reason, I prefer to speak of a "managerial turn," since that term, at least for me, suggests a dynamic process rather than a static state, keeps present the implicit image of a person who is making the turn, and thus privileges a focus on actual individuals and actual practice unfolding in actual time.

In my study, I want to open the black box, examine managerial work up close, and see restructuring happening. The route I take is through a focus on managerial practices that are organized by accounting as a mode of knowledge. The comments by Muller, Tudiver and Meaghan suggest that accounting knowledge and accounting texts are central: financial administration uses accounting as its main knowledge form, after all, and "efficiency" in

teaching becomes managerially visible and actionable through process measures that set costs against output. Achieving greater output relative to fixed or reduced input is, again, a managerial objective that is realized through performance measures like program costing. Hence, in order to take that close look I have been advocating, I needed to develop an understanding of accounting as a documentary form of knowledge.

Studies of Accounting

Practices of accounting and the operation of institutional processes mediated by accounting texts have received very little attention from researchers in sociology or organizational studies. Sociology of the professions specialists have, of course, included accountants within their range of attention; here the focus is on the work and training of accountants (e.g., Macdonald 1984; Roslender 1992). Within the area of economic sociology (e.g., Smelser and Swedberg 1994), accounting has received surprisingly little attention that I could discover, apart from Montagna (1990). Perhaps this is because economic sociology tends to overlook texts and documentary practices as central constituents of contemporary economic relations. (But see Devitt [1991] for a look at accounting texts from a writing-in-the-professions perspective.)

The role and significance of accounting in the evolution of business practices has been addressed by Chandler (1977), Yates (1989), Fligstein (1990), Carruthers and Espeland (1991). There have also been a few sociological studies focussing on accounting practice as it is carried out by actual people. Anderson, Hughes and Sharrock (1989) do a phenomenology-based ethnographic analysis of the use of accounting by the managers and staff of an entrepreneurial firm. Using an ethnomethodological approach, Suchman (1983)

describes an episode in the work of accounting clerks. From a symbolic interactionist perspective, Fischer and Dirsmith (1995) study the introduction of new audit procedures into the work of public accountants. Colignon and Covaleski (1993) use case study methods to study how accounting is used in actual organizational decision making. Of particular relevance for my study is institutional ethnographic work by Campbell (1992) and Olson (1995), which looks at how accounting and other managerial record keeping practices shape the work of nurses and front-line staff in a medical clinic.

The technique and practice of accounting is the subject of a scholarly field in its own right, and there is a large body of literature generated by accounting theorists and accounting researchers. The mainstream of this literature does not examine accounting as a knowledge form, nor does it problematize the uses to which accounting is put. That is, while it can be quite critical about certain techniques (e.g., whether historical or present value is to be preferred as method for representing material assets), it uncritically accepts the basic organization and objectives of capitalist accumulation, for example, and leaves unrecognized and unexplored the ways accounting as representational practice constructs rather than neutrally reveals its object and functions as a technology of power. The focus is rather on how accounting practice can be more accurate, more representative of organizational affairs, more useful to traditional users, who are generally understood to be managers, shareholders, creditors (segments of capital). The interest is in the refinement of the knowledge form, rather than its critical appraisal from a position outside its basic presuppositions, which for the most part remain unexamined, as does its role in the regime of accumulation.

There is, however, a growing body of critical accounting literature, a movement even, that started in the mid-1980s. Although not unified in the overarching theories they bring to

their research, critical accounting theorists share an interest in examining accounting as a "social and institutional practice" (Miller 1994: 1), a form of knowledge constitutive of social and organizational reality (Chua 1988), an "interested endeavour" rather than neutral technique (Hopwood 1989: 141), a form of mundane reasoning (Hines 1991), an element in social conflict (Lehman 1992), and a form of social control (Hoskin and Macve 1994; Miller and O'Leary 1987; Hopper and Armstrong 1991; Hopwood 1989; Robson 1992). Researchers have examined the ontology of accounting as a representational form (Lukka 1990), the conceptions of value that underpin the entire representational enterprise (Tinker, Merino and Neimark 1982), and the images that organize accounting theory (Davis, Menon and Morgan 1982). This research movement has also inspired an interest in rewriting the history of accounting as the emergence of a calculative regime of power. Here the influence Foucault has been particularly strong. (See Miller, Hopper and Laughlin [1991] for a discussion of the "new accounting history.") I have learned a great deal from this work. Here in these introductory comments I want to mention some gaps I saw, and how I see my research addressing them.

Miller (1994), in a summary of the critical accounting movement, identifies three main strands of research on accounting. One involves work that is empirical and ethnographic, that starts from "real-world situations" and explores how actual accounting systems operate. "Such research would go beyond descriptive accounts of accounting systems, and would study the conditions and consequences of actual accounting practices in specific organizations. Case analyses should address accounting as a 'lived experience' for individual actors, and should recognize the symbolic use of accounting for individuals, whilst taking a critical view of the actor's definition of the situation" (p. 15). Notice the prescriptive

tone: Miller is here summarizing an agenda laid out in certain key articles by critical accounting theorists. He is not describing the actual state of accounting research. Most accounting researchers are not trained as ethnographers; this research program remains underdeveloped. Ethnographic work done outside the accounting research discourse (e.g., Anderson, Hughes and Sharrock [1989]; Suchman [1982]) seems to be unknown to Miller. Nonetheless, among critical accounting proponents there is a sense of the importance of researching actual local settings and the interpretive practices of people making sense of accounting in ongoing communicative relations.

The second strand concerns what Miller calls a political economy of accounting. He describes this as involving the study of intertwined political and economic relations: seeing how accounting functions as a technology of power rather than a neutral decision-making tool, how it furthers the interests of specific classes or groups, constructing a particular view of organizational events and serving as a method of social control (e.g. control of the labour process). This research program he also describes as underdeveloped. The third strand of research identified by Miller looks at issues of organization design and environments. Here the interest is in looking at decision making and rationalities and the use of organizational information systems, including accounting: the project is to attend to these as actual processes within organizations and within a "social and institutional matrix."

Miller describes these strands primarily in terms of what they look at, or might look at, but in fact the salient organizer here is the theories and methods that produce these as distinct terrains of research attention. For example, the ethnographic work he describes and his proposals about what ethnographic work can discover are mainly symbolic interactionist. Ethnographic studies beginning from real-world situations and the practice of actual people

are conceptualized as mainly looking at meanings, lived experience and symbolic use. Traditional ethnographic methods tend to construct the local, observable setting as a bounded unit, rather than discovering it as it is located within extended institutional relations. So understandably, Miller doesn't expect this work to tell us anything about state, economy and power.

His second research trend, to do with accounting as a technology of power, collects the work and interests of researchers who are mainly taking a Foucauldian approach. (There are also Marxists studying how accounting legitimates capitalist accumulation, and relating accounting to theories of value, etc., but lately the post-structuralist, "post-marxist" approach appears to have more adherents in critical accounting research.) A lot of this research, for example, into the emergence and operation of calculative regimes, tends to work with historical, textual materials; as with Foucault himself, there is no way to put actual people as active agents into that picture. So Miller doesn't expect research focussed at the level of state and economy to have an ethnographic component. The organizational information and design approach is yet another separate category because it draws on organizational theories that, all too often, ignore political economy issues and erect a screen of theoretical objects between the researcher and what people in the setting are actually doing.

Miller's schematization follows and thus displays a central limitation in the current dominant approaches to critical accounting research. His three trends raise the question: why must these be separate areas of study? After all, accounting, as a social practice, is always done by actual people, working in actual organizations, in actual relations of state, economy and class power. Why can't these aspects of accounting, which are always present and going on in every moment of accounting practice, be studied in the same investigation, and

discussed in the same stream of analysis? Why can't the operations of accounting as a technology of power be shown happening in what people do? Miller's three strands cannot be connected up because their approaches are fundamentally incompatible at the level of their basic ontology. Working with a different approach, however, creates new possibilities for discovery.

The social organization of knowledge/institutional ethnography (SOK/IE) approach as proposed by Dorothy Smith (1987, 1990a, 1990b, 1999a) offers a way to integrate these three areas of study into one project of research. Or rather, the SOK/IE approach completely restructures the research terrain, so that there are no longer three areas needing integration. Key here is an ontology of the social as the coordination of people's activities, and the notion of social relations as extended chains of action hooking local settings into trans-local social relations of state, economy, and institutional organization; of particular importance is the SOK/IE focus on documentary forms of knowledge and textual practices. This approach will be discussed in the next chapter. The thesis as a whole can be read as an exercise of taking up this method and exploring what it can discover when it is used to investigate the practice of accounting in the site of the Ontario college system.

ORGANIZATION OF THE THESIS

The thesis is organized into parts and chapters. Part I lays the groundwork for the research and analysis. Following this introductory chapter, chapter two describes Smith's approach to studying the social organization of knowledge and the methodology of institutional ethnography as I have understood and used it. Part II addresses accounting as a mode of knowledge: Chapter three takes a historical view, while chapter four looks at

contemporary practice. Part III returns to the theme of restructuring and the site of the Ontario colleges, with a focus on the use of accounting. Chapter five describes the text-mediated funding and accountability relations in the college system and the way some of these were being restructured. Chapter six looks at the establishment of text-mediated market relations from the perspective of how colleges gear into them. Chapters seven and eight take a close look at one particular college's attempt to introduce program costing. Chapter nine offers concluding thoughts.

CHAPTER TWO
INSTITUTIONAL ETHNOGRAPHY: THEORY AND METHODS

The previous chapter introduced a situation – restructuring in the Ontario college system – and made a claim for the usefulness of studying this restructuring through an examination of the conceptual and textual practices employed by college managers, with a particular focus on cost accounting as a documentary form of knowledge. In this chapter I locate that claim, and my research project, within the investigative approach developed by Dorothy Smith (1987, 1990a, 1990b, 1999).[1] The format used here relies on fairly extensive and frequent quotations from Smith. These excerpts are dialogically interlaced with my explications of Smith's thought and embedded within a sequencing of points and concepts that reflects the way I have come to understand this approach. The use of this format gives Smith the opportunity to "speak for herself," albeit within the spaces created by my ordering of the account and subject to my choices of emphasis and quotation.[2]

SOCIAL ONTOLOGY

The ground of Smith's approach is an explicit ontology of the social (shared with phenomenologists, ethnomethodologists, and symbolic interactionists) as arising in the concerted activities of people:

> We see, then, people very much as they are, the competent practitioners of their everyday worlds, active in definite material and social contexts, desiring, thinking, feeling, and actively engaged with others in producing the actualities of the world they have in common with one another. (EWP 125)

Smith uses the term "work" to refer to this purposive activity of people. Her notion of work is similar to that of Schutz, who defines his use of the term "working" as "action in the outer world, based upon a project and characterized by the intention to bring about the projected state of affairs by bodily movements" (Schutz 1973:212). But Smith's notion is wider, more inclusive, more "generous" as she puts it: her notion of work includes practical reasoning and all the ways "people are actually involved in the production of their everyday world" (EWP 166). A distinction such as Schutz makes between "covert performance" (thought activities not requiring bodily movements) and working is not useful from the investigative perspective that Smith takes. Her interest is in a concept that will "return us to the actualities of what people do on a day-to-day basis under definite conditions and in definite situations" (EWP 166).

The notion of "social relations" provides one of the central concepts in this ontology of the social as occurring through the coordinated activities of individuals. Smith uses the concept of social relations in the sense that Marx and Engels use it in The German Ideology (1970), but her use invites us to fill out the term with a sociological attention to what people do.

> This sense of social relations understands people's activities as coordinated in actual temporally concerted sequences or courses of action. In and through these the work of a multiplicity of people known and unknown to one another is coordinated. . . . (W)hat people do is already organized as it takes up from what precedes and projects its organization into what follows. (EWP 183)

Social relations, understood in this temporal way, can be seen to comprise extended sequences of action (or "work") knitting together the activities of vast numbers of people in far-flung sites. We can, for example, consider what we usually gloss as "the economy" as no more – nor less – than such a wide-spread coordinating[3] of people's purposive activities

across multiple local sites of action. As with Marx, this notion of social relations and concerted activity, while emphasizing individual agency, does not propose that individuals are in complete control: "Men [*sic*] make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past" (Marx 1954:12). Marx is here writing about understanding current political and social events as having developed out of previous social forms. Smith's focus is on the unfolding present, on the way every local moment of concerted activity takes up and is shaped by actions performed by others in previous local moments, while aiming at, and forming the conditions for future moments of activity.

This notion of social relations thus offers a conceptual alternative to what is sometimes formulated as the "agency or structure" dilemma. It also offers a way around the "micro\macro split" persistently produced by ontologies that cannot maintain a continuity between what people are seen to do and the kind of understanding researchers call "the big picture."

> It takes only a little imagination to see that all such [extended] relations are present in and produced in the organization of activities at the everyday level as well as entering the everyday into relations that pass beyond the control of individual subjects. (EWP 134)

Conceived in this way, the notion of social relations as the coordination of people's activities leads to an implicit methodological prescription: social events and circumstances are to be grasped analytically as coming to pass through actual processes of coordinated activity, and causal agency must never be attributed to conceptual abstractions of the "social structure" variety. It should always be possible to show how whatever happens, happens in what people do. However, Smith warns,

> [t]he notion of a social relation or extended social relations as sequential and replicable courses of social action involving more than one individual should not be conceived as subject to examination as such. Rather it offers an analytic procedure enabling local instances to be situated in terms of their role in the movement of such a social course of action. (TFF 222)

But neither is this an approach that advises the researcher to remain at a close examination of local instances of coordinated activity, for to do so would be to recommend a sociology at odds with the empirical reality of the situations sociologists explore. A central feature of contemporary society, and one that is rendered sharply visible through this notion of social relations, is that the "everyday world" – the material setting of each embodied subject – is organized in powerful ways by trans-local[4] social relations that cannot be wholly known (in their character as extended chains of action) from within the subject's experience. Many of the socially-accomplished things that happen to people, or that alter the physical settings of their lives, are shaped by an "organizing logic" (EWP 96) or "logic of transformation" (94) originating elsewhere. People growing up in a society such as ours learn to accept this as an ordinary, although not necessarily untroubling, feature of their lives. Very little of what we eat, read, wear, sit on, listen to on our CD players, or drive has been locally produced through work processes familiar to us. We generally accept, albeit with frustration, that trans-local processes (e.g., "the economy" or "the government") and decisions made elsewhere determine, for example, whether the local assembly plant will expand or close, whether there will be affordable child care in the region or what the exchange rate will be when we buy foreign currency for our vacation.

This notion of trans-local social relations is a crucial piece in Smith's ontology of the social as concerted activity, and it provides a view missing from other, related approaches that focus on local, same-time coordination. Consider the way people physically coordinate

their movements, subtly and almost instantaneously, avoiding collisions and eye contact as they walk down a city street or share any kind of public place. Goffman (1971) describes this elegantly. Similarly, Sachs, Schegloff and Jefferson (1974) provide a way to see the organization of turn-taking in ordinary conversation, another learned form of coordination that often feels artless and unmonitored to its experienced practitioners. What Smith is offering is a way to recognize and empirically examine the coordination of activity across time and space. Coordinated physical co-presence (including gesture) and language use (not limited to talk) are fundamental practices in the social world. Everything social is built up from this, from the individual ("social through and through," according to Volosinov [1973][5]) to trans-local relations, which are nothing other than physical co-presence and language use and purposive action concerted across many different local settings. Smith's notion of social relations gets at this distant-and-local form of coordination, in a way that is grounded in, and constantly refers us back to, the physical and mental activities of actual people.

Language use, in the form of thought or spoken or written utterance, "plays the essential role of storing and re-membering social organization" (EWP 126), and as such is the key element in every link of the chains of action that constitute social relations. Relevant here for Smith is the dialogic theory of language developed by Volosinov and Bakhtin.[6]

> [A]ny speaker is himself [*sic*] a respondent to a greater or lesser degree. He is not, after all, the first speaker, the one who disturbs the eternal silence of the universe. And he presupposes not only the existence of the language system he is using, but also the existence of preceding utterances – his own and others' – with which his given utterance enters into one kind of relation or another (builds on them, polemicizes with them, or simply presumes that they are already known to the listener). Any utterance[7] is a link in a very complexly organized chain of other utterances. (Bakhtin 1986: 69)

Here we have a theory of language that is ontologically compatible with the central concept of social relations as temporally concerted chains of action. This approach to the study of language use is deserving of, indeed requires, explication and discussion in its own right. What is most relevant here is its contribution to identifying the constituent role of language in social relations: not just speech as it organizes co-presence or same-time interaction, but language as it organizes thought and consciousness and, especially, language in congealed form (texts) as these organize sequences of action across time and distance.

When we consider extended social relations, and the kind of coordination that hooks individuals in distant and multiple sites into far-reaching flows of action (think, for example, of the process of income taxation or mass media), we can see the important work of language and visual representation in fixed or textual form. Here we come to one of the central themes in Smith's ontology and one of the main contributions of her approach. Just as Goffman opens our eyes to the social organization of co-presence, and conversation analysts alert us to the organization of turn-taking and the accomplishment of ordinary conversation, so Smith draws our attention to texts and textual practices, and invites us to recognize the ways that texts figure in the coordination of activity, locally and trans-locally and most particularly in what she terms relations of ruling.

TEXTS AND RULING

Smith uses the term "ruling" to collect a widely spread network of relations:

> The phrase 'relations of ruling' designates the complex of extra- [trans-][8] local relations that provide in contemporary societies a specialization of organization, control, and initiative. They are those forms that we know as bureaucracy, administration, management, professional organization, and the media. They include also the complex of discourses, scientific, technical, and

> cultural, that intersect, interpenetrate, and coordinate the multiple sites of ruling. (TFF 6)

This use of the term ruling invites association with the notion of a ruling class that is able to dominate society because it "has the means of material production at its disposal" (Marx and Engels, 1970: 64). Smith's notion of relations of ruling directs attention to the way that domination is actually accomplished in a continuing way through trans-local work processes and sequences of action involving the work of individuals who are by no means all members of a "ruling class." It also reminds us, when we are talking about bureaucracy, administration, management, media, scientific discourses and the like, that we are talking about power and access to resources.

Understanding the organization of power in contemporary society requires attention to the practices through which the social and physical world is represented as the object of administrative and professional action. Contemporary ruling as a form of trans-local coordination, Smith claims, depends heavily on objectified forms of text-based knowledge and apparently neutral, subject-less accounts of people and situations:

> A mode of ruling has become dominant that involves a continual transcription of the local and particular activities of our lives into abstracted and generalized forms. . . . It involves the construction of the world as texts, whether on paper or in computer, and the creation of a world in texts as a site of action. (EWP 3)

> The primary mode of action and decision in the superstructures of business, government, the professions, and the scientific, professional, artistic and literary discourses is utterance – verbal and, more importantly, textual. The realities to which action and decision are oriented are *virtual* realities vested in texts and accomplished in distinctive practices of reading and writing. (CPP 61-62)

Texts and text-mediated forms of knowledge operate to coordinate action across time and in multiple settings. This is the central characteristic of contemporary relations of ruling. This is what Smith invites us to recognize and to examine.

Consider, for example, how the textual process of grading coordinates what goes on in one college teacher's classroom with the trans-local relations organizing educational certification, labour force development, and the hiring practices of employers. The requirements of grading as an official textual process introduce a measure of standardization into teaching and learning (bringing about similar social forms in diverse classrooms), and they hook the local into the trans-local. At the administrative level of the college, the products of individual teachers' grading work are combined in the textual form of the transcript which serves as warrant for diploma certification and can be sent to employers or other schools. As an official document attesting to a student's academic accomplishments, the transcript transcends any one teacher's or administrator's embodied and local knowledge of that student acquired through interaction with her (and the administrators of the university have probably never met her anyway – they only know her via texts). Not only does the transcript construct an account of the student that collects the different knowings of her different teachers, but these knowings are worked up in standardized, quantitative terms. Thus knowledge about what the student looks like, the problems with daycare she discussed with the teacher, her career goals, her habit of prefacing her remarks with self-depreciatory disclaimers despite her good grasp of the course material – none of that appears in the transcript.

Similarly, accounting documents are built up from bookkeeping entries that record local moments of activity in abstract and standardized terms that drop away the local

knowledge of the participants, producing the event instead as official organizational knowledge in conventional terms that intend trans-local relations of economic activity and financial accountability. For example, a purchase of office supplies that, as a work sequence, required consultation, a search through the office supply catalogue, a phone conversation with the supplier's sales representative, and so on, involving the coordinated work of several people, is inscribed in the records in terms such as the following: "March 11, 1998 – Office supplies expense – $59.47."

The transcript and the bookkeeping records construct what Smith terms objectified, organizational knowledge. This is a form of knowledge that works very well to hook local settings into trans-local relations of administration and control, because it functions to produce knowledge about those settings in the terms that render them actionable by decision makers and text users who are not members of the local setting. It represents local activities and events in terms that intend the interpretive practices and relevances of ruling. It is an instance of what Smith calls "ideology."

IDEOLOGY AND CONCEPTUAL PRACTICES OF RULING

Smith uses the term "ideology" to designate practice – ways of thinking and representing – rather than, as is more common, the content of thought, or a system of belief.

> The concept of ideology brings into focus the conscious production of the forms of thought by a ruling class or that section of a ruling class known as the intelligentsia, which serves to organize and order the expression of the local, particular, and directly known into forms concordant with its interests, aims, and perspectives. (EWP 55-56)

This use of the term identifies the role of symbolic activity and forms of thought in the maintenance of contemporary class society. But how do forms of thought "organize and order

the expression of the local . . . into forms concordant with [the] interests, aims, and perspectives" of ruling? For Smith, it isn't enough just to assert that this is being done. Drawing on her reading of Marx and Engels, she claims that

> [t]o think ideologically is to think in a distinctive and describable way. (CPP 36)

Ideology as a describable conceptual procedure involves

> methods of creating accounts of the world that treat it selectively in terms of a predetermined conceptual framework. (CPP 93)

Smith has a great deal to say about ideology as a conceptual practice, especially as it figures in the scholarly discourses of sociological theory and investigation. Here her analytic interest is similar to that of Marx and Engels, who were critiquing trends in philosophy that were common at their time. But Smith does not stop there; she goes on to explore the ways that forms of thought and symbolic action in ordinary, everyday relations of ruling can also be, indeed usually are, ideological. It is that aspect of her complex use of the notion of ideology that I focus on here, as it is the one that is relevant to my study of accounting as a form of knowledge.

Smith identifies a conceptual circularity organizing procedures for collecting information about actualities and people that will be used in ruling (governing, administering). The information collected is selected and ordered according to a given conceptual scheme, one that originates in, and organizes the information to address, the relevances of ruling. Such "ideological circles" construct impregnable loops (CPP 94). The findings and understandings and knowledge produced through these processes can be challenged, but only in their own terms.

> The categories structuring data collection are already organized by a preordained schema; the data produced becomes the reality intended by the

> schema; the schema interprets the data. Any questions bearing on the facticity of statements based on the intersection of data and interpretive schema (such as issues of accuracy, reliability, and the like) may be raised without breaking the ideological circularity of the procedures. . . . Issues, questions, and experiences that do not fit the framework and the intercalated relation of categories and schemata simply do not get entry to the process, do not become part of the textual realities governing decision-making processes. (CPP 93-94)

These processes can be seen in police reports, medical, psychological and social work case records, organizational records, financial accounting, and the wide range of textual processes designed to bring information about and from the periphery to the centre where decisions are made. The reporting terms or categories, and possible relationships among them, are given. They intend the knowledge needs and work organization of ruling. (We shall see in chapter four how accounting as a representational practice functions in this way.)

People who work at the report-actuality interface learn ways of translating their experience into the terms in which it can be officially represented and known. Often this involves "finding the particulars" (CPP 94) that intend the conceptual categories. In this way, for example, intake workers in social service agencies translate individual clients' stories, as they are told, into a recorded "client's story" that takes a standard textual and conceptual form that addresses whatever is that agency's scope, mandate and reporting requirements. In many cases, such as the work of filling out applications, the translation work is done by someone representing her own experience and life circumstances in the terms provided. Access to many resources in contemporary society is largely mediated by application or registration forms (school, loans, jobs, credit cards, insurance, housing, government services, medical services, etc.). Knowing how to respond dialogically to such texts (i.e., fill them in, in their terms) requires skills in what Darville (1995) calls organizational literacy. School is the first place we learn this.

INSTITUTIONS

The last conceptual block in the architecture of this approach that needs to be introduced here is Smith's notion of institution, which, like her use of other terms common in sociology, doesn't quite mean what it means for other theorists and researchers (e.g., Hodgson 1994, Jepperson 1991, Powell and DiMaggio 1991, Scott and Meyer 1994, Zucker 1987). Building on her notion of ruling as an interconnected set of business, government, military, professional, and media relations in contemporary society, her notion of institution gets at the way webs or clusters of these relations are organized around specific functions, such as education, health care, news, or law enforcement.

> We might imagine institutions as nodes or knots in the relations of the ruling apparatus to class, coordinating multiple strands into a functional complex. Integral to the coordinating process are ideologies systematically developed to provide categories and concepts expressing the relation of local courses of action to the institutional function . . ., providing a currency or currencies enabling interchange between different specialized parts of the complex and a common conceptual organization coordinating its diverse sites. (EWP 160)

Consider an example relevant to this thesis: vocational training. We can see that in Smith's terms this is a "ruling" function producing a workforce with the varied skills, dispositions and wage expectations desired by a range of employers in private businesses and the public sector. It involves preparing workers for low-paid jobs as well as preparing technicians, professionals, and managers for more rewarding and rewarded work. When we consider job training as it actually comes about, we recognize that many different work processes in multiple sites of activity are involved. There are company training programs, there are provincial agencies that fund companies to train their staff, there are federal programs to train unemployed people, there are community-based training initiatives, there is the work of professional educators who develop curricula and teach courses, there are

colleges and private vocational institutes, there is the work of individual students seeking to upgrade their skills or obtain qualifications for employment, and there are business-interest organizations lobbying government to adopt policies in a range of areas to do with shaping, training, and regulating a labour force. There are economists generating theories about labour force and economic development that are used as resources by the people developing or lobbying for job training policy. All of this interconnected activity puts in place, reproducibly and moment by moment, the field we refer to as job training and that provides the ground for any one individual's action. Smith's notion of institution, understood within the ontology of her approach, directs our attention to this cluster of organizational and discursive relations in a way that opens it for study.

This use of the term institution has elements in common with the phenomenologically-inflected institutional theory currently being used to rethink organizational analysis (DiMaggio and Powell 1991). Jepperson (1991) describes institutions as self-reproducing, "standardized activity sequences that have taken for granted rationales"; institutions are treated by participants as "relative fixtures in a social environment and explicated (accounted for) as functional elements of that environment" (p. 147). They "simultaneously empower and control" (p. 146). This notion of institution is both narrower and more vague than Smith's notion, in that it doesn't specify how it is that sequences of action become standardized (Smith 1999b). Smith's main critique of current institutional theory is that it presupposes the presence of institution rather than showing how it arises. Although in some ways institutional theory shares a similar project and ontology, the conceptual language it uses actually eliminates the activity of people, replacing people with nominalized forms such as "pattern" or "hierarchy," but without showing how these forms

of coordination are actually produced in what people routinely do. And that is precisely what Smith wants to investigate.

INSTITUTIONAL ETHNOGRAPHY

Smith is not the only sociologist to work with an ontology of the social as the coordinated activity of actual people. What is unique about her approach is the prominence given to her recognition that the "everyday world" of individual experience and action in contemporary capitalist society is organized in significant ways by trans-local, text-based relations of ruling. The result is that while Smith's sociology explores the practices of actual individuals, it does not conceive of or investigate these as occurring within a bounded setting. Her sociological attention is directed toward the ways the everyday, as the ground for people's activities, is shaped by trans-local relations that are not immediately visible or knowable.

Smith's sociological project is fundamentally political. What she is most interested in explicating are relations of ruling that shape people's lives in less-than-desirable ways. She would like to see sociology provide analytic descriptions that people and their advocates can use, for example, in planning strategies of intervention and working for change or reform. In this view, sociology provides "maps" of social relations that can be used by people who want to reform the social terrain. Her notion of sociology as a map is apposite. Maps are conventional representations; they are schematic, iconic versions of the physical world. Yet, if they are well-drawn, they can be used by competent readers to move successfully through the actual, physical world they represent. It is the same with sociology – Smith's kind of sociology – and the social world of people's coordinated activities.

As a way of mapping particular relations of ruling, Smith proposes an investigative approach she calls "institutional ethnography": a form of inquiry that "explicates social relations generating characteristic bases of experience in an institutional process" (EWP 176). Smith's term "institutional ethnography" signals both the field of inquiry and the method of study. As previously explained, Smith's notion of institution directs the researcher's attention to the way the activities of numerous agencies, organizations and individuals are coordinated into a "functional complex." Here are work routines, especially text-mediated ones, and a conceptual order that enables the "interchange between different specialized parts of the complex" (EWP 160). The term "ethnography" as used here signals a methodological focus on people's actual practices:

> The notion of ethnography is introduced to commit us to an exploration, description, and analysis of such a complex of relations, not conceived in the abstract but from the entry point of some particular person or persons whose everyday world of working is organized thereby. (EWP 160)

The term "ethnography" should not, however, be taken as calling for – and only for – traditional ethnographic techniques such as observation and interviewing, Smith warns. Institutional ethnography is not a set of field research techniques but rather "a commitment to an investigation and explication of how 'it' actually is, of how 'it' actually works, of actual practices and relations" (EWP 160). That goal can be realized through a range of methods such as textual analysis, collecting and analyzing instances of naturally-occurring language, reflecting on one's own experience, etc., in addition to classic ethnographic field techniques. The point is to choose methods appropriate to the setting and specific relations one wishes to investigate (and ontologically compatible with the overall approach).

Whatever the research methods chosen, an institutional ethnographic investigation should involve three main procedures, Smith explains, based in three of her central notions:

1) analysis of the "ideological" or conceptual procedures through which the work processes of the institution are rendered accountable. "These . . . procedures are constituents of the social relations articulating the work process to the institutional function" (EWP 166).

> When applied to the institutional context, the notion of accountability locates practices tying local settings to the nonlocal organization of the ruling apparatus. Indeed, the institutional process itself can be seen as a dialectic between what members do intending the categories and concepts of institutional ideology and the analytic and descriptive practices of those categories and concepts deployed in accomplishing the observability of what is done, has happened, is going on, and so forth. (EWP 161)

2) through the notion of work as purposive action, investigation of the "ways in which people are actually involved in the production of their everyday world, examined with respect to how that world is organized by and sustains the institutional process" (EWP 166).

3) through the notion of social relations, analysis of the "concerting of these work processes as social courses of action" (EWP 167). This involves seeing how observable and recountable local events are located within extended chains of action.

Addressing "institutional process as a work organization means taking as our field of investigation the totality of work processes that actually accomplish it" (EWP 165-66). However, Smith insists, this doesn't mean setting out to describe institutions as systems, since institutions cannot be represented schematically in their entirety (EWP 177). There are no neat boundaries when institutions are conceived in this way, just a densely interconnected web of overlapping social relations. Conceptually, taking "the totality of work processes that actually accomplish" an institution as the "field of investigation," with the goal of doing some mapping, does not mean that the "totality of work processes" constitutive of the institution can be discovered and represented. Only some work processes, and some aspects of those work processes will actually be investigated.

A metaphor I sometimes use is an artist's sketch that dwindles off into hatching lines to indicate the end of the representation, but not the end of the represented object (e.g, I'm only drawing the head and shoulders, but you should understand that these shoulders are attached to arms and a torso, etc.). That is the idea with institutional ethnography: to investigate and describe certain work processes that are relevant to what the researcher wants to understand, in a way that recognizes the boundaries of the research as artificial boundaries of convenience, and indicates the way the investigated relations continue on beyond the research spotlight. To be avoided are methods of building boundaries into the conceptual apparatus of the study in order to decide which sites and processes are "in" and which are "out" (this happens when institutional relations are investigated as "systems"). Smith compares an IE investigation to a quilt square that can potentially be joined with other quilt squares to form a quilt covering a broader territory. This gets at her goal of a community of researchers producing their various analyses (quilt squares) which, because they share the same ontology, can be joined together.

It should by this point be apparent why I think this approach can address, in one study, the three different facets of accounting, as a "social and institutional practice," that Miller (1995) allocates to three different research approaches (ethnography, organizational analysis, political economy – described in chapter one). IE offers a way to pursue an ethnographic focus on practice in order to learn how a specific set of organizational and institutional relations comes about. Working this way, the researcher can explore the local as embedded in trans-local relations of state and economy.

METHODS – DOING IE

Empirical research along the lines described above, as it has been done by Smith and others, has used a number of data-gathering and -producing methods: participant observation, in-depth interviews, focus group interviews, workshops, the collection of "naturally-occurring" or work-place talk, textual analysis, archival research, and the researcher's reflection on her or his own experience. Most research projects use a combination of techniques. IE research generally has two main aspects: (1) examining a work process from the perspective of people who do it or who experience the receiving end of it (usually done through interviews, observation, reflection on own experience, often in combination); and (2) discovering and analytically describing the "ideological" or representational practices that organize the work process and articulate it to the institutional function. This often involves some form of text or discourse analysis. (For examples of IE research, see Campbell and Manicom 1995, Diamond 1992, Mykhalovskiy and Smith 1994, Pence 1997.)

IE studies use data-gathering techniques that are shared with a range of research approaches usually described by the term "qualitative research," but there is a significant difference. What distinguishes IE research from other types of research also using interviews and observation is the IE focus on institutions as functional clusters of extended relations, which replaces the customary sociological interest in studying groups of people. IE research doesn't study people as research subjects. Instead, the people who talk with the researcher, or show how things are done, stand in relation to the research as knowledgeable informants. This is not just a matter of treating people with respect and recognizing their contribution to the research – many feminist researchers, and others, have developed terms (such as research "participant" instead of research "subject") and practices (such as sharing transcripts and

reports with research participants) that recast the traditional researcher-research subject relationship (e.g., Reinharz 1992). The difference here is an analytic one: IE works with what people tell us in order to learn about the workings of extended social relations that shape what happens to people and into which their own actions are geared. The research subject is the institution – or one corner of it – conceived as a web of relations and discovered through the accounts and experience of people located in different sites of the web.

My research for the study reported here involved in-depth interviews, reflection on my own learning and practice, and textual analysis. The study itself evolved over two phases. It began as a short but intensive four-month investigation that I worked on with my colleague George Smith. Done under contract to an industrial council, this research looked at how Ontario colleges administered the delivery of job training to employers within the industry as well as to the industry's laid-off workers seeking re-training. It involved interviews with training managers and labour-adjustment committees at each of four industrial plants in different parts of Ontario, interviews with two to four managers at the three colleges serving these areas, as well as interviews with officials at the Ministry of Colleges and Universities, the Ministry of Skills Development and the Council of Regents. In all we conducted twenty-six tape-recorded interviews, almost all of which were transcribed. These were unstructured interviews[9] in which we asked our informants to describe work processes and aspects of the college or training system they knew from the perspective of their location within it. Our research goal was to find out how colleges were addressing the training needs of the industry and, most importantly, to discover how what the colleges could and could not do arose within the relations organizing the funding of colleges and job training. The result was a report, written in an accessible style, describing what we had learned. This report, we hoped, would

be useful to the industrial council in its dealings with the colleges, because it described aspects of the college system and relations of funding that were unknown to council staff.

It was while doing this research that I first learned about the college system, its relations of funding, and the ways that changes in provincial and federal policy were bringing about a competitive market in training and other forms of restructuring. The role of accounting practices and accounting texts in mediating all this was evident in what people told us (an IE perspective heightens the researcher's awareness of texts and textual processes). In particular, several managers at different colleges spoke about their interest in developing some form of program costing, a type of accounting visibility not previously produced in the colleges but which the managers saw as important and necessary in order to survive the new funding relations.

Prior to this and in a wholly unrelated study, I had begun to research accounting from a social organization of knowledge perspective, drawing on the critical accounting literature. I was excited by that work but felt, as I have previously described, that it somehow couldn't show in practical terms what it could describe theoretically about accounting as a form of representational visibility. By happy coincidence, the job training study acquainted me with, and provided access to, a terrain of activity shaped by accounting practices. Even more attractive, from a research perspective, was the dynamic of change and the managers' interest in introducing a new type of accounting visibility. Here was a chance to see a new form of text-mediated coordination taking shape.

In a second stage of research, I followed up the managers' comments about program costing with a series of interviews at a fourth college where program costing had been introduced in the past year. The interviews from the first study had focussed on discovering

the institutional relations of funding and revenue within which individual colleges operated. My second set of interviews narrowed the focus to look more closely at administrative and managerial practices in one college. In all, I conducted fourteen additional interviews, eleven with administrators and staff at the college and three outside the college: one at the Council of Regents, one at the Association of Colleges of Applied Arts and Technology of Ontario, and one with a member of the union bargaining team. (The outside interviews were conducted in order to learn about institutional processes to do with the collective agreement, which turned out to be relevant to understanding how program costing works.) As in the first stage, informants were asked questions specific to the work processes they engaged in and knew about. In many cases, an informant suggested the next people I should talk to, along the lines of, "Well, if you're interested in such and so, you should really speak to So and So." Other times, I would ask who could tell me about a particular process or activity.

In conducting these interviews I followed an approach mainly learned through apprenticeship and practice. Many aspects of this approach are given expression, I have found, in Spradley's (1979) description of the ethnographic interview, with its advice on eliciting accounts of routine practice, and Mishler's (1991) appreciation of stories and attention to dialogic co-production of the interview conversation. But when it came to working with interview transcripts replete with stories and descriptions of work processes, I found neither Spradley nor Mishler to be of much help, since they are engaged in analytic projects rather different from the IE focus on institutional relations. An issue for me was how to work with interviews as a specific kind of language event, a conversation co-produced for research purposes, and at the same time use informants' descriptions to make claims beyond what could be said about that conversation. At this point I looked again at the work of

researchers doing institutional ethnography, to see how they worked with interview material.

I looked at theses and published books and articles, and I found that most of these included references to interviews, even when the study itself did not use interviews as the primary source of data. Studies based on textual analysis, reflection on the researcher's own experience, or participant observation (e.g., Walker 1990, Diamond 1992, Ng 1996) frequently incorporated a small number of formal interviews, usually with administrators or government officials who could explain aspects of the institutional processes being explored, and help the researcher to situate local settings into extended relations.

I discovered two main ways of working with interview data. In one, the understanding of institutional processes gained through interviews is absorbed into and as the knowledge of the researcher, who writes an analytic description that incorporates this knowledge. Interviewed informants do not "speak" directly in the analytic text. This is most often the case when interviews are used to fill in the understanding gained through participant observation or the researcher's reflection on her own experience. In the other style, excerpts from interview transcripts do appear in the written analysis, creating a more consciously dialogic text. Here is how George Smith describes his use of informants' descriptions (which he calls "exhibits") in his article on the experience of gay male students in secondary school:

> As exhibits, the excerpts create windows within the text, bringing into view the social organization of my informants' lives for myself and for my readers to examine. Though what is brought into view emerges out of the dialogic relations of the interview, excerpts must not be read as extensions of my description. As exhibits, they make available the social organization of the everyday school lives of the individuals I interviewed. Dialogically they enter the actual social organization of schools into the text of the analysis. (1998: 312)

My use of what informants told me combines the two practices described here. Because I am investigating complex relations involving several provincial ministries and

federal departments, and administrative processes linking these with the colleges, I have felt it necessary to provide the reader at certain points with compressed but, hopefully, clear descriptions of funding processes, college organization, etc. These descriptions are composed in my own "voice," but draw on printed materials produced by the various ministries as well as what informants told me. As often as possible, I try to indicate how I learned what I am able to explain. At other points, informants' descriptions in the form of interview excerpts do the main work. In general, I use informants' descriptions when the matter is their actual work and the experience of doing it; I use my own description (based on multiple sources) when I am describing generalized relations or chains of action that transcend the local experience of any one informant. In chapters six, seven and eight, the informants' tellings come to assume even greater importance, and the analysis shifts to close attention to seeing the social organization of college administration in the descriptions and stories that people tell.

Presentation of Interview Excerpts

Because the interview excerpts play a prominent role in the later parts of this study, I found I needed to pay attention to the preparation of transcripts and excerpts. Precise information on this area of practice is not customarily included in IE research reports, although it would be helpful to other researchers. My contribution to that potential discussion follows.

Transcription[10] was done verbatim, although without attempt to capture intakes of breath or other non-linguistic sounds, except for laughter. Word repetitions, hesitations or place holders such as "um" and "er," and sentence restarts, on the other hand, were transcribed. In general, the level of detail produced was well below that sought in

conversation analysis, for example, where the length of pauses, exact spans of overlap, and actual pronunciation of words are of analytic relevance. In IE, people's descriptions are primarily of interest for what they tell the reader about the social relations being investigated; only secondarily are they of interest as turns of talk. I chose a transcription method that would facilitate reading the excerpts for their descriptive content.

When preparing transcript excerpts for inclusion as quotes in the body of the text, I did not edit people's language. (In a few excerpts material has been omitted that did not pertain to the topic at hand; this is shown by the use of ellipsis points.) I believe that what people mean to convey is adequately clear without my purging the transcript of the characteristic features of spoken language, such as repeated words or abandoned half-sentences. We understand extemporaneous speech organized in such a manner quite well when we hear it. It is only when transcribed that it appears disjointed or inarticulate. I have addressed this problem not by eliminating or changing words, but by adopting a style of punctuation that suggests, as much as possible, the flow of spoken language. (Try reading any difficult quotes out loud.) I use lots of dashes, for example, and place commas in ways that echo the pauses speakers use to separate clauses or ideas. I also use quotation marks within transcript excerpts to indicate parts where the speaker is enacting speech addressed to someone other than the researcher. This is a common feature of spoken language. We act out what we said, what someone else said, what we will say at the next meeting. Sometimes we change our tone of voice to signal to the hearer that "someone else" is talking. These tonal signals are not available in a transcript. Where it would help the reader understand what the speaker is doing, I have used quotation marks. But I make no attempt always to mark out such parts, as there are often no clear boundaries within the utterance between speech

addressed to the researcher and speech that is both addressed to the researcher and enacting speech to or of others. I do not attempt to impose any such order on the material. Besides, it is usually clear enough.

In excerpts presented as a dialogue between researcher and informant, the informant's comments are introduced with "I:" and the researcher is identified as "L.M." for Liza McCoy or "G.S." for George Smith. An issue among qualitative and ethnographic researchers concerns the best term to use for the people who take the time to talk with us and permit us to record their comments as our data. Some researchers like to use the term "participant" in order to emphasize the collaborative nature of research and the important contribution of the research "participants" (e.g. Weiss 1994). I have chosen to stick with the traditional ethnographic term "informant" for this study, because I think it best fits the research relationship George and I had with the people we interviewed and the impersonal (but lively) conversations we had with them. Quite simply, they informed us – taught us – about how the college system is organized and how it is being restructured.

The speakers in the excerpts are identified by approximate position title and college or agency. (College names are pseudonyms; agency and ministry names are real.) Approximate position titles are used to reinforce confidentiality. For example, I use "administrator" as an all-purpose term to indicate that the speaker holds a managerial position. I do this because exact job titles may be specific to the college or individual and therefore too revealing. In any case, for my purposes, only broad job categories are necessary, such as "administrator," "dean," "chair" and "accountant."

Text Analysis

Earlier I described Smith's emphasis on the role of text-based forms of knowledge in contemporary ruling and on "ideological" practices as common elements of these forms of knowledge. We have seen that the IE project aims to discover the ways that generalized institutional relations shape the bases of everyday experience. And we have seen that trans-local relations of ruling are coordinated across multiple sites through text-mediated work processes. Thus studying textual practices is often an important piece of IE research and analysis. In fact, IE research is often structured by taking a particular text or textual practice as the entry-point into the institutional relations it organizes.

From a methodological perspective, this raises the question of how to study texts and textual practices. Texts in this view are any representation that has a relatively fixed and usually replicable form: audio or video-tapes, photographs, maps, x-rays as well as written texts on paper or on computer screen. What's relevant here is the materiality of the text as it allows a kind of time-space leap that cancels the need for face-to-face or same-time communication and that allows numbers of people, perhaps unknown to each other, to read or view the same text. Thus, an evolving theatrical performance and a phone conversation are not texts in the sense used here, while a video-tape of the performance and a tape or transcript of the phone conversation are (or might be so considered). The point isn't to establish sharp boundaries, but to recognize texts and textual practices as involving some kind of congealed representation or utterance that can be activated, viewed or interpreted at a later date and in another place. (Whether something is to be considered a text or not is a matter best resolved with reference to how the object is produced and used and the analytic interest at hand.) It is this feature of texts that enables the kind of trans-local coordination of

courses of action that lie at the heart of institutional relations. Note that this is a more narrow view of texts than is popular among cultural theorists, who use the term in a broad way to refer to any kind of assembled or semiotic material – the clothed, pierced or decorated body as text,[11] the shopping mall as text, and so forth. The IE approach prefers a restricted notion, in order to direct analytic attention toward a particular kind of coordination enabled by congealed, usually replicable, usually portable verbal and visual representations. It is through seeing this coordination that we can understand how "ruling" in contemporary society is organized.

In doing textual analysis, the focus is on textual practices, not texts alone. The idea is to see texts as they are produced and activated by actual people within ongoing courses of action. This means discovering the conceptual frame used in constructing texts, intended by the text as congealed utterance, and operated by knowledgeable users who activate (read, use, fill out, otherwise engage with) the text. Smith stresses this focus on the "text-reader relation," which should be seen as occurring in a "sequence of social action which includes interpretive practices. . . . [T]extual analyses must explain how the text as petrified meaning structures the reader's interpretation and hence how its meaning may be entered into succeeding phases of the relation" (TFF 223).

The idea is to study interpretive practices as social relations. This requires that the researcher be competent in the interpretive practices intended by the text as it is produced in specific relations of ruling:

> [I]f we are to analyze textual materials for their properties as organizers of social relations, methods of textual analysis are required which explicate the active power of the text as it is realized or activated by the competent reader. The analytical ability to investigate the text and to discover the ways in which it has aimed at its analysis (this provides the methodological grounding of the analysis) depends upon the competence in the practitioner of those relations.

> Thus the analyst does not have to pretend to withdraw as a member of society in performing analytic work. On the contrary, such analysis depends precisely on such membership; if the analyst does not already command the interpretive method of the relational process being investigated, she will have to learn it. (TFF 223)

In institutional ethnographic research it is not uncommon for researchers to study a practice of ruling they already have some member's knowledge of. This is consistent with Smith's point that the analyst of text-mediated relations needs to have a command of the relevant interpretive practices. Marie Campbell (1992), for example, who studies nursing work in the context of hospital and health care restructuring, had been a nurse before becoming a sociologist. Gerald de Montigny (1989) drew on his previous work as a social worker, and Gillian Walker (1991) used her experience of organizing in the women's movement. Ellen Pence (1996) combined her research with her work for a battered women's support organization. Other IE researchers have used their professional, administrative or political organizing experience both in identifying the problematic of their research and in carrying out the research and analysis. This is perhaps the most typical pattern to date. Because IE does not begin "in theory" – in the sense of identifying a research question arising in and relevant to sociological theory – but rather begins from a problem or situation in the world, working in this way requires a researcher to know or find out about some institutional process or actuality that warrants research. So it is not surprising that many people research work processes and institutional relations they already know, drawing on their insider's knowledge as a resource.[12]

Other researchers, however, have chosen to research areas of practice and institutional relations where they do not have extensive knowledge of the setting or the professional/technical work practice to draw upon. They have had to learn how to do the

work and how to operate the relevant conceptual practices in the course of their research. Roxana Ng (1996), in her study of a community-based immigrant women's employment organization, did participant observation that began with her doing volunteer work for the organization and led to her taking on the work duties of a counsellor. Tim Diamond (1992) went through training as a nurse's aide and then took employment in a nursing home. Ng and Diamond were able to reflect on their learning and their accountable work within the organization (Ng openly as a researcher. Diamond initially doing covert research, known only as an employee) as a central resource in developing their analyses of institutional relations of ruling.

When I decided to develop a second stage of research that would focus more closely on accounting texts and knowledge in the college system, I was entering an area of practice of which I was fairly ignorant. Although I had an undergraduate degree in economics, I had never taken any accounting courses, and my work experience in clerical and administrative jobs had not involved sustained contact with accounting processes. So, in addition to my reading of the critical accounting literature, I set about studying accounting, enough to learn the basic principles, conceptual practices and documentary techniques, and talk knowledgeably with informants. I took two accounting courses that were offered through the continuing education program at my local college of applied arts and technology. (In chapter four I discuss this training and my choices in more detail.) And, by chance, I found myself doing unplanned participant observation when my part-time employment at the time expanded to include accounting duties. This gave me the opportunity to experience using the conceptual forms of accounting to represent organizational activities I knew as a participant, in abstract terms that fitted them into trans-local, institutional relations of accountability and

obligation (payroll taxes, GST, etc.). It is on the basis of this training, my work experience, and my reading of the critical accounting literature that I have developed the understanding of accounting as a coordinative institutional practice discussed in chapter four and further explicated in the chapters describing the use of accounting knowledge in the college system.

This is, of course, a partial understanding. I am not an expert in accounting. But it is precisely because I am not that I have undertaken this study. Accounting is one of the main coordinative, text-based knowledge forms of contemporary ruling. As a coordinative technology, it shapes the circumstances of our lives in sharp and consequential ways, although we do not always see this, as it happens "behind the scenes" and is generally treated in the popular imagination as boring, routine record keeping. Nor is accounting practice only the preserve of trained and certified professionals. In any set of organizational and institutional relations, large numbers of people who are not accountants will be engaged in work processes that feed into, produce or use accounting representations. In the colleges, for example, many of the managers I spoke with had no training in accounting, yet they had had to learn how to read accounting documents and use them as guides to managerial action. They were also having to learn how to think about their colleges as "businesses," which some found distasteful, although others found heroic subject positions to occupy in business discourse. (As I will show, the new accounting visibility was a central mechanism in effecting that conceptual shift.) Coming into this research without accounting or business expertise, I cast myself as a kind of public sector Everywoman. I wanted to study this knowledge form and the restructuring it is realizing from the standpoint of the implicated non-expert, and it is primarily to the non-expert that I address my research.

CONCLUSION

In this chapter I have described Smith's approach to investigating the social organization of knowledge in ruling relations, as I have understood it and taken it up. I have described how my research in the colleges, first with George Smith, then later on my own, was developed using this approach. As well, I have situated my use of this method within the growing tradition of institutional ethnography, which is taking shape through the contributions of those who have taken up and worked with Smith's proposals.

To end this discussion of Smith's sociology as it provides the ground for my research into accounting as a form of knowledge and its role in the restructuring of the college system, here is Smith's own summary of her project:

> Rather than superseding sociological investigation of formal organization, of the state, of mass media, or of other elements of the ruling apparatus, my intention is to rewrite their fundamental ontology. The actual practices ordering the daily relations that regulate contemporary advanced capitalist society, however conceptualized, can be subject to empirical inquiry, to ethnographic exploration, once texts are recognized as integral and 'active' constituents. Uncovering texts as constituents or relations anchors research in the actual ways in which relations are organized and how they operate. The enterprise is indeed grandiose; it is that of transforming our understanding of the nature of power when power is textually mediated. (TFF 224)

This thesis is intended as a contribution to the project of investigating the "nature of power when power is textually mediated."

PART II — ACCOUNTING AS A FORM OF KNOWLEDGE

CHAPTER THREE
THE HISTORICAL DEVELOPMENT OF ACCOUNTING

Accounting is a text-based knowledge form that coordinates economic relations[1] of property, production, distribution and exchange in contemporary society. These relations are mediated by money in cash and in "virtual reality" form (cheques, electronic transfers). Accounting as a representational practice documents these relations in textual terms as the movement of monetary value. It is the fundamental – indeed constitutive – textual practice of contemporary capitalist economic relations.[2]

The "primary mode of action and decision making" in relations of ruling, Smith tells us, "is utterance – verbal and, more importantly, textual" (CPP 62).

> The realities to which action and decision are oriented are *virtual* realities vested in texts and accomplished in distinctive practices of reading and writing. We create these virtual realities through objectifying discourse; they are our own doing. Employing them, we separate what we know directly as individuals from what we come to know as trained readers of texts. (CPP 61-62)

Accounting as a documentary form of knowledge and textual practice is one of those objectifying discourses. In Smith's terms, accounting effects a "transcription of . . . local and particular activities . . . into abstracted and generalized forms" (EWP 3); it creates texts that "transcend the essentially transitory character of social processes . . . and . . . remain uniform across separate and diverse local settings" (TFF 211); it produces a knowledge that is "independent of particular subjectivities" (CPP 84) in which "events or actions can be represented as having happened without an author" (CPP 55). Accounting is one of the main ways that accountability (intra- and inter-organizational) is produced in institutional settings.

It involves what Smith calls ideological procedures: "methods of creating accounts of the world that treat it selectively in terms of a predetermined conceptual framework" (CPP 94). (It is not a coincidence that the words account, accounting, and accountability share the same root in English.)

This chapter and the next take a close look at accounting as an objectifying form of knowledge and textual practice of ruling. In the present chapter, I survey the history of accounting to highlight the intertwined development of capitalist economic relations and the textual form that represents and mediates them. In the next chapter, I look at the organization of the accounting profession and work through an exploration of accounting as a conceptual and representational practice.

These two chapters were written because I did not want to assume the practice of accounting.[3] That would be to fall into an error like the one Smith claims is made by organizational and institutional theorists, that of assuming the presence of organizations and institutions without showing how they are routinely produced in what people do. I felt that, to really show accounting at the level of routine practice in the colleges, it was necessary to study accounting as a discursive resource existing beyond its employment in Ontario colleges. I also considered it important to study accounting as it has developed over time. Contemporary accounting categories and visual styles of presentation are effective at signalling objectivity and neutrality. Accounting constructs entities, such as income, capital, profit, etc. that have come to appear as inherent features of organizational activities, already there awaiting their discovery through accounting analysis. A way to get behind that surface obviousness, to examine accounting as a representational technology that constructs its object in specific ways, was to look at accounting before it took its present shape, before it

was used to "find" the virtual reality entities of income, capital and profit, for example. Beginning before people used accounting to create such a visibility, and then looking at how and why they began to construct it, makes it easier to recognize current practice as both contingent and constructed. We see how long it took people to work out the categories and forms that we take for granted as merely a matter of representing what's already there.

Another reason for starting with a historical survey supports the focus on accounting as a textual form coordinating institutional relations of property, production, distribution and exchange. By looking at accounting practices in different historical periods, it becomes easier to see how accounting works as a coordinative and communicative form in our own. We can also see how current representational forms, indeed current economic and organizational forms, along with state practices and legislation, have developed out of past forms and practices. Because the empirical part of my study looks at college managers' attempts to change the kind of visibility produced through accounting techniques, I was particularly interested in studying accounting history as a series of changes and institutional transformations.

The survey of accounting history that follows is drawn from the accounting history literature, and reflects my research interests as described above, as well as being shaped by the resources available to me. This literature is written from a European perspective, and it is mainly about accounting in England and the U.S.; however, since the Industrial Revolution started in England and the modern corporate form began in the U.S., and since Canadian economic and accounting practice developed through relations with England and the U.S., this focus of the literature is not inappropriate as background for my empirical study on present-day accounting practice in Ontario colleges.

My survey starts in the ancient world, moves to medieval Europe and the creation of double-entry bookkeeping in Italy in the 14th and 15th century, and then follows the concomitant development of capitalist production and exchange and the representational practices of accounting that mediate these relations. The history moves rapidly through mercantile capitalism, the Industrial Revolution, and on to the development of the modern corporation, with its layered hierarchy, multiple divisions, salaried managers, and forms of management based in quantified representations. The development of an accounting profession, which came on the scene rather late, is also sketched. The survey ends in the 1920s. By this time, the modern enterprise was established and all of the main accounting techniques still in use today had been developed.

EARLY PRACTICES OF ACCOUNTING

Accounting as a textual and representational practice mediating relations of property, obligation, and state has been around for 10,000 years. As a textual form it pre-dates writing. Apparently people found it important to keep records of property and debt long before they began recording language. In fact, early civilizations found ways to keep accounts at a time when they didn't have an abstract number system and could only determine and represent pluralities through procedures of correspondence.[4]

One of the earliest known accounting systems was practiced throughout the lands of ancient Mesopotamia during the period 8000-3250 B.C.E. (Mattessich 1987; Schmandt-Besserat 1984, 1986). People there used an ingenious system of clay tokens, each of which stood for one unit of some economically relevant object (livestock, jars of oil, small or large baskets of grain, units of service). These tokens could be used to determine a precise quantity

by matching objects with tokens; the assembled tokens could then be strung together or enclosed in clay pouches to serve as the record of a debt or payment. (The seals of parties to the transaction were often impressed into the moist clay of the pouch before it was closed up.) Historians don't know exactly how these accounts were used, but it is known that in its later millennia, ancient Mesopotamia had complex state bureaucracies with rents and taxes administered by temple personnel. The token accounting system would have mediated these relations and enabled administration to be conducted at a distance from actual flocks of sheep and jars of oil. The association of accounting with the rise of the state is probably not accidental. It has also been proposed that early forms of written language developed out of the token system of accounts.[5]

This brief description of an early accounting practice suggests a number of determinant elements in any accounting system when viewed as a documentary form of knowledge, such as the technological possibilities for keeping permanent records, the type of written numeration in use, the level of literacy and numeracy in the society at large, intellectual fashions in organizing and presenting information and, of course, the nature of the relations of property, obligation and exchange that these texts mediate. The discussion that follows treats accounting practice in terms of those elements.

Accounts in ancient Greece[6] were primarily created and used in relations of accountability between property owners and their subordinates. Despite a high level of literacy and numeracy among the ruling population (male citizens) and the educated male slaves who worked as scribes and tutors, the culture was essentially oral. Records and documents were not treated as authoritative. Two individuals contracting a loan or a business deal would arrange for witnesses to be present; in the case of a later dispute, the personal

testimony of eyewitnesses was treated as a more authoritative account than written records. Ancient Greeks did record debts, payments, receipts and inventories. In general, accounting practices aimed at showing up embezzlement, negligence, or fraud in the conversion of one currency to another. This was principally a matter of making visible, to the property owner, the honesty and competence of subordinates handling the property owner's goods; it was not a matter of the property owner's accountability to other property owners, which was managed orally, not textually. Accounts were usually written in narrative form, with descriptions of goods, amounts of money, payments and receipts all written up together in a block. Apart from intellectual fashion, one reason for this may have been an accommodation to the limited availability of writing materials. Another has to do with the system of written numeration.

The written numeration system employed by the Greeks made use of the letters of the Greek alphabet. It did not use positional numeration, so writing up a column of figures would be of no help at all in adding them up.[7] The writing of accounts was therefore not done in a way that would intend mathematical operations being performed on the text itself. Instead, any necessary calculations would be done apart. For addition and subtraction, people used an abacus, a reckoning technology that incorporates a principle of place through the distribution of the beads. This representation of place, however, was necessarily lost when the abacus display was translated into written numbers.

The Romans developed a more complex bureaucracy and a system of public accounts, but their basic accounting practice was similar to that of the Greeks. It was focused on keeping track of money and goods, both incoming and outgoing, and showing up losses due to negligence or fraud. The Roman state did have a system of taxation, however, and personal accounts kept by heads of family could be seized by state officials for the purpose

of determining how much tax should be paid; in consequence, Roman property owners kept few written accounts. Of course, Roman accounting used Roman numerals; however, like the Greek system, this was not a form of positional numeration. Addition, subtraction, multiplication and division were therefore not everyday techniques that could be performed on paper by ordinary, educated people – and accounts were not written in ways that assumed and intended such practices.

The Roman system of numeration was carried into the Roman colonies in Europe, and it continued to be used there for everyday writing purposes up until the 16th century. Meanwhile, an alternative system of numeration had developed in the lands to the east of Mesopotamia. This numeration system incorporated the principle of place value and as such represented an enormous technical advance over the Greek and Roman systems. The oldest document displaying the use of positional numeration, a Sanscrit text, the Lokavibhaga, dates from 458 C.E. (Crump 1990:45). By way of the civilization of Medieval Islam, which spread from Moghul India across the Levant into North Africa, this numeration system was picked up by Arab mathematicians and widely used among the numerate population there, from whence it was acquired by Europeans travelling for trade and conquest during the Crusades.

European merchants were using the new numeration quite widely within a few generations of its arrival in Europe in the latter part of 12th century. It was also popular in the universities, especially for purposes of pagination and making lists, new textual forms that were coming into intellectual fashion at the time. Until the 16th century, both numeration systems were in use, often by the same people. The usual preference was for recording amounts in Roman numerals, which were considered more formal as well as harder to alter for fraudulent purposes. Calculations would be done in Indian numerals; this continued the

practice of calculation as an operation separate from recording. It was of course the new numeration system that permitted the development of arithmetical practices such as we use today – addition, subtraction and multiplication performed by writing numbers in stacks and working the sum from right to left.

In medieval Europe, however, trade was still a marginal activity. The dominant mode of production was agricultural: the ruling class consisted of land-holding monarchs and nobles who lived off the productivity of large estates and the work of hundreds of people whom they did not supervise directly.[8] The day-to-day management of the estate – agricultural production, spinning, weaving, baking, etc. – was handled by stewards and a hierarchy of officials. Stewards kept money accounts (showing rents and other receipts) and accounts for grains and livestock. Each account would start with a beginning balance. The steward would then record money received or increases in flocks; similarly he would record what was paid out, lost, or used (e.g., grain used up in sowing a field). This form of accounting allowed the lord (or lady) of the manor to check up on the honesty and competence of the stewards; stewards essentially kept accounts for their own protection, often recording only those items they were personally responsible for. The lady of the estate might also keep accounts of the money and household supplies she managed personally. There was unlikely to be one set of records integrating all of the transactions and inventories of the estate, since, in the relations of ownership and obligation at the time, there was no need for such a representation of total activity. (In fact, the notion of "total activity" would not have been thinkable or relevant.) What was of use in the management of large, self-sufficient estates was a kind of internal system where different people involved in receiving,

storing and processing goods kept separate accounts that could be checked against each other, so that any theft along the way became visible.

The present-day practice of auditing accounts has its historical antecedents in the practices of medieval England. The term itself dates from that time. Although a lord might inspect accounts whenever he chose, a formal audit was held once a year. This was a kind of hearing (auditus is Latin for hearing) that took place in front of the lord, and might be conducted by him or by his appointed auditor. Prior to this Declaration of Audit, the various stewards' records would have been examined by the auditor. These were now read aloud before the lord, assembled stewards and other persons. The lord or his appointed auditor could ask the stewards to answer questions on the basis of their personal knowledge. In this way, records were made public before a group of people who were knowledgeable about the affairs of the estate and could be supposed to recognize a mistake or fudged account. Through the questioning process, an authoritative, collaborative explanation and interpretation of estate activities was produced. A similar kind of public audit procedure took place at the Exchequer in London, where the bailiffs of the king's many estates gathered twice a year to present the local rents, taxes and fines they had collected on the king's behalf. An assembly of state officials watched while each bailiff's account was worked out in a visual display using counters on a large chequered cloth. When a balance was achieved between payment rendered and the amount owing (this latter could be adjusted if the bailiff claimed expenses in the king's service), the bailiff would swear to the marshall of the Exchequer that he had made an honest account, and the total payment would be inscribed into the Pipe Roll (the oldest existing accounting text in England, dating from 1130). This

was an essentially visual and oral system that involved performing a reckoning operation before witnesses. Only the total payment was recorded.

Treatises about estate management and estate accounting, as well as ones for auditors that told how to check accounts for mistakes and fraud, were written and circulated during the Middle Ages (Oschinsky 1956). Treatises often described the accounting methods of a particular estate, or gave examples of several different accounting models; many were written by monks who had experience administering large monastery estates. At that time, education was under the control of the Church, and teachers and scholars were also churchmen. In the 13th century, Oxford University began teaching manorial accounting in response to an increased demand for manorial clerks and auditors. This formal training contributed to a standardization of practice. Hoskin and Macve (1994) argue that the practice of the audit as conducted in a managerial context was based on the teaching practices of medieval universities, where oral examination followed silent reading. University graduates went to work as clerks, tutors and state administrators, as well as auditors; they carried the examination practice they knew into the new setting, along with their knowledge of the latest fashions in displaying information on the written page. For it was at this time that writing for silent reading was being developed, along with indices, pagination, punctuation, columns and other styles for sorting material and constructing texts. And it was in the same century, although in another country, that these new textual forms, combined with Indian numeration and other important intellectual and material resources, were developed into the techniques of double entry bookkeeping – during a time of fundamental change in the relations of commerce.

DOUBLE-ENTRY BOOKKEEPING

Accounting historians divide history into two periods: before double-entry bookkeeping, and after double-entry bookkeeping. The first period spans more than 5,000 years, the latter somewhere around 600. Historians are understandably interested in accounting for the invention of double-entry bookkeeping (abbreviated DEB) at the time and in the place that this occurred – Italy during the 13th and 14th centuries. (DEB was an "invention" worked out over time by many people; a precise date cannot therefore be given.) Generally, explanations of the rise of DEB point to a confluence of propitious circumstances, which, for the first time, were all present at the same time.

As a representational form, DEB can be seen arising out of two related streams of activity. One has to do with technologies of counting, reckoning and writing. Paper had been invented by this time, allowing for more copious record-keeping. More people were literate and numerate. Indian numerals and positional numeration were in wide use, and numerate people were getting familiar with procedures for adding and subtracting on paper using numbers written in positional alignment. Writing lists – of numbers or words – was also inspired by the new conceptual and textual styles for classifying and displaying written material that were coming from universities.

More generally, Crosby (1997) describes a shift in world view toward an emphasis on the world as knowable and manageable through quantification, measurement and standardized units. There was a fascination with order as decreed by God and available to humans through mathematics; this God-like order could be imposed upon human activities such as painting, music, navigation and business. It was during this period that the first mechanical clocks were made and time came to be measured in standard ways (previously,

an "hour" had not been a stable unit of measure). In music, chant gave way to complex polyphony, and strict time values came to be applied to written music (Western music has been from that time on fundamentally mathematical and orderly – so many beats to the bar, each type of written note having a precise value in relation to other notes on the page). In painting, there was the development of mathematically precise perspective; in navigation the development of portolano marine charts. And in the world of business, there was double-entry bookkeeping, an elegant system of orderly classification.

The second stream has to do with changes in economic relations. There was by this time in Italy a money economy with stable coinage, but there were shortages of money, so people did business on credit, which involved an increased use of written records. A larger minority of the population owned property, so there was an increase in buying, selling and lending. And, most importantly, starting in the 12th century, new forms of social organization emerged: the growth of trade and commerce as a means of acquiring wealth. These early forms of capital accumulation began with trading partnerships, temporary associations involving a travelling partner and one or more investing partners who put up the money. They grew to include the big banking and trading houses of medieval Italy, which had branch offices and agents all over Western Europe by the end of the Renaissance.

The Crusades were pursued between 1096 and 1291 and set off a boom in commerce among Italian merchants. Italian merchants conducted trade exchanging European goods for eastern products such as silk and spices; they traded with people in North Africa, the Middle East, Spain, Southern France and other parts of Italy. In 12th century Genoa the partnership was the preferred form of business organization among trading merchants.[9] These partnerships would be formed for a single venture – a single trading voyage to acquire

foreign goods, culminating in the sale of those goods once back in Italy, at which point the partnership would be dissolved. One partner, the one who actually went on the voyage and bartered or bought foreign goods, was called the travelling partner. The other partner, the investing partner, put up the money and often acted as manager.[10] It was possible for a travelling trader to enter into partnership agreements with a number of different investors for the same voyage. (Antonio, Shakespeare's Merchant of Venice whose money is tied up in the ships he awaits, would have been an investing partner.)

Administration and record-keeping for this type of venture were not complicated. The travelling partner kept track of his expenses and purchases, with a separate account for each partnership if he had agreements with more than one investing partner. Once safely home (and not all ships and travelling partners returned), the partners settled up, determining profit by subtracting the travelling partner's expenses from the total proceeds of the venture (which, since the settling up occurred before all the goods were sold, was an estimate based on current market prices). Documents used in dissolving successive partnerships between a travelling and an investing partner indicate that rather large profits could be made in this way.

After the 12th century more lasting partnerships were set up; this new form of business organization depended on accounting practices that could 1) keep track of the changes in each partner's equity (i.e., monetary contribution to the partnership) due to periodic investments and withdrawals; and 2) determine profit and loss in order to distribute shares of this among the partners according to their agreement. At this point, we see the state getting involved as regulator and facilitator of the new relations. Some maritime city-states had laws requiring trading ships to employ clerks to keep records. These were to be deposited

with the government and would have official status as evidence should a dispute arise (Carruthers and Espeland 1991: 45).

In addition to the demands for careful and detailed records made by the partnership form of trade, the expansion of credit relations as business became more complex also called for careful records of debts and payments, and over time, as this form of transaction became more common, convenient ways of recording the relevant information evolved (R. de Roover 1956). At first, records dealing with credit transactions were written in paragraph form (as were most entries). The bookkeeper would leave some space for a subsequent notation concerning interest paid on the debt and its eventual settlement. Transactions were written as they occurred in time, so that the credit relationship with any given individual would, in its documentation, be spread throughout a merchant's or banker's books. Over time, people came to set up a running account for each individual they had credit relations with; this eventually took a bilateral form, debits beside credits, either on the same page or on opposite pages.

So here we have relations of commerce that are mediated by a record-keeping practice that aims at keeping track of partners' investments and determining profits for the purpose of dividing them up (English manorial accounts were not used for this purpose), and that, in attempting to keep track of credit relations, begins to make use of separate accounts and bilateral form. Note that since these accounts were increasingly kept in Indian numerals, there was an advantage to grouping lists of numbers in columns, and people developed the habit of displaying numbers in this form, even where mathematical operations were not immediately intended.

It is supposed that this practice of keeping bilateral accounts — two columns, one for debit and one for credit – which developed in Italy between 1250 and 1440, developed further into double-entry bookkeeping. Like most textual innovations, it was not the invention of one person, but a collaborative, contingent and simultaneous series of developments: "It now seems likely that double entry originated independently in several Italian city-states where it was applied to similar trading conditions at about the same time" (Chatfield, 1974: 32).

What exactly, for the uninitiated, is double-entry bookkeeping? Here are the essential features of double-entry according to accounting historians (Chatfield 1974: 34; R. de Roover 1956: 114). (A more detailed description of double entry as a representational system appears in chapter four.)

1) Every transaction is entered two times, once as a debit and once as a credit. If books are properly kept, total debits should equal total credits (be in balance). (In modern terms, debit and credit refer to whether an entry is made in the, respectively, right or left-hand columns of an account. In earlier DEB, the terms used referred to the concept of money or goods that one was "to have" or "to give" (i.e., was owed or owed).[11]

2) All accounts are kept in the same monetary unit. Thus, goods are valued in money terms and foreign money is entered at its value in local currency. Prior to this time, that kind of consistency was not aimed at in most written records.

3) Two kinds of accounts, "real" and "nominal," are integrated so as to produce "profit" and "equity" as remainders. "Real" accounts record actual transactions and goods – inventories, sales, loans, invested sums, etc. – and remain open as long as there is something in them. "Nominal" accounts are temporary or summary accounts that are created and then closed out

when the books are balanced. The main nominal account used in early Italian DEB was the profit and loss account: the debit or credit balances from all of an enterprise's various accounts could be posted to the profit and loss account; the resulting balance showed either a profit or a loss.

According to Littleton and Zimmerman, what distinguished DEB from earlier bilateral accounts was the third element listed above, category integration, whose significance, they considered, "surpasse(d) every other aspect of accounting development" (quoted in Chatfield 1974). With a system of category integration, every transaction entered into a company's books "is entered into an integrated system and can be judged according to its effect on total profit and loss" (Chatfield 1974: 35).

In 1494, Luca Pacioli, a scholar, mathematician and Fransciscan friar, published a book written in vernacular Italian and confidently entitled, after the custom of the time, *Summa de Arithmetica, Geometria, Proportioni et Proportionalita* (Everything about Arithmetic, Geometry and Proportion). One section explained how to do double-entry bookkeeping according to "the method of Venice." Through his book, which was printed using the recently invented technology of movable type, Pacioli popularized and disseminated a technique that had up to that point been largely taught on the job. His treatise on accounting organized it as a teachable subject matter (Taylor 1956). In doing so, he used terms from rhetoric to name the different textual practices of bookkeeping, thus bringing the method into the dominant schema for the construction of persuasive and respectable arguments at that time (Carruthers and Espeland 1991). For example, he called the elements of an account the *inventio* (the inventory of possessions and wealth) and the *dispositio* (the memorandum, journal and ledger). In classical rhetoric, *inventio* is the invention of the

argument (the initial conceptual stage) and *dispositio* refers to the stage of planning out and organizing how the argument will be carried out.[12] Accounting historians argue that this use of a dominant intellectual form, coupled with references to God and pious language, was part of an effort to establish the legitimacy of business, at a time when usury was prohibited by papal law and business dealings were generally treated with suspicion, if not disdain (Carruthers and Espeland 1991, Thompson 1991[13]).

During the 16th century Pacioli's treatise on accounting by double-entry was translated into five languages, and other writers wrote books on accounting based on the Pacioli treatise. These descriptions of double-entry spread around Europe by way of the new technology of printing books; as well, some people learned it first-hand from their involvement with the Italian banks and commercial houses that set up offices in London and elsewhere in Europe. However, the actual practice of accounting at this time varied a great deal in its adherence to the new double-entry principles. Some merchants, especially smaller merchants, continued to use single-entry systems which worked quite well for their purposes. People who adopted double-entry did not always do so consistently, often favouring an idiosyncratic hybrid system involving, perhaps, dual entries but no nominal or summary accounts.

A point of discussion in the accounting history literature involves a one-sided quarrel with economic historians such as Sombart, Weber and Nussbaum who, in the reading of the accounting historians, attribute to double-entry bookkeeping a causal role in the development of modern capitalism, or at the least the honour of being a predisposing factor.

> The thesis linking systematic bookkeeping with the development of capitalism implies that from an early date accounts were used in certain ways and for certain purposes, and had the effect of rationalizing and methodizing business life. (Yamey, 1949:100)

The idea here is that due to the ability of DEB to calculate profit or loss, identify for purposes of evaluation the use of capital, and provide an overall statement of the financial position of an enterprise, DEB "stimulated" or "initiated" the development of capitalism. In other words, because of what DEB made visible, it prompted its users to think in ways that enabled the development of capitalist practices of accumulation. Accounting historians are at pains to show through a close investigation of account books and instructional manuals from the 15th to the early 19th centuries that, despite the potential for DEB to produce such representations of commercial activity, it was not used in that way by the investors and entrepreneurs and the bourgeoisie who were forging the new capitalist relations.

Yamey (1949) studied instructional literature from the period to see how people prescribing the use of double-entry described its usefulness to those who would take the trouble to learn it. One important reason cited was the ability to keep track of money owed and owing; records of debt relations could at this time be taken as evidence in court — thus it was in the interest of businessmen to keep careful accounts, not just as *aides-mémoire*, but as potentially legal evidence in the case of dispute. (And well-kept books would make a better impression and be more likely to be accepted as evidence. It also helped if the debtor wrote the entry concerning his debt in the creditor's account book.) Another reason advanced for adopting double-entry was to keep the kind of records needed in a partnership or agency relationship (other than single-proprietor businesses, these were the dominant forms of business organization). When one of the proprietors died or when a partnership was terminated, it became necessary to sort out who got what share. As well, even in one-person businesses, when the proprietor died or if he went bankrupt, carefully kept books would be useful. So this cluster of reasons put forward had to do with accounting records as mediating

relationships with other people – complete and detailed records would make everything go more smoothly. The third type of reason had to do with getting a sense if one's spending was in line with, or out of proportion to, one's earnings. Keeping good books contributed to a morally sound and sensible life, for oneself and one's household. (At this time, accounting practices did not distinguish between a proprietor's business and the assets and expenses of the proprietor's household.)

In fact, none of these reasons advanced for using double-entry bookkeeping actually requires double-entry as an integrative technique. Yamey suggests that instructional writers and teachers pushed double-entry because it was conceptually elegant and therefore appealed to scholarly or mathematically-minded people. As for the profit-and-loss account, the capital account and the balance account – those features of double-entry considered to have made businessmen think and act in such a way as to come up with modern capitalism – these are described in the promotional literature as mainly of use in a tidy closing of the books. The profit-and-loss account, it is explained, can be used to collect accounts that won't be needed in the new ledger (at this time, books were not closed on a regular basis; generally, a ledger would be closed when it was filled up). Accounts closed to profit-and-loss might include dowries, household expenses, and money won in lotteries. In general, the instructional literature did not pay much attention to how the profit-and-loss account revealed information that could be used in evaluating business practices.

> The evidence is largely against the view that the merchants of the period required anything more from their ledgers and journals than a clear and ready record of transactions for easy reference, and descriptive details of their cash, merchandise and other assets bought and sold.(Yamey, 1949: 110)

Although there is evidence that some writers knew what could be done with double-entry, it would seem that this potential of the system was simply not relevant in current commercial practice, and was therefore not emphasized.

Examinations of English account-books from the period that are still around today bear out the claim that merchants did not keep books in such a way as to find "profit" (Ramsay 1956). Nor was there much of an attempt to correct books that were out of balance. At that time, merchants were not obliged to show their books to outsiders or tax collectors (unless they chose to put their books forward as evidence in a civil case). Proprietors and merchants were closely involved in the affairs of their businesses and carried much information in their heads – it was no serious problem if, upon finishing one ledger and starting another, the books could not be got to balance, as long as the proprietor was satisfied the clerks were not embezzling.

> The result was a sliding scale of care within the double-entry system, in which the accounts of customers, suppliers, and partners were kept current and accurate, but no great effort was made to verify total operations. (Chatfield, 1974: 59)

This began to change when new organizational forms of accumulation placed new demands on financial record-keeping. The first of these was the early joint-stock company that took shape in England. After colonizing North America and establishing sea routes to China and India, the British state adopted its mercantilist policy of building national wealth through trade. The state played an active role in promoting trade and industry by granting monopoly patents to inventors and chartering companies which were given monopoly rights to conduct trade in certain regions. This might also include rights to colonize the region and carry out military expeditions there.

The first joint stock companies, such as the Hudson's Bay Company, the Virginia Company and the East India Company, were set up as partnerships with a limited life, according to the prevailing commercial form. Investors would buy stock or subscribe capital for one voyage. At the end of the voyage, the partnership would be liquidated; investors could choose to reinvest in another voyage, and new investors could join in at the financing of a new voyage. However, these large-scale trading enterprises increasingly involved resources that lasted longer than a single voyage, such as ships and trading posts. This made it difficult to completely liquidate the partnership after every voyage. The solution initially chosen was to work up a way of running the business continuously over a period of time, rather than as a succession of discrete voyages. The East India Company began selling four-year subscriptions and got a new charter from the British government establishing the principle of permanently invested capital as well as giving shareholders the right to sell their stock at any time, rather than waiting for liquidation (this made it easier to attract investors). In 1661, the East India Company went one step further and decided not to hold regular liquidations involving a complete division of profits and assets. Instead, investors would periodically get money back in the form of "dividends" on profits. Managing this depended on working out new techniques of accounting that could produce information about profit as part of the ongoing bookkeeping, rather than finding profit through the process of liquidation.

A big issue at the time was liability. In Italy and other European countries, there was a precedent of limited liability in trading partnerships that distinguished between active, or trading, partners and "silent" or investing partners. The former were liable for all partnership debts while the investors were liable only for the amount of their investment. England,

however, did not have this legal precedent, so all partners in a business or venture were equally liable for the business's debts. This discouraged some potential investors and not surprisingly, the trading and investing community began to pressure the government to limit liability. Unfortunately for them, in the early years of the 18th century the South Sea Company went spectacularly bankrupt during a period of wild stock speculation, and the government responded with the passage of legislation in 1720 that refused limited liability status for all companies, excepting those few that were incorporated by Parliament or the Crown.

The later years of the 18th century in England also marked the start of the Industrial Revolution and capitalist forms of production. Manufacturies in the textile industry were being set up to replace domestic production, and by the end of the century, textile mills were built to house newly invented spinning and weaving machines. People with money who wanted to get in on this new opportunity to create wealth were frustrated by the legislation that made investing in manufacturing enterprises risky by insisting on full liability; and because the new machinery was expensive, getting multiple partners was sometimes the only way prospective capitalists could get a project off the ground. Eventually, the investing and entrepreneurial publics were able to get legislation that authorized and facilitated the new forms of business ownership that were becoming increasingly common. The Companies Acts of 1844, 1856 and 1862 and additional statutes established the principle of corporations as entities distinct from their participants, and allowed such limited-liability corporations to be formed through the act of registering them and establishing by-laws. The deal, however, was that if investors were thus protected by legislation that allowed a clear separation between a corporation and the personal wealth of individual investors, then creditors should also be

protected. The requirement was that dividends, payments to investors, could only be paid out of profits. Capital invested had to remain "intact." This meant that if a company went bankrupt, the invested capital – mainly in fixed assets, such as mills and machines and materials – could be sold to pay off the company's creditors as much as possible. This set up the textual requirement of keeping accounting records in such a way as to construct and make visible 1) a bounded corporate entity distinct from its owners and 2) a category of "income" that was distinct from "capital," which depended on an accounting practice that tracked this "capital" (Irish 1968). This was really the first time that businessmen had an ongoing external requirement to regularly report – and act upon – "income" or "profit" figures. It arose through the state's strategy for mediating relations among the different segments of the new ruling (capitalist) class: investors, entrepreneurs, and buyers and sellers of capital goods. However, business owners had already for some time been experimenting with ways to represent and distinguish "capital" and "profit" in their account books (Pollard 1968), and no doubt this textual capability was relied on as a resource by those drafting the new companies legislation.

There was also taking place a shift in the conceptualization and practice of business, which necessarily depended on a shift in the ways businesses could be textually represented. This was the shift from ventures and trading to production, where there isn't an obvious "end" built into the process, but instead a notion of the "going concern." Investment and return were not coterminous with the venture or enterprise; instead the enterprise, embodied in the separate, legal corporate entity, went on, and individual investors could enter and leave as they chose. Leaving was accomplished by selling one's shares to another investor. (The stock market developed as a way of formally organizing this exchange.) The practice of

transferrable shares, however, depends on potential investors' believing that the company is planning to continue operations and is in a position to do so (has the necessary assets, equipment, etc.). This is the best guarantee that an investor will not only receive acceptable dividends but will be able to sell off the shares to someone else. Here then we get a communicative relation in which balance sheets come to be used. A balance sheet shows assets, liabilities, and investment by way of shares (equity). Its organization addresses the concern of investors for at least some suggestion of whether the investment is safe, and whether the company is being well managed.

Depreciation was another accounting task that arose in the latter years of the Industrial Revolution, especially with the railroads. The project was to develop ways to ensure, as a regular business practice, that fixed capital (e.g trains) wasn't run into the ground without any money having been put by to replace or repair it. At first, the practice involved a regular fund for putting money aside to replace machinery. Depreciation as a textual practice developed as a way of representing on a balance sheet available to potential investors, which shows the value of assets in terms of historical cost (what price was paid for them), the reality that over time, a piece of machinery goes down in value – it can't be sold for as much money, certainly, and eventually it breaks down or becomes obsolete and can no longer be used to generate products and profits. So rather than waiting until that happens, depreciation is a way of regularly decreasing the value of an asset on the balance sheet. It took people many decades to work out a way to do this, as it took them time to figure out how the possibilities of double-entry bookkeeping could be exploited in order to produce accounting representations that expressed and served the new relations of business.

(And, in fact, this experimentation is still going on today, as new financial instruments and forms of business ownership elude current representational practices.)

Instead of being owned and run by one or two people, a corporation is "owned" by shareholders, who do not run the company, although the head manager may be a shareholder. So what is involved is not only a separation of ownership and management, but a large increase in the number of people with accountability claims. Accounting then comes to play an important role in mediating these relationships of ownership, entitlement and accountability, and this new role for accounting lead to changes in bookkeeping practice. This can be seen, for example, in the shift in the use and significance of the financial statements, such as the balance sheet mentioned above. Prior to the growth of the corporation, statements were written up as a way of checking the book balances, a step in the process of closing one account book and opening another. The books provided the important information; the statement might be discarded after it had served its purpose. With the separation of ownership and management, and the diversification of ownership, the financial statement came to assume importance as a document on its own. It took a textual form that enabled the circulation of financial information separate from the large account books, it could be easily duplicated (copied by clerks or type-set at the printers), and it organized financial information in a way that addressed the interests of shareholders and creditors. The account books then came to be kept in ways that intended the production of financial statements; instead of the documentary end-point, they came to be treated as an intermediate stage of data collection (Littleton 1956).

Also in the 19th century, income tax was introduced as a regular obligation, and accounting practices were used to establish income, expenses and profit for taxation

purposes. Here we see an even greater widening of the relations of communication and accountability in which accounting representations were used (Carruthers and Espeland 1991). It is considered that income tax, along with the corporate form and the rise of the accounting profession, created the conditions under which most businesses, even the smallest, adopted DEB after 1840 (Littleton and Yamey 1956).

COST AND MANAGERIAL ACCOUNTING

This brief history has so far focussed on accounting texts as these mediated relations among segments of capital and owners of wealth – partners, investors and creditors. Industrial bookkeeping aimed at facilitating managerial control over production and wage workers also has a long history, although it is less recoverable, since accounting textbooks from Pacioli through to the 19th century tended to describe only commercial accounts.[14] As far back as medieval times, forms of large-scale production, such as mines, shipbuilding, printing and mints, were administered through the use of occasionally quite sophisticated practices of industrial bookkeeping. The administrators who developed these techniques, however, were not given to writing guidebooks designed to teach their techniques to others.

It was the exponential jump in industrial production that took place from the late 18th century on that resulted in large numbers of owners and managers hunting around for bookkeeping methods that would help them control production and establish selling prices. For example, among the capital goods industries, which produced equipment and machinery for other industries, it was the custom to tender bids, based on estimated costs, to people shopping for, say, railway cars.

> What was more logical than to take the next step; that is, after accepting a contract for a certain project, to keep some sort of collective details 'as to the

> costs of executing the contract in order to ascertain the profit or loss thereon, and to provide information for future estimates'? (Garner, 1968; 29[15])

(Interestingly, as we shall see later, Ontario colleges selling training are taking the same "logical step" as they find themselves in market relations organized by practices of tender.)

The railroad companies, as with other forms of accounting, innovated a number of important cost accounting techniques. These involved procedures for using accounting and statistical data to produce information about unit costs, which permitted comparisons among different operating divisions, as well as the establishment of selling prices. A U.S. railroad man named Fink, for example, created a way to compute the cost of carrying one ton of freight for one mile in each railroad division (Chandler 1977). What is most innovative here is not the technical procedure, but the concept of organizational processes as divisible into standard, measurable units of cost. Here we see the construction of a new form of objectified, text-based organizational knowledge, a kind of knowledge unavailable outside of accounting techniques that aggregate and analyze data from multiple sites, and wholly different from the local knowledge of the managers and engineers who knew how to make the trains run on time. (In Ontario colleges in the 1990s, we see something similar with the introduction of costing techniques that produce the visibility of college teaching activities in standardized, unit cost terms.)

Industrial accounts aimed at doing more than constructing the observability of costs, which at any rate was not a priority in industries that enjoyed a monopoly. A more pressing interest for owners and managers lay in controlling production and the labour process. In addition to recording financial values (e.g., cost of materials purchased and wages paid), factory accounts also recorded inventories, amounts of material used in production, and they kept track of workers – start and finish times, breaks, what jobs they worked on, how much

they produced, how much material they wasted, etc. Garcke and Fells' (1889) famous book on factory accounts offered detailed instructions about all the different ways production, materials and labour could be managed through ongoing and painstaking record keeping. Many years earlier, at textile mills in Massachusetts, records on wages and output allowed for constant adjustment of piece rates so as to increase worker effort, without actually paying more in wages (Hopper and Armstrong 1991). (Robson [1992] argues that bookkeeping practices at the time of the early Industrial Revolution made labour costs highly visible, so investment in labour-saving technology resulted in immediately visible effects; by contrast, capital over-extension did not become visible in these bookkeeping practices. This may have encouraged, he claims, the high investment in capital equipment.) In the 1920s and 30s the development of a cost accounting technique called standard costing created new text-based forms of managerial surveillance that were discursively linked with the scientific management movement, as well as the new behavioural psychology (Miller and O'Leary 1987).

Until the turn of the 20th century, factory accounts were kept separate from the commercial books that went into drawing up financial statements, finding profit and determining taxes owed. Practitioners could not figure out how to integrate the types of record, and there were some who wondered if integration of the two accounts might not make it too easy to embezzle money: separate accounts were thought to function as a system of mutual checks. Nonetheless, integrated accounts were identified as a technical goal, and accounting experts and industrial engineers, especially in the U.S., spent decades working on this project. Eventually, by 1920, more elaborate cost accounting systems and techniques

for integrating them with a company's financial accounts had been worked out and were spreading throughout the manufacturing community.

Yates's (1989) study tracing the development of textual forms of communication as a control mechanism in American companies provides useful background here. She documents the shift from oral, face-to-face communication between boss and staff, and among managerial personnel, to written forms of communication (memos, newsletters, reports, charts, graphs and tables). Apart from inventories and accounts, written organizational communication up to the mid-19th century largely consisted of incoming and outgoing letters, which were written by hand and could only be duplicated by recopying.[16] The invention and marketing of the typewriter, carbon paper and mass duplication devices such as stencils provided a technology that permitted a rapid expansion in the number and type of documents used in managing a business. Communication both down and up the hierarchy increased. Rules, notices and company bulletins could be cheaply duplicated in large number for distribution to plant workers. Managers could circulate reports and memos and keep copies for themselves. Daily, weekly and monthly reports on inventory and labour costs were prepared for plant superintendents and sent on to senior management in the main office. Such text-mediated managerial forms permitted the expansion of companies and the growth of the large corporation, in particular the multidivisional form.

A significant accounting invention dating from this period was the Return on Investment (R.O.I.). Still used today, the R.O.I. produces a measurement of a division's performance as the amount of money generated from a specific investment (that is, the money allocated by head office to that division for its operations and capital expenditures). This kind of report allows for the comparison of performance among divisions of different

sizes and carrying out different forms of production, since the particularity of their activities is replaced by standardized and interchangeable monetary terms. Albert P. Sloan (1964) described how ROI and other text-based financial controls were used at General Motors during the 1920s.

> The development of uniform accounting practice enabled us to analyze the internal condition of each division and compare one division's operating performance with another's. But what is equally important, the uniform accounting practice created guidelines, with some exceptions, for overhead-cost accounting, both for actual costs of production and for developing yardsticks for evaluating operating efficiency (p.143).

These accounting forms, and the types of organizational structure and accountability that they coordinate, came to be widespread among large corporations in the private sector. The emphasis on management coordinated through financial representations has increased in the decades since then, especially now that corporations grow through mergers and the acquisition of companies carrying out unrelated activities (Fligstein 1990). Interestingly, when we turn to restructuring at the colleges, we will see a similar kind of reorganization of accountability mediated by accounting texts that represent divisional performance in financial terms.

THE DEVELOPMENT OF THE ACCOUNTING PROFESSION

The foregoing discussion has paid scant attention to the development of the accounting profession. Accounting, in the wide sense of keeping records and using these records or analyses based on these records, within relations of capitalist investment and production, as well as in the work of the capitalist state, is carried out by many more people than are collected by the concept of an accounting profession. My initial interest was to locate accounting documents within the relations they mediate, and to get a broad sense of

change through time. The development of an accounting profession is, however, one of the important processes that figure in this story and needs to be addressed. This is a national story, or rather, a cluster of national stories, since accounting as a profession developed in different ways in different industrializing countries. My focus here is on the development of the accounting profession and its relations with the state in Canada.

In England in the 19th century there emerged a pool of men who specialized in drawing up and making sense of the financial representations of commercial enterprises. The audit requirement of the Companies Act created a regular need for specialized accounting help; that this help was available was due to a previously existing piece of legislation concerned with bankruptcy (Littleton 1966). Men appointed by the courts to oversee the liquidation and sorting out of bankrupt businesses (of which there were many in the early 19th century) gained considerable expertise with accounting representations, and they drew on this expertise to help shareholders audit their companies' books. At that time, most audits were carried out by members of the board of directors or by a committee of shareholders (Brockholdt 1978); there was as yet no legal requirement that audits be done by independent outsiders.

The first accounting association – in the world – was the Society of Accountants formed in Scotland in 1853. An English association was formed in the early 1870s, and in 1880 this association received a Royal Charter and became the Institute of Chartered Accountants of England and Wales (Roslender 1992). The first two Canadian accounting organizations were formed in 1879, one in Montreal and one in Toronto.[17] At that time, British investment dominated the Canadian economy, British company law provided the model for Canadian law, and British accounting practice was followed as well. Some of the

founding members of both Canadian associations had received their training in England or Scotland and had ties to the accounting associations there, whose rules were used as models for the Canadian associations. In 1883 the Ontario association obtained a Royal Charter and became the Institute of Accountants of Ontario (IAO, later the ICAO). These associations of professional accountants played a significant role in the standardization of accounting practice and in the widespread adoption of double entry bookkeeping.

Other accounting associations also formed, in both England and Canada, leading to struggles in the early decades of the 20th century over rights to use the designation "chartered accountant," a title that had already come to signal competence in accounting in Great Britain. In Canada, the IAO, which had a provincial charter, and the Dominion Association of Chartered Accountants (DACA), which had a federal charter granted in 1902, both had the right to designate their members "chartered accountants." Eventually they solved the conflict by merging, to make a federal association with provincial member bodies; this happened in 1909, and the result was the Canadian Institute of Chartered Accountants (CICA), a federation of provincial institutes still in existence today. They also obtained legislation which granted them exclusive use of the "CA" designation.

At the same time as these associations were forming, developing their rules for membership and examinations of competence, and attempting to intimidate, control or merge with competing accounting associations, they were also strengthening their links with government, first in order to obtain charters, and then to influence legislation. The ICAO had excellent government contacts (through family and other connections of class) and was invited by the Ontario government to consult on the drafting of its Companies Act of 1907; the ICAO's recommendations about financial disclosure and mandatory audit provisions were

followed. This Act made annual audits compulsory for companies reporting to shareholders. Prior to this, only banks, insurance companies, railroads and municipal corporations had been subject to mandatory disclosure legislation; now reporting requirements were extended to cover commercial, industrial and mining enterprises. This Act (which was very similar to the 1900 English Companies Act) represented a shift in legislative emphasis in response to concerns about widespread stock watering. Whereas previous legislation had required the disclosure of information about capital stock, directors and shareholders, the 1907 Act required corporations to provide investors with a prospectus and shareholders with audited financial statements. The Federal Companies Act of 1917 was a virtual copy of the Ontario Act. It was passed just after the Federal Tax Acts of 1916 and 1917. This is significant because the requirements of the Companies Act greatly facilitated the administration of the Tax Acts; it standardized corporate reporting and reduced the need for a large Tax Audit department by shifting the audit responsibility to the taxpaying company. The Companies Act specified what sort of financial statements should be drawn up. The statements were to be audited (at the company's expense) by an independent public accountant.

Here we have the extension of statutory disclosure and auditing requirements, developed with recommendations from the accounting associations; these called for the production of certain types of financial statement to be made available to shareholders and the state, following the witnessing of these statements by independent auditors who were not company employees, members of the board or shareholders. While both requirements created a demand for accounting expertise, the audit requirement in particular created a market for independent auditors, or public accountants. Thus it was in the years following the establishment of legislated audit requirements covering most types of companies and

corporations that the CICA concentrated its attention first on getting exclusive rights to the CA designation and then in producing a distinction between chartered accountants and general or cost accountants. This involved campaigns to construct the public image of the CA as more competent and trustworthy than other accountants (the class element was not insignificant here: CAs tended to come from a higher social class than other accountants). It also involved regularly intervening in the establishment of other accounting associations and designations, which the members of CICA were able to do because of their government connections.[18] CICA was less successful in its attempts to get the state to regulate public accounting so that only chartered accountants could do audits. It did obtain such legislation in Ontario, where many companies have their head offices; however, in some provinces public accounting remains entirely unregulated, while in others there are Public Accountancy Acts that name one or more types of certified accountants as entitled to do audits.

The state and the accounting associations have thus over the years developed an interdependent relationship. The state authorizes the associations and provides them with a steady market for their professional labours through legislated disclosure requirements; the profession provides a self-monitored expertise that mediates among the different sectors of capital and between capital and the state, at the same time reducing the cost to the state (see Cooper, Puxty, Lowe and Willmott 1989).

An important influence on accounting and company legislation in Canada came from the United States; after 1920, the U.S. replaced Great Britain as the main source of investment in the Canadian economy. The dominant accounting association in the U.S., the American Institute of Certified Public Accountants (AICPA), then came to play a stronger

role in influencing the accounting standards and practices promoted by the Canadian accounting associations.

Here the survey of accounting history ends. By 1920, the modern corporate form was firmly established and an integrated system of factory and financial accounts had been developed. The basic forms and techniques of accounting still in use today had been worked out and widely adopted. State disclosure legislation was in place, and the organization of accounting as a profession had taken the shape it still largely holds today. We are at this point ready to look at the contemporary organization of accounting as a profession and a discourse. That will be the subject of the next chapter.

CONCLUSION: SOME THOUGHTS ON READING ACCOUNTING HISTORY

The literature on accounting history is extensive. In reading it, and selecting material for inclusion in the sketch presented here, I was interested in highlighting the ways accounting documents mediate relations of ruling and commerce. This includes relations among sectors of the capitalist classes – owners, partners, investors, the state – as well as the managerial relations through which the activities of managerial employees and wage workers are supervised or evaluated. What is recorded in the account books of estates, ventures, businesses and later, corporations, intends the relations – of accountability, obligation, competition, exchange, control – in which the representation will be appealed to or read. Carruthers and Espeland (1991), in their review of accounting history since the development of DEB, examine what they call the rhetorical work of accounting documents. They look at who is addressed by the texts, and what questions the texts are assembled to answer. They note a widening circle of intended/implied readers – from the single owner supplementing

her or his memory and checking up on the clerks, to the partners working out a fair division of the earnings, to investors making decisions about where to invest their capital.

From this perspective, in researching accounting history, I was interested in the conceptual and textual practices that organize the construction of accounting texts within these varied relations. What did people find they needed to be able to make claims about? On what basis could dividing earnings be done in a recognizably fair way? What would suggest well-managed business practices when scrutinized in a court of law? Against what legislated disclosure requirements could the company's books be evaluated? And so on. We see how, from the mid-18th century on, business owners and their clerks played around with numerous textual possibilities as they worked out "income" and "capital" as bookkeeping entities in theoretical and representational relation to each other; and we see the changing relations of business within which this representational project would have made sense to the people pursuing it. Similarly, the growth of the modern corporation, with its layered hierarchy and the distance between owners and managers and between both of these and the actual work of production, was enabled by the textual forms of cost accounting and other representational forms that track production and report on it in abstract terms that can be used by managers far removed from the shop floor.

In researching and telling this story, I have drawn on what might be called the traditional accounting history literature as well as the recent work being produced by critical accounting theorists. Mainstream accounting history offers a rich treasure of detail about the operations of a specific textual practice, as well as about the forms of business that prevailed in past times. However, traditional accounting historians have a tendency to cast their stories within a functionalist frame of explanation. A historian writes with the benefit of hindsight.

We know what happened, and we know how accounting forms have developed over time, so it is not uncommon to read back through that knowledge and see changes in business organization and changes in economic conditions calling out the necessary accounting response.[19] Chatfield (1974: 3), for example, describes accountancy as "a mirror of socioeconomic development." (Parallelling this explanatory spin is a tendency to view the history of accounting as a steady march of progress and the evolution of greater representational adequacy.)

From the perspective of the social ontology informing my research, this kind of explanation is unacceptable because it misses the way the social is put together by individuals making sense and coordinating their activities. I don't want to dispense with a vocabulary of need altogether, I just want to attribute it, at least in principle, to the actors who looked at what was happening around them, who anticipated occasions of communication (explaining, justifying, etc.) with other individuals, and who drew on all the interpretive and textual resources at their command in order to determine what they "needed" to be able to record and represent in their accounting documents. When we make this conceptual about-face, so that we are standing with the makers and users of accounting documents, looking out into a social world constantly being shaped around them and with their efforts, we can start to see the active work that went into developing representational forms, and we can see their strongly contingent character.[20] They could have developed differently. That they did not is not best explained by reference to the functional needs of the economy or the large corporation, or by considering only the relations of commerce narrowly conceived, but by looking at wider discourses of knowledge, current intellectual fashion, and current practices of writing and displaying information.

This is the project of the "new accounting history," which is characterized by Miller, Hopper and Laughlin (1991) as "posing new questions" (p. 395) and abandoning "the image of accounting practices developing in a linear fashion towards greater accuracy and truthfulness" (p. 399). Rather than narrowly examining accounting practice at a specific place and point in time – what did people do then, how, what was changing – the new accounting historians are interested in the "conditions of possibility": how it was that these forms of accounting were possible to their practitioners. Conditions are understood broadly to include "the conditioning effects of capital accumulation, changing modes of social regulations, or more local and ad hoc influences such as wars, periods of economic decline, labour disputes and so forth" (p. 396).

For example, Hoskins and Macve (1994) point out that most of the men who pioneered the practices of the modern corporation in the U.S. (such as Fink of the railroad mentioned above) had been educated at the U.S. Military Academy at West Point, which had offered since 1817 an educational regime characterized by extensive student records, forms of documentary supervision and graded examinations. Modelled on the French Ecole Polytechnique, this way of organizing and managing the business of education was entirely new in North America, although it is now the dominant organization. "It was individual graduates of this regime who translated its disciplinary practices into the business arena, thus initiating the first managerial businesses" (p. 71). Hoskin and Macve are here arguing for the significance of wider discourses of knowledge and examination in the development of accounting. While I find this argument persuasive, I think Hoskin and Macve are too quick to cancel attention to the economic relations within which these West Point graduates found their school experience to provide a relevant resource.

The survey presented here blends these two approaches in a social organization of knowledge perspective. I think economic relations do matter, and I want to see how they are coordinated by conceptual and textual forms. But I recognize the value of seeing how the conceptual possibilities of accounting arise in wider discursive and technical practices, such as new forms of administering education. I particularly appreciate the way the new accounting history emphasizes the workings of accounting as a representational practice of social control.

In assembling this historical narrative, using other people's research, I have tried to be consistent with the sociological approach I took to examine what was going on with the restructuring of post-secondary education in Ontario in the early 1990s. The historical perspective is relevant to a sociological study because of what it helps to show about how accounting practices construct a specific visibility within specific relations of ruling, which are themselves the ongoing accomplishment of individuals located in wider discourses of knowledge, text-mediated relations of ruling, forms of business organization and exchange.

CHAPTER FOUR
ACCOUNTING AS A MODE OF KNOWLEDGE

This chapter continues the investigation of accounting as a conceptual and documentary practice. The focus is now on the present day. The chapter begins with a look at the organization of the accounting profession and at accounting as a body of knowledge and recognized set of practice categories (e.g., financial accounting, auditing, managerial accounting, etc.). The main part of the chapter is given over to a description of the basic conceptual structure of accounting as a representational technology. It concludes with a reading of the financial statements of Fulton College.

ACCOUNTING TODAY

The organization of the accounting profession today follows the shape worked out during the first century of existence of accounting associations and the concurrent development of statutory requirements bearing on financial reporting and audits. Accounting remains a "reserved title" profession: members have exclusive rights to titles bestowed by chartered or incorporated associations but do not have exclusive rights to practice, except in the case of auditing, and then only in some jurisdictions. Accounting associations serve as self-regulating, qualifying bodies providing nationally standardized training and examination programs leading to the designation or certification that is exclusive to their particular association. Some accounting associations train their members to specialize in defined areas of accounting, such as cost accounting, industrial accounting or management accounting.

These specialists are mainly employed in private or public sector organizations, where they work at producing and interpreting accounting documents on behalf of company or agency management. Other accounting associations train and certify their members as generalists, capable of preparing financial reports and doing auditing as well as cost and management accounting. In Canada, the two generalist associations are CICA (the CAs), and the General Accountants of Canada (the CGAs). Members of these associations can be employed as financial or cost accountants in the private and public sectors, sometimes in senior management positions; they also go into business providing services to clients, or join one of the large public accounting firms.

The accounting associations distinguish two types of public accounting, which means accounting done by an independent professional who is not on company or agency payroll. Two-party services are those where the beneficiary of the work is the client who contracts with the accountant, to prepare her tax statement, for example, or to consult on setting up an accounting system. Third-party services are audits; here the priority beneficiary is not the client, but all the actual and potential users of the client's financial statements (investors, lending institutions, creditors, government, etc.), whose reading of these statements will be guided by the auditor's published opinion of them. By assessing the financial statements and making a statement attesting to their "fairness" as a representation of the entity's financial affairs, the auditor is understood to be rendering a service in the "public interest." In the case of the private sector, the "public" served is essentially the investing public: public accountants produce the accountability of companies to finance capital and government (Montagna 1990, Cooper et al. 1989). State agencies and non-profit organizations, which are responsible for the stewardship and appropriate use of public or charitable funds, also rely

on public accountants to help produce their accountability to relevant government offices and the "general public."

The history of the development of an accounting profession and its relationship with the state has taken shape differently in the advanced industrial countries, with Europe and Japan following a slightly different route from Britain, Canada, Australia, New Zealand and the U.S. However, all major capitalist countries have a public accounting function, that is, auditing, and at least one training/qualifying body.[1] In Britain there are six main accounting qualifying associations, of which four share in a legislated monopoly on audit work. In Japan and Europe, accounting associations as qualifying associations are mainly concerned with producing public accountants who do auditing and prepare financial records, rather than training people to do accounting work as employees in the private or public sectors. An interesting contrast between the U.S. and Canada is the relationship of the dominant accounting bodies to the state. In Canada, the CICA has enjoyed close government links and influence; although it has obtained an audit monopoly in only some provinces, it has a nationwide, standard-setting monopoly. In the U.S., public accountants, as CPA members in good standing, must in addition be qualified by state accounting boards in order to practice, and accounting standards are not left entirely up to the accounting profession; there is a federal agency, the Financial Accounting Standards Board, which includes representatives from business as well as from accounting associations.

Accounting is a global discourse. Although statutory requirements are set by national legislation, and the standards that apply in drawing up financial reports and auditing them are set by some national body or bodies, whether this is left up to the accounting profession as in Canada or an independent agency as in the U.S., accounting as a mode of knowledge

and set of techniques is common to all these national settings. There are international accounting associations, of which the most important is the International Accounting Standards Committee (IASC) which was established in 1973 and has as members sixty accounting organizations from forty-eight countries (Larson et al, 1990:17). These organizations are signatories to an agreement that gives IASC authority to formulate standards and to promote them internationally. The work of IASC is a resource behind the standard-setting work happening at the national level. As well, there are international associations of academic accountants, who meet regularly in conferences, publish academic journals and conduct an international scholarly discourse.

Another set of international relations arises through the handful of big public accounting firms which play a dominant role in shaping the accounting profession and accounting standards worldwide, as well as shaping and standardizing business practice. These are multi-national partnerships where tens of thousands of accountants work as partners or staff. They do auditing, generally for the large corporations, and they also provide management consulting services and tax advising. With the restructuring and globalization of industry and financial markets, there has developed an active market in management consulting. The audit market is fairly stable, and profits therefrom are necessarily restricted. By getting into, and indeed sponsoring, the management consulting market, the big accounting firms assured themselves access to a greatly expanded field of potential earnings. (Whether the apparent neutrality and trustworthiness of the auditor's comments are jeopardized when the same accounting company also provides management consultancy to the company whose books it is auditing has been a topic of much debate and policy attention; see Montagna 1990.)

The market in management consultancy has also benefitted from the push to privatize and restructure in the public sector. The Government of Ontario recently paid Andersen Consulting $180 million to make recommendations on how the Ontario government could restructure welfare. Andersen Consulting, which employs fifty-nine thousand people in forty-six countries, specializes in restructuring, in particular the "re-engineering" of social security and welfare systems (CUPE 1999). Coopers & Lybrand have a Higher Education Section that specializes in consulting with colleges and universities, helping them undertake business process re-engineering projects. Here we see another aspect of privatization: private consulting businesses have more access to public money as fees paid to them for helping the public sector to become more businesslike and use less public money on social services.

Montagna (1990) reports that the big accounting firms in the U.S. hire about two thousand people each year, graduates recruited from the most prestigious university accounting departments. These new employees go through an internal training program leading to their CPA certification and then move up the internal career ladder in the firm. The usual route from entry to partnership in the firm is about nine years. However, only a small portion of accountants working in the firm are offered partnerships, about one in seventeen. Those who don't make partner are expected to leave the firm; most of these obtain positions in government, in the military, in industry (their training in the big firms makes them desirable candidates for these jobs). The big firms thus act as a training ground for the people who will be in charge of accounting departments throughout the private and public sector. This process ensures regular links between client organizations and accounting firms, since financial officers tend to give their company's audit and consulting business to the firm where

they themselves trained.. It also strengthens the homogenization of accounting standards and practice, and the links among the accounting profession, private business and the state.[2]

ACCOUNTING AS A BODY OF KNOWLEDGE

Each association offers some kind of nationally standardized training or examination leading to membership and the right to use the association's designation. There are also multiple ways that individuals can learn accounting or bookkeeping without enrolling in a program meant to lead to certification. High schools offer rudimentary bookkeeping in their commercial programs, colleges and universities offer courses in bookkeeping and accounting, as do various adult and continuing education programs. Training programs for people planning careers as managers, independent professionals or small business owners will often include a course in the rudiments of accounting. Accounting knowledge is not institutionally restricted. This is due not just to the way the profession and the relevant legislation have evolved, but is shaped by the very nature of the knowledge practice and the relations in which it is used. Accounting documents are read and acted upon by many more people than are involved in drawing them up. Financial statements are constructed to address a reader who is not necessarily another accountant, but who knows how to operate the interpretive schema intended by the text. This is a clearly formulated principle of accounting standards: accounting information is to be presented in a form that can be understood by its users, who are assumed to be trained in the interpretive practices intended by accounting statements, or to have the motivation to acquire this skill (Larsen, Zinn, Nelson 1990). Thus, accounting textbooks address themselves to two sets of students, those who are planning a career in accounting and those who anticipate a career (as investor, manager, entrepreneur)

in which they will be regular consumers of accounting services and readers of accounting reports.

Accounting as a body of knowledge – a set of principles, standards and techniques – is common to all the different associations and educational possibilities. There are two components to the set of accounting standards: GAAP (Generally Accepted Accounting Principles) and GAAS (Generally Approved Auditing Standards). In Canada, GAAP and GAAS are codified in the constantly updated CICA Handbook, which has quasi-legal status. The Canada Business Corporations Act of 1975 requires that financial statements and auditors' reports be produced according to the recommendations of the CICA Handbook. All financial accounting work done in fulfillment of statutory requirements, whether done by CAs, CGAs, RMAs, etc., must according to this legislation follow CICA Handbook guidelines. This gives the CICA a standard-setting monopoly. Members of other accounting associations sit on the Accounting Standards Committee that draws up the Handbook recommendations, but they are in the minority.

There are two main types of accounting, when considered from the perspective of statutory requirements. One type, financial accounting, is performed in fulfillment of legislated obligations; this includes the various financial statements that incorporated agencies and businesses must make available to shareholders, state agencies or other third parties, such as funders and lenders. These are the documents that mediate inter-organizational relations of state and capital. Usually, the types of statements that must be prepared are stipulated in the legislation under which an organization has been legally incorporated. Legislation also requires these statements to be audited by an independent auditor following the CICA Handbook guidelines on GAAS.

There are two basic work processes in financial accounting: bookkeeping and financial reporting. Bookkeeping involves recording events and transactions in monetary terms using techniques of double-entry bookkeeping (this can be done manually in a ledger or on computer using accounting software). Much of this work is done by clerks and bookkeepers, rather than by certified accountants. Reporting involves taking this data, combining and assembling it in texts that will be used in inter-organizational relations of accountability according to statutory requirements. It is this latter that is customarily the work of accountants. Some standard statements for profit-seeking businesses are the Income Statement, the Balance Sheet, the Statement of Changes in Owners' Equity and the Statement of Changes in Financial Position. Standard statement forms for non-profit entities include the Statement of Financial Position, Statement of Revenue and Expenditure, Statement of Operating Fund Balance and the Statement of Capital Fund Balance. These statements use standardized categories and formats on the page, down to the wording and layout of the titles.

Auditing is a process of scrutinizing such financial statements and the intermediate documents they are based on, for the purpose of delivering an "opinion," which follows standard wording and is signed by the auditor. This authorized opinion text is then published as part of the financial statements or annual report. There are two types of audit, each yielding a differently worded opinion. In one type, auditors are supposed to check that financial statements are adequately supported by the books, and that the entries in the books (or computer programs) are supported by documents such as invoices, cash receipts, bank deposit slips, etc. In the most thorough (and expensive) type of audit, the auditor also assesses the adequacy of the financial accounting system set up for the company and the quality of its day to day operation. Auditors can also be hired to assess and give opinions on

reports other than financial statements; these are usually reports using quantitative displays of information that have financial consequences. For example, publishers of periodicals have their circulation figures audited to provide potential advertisers with a trustworthy count of how many readers they will reach. Similarly, in the Ontario college system, colleges must have their enrolment figures audited before submitting them to the government; their operating grants are based on these figures.

The other type of accounting is unregulated: it is not being produced for external reporting and is not performed in fulfillment of legislated requirements. This is management or cost accounting. It includes various kinds of report, produced for managers and boards of directors, that represent the activities of the agency or company as objects of knowledge within relations of managerial control. Such information is used, for example, to monitor cash flow and budgets, make decisions about the allocation of resources, establish selling prices and evaluate the managerial effectiveness of individual managers by comparing the profits of their divisions (e.g. R.O.I.). This accounting can be done however the company managers want it done, drawing on the management accounting techniques that are available to trained management accountants. It makes use of bookkeeping records that are established and kept as part of the documentary practices that lead to the production of statutory reports; a company that does both types doesn't have two separate systems. However, data will be gathered for managerial accounting that are not required for the financial statements, including data not in monetary form, such as inventory expressed in numbers of items or labour measured by hours of work.

ACCOUNTING AS A CONCEPTUAL AND REPRESENTATIONAL PRACTICE

The focus of this discussion has been on the organization of the relations within which accounting techniques and standards are developed and regulated. What kind of records are produced and how they are worked up into accounting reports has not been explored. That is what comes next. The account of accounting that follows has been prepared for readers who are familiar with a social organization of knowledge approach, but less familiar with the actual practice of accounting. It expresses what I have come to understand through my formal study of accounting as well as through my own administrative experience.

When I set about learning what I could of the conceptual and textual practices of accounting, I chose to enroll in continuing education accounting courses at my local community college. The continuing education calendar offered different routes to accounting knowledge: in the Office Administration program stream there were courses in bookkeeping; Business Administration offered courses in accounting; and there was an Accounting Program that offered a more extensive set of courses, including the option of accelerated courses that covered ground more quickly. The course calendar included a chart showing the correspondence between the college's courses and course requirements leading to CGA certification; a student could take accounting courses at the college and transfer those credits over to the CGA training program.[3] I decided to enrol in an accelerated accounting course which met for three hours two nights a week. I chose "accounting" rather than "bookkeeping" because I worried that the latter, directed at people being prepared for clerical occupations, would stint the conceptual underpinnings of accounting as a documentary practice in order to emphasize drilling in correct procedure. I registered for the first course in the sequence, Financial Accounting. When I had completed that course, I took Managerial

Accounting, since my fieldwork was mainly concerned with program costing, a type of managerial accounting. I do not pretend to be an accomplished accountant, but I have learned how to "think" accounting and read accounting texts,[4] and for the purposes of this study, that conceptual orientation is the essential piece.

Accounting is a conceptual and textual practice that assumes (and helps to constitute) specific relations of property, obligation, accountability and control (i.e., forms of ruling). It does this through creating records of events of economic exchange and redistribution,[5] and various forms of analytic report based on these records.

As an objectifying form of knowledge, accounting has two main elements. One is a system of categories and concepts and classification schemes. These occur in verbal language. The other is numerical representation, primarily in units of monetary value. (Numbers in ordinary use aren't wholly outside language, since we think about numbers, and name and speak of them using language terms; but we use a separate set of symbols for writing the names of numbers – that is what I mean by numerical representation). An accounting text always contains both words and numbers. The words anchor the numbers; they identify the categories of event or object that have been counted up and represented numerically, and they locate these countings-up within the conceptual schema. Accounting figures ("the numbers") only make sense to users as they can be referred to classes of notional things (e.g., profit or current assets), and importantly, as these things can be located as existing in time (which is why accounting documents always claim to show figures for a particular time period, or for a specific day).

Accounting as a representational system used in any one organization begins with the establishment of a set of accounts. An account is a textual entity used for collecting and

sorting records about certain classes of activity concerning (or accomplishing) the organization. In this system of inscription, a key concept is the "transaction." A transaction is constituted through a bookkeeping entry, which represents it as the movement of monetary value into, out of, and between distinct accounts. Every transaction is recorded in an entry that involves at least two accounts (that's why it's called double-entry bookkeeping). Here then we see the first stage in the process of creating objectified knowledge. Out of the ongoing flow of organizational activities, certain events and activities are identified as potential "transactions" for the bookkeeping records. Then, through standardized processes of inscription, the events, textualized as "transactions," are recorded in abstracting and standardizing terms.

Each entry consists of several steps. The first step enters the transaction into the developing chronological narrative of transactions. This entry records the following information: the date of the entry, the names of the accounts that are being affected by the entry, the monetary values by which they are being increased or decreased and possibly a brief description of the purpose of the entry in condensed and standardized terms (e.g., "To record depreciation for January"). Then, either at the same time or at a later date, the information from that entry is copied into separate records pertaining to each of the accounts mentioned in the entry. In former days, entries were done by hand, written into journals and ledgers. Now most organizations, even small businesses, use computerized accounting systems, so making entries is done at a computer terminal. The categories and relationships among accounts remain the same. The bookkeeping entries create the record of an action without a subject, or rather, they record transactions as the autonomous movement of money into, out of and between accounts.

It is the recording system itself that constitutes occasions of organizational activity as event-transactions. The conceptual schema guides the selection of occasions that ought to be recorded as transactions, as well as suggesting which accounts are to be activated via the recording entry. When one learns accounting, this is what one learns: not only how the recording system works, but how to see the activities of the organization as falling into two main categories: transactions and by default, not-transactions. All transactions can and should be recorded in the accounts.

The next key concept and textual device to examine is the account. There are three types of account in DEB, and they all stand in relation to each other in representationally significant ways. There are asset accounts, liability accounts, and equity or fund accounts (these latter accounts differentiate for-profit from non-profit organizations, although they function the same way in relation to the other two account categories). Every account has a name that, to knowledgeable users, indicates what sort of account it is and what sort of event-transcriptions it will collect. In computerized accounting systems with large numbers of accounts, it is common to assign identifying code numbers to accounts in addition to names. Textually, an account involves a type of two-sided log. All the different account-logs are assembled in what is called a ledger (even if it is a box of file cards or storage space on a computer disk). When written into a book or printed out from the accounting software, amounts that are meant to increase the total value of the account are recorded on one side of the log, and amounts that meant to decrease the total value are written on the other side. When these are aggregated, the sum of the decreases in subtracted from the sum of the increases.

Asset accounts represent pots of money or accumulations of value. They are used for recording the amounts of money and the monetary value of things the organization owns or is legally owed by other entities. Cash on hand and in the bank, money owed to the organization, services the organization has paid for but not yet received (e.g., insurance), land, buildings, equipment, and investments: these are all represented in asset accounts. A separate account is kept for each type of asset. Into the account are inscribed records of every transaction that is perceived, according to the accounting schema, to affect the combined values of that class of asset. This category of account intends prevailing relations of property and entitlement; the organization holds legal claim to these assets.

Liability accounts collect accumulations of debts or future obligations. This would include money the organization owes, bills received but not yet paid, revenue received in advance for goods and services not yet rendered, leases on buildings and equipment, vacation pay earned by employees but not yet taken, among others. Liabilities represent legal claims on the assets recorded in the asset accounts. Under Company law, creditors (the organizations and people owed money, goods or services as listed under liabilities) have first claim on assets – that is, in the case that the organization does not meet its obligations or is going bankrupt, the creditors can under law force the sale of the assets in order to obtain payment of the debt owed them. This category of account highlights and intends inter-organizational relations of entitlement and obligation, as enforced through the judicial system.

The last remaining category of accounts is called equity in the case of private sector businesses and fund balances for non-profit organizations. Here is where an important distinction comes into play. Equity accounts represent the ownership of the entity's assets

as divided among different individuals, in the case of a partnership, or as types and units of ownership in the case of publicly-traded companies (so many units of common shares, so many of preferred shares). The entity owns or has rights in its assets, but specific individuals or other organizations own the entity, or portions of the entity, and have rights to a share of the profits according to their shares of ownership. This category of account keeps track of the monetary values of the entity in ways that sort them according to the various categories and portions of ownership and investment.

Non-profit and public sector organizations are incorporated as distinct entities, but they are not owned by specific individuals having property rights.[6] (Public sector organizations are in theory "owned" by the public, but this is not a matter of specific rights for specific individuals.) Nor are they operated to make profits that will be transferred to individuals or other organizations. Nonetheless, the same tripartite classification of accounts is used, except that the last category usually represents different sorts of funds, such as operating funds or capital funds. Non-profits and public sector organizations get their main financing not through investment but through redistribution, a transfer of money in the form of donations or funding. This money may be designated for types of use. So for non-profits, this category of account represents pots of money (e.g., unspent operating funds) and accumulations of the value of capital spending (on buildings, equipment, etc.). This latter category is necessary in order to make the books balance according to the double-entry system. It isn't relevant in the way that invested capital as a distinct category is relevant to for-profit accounting, as we shall see.

The equity/fund category highlights accountability to the people and organizations that put money into the organization, either as an investment from which they expect to make

money, or as a grant or donation to a non-profit organization performing some kind of public service. The whole ensemble of accounts intends relations of obligation to the state (taxation), and relations of accountability to regulatory commissions dealing with registered charities and publicly traded companies, to citizens/taxpayers/general public in the case of public sector organizations, to funders, and so on.

While these categories comprise distinct sets of accounts, they are not collecting different things. The accounts organize ways to represent the same "thing" in two or more ways, under different guises, from different perspectives of relevance. Asset accounts, we have seen, collect what an entity legally possesses. Yet every amount listed in the asset accounts is also subject to property and obligation claims from other organizations or individuals (creditors, owners, investors, funders). So each amount entered as an asset is also entered at the same time in either a liability account or an equity/fund account. Thus, the financial value of everything in the various asset accounts is mirrored by the combined listings in the liability and equity or fund accounts. Here's another way to put that: asset accounts collect and represent what an entity has by type of thing. Liability and equity/fund accounts reference the same objects and claims, but list them in terms that highlight the ownership or claims that others have on those assets. To do this, they eliminate the distinction into type of thing, and instead set up categories of type of obligation or ownership.

The relationship between these accounts, as they intend and express specific relations of property and entitlement, is written mathematically thus: Assets = Liabilities + Owners' Equity/Fund Balances. If you aggregate all the accounts in the different categories, you will get figures that are mathematically related to each other in the way expressed by these

equations. An inversion of the same equation, A – L = OE/FB, expresses the legal privileging of liability claims over the claims of the entity's owners and investors.

There is another set of accounts that requires special mention. Within the technical and conceptual structure of DEB they are a subset of the OE/FB accounts. However, they are also a separate class of account called "nominal" accounts. The other accounts just described are "real" accounts. "Real" or "permanent" accounts record increases and decreases to the values of possessions, entitlements and obligations. As long as the organization possesses a type of asset or a type of liability, the account representing the values of that asset remains "open"; amounts may be added or taken away, but the account goes on as long as there is something in it. "Nominal" accounts are temporary accounts that are used to collect records that then get aggregated and posted to an equity or fund account on a regular basis (monthly or yearly), at which time the collector account is empty and ready to start again. There are three main categories of temporary account: revenue accounts, expense accounts, summary accounts and withdrawal accounts. (Withdrawal accounts will not be discussed here, as they are mainly used in partnerships or sole proprietor businesses.) Revenue accounts are virtual pots of money collecting entries of money received or earned doing whatever the organization does. There may be a number of these for different sources of revenue. Expense accounts are virtual negations of pots of money. Here is recorded all the money the organization pays out in conducting the work of doing what brings in the revenue, or is the mandated work of a non-profit organization. There are expense accounts for rent, office supplies, salaries, materials purchased, etc. At the end of each accounting period (usually a month or a year), the different revenue and expense accounts are totalled and then "closed out" to an intermediary summary account (the total is moved to the other account, and the

temporary account starts again from zero). In the intermediary account, the revenue accounts count as increases and the expense accounts count as decreases, with the result that the intermediary account can be summed up in one figure, which is either a positive or a negative number. This figure is then added to or subtracted from an equity/fund account, such as the retained earnings account or the operating fund account.

By operating this subcategory of feeder accounts, the accounting system is able to produce the visibility of "income" and "capital" as distinct entities. It is the information logged in the collector accounts that is used to prepare the income statement, which shows aggregate activity in the revenue and expense accounts over a specified time period. The balance sheet, on the other hand, uses the permanent accounts to produce a more static picture of property and obligation at a specific moment in time. But before looking at the texts produced from the inscription of entries into the various accounts, I want to look more closely at inscription as a work process.

BUILDING UP ACCOUNTING RECORDS – THE ENTRY AS INSCRIPTION

I have described how the bookkeeping entry as the record of a "transaction" represents certain organizational activities, and only certain aspects of those activities, in the abstracting and standardized terms of the discourse. This work of inscription, however, the "entry" point where organizational events are entered into the textual time of the accounting system, is in fact the culmination of extended work processes that prepare for that record-making.

The recording system involves procedures and policies for ensuring that all the activities carried out by individuals acting on behalf of the company, and that are potential

event-transactions according to the accounting schema, get documented in ways that intend the bookkeeping entries that will be made about those occasions — and that this documentation gets to the people doing the bookkeeping. The accounting staff who make the entries do not see or know about these occasions except as they are reported to the accounting department through documents that have already begun the translation of the event, as an occasion of coordinated activity, into the abstracted and standardizing terms of the accounting discourse. So there are purchase orders and petty cash receipts and cash register receipts and cheque requisition forms and materials withdrawal vouchers, and so on. It is in fact in the preparation of these documentary traces of activity that the initial abstracting move is made.

Here is an example of a work process spinning off numerous documentary traces of activity, some of which end up in the accounting department and provide the warrant for an inscription in the account records. In describing this work process, I am drawing on my experience as the administrator in charge of purchasing in a non-profit social service organization. The work process is initiated when the mail room clerk, who stores office supplies, comes to tell me that we are running low on pens, scotch tape and paper clips and that the computer room staff are asking for more printer ribbons. I call up the supply company salesman who handles our business and order the requested supplies. (At his end, he initiates whatever paper work will authorize the release and shipment of the supplies and charge them to our account.) The next day, a delivery truck drives up to the loading dock that opens onto the mail room. The driver dismounts, carrying two boxes which he takes into the mail room. The mail room clerk and the driver greet each other (the driver has been working this route for years). The driver hands over the boxes and passes his clipboard to the clerk,

who signs to indicate receipt of two boxes. The driver, having obtained the necessary documentation of his accountable work, leaves. The clerk opens the boxes and removes the packing slip enclosed with them. This slip lists the items ordered and, supposedly, delivered. The clerk checks the items off against the list, and upon discovering a match, signs her name. She puts the supplies on the shelves, and then she carries the box of ribbons up to the computer room, stopping along the way to drop the signed packing slip off at my desk. I stick the packing slip into a file folder containing other such proofs of delivery.

A week or so later, while sorting the mail, the mail clerk takes up a bill from the office supply company addressed to Accounts Payable at our organization. She puts it with the other bills, and delivers them to the accounting department. There, the bills are opened and sorted. When the clerk opening the mail comes across the bill from the office supply company, she puts it in an interoffice envelope and addresses it to me. The next time the mail clerk is doing her rounds, she collects this envelope and drops it off at my desk when she gets to my floor. As I am going through my mail, I open the interoffice envelope and discover the bill from the office supply company. I then open up the file folder of signed delivery receipts and fish out the packing slip that matches the invoice. They look alike, having been generated by the same computer, except that the invoice copy says "Invoice" and lists the prices for each item and the total amount owed. I check that the items and amounts of items match, and then I sign my name across the invoice. I also write the account code number for the Office Supplies Expense account. (I have been given a list of all the account codes used in the organization, and I know which codes my purchases are logged under. If in doubt, I just sign and let the accounting staff fill in the code.) Then I take the signed invoice and the

signed packing slip, paperclip them together, put them in an interoffice envelope addressed to Accounts Payable, and put the envelope in my "out" tray for the mail clerk to collect.

When the accounts payable clerk gets the envelope and discovers its contents, she puts them on a pile with other invoices ready for payment. That afternoon, she logs into the computerized accounting system, and following its prompts, she makes the inscription into the accounts: she enters the date, the amount of the bill, the name of the supplier, and, by typing in account codes, indicates which accounts are to receive the activity: decrease Cash, increase Office Supply Expense. The software she is using has a cheque-printing function, so as part of making the entry she also generates the printing of a cheque. When all the cheques are printed (for she does a bunch of invoices at a time), she separates the cheques and clips together each cheque with the documentation that warrants it: in the case of the office supplies, the signed invoice and packing slip combination. She then takes the pile of cheques and warrants to one of the senior administrators who is authorized to sign cheques. That person goes through the pile, sometimes just signing a cheque, sometimes examining the documentation before signing, perhaps putting aside a cheque for questioning. The office supply cheque excites no interest or concern, being quite routine, so the administrator signs it quickly and passes on to the next cheque. Sometime later, the accounts payable clerk comes by to pick up the signed cheques. Back in the accounting office, she tears off the stub part of the cheque that the organization keeps for its records (showing the cheque number, the date, the amount, who it was issued to), and puts the other part of the cheque into an envelope to be mailed to the supplier. The work sequence ends when she puts the cheque stub, the invoice and the packing slip, still clipped together, into the file where paid invoices from this particular supplier are kept.

And there you have a sketch of a work process that generates its own textual visibility and that is inscribed in the accounting system as a single event, a transaction which shows the purchase of office supplies as the movement of monetary value, dated the day of the entry. Paralleling this work process is the work process going on at the supply company. We see glimpses of that work process where it intersects ours, especially in the exchange of documents. Over at the supply company, the inscription into the accounting system at the time of the order would have been Decrease Inventory (an asset account), Increase Accounts Receivable (another asset account), Increase Sales (a revenue account). When the cheque from our organization is received by their Accounts Receivable clerk, the entry is Increase Cash, Decrease Accounts Receivable.

The accounts are built up from work sequences like this one, involving various departments and activities, but all having the same essential character of textually producing their visibility as a single event-transaction without a subject. This system of sorting entries into categories aims at the next stage: taking the entries in each category, aggregating them, and then displaying them on a page in combination with the aggregated entries from the other categories. This is the production of financial statements and analytic reports. In this chapter I will be describing two of the financial statements drawn up in satisfaction of statutory reporting requirements. The intermediary material of the bookkeeping entries is also used to prepare management accounting reports. That process will be discussed in chapter seven.

THE FINANCIAL STATEMENTS

Let's look at the financial statements for Fulton College. They are printed up in bulk, with spiral bindings, for distribution to state agencies, the board of governors, and indeed anyone else, such as myself, who asks for a copy. The whole spiral-bound report is about half

an inch thick. The first page after the title page contains a table of contents, which is a list of six different sections. The first section offers the financial statements; these are the main, legislatively required reports, and they are followed by several pages of explanatory Notes and Schedules. The next five sections offer what is called supplementary information to do with specific activities or funds, such as apprenticeship training costs or the Fulton College Foundation. Each section begins with a copy of the auditors' report on the material of that section. This report takes the form of a letter addressed to the Governors of Fulton College and printed on the letterhead of the firm of chartered accountants that conducted the audit.

Here is the auditors' report for the first section of financial statements:

To the Governors of Fulton College of Applied Arts and Technology

We have audited the statement of financial position of Fulton College of Applied Arts and Technology as at March 31, 1991 and the statements of revenue and expenditures, operating fund balance, capital fund balance and restricted funds balance for the year then ended. These financial statements are the responsibility of the College's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

As described in note 1(d), the College records vacation pay as salary expense upon payment rather than adopting the accrual basis as required by generally accepted accounting principles.

In our opinion, except for the effects of the College's failure to account for vacation pay on the accrual basis as described in the preceding paragraph, these financial statements present fairly, in all material respects, the financial position of the College as at March 31, 1991 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles.

> Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in Schedules 1 through 8 is presented for the purposes of additional analysis and is not a required part of the basic financial statements. Such supplementary information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.
>
> The comparative figures for 1990 were reported on by another firm of chartered accountants.

The letter is signed by hand with the name of the firm. The names of individual auditors do not appear.

The paragraph organization and wording of this letter is standard for both Canada and the United States. While certain sentences have been included to address individual particulars of the statements – e.g., the third paragraph, the reference to Schedules 1 through 8 – the placement of these comments in the sequence of the letter as well as the wording used also follow a standard format. (See Siegel, Shim and Dauber 1988). This is an instance of an audit opinion "with reservation." It likely posed no problems for the college with respect to its relations with its funders. On the other hand, as we shall see in the next chapter, Ministry guidelines stipulate that the auditors' opinion regarding a college's enrollment count must be "without reservation."

Notice that the letter refers to generally accepted accounting principles and describes the audit as involving an assessment of the accounting principles used in preparing the accounts. Before turning directly to the statements, let us pause to consider accounting principles. Accounting is learned as a set of techniques which are to be chosen from for use in actual circumstances with reference to a set of concepts and principles.[7] These concepts and principles establish representational conventions and priorities. Specific accounting

techniques are explainable or justifiable as instances of the concepts and principles, and, as the auditors' letter makes clear, it is against the template of these principles that departures from proper procedure become visible.

Representational Conventions

There are four main conventions. They are called in the discourse "the business entity concept," "the continuing concern concept," "the stable-dollar concept," and "the time-period concept." The "business entity concept" textualizes the legal construct of an organizational entity as something separate from the people who own it or run it. In the early days of mercantile capitalism merchants kept their household and commercial accounts all together in the same books. We have seen how the development of new business forms and the interest in limited liability led to legislation and accounting practices that produce organizations as distinct entities.[8] The representational practices of accounting are key elements in the text-mediated relations that establish organizational boundaries. As a concept in accounting, the "business entity concept" functions as a resource for making decisions about what should or should not be recorded in any set of accounts.

The "continuing concern concept" also comes out of the historical trajectory traced in the previous chapter. This is the assumption that entities (corporations, partnerships, state agencies) are set up to exist indefinitely into the future – unless, in specific cases, one knows otherwise. We have seen how the joint stock companies had to create accounting and organizational forms that were different from the usual venture form of organization, where frequent liquidation was the standard practice. Accounting reports that intend this concept are set up to facilitate answers to questions relevant to a continuing organization, such as:

how is it doing? should I invest? should we initiate a hostile take over? We will see below how this continuing-concern assumption determines and justifies central accounting conventions, such as that of recording all assets at "historical cost," which means the actual price paid at the time of purchase, instead of showing the assets' present value.

The third concept, the "stable-dollar concept," assumes for representational simplicity that the dollar, or whatever monetary unit is used, is not a fluctuating measure. Not only do balance sheets show historical costs for assets such as buildings that may be worth triple that value now, but there is no attempt to make alterations in the balance sheet to reflect changes in the value of the dollar. Financial reporting documents treat the dollar as a stable quantifying unit. Just about everyone who uses accounting information knows this isn't the case; if changes in the value of the dollar are relevant to certain decisions, then those calculations can be performed. But standard forms of financial disclosure do not attempt to include such representations. (There is, however, a strong movement among some businesspeople and accountants to make "current value" accounting accepted practice.)

The last concept is the "time-period concept." Here the convention is one of representing and measuring the financial activity of an entity as occurring over short periods of time – usually a month or a fiscal year (which is usually twelve months but does not need to be). This requires elaborate ways of dividing up expenses.

> And so accountants are asked to perform the hopeless task of taking this economic continuum, of chopping it up into arbitrary and meaningless lengths called a year and apportioning to each such year a proper part of the cost of a building which will last fifty years, of a machine which will be used for twenty years, of a blast furnace which will last ten and of a stock of coal bought in December which will all be consumed before spring again appears. (Hatfield 1968 [1924]:10)

In comparison with the concepts, accounting "principles" have an element of morality. They are to be referred to in deciding how to represent certain types of events in the accounting records.

The "cost principle" stipulates that assets are to be recorded and reported to show the price paid at the time of purchase (i.e., "historical cost"). There is an allowance for depreciation, but no procedure for representing changes in market value for something like land or buildings. On the balance sheet, the assets are listed at historical cost, not present value. The continuing concern concept is employed as a justification – the land and buildings are relevant because of their usefulness in whatever the organization does, not for their estimated sale value. For many years now there have been movements in favour of some form of current value accounting, as providing more useful information to readers of accounting statements, but historical cost is still standard practice. There are some types of entries that do involve estimates of market value, but these generally have to do with inventory, which is a category of asset intended for sale in the near future.

The "objectivity principle" requires all entries to the account books to be based on verifiable events, which means there has to be documentation, such as an invoice, a cash receipt, a lease, a cheque stub, or a bank deposit book stamped by the teller. Ensuring this requires a set of documentary practices that intersect with the accounting work, as described above. This is what the auditors look for during an audit; they check to see that the journal entries can be matched up with proper documentation in the files. Using random sampling procedures, auditors select a percentage of "transactions" to examine all the way back through the supporting documents. (Suchman [1983] nicely describes the work accounting clerks do to create the appearance of a proper sequence of documentation in the files.) In the

more extensive type of audit, the adequacy of the documentation procedures used in the organization would also be evaluated.

The "realization principle" stipulates that revenue should only be recorded as earned when the sale or delivery of service has been completed. In many business or service transactions, customers or clients pay before receiving what they are paying for – for example, when purchasing a train ticket or paying quarterly insurance payments. According to this principle then, those payments are to be initially recorded as liabilities (debts) because they represent an obligation the entity has toward those who have paid in advance. When the sale or service is "realized," the relevant amount is transferred from the liability account to the earnings accounts. However, there are certain types of industry or kinds of business where a departure from this principle is considered justified in order to more fairly represent the situation.

The next principle, the "matching principle," also calls for techniques of accrual and is related to the "time-period concept." Earnings are to be matched with the expenses that were incurred in generating those earnings on an income statement for a period (a month, a quarter or the fiscal year). Spending on production materials, for example, can happen well before the goods are produced and sold. Achieving a textual matching of revenue and expenses requires an elaborate system of accrual, where items can be accumulated in asset accounts and then moved to expense accounts, and from liability to earnings accounts, in order to achieve this matching of expenses and revenues within a given time period. This is a real virtual reality technique, since it leads to monthly income statements that don't closely represent payments and receipts, that is, the actual movement of money and the work that accomplished it.

Here is an area where accounting standards for non-profit organizations differ from those applying to for-profit ones. The income, or operating, statement for non-profit organizations has until recently been constructed on a cash rather than an accrual basis; that is, receipt of revenue and payment of expenses were recorded when they occurred. This is because non-profit organizations are not evaluated for their quarterly or annual profits, and therefore the painstaking work of classifying and shifting entries to match revenue and expenses on a monthly basis is not necessary. Instead, non-profit organizations are usually expected, by their funders, to spend in one fiscal year just about as much as they took in in operating revenue. Having money left over is not, in that context "profit": it represents services to the public that were paid for by the state, for example, but not delivered (K. Campbell 1998). The cash-basis operating statement makes visible the actual movement of money during the fiscal year. All this has changed, however, in recent years. In 1996, the CICA introduced new accounting standards for non-profit organizations that require the use of accrual techniques in preparation of the operating statement. As we shall see in later chapters, this is a part of the move toward more "self-sufficient" and "entrepreneurial" public sector organizations. Creating operating statements in a form used for business reporting will make it easier to bring the interpretative practice of business evaluation (accumulation, profit, return on investment) to bear on the evaluation of non-profit organizations.

However, even at the time of my research, CICA standards for non-profit organizations required accrual accounting for certain accounts. The auditor's reservation makes that clear: "[T]he College records vacation pay as salary expense upon payment rather than adopting the accrual basis as required by generally accepted accounting principles." Here the problem from a GAAP perspective would be that not accruing vacation pay under-

reports the college's financial liabilities on the Statement of Financial Position (balance sheet), which is a different matter from matching revenue with expenses on the Statement of Revenue and Expenditures (the operating statement).[9]

The last four principles have a less specific focus; they are closer to moral injunctions. The "full-disclosure principle" calls for all transactions and information and aspects of financial reality that can be represented, to be represented. Basically, an entity isn't supposed to conceal information that could make its managers look bad, for example, or show how precarious its financial position really is. As well, any information about the type of accounting performed that would affect the interpretation made of the financial statements should be provided along with the statements. For example, in Fulton College's financial statements, the section "Notes to Financial Statements" has an item explaining that "in accordance with accepted practices for colleges and universities, depreciation is not recorded in these financial statements." (Here is another area where the new CICA standards are bringing the financial representations of non-profit organizations in line with the way businesses are represented: now depreciation is to be recorded. Library book purchases, for example, are to be depreciated over a one- to five-year period [K. Campbell 1998].)

The "consistency principle" calls for an entity to use the same accounting techniques over time, so that financial statements from different years can be compared. If the entity changes the way it records certain types of transactions, this could result in balance sheet categories that have the same name, but cannot be compared in confidence. Sometimes a company does adopt different methods; this is supposed to be done only for very good reasons – promoting "fairer disclosure" is a "good reason," as is correcting sub-standard practice – and any changes must be declared in the accounting statements so that readers can

make a more informed interpretation. From the Fulton College financial statements "Notes" section again: "Effective April 1, 1990, the College retroactively adopted the accrual method of accounting for termination gratuities. Formerly, the College had appropriated operating funds in respect of this obligation." The wording of this note makes it clear that the change is justified, since accrual methods are preferred, when not obligatory under GAAP. Changes in accounting method can also be prompted and justified by changes in legislation or CICA standards.

The "conservatism principle" calls for accountants to choose the more conservative option whenever they are faced with different possible ways to represent entity events and affairs. This is most relevant for tasks like inventory valuation. Inventory refers to assets that are possessed by the organization for the purpose of selling them at some time in the future. Thus, the amount of money they might be sold for in the current market is considered relevant in a way that the current value of buildings and equipment is not. When listing inventory among the assets of an organization, then, there is always a choice whether to list the actual cost of buying or making the goods or to show the amount they would earn if sold under present conditions ("net realizable value"). Under the conservatism principle, both forms of valuation should be performed, and the lower or more modest amount should be the one listed in the financial statements. Fulton College's "Notes" section contains the following sentence, indicating adherence to this principle: "Inventories are recorded at the lower of cost and net realizable value." (Fulton College's inventories would include such items as stock in the campus bookstore.)

The final principle is the "materiality principle." It is a conceptual resource for accountants making decisions about what degree of detail and distinction to build into the

accounts. The deciding factor is supposed to be whether what is obscured by not going for a certain level of detail is material or not; that is, whether it is relevant to the picture of the financial situation of the entity. For example, if a company subscribes to a couple of magazines in order to have something for visitors to read in the reception area, the year's subscription cost of the magazines, which is very small, might just be recorded as an expense in the month when it is paid, rather than being accrued across the whole year. Technically, the magazine is a business expense that should be apportioned out to each month, but because it is incidental to the revenue-earning activities of the entity and involves very little money, the accountant may decide it is not "material" to go for that detail.

Now let us consider the actual financial statements.

The Balance Sheet

The balance sheet is the textual form that organizes and represents the aggregate values of the different categories of account in terms that intend the relations of property and obligation in which the organization is located. The balance sheet functions like a snapshot, in that it shows this state of affairs, this blend and balance of property, debt and entitlement, as pertaining at a specific moment in time. Balance sheet statements always, as a basic condition of their readability and membership in the discourse, list a precise calendar date. This is not read as claiming that the statement was prepared on that day, but that the statement represents the state of affairs on that date. In practice, it takes days or weeks of work for the accounting staff to draw up financial statements based on the bookkeeping entries, and then more time yet for the auditors to do their work.

Here I want to describe in more detail how the balance sheet as text constructs the visibility of the organization as occurring within relations of obligation and property. Figure 1 shows the balance sheet ("Statement of Financial Position") for Fulton College. This is a fairly simple balance sheet for a non-profit organization. It shows the balance sheet information from the previous year as well as for the present year. This is standard for non-profit reporting. Note first that the total for all the different asset accounts is equal to the sum of the liabilities and the fund balances, as per the equation given above. Assets are represented in terms of value, but also by type of thing and, in descending order, in terms of degree of liquidity. So money in the bank is distinguished from accounts receivable from long-term grants receivable and equipment and furniture (fixed assets). They all go into the total asset figure, but they are separated out in the display, since those distinctions are relevant to interpreting the financial "health" of the organization. Some of those assets are currently possessed, some are only claimable at some future date under legal relations of obligation. Some are already in cash or "cash equivalents," others would have to be sold to be "realized" as cash. Such a display makes visible the amount of "working capital," that is, the amount of money or near-money an organization has in order to cover their everyday operating expenses. The asset display intends these sorts of interpretive evaluations.

The sum of the values of those assets can be attributed to two main sources, and these sources also represent claims on the values: some assets were acquired through incurring a liability (e.g., delivery before payment in the case of colleges, which are not permitted by legislation to finance their activities through bank loans); other assets represent money the college has collected through the tuition process but must hand over to the student associations; others were paid for out of existing funds; and some assets just represent

Fulton College of Applied Arts and Technology

Statement of Financial Position

March 31, 1991, with comparative figures for 1990

		1991	1990
Assets			
Current assets:			
Cash and deposit receipts	$	7,563,485	11,186,271
Grants receivable		1,366,560	698,139
Accounts receivable		4,248,531	2,301,588
Inventories		589,631	598,384
Prepaid expenses		302,789	97,866
		14,070,996	14,880,248
Long-term grants receivable		2,520,000	–
Fixed assets (note 4)		94,162,714	85,754,244
	$	110,753,710	100,634,492
Liabilities and Fund Balances			
Current liabilities:			
Accounts payable and accrued liabilities	$	8,172,250	6,460,405
Deferred revenue		2,183,210	1,664,342
Due to (from) student associations		111,538	(203)
		10,466,998	8,124,544
Long term liabilities:			
Termination gratuities liability		704,933	704,933
Obligation under capital leases (note 5)		583,877	–
	$	1,288,810	704,933
		11,755,808	8,828,477
Fund balances:			
Operating fund, unappropriated		5,055,167	5,655,098
Capital fund		93,366,571	85,754,244
Restricted funds		576,164	395,673
		98,997,902	91,805,015
Commitments and contingent liabilities (note 5)			
	$	110,753,710	100,634,492

FIGURE 1

unspent funds. Thus the total amount under Assets equals the combined amounts under Liabilities and Fund Balances, which just present the information under Assets in a different way.

Like the Assets section, the Liabilities section is divided into current and long-term debt. The various liabilities make visible the college's relations of obligation with other organizations and individuals. Consistent with the legal privileging of liability claimants, the liability section precedes the Fund balances section. In the latter, we see that there are three different funds. "Operating fund, unappropriated" refers to money that has not yet been spent. The Capital fund doesn't represent a pot of money, but rather the accumulation of the value of spending on "capital" or "fixed" assets over the years (land, buildings, equipment, etc.), with adjustments to allow for deterioration and decreases to record those capital assets that have been discarded. In other words, the Capital fund balance can be read as a measure of public investment in the material conditions permitting the continuing work of the college. Restricted funds, as their name implies, represent pots of money to be used for specific purposes. A separate statement detailing the activity in each of these funds follows this overall statement.

Note also the references to note 4 and note 5 that follow some of the account names. There are 13 pages of notes and supplementary displays of accounting information that accompany the financial statements. Note 4 provides a breakdown of the aggregate figure supplied in the balance sheet statement. Note 5 provides a breakdown of capital lease obligations over the coming years. It also explains the existence of certain "contingent liabilities": these are potential or future obligations for which no precise figure can yet be

given. In the case of Fulton College, the contingent liabilities include legal actions brought against the college by the union and a pending arbitration concerning faculty workload.

The balance sheet for a profit-seeking company would follow a similar layout, and use the same basic account categories, although individual account names would vary according to the activity of the company. The main difference would be in the Owners' or Shareholders' Equity section, which would replace the Fund Balances.

The Income Statement or Statement of Revenue and Expenditures

The balance sheet creates a visibility of the organization as a static collection of aggregate values that other people have ownership rights or obligation claims to. But this is only one dimension of the visibility constructed in the accounts. Organizations also involve people – employees – engaged in specific activities that are treated as the activities of the organization. In the case of for-profit organizations or businesses, that activity usually involves producing and selling some sort of goods or services. In doing this work, the organization spends money on salaries, supplies, equipment, advertizing, etc. Money comes into the organization from sales and other sources, such as interest and dividends on the organization's investments. The purpose of for-profit organizations, of course, is to bring in enough money in sales and revenue to pay dividends to the shareholders. The activity of producing and investing is done to make profits that will go to increasing capital.

Thus while keeping track of values in terms of obligations and ownership is an important task for accounts, keeping track of this creation of value is also important. The sorting and interrelation of the different accounts and the way they are reported construct a visible distinction between Income and Capital. Capital is the value of what has been

invested, must be protected and hopefully increased. Income is what is earned by spending portions of the Capital. These are conceptual distinctions whose realization through accounting texts is central to relations of capitalist production and investment. As we have seen in the history section, it took people a while to work out how to make and maintain this form of textual visibility, the advisability of which arose in their experience of capitalist relations and some of the troubles that occurred for investors, creditors and managers around use of money, obligations, etc.

Non-profit organizations also produce and distribute or sell some sort of goods or services, and governmental agencies perform various kinds of activities. They keep track of revenue and expenses in the same way, although mainly just to make visible the getting and spending that occurred within a specific time period, and that resulted in either an increase or decrease to the fund balances.

Thus, while the balance sheet constructs a snapshot-type image of possession and obligation at a moment in (textual) time, a different type of statement constructs an aggregated record of activity as taking place over a specified span of time. These activity or duree statements include the Income Statement, Statement of Changes in Owner's Equity, Statement of Operating or Capital Fund Balances. In for-profit entities, the Income Statement discovers profit or loss as the difference between expenditure and non-investment revenue. The Income Statement as analytic form constructs the visibility of profit (a textual entity) as generated by capital investment. In this representational/theoretical schema, value is created by capital, not by labour, which is an expense (see Lukka 1990, Tinker, Merino, Neimark 1982). Expenditure represents capital, or the assets of the organization, "at work" to make more money. The profit or loss figure from the Income statement is added to or subtracted

from Equity – thus the duree statements account for changes in the static balance sheet positions from one year to the next.

In non-profit organizations, the Statement of Revenue and Expenses (see Figure 2) does not have the same function of determining profit or loss. It does, however, relate to the balance sheet picture in the same way, in that it accounts for some of the changes in the fund balances as depicted on successive balance sheets. Figure 2 shows the Statement of Revenue and Expenditures for Fulton College. Like the balance sheet it provides for comparison of the present year's activity with the previous year's. It is not a difficult text to read. It shows where money came from and the different categories of thing and service on which it was spent. Schedules 1 to 7 that accompany the statement offer breakdowns of the general categories aggregated in this summary document. Because this is a non-profit organization, all incoming and outgoing money is logged in the revenue and expense accounts. In a for-profit organization, only some incoming and outgoing money is so recorded and would appear in the Income Statement. For example, "Fixed asset acquisitions" would not be an expense category used in determining profit, since in the conceptual schema of accounting, fixed assets are part of capital, and the whole point is to produce and maintain a distinction between net income and capital. But these distinctions don't pertain to non-profit organizations. In other words, the status of non-profit organizations is in part maintained by such differences in accounting practice that, in effect, prevent the determination of an entity "profit."

Fulton College of Applied Arts and Technology

Statement of Revenue and Expenditures

Year ended March 31, 1991, with comparative figures for 1990

	1991			1990
	Operating Fund	Capital Fund	Total	Total
Revenue:				
Grants and reimbursements	$ 89,298,625	$ 6,610,094	$ 95,908,719	$ 85,175,365
Student tuition	10,112,682	–	10,112,682	9,311,441
Ancillary	4,291,133	–	4,291,133	3,829,719
Other	7,035,975	160,868	7,196,843	5,533,507
Donations	–	453,939	453,938	114,619
	110,738,415	7,224,900	117,963,315	103,964,651
Expenditures:				
Academic	70,784,787	–	70,784,787	60,538,521
Student services	9,380,491	–	9,380,491	8,045,185
Administrative	7,205,940	–	7,205,940	8,234,901
Property and plant	9,963,430	–	9,963,430	9,041,810
Supplementary	9,008,201	–	9,008,201	9,010,955
Fixed asset acquisitions	1,102,358	7,224,900	8,327,258	4,215,469
Ancillary	3,893,139	–	3,893,139	3,577,865
	111,338,346	7,224,900	118,563,246	102,664,706
Excess of revenues over (under) expenditures	$ (599,931)	$ –	$ (599,931)	$ 1,299,945

FIGURE 2

CONCLUSION

This chapter has taken a close look at accounting as a conceptual and textual practice of ruling, a mode of knowledge organizing relations of property, obligation, distribution and exchange. The reader has been introduced to Fulton College by way of its financial statements, which have served here as a link between the examination of accounting as a generalized and generalizing practice and the study of accounting in the college system that is to follow. The Fulton statements report on grants and reimbursements, on capital funds, operating funds and restricted funds. The next chapter locates these statements and their categories within the relations of funding and accountability organizing the Ontario college system. We will see how changes in government policy that introduce or expand the use of market relations to organize the distribution of public spending on training bring into the colleges new demands. In later chapters we will hear from college managers how this changes their work, how they see the "needs" of the situation, and how they are trying to reconfigure the work processes of their college in order to operate more successfully as a "business." And then we will go to Fulton College for a look at Fulton managers' attempt to introduce a form of managerial accounting, program costing, which they believe will help them to participate more successfully in the new entrepreneurial environment.

PART III — RESTRUCTURING IN THE ONTARIO COLLEGE SYSTEM

CHAPTER FIVE
RELATIONS OF FINANCE AND ACCOUNTABILITY IN THE COLLEGE SYSTEM

This chapter and the following three chapters present an institutional ethnography of aspects of the Ontario college system. The focus is on text-mediated relations of funding and accountability and the managerial work of "being a business" in the context of the restructuring of higher education and adult vocational training. Accounting texts, and managerial knowledge practices based on them, play a central role mediating these relations and work processes.

This chapter is a busy one. It describes the college system as it has arisen at the intersection of federal and provincial policy and sketches out the relations of funding and accountability that organize it, with a focus on reporting requirements and the administrative processes and textual forms that colleges establish to achieve that reporting. It goes on to describes the way the system sketched out in the first part is being changed through privatization policies that bring market relations into the organization of vocational and postsecondary education. As outlined in chapter two, this and the following chapters are based on college system documents and interviews with ministry personnel and managers at four different colleges: Aldrich, Gallagher, Hennessey and Fulton.

THE ONTARIO COLLEGE SYSTEM

The Ontario college system is a centralized one, currently comprising 25 colleges distributed around the province to serve specific catchment areas and governed (at the time

of writing) by the Ministry of Education and Training, although during the first stage of research (1991) the ministry responsible was the Ministry of Colleges and Universities. The colleges are officially termed Colleges of Applied Arts and Technology; they offer two- and three-year post-secondary diploma programs, shorter "skills training[10]" and apprenticeship courses, continuing education (night school) classes, and a variety of training and consulting services sold on contract to government, local businesses and community organizations. Each college has its own board of governors and is autonomous with respect to hiring personnel and determining the mix of programs to offer and contracts to accept. At the same time, the colleges are linked into a centralized system of funding and program approval, and the collective agreement with college employees is negotiated on behalf of all the colleges. This system is supposed to balance central coordination with local initiative in responding to community needs.

Colleges, as provincially-managed sites for postsecondary and vocational education, are used by both the federal and the provincial state as tools for implementing state policy. Both levels of state directly fund teaching activity at the colleges, although through different mechanisms. Colleges as organizations displaying characteristic administrative structures and processes have taken shape within these relations of funding and accountability.

The largest funder of the colleges is the ministry that administers the college system (MCU, later part of MET). This funding comes in the form of an "operating grant," an annual sum of money that is not tied to specified spending categories; however, this grant is officially intended to "support" only some of the education work done by the colleges. Essentially, this grant is for operating costs associated with education provided to individual adult Ontarians who meet the entrance requirements. Students pay a tuition fee set by the

Ministry for the system as a whole. The Ministry estimates that tuition fees cover about a tenth of the overall cost per student: the operating grant is supposed to cover the rest. Postsecondary diploma programs, continuing education courses and a category called "tuition short courses" make up the areas of educational work open to the general public and officially supported by the operating grant. This work has for most of the colleges' history involved their largest numbers of students and teachers; it has been their main activity, and the operating grant has accounted for the largest portion of their total revenue. Although the grant as a portion of total revenue had declined throughout the 1980s, in the early 1990s it still accounted for more than half of total revenue (and in some colleges for much more than half). As the ministry responsible for the administration and ongoing existence of the college system, the MCU/MET also provides "capital" funds to be used for new buildings, renovations to existing buildings, equipment purchase and repairs, and the like.

The operating grant and the capital grant allocations for the system as a whole are determined by the provincial Treasury Board and appropriated through an act of the Legislature. The operating grant allocation is divided up by MCU/MET among the CAATs according to a formula that has been in place since 1981.[11] It is meant to be an administratively simple, visibly fair way of distributing a fixed amount of provincial money. It does this by casting the total grant as divisible into "shares" that have been measurably "earned" by each college.

The key category in this distributional process is "instructional activity." This is a standardized measure of enrollment in all the colleges; the rationale for using it to determine each college's share of the grant is that since instruction is the primary mandate of the colleges, it is the relevant activity to measure – moreover, it can be measured and quantified

in reliably similar ways at all the colleges. Note that the category "instructional activity" does not collect all the enrollment going on at any one college: for the purposes of the operating grant, only certain enrollment can be counted, that is, enrollment in postsecondary, continuing education and tuition short programs.

The instructional activity enrollment count for each college is calculated on the basis of textual units called full-time equivalents (FTEs); the enrollment figures for part-time students and students taking short programs can be converted to full-time equivalents according to a formula, thus allowing different types of enrollment to be counted up in the same stream of data. The formula is based on the category of Student Contact Hour, or SCH, which represents one hour of scheduled classroom or field placement time: 1 FTE is equal to 6 SCHs.[12] College staff gather and calculate these enrolment figures according to strict guidelines,[13] and this enrolment count must be audited by a public accountant before being submitted to the Ministry. The cost of the audit is the responsibility of the college.

At the Ministry, all the colleges' audited enrollment figures are added together to obtain a total "instructional activity" figure for the system as a whole. Each college's enrollment is worked out as contributing a percentage share of this total, and it is on the basis of this share of total instructional activity that a college's operating grant is determined. For example, if a college's enrollment figures show it to have carried out 7% of the total instructional activity in the college system for the time period measured, then it will receive 7% of the total operating grant available for the next fiscal year.

This is a funding system that provides for the continuation of the college infrastructure by way of operating grants and capital funds made available for renovations and building. The money for repairs and capital improvements is also distributed through a

formula mechanism based on enrollment, but in this case federally-funded and apprenticeship training enrollment is added into the total in order to give a more complete picture of how extensively college buildings are used; colleges can use this money as they see fit. For bigger renovations and new buildings the colleges must apply for special purpose capital grants.

The Enrollment Audit

Colleges gear into these relations of funding by producing an audited accounting of their enrollment during the stipulated historical period (during the time of my research this was the previous two complete years; it is now the previous three complete years). This is not a simple counting up of all their students, as only some of the teaching they do counts toward their "activity." The Ministry has produced guidelines for the colleges' enrollment audits. These describe what kind of information the colleges must collect and in what form it must be tabulated and presented to the Ministry. Eight pages of the guidelines are devoted to operational definitions of the terms and categories used in the report. The guidelines also contain instructions to the auditors who will be engaged by the colleges to offer an independent auditor's opinion on the college's enrollment count: "The external auditors are required to: a) express their opinion on the enrollment data in accordance with the CICA Handbook, Section 5800 – Special Reports . . . " (p. 1). "An auditor's report without reservation is a condition for a college's receiving enrollment related operating grants" (p. 1). Not only does the auditor attest to the accuracy[14] of the enrollment count, but: "An unqualified opinion by the auditor will be accepted as evidence that the college has a satisfactory system for determining and collecting student fees" (p. 2). In checking the accuracy of the information supplied on the enrollment count forms, the auditor is checking

the documentary system on which the enrollment counts are based, which includes procedures for keeping track of, and billing, those individual students whose enrollment is counted in the report. At no point is any one, staff or auditor, going into classrooms and counting bodies. This is an entirely documentary procedure.[15]

To produce this report, with college "activity" discovered and represented in these terms, the college must have administrative procedures that keep track of registered students in each course or program, their status as sponsored or fee-paying, as well as the number of scheduled hours of "supervised" class, laboratory, or fieldwork time per course. A number of documentary practices intersect with, or supply the base information for, the enrollment report: there is the registrar's data base of students, their status and what they are enrolled in, there are the linked procedures in the accounting department that generate invoices and record collected tuition, and there are the procedures for listing the scheduled teaching hours of different courses, which are also linked to procedures for scheduling classrooms and the workloads of faculty. By "link" I mean that these work processes are textually interrelated and share information, in whatever form it is produced and available within the college; they may or may not be linked via a computer software program. The trend and the goal, however, is to develop computerized information systems in which student records, invoicing and room booking are integrated.

A smooth functional fit between reporting requirements, other tracking needs and the documentary and computer processes that support them should not be assumed. For an example, consider the student record keeping system at Gallagher College. The Gallagher registrar explained how the college's attempt to keep up with changes in student demand was playing havoc with a computer tracking system originally designed to support only the

traditional model of postsecondary programs, in which students entering a two- or three-year program move in a cohort through a set sequence of courses. These programs are developed by the college and approved by the Ministry.

> Our student record keeping systems are currently built on a program-oriented system. So the lowest common denominator for students in postsecondary programming is the program name. There are many students that are not interested in declaring a major . . . they just want to access various courses. And that becomes very difficult for us. What we have to put in place is a whole program – registration component – for that student . . . . We're constantly trying to band-aid our current system to be able to allow greater flexibility.

But putting in place a special program for the students who don't want to enroll in one of the planned programs creates new difficulties within the software. In reading the description of these difficulties below watch for the references to texts and text-mediated work processes:

> This system does not allow us to put a program in this module that doesn't have approval from a ministry process. So we have the need in here to put in a program. Attached to it – an approval code, a funding definition, a weighted value, and then a whole series of courses that make up that program. One of the first glitches we've run into, and we've had to override the system to make this work, is if we don't have an approved number we can't put a program in this module. So when we override the system to allow us to do that, what happens when we try to generate an approved program report, that part of the software hasn't been adjusted, so we end up producing a list of programs that includes programs that aren't approved. So the integrity of the reporting system becomes questionable or in jeopardy every time we do that kind of thing.

The "integrity of the reporting system" would become an object during the auditor's examination of the documentary process supporting the enrollment audit.

Notice the registrar's description of the importance of being able to type in an "approval code" in order to enter a program into their system. Only ministry-approved programs and courses, or those for which approval is pending, can be included in the enrollment report. The approval process is a documentary one: colleges submit a proposal

for a program or course of study, including a rationale, curriculum, and other documentation; the process is successfully completed for the college when the course or program is approved and given its own ministry code. This code is not just evidence of the program's status for enrollment count purposes; it also enters the program into the system-wide Ontario College Information System maintained by the Ministry (OCIS – more on that below). The enrollment report (which the "approved program report" intends) thus depends not only on a number of documentary practices being performed in the college; it also draws on and feeds into documentary practices operating on a wider scale outside the college. The program and course approval process is one of these.

An even wider classificatory and reporting system is also drawn upon in this reporting system. Tuition short[16] and apprenticeship programs, which must also be approved by the Ministry, are given CCDO numbers at the time of their approval. This code comes from the Canadian Classification and Dictionary of Occupations, which is a national classification system maintained by (at that time) Employment and Immigration Canada, a federal ministry. It identifies the specific occupation for which the training prepares the trainee; in so doing it locates courses approved for federal purchase (discussed below) into the system through which the vast field of employment and potential employment is officially known for the purposes of developing and implementing labour force development policy.[17] This also has implications for course development at the college level: when training programs are submitted for approval, the planned curriculum needs to be described in ways that demonstrate that the skills to be taught correspond to the skills listed in the CCDO for that occupation. The enrollment report depends on these categories: colleges list their FTEs according to approved program numbers and relevant CCDO codes.

The collection of audited enrollment reports from the colleges is used for more than the calculation of their grants; information in these reports is also fed into documentary systems, such as OCIS, mentioned above. Because courses and programs are already located in this documentary system through their approval numbers, it is possible to use the enrollment forms to update the picture on province-wide college activity (e.g., number of nursing programs, numbers enrolled in courses teaching specific skills, etc.)

> Numbers are very important to the government. And the current formula in the colleges works very well for generating numbers. (Administrator, Aldrich College)

Although the funding formula employs enrollment figures, not financial data, colleges are still required to report on their expenses by way of account categories that feed into the OCIS system. Revenue and expense information, according to set categories, is collected yearly from the colleges.

> What we try to do, we try to create our general ledgers in the same format as the OCIS system. So what we do, we call um Academic Expenses, Admin – but then we have a category they call Supplementary which is a part of the Academic, but is special funding from the ministry, the Ministry of Skill Developments, so we try to create our operating expenses in that format. . . . So we take our GL [general ledger] and put it into this format at the end of the year, and from here we submit these figures to the Ministry. (Accountant, Fulton College)

The general ledger is the assemblage of different accounts used in an organization's bookkeeping, established and operated according to "generally accepted accounting principles" (GAAP). What the accountant is describing is a process of setting up revenue and expense accounts that work for both the regular bookkeeping and the OCIS reporting requirements. The OCIS system provides a set of account categories that must be used for making an annual report to the Ministry. This is a separate requirement from the college's obligations as a crown agency to provide yearly, audited financial statements. What an

organization calls the many expense accounts that feed into that kind of statement is up to the organization, provided they meet CICA standards.[18] Colleges are not required to use the OCIS categories for their own bookkeeping, although they do have to use them for making reports to the ministry. It is convenient, however, as the accountant describes, to use the same format for both.

This information reported to OCIS is worked up in ways that can be used by system administrators in a number of contexts. One important use is in submitting a system-wide operating budget to the provincial Treasury Board; it is on the basis of this request that the Treasury Board allocates the overall operating grant to the college system. In this process, expense data collected from the colleges under the standard OCIS categories are aggregated and used in making requests for future grants. The shared set of reporting categories allows this aggregation. However, the information collected in this way is considered by financial administrators in the Ministry to be only superficially combinable or comparable; colleges may use the same reporting categories, but they will not allocate their revenue and expenses to them in quite in the same way. In other words, similar types of event at different colleges will be inscribed into the accounts differently. What one college treats as an "Administrative" expense another college might record as an "Academic" expense.

In summary, the operating grant is obtained at the system level on the basis of a Ministry submission that refers to aggregate operating expenses across the province, collected through the OCIS reporting system; it is divided up among the colleges according to the funding formula based on their audited enrollment reports. This is a distribution system that puts the colleges in competition with each other for shares of a fixed amount of

money. At the time of my research, because of widespread cuts in government spending, the annual operating grant was increasing at a slower pace than college costs.

> We're caught in this dilemma here – everybody's growing, but in order to get your piece of the pie, the formula pie, you've got to grow too. If you don't grow as fast as your neighbours then you'll get even less than the system-wide increase. That's been happening to us for the last couple years. . . . It's . . . suicidal as each of us grows and tries to keep our piece of the pie – we're killing each other because we're diluting the value of funding. (Administrator, Aldrich College)

It is because of the competition incentive built into the funding system that the Ministry can be casual about monitoring how colleges spend their operating grants. Administrators (officially the Board of Governors) have the authority to divide the operating grant up into a set of budgets according to the college's priorities and plans. They are not required to show that they only used it to pay expenses associated with the type of educational work officially supported by the grant. The theory at the Ministry is that there is no need to worry that colleges are using their operating grants to subsidize, in any major way, their other activities; since future grants are based on enrollment in officially supported programs, it is in the colleges' interest to use their grants to teach as many fee-paying students as possible (to "grow"). The appropriate use of past operating grants can be inferred from the college's enrollment figures. More generally, the appropriate stewardship of college funds, including the operating grant, is made visible in the audited annual report each college must produce, which treats their operations and revenue in the aggregate.

By contrast, other revenue relations that colleges engage in take the form of a contract or purchase; principal of these throughout the colleges' history has been federal direct purchase.

Federal Relations of Funding

The college system was established in the 1960s with large capital grants from the federal government.[19] The federal Technical and Vocational Training Assistance Act of 1960, introduced following a period of high unemployment in the 1950s, was designed to entice provinces into developing a training infrastructure that could adapt workers to fit the new needs of industry, especially those resulting from technological change. (Provinces have responsibility for education, but the federal government is responsible for economic and labour force development, a distribution that results in jurisdictional overlap – and disputes – in the area of job training.) Under the TVTA the federal government made capital funds available to provinces on a 75/25 cost-sharing basis. This favoured the richer provinces. Some of the poorest provinces, those most likely to display the highest rates of unemployment, were unable to take advantage of the available money because they could not meet the cost-share requirement. The unused money was then offered to the richer provinces, like Ontario, which could continue to tap into TVTA money as long as they could come up with one quarter of the cost of training equipment and facilities. Ontario used the federal money to set up a centralized college system offering postsecondary education distinct from the university system.[20] Federal involvement, however, did not end with the grants that induced provinces to set up technical training infrastructures. From its establishment in the 1960s, the college system in Ontario has been used by the federal government to implement its labour market development policies.

In 1967 the federal government radically reorganized its intervention in labour force development with the introduction of the Adult Occupational Training Act and the Canada Manpower Training Program, which enabled the federal government to take direct control

over some of the vocational and technical training being offered in provincially-run colleges. Through the Manpower program, the federal government gave itself the mandate to commission and purchase training programs to be delivered to unemployment insurance recipients and other designated individuals. These programs included language training for immigrants, apprenticeship training and academic upgrading as well as specific technical or vocational training, both in educational institutions and on the job. This way, the federal government could further its national labour force objectives by specifying – and paying for – the training it considered appropriate. Getting public visibility for its training expenditure was also a desired outcome of the Manpower program. As well, the system of buying training outright was meant to allow for a planned and equitable distribution of federal funds, since it avoided the inequities of the previous cost-share system that kept money out of the poorest provinces.

The provinces had not been consulted about the creation of the Manpower training program or the development of AOTA and they opposed what they considered the federal government's attempt to interfere in provincial educational policies. Provincial cooperation being essential for the program to function, the federal government made compromises that in effect limited the amount of federal money that would go for on-the-job training, in favour of guaranteed spending at provincial educational institutions (CAATs, in the case of Ontario). This had the result, over the decade that followed, of strengthening the provincial training infrastructure and restricting the development of on-the-job training (Muszynski 1985).

Rather than taking the form of an operating grant such as the money allocated by the province, federal spending in Ontario took the form of a "direct purchase." The local Canada

Manpower Centre (later called Canada Employment Centres) arranged for specific training programs at the college serving its catchment area. Manpower or CEC officials would select the type of training and the individuals to be trained, and the federal government would pay for the training.

Ontario colleges developed separate divisions to deliver this training, which they administered separately from the postsecondary programs that were funded by the MCU operating grant. This "activity" was not included in the audited enrollment that went into figuring a college's operating grant, since it was considered already paid for in full at the time of delivery. The teachers who taught these courses were not the same ones who taught in the postsecondary divisions, which were sometimes distinguished as "academic" divisions in contrast to "skills" or "adult training" divisions. "Skills training" teachers were expected to teach more classroom hours a week than "academic" teachers, as is still the case today, according to the terms of the collective agreement.

In the early years of the college system, vocational training agreements with the federal government were handled on an actual-cost recovery basis, within an agreed-upon general budget. Colleges would deliver the training, keep records of expenditure, and then submit claims for payment. This was a complicated process that required years to settle. In the mid-70s, a flat-rate funding agreement was introduced, which established ahead of time what the purchase price would be for a guaranteed number of training days. This establishment of price and brokering of college services to the federal government was handled by the Ministry of Colleges and Universities. In 1985, however, the Ministry of Skills Development was established and took over the task of brokering college services as well as managing the apprenticeship program, which although funded by the federal

government was managed on contract by the provincial government, whose employees did the work of approving programs at the colleges, finding and placing students, and granting certification or trades licenses.

Federal direct purchase is a funding system that rests on a formal, documented agreement between the federal government and the provincial government. The negotiating agency on the federal side (at the time of my research) was Employment and Immigration Canada (EIC); on the provincial side it was the Ministry of Skills Development (MSD) and later the Ministry of Education and Training (MET). In 1991-92, the agreement still in effect was the Canada-Ontario Agreement on Training (COAT), which was originally negotiated in 1985 to cover a three-year period, then regularly extended with minor amendments. This agreement sets out a purchase policy for direct purchase which favours the province's public institutions (colleges), and establishes the principle of a per diem per student price, as well as an agreement to pay the province's costs in administering the system in Ontario.[21] It also covers indirect purchase, but that will be taken up later in the chapter. The focus here is on direct purchase.

> Basically, the way the arrangement works is that the federal government selects the course they want to purchase, finds a trainee they want to train, and then fills that seat within a college. The federal government reimburses the province for the cost of that training on a basis that has been negotiated between our governments, and we reimburse the college for the training that took place. (Official, MSD)

The system of reimbursement negotiated between the two governments involves a set of per diem prices, which are often referred to as "seat prices[22]" by ministry and college administrators. The types of courses selected for federal purchase are grouped into six categories, with one per diem price established per category. Categories are organized to reflect costs associated with delivering the training. Courses with a necessarily low teacher-

student ratio, or that require equipment and materials expended during training will have a higher per diem. Every course approved for federal direct purchase is assigned to a per diem price category.

The negotiation of these per diem prices is a political process – the federal government wants access to provincial institutions to implement its labour force development policy; the provincial government wants the most federal spending with the least federal interference. But still there is accounting evidence brought to bear on the negotiations; cost reporting is written into the COAT, and appears in its Annex A. The MSD produces cost data in aggregate form for the province as a whole; it builds this representation up from individual, audited reports from each college that use the established reporting categories in Annex A. Here are more reporting categories that the colleges incorporate into their bookkeeping systems so as to routinely generate the material for their Annex A reports while at the same time entering the transactions that go into the statutory financial statements.

> There is a province-wide committee, I think it's called the Per Diem Committee – something of that nature. And it consists of financial officers from various colleges and volunteers who get together and develop a proposed per diem based on actual audited financial data. And in each annual statement we have to provide per diem costs by program area of all Apprenticeship programs and direct purchase Retraining programs. So that's a requirement annually. And that same data is used by this committee to develop a proposed per diem structure. And they report to the College Committee presidents who agree or disagree with their recommendation. And then that's sent on to the Ministry of Skills Development who again have to nod their approval. And finally to the federal government who have to pay the per diem. And they nod their approval or whatever. So that's the mechanism for determining the per diem for the following year. (Administrator, Aldrich College)

College administrators reported mixed feelings about the direct purchase system from their perspective as managers. An administrator at Hennessey College, comparing it

positively with the time-lag built into the operating grant mechanism, called direct purchase a "cash-and-carry" system in which the college gets reimbursed for its expenses very soon after incurring them. Another administrator described direct purchase as

> a funding system that in many cases is beyond any direct control of ours. We have a reasonably close relationship and assurance of how things are going to be handled when we're dealing with the provincial government. So our postsecondary funding and our tuition short funding is – I'm not saying we control it, but we have much more input into what happens. But when it comes to the funding that comes from the federal government – forget it. It's the whim of a local bureaucrat many times. It is – the general policy is struck in Ottawa, but what happens to that general policy by the time it gets from Ottawa to the local level, where the actual distribution of funds take place, uh it's not recognizable in many cases. There is no rationale to some of the research that they might have done. I've had cases over the years where I have employers screaming that we need people in this particular area, we have all these jobs, give us graduates and we'll put them in the job. And we have a Federal Manpower study that says no jobs are needed, no jobs are available in that product, no training is required. (Dean, Fulton College)

Here the complaint is not just that the funding is not dependable enough from year to year, the issue is what training the funding is being used to buy. We heard much criticism about Canada Employment Centres being out of touch with local job markets. At another college, an administrator complained about the way the per diem structure imposed a limited range of instructional forms.

> If you try anything innovative in the system, it's so hard. For example, in Apprenticeship they always pay the same per diem regardless of the program. Now [co-op] is more expensive because you have to pay for the co-op component and you have to charge that to the in-school component. Because they won't pay that separately. And so therefore we need more money for the in-school component to pay for that component. And to try to get that money, it's – anything that doesn't fit – so if you want to be innovative you've got to be prepared to fight constantly and hassles. And eventually many people just give up. They just don't bother and just go along with the pack. (Administrator, Aldrich College)

In general, however, despite such complaints about the process, college managers and ministry officials considered the per diem rate more than adequate to pay for the training.

One college manager went so far as to suggest that the rate was too high, and that this had negative consequences for the colleges.

> Here there is a general consensus within the college that the per diem on a per student basis is greater than what you need. If you use a per diem, the effect is that you have to reduce the number of students you have in a class, which means over a period of time the number of students is so few you won't run the program. So we feel that as a long-term strategy the increased per diem is counter-productive to the college unless there's a lot of money coming from somewhere else. (Administrator, Hennessey College)

In summary, federal direct purchase is another type of centralized system. Colleges are required to report on training costs per day per training category (corresponding to the different per diem rates). This is very different from what they report in exchange for their operating grants. Over time colleges have developed administratively distinct units for managing and delivering apprenticeship and federal direct purchase adult training. There has been little contact between these divisions and the "academic" divisions that do post-secondary diploma programs and continuing education, and which are funded through the provincial operating grant, although this is changing now, as we shall see in the next chapter.

Other Government Purchase

Colleges also mount special programs and carry out contracts for other provincial ministries, such as the Ministry of Labour or the Ministry of Community and Social Services.

> The government has recognized that if you want to move forward and make a concerted effort and an organized, systematic effort to use the college system to address a particular and specific problem, you can do that by providing funding, public funding in a special envelope that's targeted, precisely, and uh that you can use colleges to deliver that program or services and you can make them specifically accountable to government for results for that particular funding initiative. (Administrator, Fulton College)

Serving as a tool of government policy in this way involves the colleges in a set of funding relations that are less reliable and consistent than the traditional operating grant.

> At the same time you get colleges ultimately with a whole line up of funding envelopes which can cause the college to be constantly on a seesaw of different funding sources, and unable to really plan its future, or makes it difficult, more difficult for colleges to plan their future, because they're not in control of their destiny as far as money is concerned. I mean every year we wait for all these various agencies and government bodies to make up their mind about how much money they're going to spend, and how much they're going to spend at your college. And you can't plan, you can't assign resources, you can't make long term decisions until you know how all those agencies are gonna fall into place. Any one of them can cause you significant destabilization if they choose to do something differently than they've done before. (Administrator, Fulton College)

Maintaining contacts and getting up-to-date information are therefore vital to the college's participation in these relations.

> It requires a lot of intelligence on our part in terms of constant – it's part of, a large part of what I do – is constant contacts with all levels of government – as early warning as possible, or early notice as possible about any change in government policy, government direction, government funding. That's about 50 per cent of what I do. (Administrator, Fulton College)

RESTRUCTURING RELATIONS OF FUNDING

No institutional process, and certainly not this one, is ever static, although descriptions of "how it works" can create that impression. The provincial funding mechanism was worked out over a number of years, and once adopted, has undergone periodic modification (changes to the weighting factors, changing the two-year count to a three-year count, etc.). Similarly, the process of federal purchase has also undergone some big changes and smaller adjustments. Nonetheless, the basic structure of the two centralized systems, and the funding mechanisms of the operating grant and direct purchase, endured. At the time of

my research, however, a significant restructuring that had been under way for some years was gathering speed and spreading further into the relations of funding.

In chapter one I described privatization as a cluster of strategies used in restructuring the public sector. In Canada, policy regarding higher education and adult vocational training has aimed at inducing colleges and universities to better serve the economy by aligning their research and teaching activities with the expressed needs of the private sector. This is being brought about through changes in the amount and mechanisms of state funding. Overall, we have seen reduced operating and research grants coupled with mechanisms that introduce market relations into the distribution of public money. In the college system, changes to the way federal spending for adult training was organized created a competitive market in which colleges had to compete with other organizations, both non-profit and for-profit, for training contracts. It is to a description of that process that we now turn.

Indirect Purchase and the Creation of a Competitive Market in Training

In 1982, following receipt of a spate of task force and other reports,[23] the federal government passed the National Training Act, which replaced the AOTA. The NTA shifted the focus of federal training efforts from low-skill or general education to high-skill training, with special funds available to provincial and non-profit institutions for the development of facilities and programs in designated areas of skill shortage (Muszynski 1985). In making federal funds open to bids from non-profit institutions as well as provincial institutions like colleges, the NTA took the first steps toward reducing the monopoly of the colleges and other public training institutions and sponsoring the development of a competitive market in training.

In 1985, with the introduction of the Canada Jobs Strategy to replace the Manpower program, the federal government went a step further by creating a new category and practice of funding training, which was called "indirect purchase." This involved giving federal money to "third parties," such as non-profit organizations like the YMCA and the newly-established CITCs (Community Industrial Training Councils), for the purpose of arranging training for their constituencies. Both direct purchase and indirect purchase as mechanisms for federal spending were written into the COAT. Regarding direct purchase, as in previous agreements, the COAT contained stipulations to the effect that federal spending would go by preference to provincial institutions; if an institution other than a college was chosen to deliver training, the federal government had to show that no provincial institution could do the training.

But with the introduction of the indirect purchase option, to which the federal government obtained the agreement of the province, the federal government established a system that bypasses the college as a special category. Third parties select the type of training to be provided and the people to be trained, but they also select the school or training institute that will provide the training (they can even use the money to mount the training themselves if they choose). In the section of the COAT dealing with indirect purchase, there are no guidelines requiring third parties to use colleges as training providers. Third parties under contract to the federal government are free to arrange for training from any training provider they deem appropriate, whether private or non-profit. And, most important, when purchasing from colleges, they are not bound by the per diem prices negotiated at the system level for direct purchase.

This two-pronged way of arranging federally-funded training did not result in more federal money being spent; what happened was that federal funds earmarked for Ontario, for example, would henceforth be divided between direct and indirect purchase. Direct purchase was almost guaranteed to be spent in the college system. Indirect purchase funds were not.

> With federal funding, in this community we get roughly a million direct and a million indirect. In the past we'd have two million dollars to fund the resources for training. But when you split it up – so we only have a million dollars for the direct, and the other you don't know where it will go.
> (Administrator, Hennessey College)

This new system of funding training addressed several of the criticisms made about the organization of training, both in the Dodge and Allmand reports[24] and more generally by representatives of business, industry and community organizations. Through indirect purchase, organizations serving the interests of employers and organizations serving local communities were given direct control over the planning of training projects relevant to their identified needs and mandates. The local CEC branches and the provincial government, and the colleges themselves, were bypassed as determiners of appropriate curricula. Because the third parties were free to spend their federal money wherever they thought they could get the best deal, they had the power to negotiate for any training content they wished. Colleges hoping to win training contracts from third parties had to develop ways of tailoring curricula and teaching schedules to suit the demands of the client. This power and spending freedom have resulted in the creation of community-based training programs that address the needs of "disadvantaged" constituencies previously ill-served by the CEC training programs and traditional postsecondary programs in the colleges. At the same time, the indirect purchase system also supports the creation of training programs narrowly focussed on the needs of employers, rather than the interests of the trainee, for example, in obtaining portable skills

and credentials. At the time of my research, indirect purchase had been in effect six years. During that time, the portion of federal money going to indirect rather than direct purchase had steadily risen.

Indirect purchase involves a contract between the federal government and a local agency which takes on the management of training a specific constituency. Because third parties are exempt from the established seat prices for direct purchase, when they sub-contract with the colleges to purchase training programs, the price for that training must be locally negotiated, and third parties are accountable to the federal government for their training costs.

An Example

The following story illustrates these changing relations. This is also the story of how I came to know about what was happening in the college system and to see the importance of accounting as a representational practice mediating these relations.

My colleague George Smith and I had obtained a contract to do research in the area of skills training for a bipartite (union-management) industrial council. Our research was looking at the administration of skills training for the industry, and involved a focus on how colleges were meeting (or not meeting) the industry's demand for training. The industrial council was a customer of the colleges, as were various companies within the industry that contracted with local colleges to train their employees. The industry had been going through its own restructuring, with the result that many plants permanently "downsized" their operations and laid off hundreds of employees. The council, on behalf of the industry as a whole, had received federal funding through the Canadian Jobs Strategy program to pay for retraining the laid off workers. The council was thus a third party according to the indirect

purchase option of COAT. As a third party, its relationship with the federal government was structured by a contract and reporting requirements (more on that in the next chapter). The contract contained this clause:

> The purpose of the project is to determine whether a non-government organization, representing both worker and management interests of an industrial sector, can deliver a program of labour adjustment services to workers in an industrial sector who are affected by a labour adjustment problem more effectively, efficiently and at a lower cost than government.

Not only was this contract outside the per diem seat price schedule, but it enshrined the expectation that the contracting organization would negotiate prices lower than the per diem prices. However, although third parties report their budgets and expenditures to the funder, their participation in the project of undercutting the per diem price isn't primarily generated by adherence to contract language. The funding form itself organizes the incentive. Third parties are given a lump sum of money: how many people they can train, or for how long, is directly a function of how much they pay for each person's training. Third parties serve constituencies that they are accountable to as well as to the federal funder. This all works as a powerful incentive to get the best prices. In this way is federal policy carried into the colleges, but as the third party's (the "customer's") own project. The council did this with particular vigour.

In some cases, where numbers of job loss were small, the industry's laid-off workers simply enrolled in the college as regular tuition-paying students from the community, and the council paid the tuition.[25] But when large numbers of workers were laid off and chose college training, this created an enrollment bulge that the colleges could not absorb without hiring extra teachers or adding new class sections, which in most cases their current provincial operating grants could not accommodate. So then the college and the council would negotiate

a contract: the college would put on a course or program expressly for the council and the industry's laid-off workers, and the council would pay a price intended to cover all the costs of putting on the special course for a specific number of students.

What price the council should pay for the training it purchased became a serious point of contention in the negotiations between the council and some of the colleges. The council's director accepted the need to pay for the special courses on a "full cost recovery" basis, but he was adamant that the council be charged only the actual costs demonstrably associated with the training. That is, the fee paid per student should equal the exact cost to the college of admitting and teaching that student (the director used the microeconomic term "marginal cost" here). In discussions with George and me, the director voiced doubts that the colleges' accounting practices were "good enough" to provide the information necessary to determine this "marginal cost." He claimed that college administrators had not shown the council any clear proof of the costs of training to support the prices they quoted. He suggested that college administrators were "just pulling figures out of the air," did not know what it really cost to add on an extra section of a course, and just wanted to make as much money from the council as they could. We learned that there had been some acrimonious negotiations between the council and the colleges.

Here was a new situation for some of the colleges. They were selling, through market relations of tender and contract, types of teaching activity that had until that time always been paid for by their operating grant or through per diem prices established at the system level. They had to put a price to the training they were selling, and they hoped that price would fully reimburse them for the extra expense of putting on the courses. (And they weren't in principle averse to bringing in a bit extra as a contribution to general operating expenses, given the way

their budgets were already stretched.) They were faced with a customer experienced in tough, labour-management bargaining and prepared to haggle over every line item on the bid. And although they were reluctant to admit it to the council, they did not have accounting procedures that could quickly generate cost estimates of the kind the council was asking to see. The relations of funding and accountability that shaped their administrative and documentary processes had not, as we have seen, required them to produce such knowledge. They regularly reported aggregate expenses for direct purchase (adult training) courses, but for postsecondary programs they only reported enrollment. When the council wanted to buy a course on stationary engineering, for example, the college could draw on existing Annex A records. But when the council wanted to buy a special section in the Business Administration program, the college had no ready way to determine, in any recognizably precise fashion, the relevant cost per student per day. That sort of visibility had not previously been constructed out of their bookkeeping data, which was in any case not organized to intend that kind of analysis. The college administrators put forward costs and prices all the same, drawing on the kind of information they did have; this is what the council's director called "pulling figures out of the air."

Hearing about this situation, first from the council, then from officials at the Ministry and college managers, we could see what was going on as "restructuring" in action. The administrative and managerial information forms that had previously been adequate for positioning colleges within centralized systems of funding came to appear inadequate within new market relations of tender. Through the training demand and tough bargaining of the council, some colleges were getting a powerful lesson in what they needed to know, and to be able to show themselves as knowing, in order to participate successfully in market

relations. Not surprisingly, when we spoke with college administrators, we heard about their interest in developing a "better" knowledge of costs. In particular, they spoke about developing something called program costing, which would determine the cost per student per day for all of their teaching activity.

Chapters seven and eight describe the program costing project and its implementation at one college. The next chapter looks more generally at the experience for college managers of taking part in a competitive market and the kinds of administrative restructuring they were putting in place in order to facilitate that participation.

CHAPTER SIX
ENGAGING WITH THE MARKET

Relations of tender were introduced to the organization of federally-funded training in the mid-80s through the establishment of the indirect purchase-third party option. Over time, the amount of money channelled through indirect purchase rose relative to direct purchase, so colleges in pursuit of federal funding were increasingly pulled into market relations. Initially, the sort of educational work they sold through indirect purchase was similar to that sold through direct purchase – for example, 44-week courses in small engine repair or office skills, intended for recipients of unemployment insurance. But instead of the courses and the students being selected by staff at the local Canada Employment Centre, they were chosen by third parties who were given the mandate to organize training for unemployed people in their area. As more money went into indirect purchase, the variety of organizations receiving training funds expanded, resulting in a wider range of requests for educational services from the college. We saw in the last chapter how the industrial council ended up "buying" postsecondary programs when there wasn't enough room for all their laid-off workers in the ordinary postsecondary classes. In other cases, third parties wanted training that colleges had to develop, or they wanted it broken up into time periods that suited an industrial schedule or the life realities of mothers of young children.

Colleges were also increasing the amount of contract work they did for local employers outside of the indirect purchase program or other types of government-sponsored training. Some colleges had been working in this area since the early 1980s; others were only

just getting in to it. The shrinking of direct purchase funds and budget freezes to postsecondary operating grants created the incentive for colleges to turn their attention to making the most of this growing market. This was the desired policy effect: more private spending on training would be forthcoming when public colleges became more oriented to the market and made an effort to provide what the private customer wanted to buy.

This chapter explores, through the words of college managers, what was involved for colleges as they established a market orientation and participated in relations of tender. Not surprisingly, what the managers are talking about is a kind of administrative restructuring based in documentary forms of knowledge. The chapter is organized as a collection of comments, and it functions here as a bridge between the description of the college system in the previous chapter and the close attention to one specific managerial knowledge practice that will be the focus of the next chapter.

THE MARKET

The introduction of indirect purchase not only pulled colleges into competitive relations of tender, it also encouraged the expansion of the market in adult vocational training by creating conditions favourable to private training businesses.

> We've been through a period of time where, in many cases with training, we were the only group on the market. There've always been private enterprises, but they've either been of questionable pedagogic nature or very expensive and there seems to have always been an industrial trust in the Ontario college system as an educational system. . . . But now the funding mechanism itself is making it much easier for private enterprise to gain access to those dollars for training. It's making it easier for the individual companies to approach the government to get the money and the colleges are now all of a sudden in a fight – a sales competition for that. (Dean, Fulton College)

This competitive market comprises a large number of small and large for-profit training businesses, as well as non-profit agencies like the YMCA.

> Well, there's thousands of consulting companies, there's thousands of consulting firms of three and four individuals who are in the business of training in a whole myriad of areas – software programs, computer training, management training – so there's a tremendous array of so-called consulting firms that are in the management consulting slash training business – they're in management development, organizational development, and branch off into many other areas. And then there's the whole myriad of large consulting firms – the accounting firms, large management consulting firms – Stevenson Kellogg, Peat Marwick – there's a huge array of firms that are heavily involved in management consulting that leads to training activity with the organization. There's a lot of private firms that are simply in the training business, period. That's all they do, and they are out there marketing their services. If you were an employer, a large or medium sized employer, in the Human Resource Department you would be receiving reams of brochures and letters and direct mail from training companies plus phone calls from salespeople from different companies representing their training expertise. (Administrator, Fulton College)

A manager in a skills training division responsible for a lot of indirect purchase training explained that orienting to a competitive market is not equally an issue throughout the postsecondary sector, but is concentrated in his type of division.

> You're not competing with anybody in postsecondary areas unless [pause] No one is competing with the universities in Ontario at least. There's already an acceptable niche there. And the colleges offer these [diploma] programs, that's it. But we compete! We compete with outside private schools and the boards of education in certain areas and third party and other groups in other cases. So I think that's forced a higher level of costing awareness and your place in the marketplace and who is your competitors out there. (Manager, Aldrich College)

College managers describe themselves as at a disadvantage vis-à-vis private trainers.

> One of the things that's impacting on that whole thing is the move to privatization in the government and I understand the reasons why that's happening and they may be very good reasons, but as you go to that, everybody can set up his or her own private school and do training and has a right to do training. Those folks who do that kind of training do not have the same rules and regulations as we do, and I'm generalizing again and I recognize that and I acknowledge that up front, but principle-wise, when you

> look at it from that perspective, when you have all of the things that we have to adhere to, we cannot be responsive as people can, who are out there in the community as a small little group of entrepreneurs who's going to teach somebody welding or whatever. They can respond overnight, we can't. We have to have the approval to run that program, we have to have approval for the number of students, we have to send in reports, we have to do all of that kind of stuff, which are not required by other people, so that in itself is making us more responsive. We should be anyway, but it certainly is an impact. (Administrator, Gallagher College)

Being pulled into a competitive market in pursuit of indirect purchase money often means colleges must actively seek opportunities of tender, rather than waiting – and hoping – that third parties will come to them.

> We have to go out and beat the bushes for business. People make it their business to be on the various training committees, that's how we find out, that's how we bid. We have to do that now. We never had to do that before – 5 years, 10 years ago. So the whole method of focus in the college is changing. (Administrator, Hennessey College)

Several administrators announced that their colleges would be moving in the direction of increasing the amount of contract work they did. This meant a more vigorous pursuit of third party money, but it also meant going after the training work of companies spending their own money, since this last market was not limited or controlled by government spending policies.

> Colleges often don't know where they stand, and it makes it very difficult for them to plan for the future, and the more dependent you are on those programs, the more difficult it is for you to plan for your future. And that's why some colleges are very aggressively saying, we're going to get out of that business as much as we can, and into a business where we control our own destiny more. We decide how much training we're going to do, we can shape our own future by getting involved in a lot of contract training, for example, where our revenue is totally dependent on our ability to deliver and sell training. Um at least we know more about what our future holds if we do that than if we're sitting there waiting for government agencies to make up their minds about how much money they're going to have and how much they're going to allocate to us. (Administrator, Fulton College)

> Especially these days with the funding mechanism – we know, forget about turning to the province or the feds for more money, I mean we've got to do it. The other beautiful part of this is that it's much more simple. If you work this payback, you don't have to have endless numbers of meetings with federal officials and provincial officials and jump through hoops with forms and approval forms and then at the last minute have a political decision that comes in that takes you over here – you know, and the funding is only for six months. If we're good at this, that market is out there all the time, and it's a long term relationship. (Dean, Fulton College)

TENDERS AND CONTRACTS

Market relations are mediated by a range of texts and textual practices that are different from those that organize the traditional relations of federal and provincial funding. As described, colleges often have to seek out opportunities for contract work. Then they have to prepare a bid, which lays out the content of the proposed training and its price. There are no system-wide per diem prices here. Training content and training price have to be negotiated for every contract.

Relations of tender with third parties are particularly complicated because of the third parties' accountability relations with the federal government.

> The federal government signs a contract with that agency and they are required as terms and conditions of that contract to submit plans and then to file expenditures against that. And the basis for doing that is largely a line item budget, so that they are given a sum of money and that has to be disaggregated by a host of items, differentiating training costs from administrative costs from income support costs, and so on. And within that, making out differentiations on travel and a whole host of other items. And that agency in turn then contracts with the college where the college is the successful bidder for the training. And again, imposes usually the same kinds of conditions, because that facilitates reporting back to the federal government. That is another area of irritant for colleges on two fronts. One, that the bidding process is time-consuming and expensive, because preparing a bid is a lot of work, especially if the terms for the bid are not very specific, and in many cases the agency will approach the college and say, what kind of training could you put on for us? And that's it. And they are invited then to come up with a host of ideas. It's rare that the agency goes back and says, I would like to purchase a 40-week welding program to start with. So that

> there is the issue of the costs of preparing bids. And then there is also the whole issue of how that reporting and cost accounting has to be done to satisfy federal requirements. And the fact that it differs from all provincial requirements and thereby imposes a whole different level of administration in the college. (Official, MSD)

> It's getting worse. With us, you put in a budget, it's not approved so you have to change all your financial records and again, one or two programs it's not significant, but the volume of what I call miscellaneous programs is increasing. (Administrator, Hennessey College)

The chairperson of a community industrial training committee (CITC), a non-profit agency made up mainly of local employers and designated as a major third party by the federal government, described the business of negotiating contracts with the college from his perspective:

> I: When it is out of line we talk about it and we negotiate. We don't just accept what they give us.
>
> GS: "What's out of line" then would be what you could get in the private sector?
>
> I: Well no. Often what we think that what's out of line – most of the training they do for us is for unemployed people, which the private companies don't compete on. Let's say you can carpentry train or welding or things like that, there are overhead rates and their costs are not comparable because we don't have anything to compare them against. But we just look at the figures and say, no that's not realistic; you'd better come up with a better number. So we will negotiate. (Private industry manager)

The work of preparing bids and "coming up with a better number" depends on the work of managers and accountants, and makes new demands for managerial knowledge:

> I would say again, I think that from a college point of view, it's forced on skills development people, let's say, a higher level of accountability and responsibility to know costs. . . . And I know that I do a heck of a lot more in terms of budgeting than [inaudible] Like I've got program budgets that show all the line detail and all the rest of that, that other areas don't have to do. [GS: And is that pushed on you by this business of contract training?] Well, pushed or pulled or whichever way you look at it. You would have to do it too to be more cognizant of real cost and then being able to make a bid that

> you knew you could live within that quote and . . . I think you are more sales oriented. If you were selling a product to a customer, you'd better know how much it costs. And I don't think in the past anyone had a real handle. (Manager, Aldrich College)

From the colleges' perspective, there is in one sense not much difference between contracts that come through the indirect purchase arrangements of the federal government and contract training for local businesses spending their own money, or funded through some other government program. All involve relations of tender and local negotiations of course content and price. But at Fulton College, which does a lot of contract training for third parties that are community organizations serving "disadvantaged" groups, contract training for non-profit groups is handled differently from contract training for businesses, at least with respect to price.

> In dealing with community-based agencies and organizations, you – we're providing a service, we provide the service basically at our cost and those costs generally are the same whether we're dealing with Agency Y or Agency X. And we charge them the same amount of money, which is fair and is right – we're not in a what-the-market-will-bear business. Not that kind of training. In other kinds of training we are. If we were doing straight contract training for an employer or a company that wanted us to do a particular kind of training for them on site, we might establish a price based on our costs plus a mark-up for the college and we might look at what the going rates for training are, and we would come in at a price that is akin to what the prices are in the marketplace. . . . And we might be bidding on a training contract along with several of the private trainers or other colleges, and in that environment it's a free market economy for training and we're in a training business at that point . . . (Administrator, Fulton College)

A big issue for managers involved in relations of tender and the preparation of bids was "selling" their prices, which were often higher than those quoted by competitors running smaller operations and working with non-unionized staff.

> You know, how do we sell our higher prices in this area to this client so that they may come back to us for more in other areas? (Manager, Aldrich College)

Positioning themselves in a "market niche" that would justify higher prices was seen as very important. Here, a manager at Fulton College enacts the kind of work a college representative making a bid or pitch to a prospective buyer needs to do:

> We come in and say, "There's a good chance we're going to be more expensive than other people, but let us tell you why, okay?" Um, some of the reasons are good ones and others they're not going to be so happy with – "*How* much do your faculty make?!!" Um, but there's enough strengths, namely, we're gonna be in business next year and the year after. Another trainer may not – uh if you're interested in continuity, if you're interested in your staff being able to align themselves with an institution that can provide some accreditation and be around down the road and be part of a community here where they can come in and use things – it may not be an issue for you, but I do believe there's enough there on the plus side that will still be competitive. Although you know, a lot of people are really worried because of money – I mean, we're at a real disadvantage financially with our very, very high instructional costs. But you know if we can move into more self-directed learning, less time in a classroom, keep the time, contact down, push a bit more self-directed learning, maybe . . .

As many managers pointed out, "instructional costs" – teacher salaries – form the largest part of any training price. Teaching is traditionally a labour-intensive activity. Pulled into these competitive relations, where managers prepare bids, adjust them to "come up with better numbers" or attempt to justify their prices along a "value for your money" scheme, finding a way to offer cheaper training comes to seem the logical next step. One way to do it is to bring in part-time people who can be paid a lower per hour teaching rate than full-time people.[1] Another way, referred to by the Fulton manager directly above, is to lower the "contact hours," the time that a teacher is in direct contact with students, which generally means classroom teaching. Part-timers are paid on a contact-hour basis. Full timers are salaried, but can teach more courses, according to the terms of the collective agreement, if the amount of official "teaching contact hours" is reduced for some courses. This requires new curriculum forms, such as "self-directed learning." Here we see one point at which the

managerial, administrative, and accounting work I am focussing on intersects with curriculum development and the managerial work of deploying teachers, driving the demand for marketable courses that require less official or payable time from the teacher. (The issue of teachers' workloads as a cost item will be discussed in detail in chapter eight.)

OTHER DOCUMENTARY PROCESSES

Participating in market relations of tender also involves the colleges in other, supporting documentary processes, such as invoicing. Once a deal is made and the contract is signed, various administrative departments in the college take over the work of monitoring the contract, invoicing the client, and providing whatever form of reporting the client may have requested.

> Well financially it creates a lot more administrative procedures because if you're going to do business properly you are bound with writing several contracts, monitoring contracts – it turns the college into a more business-like atmosphere where you're invoicing for services and that type of thing. Yes, it's changed the administrative environment significantly. (Administrator, Gallagher College)

Keeping student records is also affected.

> It also has a tremendous impact on student record keeping because these people in these kinds of training activities, if they're not purchasing postsecondary programs, it's a totally different set of student record keeping and accreditation, attendance keeping. Most of your contract education, per se, [?don't] have admissions requirements other than some rather broad ones – those relating to economic status more than educational status. So there's a totally different record keeping system than you traditionally have for postsecondary students. (Administrator, Gallagher College)

At Gallagher College, these new requirements put a strain on the computerized student record system, which had been designed to fit the recording/reporting relations of postsecondary and federal direct purchase.

> We're at a point where our registrar has probably added patches and bandages onto our student and program record modules on computer, to the point where we can't keep it together any more. The sheer number of funding sources, and the sheer number of student categories coming in – we can't cope with it, what we'd had in previous years. Before it was fairly clear – you were a direct entry student from high school, or you were an adult student, or you fitted into one of the direct purchase, usually training programs. You could count the different categories on one hand. Last time I heard from our registrar we were up to thirty-three different sources of funding that he's trying to track and provide all kinds of record and financial bases.
>
> (Vice-president, Gallagher College)

Even the scheduling of rooms is rendered more complicated.

> And then the other thing is that because these things are fitted in with our regular schedule, the scheduling of facilities becomes very awkward. Because obviously your facilities are geared to your mainstream business which is post secondary education. And then when you're trying to parachute these contracts in through the academic year at different times and different durations and different [inaudible] and days – it sends the scheduling officer out of her mind. (Administrator, Gallagher College)

Not only the scheduling of rooms and staff is involved: the management of curriculum and course development comes to be done differently, in order to offer courses organized to suit the content and scheduling demands of contract purchasers.

> Then behind that is the whole business of what the product is that we are going to be providing. And the product will be a curriculum, a training program of some sort, whether it's a two hour one on one with um a computer operator who needs something or whether it's a 6 or 8 week program for stationary engineers that would be offered over a period of 20 weeks, two days a week or something like that. So the delivery can change and so on and the curriculum can change and expand, depending upon the needs. Um, so it's putting in place, it's working with the divisions to get them thinking once again of being able to provide a menu of options. So they don't say to business, what you can do is take our Con Ed course that's like this, our daytime course that's like that, um and that's probably about it, because you know the way the faculty work and it's tough to do this, and then they get into this harangue about all of our limitations as an organization. Business doesn't care about that. They want to say – they want to hear from you, what are your needs? What are your unique needs, and how can we meet them? So, we need to then provide, start establishing some flexibility in the, the nature and format of our curriculum. (Dean, Fulton College)

NEW ADMINISTRATIVE STRUCTURES

Managers described a new attention to their administrative structures and practices as these facilitated or disrupted "customer service" focussed on meeting the "unique needs" of prospective clients.

> [re contract training] In fact that's probably one of the more critical driving forces. Because the employer/contractor/third party purchaser does not, again, recognize all our administrative lines or our academic [labeling?] of activities. So they're simply saying, we need this course and they need a Hospitality front-desk procedures course. They don't recognize that from a college's organizational structure that involves four different departments and three different programs. All they know is that's what they need to meet their employee training requirements. And the program managers within our organizational structure – people who are out there talking to the employers, they're really our salesmen in that contracting sense – they're out there trying to sell a product. They come back in-house and try to organize the development of that product. And traditionally in the past what has happened is that they have to deal with three different managers – some of whom had a sensitivity to the employers and third party contractors and others who are very much postsecondary oriented and had no sympathy. And that kind of structure really worked against us being able to provide an efficient model to meet the needs. (Administrator, Gallagher College)

> But there isn't anywhere in the college where there's a data base of all of these various relationships and services we're providing. And that's a function of how we were organized and how most academic institutions are organized, which is very inward looking. We are not – and there's a great danger, there's great controversy in the college right now, using the language of business – but the college was not market-oriented.[2] It did not begin with the view, what are the needs of the community, how can we meet those needs, how can we then organize ourselves in response to those needs, and how can be put systems in place to make sure that those needs are met? Well, it was not market-oriented. It was internally oriented and we had these divisions, we had these departments and we had these registrars' departments and so on. And everything was driven by that, so as a result of that, you had everyone operating in relative um isolation and there wasn't anyone or any department charged with the task of making sure there was some kind of cohesiveness and coherence to how we presented ourselves to the community as an entity. (Dean, Fulton College)

The Gallagher College registrar explained how the institutionalized separation between postsecondary and adult training was mirrored in the computer tracking system; this

became a problem when a third party made purchase arrangements in a new combination and wanted relevant records.

> I: If it's an adult training program, approved or unapproved, it will be in the manual system because we don't have the capability of handling adult training in this computer system. . . . To just reinforce what I'm saying, this is a report that we are generating on a weekly basis to track our program sections for [third party client].
>
> LM:: These are the six postsecondary ones?
>
> I: Yes, these are postsecondary. You don't see any reference to adult training here. That's just part of the whole environment that we're working in at this institution now. We're still very postsecondary focussed. . . . Any time we want to discuss anything other than postsecondary, it has to be a qualified conversation. Okay, you're talking about this report: I have to say this report just deals with the six postsecondary programs, but in addition to that [the client] has also two adult training programs. So I have to be able to tell you both of those instead of you being able to see that on the report. (Registrar, Gallagher College)

The registration software simply could not make visible on one page all the enrollment activity in the client's purchased programs. Up to that point, postsecondary programs and adult training had been managed and reported in entirely separate relations of funding. There had never been a need to report them together.[3]

At Fulton College, managers spoke about a plan to create a department and a senior management position in the area of contract training.

> There are many colleges that have gone the model that Fulton has gone: [college] has gone, [another college] has gone and so on – we create a senior position to look after this area. So for our college that's one of the first steps, and then the other steps follow. We will very likely be very aggressive in contract training in the future, in the next year, uh and organizing the college accordingly. (Administrator, Fulton College)
>
> [re the new senior position in contract training] This person's primary role, first year, will be to put in place the internal information management systems that we need before we can go out and present ourselves to the world. (Dean, Fulton College)

There had not been a centralized administrative control of contract training practices.

> It's, it's incredibly informal. And of course, even if it was formally relayed by a vice- president, which it was over the years, there was no auditing of it, there was no control. So at the end of the year, who's checking on the contracts? I mean, show me your contracts and how are they structured and show me the pricing of them. So there was no accountability for them. (Dean, Fulton College)

At Aldrich College, an overarching contract training administrative structure was already in place, one that subordinated the negotiating work of local departments to the overall plans and monitoring of the contract training division.

> Let's put it this way, you wouldn't find in the college system other faculties that have to have such a close a linkage as we do in [the] Aldrich structure between skills development and contract training. For those reasons. Though I have the authority to talk with people, et cetera, I don't have the authority to quote on a contract until I consult with contract training people and they officially make that quote. Let's say as an academic manager I have to cost out a lot of things and consult with people and provide that information. So contract training then is a control point where they have to be aware of, okay here's what we've come up with – we need to get this overhead here or that overhead there and this is how the final document is done then. (Manager, Aldrich College)

What could be seen at Fulton was the managers' work in assessing their accountability practices and administrative structures in light of the supposed requirements for success in the competitive market, and devising ways to restructuring accordingly. Establishing a form of centralized control was seen as essential.

> And it's no longer just left to an informal process of this dean over here saying [X Company] wants us to do this so we're gonna go out and do it. Now it's a, it's a, it's an ongoing process of negotiation here. There's some people over here in the divisions who are very very capable, who will resent greatly any attempt to try to put them within a structure. There's others who are hopeless, who desperately need some structure. But there's no question in my mind, and in the mind of the senior management team, that we have to impose in some way some discipline and some rigour on this whole process. (Dean, Fulton College)

ENTREPRENEURIAL STAFF

The establishment and ongoing work of these new divisions was understood to require managerial staff with an entrepreneurial or market orientation.

> We have to have staff who understand the contract training business as opposed to education and training that takes place within our four walls. (Administrator, Fulton College)

Here are some excerpts from an ad that appeared in the Globe and Mail for a manager at a college not among the four discussed here:

> looking for a creative self-starter to oversee the design and implementation of continuing education courses. . . . You're an entrepreneurial all-rounder who can assess a market, design a course or program to meet that market's needs, and then successfully promote the course or program to ensure a full house. . . . While academic experience in teaching or administration is an asset, the ability to respond quickly to a changing marketplace and to juggle various projects simultaneously is critical.

This position is for a manager in continuing education, a designation that usually refers to night school courses offered "within the four walls" of the college. But this traditional area of college education is also increasingly located in market relations. Colleges compete with universities, the local school board and private organizations in putting on night school courses for adults. Notice the relative weight given to previous experience in an academic setting ("an asset") and more generic business skills such as responding to markets and "juggling various projects" ("critical").

It is a problem for the college administration that many of the managers in academic positions are not "entrepreneurial all-rounders."

> Right now, if someone called the chair of [X department] and asked for some contract training, unless that person had some experience in it, and we've got lots of new chairs – lots of people who've been in the job for a year or two years – and I can tell you there's no operating manual at all how to be chair at Fulton, there probably isn't at most colleges. [LM: No] And so what do you do with this? So they often phone me and say, what do I do? I want this

> training, I'd sort of like to do it, but they didn't know how to start, because they came through a postsecondary environment you know or tuition short environment and they just didn't know how this all worked, you know. [LM: It's completely different] It's all new, I mean there's no game plan, there's no set of rules, I mean this is business. You sit down with someone and you try to get as much money out of their pocket as you can – and provide the best service you can and hope that they walk away happy. You know, so they say, how much should I charge? (Dean, Fulton College)

The problem of other managers came up several times in my interviews at Fulton College. It will come up again in the next chapter, when we see how the accounting system was being reconfigured in ways that would reshape the work of managers, and make them more "entrepreneurial" (as well as addressing the question, "how much should I charge?"). Notice in these and other comments how the traditional organization of post-secondary divisions, their domination of record-keeping systems, and the academic focus of their managers come to be identified as some of the main internal barriers to a successful engagement with market relations.

Staff issues stemming from an increase in contract and market-oriented work did not only concern recruiting or developing managerial staff with the right entrepreneurial skills; a big issue for the managers we spoke with concerned teaching staff, and here the issue was their employment status and the managerial freedom to deploy "teaching resources" in more "competitive" ways.

> And matching the teaching resource to the program is very difficult at a college. Ideally, if it's short-term money, you want a basically short-term employment contract with someone. And most people coming want to be full-time. But if you hire full-time for a program that will only last a year, that puts another funding pressure on us. (Administrator, Hennessey College)

> The other thing that hampers us with that collective agreement is the lack of its flexibility. All of the rules – a teacher can only teach so many days in a week, so many weeks in a year or you have to pay them overtime. There's so many hours from the beginning of one class to the end of the next class, so many hours from – and all of those things and we can't be flexible when we're

> bound by that kind of thing and then they start to put in into the collective agreement more and more restrictions on how many other people that you can hire from the community, if it's a job that an internal faculty person should have or laid-off faculty person should have. We should have to recall them and pay them at the higher rate in order to teach that program and those things all restrict us from being competitive. (Administrator, Gallagher College)

The manager in the second quote makes reference to a central text-mediated process in the college system, that concerned with implementing the collective agreement. As the manager explains, the provisions of the agreement "hamper" managerial efforts to offer "competitive" services in a market where other potential training providers work with non-unionized staff. The agreement is also seen as hampering overall managerial efforts to increase efficiency. In a later chapter, we will look more closely at the documentary procedures related to the collective agreement and the ways they are being harnessed to the drive for greater efficiency and competitiveness.

LOCAL BOARDS

At the time of this research, managers were preparing for a new organization of the competitive market in training. In 1991 the federal government established an arms-length agency called the Canadian Labour Force Development Board, which was to advise the CEIC on matters to do with job training. The members of this board were to be drawn from business and labour organizations, the "education and training sector", and the so-called "equity" groups: women, natives, the disabled, and visible minorities. Similarly composed local boards, called Local Training and Adjustment Boards were to be established throughout the provinces; these would take over the work formerly done by the local CEC branch in determining how to spend federal training money in the area. The federal government invited

provinces to harmonize their own organizations with this new plan, and Ontario opted to do so. Plans were under way to develop an Ontario Training and Adjustment Board at the provincial level, which would centralize authority for all the provincial government spending on training, both in educational institutions and on the job. Local boards established under the federal program would thus be LTAB/OTAB boards, handling training decisions at the local level for both federal and provincial spending. At the time I was doing my fieldwork, the NDP government in Ontario was engaging in consultation with various "stakeholders" in an attempt to work out a system that would hook in with the proposed federal system.[4] Nothing had been decided, but everyone I spoke to expected that some form of LTAB/OTAB system would be set up to administer and make decisions regarding the spending of federal and provincial money for training programs. (The provincial OTAB process and board was eventually established, only to be dissolved in April 1996 by the new Conservative provincial government. Local boards dispensing federal training money, however, were established and remain in existence.)

In the college sector, there was concern that this institutionalization of a competitive market for government funds would seriously weaken the college infrastructure, because it would bring relations of tender into more training decisions, thus making government money more available to private trainers who could undercut the colleges. This was generally formulated as a concern that taxpayers' money, which had gone into building the college system, would be wasted.[5] There was also a concern about who would be chosen to represent the "education and training sector" on the CFLDB and on the various LTAB/OTAB boards throughout the province. Because of the way the terms of this new structure were put, the notion of a training and education sector did not distinguish between public and private

trainers, a central distinction in the Canada-Ontario Agreement on Training. College personnel were worried that people who were essentially "businessmen" in profit-seeking training organizations would come to represent their sector. Shortly after I finished my interviews, the CFLDB was formed, and the two spots designated for the "education and training sector" went to the private sector: a representative of the YMCA (a non-profit, non-governmental organization) and a person from a private, for-profit training business.

At Fulton College, administrators were anticipating a local board process that could pit colleges against each other in a competition for training contracts. This had to do with how the LTAB/OTAB jurisdictional areas were being determined. In the Metro Toronto area, where Fulton College is located, one local board was planned, which would coordinate training spending over the whole Metro region, an area that includes five colleges which had previously been in separate CEC or CITC catchment areas. In preparation for this new organization of the market, which pulled colleges into a competitive pool shared with other organizations and other businesses, the five Metro colleges had formed what they called the Metro College Consortium.

> The concept of that consortium is to present a united front to the Metro Toronto LTAB so that primarily we're not bidding against each other for programs and proposals. . . . In simplistic form, we're agreeing to cut up the pie, and each college will get its fair share, but we will not duplicate the type of activity that we're doing. . . . Once the students – anywhere in Metro, one ticket will get them to school or get them back. And if you treat the system there that says Fulton College, you will handle these programs and you will bid on these programs, [college] will bid on programs, [another college] will bid on programs, [a third college] will bit on programs – with the understanding that we won't both bid and try to undercut each other in a competitive market. If we were industry, it's illegal to do that, okay? It's called price fixing. But in the system, we've merely gentlemenly agreed not to bid on certain projects. . . . And the whole idea's a united front.
>
> (Adminstrator, Fulton College)

The drawing of new catchment areas and the plans for the Consortium involved the Toronto area colleges in a new level of coordination. The Fulton administrator went on to talk about the "rationalization" that would have to go on among the colleges in the Consortium in order to determine which college had the best technical capacity in each program area and should be the one to make the bid. A dean talked about the work Fulton College managers had to do to produce the information they would need for the Consortium negotiations. This called for a new way of knowing college activities.

> We have to be able to say to the other colleges, well, this is the kind of training that we can do, and so that was a weakness. . . . Where are our areas of strength, our areas of excellence – whatever language you want to use. . . So there was a strategic planning exercise that we had to go through.
> (Dean, Fulton College)

Comparing the costs of program delivery was described as an important aspect of the work of deciding which college should make which bid, but the different costing practices of the colleges created a barrier to easy comparison.

> Well, if that's a latitude given to every college, how can we compare business programs? . . . I mean, this is one of the things we're finding out at this Consortium thing. So one of our projects under the Consortium is to find out literally how people cost out those programs that we're going after. 'Cause we're not on an even playing field.
> (Budget committee member, Fulton College)

The prospect of collaborating with the other Metro colleges put Fulton college managers in the position of needing ways to discover and represent their particular areas of expertise as well as their program delivery costs. The general move to more contract training, along with the need to get by on a reduced operating grant, made the whole business of knowing costs seem increasingly vital. Internally, for managerial decision-making and externally, in the Consortium and in other relations of tender, college managers identified a

need to know and make claims about areas of their activity – particularly costs – that had not previously figured so prominently in the main relations of funding.

Meanwhile, postsecondary diploma program teaching, the largest part of what colleges do, was not untouched by change. The formula funding process remained the same, although some new weighting factors were developed. But during the late 1980s, the annual increase in the total operating grant made available to the system as a whole was running behind the annual increase in salaries. The province of Ontario, like many contemporary governments, was greatly concerned with its deficit and pursued a policy of budget cuts and budget freezes to education, hospitals, and other areas of public spending. At the same time there was a general concern, also made much of in the media, about the need to be competitive in the global economy.[6] In response to these two main issues, the MCU under the NDP government set up task forces in 1992 on restructuring in the university sector and in the college sector. These task forces were to come up with recommendations for "reshap(ing) the postsecondary sector so as to be responsive to the continuous or lifelong education, training and knowledge needs of a modern economy and democratic society, and to ensure the fullest possible response to the government's equity/access agenda within an environment of constrained public resources.[7]" Transition grants were made available for projects that would restructure college administration, college information systems, and college teaching in ways that would allow colleges to "do more with less" and realize "operational efficiencies."

CONCLUSION

This chapter has looked at new textual and administrative requirements as these were identified by college managers trying to position their colleges within expanding market

relations. Here we begin to see "restructuring" taking place within concrete institutional processes. Not only did college administrators identify a need for new administrative practices and new administrative structures; they also identified a need for new forms of documentary knowledge about college activities, knowledge that would facilitate market relations of revenue or that they might be called on to produce – such as the industrial council's insistence on "good cost data" during price negotiations. The next chapter looks at the efforts one college, Fulton College, was making to produce "good cost data" in the context of funding cutbacks and increased involvement in market relations.

CHAPTER SEVEN
PROGRAM COSTING AT FULTON COLLEGE[a]

In chapter four, the examination of accounting as a textual practice focussed on the work of inscription and described financial reporting texts produced from bookkeeping entries for use in inter-organizational relations of property and accountability. This is a textual practice that is organized by statutory requirements and the accounting and auditing standards circulated in the CICA Handbook. In this chapter, the focus is on a kind of managerial accounting called program costing, as it was being developed and introduced at Fulton College. Managerial accounting uses the bookkeeping entries of the financial reporting system, as well as other data, and organizes this through analytic forms that intend the managerial work of planning, decision-making, and control. It is not produced for inter-organizational reporting, is not audited and need not follow nationally circulated guidelines. In chapter three we saw how the development of a type of managerial accounting analysis, the Return on Investment measure (ROI), facilitated a shift in the way corporations were structured and managed. Similarly, we shall see how the introduction of program costing at Fulton College produced the text-based observability of college work routines in new ways, and was a key element in the reorganization of managerial responsibility and accountability, as well as in the overall reconfiguration of the college as a "business."

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[a]Portions of this chapter appeared in Liza McCoy, "'Producing What the Deans Know': Cost Accounting and the Restructuring of Post-Secondary Education," *Human Studies 21* (1998): 395-418, and are reprinted here by kind permission from Kluwer Academic Publishers.

Managerial accounting analyses are drawn up to provide information for a wide range of managerial uses in profit-seeking businesses: monitoring production and staff efforts, determining selling prices, cutting down on expenditure, choosing the most profitable product mix, making capital investment decisions, etc. One of the main projects of managerial accounting is to organize the observability of cost as a managerial object, in particular the cost of specific products or organizational activities, textually known down to the level of the cost for a single relevant unit: the cost to produce one car, the cost to produce one gallon of milk, the cost to care for one nursing home patient for one day. Other forms of managerial accounting build on cost data, textually pulling it into relationship with figures representing levels of activity, prices or revenue, overhead costs, etc., in order to calculate contribution margins and other measures of the profitability of particular product lines or services. In for-profit organizations, cost accounting of this kind is an important resource for managers. It renders the organization (i.e., the coordinated work activities of large numbers of people) knowable as a site of action in ways that intend the interpretive schemata of management discourse and the corporate goal of maximized profits. It involves complicated textual procedures. It has not been much practiced by non-profit and public sector organizations. But that is changing.

We saw in chapter one that the restructuring of higher education is happening in response to state policies, largely implemented through financing mechanisms, that invite or push colleges and universities to operate in a more businesslike way and to take part in market relations. In order to achieve this repositioning, college and university managers turn to a range of management practices, adopted from the private sector, that are concerned with measuring performance and evaluating and improving efficiency conceived as a relationship

between inputs and outputs. Accounting and other forms of quantitative representation provide a way to discover such a relationship in the particularities of the work of the organization. Thus we see managerial attention directed toward, for example, discovering the unit costs of the mandated services of the public sector organization and measuring the contribution margin or "profitability" of services or divisions.

Hopwood (1989) describes the role accounting plays in the restructuring of public sector organizations whose work processes are being articulated to market relations. As a textual and representational practice, accounting can be used to "shift patterns of organizational visibility," to create new managerial objects, inviting one set of readings and closing off another. This can be effective, Hopwood suggests, in changing what he calls "managerial awareness": "The language, pressures and requirements of the marketplace can be infused into the organization as a result of a strategic realignment of organizational structure, internal patterns of organizational segmentation and flows of information, including accounting information" (p. 11).

Hopwood is not working with the same ontology that underlies the project of institutional ethnography, but I read him as trying to describe, in general, theoretical terms, what I could see going on in the Ontario college system and, within that, Fulton College. Senior managers were setting in place textual process for working up unit costs and producing measures of efficiency, and in so doing they were constructing new managerial objects and creating a new kind of visibility that exposed college work processes to new schemata of managerial evaluation and rendered them actionable in new ways. The potential for using this new visibility in managing the managers – the deans and chairs – was of special importance: senior managers were very interested in getting deans and chairs to adopt

the new conceptual frame of being a business, with all that entailed for the day to day work of management, and as we shall see, the program costing analysis figured prominently in those efforts.

The chapter begins with a look at the general trend toward producing more detailed knowledge of costs in the college system in the context of operating grant freezes and expanding market relations. Then, the program costing effort at Fulton is examined in some detail. There the focus is on the program costing as a textual representation – how it is put together and how it is being used to reshape the work of college managers. I also look at some of the ways deans, chairs and local union personnel engage with the new visibility created by the program costing.

SEEKING A BETTER KNOWLEDGE OF COSTS

During the first stage of research, the problem of inadequate cost records came up from time to time in our conversations with managers.

> We're a very complicated organization. For example a department may draw on the services of many other departments – there will be English taught and they will have their own cost centre. And there will be mathematics taught and they will have their own cost centre. And they may depend on six or seven academic cost centres to deliver their program. And so we don't have a method of extracting and identifying what portion of that service cost is identified with that program. . . So it's kind of limited. It's a limited cost record. (Administrator, Aldrich College)

A "cost centre" is a textual entity constructed through budgeting and accounting practices. An administrative department is allocated a budget and then its expenditures against that budget ("costs") are recorded as the activity of that particular department or cost centre. The Aldrich administrator called this a record keeping system that produces a "management unit cost." The administrator contrasts this form of cost visibility with another kind, one that takes

as its "unit" not the administrative department, but the academic program. In this schema, a program can be conceived as incorporating the resources of multiple departments and leaving a trail of costs across the accounting records for these different managerial units. The challenge for Aldrich is to develop and implement a documentary process for discovering that trail.

Other administrators talked about needing more precise cost knowledge for the work of tendering bids:

> The college has arbitrarily established either a 40 per cent or 50 per cent mark up [inaudible] all third party persons in order to be able to be sure that we cover the overhead costs. I'm sure, and I don't think that would I would be criticized, that would be adequate to cover our overhead costs and then some. I'm sure there's a profit margin there as well. In both cases. But again we do not have the sophistication to be able to define that and be emphatic. We say, yes, that covers all our costs. In some programs we may be running very close to the line. We may even be losing money on a particular contract because we don't calculate all the overhead involved. (Administrator, Gallagher College)

> But here, it's not as if I have a whole bunch of programs and just make a bit here and lose a bit here but still getting a certain margin of overhead out of it. I have to know program by program exactly what I get. Because I am tendering so you really have to have a program costing model. And I think that's really what we have to develop. (Manager, Aldrich College)

It was in the context of such comments that we first heard about colleges' efforts to develop a form of program costing.

> There's a costing model that is being developed by Chris and the accounting people, that I think draws on some of the information from this [registration] module but operates independent of it. And it's only in the early evolutionary stages right now. It's not a very sophisticated model. (Administrator, Gallagher College)

> So we're now struggling with the idea of developing a program costing model which we could come out and push a few buttons and suddenly we'd know the cost – taking into account all service inputs and that sort of thing. (Administrator, Aldrich College)

Many examples were given of how such a costing procedure would help in relations of tender, but we also heard about its use in coping with reduced postsecondary operating grants.

> Well, also we need it for our own management information system. I mentioned to you our dilemma of survival. You know not having enough money and . . . . We've got to look for ways of deciding where we get our biggest bang for the buck. And we have to think more of that now. In the past it was more community service. Now we've got to think, how can we provide the maximum bang for the buck in the community? It's getting to that. So we have to know a little bit more about program costs – internally. So we have to make a hard decision, "yes, that's important – that program for the community. But this one is more important: we can do *more* of this. And maybe they're of equal importance to the community, but we can do more of it here because it is more efficient than it is here." So if we have costing information we can say, "well it's a hard decision but this one's got to go." And we're going to have to do more and more of that. It's a sign of the times. And that's what's been happening in the world. (Administrator, Aldrich College)

Here we have a description of an accounting procedure – program costing – in terms of what it makes visible (bang for buck, efficiency) and how it will figure in the justificatory framework that the speaker, as a manager, can use to employ in producing the accountability of the decisions he makes; notice his reference to what "we can say." Note also that the speaker is describing a transition between justificatory frames – from "community service" in the past to "maximum bang for the buck in the community"now. Obliquely referenced by these terms is a whole set of text-mediated relations and procedures – for developing new programs, proposing them to the college board of governors, applying for Ministerial approval, etc., as well as explaining to staff, students, and local employers why a particular program has been eliminated. Colleges have a legislated mandate to develop and offer educational services identifiably of service to "the community." Whatever programming choices college managers make have to be accounted for in those terms, and colleges have

mechanisms and procedures, such as program advisory committees, for accountably identifying "community needs." The change this manager is describing is one that adds another dimension of evaluation and justification, that of "efficiency." College managers now need a way of evaluating programs along that dimension. This involves textual procedures not only for finding and measuring efficiency, but for comparing efficiency across programs ("we can do *more* of it here").

The Association of Colleges of Applied Arts and Technology of Ontari (ACAATO) had received a transition assistance grant from MCU to develop a program costing model on behalf of all the colleges. A number of colleges had applied for transition grants for this purpose, but instead of funding all their separate projects, the Ministry gave the money and the mandate to ACAATO. At the time of my research, the research department at ACAATO was just getting started: since they had not actually applied for the grant, they were still figuring out a process and establishing a working committee made up of financial officers from different colleges. In the meantime, however, individual colleges went ahead with their own program costing attempts. Fulton College was one college that was doing this, and so it was to Fulton that I turned to learn what program costing involved and how it got used.

PROGRAM COSTING AT FULTON COLLEGE

Fulton College managers had begun introducing a program costing process in the year before I started my interviews there. An administrator had been designated as the person in charge of developing and implementing program costing. He was assisted by a cost accountant from the Accounting Department who contributed his knowledge of managerial

accounting and did the actual work of pulling existing data into the form of the costing "exercise," as he called it.

People described the program costing project to me in these terms:

> We're developing a much more sophisticated cost-revenue basis for analyzing all our programs than we've ever had before. (Vice-President)

> We've got to get it down to a daily rate as to what it costs us to put on a particular program. (Administrator)

> Before we only tried to identify costs per the ministry guideli – what the ministry needed, which was the short programs and the apprentice [federal direct purchase]. . . . You see, those programs were specially funded by the ministry in order to say this gonna cost you fifty dollars a day so we're gonna buy these seats from you and pay you fifty dollars per day. At present we're trying to do a costing across the board, try to match revenue with its cost which is something I'm just trying to develop in the system now. (Accountant)

The program costing at Fulton was designed to calculate, for each program, the cost per day and per classroom hour, and to set program costs against the program's "revenue" in order to calculate the program's contribution to the overall operating expenses of the college. This was a two-part analytic exercise that produced both unit costs and a measure of contribution. A representation of the program costing appears in Figures 3 and 4. This is a condensed excerpt from the program costing for one academic division.[1]

At Fulton, program costing took the form of a computer printout several pages in length. It has two parts to it. The first (see Figure 3) lists all the programs and shorter courses offered by the division in a list down the left side of the page. The first column of figures ("Training Days") represents the work of the department converted into measurable units of activity.[2] Then, going across the page are the costs associated with each program, by category: direct costs (materials, equipment), allocated salaries (teachers) and an allocated portion of the salaries paid to the dean and other departmental staff. A share of the overhead

FIGURE 3

Fulton College -- XYZ Division

Program Name	Training Days	Direct Cost	Allocated Salaries	Dean & Staff	Overhead	Total Cost	Cost Per Day	Cost per SCH
A	61545	60,037	1,065,281	225,927	747,156	2,098,402	34.10	5.68
B	19805	76,365	153,138	72,703	240,433	542,638	27.40	4.57
C	15300	32,715	257,067	56,165	185,742	531,689	34.75	5.79
D	28900	113,758	322,200	106,090	350,846	892,893	30.90	5.15
E	35615	83,506	641,719	130,740	432,366	1,288,331	36.17	6.03
F	4845	37,602	78,420	17,786	58,818	192,626	39.76	6.63
G	12835	97,650	179,184	47,116	155,817	479,767	37.38	6.23
	178845	501,633	2,697,009	656,527	2,171,178	6,026,346	33.70	

FIGURE 4

Fulton College -- XYZ Divison

Program	Revenue	Expenses w/Overhead	Expenses w/o O/H	Contribution w/Overhead	%	Revenue Over/-Under w/o O/H	%
A	2,017,238	2,098,402	1,351,246	-81,164	-3.87	665,992	49.29
B	652,462	542,638	302,205	109,824	20.24	350,257	115.90
C	470,038	531,689	345,947	-59,651	-11.22	126,091	36.45
D	969,090	892,893	542,047	76,197	8.53	427,043	78.78
E	902,792	1,288,331	855,965	-385,539	-29.93	46,827	5.47
F	170,876	192,626	133,808	-21,750	-11.29	37,068	27.70
G	317,096	479,767	323,950	-162,671	-33.91	-6,854	-2.12
	5,499,592	6,026,346	3,855,168	-526.754	-8.74	1,644,424	42.65
	(1)	(2)	(3)	(4)	(5)	(6)	(7)

costs for the college as a whole is also allocated. The different costs are totalled for each program, and then at the far right, there is one column showing the cost per day for each program, and another showing the cost per student contact hour, which means scheduled classroom or supervision time for which a teacher is officially present. These last figures divide the total cost by the measured units of activity, in order to discover unit costs for the department's "product."

The second part of the printout (see Figure 4) again lists all the department's programs down the left side of the page. The first column of numbers (1) lists the revenue for each program. This might be student fees and a portion of the operating grant based on enrollment, or the price paid by the federal government for the training courses it sponsors at the college. Right next to the revenue column come two columns showing the total expenses of the program, taken from the previous page (Figure 3). The first expense figure (2) includes the allocated portion of institutional overhead. The second, lower figure (3), includes only those costs associated with the department (materials, teacher salaries, and dean's and chair's salaries, etc.). Right after these two columns comes an amount (4) arrived at by subtracting the first expense figure (2) from the total program revenue (1). This shows the program's "contribution" to the college as what is left after departmental costs and allocated overhead are covered. Most of these figures are negative. In the next column (5), contribution is expressed as a percentage of expenses (contribution divided by expenses). In the last two columns, the same calculation of contribution as a figure (6) and then as a percentage (7) is performed, this time using the expense figure that doesn't include overhead (3). All of the columns of figures are totalled. Percentages for these totals are calculated using the same procedure as above.

Costing documents of this kind work through and visually display an analytic exercise. They are constructed to be read from left to right, and from top to bottom, working in a movement that starts at top left and finishes bottom right. A reading following this temporal and spatial organization allows the reader to follow the working out of the analysis. The chart and the analysis begin with amounts that are taken from previously created records (we will have occasion to take a closer look at this aspect of the process in the next chapter). Then, basic mathematical operations of addition, subtraction and division are performed, using the given figures. The columns on the far right occupy a privileged position in the spatial layout, since they are both the end point in the reading process and the first figures the eye falls on in a casual glance. This is the important information, the analytic "news." Notice that the contribution rate without overhead has been placed in this last space, and that the percentage showing the aggregate contribution rate without overhead for the entire division appears in the ultimate analytic position at the bottom right.[3]

The managerial significance of expressing contribution as a percentage or rate is that this additional move permits (invites) comparisons among programs and across divisions ("We can do <u>more</u> of it here"). Contribution figures will necessarily vary widely among programs, which all have different costs. By using contribution as a percentage, quite different monetary figures can be compared and found to be instances of the same contribution rate. Or a small program, in financial terms, can be discovered to be outperforming a larger program that brings in more revenue and has proportionally higher costs. (For example, in Figure 4, Program B brings in less revenue than Program A, but has a much higher contribution rate.) This is similar to the way financial statements are analyzed

through the calculation of ratios that construct the comparability of different companies' figures.

The program costing set up a distinctly new form of visibility in the college:

> It's only in the kind of cost accounting that I guess Pat Faraday has been working on that we've been able most recently to say, okay, the division costs this in 91-92, and it brought in this. Okay, and that's the first time that I've certainly seen those two figures put together and said, what's the comparison. (Department Chair)

At Fulton, the previous year was the first time such information about departmental activities had been assembled. This form of analysis intends the kinds of "hard decisions" mentioned by the Aldrich administrator. In making visible what can be interpreted as an indication of program efficiency (or "profit and loss"), the program costing can be used to make and justify decisions about which courses to drop, in the event such decisions become necessary.

> There's a committee that's called the academic committee and they'll be making decisions as to what programs should be [eliminated?] from the college system based on the profit and loss. (Accountant)

(The accountant was the only person who talked about profit when interpreting the program costing visibility.)

But eliminating programs is a relatively infrequent event at a college. The pressing, ongoing need identified by college administrators is to cut the costs and increase the "efficiency" of all their operations. The program costing also intends that ongoing project, which necessarily depends on the work of the divisional deans and chairs who manage the delivery of the programs. The new visibility provides a powerful way to coordinate and reorient the managerial practice of lower management, by entering them into a restructuring of managerial accountability.

Here's how that works. Placing the contribution-without-overhead rate in the final right-hand column highlights a reading of "contribution" as arising out of the managerial work of the division's dean and chairpersons. Only those costs incurred in the department have been included in the calculation. College overhead, which represents an arbitrary allocation of costs incurred elsewhere in the college, is left out of the figure that offers a measure of program or divisional efficiency. This kind of representation is a technique of managerial accounting called "responsibility accounting" in the accounting literature – a way of sifting out those revenues, costs, profits or losses that can be attributed to the managerial purview of specific positions, and for which the incumbents can be held accountable as a feature of their job performance. Here is the cost accountant at Fulton College:

> I: Um, in the old system the president had control over everything. We try to make the deans responsible for the operations.
>
> LM: Of their divisions?
>
> I: Yes. Right, so the only way we could make them responsible is to tell them, okay, this is what you're bringing in, this is what it's costing you, right? So the only way we could do that is to go through the costing exercise across the board and so, okay – "short programs are not making money, post-secondary programs are making money, the division as a whole is looking good, but you have certain programs that are being carried by other programs." This is the reason for doing this kind of exercise at this stage.

Here we see the powerful organizing potential of the document. The accountant describes the way the program costing document is being used by him and the administrator in charge to "make the deans responsible for the operations." He describes this making responsible dialogically (Bakhtin 1981), enacting[4] as direct speech what he and the administrator can tell the deans. And what he is enacting is talk that has as its warrant and referent the program costing document ("this is what you're bringing in"). He is enacting the

situation of showing a dean how to read the program costing as an evaluative representation of her or his division, in the context of implementing a new system of responsibility.

Elsewhere the same orientation to the new accountability is visible in the accountant's description:

> LM: Um, so for your own internal use prior to what you're trying to develop now, what kind of internal information about costs . . . were you generating?
>
> I: Okay. What the deans knew before is what the Ministry was paying on the SCH [student contact hour].[5]

Here is an interesting shift in the accountant's answer. Whereas my question includes the accountant among the users as well as the generators of accounting information, his answer does not include himself and was, on first hearing, frustratingly elliptical. After studying the transcript, I came to see that, throughout the interview, the accountant speaks of his work as producing knowledge for others that will be acted upon in specific ways. The "internal use" that currently matters is not what he might know, but the production of knowledge for which deans can be held accountable in the new relations of managerial accountability his work is helping to put in place.

> [describing the old system] No, they had no responsibility [LM: for?] the operations. All we give them is a statement saying this is your expenses, they say that's okay. . . . Then at the end of the year we say, the college is showing a loss, why? This is why we have a loss: you're running too many programs that is not bringing any mark-up. Like our operating overhead is between twenty-six and thirty percent. Now we're trying to tell them, bring in your programs at twenty-six to thirty percent. Anything under that is a risk. So we're trying to feed that into them right now.

Notice that, again, the accountant is talking about accounting documents as constructing a particular visibility that warrants claims in the context of managing the managers. He sets up a contrast between two forms of cost documentation in terms of what

they show and most particularly, what response they can evoke from the deans, what next phase of action they can intend. The old form of cost documentation, a simple statement of expenses, is described as evoking nothing more than acknowledgment from the deans ("that's okay"). There's nothing the deans need to do with that information. The new program costing is described as answering the question about why the college is "showing a loss" (an expression that is also a reference to the accounting representations that make losses visible). College accountants have calculated that overhead costs as a percentage of total college costs usually run between 26% and 30%. The percentage contribution rate worked out in the program costing repeats that form of calculation at the level of the program. This visibility, when interpreted for them by the accountant, sets the deans a clear task: in the case of under-contributing programs, they are to find ways to "bring in" their programs at the specified contribution range. The deans must be taught this new knowledge and its implication for their work: "we're trying to feed that into them right now."

The focus on deans and chairs and "making them responsible" was a central theme in the management talk about program costing and managerial restructuring within the college. As with the need for entrepreneurial skills described by managers in the previous chapter, an understanding of budget issues and costing information was seen as a necessity in the new environment, but many deans and chairs were felt to lack this.

LM: What would be involved in putting that [program costing] in place?

I: The – first of all you have to get the academic side to buy into the importance of it. Um academics are peculiar beasts. They live in a world of, let me get on with doing my job, and don't bother me with dollars and money. Unfortunately the current system is putting us in a position of being a business. Okay? We're a business. And we have to very carefully balance the humanistic side of our aspect against the bottom line. We can't afford to lose money. Ford can lose 9 million dollars, they can borrow from the bank and get it back next year and

next century. We can't, we're not allowed to run a deficit budget. We have to remain within our budgetary factors, which means we all of a sudden now have to look at what we're doing as a business. And I'll tell you right now that's creating a lot of mental havoc with our staff. (Administrator)

I: Uh, but as long as money was uh freely dispensed by the ministry – if you got in trouble they'd give a special grant, uh nobody had any particular reason to draw a tight bottom line. Now, it's being forced and for some people it's a hard pill to swallow, where all of a sudden they have to rationalize. Uh I've had deans that are on notice that I want rationalization for these programs from a functional point of view in dollars and cents. And "what do you mean you want rationalization?" "I want to know exactly what that program is costing." And it's an alien concept to a lot of people. So that's an education.

LM: So for some deans then this would involve them in learning new skills, how to rationalize a program in terms of use and cost?

I: [gestures putting hand over microphone] A lot of them can't balance a cheque book, how could they balance a budget? (Administrator)

The accountant talked about how at first the deans had a hard time reading the program costing documents ("they had the same trouble you're having," he said); now, however:

I: the deans and them, they're showing a lot of interest in the papers, so they support this method better than they had last year when we asked them for the first time to ( ) this exercise.

LM: That was the first time they did it last year. And you could see they weren't totally supportive – or didn't totally understand?

I: [They?] didn't understand. [We?] let them know what we want to do and they think it's for their benefit to go that way, so there's more cooperation from them now than last year.

What these comments make visible is the work of teaching deans and chairs to accept and operate a new interpretive frame: to view the college as a business and to see individual programs and courses as having identifiable – and controllable – costs. An important piece for the Fulton managers was getting the deans and chairs to "buy into" the restructuring, to

accept that the college really had no other viable option but to pursue an entrepreneurial orientation. The administrator who spoke about academics as "peculiar beasts" experiencing "mental havoc" as the current situation compels the college to "look at what we're doing as a business," went on to say:

> and one of the ways we decided here at Fulton College to get around this is, we've involved – we have a budget committee within the college, and that budget committee involves both union presidents. So that the union – our books are open. The union has as much information on the budget as we do. Since we did that about nine, ten months ago, I've noticed a dramatic change in our faculty union's attitude. (Administrator)

He also described a "dog and pony show" in which he and another administrator spoke to groups of the college staff about the funding relations, explaining the college budget and where college revenue comes from.

> And it's worked quite well. . . . Our idea is to counteract these changes by the spreading of knowledge rather than drawing back and hiding everything and saying we'll make the decisions. On the other hand, the decisions still rest with the administration, and we input from everybody, we work in a cooperative effort. (Administrator)

Managers treat "the books" as self-evident – the financial crunch facing the college can be seen, and if only the staff understand the funding relations and look at the accounting records, they will not accuse management of capricious job-cutting, or a cruel bent toward work intensification. There is a reliance on the objective character of accounting representations.

> The unions have accepted that we're not hiding anything – it's all there. And the reason – they may not like what – the decision we've made, they may not like the reason we did it. But they can't deny the fact that there it is, in black and white. (Administrator)

Here we see the power of accounting as a representational form. Accounting documents can be relied on to "say" the same thing to staff and unions as they do to

management, even though strategies to act on this knowledge differ and become an object of debate, a debate structured and limited by the accounting representations. In Smith's terms, this is a tightly operating "ideological loop": provided there is no reason to suspect the figures have been fudged, the truth they depict appears as self-evident, and can be read the same way by the union as well as by management. Comments and criticisms that do not acknowledge the "there in black and white" facts of the accounting representations come across as ignorant or irrational, and need not be seriously entertained as "input." However, as we shall see later, the union president was not without criticism about the way college administrators produced cost information about college activities.

THE BUDGET REVIEW PROCESS

The budget review process was a new activity for this college, and not only because it involved both union presidents.

> I: When we went to the budget model, everybody started asking questions and there were no answers.
>
> LM: What was the budget model?
>
> I: Well, the budget model is to bring a central committee together, as opposed to the president doing it.
>
> LM: Doing the budgeting?
>
> I: He did everything. . . . He literally would sit and go through the computer sheets himself. . . . Well, the only person that had a handle on everything was Howard. That was how he functioned. He was an engineer, he had to have his fingers in everything.
>
> (Budget review member)

It was a new college president who had instituted the budget review committee.

> I: We're a budget review – see how they're doing it now, and it's to empower – you can't make people change unless you hold them

responsible. [The new president's] model. The budgets before, and this will give you a good example, we had a – a chap who's up in technology became a new chair out of faculty and he came in just at the time to do the budget for next year. And he said, I had lunch with him for another reason, and I started talking away, de dah de dah; he says, I don't have any of this knowledge. . . . I mean I went through a whole slew of things with him, around cost accounting. And he said, that's not how you do the budget, you just add – well the salaries are 2% more this year, so you add 2% to your budget line, you add this to this line. And that is the way all the chairs do the budget. It's so much more than last year.

LM: And their task is to prepare a budget of what they –

I: A forecast

LM: – forecast of what they think their division will need in the upcoming year.

I: And that is all they've ever been asked to do. Whereas this budget committee is saying, why does it cost you – why do you need 20 faculty to do that work? "Well, I've always needed 20 faculty to do that work." It's not the answer, folks. *Why* do you need 20 faculty? Why do you need, why do we need 35 coordinators? The cost of coordinators is horrendous. I mean at this college the lost salary of having coordinators is 1.6 million dollars, because they're doing administrative tasks when they're supposed to be in the classroom. So classroom time costs 1.6 million. Now the budget committee, if the budget committee had not been there and not asked that question, that would never have been known. In other words, nobody stops, under the old model, to think, how much does it cost me to do it this way? How much would it cost me to do it that way? How much would it cost me to do it – nobody has even said, go develop three scenarios to do the same thing. Budget committee has to force that. (Budget committee member)

This account of budget committee work emphasizes the dialogic context in which chairs and deans are taught a new conceptual, knowledge and justificatory practice: "How much does it cost me to do it that way?" Chairs and deans are to be taught no longer just to forecast accurate budgets, or to live within the budgets they are allocated, but to think about the work and teaching routines they manage as having identifiable costs that can be altered

– lowered – by changing those aspects of the work that bear on the documented cost. They are to learn that formerly acceptable ways of justifying budget requests are "not the answer." And not only to think this way, but to seek out information that intends this new managerial orientation. Notice the informant's comment that the process sparked questions for which there were no ready answers, and that coming up with an answer resulted in the production of a new college "fact": having coordinators (teaching staff who do some administrative work) "costs 1.6 million."

The new president's "model" is one that has been widely promoted in the discourse of higher education management (e.g. Meyerson and Massy 1994): the president is to avoid hands-on involvement in day-to-day operations; instead, the president sets the "vision" and the operating targets, and the responsibility for realizing these shifts down the managerial hierarchy. What we are seeing is how that model is implemented through new administrative structures, such as the Budget Review Committee, and new documentary practices such as program costing that accomplish the observability of organizational activities as measurable instances in terms of the president's targets or vision.

ENGAGING WITH THE PROGRAM COSTING VISIBILITY

I could also see in the accounts of people lower down the hierarchy how the visibilities produced in program costing and other accounting texts could become the objects of critique or negotiation, even while their basic premise is not questioned. Program costing was a new process. People knew it was still in the experimental stage, and they read the program costing documents in a way that assessed them as provisional representations of an actuality they knew in other ways. This was particularly urgent for them because the program

costing visibility was coming to be consequential in shaping college "facts" as the basis for making claims and warranting managerial direction.

Here the union president challenges program costing representations that show continuing education night school ("Con Ed") to be a money-maker compared with the full-time day program:

> I: But they don't make money off of Con Ed! Because they don't charge space to Con Ed. In other words, all of the – all of the maintenance of the building is coming out of the budget that pays me. The heating for the night program is not separate from the heating for the day program. It comes out of the budget they say we're five million dollars short on the day program.
>
> LM: Really! That's not overhead? That's not built into the way the Con Ed is costed?
>
> I: That's right.

The same union president also described challenging the costing procedures used in preparing contract training bids:

> I: You know, if somebody puts in a delivery including telephones and space, and somebody else puts it down here, then the teaching hour gets to be a hundred and fifty bucks – and that's my fault – and we get blamed, literally, they'll turn round – I've had Pauline Cormier say, well, we can't function – and she and I are great – this is not a relationship problem. It's your problem is a hundred and fifty dollars you're costing me! I don't get paid a hundred and fifty dollars, Pauline, what are you talking about?
>
> LM: It's because the direct cost, the material costs as it were are like –
>
> I: And they show a budget cost here that they show all the full time faculty rates and the (pay?) rates and everything else. Well, that's not my salary. They've got all kinds of things in there.

This is an instance of arguing about accounting texts that assumes the basic premises of accounting as a representational technology. The argument turns on how a specific representation is constructed and read vis-à-vis the actuality it is supposed to describe in cost

terms (e.g., what teachers actually get paid). The concern is the implication for the employment of teachers who are produced as expensive by these practices and take the "blame." The underlying theme is the need for further refinement – for example, separating out certain types of cost on the tender instead of lumping them together in a single category.

A department chair makes another kind of argument for refinement in the program costing project:

> Last year they did a flat 30 per cent overhead. . . . They're now saying, okay, we'll look at adjustable overheads, not flat overhead. So one of the things we were going to immediately argue for is that we have several programs in this division where our students have field placement concurrently with – . . . that means we have one set of classrooms in use, but in practice we have, in actually we have two groups of students. . . . So we say, you can't charge us 30 per cent, if you're charging those programs with students in five days a week 30 percent overhead, because we're in fact getting double use out of the classrooms. . . . We're saying, here are some things we're doing where we run very economically and that's fine if that gets reflected back in the program costing.

The new visibility has consequences: it promotes comparison among divisions and it offers indications of managerial effectiveness. Here we see how one division's managers are attempting to influence the further development of the program costing in a way that will enhance the recordable efficiencies of their division in comparison with other divisions.

In fact, the accountant spoke about plans to look into a general overhead costing process that would be based on square footage used in classrooms and office space. Currently, overhead is allocated on the basis of the SCHs attributed to each program.

> What we're looking at is square footage. What we're doing right now by using a student count, you might have a class in a 10 by 10 room, with 20 students. I might have a class in a 50 by 50 room with 7 students. Because you have 20 students [you're in a higher part of the ballpark?] than I am although you're using less space. So we try to go on a square footage basis. What I'll have to do is do both exercises next year and ask which one fit better. . . . So in the third year, the overhead would look better than what we are using right now. We'll go to the square footage and it will give us a truer cost of operations.

> In that way we will also be able to identify the special programs we were speaking about here – what rooms they're using, how much it costs us to operate that room during the course of the day. We have programs on Saturday mornings, you know. So doing square footage would be I think a better way than going to the full time equivalent or the SCH that we're using now. (Accountant)

The accountant's explanation of the future direction of the program costing gives a sense of the kind of choices involved in constructing the new visibility. It also suggests what forms of data and coordination will be needed. Building a quantified representation of space use into the program costing will require some way of feeding data from the scheduling office and the physical plant office into the accounting office, so that the accountant will know how much square footage to "charge" each program as a way of allocating overhead. It may also involve textually constructing and making visible a whole other area of cost: the cost to operate a room during the course of one day.

Another related form of refinement under way consisted of identifying more and more costs as "direct" costs that could be directly attributed to specific programs.

> I: Um, (due to) the kind of accounting that we have – where everything's allocated based on a percentage, we try to get a more direct type of expense allocation for the (new year), right? That means that if you are a technician in a division, what we have been doing in the past is taking your salaries and spreading them across the whole division, but your salar – you might not have been doing any work for half of the division, right?
>
> LM: Just for some courses?
>
> I: That's right. So we're trying to identify these people and open new or direct expense accounts for those. The same thing for the equipment rentals and equipment maintenance. Certain divisions, or certain departments within a division will have a higher cost for equipment used than others. So we try to allocate, try to identify these, set up direct costs where we can. So we've been doing less allocation [unintelligible] more of direct, which would make more sense to the accounting. (Accountant)

Overhead is usually the most contentious aspect of a costing exercise or a bid tendered in market relations, because it is the least specific and the most negotiable. People claim they are being "charged" for services they don't use, or insist that since they use less than others they should pay less. Hence, the accounting goal is to shift as many costs as possible out of divisional overhead and apply them directly to specific programs. Over time, as the possibilities for representing in this way become more entrenched, in expectation and technical practice, and as division managers and customers dispute overhead allocations, more and more aspects of college activities will come to be known as having identifiable and observable costs.

CONCLUSION

Smith writes that the "text-reader relation" should be studied as a "sequence of social action which includes interpretive practices. . . . [T]extual analyses must explain how the text as petrified meaning structures the reader's interpretation and hence how its meaning may be entered into succeeding phases of the relation" (1990: 223). In this chapter I have taken a close look at one textual accounting form, program costing, as it was being used in Fulton College. I have studied its structuration as a text – in other words, its organization as petrified meaning or congealed utterance intending a specific interpretive schema. I have also looked at some of the ways it was being activated and taken up in different sites and work processes of the college. I wanted to go beyond analyzing the visibility constructed in the text to see how that visibility is interpretively activated by the text's readers within ongoing work processes, for example, managing the managers, doing the work of the budget committee, or contesting the representation and pushing for refinements.

In the next chapter I focus on a document, the Standard Workload Form, that lies behind the program costing. It is not part of the college's bookkeeping – in fact, it is used in implementing and monitoring the terms of the collective agreement. But it has been pulled into the program costing to play the crucial role of working out how much in the way of salary costs to allocate to each program.

As you turn to chapter eight, imagine that the program costing document in Figure 3 has a series of doors in it, like an Advent calendar. You are going to open the door marked "Allocated Salaries." You will at first find yourself in a different part of the landscape, but you will eventually see how the path leads back to program costing.

CHAPTER EIGHT
READING THE STANDARD WORKLOAD FORM[a]

LM: Tell me about swifs.

Teacher: Well here they're useless. They're a joke.

LM: Well, what are they? You said "here" – they're standard?

Teacher: The form is standard.

LM: Throughout the college system.

Teacher: Yeah

LM: I've never seen one before, so I need to be explained – walked through this.

Teacher: Well, they're extremely complicated and I might not be able to remember all of the factors and stuff, which is which. But what they do – do you have a copy of this I presume? [Shows a copy of the collective agreement.]

LM: No

Teacher: Okay, cause this explains the swif so [LM: the collective agreement] Yeah [LM: Okay] but, technically speaking the swif is a contract between each employee, you know, each teacher and management, and it is supposed to account for the time that we spend at work.

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[a]Portions of this chapter appeared in Liza McCoy, "'Producing What the Deans Know': Cost Accounting and the Restructuring of Post-Secondary Education," *Human Studies 21* (1998): 395-418, and are reprinted here by kind permission from Kluwer Academic Publishers.

I came to see that the Standard Workload Form (abbreviated SWF and pronounced in speech as "swif") was an important document midway through the period of my research. Administrators had referred to it when speaking of the ways it limited their ability to respond to the demands of the competitive market. Administrators also made the point, at least once in every interview, that college teaching is a labour-intensive operation. Approximately 80% of their costs, they would say, goes to paying teachers. I learned that program costing was complicated to set up because a program might involve teachers from different departments, and that any one teacher might teach in several programs, and a procedure had to be developed that treated teachers not as single units of cost but as bits of cost that could be spread around. So, knowing vaguely that there was a document that was used to establish and calculate the workload of all teachers, and that was considered important by administrators, I set out to find out more about it. Along the way, I discovered that SWF is one of the documentary practices that lies behind, and feeds into, the program costing. Specifically, the SWF is one of the key documentary sources for the "allocated salaries" amount that appears on the first page of the program costing discussed in the last chapter (Figure 3). In studying SWF I am going behind the surface of the program costing text, to see how the program costing as a representation draws on existing documentary practices other than the financial bookkeeping. At the same time we see a reflexive relationship developing: the program costing draws on SWF and SWF as a representational practice comes to be reshaped in the context of its new use in the program costing.

This chapter combines three interrelated projects. One examines SWF as a documentary practice that coordinates action across the college system and now feeds data into the program costing; SWF figures in the managerial project to lower costs, which

inevitably focusses attention on the work and employment conditions of teachers. The second project is to bring into the picture the experience and voices of teachers, who have till now mainly appeared as managerial objects of concern rather than as agents in their own right. The third project is to trace the institutional process of SWF across multiple sites by focussing on the accounts of people who are differently located in the extended work sequences of the college system. I present and examine the accounts given by five different people: a teacher, a union official at the system level (also a teacher), a department chair, the accountant, and the president of the union local at Fulton (another teacher). I look at how the SWF representation is activated or read by these different people, in terms of what it shows or ought to show, and how it can be fitted into the courses of action the individual is engaged in. I begin, however, in deference to the demands of clarity, by mapping out the documentary practice of SWF as I came to understand it through talking with people and studying the collective agreement.

SWF AS DOCUMENTARY PRACTICE

The SWF is used throughout the college system to calculate the workload of college teachers each semester. It functions to bring the terms of the collective agreement[1] into each department of every college, and has been in place since the mid-1980s when teachers went on strike over excessive workloads. Although they had at the time a collective agreement which set out the maximum hours teachers could be asked to teach, these were frequently disregarded by college administrators trying to increase enrollment while holding staff salaries down. One outcome of the strike settlement was the development of a standard formula for calculating teacher "workload."

The SWF is a method and a textual process that relies on objectively knowable and documented aspects of the teacher's work – number of students, number of scheduled class hours, type of evaluation to be performed (e.g. essay tests or multiple choice) – in order to arrive at an attributed number of average work hours per week. The application of the formula involves multiplying scheduled class hours and numbers of students by factors representing evaluation method and preparation requirements as set out in the collective agreement. Teacher "workload" as a routine calculation is not determined by teachers figuring out how much they work, but is rather determined independently of their experience of doing the work. It is the work of the department chair to fill out (or cause to be filled out) and approve SWFs for all the teachers in the department. This is not a representation after the fact. SWFs are filled out in the process of determining what courses a teacher will teach in the upcoming semester and what other work will be expected of her or him, such as developing curricula or going to speak in high schools. The process of SWF thus applies the terms of the collective agreement to the work any one teacher is being asked to do, and by calculating workload by means of the formula, it can be seen whether this proposed set of tasks fits or contravenes the terms of the agreement. Adjustments can then be made in the planned work so that it does conform. Adjustments, we shall see, can also be made in the representation, so that conformity is a textual accomplishment alone.

Essentially, what the workload formula does is provide a set of standardizing procedures for making an objectified, textual account of each teacher's "workload" in terms defined by the collective agreement. The collective agreement itself is a text, a legal document, in fact. Copies of the agreement are printed up in little booklets and are available to all academic employees and management. But while this text itself may circulate in the

college system and be physically present in the various sites where teachers' employment conditions are produced, without the SWF there would be no regular, accountable process for actually bringing the terms of the agreement to bear on actual situations. The SWF process involves the local production of a textual representation that works up a quantified account of a local situation in terms that match it with the terms of the collective agreement. In producing the account, the workload formula is applied to the local situation, and the local situation is thereby shaped by the terms of the collective agreement.

The Standard Workload Form is the name given to the text used in this process. The collective agreement lays out a model form; individual colleges prepare their own multiple-copy forms incorporating the standard, required elements. (See Figures 5 and 6.) The discussion that follows is based on the terms of the collective agreement in force at the time of my research (I use the present tense for simplicity and immediacy: we are in the textual time of the historical present). The starting point is the one part of teaching work that can be observed and that has definite times attached to it. This is the time scheduled for classes to meet or for some form of supervision to occur. For example, if a teacher is teaching a course that is scheduled to meet for two hours a week, the formula for the workload associated with that class begins with the number 2.0. This represents Teaching Contact Hours, a term which refers to the scheduled time that teachers are officially "in contact" with students, generally in the classroom although this category also includes supervising field placements.[2] But since teaching includes much more work than standing in front of a class or supervising placements, the formula is designed to attribute additional hours on the basis of characteristics of the course, as follows.

FIGURE 5

Standard Workload Form

College _____ Department _____

Teacher _____ Probationary ( ) Yes ( ) No

( ) Full-Time/ ( ) Partial Load/ ( ) Part-time ( ) Sessional

Coordinator: ( ) Step I ( ) Step II/ ( ) not applicable

Period covered by S.W.F. From _____ to _____

Course/Subject Identification	Assigned Teaching Contact Hours	Language(s) of Instruction	Preparation				Evaluation Feedback				Complementary Hours Allowance	Complementary Hours Assigned
			Type	Factor	Attributed Hours	Additional Attrib'd Hours	Class Size	Type	Factor	Attributed Hours		
References to Collective Agreement	4.01 (2.3)	4.01 (4)	4.01 (4)	4.01 (4)	4.01 (4)	4.01 (4)	4.01 (5)	4.01 (5)	4.01 (5)	4.01 (5)	4.01 (6)	4.01 (4.6.7)
Weekly Totals												

Preparation Hours/Subject = Factor x Teaching Contact Hours
Evaluation Feedback Hours/Subject = Factor x Class Size x Teaching Contact Hours

Number of different course preparation _____

Number of different sections _____

Number of different languages of instruction _____

Summary of Weekly Totals

Assigned Teaching Contact Hours/week _____

Preparation Hours/week _____

Evaluation Feedback Hours/week _____

Complementary Hours (allowance)/week (Minimum 5) _____

Complementary Hours (assigned)/week _____

Total this period S.W.F. _____

FIGURE 6

Accumulated Totals to S.W.F. Period End Date

	Teaching Contact Hours	Contact Days	Teaching Weeks
Balance from previous S.W.F.			
Total this period S.W.F.			
Total to end date			

Complementary Functions for Academic Year

Description	Weekly Attributed Hours

Dates of Discussion of Proposed Workload: _____

Date S.W.F. Received by Faculty Member: _____

Supervisor's Comments: _____

_____

_____

Supervisor's Signature: _____ Date: _____

Faculty Member's Comments: _____

_____

_____

NOTE: If not in agreement with the total workload, the Faculty Member must so indicate in writing within three (3) days from the date of receipt of the S.W.F. and return a copy to the Supervisor.

Faculty Member's Signature: _____ Date: _____

( ) Mutual Agreement on Assigned Workload

( ) Proposed Workload referred to College Workload Monitoring Group

( ) Proposed Workload referred to Workload Resolution Arbitrator

Voluntary Overtime Agreement

In accordance with Article 4.01 (10) (b) overtime will be compensated at the rate of 0.1% of annual salary.

I hereby agree to one (1) Teaching Contact Hour or _____ Workload Hour(s).

Faculty Member's Signature: _____ Date: _____

The first chunk of attributed time is for course preparation. The collective agreement assumes that new courses take more time to prepare than courses the teacher has taught before, and that additional sections of a course the teacher is already teaching require less preparation. There are thus different factors associated with these differing characteristics of the course considered vis-à-vis the teacher and his or her other courses and past experience. The amount of time to be attributed for preparation is arrived at by multiplying the TCH's (the base) by the appropriate factor. So if the teacher in our example is teaching a new course (for her), the base of 2.0 would be multiplied by 1.10^3 to arrive at 2.20 attributed hours a week for preparation.

The second chunk of attributed time is for the work of evaluating or grading student work. Here, the multiplication factors represent the type of evaluation that will be done in the course. There are three recognized types: grading of essays, essay exams or projects outside of scheduled class time; grading of short answer or multiple choice exams outside of scheduled class time or where mechanical (e.g., computerized) marking is available or marking assistants are provided; and last, evaluation performed by the teacher during the scheduled class time (more usual in trades courses). The first type has the highest factor and the last has the lowest, since it is held to require the least time. Now because the amount of time needed for grading is understood to be affected not only by the type of evaluation but also by the number of students, the attributed time for evaluation is reached by multiplying the base number by the number of students in the course by the appropriate factor. So continuing our example, if our teacher has 27 students in the class and requires students to take two essay-type exams, the base number of 2.0 would be multiplied by 27.00 and .03 to arrive at 1.62. That is the amount of time attributed to evaluation for that course on a weekly

basis. This same, standardized procedure is followed for all the courses the teacher is scheduled to teach that term. Yet the formula is not inflexible: the form makes it possible to add additional "attributed" hours to the calculation of preparation and evaluation time for each course a teacher teaches. Then the columns are added up to show total teaching contact hours, total hours attributed for preparation and total hours attributed for evaluation.

It is recognized in the collective agreement that teachers' work involves more than classroom teaching, course preparation and student evaluation. There are therefore two additional categories of attributed hours. The first of these is a standard "complementary hours allowance" of five hours automatically given to all teachers. This is meant to include three hours of "routine out-of-class assistance to individual students" and two hours for "normal administrative tasks." As well, there is a second category for "complementary hours assigned." This latter category is where the other work teachers do, such as attending faculty meetings, coordination, curriculum development or running teaching workshops, can be represented. Here there are no definitions of what the work is, nor formulas for representing it. The collective agreement stipulates that such work should be represented on an hour-for-hour basis.

Notice that the last category is complementary hours <u>assigned</u>. The key here is that the other work teachers do can only appear on the SWF if the department chair, the teacher's immediate supervisor, assigns the work or agrees to recognize it officially. Needless to say, this is the area of greatest controversy when it comes to the actual implementation of the workload formula, since it does not have the same objectifying elements as the other categories. It's an open category, both in terms of the "complementary functions" that can be listed and the time that can be attributed to the work, and depends on negotiation between

the teacher and the supervisor. (Similarly, granting additional "attributed" hours to the calculation of preparation and evaluation also depends on negotiation between the teacher and the chair.) Recording "complementary functions" is not an obligatory element in the calculation of workload. The concept of "assigned" work enshrined in the collective agreement allows department chairs to claim that teachers are not being asked to do the other work they do, such as program development; this is rather something teachers volunteer to do as part of their professional commitment. Given the looseness of the formula in this area, the handling of complementary functions varies from college to college, and from division to division within colleges.

The SWF is bounded by two important limits. The first concerns the maximum number of TCHs that may be assigned to a teacher in a given semester. Teachers in post-secondary programs may not be assigned more than 18 TCHs; teachers in non-postsecondary programs (e.g., trades, apprenticeship) may be assigned up to 20 TCHs. The second limit is the weekly maximum of 44 hours that applies to all teachers. (There is a provision for voluntary, compensated overtime of up to 3 total hours a week.) There are other limits that apply to the scheduling of a teaching load, such as a maximum of eight working hours in a day, a gap of at least twelve hours between the last hour worked one day and the first hour worked the next, etc., but adherence or failure to adhere to these limits is not made visible through the SWF calculations.

The SWF, as the abstracted representation of a week's workload, does not conform to any actual week of work during the teaching year, which makes it difficult for teachers to ascertain if the times allowed are adequate or overly generous. The same amount of time for preparation and evaluation is not needed every week of the teaching term. Some preparation

might not even be performed during what are called "teaching weeks," but may be done over the summer. As well, there are several weeks during the teaching year when courses do not meet. Ten days of this time are earmarked for "professional development"; the rest of the time can be used for curriculum development, course preparation, and the like. This work is not represented on the SWF or on any other form. However, the weekly workload as shown on the SWF is meant to include this work. Here's how that works. The workload formula permits teachers to be shown as having a workload up to 44 hours a week (before overtime). This is well over what is considered a standard work week of 35 hours. Other professional staff in the same bargaining unit, counsellors and librarians, can only be asked to work 35 hours a week without going into overtime. This is because their work weeks are understood to be constant. But since teachers only teach for part of the employment year, the workload formula allows them to be shown as having a higher number of weekly hours, the idea being that if you add up the total hours and divide by the number of weeks of employment, it comes out to about 35 hours a week. Again, these calculations are not performed on the SWF of any one teacher, although they are intended by the formula.[4]

ACTIVATING SWF

Whenever a type of document occurs within extended social relations, at every point where the document can be said to "mediate" a course of action or "organize" what can be said or done in a setting, the document must be activated by people who read it, use it, refer to it. Although a document may be in a local setting physically – in the sense that a piece of paper is lying on someone's desk, for example – its organizing and coordinating capability must be discovered and produced by the people who take it up and in some way draw it into

their field of practice. We have seen how filling out the SWF activates the collective agreement by working up a quantified representation of teachers' work in the terms set by the agreement. But how is SWF itself, as a document and as a process, read and activated? And how does it get pulled into the program costing?

Here are a series of excerpts taken from interviews with people who work in the college system. In most of the excerpts the speakers are talking specifically about the SWF; in others they are talking about some of the new accounting and budgetary procedures being instituted at Fulton College. The speakers are located at different points in the extended work sequences of the college system. The daily matter of their jobs is different, and arising within that, their situated knowledge of college affairs. Their accounts evoke the settings or situations where they encounter the SWF, the terms of its relevance to their work routines, what it makes visible, and how it can be used. I pay particular attention to these accounts as they display specific standpoints and practices of reading SWF.

The Teacher's Reading

The first teacher I interviewed about SWF had worked at other colleges in the Ontario system before coming to Fulton. She had recently taken on the duties of coordinator for the program she taught in. That meant she did front-line administrative work related to the program, as well as informally supervising the program's part-time teachers. (The formal supervisor, according to the collective agreement and the relations of accountability within the college, was the department chair; the coordinator, however, did the actual work of interviewing, selecting, and providing orientation and support to part-time teachers.) She

brought both her current SWF and her last SWF to our interview, along with the copy of the collective agreement. She explained the process from her location in it.

> The way they do it here, because they hand it to me [LM: this thing?] no, a blank one. And I'm supposed to fill in what courses I want to teach. I give it to the secretary and she then puts it in the computer and it spits out all these factors. She gives it back to me and I say whether or not I think it's right or whether I want, if in fact it's new and it should have been established, or it's process and in should have been – you know, I can make those corrections, and then I sign it and then [Department Chair] signs it and if she agrees with it, she signs it and if she doesn't think you have enough hours – for example, I thought I should have had one less course and she said no, I had to take it, right?

The teacher's account highlights the work of other agents (the secretary, the computer) and the discretionary power of the chair. She also emphasized the variety of ways departments could use the SWF.

> Teacher: The way it's being used here, it's not functional and they don't – I gather it varies wildly, because I called to complain about some of the ways they were doing things here, called the union, and I was told at that time they actually, that it's particular to our division that it's used wrongly. So evidently in other divisions it's used more like it's used at Bingham, which I found effective to be honest with you.
>
> LM: In what way effective?
>
> Teacher: Well, it was effective because it was a way for me to have a regular um discussion I guess, discussion with my boss about priorities and what my tasks were going to be for the semester. I mean it allowed us to mutually agree on what my work was going to be, you know, so that if I knew for example that they were not willing to give me any hours for curriculum, because say their budget was short and they couldn't afford to let me out of a class so I could use those hours for um curriculum development, well then that was a conscious decision so it creates a kind of planning process that allows me then to know what I'm working with.

The teacher's account not only describes variations in practice, especially as these affect how much work she will end up doing, it also establishes a clear distinction between

effective and ineffective, correct and wrong uses of SWF, between the "real process" warranted by the collective agreement and certain actual practices.

Teacher: So if this is used correctly, in my opinion, then the admin – the management is saying, is really being specific about what else do you do? You attend staff meetings, you attend – two hours a week, you attend, you uh you supervise these teachers, in my case six teachers, you are doing an extra support group with some students, you're doing some curriculum development, and they realistically add what those hours are. See how many complementary hours I have? [points to blank space on form]

LM: What about this five there?

Teacher: That's they have to give you. The contract says that we have to have that. So they automatically give everybody five. So what they do is they give you the five and they figure, then you have to fill the rest up with classes. The real process is that you identify what the job description is, and then – of course, if I listed everything I had to do it would be way over this, right, so at some point you say, well do I take fewer courses then or do I cut some of this? I mean but –

LM: But the "this" is invisible, it's not appearing there

Teacher: Exactly

LM: so how can you –

Teacher: What I'm saying is, it depends on who's filling it out and how they deal with the process. I force them – this is my latest one, and I forced them to do this. I refused to sign it until they added this. But you'll notice what they did, I mean they – they gave me, see it's – I don't even understand how they do this -- she explained it to me but now it's gone – but this is because I'm coordinator . . . I'm sorry. If I sat down I could figure it out.

This reading of SWF emphasizes the disparity between the teacher's workload as her everyday experience and the textual representation of it, at least in her present department. It highlights the way the SWF process shapes that experience, as well as representing it. This

is a process she describes as controlled or mainly put in place by other people – the secretary, the chair. Nonetheless, she has managed to get her coordination work represented on her latest SWF. However, when she shows her latest SWF, she ends up abandoning her explanation because she cannot remember "how they do this." Although under the terms of the collective agreement she could insist that her work be represented, the strategy for doing this did not originate with her, and she finds that she cannot to her satisfaction explain what the numbers stand for.

As far as the teacher is concerned, the SWF process is completed at the point where her teaching scheduled has been established. The SWF is then signed and authorized and she receives a copy of it for her records.

LM: How does it enter your life again?

Teacher: It doesn't. . . . The only way it would is if um within a specified period of time, which is I think a matter of days or weeks, . . . if I'm unhappy with something, if I feel I'm being told to work in some way that violates the contract, I have the right to grieve it and this . . . would be the basis of that assessment, because this is my contract with them for this semester. So it would affect me later on in that sense, but it doesn't mean very much at all unless there's something – a problem.

The Union Official's Reading

Another teacher, at another college, spoke to me in his capacity as an elected union official who had been involved in negotiating the latest collective agreement. His account displays an insider's familiarity with the union's history of collective bargaining as well as the key individuals involved. When he mentions events and actions, very often he is able to attribute these to specific people – even though, as he explains, he himself was not member of the bargaining team during the period of the events he is recounting.

> In eighty-four we had the strike which lasted about three weeks. We were arbitrated back to work. The arbitrator, who was Wyler – and his reports are floated around – his mandate was to deal with everything with the exception of workload. . . . This was under Betty Stephenson's back-to-work legislation. Workload she put out to a study. Which was this Skolnik report.[5] In the very next round of negotiations workload was far and away the number one priority from the union side – and this would have been negotiations started in eighty-five, around there. In that round, the union team – I wasn't part of that – but the union team made it clear, all we're interested in is straightening out workload. They took the first salary offer that came on the table, which was low. It was, okay, give us what you want, we'll take it. Now let's talk workload. Uh, the negotiations were very long and at this stage both sides were trying to come up with a formula. . . . The actual basic structure for the workload formula – uh, like these things evolve in negotiation so you can't really pick a starting point, but the basic structure for the workload formula actually came more from management than it did from the union.

His account drew on organizational, text-based knowledge.

> They ended up hiring 850 to 900 teachers as a result of the workload formula. Our unit runs about roughly 8000 teachers out of a total of 8500 members.

Like the other teacher, he made a distinction between right and wrong uses of the formula, between "bad" deans and by implication, "good" deans.

> What people are unhappy about with the workload formula is not these particular maximums so much [the 44-hour textual work week]. . . it's how these are, particularly the complementary functions, how they're attributed on the swif because there's a tendency for deans to undervalue and they also – another game they play, and this is really shortsighted on their part, some deans, the bad deans, will say, I'm not going to give you any hours for departmental meetings because that'll put you over the 44 and I'll have to pay you overtime. So they say, if you want to attend, you're doing it on a volunteer basis, and most teachers obviously will have to go – because you gotta go to departmental meetings to figure out what's happening. So in effect you're being forced to volunteer.

Notice that in contrast with the other teacher's account, this is not an account of the speaker's experience as a teacher; he speaks generally about what "people" like about the formula. This is what I call overview knowledge. It is a feature of his work for the union; it arises in his location as a union official responsible for developing an understanding of what

union members want, and making claims about this in the context of negotiating the collective agreement.

The Department Chair's Reading

The department chair provided an account of SWF from her perspective as the manager responsible for working out a SWF with each teacher while ensuring that the teaching needs of the programs are met. She describes SWF as establishing a structure and a set of limits on her work of deploying teachers.

> In a gross way it limits, people can't do grossly more, they can't do grossly less. I certainly couldn't assign someone to teach five sections of a course with 150 students in each section – those ways it does limit us. Uh in a fine-grained way, it it provides a framework, but it's a somewhat elastic framework and people do look at it somewhat elastically.

Her account made visible the negotiating work she does with the teachers whose work is represented on the SWF. Her reading of the relationship between SWF and what teachers are actually going to do differs from the reading proposed by the teacher and the union official. The teacher, for example, refers several times to the SWF as a "contract." The chair calls it an "administrative fiction."

> And I think the SWF is generally recognized, certainly within this division, as an administrative fiction. Some people get concerned about it – uh concerns take two forms. Some people are very concerned that their workload is accurately represented in terms of the courses and the number of students and they care a great deal about the accuracy of it. Now usually the form that that takes is the person standing there and saying, I really don't care about this document at all, I mean I realize it's a fiction and I -- but nevertheless, I – you know. Okay. [laughs] So ( ) will adjust the document so it reflects a reality. Uh, or at least a particular chunk – and that's always what's interesting about it, that the person has a particular chunk of reality that they're interested in. They recognize that it doesn't – but they care that the student numbers are right or they care that the teaching hours are right, or last semester I had a new faculty who came in pointing out that it said one language of instruction and she teaches in both English and American Sign Language and why didn't

> it say two languages of instruction. Fine, right, good point, you're absolutely right, let's make it say ASL, that's obviously important to her. And yet, something else on it can be completely out of whack and the same person will – "I don't really care about that." It's a matter of trying to understand what matters.

This account of SWF employs a contrastive device. The chair introduces SWF as an "administrative fiction" and then contrasts that sophisticated reading with a more naive reading used by teachers – one that is, moreover, also recognized as naive by the very people who are using it. In this naive reading, the teacher wants the SWF to "reflect" the "particular chunk of reality" he or she cares about, in much the same way that we want a portrait to resemble the person it purports to represent. There is no sense in this version that the representation has implications for what work the teacher will be doing. (This account suggests to me that the teachers in this division, some of whom read the SWF as a "contract," are bullied into adopting the chair's reading in order to negotiate the few changes they can get: "I realize it's a fiction and I – but nevertheless, I . . ." This is an interpretive frame that, by producing them as naive, reinforces the chair's power and weakens their own position. Here we see the everyday operation of power.)

Whereas the teacher's description of SWF identified an ideal process that starts from an attempt to list what work a teacher will actually do, the chair's description of SWF as an "administrative fiction" works the other way: the chair and the teacher agree on a course load that meets the department's teaching needs and the teacher's teaching interests and doesn't go over the 18 hour in-class maximum, and then they figure out how to fill in the rest of the SWF so that the weekly maximum is not exceeded.

> Chair: Sometimes I look at it and say, you've got a SWF problem here, this isn't going to work, or too many hours – how do we fix it?
>
> LM: So what would you do in that case? If there's a SWF problem?

Chair: I'll work it out with them, if there are little problems, um -- we play with the class sizes (inaudible). Sometimes they resemble reality but don't match it.

LM: What do you mean?

Chair: I mean that there may be 35 students in the class and the faculty member will agree that 30, we'll say 30 on the SWF so the SWF doesn't go over 44 . . .

From the chair's perspective of getting the teaching needs of the department filled, the SWF functions as an impediment that cannot be entirely dispensed with, but that can be minimized. Activated as an "administrative fiction" the SWF can be used to record the workload of the teacher in ways that show it to be in conformity with the collective agreement, while leaving the teacher free to do what needs to be done.

HARNESSING THE SWF TO PROGRAM COSTING

I had already begun learning about SWF when I interviewed the accountant in charge of implementing the program costing. It was during this interview that I learned how the SWF process was being pulled into the program costing, as the documentary resource for breaking teachers' salaries down into bits of cost that could be allocated to different programs and courses.

Acc: In the college system we do not allocate faculties by department. All the salaries are pooled into a faculty account or a deans account or chairs account, and at the end of the year we allocate that based on the time spent by the different professors in the programs. . . . So at the end of the year we send these reports to the deans with a list of all the teachers that we think is present at that time in the programs, and say, please allocate the salaries based on the time you think they have taught in these programs. And they send us a breakdown of how much time they spend.

LM: What does the dean need in order to be able to do that accurately?

Acc: They have a system they call a swif system, right? And they use these swifs to allocate the teaching time, so they give us an approximate swif allocation.

Because of their relevance to the program costing, the SWFs at Fulton came in for scrutiny. The department chair described this as a new interest.

> Uh, the college did a swif analysis with uh of all the faculty and really came back questioning uh all uh objecting to all of the swifs which were over 44 hours and had to be redone. Where they never paid any attention before, I gather, to anything as long as it was up to 47, although technically you ought to be paying overtime. Now we had to get them all at 44 and below, and they paid attention to anyone who was very far under either the 44 or under the 18. (Inaudible) Whereas my impression is that previously this was simply ignored, and they certainly never ran an analysis by division before this.

The chair's account of the SWF analysis highlights its consequences for her work of deploying teachers and filling out SWFs. The accountant described the process of SWF analysis from the perspective of his involvement in it; his account makes visible the ways SWFs were examined to establish their suitability as data for the program costing.

Acc: Like meeting with them [the deans] this year, we realize that it had certain errors last year.

LM: The swif system?

Acc: Yeah.

LM: What kind of errors?

Acc: Well, we have teachers here who aren't doing the full number of teaching hours, right? Yet they have to be allocated somehow, so what they say is, this guy only taught 13 hours per week, but we paid him for 18, so what happened to the other 5 hours? So the explanation there was, you have to charge this guy for 18 hours not 13 hours. His salary is based on an 18 hour week. So these are the kind of errors we found last year and we're trying to correct them this year.

Here the accountant displays the new reading and the problems or "errors" that become visible with it: some ways of filling out SWFs result in gaps that make it hard to use

the SWF information to divide the teacher's salary into bits of cost that can be allocated to different programs. It can then appear, as the accountant's description suggests, that some teachers are not doing as much work as they are being paid for, and that divisions are negligent in allowing this to happen. We know from the chair's account that the message passed on to them was to record teachers' work on the SWF closer to the 18 and 44 maximums, without going over into overtime.

An interesting aspect of the accountant's reading is the conflation of 18 teaching contact hours as a weekly SWF maximum with the notion that teachers are hired to teach a set number of hours every week. This is a managerial reading, of course, but it is also shaped by the new use of SWF as a historical document used in allocating teacher salaries: "they have to be allocated somehow."

The new emphasis on avoiding gaps or the appearance of missing hours of work in the SWF had implications for the work of chairs, as we have seen. In the excerpt below, the chair describes how she has devised a way of representing the work of coordinators on the SWF. In the past, coordinators would teach fewer courses in order to have time for their administrative work, but, in that department, it wouldn't be represented on the SWF, so the coordinator

> would wind up with weekly totals that would be something like 32 or 34, which totally misrepresents the case. And nobody cared, okay – because it was obvious your totals were down because you were a coordinator, we all understood that and that was fine.

Now the chair has devised a way of representing coordination work in the "complementary functions" part of the form so that the SWF shows a total number of weekly hours as close to 44 as possible.

Chair: So then their total workload now resembles the workload of a faculty who's teaching 18 hours in the classroom, as it should. So from their standpoint I've been trying to make it a historical document that will more accurately reflect what faculty have in fact been doing. But since nobody paid much attention to it, nobody cared that they be particularly accurate.

LM: But now they are paying more attention to that.

Chair: I'm paying more attention to that, and I'm paying more attention to it because, from my perspective, we have very hard-working, dedicated people in the division and I don't want it to look as though their workload is less than the workload of people elsewhere in the college who are less careful about the swif. At the same time I realize that as I do that and everybody else presumably does the same thing, what that results in is the swif being taken much more seriously and ultimately reflecting if not reality, at least a different reality than (inaudible) before. So I'm feeding that process, but if I don't feed that process that's to the detriment, or could be to the detriment of the faculty in my area and I don't want to do that.

The chair's account foregrounds her work of protecting the organizational reputation of the faculty in the division (and by implication, also protecting the reputation of the division's managers). It displays her orientation to what happens at the inter-departmental level and her awareness of the new SWF readings gathering currency in sites of organizational power.

Interestingly, this is the chair who figures in the teacher's story about "forcing them" to represent her coordination work. No disgruntled teachers and no refusals to sign the SWF appear in the chair's story. Here we have a local event told from the perspective of different participants. And, in each case, volunteered during an interview as an example to support the point the speaker was trying to make. Each story is assembled in ways that intend the rhetorical or communicative project the speaker was pursuing. It is perhaps not fair to compare them in the first place, except that the coincidence was so striking to me. I had been frustrated by the teacher's inability to explain how her coordination time was represented. So

I was delighted when the chair, the teacher's supervisor, started describing with pleasing clarity what I could hear as the completion of the teacher's aborted explanation. The chair, however, told her story not in the context of a discussion about relations with teachers, but in response to my question about how SWFs might be read as a historical record outside the department, in the context of a new administrative interest in the SWF. Her story is oriented to that topic.

PROGRAM COSTING, THE SWF AND IMPLICATIONS FOR TEACHERS' WORK

The program costing, we have seen, depends on the SWF for the allocation of teachers' salaries to specific programs. One main purpose of the program costing is to make visible the "efficiency" of college operations. Teacher salaries are generally the largest cost item for each program. The program costing therefore focuses attention on teachers' work, and provides the warrant for claims produced in the context of managing the managers:

> This is the type of thing we have to show the chairs and the deans and say it's costing you too much to operate these programs and this is the challenge, they have to come back and say, okay, we could do the same programs (inaudible) cutting back (inaudible). The equipment and supplies are a very small part of the expense. Could you do the same programs with less teachers? Could you get teachers that teach 18 hours, which is what their contracts call for, rather than the 15 hours they're teaching now, because of the way the programs are set up? So these are the challenges that deans and chairs will have to face based on this kind of exercise. (Accountant)

Changing "the way the programs are set up" must involve those aspects of teaching work that are representable on the SWF if it is to result in lower teacher costs (because of the connection between the SWF and the construction of teacher salary costs on the program costing). Consequently, there is increased administrative interest in new forms of curriculum, such as self-directed learning, and new teaching devices, such as computer-marking, that can

be represented on the SWF through lower factors for preparation and evaluation. Lower factors can make the difference between a teacher having to be assigned a 15 TCH week and her being able to do a 17 or 18 TCH week without going over the 44 maximum. (Not surprisingly, college management at the system level wanted to negotiate new, lower SWF factors the next time the contract came up for negotiation; however, at the time of my research, the union was refusing to open the SWF factors to negotiation.)

"Doing the programs with less teachers" implies an overall decrease in the numbers of teachers employed, and despite college administrators' stated reluctance to lay off teachers, lay offs were happening. The president of the union local at Fulton was trying to keep as many full-time jobs as possible. She described a plan to negotiate a local agreement with the Fulton College administration that would give full-time day faculty access to continuing education ("con ed") night school courses. Normally, these courses were taught by part-time teachers. She knew that the goal was to reduce the number of faculty used in delivering the day programs ("do the same programs with less teachers"). She figured that if day teachers had access to evening school courses, they could continue to put together a full-time teaching load, even if their labour was no longer required to the same extent in the day programs. As an experienced negotiator, she knew she would have to offer the college administrators something they wanted in return for that access. She was considering different options. One option depended on and took up the visibility produced through the SWF.

> You could maximize our teaching by filling in two hours at night. . . . Unless you've got a full class you can't maximize us. You need 25 for – you need 35 actually in every class, so unless you get the economy of scale in all your classes, we're not maximized. . . . If I say to you, if you let me do that and give me the access to Con Ed, I will talk to my faculty about do we really need point three, you've been doing that for the last ten years, can you find a better way of that? You've been uh when you made the agreement for that course on the faculty evaluation factor you didn't use the computer to mark

> papers, your students didn't in some programs, some of the business programs, the test is done right on the computer. You know, you actually sit down and do the test on the computer, it's not pegs or things, the answers are in and the computer marks them. Um, I could encourage my faculty to do more of that and reduce the factor, reduce their work. It's a smarter way of working.

The union president rehearses her offer to management: in return for access to continuing education courses, she will get faculty to agree to lower factors for certain of their courses. In her account, the lower factors are to be justified by different ways of doing teaching work – like the other union official she maintains the interpretation that SWF representations should index actual practices. But what she is offering is to help get faculty to cooperate with management in changing their work process in ways that show up on the SWF and that result in their being assigned more courses or larger classes. The union president is trying to save jobs. In her attempt, she takes up the relevances of management and the documentary forms that concretize them. Efforts such as these can have the effect of ameliorating the situation for teachers (avoiding some job loss), while at the same time carrying restructuring even further into the day to day organization of teachers' work (teachers do more of their work in ways that are consistent with management goals of "maximization" and increased "flexibility").

CONCLUSION

The approach to the study of texts and textual practices that I have taken here involves paying analytic attention to three different "moments" – the production of the text, the resources of the text as congealed utterance, and the activation of the text – as these occur in ongoing institutional work processes. In chapter seven, the focus was on the program costing text as text – what it shows and how it intends a specific interpretive frame. I also

looked at how program costing texts are activated in actual work processes in the college. Texts do not of course spring up ready-made. They have to be constructed. And in the case of an accounting exercise like program costing, they are built up of managerial data that has already been worked up through other documentary processes. We saw at the end of chapter six how the accountant was thinking about using square footage as the base for allocating overhead and how that would necessarily involve bringing together in new ways the documentary processes of different departments, and possibly creating new forms of data.

In this chapter I have gone behind the program costing text by exploring how one of its textual elements, the starting figure given under the "allocated salaries" category, comes to be available as data. I examined this particular category because it is a focal point of concern for both managers and teachers. It is mainly in the content of teachers' work and teachers' employment that "efficiency" is realized. The program costing visibility focusses attention on this, and we saw in chapter seven how it is being activated in organizational contexts where deans and chairs are asked why they need a certain number of teachers, could they do the program with fewer teachers, could they get teachers to teach more hours, etc.

The "allocated salaries" figure is based on information generated by the routine bookkeeping process, but as the accountant explained, a non-bookkeeping process, the SWF, is needed in order to transform the bookkeeping data into lumps of salary costs that can be allocated to each program. In this chapter I have explored the documentary process of SWF as it coordinates a specific field of action, that concerned with the implementation and monitoring of the collective agreement. Then I looked at how the information produced through SWF is being pulled into the program costing and some of the adjustments in

practice that have ensued. Throughout, my focus has been on how SWF is interpreted and activated by people differently located in the extended work processes of the college system.

CHAPTER NINE
CONCLUDING COMMENTS

The study presented here has ranged across wide territory, coming to rest in a close look at a specific accounting practice in one particular college, rather like a photographer on a ramble who has ended up crouched in front of an interesting plant taking a close-up photograph of its leaf formation. But once the shutter has clicked, the photographer rises. Stepping back, she rotates her 35-70 mm zoom lens in the other direction, creating in her camera a wide angle of vision. Now once again that interesting plant is situated among other plants, in a field, surrounded by trees and bordered in the distance by low hills. In these concluding comments, I make a similar kind of move, stepping back from the close focus of the last chapters and looking back at the study as a whole.

SUMMARY

The study presented here has three interrelated topics. It explores accounting as a generalized, documentary form of administrative knowledge, it examines aspects of restructuring in the Ontario college system through a focus on accounting practice, and it makes visible the grounding of this study in the social organization of knowledge/institutional ethnography (SOK/IE) approach to investigating institutional relations. The various chapters of the study were organized to create a sequential analytic display that addresses these three themes.

All three themes were introduced in chapter one. Accounting was identified as a major text-based knowledge form in contemporary relations of ruling. Also identified was a field of action in which accounting texts are used, the restructuring of public sector higher education. Higher education policy at both the federal level in Canada and at the provincial level in Ontario aims to draw more private spending into the funding of higher education, replacing or supplementing public money, and to get college and university activities of teaching and research more directly aligned with the requirements of a new regime of accumulation. This policy is carried into colleges and universities through changes to the financing of higher education and research that encourage colleges and universities to develop more "entrepreneurial," "efficient" and "market-oriented" practices and administrative structures. Cost accounting and other managerial strategies adopted from the private sector thus play a central role in managerial attempts to cope with reduced funding and the new demands of participation in market relations.

The object of my research was to investigate accounting practice in an empirical setting, the Ontario college system, and at the same time to learn about restructuring through an investigation that took accounting categories and practice as the point of entry into institutional and organizational relations. The chapter ended with the identification of IE as an investigative approach that could do this: study accounting as a practice of knowledge employed by actual people, working in actual organizations, in actual relations of state, economy and class power.

Chapter two was devoted to an explication of Smith's sociology and the IE approach, along with a discussion of related methodological issues. Institutional ethnography offers a way to open for investigation what Smith terms relations of ruling. She has characterized

these as largely founded in text-based forms of objectified knowledge. Implicit in this view is the claim that it is impossible adequately to understand how ruling is done without attending to textual practices and the forms of knowledge that construct the objects of administrative and professional action. This is especially salient given the basic ontology of the social that underlies this approach: the social is viewed as the concerting or coordinating of people's activities. Textual and knowledge practices are the central forms of coordination in large-scale organization. Thus in taking up this approach, my research is intended as a contribution to the project Smith has proposed of investigating "the nature of power when power is textually-mediated" (1990:224).

The middle part of the thesis, chapters three and four, took a wide look at accounting as a conceptual and textual practice of power. Because accounting is a generalized practice, I wanted to explore its development and availability as a resource and constituent of contemporary capitalist relations of state and economy prior to examining accounting practice in the site of the colleges. Accounting as a representative form precedes its use in the college; in fact, it already organizes the relations in which college are located. Thus in order to take accounting texts and categories as the entry point into studying these relations, I needed first to put in place an understanding of the discourse of accounting.

In writing about the development of accounting and an accounting profession in chapter three, I drew on existing work in the history of accounting. The historical overview I presented traced accounting as a representational form arising within and coordinating distinct relations of property, exchange, production and obligation, with a particular focus on the concomitant development of capitalist relations and accounting practices that extend the representational potential of double-entry bookkeeping.

When I came to writing about accounting as a contemporary knowledge form in chapter four, I found that I was on my own, as the theoretical and empirical work on accounting as social practice did not do what I felt needed to be done in that chapter. I wanted to examine accounting from a social organization of knowledge/institutional ethnographic perspective, which would mean seeing how it is conceptually organized as a documentary technique. I wanted to focus on the inscription interface, the moment of textualization, rather than taking for granted that accounting data in a specific form accumulate in the accounts, ready to be compiled into accounting statements, cost reports, and the like.

I also wanted to write a description of accounting that addressed what I have called the "implicated non-specialist" – someone who is not knowledgeable about accounting practice, but who is implicated in this practice all the same, in the sense that the conditions of her or his work and everyday life are shaped by the use of accounting as an administrative knowledge form. The theoretical work on accounting as a social practice is written by accounting experts and assumes a high level of familiarity with accounting and organizational practice among its readers. My goal was to write something about accounting that would be informative and useful to non-specialists. Given that goal, and given that I myself am not an expert practitioner, my explanation of accounting works at a relatively simple level. Nonetheless, since accounting is a conceptually "tight" knowledge form, movement from the simple to the more complex does not involve an abandonment of the principles and practices I described or a change in the basic conceptual structure.

In the second half of the thesis, the focus shifted to the institutional site of the Ontario college system, with the material of the past two chapters now serving as background.

Chapter five began by mapping out the college system through a focus on the relations of funding and accountability that are a central thread running through the different sites, hooking individual colleges into the centralized system. The point of entry was the textual forms through which quantified information about college activities is produced and reported. The chapter examined how these reporting obligations require work processes for producing specific kinds of information, as well as how they construct a specific visibility of college activities (e.g., the different reporting requirements for provincial and federal spending in the colleges).

Changes in these funding and accountability relations set off a restructuring in college administration and teaching. Through federal spending policies that established and drew colleges into a competitive market, and through provincial operating grant freezes and cuts, college administrators found themselves pushed to reconfigure the work processes of the college in ways that achieved greater "efficiency" and more of a "market orientation." An important change involved colleges' participation in relations of tender and local negotiations of price. In these relations college personnel found themselves called on to display and use a knowledge about college activities that was different from the kind of knowledge that had previously been adequate for positioning the college within inter-organizational relations. It was in this context that college administrators were identifying a need to "know costs."

Another change coming in to the college was the varied demands of the clients with whom the college engaged in relations of tender. Rather than selling job training to a few main clients, such as the CEC or the CITC, colleges now faced a diversity of clients wanting customized training and attentive service. College administrators identified this as a situation in which the colleges had to move away from an "inward" focus to an "outward" focus and

become more "customer-oriented." This was a big job, and one that they saw requiring clusters of changes in administrative structure, mentality, staff deployment, curriculum models, etc. Using the comments of college managers, chapter six described some of the demands that market relations brought into the college.

An important piece of this internal restructuring was program costing, which produced information and a form of visibility that college managers considered would be very useful in both the new market relations and in the work of maintaining postsecondary operations in the face of operating budget freezes and *de facto* cuts. In chapter seven I explored program costing as a textual practice. I began at the level of the text – its surface structuration as an analytic exercise – and then looked at how it was being used to "make the deans responsible" and help inculcate the "new mentality" being taught through the budget review process. My focus here was on how the resources of the text intend and enable this kind of use, how the visibility constructed in the program costing creates new organizational facts and entities that then get taken up in various ways – and how that taking up is one process through which restructuring ripples through the work routines and sites of the college.

Then, I went behind the surface of the text to explore one aspect of the text's production. The program costing uses already worked-up information, much of it in the form of accounting entries produced through work processes such as the supply order described in chapter four. In order to examine how other kinds of quantified managerial data get pulled into cost accounting, I chose to examine in chapter eight the documentary practice of the SWF, which supplies the information used to allocate teachers' salaries. This involved taking a detour to study this other documentary practice, in order to see how it was being pulled into

the program costing. What was particularly interesting here, from the perspective of a focus on restructuring, was how the pre-existing SWF practice came to undergo some reshaping in order to accommodate its new use as a source of information for the program costing. There was also another kind of intersection between these two textual practices. The program costing produces a visibility in which teacher salaries appear as a drain on contribution. As the accountant explained, this visibility gives senior management the warrant to appeal to deans and chairs to do something to lower their teaching costs and use their available teachers more fully. Actually doing this involves the documentary practice of SWF. Following this out made me see that documentary practices within an organizational setting are intertexually interdependent, and isolating one textual practice for study can miss its location in a complex web of text-mediated work processes.

In summary, as the sequential display of an analysis, the thesis began at the most general level of accounting as a globally used and available knowledge form with a 10,000 year history. It then shifted down to the general level of the college system in Ontario in order to map out its accounting-text-mediated relations of funding and accountability. From there the view narrowed to a focus on what managers in four colleges had to say about their experience of new market relations and what they were trying to do to reposition their colleges more effectively in these relations. The view narrowed even more to focus on one college and one managerial strategy, that of program costing. The last chapters mirrored that same movement by describing SWF first as a generalized procedure among colleges in Ontario and then pulling in for a close focus on the situated readings of a handful of people. The analytic objective was to see how local settings are hooked into trans-local relations through the mediation of texts, which are activated in local occasions of reading. In this way,

we can see how accounting coordinates extended work processes, and we can see this happening in local settings.

CONTRIBUTIONS OF THE STUDY

When I started reading the critical literature on accounting, I found this work exciting in that it took seriously and attempted to describe theoretically the workings of accounting as a significant form of ruling knowledge. However, from an IE perspective, I was unsatisfied because very little of this research or theorizing could really show accounting at work coordinating people's activities within an organization or institutional field. Accounting theorists describe accounting as constructing specific patterns of visibility, but little of the empirical accounting research I found went far enough in actually showing how that visibility was inter-subjectively produced in people's practices of reading and using the accounting texts. What was needed, I felt, was to be able to see accounting visibility in what people could say and do as the work of the organization, as they took up accounting texts and the virtual reality phenomena these construct.

Through my research with George Smith into college administration of job retraining to laid-off workers, I came across an opportunity to study accounting visibility in practice. Because college managers were introducing a new form of cost accounting, program costing, the people drawing up the texts or using them in their work were highly oriented to these texts as putting in place a new way of knowing and thinking about college activities. This heightened attention to a new textual procedure still in the process of being developed was advantageous, in that it was easy to get people to talk about program costing and what they saw changing. It was also advantageous in that it allowed me to study a moment of

conceptual transition in an ongoing process of restructuring – one that would not be recoverable or recountable as such once people began taking the program costing for granted.

My research thus contributes to the project of studying accounting as a "social and institutional practice" (Miller 1995). To the field of critical accounting research it offers the potential of an empirical approach that can integrate a number of critical accounting interests: it can investigate accounting as a textual practice (a) involving actual people who are (b) located in actual organizations and institutional fields within (c) specific historical relations of state and economy. But in elaborating an approach to the study of accounting practice I am not only addressing the critical accounting discourse. A main objective of my research is to demonstrate to people who are not accounting specialists the important role accounting plays in large-scale organization and institutional relations and to show that this can – and should – be investigated.

To the project of studying restructuring in the public sector and higher education, my research provides details about an instance of restructuring in the institutional site of the Ontario college system in the early 1990s. It also contributes methodologically by offering a way to open up the black box of "managerialism" in order to explore restructuring as it occurs through the activities of actual people. A central element in public sector restructuring is the New Public Management conceptual schema of "inputs-outputs-customers-quality-efficiency" and the textual forms that discover the particulars of that schema in the ongoing flow of organizational activities. Through quantitative techniques of representation, "efficiency" and "quality" are produced as measurable managerial objects. Cost accounting is a textual form of some prominence in this project, as it provides the techniques that are used in finding "efficiency." My study of program costing offers a close-up look at one such

textual representation of "efficiency" and its activation within the work processes of the college.

Lastly, the study presented here makes a contribution to the growing body of institutional ethnographic research. IE is fairly new as an investigative approach, and its relevance to studying large-scale organization is only just beginning to be appreciated. I hope that my account of how I have worked with this approach will be useful to other IE researchers, whatever the institutional site and conceptual practices they are studying. Reading other people's SOK/IE research made a difference to my understanding of the potential of this approach. I have tried to write in a way that would show clearly how my research choices and analytic strategies have their basis in the theory and research direction offered in Smith's work. In so doing, I hope to contribute to discussions and debates – about how to read Smith, about appropriate methods and lines of analysis in IE, and about the limitations and possibilities of the method.

IMPLICATIONS FOR FURTHER RESEARCH

Institutional ethnography is an empirical method that provides analytic descriptions of specific institutional relations. It is not a theory-generating method, so one study about accounting and restructuring in one site hardly exhausts what there is to be discovered about restructuring and text-based managerial work in higher education in Canada. Now that a number of years have passed since my data were collected, it would be especially interesting to revisit the Ontario colleges, and Fulton College in particular, to see how the process of restructuring, only just getting under way at the time of research, has since developed.

I have also learned about Canadian universities undertaking consultant-guided projects of Business Process Redesign, or Process Re-engineering. These projects often involve work groups of staff conducting analyses of organizational work processes, in accordance with the instructions and schemata supplied by the consultants, to identify "inputs," "outputs," "value added" and the like. This material is then drawn on by managers to reconfigure the work processes, establish performance measures, etc. I do not know of any sustained empirical study of such a process being undertaken in a Canadian university, but I think this is an area where an institutional ethnographic investigation could make an important contribution.

Similarly, the kind of restructuring going on in the Ontario colleges – changes in funding, the push to be more efficient, new accountability demands, etc. – is also happening in other areas of the public sector. Recently I spoke with the medical officer who was the director of public health for an Ontario county. Under new legislation that is bringing about a large-scale restructuring of responsibilities and power between municipalities and the provincial government, public health has been off-loaded to the municipalities as an expense; however, the provincial government continues to set the requirements as to what these municipally-funded public health departments must do, and it has begun to monitor this through imposed performance measures, mainly to do with service delivery (e.g., percent of children immunized by a particular age). The director of public health has to decide which required services to provide, since there isn't enough municipal funding to do everything the provincial guidelines call for. He is very interested, he told me, in new forms of information that would help him in the hard job of managing his department in these circumstances. He spoke about using medical research evidence showing the measurable effects of public health

intervention in order to decide how to put his department's money toward services most likely to have the largest impact on the health of the population. (See Mykhalovskiy [1998] for an IE analysis of health services research and health care restructuring.) He also spoke about trying to figure out how to measure the "outputs" of his department's work: the challenge was in coming up with easily measurable phenomena that could stand in for phenomena that evade calculable capture in the short term, but that are the real goal of public health activities. And, the director told me, he is very interested in "process measures" that would put unit costs to some of the services and activities of his department, although he doesn't know how to do this himself, and would have to bring in a consultant. The managerial discourse of inputs, outputs and performance measures offers this manager a strategy that fits the funding and legislative relations he is given. He is opposed to what the provincial government is doing, yet as a manager within these relations, he turns to the conceptual and textual practices of NPM/TQM/BPR and related approaches in his attempt to run the department and eke out his budget. It would be useful to investigate this kind of restructuring in different areas of the public sector; again, institutional ethnography offers a way to study this through a focus on textual practices of knowledge and the work processes they coordinate. (Working in a similar vein, Oakes, Townley and Cooper [1998] are undertaking a longitudinal study examining the state-imposed introduction of business plans and performance measures into parts of the public sector in Alberta.)

The phenomena investigated in institutional ethnography receive little attention from most forms of research into organizations and institutions. For me, the overwhelming implication of the study presented here is that, from an IE perspective, the work has only just begun.

NOTES

CHAPTER ONE

1. Here, and elsewhere throughout this study, terms such as "entrepreneurial," "market-oriented," and "efficiency" are put in quotation marks. I do this in order to signal that these are terms used by the people I interviewed and operative in managerial discourses; ethnographers would call them "members' categories." I single out these particular terms, and I avoid using them myself in a descriptive way, because it is the practices associated with these terms that are precisely what I want to explore.

2. I use the terms "higher education" and "postsecondary education" interchangeably throughout this study to refer to the combined activities of university, college and adult vocational education. This is important to specify because colleges as administrative and teaching entities can be in an anomalous position, depending on the definitions in use. Some notions of what counts as postsecondary education distinguish between diploma or degree programs requiring high school completion as a prerequisite and vocational education or job training of shorter duration and more limited scope. However, since colleges as single corporate entities offer both of these, one can end up with a conceptual map that draws boundaries right through the college. Following the recent use of Dennison (1997), when discussing the general institutional field of higher or postsecondary education in Canada or Ontario, I use these terms in an inclusive way to include vocational education or job training. Later, when I discuss the organization of the college system and individual colleges in Ontario, the distinction between something called "postsecondary programs" and "adult training" becomes relevant. See note 1 in chapter five.

3. Slaughter and Leslie (1997) prefer the term "academic capitalism" instead of "entrepreneurialism" in order to highlight "the encroachment of the profit motive into the academy" (9).

4. The provincial funding for colleges in Ontario had not actually decreased in dollar amount at the time of my research, although a budget freeze had been announced, and cuts would come later. Yet although the annual budget had been increasing, it was increasing at a lower rate than the annual increase in salaries due to merit increases and staff progression through the pay scale. Combined with the pressure to increase enrolment (described in chapter five), the effect was similar to the effect of a budget cut.

5. Osborne and Gaebler's (1992) oft-quoted bestseller, Reinventing Government, provides one of the main prescriptive formulations of this approach.

6. For an example of the instructional literature on applying these concepts to higher education, see Shupe (1999) and Cornesky, McCool, Byrnes and Weber (1991).

7. I am using the term "intend" to capture the way standardized textual forms and knowledge procedures "aim at," "invoke," or "fit" particular interpretive schemata and forms of work organization, in ways that do not depend on the conscious plans or intentions of individual writers, speakers or knowers. This usage is drawn from Smith (1987, 1990a, 1990b, 1999).

8. College names are pseudonyms, for reasons of confidentiality. The pseudonyms assigned have no intended covert meaning. I arrived at them by selecting a pool of surnames from the reference page of an article on accounting. As it was a British article, there was a preponderance of Anglo-Saxon and Celtic surnames. In Ontario, real college names often refer to historical personages (e.g., Sir Sandford Fleming College), geographical regions (e.g., Niagara College), or aboriginal peoples (e.g., Mohawk College).

9. By "critical" here I mean work that has an element of social criticism and that does not begin, in an unexamined way, from a perspective located in the relevances of government or administration.

CHAPTER TWO

1. Works by Dorothy Smith cited in this chapter are: The Everyday World as Problematic (1987), abbreviated as EWP; The Conceptual Practices of Power (1990a), abbreviated as CPP; and Texts, Facts and Femininity (1990b), abbreviated as TFF.

2. For example, the organization of her work as a feminist method is not stressed here, and for Smith and others, that is perhaps the first thing about it they might wish to explain. Instead, my reading of Smith emphasizes her offer of an alternative sociology for examining relations of ruling. Although she began by calling her approach a sociology for women, she has in recent years been referring to it as a sociology for people, in recognition of the ways it has been used, by her as well as others, to study a range of social practice such as skills training (Smith and Smith 1990), land-use planning (Turner 1995), adult literacy education (Darville 1995), and photographic representation (McCoy 1995). I do not wish to deny the grounding of this approach in Smith's experience of the women's movement, or its value as an investigative method particularly suited to exploring the ways women's everyday lives are organized and experienced. But since my purpose here is not to do justice to the entirety of Smith's work, but instead to describe how her work shapes my research on restructuring and accounting, I emphasize those strands of her work that focus on texts and practices of administrative and professional control within contemporary capitalist relations.

3. The notion of coordinated activity is not meant to imply happy cooperation or singularity of purpose. Torture, assault and exploitation come about through the coordinated actions of those who torment and assault and those who resist or submit – not to mention those who condone and enable and those who provide the ideological justification for such acts.

4. Smith uses the term "extra-local" in this context. The prefix "extra" designates something occurring outside or beyond (ITP Nelson Canadian Dictionary, 1997). I have been using the term "trans-local" in order to take conceptual advantage of "trans" as designating "across." This works better for me, conceptually, because it reminds us always to see local moments

as constituents of extended relations. The term "extra-local" is appropriately used to describe textual forms of knowledge that are not based in the (local, embodied) experience of the knower.

5. Like Mead (1962), Volosinov stresses the development of mind or consciousness within verbal, social interaction.

6. Whether Bakhtin actually wrote or is intellectually responsible for the work published under Volosinov's name is unimportant to me, as my interest is in the usefulness of the ideas rather than whose they were. For simplicity, I cite both thinkers, since the corpus of the "Bakhtin Circle" is to be found under both names.

A strong case for Bakhtin's primary authorship is made in Katerina Clark and Michael Holquist, Mikhail Bakhtin (Cambridge, Mass. and London, England: Harvard University Press, 1984).

7. Bakhtin/Volosinov's notion of utterance and speech includes written as well as spoken language.

8. See note 4.

9. Of course, the interviews were only "unstructured" in the sense of not following a pre-planned schedule of questions. As co-productions collaboratively produced by the informant(s), George and me, they were structured in an unfolding way through our coordinated actions of talk and gesture.

10. Transcriptions were done primarily by me, Nicole Groten and Caralee Price.

11. In her chapter "Femininity as Discourse" (in Smith 1990), Smith looks at the way women intend a text-mediated discourse of femininity (circulated in magazines, books, television) through the construction of their appearance as well as their comportment. Analytically, it is important to distinguish between texts like women's magazines, that carry the same image into millions of women's local settings, and the local realization of these images, always temporarily and incompletely achieved using the local material of actual women's bodies.

12. There's also an interesting demographic element here that we might consider. To date, most of the researchers doing full-blown institutional ethnographic work have been students of Dorothy Smith at the Ontario Institute for Studies in Education. This graduate program attracts a large number of students who are coming to graduate study after years in the work force as teachers, social workers, nurses, administrators. Smith's work often appeals to people with extra-academic work experience, because it offers a way to investigate and analyze the very processes they know from inside, in ways that do not replace these ways of knowing with theoretical concepts that cancel the experience of the knower.

CHAPTER THREE

1. Economic relations are just social relations seen from the perspective of an interest in the activities and consequences of production, distribution and exchange.

2. Accounting documents Marx's M-C-M'.

3. In fact, this decision to assume as little as possible went beyond accounting as a textual practice to consider the practices of counting that make records of quantities possible. As a documentary practice, accounting, in all its various forms throughout history, consists in keeping records of quantities that are relevant to participants in economic relations. It depends, therefore, on existing forms of counting as a conceptual, linguistic, and social practice. See note immediately following.

4. Counting "depends on an intellectual resource, consisting of a set of symbols" (Crump 1990: 9). The kind of counting we are familiar with ("one, two, three, four . . .") involves a set of number words having an ordered succession that can be used to count and represent/talk about any objects that can be counted. It depends on an abstract concept of number as preceding and transcending instances of the concrete realization of plurality: one homogeneous number concept that can be applied to and collect diverse, heterogeneous concrete instances of pluralities. It is such a universally-applicable abstract number concept that allows for the development of mathematical operations.

On the basis of anthropological, archeological and linguistic studies, the general opinion seems to be that abstract number systems evolved out of earlier practices of counting. It is thought that many societies might have used a form of concrete counting before developing an abstract system (Dantzig 1954, Schmandt-Besserat 1984). Concrete counting is characterized by the existence of number words specific to the objects being counted. It is a kind of collection-specific counting. Franz Boaz described the Tsimshians of British Columbia as using different vocabularies depending on what was being counted: long objects, flat objects, round objects, people, canoes, measurements (reported by Schmandt-Besserat 1984). There were, however, indications that an abstract counting logic underlay and connected the different counting sequences. Evidence for the claim that societies employed some form of concrete counting somewhere in the far mists of their unrecorded pasts is carried in language. For example, remnants of this kind of counting are said to be apparent in contemporary English in words such as "brace, pair, couple," which are all ways of designating two of some specific class of objects. Dantzig (1954: 6) quotes Bertrand Russell: "It must have required many ages to discover that a brace of pheasants and a couple of days were both instances of the number two." Notice that Russell expresses this insight from the perspective of a mathematician whose ontology of number is not dependent on the cognitive and counting practices of actual historical people.

Although most writers on the subject seem to treat the relationship between concrete and abstract counting as one of evolution, researchers who observe people's actual practices have found that counting practices are "situation-specific" in ways that suggest the parallel existence of *de facto* concrete systems. The terms and practices of counting money may operate for many people as a kind of concrete counting system. Zaslavsky (1973) tells the

story of a pupil who could only multiply 3 x 25 in her head after her teacher rephrased the question as, "How much money is three quarters?" Jean Lave (1988) describes a study of women's practices of using counting and mathematical operations in their everyday work of shopping for food for their families. While many women had difficulty solving abstract math problems in a written test, they were able to successfully use what the researchers considered to be the same cognitive operations as they engaged in figuring out "best buys" in the supermarket. The important thing here is to recognize that even if the numeration terms remain the same, people can count and perform mental arithmetic with differing degrees of facility or rapidity depending on the situation, that is, the ongoing work process their counting and arithmetical practices occur within. To the extent that all counting occurs in "concrete" situations and is performed by embodied social agents, it is always concrete.

Counting systems employing an ordered sequence of symbols, whether abstract and universal or collection-specific, are not the only ways that people can or have determined the pluralities that are relevant in the conduct of their everyday lives. In recent history there have been peoples (such as the Wedda of Ceylon or the Plateau Tonga of Southern Africa) who do not possess words or concepts for numbers, apart perhaps from words for one, two and many (Crump 1990). Yet these people do find it important to determine and communicate precise pluralities, and to do this they employ a correspondence or matching system. Piles of pebbles or notches on a stick or bone are ways of determining plurality and leaving a record without the use of a set of ordered counting words. People can also establish correspondence against ready-to-hand and stable sets – such as the wings of a bird, fingers of a hand, etc. They can then communicate that as many strange men carrying weapons as there are limbs on a person are currently creeping up the ridge. Apparently, people using correspondence counting methods have been able to handle very large quantities, such as goods for trade or armies.

Evidence of the past use of correspondence counting methods is again offered by language: in many languages the words for "five" and "ten" and "twenty" are related to words for "hand," "feet" or "person" (one person equalling 20 digits), implying the widespread use of fingers, hands and toes as ready-to-hand sets in correspondence counting systems. It is suggested that it is for this reason that most people use or have used quintary (base 5), decimal (base 10) or vigesimal (base 20) numeration systems (Dantzig 1954).

Interestingly, number "words" are not only linguistic. In many African societies there exist abstract number systems expressible through hand signs as well as through words (and in some cases, certain number words that cannot properly be said aloud can still be used in a counting sequence that occurs gesturally) (Zaslavsky 1973). In some languages, in fact, the words for numbers refer to the hand gestures that express the numbers (e.g., the word for "six" in Zulu is literally, "take the thumb," a reference to the finger movements for the hand sign of "six.") The hand gestures used in Africa are conventional, learned signs, specific to a language or trading community. In West Africa, market exchanges may take the form of one party expressing relevant numbers through hand signs while the other party voices the numbers; according to Zaslavsky, this mutual production of numbers through two expressive systems makes visible agreement or disagreement, as the case may be. This may be important in a context where written records are not kept, so that the memory of the actual occasion of bargaining, establishing price and counting out goods and payment is all that is available in

the case of a later dispute. When you have a textual system, the actual encounter recedes in importance, and may disappear altogether, replaced by an entirely textual process of bidding and sale. Here is a social practice that heightens the face-to-face encounter, the transaction, by making it a two-sided production of number.

5. Schmandt-Besserat (1986) argues that Mesopotamian writing developed out of accounting. The first evidence of writing found in this region uses a combination of pictographic and conventional symbols. (Pictographic symbols are iconic; conventional symbols do not resemble their referents.) Archaeologists and linguists considered it odd that the earliest writing should have so many conventional symbols at its first appearance, rather than being heavily pictographic, which their theories had let them to expect. They posited that there must have been a stage of "proto-writing" now lost to us, perhaps because it had not been recorded on durable materials. Schmandt-Besserat claims that the "proto-writing" is not at all lost, but was there all along in the token accounting system which had been in existence for thousands of years and had developed a set of widely-used conventional symbols (e.g., a circle with a cross on it to stand for one sheep). Although accounts were originally kept as an assemblage of tokens on a string or in a pouch, in later millennia the tokens were impressed into flat sheets of clay, and it was the clay tablet that served as the record. When people later began recording language and making other kinds of texts, they drew the token shapes into the developing writing system, hence the large number of conventional symbols at such an early stage of writing. Pictographic symbols were used to represent objects that had not previously been represented by tokens, either because the object was not used in relations of exchange (e.g., a wild boar) or because it had only recently been invented (e.g., a chariot).

6. The discussion of Ancient Greek and Roman accounting is based on de Ste. Croix (1956).

7. Without stable positions held through the use of a symbol representing an empty category, such as is provided by zero, it would be difficult to tell whether 23, for example, stands for 23, 203, 230 or 2003.

8. The discussion of medieval accounting in England is based on Chatfield (1974) except where noted.

9. The discussion of partnership accounts is based on F. de Roover (1956).

10. The general custom was for the investing partner to get 3/4 of the profits of a venture, with 1/4 going to the travelling partner. This type of partnership was called a *commenda*. Another type of partnership, the *societas maris*, was similar, only the travelling partner would also put up money, generally 1/3 of the investment, with the investing partner putting up 2/3. They would then divide up the profits equally.

11. "In brief,

The Owner, or the Owing thing,
Or What-so-ever comes to thee:
Upon the Left-hand see thou bring;

For there the same must placed be.

But

They unto whom thou doest owe,
Upon the Right let them be set;
Or what-so-ere doth from thee go,
To place them there do not forget."

From Richard Dafforne, The Merchant's Mirrour or Directions for the Perfect Ordering and Keeping of his Accounts. London, 1636. As quoted in Geijsbeek, Ancient Double-Entry Bookkeeping (Denver, Colorado: J.B. Geijsbeek, 1917).

12. The use of terms and concepts from classical rhetoric in textbook constructions of standardized forms of communication preceded Pacioli's treatise on accounting. In Italy, approved formats for letters (even letters to family) had been taught and circulated by way of manuals since the eleventh century. These manuals patterned the parts of a letter on the parts of a Cicerian oration, while adapting it to the particularities of text-mediated communication in institutional (esp. Church) relations (Perelman 1991).

13. Thompson (1991) situates the development of DEB within the broader sphere of analytic and calculative practices. "[O]ne can plot the connections between accounting and a more general turn in the analytic mind associated with the emergence of a range of calculative political and economic discourses arising during and after the late Middle Ages" (p. 40). He sees DEB arising in an "institutional moment" when not only commercial and banking changes were important, but also the concerns and activities of the Church, developments in pedagogy and the invention of printing. He claims, for example, that Luca Pacioli's purpose in writing the Summa went beyond the rhetorical purpose of showing that commerce was not antithetical to Christine doctrine; "Pacioli's larger project was to re-emphasize a belief in order sanctified by God" (p. 51; emphasis in original) at a time when the authority of the Church was beginning to be challenged by scientific and secular philosophical discourses.

14. The discussion of cost accounting is based on Garner (1968) except where noted.

15. The quote within Garner's quote is from Ronald S. Edwards, "Some Notes on the Early Literature and Development of Cost Accounting in Great Britain," The Accountant, XCVII (August 1937).

16. A single copy of a letter could be made by pressing it in a letter book during the time the ink was still wet.

17. This discussion of the formation of the accounting profession in Canada is based on Richardson 1987 and 1989.

18. In 1912, when the Canadian Accountants Association was seeking a federal charter, the CICA successfully opposed the Bill of Incorporation until the new association changed its

proposed name to the General Accountants Association. The original name would have carried the designation "CA" for Canadian Accountant. Instead, the new GAA obtained the designation "CGA" for Certified General Accountant. (And the CAs have been working ever since to keep the CGAs from encroaching on what they see as their terrain.) In the 1940s, CICA supported the incorporation of the Ontario Chapter of the Canadian Society of Cost Accountants and Industrial Engineers after the founding members of this latter organization promised they would not use their Registered Industrial Accountant designation to indicate competence in independent auditing.

19. Fligstein (1990: 300) has a similar complaint:

> The central mistake made in traditional accounts of the history of the large corporation is that by reading history backwards economic historians have known how things turned out and thereby were able to impute what kind of social institutions must have been called forth by efficient markets. By beginning with how managers, entrepreneurs, and politicians in each historical epoch constructed their worlds, one understands that the development was in the opposite direction. The institutions created markets that were dominated by a given conception of control that produced relatively more growth and profit and were legal.

20. See McWatters (1995) for an interesting study of accounting and management change in a 19th century Canadian company.

CHAPTER FOUR

1. This paragraph is based on Roslender (1992).

2. Another international influence is related to the global investment market served by the big public accounting firms, where there is a move toward harmonization in financial reporting to allow greater comparability among investment options, especially in the European Union.

3. The class difference between CA and CGA certification is maintained through their educational requirements and training programs. Applicants for acceptance into the CA training program must have a university degree. CGA training, on the other hand, does not require a university degree as a prerequisite, and there are officially established equivalencies between some college accounting courses and CGA course requirements. It is possible to do CGA training on a part time basis; in fact, the training program, which is spread over a number of years, requires the trainee to be working in an accounting job during the later years of the training. These requirements create different routes to certification, with the CA route requiring more in the way of up front financial resources and the ability to forego income during training.

4. Readers may wish to know that I did quite well in my courses, obtaining final grades of A+ in both. It was a happy surprise to me that I did so well and that I enjoyed doing the hours

of homework we had every week. When I signed up for the first course, I had the idea that I was only going to observe how accounting was taught and get a general sense of its conceptual organization; I wasn't planning to commit myself to the work of learning accounting. I think I was afraid it would be too difficult. But I was hooked from the first class.

5. By economic exchange I mean cash-mediated giving and getting: buying and selling things, services, and labour power, making and paying loans, interest, investment. By redistribution I mean the transfer of money and objects or services valued in monetary terms. This is what the state does when it makes transfer payments to the provinces, when it funds and operates various programs, pays CPP, and welfare, when it makes income tax refunds, and so forth. Redistribution also includes charitable donations, gifts and bequests. Of course, the distinction between exchange and redistribution is not firm; what is recorded in the books as a gift to the University may be understood by everyone involved as a matter of the giver "buying" his name on a building, and so on. I use both terms because I am constructing a description of accounting that addresses what non-profit, publicly funded organizations do as well as what for-profit businesses do.

6. The legal distinction between profit and non-profit corporations, as well as the distinction between private and public corporations, is produced textually through the form of incorporation (the act and the provisions the entity is incorporated under) and, particularly, the type of financial reporting that must be done: what sort of statements, issued to whom.

7. What is taught in introductory courses, and what is recommended in published standards, are principles that are descriptive, in that they are drawn from an examination of practice. Recent work in accounting has tried to establish more normative principles, ones that could, for example, make visible some failings in current practice, and suggest where new techniques or conventions should be developed (Larson, Zin and Nelson 1990).

The discussion of principles that follows draws on Larson, Zin and Nelson (1990) and Kieso, Weygandt, Irvine and Silvester (1991).

8. We can also see this as part of the wider trend toward the separation of private and public spheres of activity that occurred with the emergence of capitalist economic relations.

9.Vacation pay is supposed to be recorded in a different account from the Salaries Expense account. Employees "earn" or accrue vacation time throughout the weeks and months of their employment, according to terms established by relevant labour laws, company policy and collective agreements. So, consistent with accounting principles, the vacation pay they will be paid when they take their vacation that year is accruing as a liability, since the company would have to pay that money should the employee quit or be fired before taking the vacation. Therefore, each time the payroll entries are made, or on a monthly basis, the dollar amount of the vacation time earned for that period should be posted to aVacation Liability Account. When an employee takes a vacation, the pay she receives comes out of the liability account and is posted to a Vacation Expense account, so that vacation expense can be shown separate from salary expense. (Of course, these different accounts are not separate piles of money or even separate bank accounts – these are virtual reality accounts.) What Fulton is

doing is treating vacation pay as just another week of salary. Managers in the private sector and accountants often want to keep vacation expenses separate from salary expenses because only the latter are direct "costs of production." If you are calculating the labour and material costs of items produced or services provided, you only include the wages paid to the people who did the work of making the items or carrying out the service. You don't include vacation paid to people during the same period, since their labour was not a constitutive element of the saleable good or service. Vacation pay is of course a cost of doing business, and would be incorporated into reports of operating expenses. It is just kept out of the calculations that determine direct production costs. Such precise costing is not – or has not been – relevant to public sector service organizations such as colleges. Keeping vacation expense separate also allows the calculation of vacation expense as a percentage of salary expense. This is relevant in low-wage industries that depend on high employment turnover as a way of keeping wages down. Vacation expense goes up the longer employees remain on the payroll.

CHAPTER FIVE

1. It is difficult to write concretely about college activities without adopting a language that is normative and hierarchical as well as technical. In the everyday discourse used by provincial, federal and college administrators, "education" and "training" are used to talk about what are to members, distinctly different activities. Generally, the term "education" is used in the college system to refer to two- or three-year programs that require high school graduation (or its equivalent) as a prerequisite and that result, upon successful completion, in a type of documentation called a "diploma." The term "training" is generally used to refer to shorter programs or courses that last anywhere from an afternoon to a year, that may not require high school graduation as a prerequisite and that may result, upon successful completion, in some kind of certification – either a trades "ticket" in the case of apprenticeship or just some kind of certificate of accomplishment. The notion is that "education" is both broader and more intellectual than "training," in its basic teachable content as well as because it involves a component called "general education," which includes subjects like English, math and contemporary issues and which is a formal requirement for approved post-secondary "diploma" courses in Ontario. "Training" on the other hand, lacks a formal "general education" component and is seen to be more about a straightforward teaching of "skills," which are usually thought of as "hands-on" rather than conceptual. Progressive educators criticize the implicit hierarchy in the terms, which preserve a dichotomy between mental and manual labour that is not, in fact, borne out in the actual teaching and learning going on in "education" and "training," but that contributes to the higher status of the first term over the second. "Training," they point out, is a term used to talk about teaching tricks and obedience to animals, whereas "education" is only ever used when the learners are human.

This is an important critique. It will be seen, however, in the discussion that follows, that the distinction produced by the use of the two terms also, and significantly, relates to two different systems for funding the work of teaching adult students. "Education" is by and large what the province funds through its operating grant and "training" is what the federal

government funds through direct purchase, as well as what employers buy when they contract for the college to offer courses in, for example, computer technology to their employees. Hence, when people in the provincial and federal governments, and in the colleges, use these terms, they are not necessarily revealing a personal prejudice or an acceptance of elitist notions; they are speaking technically about a hierarchy that has been operationalized through funding and administrative practices. In fact, when the first federal programs for sponsoring the training of unemployed persons were introduced in the 1960s, the justification for federal involvement turned on maintaining a distinction between "education" and "training" (Cameron 1997). "Education" is constitutionally defined as a provincial jurisdiction. By defining "training" as concerned with economic growth and labour force development, which are areas of federal responsibility, the federal government attempted both to uphold the Constitution while carving out its own sphere of action. This has not gone uncontested by the provinces.

Thus, in ways that count for members, "education" and "training" are different activities, different administrative categories, managed by separate administrative divisions within a college. Within the college system, the distinction between the two terms is also used critically to point to what Walter Pitman (1986) called a "major tension" and quality control issue – federally purchased training, as well as contract training for private employers, reflects more what the buyer wants than what college staff, as professional educators, would provide if they were allowed to use their expertise in teaching the "whole person." Pitman calls for a commitment to "education" rather than just "training."

In the context of this research it is more useful to explore what members use these terms to make visible, than to replace them with euphemisms or alternative terms that obscure the relations I am attempting to describe.

11. Task Force on the Implementation of the Funding Mechanism – Colleges of Applied Arts and Technology, "A Distribution Mechanism for Allocating Operating Grants to the Ontario Colleges of Applied Arts and Technology" (November 1980).

12. As a base measure, an enrollment count using a standard unit can not distinguish between enrollment/teaching work in terms of the different costs involved, although these differences are consequential for what colleges can do with their grants. The funding mechanism handles these differences through a system of weighting factors that raise or lower the enrollment figures. For example, enrolment in nursing programs, which are expensive to run because of a necessarily low student-teacher ratio as well as equipment costs, is multiplied by a factor of 1.7. Enrolment in northern colleges is also multiplied by a weighting factor in recognition of the higher costs associated with running small colleges in less populated areas, where the possibilities for economies of scale are minimal. On the other hand, enrollment in courses that mainly involve classroom teaching to classes of 40 students is multiplied by a factor of .9. The idea is that the funding formula should not encourage colleges to offer cheap, high-enrolment courses and avoid expensive ones, but through the application of weighting factors which are assigned by the Ministry, leave them free to make programming choices that respond to community "need." There are only a small number of possible weighting factors, with each assigned to a broad category of program type. These factors were being

recalculated and updated at the time of my research, in a process designed to make the assigned factors more "realistic."

13. Ontario, Ministry of Colleges and Universities, "Ontario Colleges of Applied Arts and Technologies: Guidelines for Reporting Enrolment for Funding Purposes," March, 1991.

14. The sample language for the auditor's report supplied with the Guidelines puts it like this: "In our opinion, the attached enrollment report presents fairly the enrollment for funding purposes of (name of college) ..." (p. 17, emphasis added).

15. A college instructor I know reported that there are people attending classes and even handing in schoolwork who are not officially enrolled in his program; these are people who can no longer afford the tuition or who have in some way fallen afoul of the admitting and registering procedures at the college.

16. "Tuition short" is a funding category that refers to the enrollment of non-sponsored, fee paying Ontarians in federal training programs. As is described later in the chapter, the federal government commissions colleges to put on short (under one year in length) training programs. People receiving unemployment insurance are sponsored by the federal government to attend these programs. But some places in the courses are made available to the "general public," who pay regular tuition. The enrollment of the federally sponsored people doesn't count toward the enrollment audit, but the tuition-paying enrollment does.

17. The EIC system for classifying jobs and, particularly, identifying areas of skill shortage had come under criticism from many quarters – which was one of the reasons for the federal government's move toward indirect purchase, a way of funding training that bypassed the EIC's internal system for knowing the labour market and determining need. Here is one college manager's account of working with the CEC representatives to plan courses for federal purchase at his college:

> We had a VP in here at one time who used to deal with Canada Manpower, and – it'll give an idea how far back it was – but he used to say, my survey when I go into a Manpower meeting? Costs 25 cents. Toronto Daily Star. I've seen him sit in a Manpower meeting and have a bureaucrat on the other side saying, well, you don't need any people in this particular area, we've done surveys, there's no job opportunities. Open up the Star, highlight them: what do you call them? Dozens and dozens of them day after day in the paper and you're telling me nobody's needed? . . . It's weird, absolutely weird in their research and their ideas.

18. It's more than a matter of what names are given to the accounts; the accounts distinguish and group the various event-transactions that are entered into the records and in so doing, construct a specific visibility. OCIS requests the colleges to report expenses according to categories referring to different types of college activity: "Academic Expenditures," "Student Services Expenditures," "Supplementary Expenditures," "Administrative Expenditures." As the accountant explains, the expenses in the "Supplementary" category also have to do with teaching work, but a kind of teaching work that the provincial government wants

distinguished from something called "Academic." The general ledger of accounts is established to sort expenditure into these categories; the same categories are used in the Statement of Revenue and Expenditures.

19. This paragraph and the following one draw on the account provided in Dennison and Gallagher (1986:15, 31-38).

20. Different options for organizing a college system were considered, including models from the U.S., where community colleges offer two-year degrees and also provide an alternate route of entry to colleges offering four-year degrees (which would be called universities in Canada). Students can transfer from two-year to four-year colleges, applying credits earned in one to the programs of the other. This model was rejected in Ontario, largely as a result of strong lobbying by Ontario university presidents, who were intent on preserving the elite status of universities (Dennison and Gallagher 1986).

21. Canada/Ontario Agreement on Training, unpublished document dated March 10, 1986.

22. It is interesting to consider the use of the term "seat" as an organizing concept. "Seats" in specific training courses are what the college sells and the federal government buys, at the going per diem rate. A purchased "seat" is an opportunity for one individual to undertake a program of study. The term is a metonym. The physical object – the seat in the classroom – stands for the physical, administrative and teaching resources available (because paid for) to be brought into play providing the training as an ongoing activity occurring in a concrete location. A similar metonym is the concept of the "bed" used in the policy and media discourse around hospital funding and administration. At issue is not the availability of actual chairs and beds, but the availability of staff and equipment. It is interesting that the terms used to gloss this availability are words for physical objects/sites that hold the physical bodies of the individuals who, as students and patients, are the objects of the institutional work process. These sites, these beds and seats, are thus points of intersection.

23. Some influential reports included:

Canada, Employment and Immigration Canada, Labour Market Development in the 1980s: A report of the Task Force on Labour Market Development prepared for the minister of Employment and Immigration as a contribution to a process of consultation with provincial governments and organizations representing different elements of the private sector (Canada: Minister of Supply and Services, July 1981). This task force was coordinated by David Dodge.

Canada, Parliament, Special Committee on Employment Opportunities for the '80s, Work for Tomorrow: Employment Opportunities for the '80s. (Ottawa: House of Commons, 1988) This task force was chaired by MP Warren Allmand.

Economic Council of Canada, In Short Supply: Jobs and Skills in the 1980s (Canada: Minister of Supply and Services, 1982).

24. See note immediately preceding.

15. College and ministry officials considered this an instance of the federal government off-loading its expenses to the province. Under direct purchase, the cost of training these unemployed workers would have been entirely borne by the federal government. By having a third party enroll the same workers in the regular course offerings and just pay their tuition, the federal government effectively transferred 90% of the training costs to the province.

CHAPTER SIX

1. The collective agreement in force at the time of my research extended its salary scale to cover the hourly rate for part-time teachers teaching over 6 hours a week; there was no formula or schedule or clause in the contract covering the employment of people hired to teach fewer than 6 hours a week.

2. A training purchaser made a similar point:

> Perception is ALL that's important. I mean as a customer, if I perceive something to be wrong – I don't care if it's right or wrong – my perception is that it's right. Don't come back and tell me, no you're an idiot, you're wrong. So that's a big issue to me. The private trainers are customer oriented organizations driven by customer needs. The colleges are driven by revenue not by customers. (Private industry manager)

3. Customer demand was driving the creation of courses and administrative processes that merged or at least linked administrative divisions and areas of teaching previously divided into the parallel isolations of postsecondary and adult training. A training manager in private industry told us, however, that his company's interest in developing a course with the local college that combined apprenticeship and postsecondary training was being driven by changes introduced by equipment manufacturers.

> What's happening [to] our three distinct tradesmen, because of the equipment we're buying and the fact that . . . we're into electronics and the age of communication, these pieces of equipment talk to each other, so that they control things better. And that means that [the tradesmen] have to start working together and . . . their boundaries start coming together and we're finding we have to train an electrician on instrumentation and instrumentation on electrical and electronics on both. . . . Not because we're saying this is a wise thing to do. It's because General Electric and Allan Bradley and all the rest of the suppliers are bringing it together.

4. Relevant policy documents were:

Ontario, The Ontario Training and Adjustment Board, Skills to Meet the Challenge: A Training Partnership for Ontario (Toronto: Queen's Printer for Ontario, 1991).

Canadian Labour Force Development Board, A Proposal to Establish Local Labour Force Development Boards (Ottawa: Canadian Labour Force Development Board, 1991).

5. Recall that the Fulton College balance sheet shows the category Capital Fund, which represents accumulated investment in fixed assets; this form of visibility highlights the extent to which "taxpayers'" money is sunk in buildings and equipment, and supports claims that these public assets ought to be used to capacity by privileging the college system as a site for training activities.

6. Key documents in the provincial discourse on global competitiveness at the time were the two volumes of the Report of the Premier's Council (see Ontario, Premier's Council 1988 and 1990).

7. "Terms of Reference: College Restructuring Steering Committee," Ontario Ministry of Colleges and Universities, unpublished document, August 1992.

CHAPTER SEVEN

1. At Fulton, as at other colleges, a division is an administrative unit, under the responsibility of a dean who reports to the vice president in charge of academic divisions. The division is subdivided into departments, each run by a chairperson. Usually a department offers a number of programs and short courses in related occupational areas. For example, the business division will have a dean, and within the business division, there may be one department that offers office administration programs (word processing, legal secretary, executive assistant, etc.), another that offers a range of business management programs, accounting, etc. Each program has a coordinator: this is a person selected from among the faculty who is responsible for coordinating the administrative link between the department and the teaching staff of that program. The position of chairperson is a permanent management position; the position of coordinator, a non-managerial position, usually rotates among the full-time faculty.

2. A "training day" is a textual category supposed to stand for one day on which the department's teaching resources were available to one registered, full-time student. This is a measure that already exists in the college system, since it is used in calculating the provincial operating grant and government training purchase. Using it in the program costing articulates the costing visibility to the funding process that results in program revenue. One training day equals one FTE or six SCHs.

3. This is a choice, not an inevitable outcome of the analytic chain. The expense and contribution figures calculated to include overhead could have been put second, rather than first, without affecting the results, since the two sets of calculations are independent of each other.

4. A striking feature of the explanations collected in the interviews is the extent to which these explanations are formulated as accounts of speech: the informant describes the work process or situation by enacting the direct speech of her/himself and others. Sometimes this is presented as the narrative of a past event, reporting on what was said; often it is presented as an argument the speaker is planning to make in the future; sometimes a routine activity is verbally illustrated by acting out a typical conversation through which the activity is

accomplished (for example, an informant asked to explain what a "promotion meeting" is responds by acting out a typical discussion characteristic of such meetings). It is not to be supposed that these enactments exactly match what was said or what will be said; their usefulness as data in this kind of study lies in what they suggest about what can possibly or appropriately be said, and especially, how what can be said depends on and is oriented to the textual forms through which events and activities are known in authoritative ways.

5. What I understand the accountant to be referring to here is a calculation that divides the total operating grant by the total number of reported SCHs in the enrollment audit used to distribute that grant among the colleges.

CHAPTER EIGHT

1. Teachers are represented by the Ontario Public Service Employees Union.

On the topic of unionism and relevant issues to teachers in Ontario colleges, see Barrett and Meaghan 1990.

2. Note also that the Teaching Contact Hour matches up with the Student Contact Hour as a base measure of the centrally mandated work of the college.

3. Factors used in this description were those applying at the time of my research.

4. The union representative added an additional rationale:

> In a way it's to placate your neighbour who says teachers don't work very hard because we have too much vacation in the summer.

5. Instructional Assignment Review Committee (1985).

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