

**The Canadian Academic Accounting Association  
L'Association Canadienne des Professeurs de Comptabilité**

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**PROCEEDINGS  
COMPTE RENDU**

**1990 ANNUAL CONFERENCE  
CONGRÈS ANNUEL DE 1990**

**June 1990 / Juin 1990**

**University of Victoria  
Victoria, British Columbia, Canada**

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**PROCEEDINGS OF THE CAAA 1990 ANNUAL CONFERENCE  
COMPTE RENDU DU CONGRÈS ANNUEL DE 1990**

**The Canadian Academic Accounting Association  
L'Association Canadienne des Professeurs de Compatabilité**

**Toronto, Ontario, Canada**

**1990**

**Edited by:  
Zelma Rebmann-Huber  
Faculty of Business Administration  
Simon Fraser University  
Burnaby, B.C.**

**The Canadian Academic Accounting Association would like to express  
its appreciation to Prentice-Hall Canada, Inc., which has provided  
financial support to publish the conference proceedings.**

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L'Association Canadienne des Professeurs de Comptabilité  
The Canadian Academic Accounting Association

July 1, 1990

To the Members of the  
Canadian Academic Accounting Association

These proceedings contain the program, research paper abstracts and some of the papers presented at the 1990 Annual Conference of the Canadian Academic Accounting Association held at the University of Victoria, June 2 and 3, 1990. At the request of the authors, several other research papers presented at the conference have not been included.

Part of the program consisted of invited papers and papers submitted in response to the general call for papers. Fifty papers were received in response to this call of which twenty were accepted following a blind review by at least two reviewers.

Many people contributed to the planning and presentation of this conference. The CAAA Executive under the presidency of Sam Jopling and the Education Committee chaired by Eldon Gardner and assisted by Mike Gibbins contributed significantly. The CAAA Administrative Officer, Barbara Jaeger deserves special thanks for all her hard work in making the conference a success. I am very grateful to Bob Elliott who, in the opening plenary session, got the conference off to an exciting start assisted by Efrim Boritz and Gerry Mueller. Dan Simunic and Bill Swirsky ably organized two of the invited sessions.

Forty eight reviewers played a critical role in evaluating the submitted papers. A list of the reviewers and their university affiliation follows. I especially acknowledge all who presented papers and/or acted as chairpersons for the sessions. I also thank those who responded to the general call for papers but whose papers were not included in the conference. A final acknowledgement to the many members who attended the conference. Their presence and involvement contributed greatly to the success of the conference.

I am confident that this conference will further the development of accounting in Canada.

Sincerely,

Zelma Rebmann-Huber, Ph. D.  
Assistant Professor  
Simon Fraser University  
1990 CAAA Conference Chairperson





juillet 1, 1990

À l'intention des membres de l'Association  
Canadienne des professeurs de comptabilité

Vous trouverez ci-joint le programme du congrès 1990 de notre Association tenu à l'Université de Victoria les 2 et 3 juin. Nous y avons joint les résumés des mémoires qui ont été présentés et dans certains cas, leur texte intégral. À la demande de leurs auteurs, plusieurs mémoires n'ont pas été inclus.

Les mémoires présentés lors du congrès avaient fait l'objet d'une sollicitation individuelle et générale. Des cinquante mémoires reçus en réponse à notre sollicitation générale, vingt ont été acceptés après examen par deux arbitres.

De nombreuses personnes ont contribué de façon significative à la préparation et la présentation de ce congrès: le bureau exécutif de notre association, présidé par Sam Jopling; le Comité d'enseignement présidé par Eldon Gardner assisté de Mike Gibbins; l'adjointe administrative de notre Association, Barbara Jaeger. Je suis très reconnaissante envers Bob Elliott qui a ouvert, aidé de Efrim Boritz et Gerry Mueller, la séance plénière. Dan Simunic et Bill Swirsky ont aussi habilement organisé deux séances.

Quarante-huit personnes ont accepté de juger les mémoires reçus en réponse à notre sollicitation générale. Vous trouverez plus loin les noms de ces arbitres ainsi que ceux de leur université. Si nous sommes particulièrement reconnaissants à ceux qui ont présenté des mémoires, nous aimerions également remercier tous ceux qui nous ont soumis des textes ainsi que tous les participants qui ont permis de faire de ce congrès une réussite.

Nous avons bon espoir que ce congrès et les mémoires présentés contribueront à l'avancement des sciences comptables au Canada.

Croyez, chers collègues, à l'expression de mes sentiments les meilleurs.

Zelma Rebmann-Huber  
Professeur adjointe  
Université de Simon Fraser  
Présidente du congrès 1990 de l'A.C.P.C.

# **REVIEWERS OF SUBMITTED PAPERS / ARBITRES DES MÉMOIRES SOUMIS**

## Names - Noms

Ibrihim Aly  
 Jean Bédard  
 Joe Cheung  
 Heidi Chrisman  
 Peter Clarkson  
 David Cooper  
 Daniel Coulombe  
 Ron Davidson  
 Al Dexter  
 Tony Dimnik  
 Alain Duncan  
 Craig Emby  
 Lois Etherington  
 David Finley  
 Eldon Gardner  
 Irene Gordon  
 John Heaney  
 Carol Houston  
 Sam Jopling  
 Jeffrey Kantor  
 Duanne Kennedy  
 Henry Kennedy  
 Bruce LaRochelle  
 Léo-Paul Lauzon  
 Michel Legault  
 John Macintosh  
 Moustafa Magid  
 Michel Magnan  
 Carol McKeen  
 Alex Milburn  
 Gerry Mueller  
 George Murphy  
 Dean Neu  
 Zelma Rebmann-Huber  
 Alan Richardson  
 Gordon Richardson  
 Pamela Ritchie  
 Darrouch Robertson  
 Chris Robinson  
 Dan Simunic  
 Farhad Simyar  
 Howard Teall  
 Dan Thornton  
 Doria Tremblay  
 Robert Tucker  
 Pierre Vézina  
 John Waterhouse  
 John Williams

## University - Université

Concordia University  
 Université Laval  
 Simon Fraser University  
 Université Laval  
 Simon Fraser University  
 University of Alberta  
 Université Laval  
 University of Calgary  
 University of British Columbia  
 University of Western Ontario  
 Simon Fraser University  
 Simon Fraser University  
 Simon Fraser University  
 University of Houston  
 University of Lethbridge  
 Simon Fraser University  
 Simon Fraser University  
 San Diego State  
 Saint Mary's University  
 University of Windsor  
 University of Waterloo  
 University of Alberta  
 Concordia University  
 Université du Québec à Montréal  
 Université Laval  
 University of Windsor  
 Simon Fraser University  
 Ecole des Hautes Etudes Comm.  
 Queen's University  
 Ernst and Young  
 University of Washington  
 University of Saskatchewan  
 University of Calgary  
 Simon Fraser University  
 Queen's University  
 McMaster University  
 University of New Brunswick  
 University of Western Ontario  
 York University  
 University of British Columbia  
 Concordia University  
 Wilfred Laurier University  
 University of Calgary  
 Université Laval  
 University of Wisconsin  
 Université Laval  
 University of Waterloo  
 Queen's University

# CANADIAN ACADEMIC ACCOUNTING ASSOCIATION

## 1990 CONFERENCE PROGRAM

\*\*\*\*\*

**Friday, June 1**

\*\*\*\*\*

8:00 a.m. - 4:00 p.m.

**REGISTRATION**

6:00 - 10:00 p.m.

**CAAA WELCOME RECEPTION**

Sponsored by the Canadian Institute of Chartered Accountants

Location: UVic Faculty Club (Main Dining Room)

\*\*\*\*\*

**Saturday, June 2**

\*\*\*\*\*

7:30 - 8:45 a.m.

**BREAKFAST**

Sponsored by Irwin Dorsey of Canada

Location: UVic Faculty Club (Main Dining Room)

9:00 - 9:15 a.m.

**WELCOME \***

Speakers: **Zelma Rebmann-Huber**, Conference  
Chairperson  
**Sam Jopling**, CAAA President  
**John Scofield**, Acting Director of the Business  
Program, University of Victoria

Location: Elliott 168

\* Simultaneous translation will be provided for these sessions

9:15 - 10:45 a.m.

**PLENARY SESSION 1 \* The Challenge of 2000**

Chairperson: **Derek Acland**, (Concordia University)

Speaker: **Bob Elliott** (Partner, KPMG Peat Marwick and  
member of the AICPA's Accounting Education  
Change Commission)

Discussants: **Efrim Boritz** (University of Waterloo)  
**Gerry Mueller** (Past President AAA, University of  
Washington)

Location: Elliott 168

10:45 - 11:00 a.m.

**BREAK**

Sponsored by The Institute of Chartered Accountants of British  
Columbia

11:00 - 12:30 p.m.

# **CONCURRENT SESSIONS 1A, 1B and 1C**

## **SESSION 1 A \***

**Chairperson:** **Heldl Chrisman** (Université Laval)

**Speakers:** **Denis Cormier** (Université du Québec à Montréal), **Bernard Morard** (Université du Québec à Montréal) and **Norman Roy** (Université de Moncton) *Analyse de l'impact de la Pollution sur les Indicateurs Financiers*

**Dan Thornton** (University of Calgary)  
*Accounting for Uncertainty: Agenda for Reform*

**Location:** Elliott 168

## **SESSION 1 B Meeting the Challenge of 2000**

**Chairperson:** **Bill Swirsky** (Professional Affairs, Canadian Institute of Chartered Accountants)

**Speakers:** **Don Brown** (Executive Partner, Coopers & Lybrand and Chairperson of the CICA's Task Force on Information Technology)  
**Wes Gibson** (Vice-president Finance and CFO, Pioneer Grain Company Limited)  
**Kelth Scott** (Director of Education, Certified General Accountants of Canada)

**Location:** Elliott 062

## **SESSION 1C**

**Chairperson:** **Andrée Lafortune** (Ecole des Hautes Etudes Comm.)

**Speakers:** **Ron Davidson** (University of Calgary) *Use of Perceived Personal Values in Recruiting by Public Accounting Firms*

**Lols Etherington** (Simon Fraser University) and **Dean Tjosvold** (Simon Fraser University)  
*Collaboration Between Managers and Accountants: A Study of Roles and Goal Interdependence*

**Location:** Elliott 166

12:45 - 2:30 p.m.

### **CAAA AWARDS LUNCHEON**

Sponsored by the Certified General Accountants Association of Canada

Chairperson: **Sam Jopling**, CAAA President

Presentation of Awards

Speaker: **George Morfitt**, Auditor General of British Columbia

Location: Quarter Dining Room (Cadboro Commons Block 205A)

*Attendants at the luncheon will receive two complimentary Famous Players movie tickets courtesy of Prentice-Hall Canada Inc.*

2:45 - 4:15 p.m.

### **CONCURRENT SESSIONS 2A, 2B and 2C**

#### **SESSION 2A \***

Chairperson: **Harvey Mann** (Brock University)

Speakers: **Renaud Lachance** (Ecole des Hautes Etudes Comm) *Le Fardeau Fiscal des Nouvelles Entreprises: Une Etude Comparative Quebec-Ontario*

**Alan Macnaughton** (University of Waterloo)  
*Neutral Taxation of Fringe Benefits and Employee's Job-Related Expenditures*

Location: Elliott 168

#### **SESSION 2B**

Chairperson: **Réal Labelle** (Université du Québec à Montréal)

Speakers: **Alistair Preston** (Boston University), **David Cooper** (University of Alberta) and **Rod Coombs** (University of Manchester) *Fabricating Budgets*

**Joyce Holley** (Texas A&M University)  
*Governmental Managers' Use of Interim Accounting Statements: A City Attribute Analysis*

Location: Elliott 061

**SESSION 2C**

**Chairperson:** **Moustafa Magld** (Simon Fraser University)

**Speakers:** **Norman Betts** (Queen's University) and **Dean Neu** (University of Calgary) *Management Choice and New Stock Underpricing: Theory and Canadian Evidence*

**Carol Houston** (San Diego State) *Translation Exposure Hedging After SFAS No. 52: An Empirical Investigation*

**Location:** Elliott 166

4:15 - 4:30 p.m.

**BREAK**

Sponsored by The Institute of Chartered Accountants of British Columbia

4:30 - 5:45 p.m.

**CAAA ANNUAL MEETING \***

**Chairperson:** **Sam Jopling**, CAAA President

**Guest:** **Alvin A. Arens**, President-Elect, American Accounting Association

**Location:** Elliott 168

6:00 - 9:00 p.m.

**CAAA MEMBERS RECEPTION**

Sponsored by John Wiley & Sons

**Location:** Green Room (Cadboro Commons Block 203)

\*\*\*\*\*  
**Sunday, June 3**  
 \*\*\*\*\*

8:30 - 10:30 a.m.

**PLENARY SESSION 2 Auditing Research Directions in the 1990's**

**Chairperson:** Dan Simunic (University of British Columbia)

**Speakers:** Nicholas Dopuch and Ron King (Washington University) *Experimental Tests of Auditing as a Credibility-Generating Mechanism*

Ella Mae Matsumura and Robert Tucker (University of Wisconsin) *Fraud Detection*

Nandu Nagarajan (University of Pittsburgh), Stan Balman (Carnegie Mellon) and John Evans (University of Pittsburgh) *Collusion in Auditing*

**Discussant:** Bill Scott (University of Waterloo)

**Location:** Elliott 168

10:30 - 10:45

**BREAK**

Sponsored by The Institute of Chartered Accountants of British Columbia

10:45 - 12:15 p.m.

**CONCURRENT SESSIONS 3A, 3B and 3C**

**SESSION 3A Issues in Publishing**

**Chairperson:** Dan Thornton (University of Calgary)

**Speakers:** Rashad Abdel-khalik (University of Florida, Editor of *Accounting Review*)  
 David Cooper (University of Alberta), Editor of *Critical Perspectives on Accounting*  
 Bill Scott (University of Waterloo, Editor of *Contemporary Accounting Research*)

**Location:** Elliott 168

**SESSION 3B**

**Chairperson:** Richard Chesley (Saint Mary's University)

**Speakers:** Craig Emby (Simon Fraser University) *Response Mode Effects in Subjective Probability Assessment: An Experiment in Auditing Judgement*

David Finley (University of Houston) *On the Shape of Audit Technologies*

**Location:** Elliott 061

**SESSION 3C**

Chairperson: **Alan Richardson** (Queen's University)

Speakers: **Irene Herremans** (University of Calgary) *The Present State of Social Disclosure: Content and Media Analysis Using Firms Regarded as Social Performance Leaders and Followers*

**Richard Mattessich** (University of British Columbia) *Social versus Physical Reality in Accounting and the Measurement of Its Phenomena*

Location: Elliott 166

12:30 - 2:00 p.m.

**CAAA MEMBERS LUNCHEON**

Sponsored by the Society of Management Accountants of Canada

Chairperson: **Derek Acland**, Incoming CAAA President

Location: Quarter Dining Room (Cadboro Commons Block 205A)

2:15 - 3:45 p.m.

**PLENARY SESSION 3 Features of a Healthy Relationship Between the Universities and the Professions**

Chairperson: **Mike Gibbins** (University of Alberta)

Speakers: **Lorne Bolton** (Laventhol and Horwath)  
**John Hylton** (Executive Director, Society of Management Accountants of Alberta)  
**Thomas Beechy** (York University)

Location: Elliott 168

3:45 - 4:00 p.m.

**BREAK**

Sponsored by The Institute of Chartered Accountants of British Columbia



4:00 - 5:30 p.m.

## CONCURRENT SESSIONS 4A, 4B and 4C

### SESSION 4A

Chairperson: **Mort Nelson** (Wilfred Laurier University)

Speakers: **George Gekas** (University of Western Ontario)  
*The Continuing Shortage of Doctorally Qualified Academic Accountants*

**Reginald Mathews** (Massey University) A  
*Unique Experience in Combining Academic and Professional Accounting Education: The New Zealand Case*

Location: Elliott 166

### SESSION 4B

Chairperson: **Farhad Simyar** (Concordia University)

Speakers: **Ramy Elitzur** (University of Toronto) and **Varda Yaari** (Bar-Illan University) *Managerial Equity Holdings and Earnings Management in a Multiperiod Setting*

**Murray Lindsay** (University of Saskatchewan) *An Examination of the "Negative Result" Bias: Some Empirical Evidence and a Statistical Redress*

Location: Elliott 168

### SESSION 4C

Chairperson: **Pamela Ritchie** (University of New Brunswick)

Speakers: **John MacIntosh** (University of Windsor) *The Berle-Dodd Debate on the Question of "To Whom are Corporate Managers Accountable?"*

**Michel Magnan** (Ecole des Hautes Etudes Comm) *A Cross-Sectional Analysis of CEO Compensation: The Case of Commercial Banks*

Location: Elliott 061

5:00 - 7:00 p.m.

## UVIC PRESIDENT'S RECEPTION

Location: Cadboro Commons Block

# L' ASSOCIATION CANADIENNE DES PROFESSEURS DE COMPTABILITÉ

## PROGRAMME DU CONGRÈS 1990

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### Vendredi, 1 juin

\*\*\*\*\*

8h.00 - 16h.00

**INSCRIPTION**

18h.00 - 22h.00

**RECEPTION DE BIENVENUE DE L' A.C.P.C.**

Parrainée par l'Institut canadien des comptables agréés

Endroit: UVic Faculty Club (Main Dining Room)

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### Samedi, 2 juin

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7h.30 - 8h.45

**PETIT DEJEUNER**

Parrainée par Irwin Dorsey of Canada

Endroit: UVic Faculty Club (Main Dining Room)

9h.00 - 9h.15

**BIENVENUE\***

Conférenciers: **Zelma Rebmman-Huber**,  
présidente du congrès  
**Sam Jopling**, président  
de l'A.C.P.C.  
**John Scofield**, doyen de l'UVic Business  
Programme

Endroit: Elliott 168

\* L'interprétation simultanée sera offerte lors de ces séances

9h.15 - 10h.45

**SÉANCE PLÉNIÈRE 1\***

**Le défi de l'an 2000**

Président: **Derek Acland** (Concordia University)

Conférencier: **Bob Elliott** (associé, KPMG Peat Marwick et  
membre de l'AICPA Accounting Education Change  
Commission)

Intervenants: **Efrim Boritz** (University of Waterloo)  
**Gerry Mueller** (ancien président de l'AAA, University  
of Washington)

Endroit: Elliott 168

10h.45 - 11h.00

**PAUSE**

Parrainée par l'Institute of Chartered Accountants of British Columbia

11h.00 - 12h.30

**SÉANCES CONCOMITANTES 1A, 1B et 1C****SÉANCE 1A\*****Présidente:** **Heldi Chrisman** (Université Laval)**Conférenciers:** **Denis Cormier** (Université du Québec à Montréal),  
**Bernard Morard** (Université du Québec à Montréal)  
et **Normand Roy** (Université de Moncton) *Analyse  
de l'impact de la pollution sur les indicateurs  
financiers***Dan Thornton** (University of Calgary) *Accounting  
for Uncertainty: Agenda for Reform***Endroit:** Elliott 168**SÉANCE 1B** **Comment répondre au défi de l'an 2000****Président:** **Bill Swirsky** (Affaires professionnelles, Institut  
canadien des comptables agréés)**Conférenciers:** **Don Brown** (associé directeur, Coopers & Lybrand  
et président du groupe de travail de l'I.C.C.A. sur la  
technologie de l'information)  
**Wes Gibson** (vice-président des finances Pioneer  
Grain Cy Ltd)  
**Keith Scott** (directeur de l'éducation, A.C.G.A.)**Endroit:** Elliott 062**SÉANCE 1C****Présidente:** **Andrée Lafortune** (Ecole des Hautes Etudes  
Commerciales)**Conférenciers:** **Ron Davidson** (University of Calgary) *Use of  
Perceived Personal Values in Recruiting by Public  
Accounting Firms***Lois Etherington** (Simon Fraser University) et **Dean  
Tjosvold** (Simon Fraser University) *Collaboration  
Between Managers and Accountants: A Study of  
Roles and Goal Interdependence***Endroit:** Elliott 166

12h.45 - 14h.30

**DEJEUNER DES PRIX DE L' A.C.P.C.**

Parrainée par l'A.C.G.A.

Président: **Sam Jopling**, président de l'A.C.P.C.

Remise des prix

Conférencier: **George Morfitt**, vérificateur général de la Colombie-Britannique

Endroit: Quarter Dining Room (Cadbore Commons Block 205A)

*Grâce à la générosité de Prentice Hall Canada Inc., les personnes assistant à ce déjeuner recevront deux billets gratuits pour voir un film dans une salle de la compagnie Famous Players.*

14h.45 - 16h.45

**SÉANCES CONCOMITANTES 2A, 2B et 2C**

**SÉANCE 2A \***

Président: **Harvey Mann** (Brock University)

Conférenciers: **Renaud Lachance** (Ecole des Hautes Etudes Comm) *Le Fardeau fiscal des nouvelles entreprises: Une étude comparative Québec- Ontario*

**Alan Macnaughton** (University of Waterloo) *Neutral Taxation of Fringe Benefits and Employee's Job-Related Expenditures*

Endroit: Elliott 168

**SÉANCE 2B**

Président: **Réal Labelle** (Université du Québec à Montréal)

Conférenciers: **Alistair Preston** (Boston University), **David Cooper** (University of Alberta) et **Rod Coombs** (University of Manchester) *Fabricating Budgets*

**Joyce Holley** (Texas A&M University) *Governmental Managers Use of Interim Accounting Statements: A City Attribute Analysis*

Endroit: Elliott 061

**SÉANCE 2C**

Président: **Moustafa Magid** (Simon Fraser University)

Conférenciers: **Norman Betts** (Queen's University) et **Dean Neu** (University of Calgary) *Management Choice and New Stock Underpricing: Theory and Canadian Evidence*

**Carol Houston** (San Diego State) *Translation Exposure Hedging After SFAS No 52: An Empirical Investigation*

Endroit: Elliott 166

14h.15 - 16h.30

**PAUSE**

Parrainée par l'Institute of Chartered Accountants of British Columbia

16h.30 - 17h.45

**REUNION ANNUELLE DE L' A.C.P.C. \***

Président: **Sam Jopling**, président de l'A.C.P.C.

Invité: **Alvin A. Arens**, président désigné, American Accounting Association

Endroit: Elliott 168

18h.00 - 21h.00

**RECEPTION DES MEMBRES DE L' A.C.P.C.**

Parrainée par John Wiley & Sons

Endroit: Green Room (Cadboro Commons Block 203)

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**Dimanche, 3 juin**

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8h.30 - 10h.30

**SÉANCE PLÉNIÈRE 2 Perspectives pour la recherche en  
vérification dans les années 1990****Président: Dan Simunic** (University of British Columbia)**Conférenciers: Nicholas Dopuch et Ron King** (Washington University) *Experimental Tests of Auditing as a Credibility Generating Mechanism***Ella Mae Matsumura et Robert Tucker**  
(University of Wisconsin) *Fraud Detection***Nandu Nagarajan** (University of Pittsburgh), **Stan Baiman** (Carnegie Mellon) et **John Evans**  
(University of Pittsburgh) *Collusion in Auditing***Intervenant: Bill Scott** (University of Waterloo)**Endroit: Elliott 168**

10h.30 - 10h.45

**PAUSE**

Parrainée par l'Institute of Chartered Accountants of British Columbia

10h.45 - 12h.15

**SÉANCES CONCOMITANTES 3A, 3B et 3C****SÉANCE 3A Questions concernant les publications****Président: Dan Thornton** (University of Calgary)**Conférenciers: Rashad Abdel-Khalik** (University of Florida, rédacteur en chef de l' *Accounting Review*)  
**David Cooper** (University of Alberta, rédacteur en chef de *Critical Perspectives on Accounting*)  
**Bill Scott** (University of Waterloo, rédacteur en chef de *Recherche comptable contemporaine*)**Endroit: Elliott 168**

**SÉANCE 3B**

**Président:** **Richard Chesley** (Saint Mary's University)

**Conférenciers:** **Craig Emby** (Simon Fraser University) *Response Mode Effects in Subjective Probability Assessment: An Experiment in Auditing Judgement*

**David Finley** (University of Houston) *On the Shape of Audit Technologies*

**Endroit:** Elliott 061

**SÉANCE 3C**

**Président:** **Alan Richardson** (Queen's University)

**Conférenciers:** **Irene Herremans** (University of Calgary) *The Present State of Social Disclosure: Content and Media Analysis Using Firms Regarded as Social Performance Leaders and Followers*

**Richard Mattessich** (University of British Columbia) *Social versus Physical Reality in Accounting and the Measurement of its Phenomena*

**Endroit:** Elliott 166

12h.30 - 14h.00

**DEJEUNER DES MEMBRES DE L' A.C.P.C.**

Parrainée par la Société des comptables en management du Canada

**Président:** **Derek Acland**, futur président de l'A.C.P.C.

**Endroit:** Quarter Dining Room (Cadboro Commons Block 205A)

14h.15 - 15h.45

**SÉANCE PLÉNIÈRE 3** **Caractéristiques des relations souhaitables entre les universités et la profession comptable**

**Président:** **Mike Gibbins** (University of Alberta)

**Conférenciers:** **Lorne Bolton** (Laventhol et Horwath)  
**John Hylton** (directeur de la Society of Management Accountants of Alberta)  
**Thomas Beechy** (York University)

**Endroit:** Elliott 168

15h.45 - 16h.00

**PAUSE**

Parrainée par l'Institute of Chartered Accountants of British Columbia

16h. - 17h.30

**SÉANCES CONCOMITANTES 4A, 4B et 4C****SÉANCE 4A****Président: Mort Nelson** (Wilfrid Laurier University)**Conférenciers: George Gekas** (University of Western Ontario) *The Continuing Shortage of Doctorally Qualified Academic Accountants***Reginald Mathews** (Massey University) *A Unique Experience in Combining Academic and Professional Accounting Education: The New Zealand Case***Endroit: Elliott 166****SÉANCE 4B****Président: Farhad Simyar** (Concordia University)**Conférenciers: Ramy Elitzur** (University of Toronto) et **Varda Yaari** (Bar-Illan University) *Managerial Equity Holdings and Earnings Management in a Multiperiod Setting***Murray Lindsay** (University of Saskatchewan) *An Examination of the "Negative Result" Bias: Some Empirical Evidence and a Statistical Redress***Endroit: Elliott 168****SÉANCE 4C****Présidente: Pamela Ritchie** (University of New Brunswick)**Conférenciers: John Macintosh** (University of Windsor) *The Berle-Dodd Debate on the Question of "To Whom are Corporate Managers Accountable?"***Michel Magnan** (Ecole des Hautes Etudes Comm) *A Cross-Sectional Analysis of CEO Compensation: The Case of Commercial Banks***Endroit: Elliott 061**

17h.00 - 19h.00

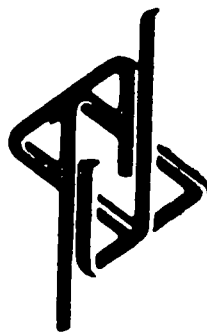
**RECEPTION DU PRESIDENT DE UVIC****Endroit: Cadboro Commons Block**



**CANADIAN ACADEMIC ACCOUNTING ASSOCIATION**

**1990 ANNUAL CONFERENCE**

**CONFERENCE ABSTRACTS**



CAAA 1990

## PLENARY SESSION 1

Saturday, June 2  
9:15am - 10:45am  
Elliott 168

**THE CHALLENGE OF 2000**

**Bob Elliott** (Partner, KPMG Peat Marwick and member of the  
AICPA's Accounting Education Change Commission)  
**Efrim Boritz** (University of Waterloo)  
**Gerry Mueller** (Past President AAA, University of Washington)

"Information Technology" is networks, data bases, computers and software. It's.....

- ... changing everything.
- ... creating new products and obsoleting old ones.
- ... making globalization both possible and necessary.
- ... already reshaped industry.
- ... now reshaping the accounting profession,
- ... and it's going to reshap education.

What do you and your institution need to do to reengineer your products (read "students") to cope in this global world of information technology?

These questions and others like them are of vital concern to the accounting profession - both its education and practice branches.

Is it necessary to reengineer the curriculum?  
... is it possible?

CAAA 1990

CONCURRENT SESSION 1A

Saturday, June 2  
11:00am - 12:30pm  
Elliott 168

**ANALYSE DE L'IMPACT DE LA POLLUTION SUR LES INDICATEURS FINANCIERS**

**Denis Cormier** (Université du Québec à Montréal)

Recent trends demonstrate that enterprises involved in social accounting are placing a greater importance on the image they project of themselves. This position could come in conflict with the traditional objectives of maximizing the wealth of investors. However, the concept of "moral" investor could reconcile these two approaches. This study was done in two parts: the first part examines the relationship between financial return and its financial and social variables (as seen through the variation in the rate of pollution); the second part examines the relationship between the pollution index and the financial variables. Results from regression analysis do not enable one to make any positive conclusion on the first case but results from logistic model seem to show a positive association between social and financial performance.

**ACCOUNTING FOR UNCERTAINTY: AGENDA FOR REFORM**

**Dan Thornton** (University of Calgary)

How, if at all, should uncertainty be reported to readers of financial statements? This is accounting's most fundamental issue. Nearly every item on standard-setters' current agendas derives from it. This paper proposes five standard-setting axioms relating to uncertainty and suggests a concrete agenda for pervasive reforms.

CAAA 1990

CONCURRENT SESSION 1B

Saturday, June 2  
11:00am - 12:30pm  
Elliott 062**MEETING THE CHALLENGE OF 2000**

**Bill Swirsky** (Professional Affairs, Canadian Institute of Chartered Accountants)  
**Don Brown** (Executive Partner, Coopers & Lybrand and Chairperson of the CIIA's  
Task Force on Information Technology)  
**Wes Gibson** (Vice-President Finance and CFO, Pioneer Grain Company Limited)  
**Kelth Scott** (Director of Education, Certified General Accountants of Canada)

Response to Bob Elliott's question, "What do you and your institutions need to do to reengineer your  
"products" to cope in the global world of information technology?"

**USE OF PERCEIVED PERSONAL VALUES IN RECRUITING BY PUBLIC ACCOUNTING FIRMS****Ron Davidson** (University of Calgary)

This study tests the proposition that values are used in the recruiting process. Previous research indicates that values, attitudes, and behaviors are important in organizations that have strong cultures, such as public accounting firms. Recruiters for public accounting firms will reflect this strong organizational culture by tending to make offers to applicants who are perceived to have certain sets of values. Results of the test conducted provide strong evidence that the set of values perceived to be held by graduating accounting majors who received job offers are significantly different from the sets of values perceived to be held by those applicants who did not.

**COLLABORATION BETWEEN MANAGERS AND THE ACCOUNTANTS: A STUDY OF ROLES AND GOAL INTERDEPENDENCE****Lois Etherington** (Simon Fraser University)**Dean Tjosvold** (Simon Fraser University)

Roles and goal interdependence were used to examine the interaction between managers and accountants. Thirty-one managers from a company engaged in research and production of high technology energy systems were interviewed using the critical incident method. Contrary to expectations, the accounting roles of planning, assistance, watchdog/reporting, and control were not very predictive of the success of the interaction. Goal interdependence was highly predictive. Specifically, situations in which managers believed their goals were cooperatively related with accountants were characterized by progress on the task, an increased appreciation and understanding of the rationale and importance of accounting, and confidence in future collaboration. Results also specify the antecedents to goal interdependence, interactions that occur within different goals, and their consequences. For five out of seven aspects of accounting, the managers judged the ideal role of accounting to be significantly greater than the role it presently played in the organization.

**LE FARDEAU FISCAL DES NOUVELLES ENTREPRISES: UNE ETUDE COMPARATIVE QUEBEC-ONTARIO****Renaud Lachance** (Ecole des Hautes Etudes Comm)

This study compares the tax load in Quebec and Ontario of three new enterprises created in Quebec after the tax reform for new enterprises created in 1981. The comparison covers the first three years of business and is conducted according to the tax legislation existing during these years and then according to the legislation existing in 1989. The results from these comparisons demonstrate that the relative burden born by new enterprises in Quebec in comparison to enterprises in Ontario is a function of four elements: the definition of the tax burden compared, the revenue of the enterprise, its expenses in research and development and finally, the value of the average salaries paid by the firms.

This study also examines the effect on the relative burden of these enterprises of two tax measures exclusive in Quebec, measures meant to lighten the load of fixed taxes (taxes on the salaried employees and on capital). These measures are a tax abatement and a tax credit reimbursable on losses. The tax abatement is an exoneration of taxes on benefits and taxes on the capital of new enterprises for the first three years of operation. The results of this study show that tax abatement benefits mostly enterprises already favored by the taxation structure in Quebec even before considering reimbursable on losses forces us to distinguish between the tax burden imposed by the taxation structure existing in Quebec and the previous withdrawal of funds it requires from an enterprise in a deficit position. This distinction must be considered in evaluating the relative position of a new enterprise in Quebec.

From the results of this study, no conclusion is made on the existence of the inferior or superior tax burden of a new enterprise in Quebec. However, the analysis of the effects of tax abatement indicates that this measure is problematic in its objective of lightening the fixed tax charges on new enterprises. On this subject, the author favors instead a reduction in the contributions of the "health-insurance" considering its importance on the fixed tax load.

**NEUTRAL TAXATION OF FRINGE BENEFITS AND EMPLOYEE'S JOB-RELATED EXPENDITURES****Alan Macnaughton** (University of Waterloo)

This paper derives fringe benefit taxation rules which do not distort taxpayer decisions through substitution effects. These "neutral" tax rules have lower information requirements than previously suggested rules because the required information can be obtained from consumer demand studies and does not require estimating the compensating wage differential between different groups of workers. The paper also extends previous work by introducing employer-level taxation, indivisible goods, and the choice between fringe benefits and employee' job-related expenditures. The neutrality of Canadian tax rules relating to employee and employer automobiles is examined in light of these results.

**FABRICATING BUDGETS**

**Allstair Preston** (Boston University)  
**David Cooper** (University of Alberta)  
**Rod Coombs** (University of Manchester)

This paper examines the processes by which a form of responsibility accounting system emerges in an organizational context. The paper utilizes recent approaches to the understanding of how science and technology is created (Latour, 1987) to investigate the processes by which a management budgeting initiative in the UK hospital system takes hold (or not) in specific hospitals. The approach is critical of the notion that accounting systems are well defined technologies which are designed and then implemented (or face resistance). Instead the study shows that management budgeting is fabricated, put together in a changing and fragile manner. Emerging accounting systems are not fixed technologies with well defined purposes which reflect patterns of responsibility but changing constructions. Management budgeting systems are initiated with loose characteristics, purposes and uses. In the process of their design and implementation, new possibilities for decision making and definitions of responsibility emerge. Through this study of accounting in action, the paper offers challenging insights into the processes by which accounting and budgeting systems bring economic logic into hospital management. It is thus also relevant to debates about the role of budgeting and accounting in health care organizations in many countries.

**GOVERNMENTAL MANAGERS' USE OF INTERIM ACCOUNTING STATEMENTS: A CITY ATTRIBUTE ANALYSIS**

**Joyce Holley** (Texas A&M University)

The study addresses city government managers' use of interim accounting information for the following administrative functions: internal control, personnel performance evaluation, program evaluation, cash management, budgeting, and investment decision-making. City attribute factors are examined to determine whether differences exist regarding the extent to which interim reports are used. Based on research findings of significant factors in financial reporting by municipalities, the study analyses, for cities in the sample, relationships between interim reporting practices and city size as measured in population, revenues, and expenditures; long-term debt, and state required GAAP vs non-GAAP.

The study provides evidence to rank (in descending order) the uses of internal interim reports by chief financial officers as follows: budgeting, cash management, internal control, investment decision-making, program evaluation, and personnel performance evaluation. The interim statements for administrative functions are accordingly ranked (in descending order): Actual and Estimated Expenditure, Actual and Estimated Revenues, Forecast of Cash Position - All Funds, Comparative Revenues and Expenses, Combined Statement of Cash Receipts and Disbursements - all Funds, and Balance Sheet.

Results of the t-tests provide evidence that there are differences in how cities use information for investment decision-making, cash management, internal control, and budgeting. Cities with less budgeted revenues, expenditures, and long-term debt per capita indicated greater use of the statements.

CAAA 1990

CONCURRENT SESSION 2C

Saturday, June 2  
2:45pm - 4:15pm  
Elliott 166**MANAGEMENT CHOICE AND NEW STOCK UNDERPRICING: THEORY AND CANADIAN EVIDENCE****Norman Betts** (Queen's University)  
**Dean Neu** (University of Calgary)

At the time of issuing shares and applying for a new stock exchange listing significant asymmetries exist between management and potential investors regarding firm value. This study examines the relationship between constraint mechanisms used by management to reduce these asymmetries and the level of new stock issue underpricing. A sample of 163 firms that issued equity shares and applied for a new Toronto Stock Exchange listing over the 1985 to 1987 period is used to examine these relationships. The theory and results extend previous research by considering the impact of managerial action on underpricing. In addition, Canadian evidence is provided, complementing the more prevalent American studies of underpricing.

**TRANSLATION EXPOSURE HEDGING AFTER SFAS NO. 52: AN EMPIRICAL INVESTIGATION****Carol Houston** (San Diego State)

Earlier studies have concluded that SFAS No. 8 led to or increased the phenomenon of translation exposure hedging to counteract large swings in income. Replacement of SFAS No. 8 by SFAS No. 52 is assumed to have led to a reduction in such hedging as a result of a change in the requirement to include translation gains and losses in net income. This implies that firms with high proportions of local foreign functional currency subsidiaries would cease hedging since translation gains and losses related to such subsidiaries are no longer included in income. However, examination of proprietary firm data for a small sample of firms which hedged under SFAS No. 8 revealed that the majority of firms continuing hedging had primarily local foreign functional currency subsidiaries. Moreover, subsequent to the adoption of SFAS No. 52, those firms continued hedging their local foreign functional currency subsidiaries. Thus, knowledge that a firm has primarily local foreign functional currency subsidiaries is not a good indicator of the firm's post-SFAS No. 52 hedging behavior. In the current sample it was found that the geographic concentration of subsidiaries of firms with primarily local foreign functional currency subsidiaries which ceased hedging after adopting SFAS No. 52 differed significantly from their counterparts which continued hedging. A significant difference between the proportion of net exposed assets found outside of the U.S. was also documented between firms continuing hedging and those which ceased. Weak evidence of differences in the asset composition and the impacts of changing translation method on the reported amount of depreciation expense was also found. The study concludes that based on the characteristics of firms which continued hedging, the financial statement effects of changing from the temporal method to the current rate method cannot be ruled out as a factor in a firm's decision to continue or cease hedging after adoption of SFAS No. 52.



## AUDITING RESEARCH DIRECTIONS IN THE 1990's

## EXPERIMENTAL TESTS OF AUDITING AS A CREDIBILITY GENERATING MECHANISM

Nicholas Dopuch (Washington University)  
Ron King (Washington University)

The objective of this study is to investigate issues relating to the demand for "auditing services" in experimental market settings. We consider various environmental conditions which might affect the voluntary acquisition of this service and how the demand for it is adversely affected when the audit service is provided by a strategic agent. In the basic market setting there was a single seller of an asset and three buyers, who transacted for a known finite number of periods. Each period the seller offered an asset for sale whose expected value to the buyers could be increased if the seller made a costly investment. After making the investment choice, the seller learned the actual asset type and then made a disclosure (which did not have to be truthful) about the asset type to the buyers.

The buyers could not observe whether the costly investment was made, nor did they ever observe the actual asset type held by the seller. Upon receipt of the seller's disclosure each buyer submitted a bid for the asset; the highest bidder received it at the price equal to the second highest bidder. Buyers learned the amount of cash payouts of the asset (with higher cash payouts imperfectly correlated with higher asset types) only after the asset had already been purchased by one of the buyers. We considered the following questions:

1. Will sellers hire a strategic (i.e., human) verifier and make the costly investment with the same frequency as they acquire a nonstrategic (computerized) verifier?
2. Will buyers hire a strategic verifier (which induces the seller to select the costly investment) with the same frequency as they acquire a nonstrategic verifier, and how does this frequency compare to the frequency of the seller hiring the strategic verifier?
3. Will the frequency of the buyers' hiring the verifier be affected by the extent of the dissemination of the verifier's message and the allocation of the cost of hiring the verifier?

To summarize the results, we found that if the human verifier was not credible (due to the combined problems of moral hazard and independence), sellers were less able to generate a return for the costly investment, thereby decreasing economic efficiency. Similarly, when buyers were relatively homogeneous they did not hire (credible) verifiers and this also led to lower levels of costly investment on the part of the seller. The most surprising result, however, was that in the markets wherein heterogeneous buyers could hire the verifier, much higher levels of efficiency were achieved than predicted. Buyers were willing to hire the verifier under different conditions of message dissemination and cost allocations. We did not see the widespread market failures that our model predicted.

CAAA 1990

## PLENARY SESSION 2

(Continued)

Sunday, June 3  
8:30am - 10:30am  
Elliott 168**FRAUD DETECTION**

**Ella Mae Matsumura** (University of Wisconsin)  
**Robert Tucker** (University of Wisconsin)

This paper uses game theory to model the interaction between an auditor and a manager. The effects of auditors' penalties, quality of the internal control system, auditing requirements, and audit fee on fraud detection and prevention are examined. The model allows the auditor to design a two-stage audit strategy that explicitly tests for fraud. This study tests the model's predictions in a multiperiod experimental economics setting. Increasing auditors' liability decreased fraud, increased detailed tests of balances, decreased internal control testing, and increased fraud detection. Increasing testing requirements increased audit costs, decreased discretionary testing, increased fraud detection, and decreased fraud commission. With strong internal control, auditors increased control testing and detected more fraud more frequently; managers committed fraud less frequently. Increasing the audit fee resulted in less fraud. The empirical results support a close connection between testing, fraud detection, and fraud prevention.

**COLLUSION IN AUDITING**

**Nandu Nagarajan** (University of Pittsburgh)  
**Stan Balman** (Carnegie Mellon)  
**John Evans** (University of IPittsburgh)

In this paper we analyze a three-person agency model of auditing allowing for collusion between the agents. While we do not study the process by which the agents come to such collusive agreements, we examine the interaction between the potential for collusion and the owner's choice of incentive contracts for the agents.

As in Townsend (1979), Evans (1980), and Baiman, Evans, Noel (1987), our model assumes perfect auditing. However, while their results are that the manager bears no risk over a set of lower outcomes, we find that because of the possibility of collusion, the manager bears no risk only over a set of higher outcomes. The intuition behind this result is that perfect risk sharing over the lowest outcomes would require reducing the minimum net transfer which the manager would make. But this minimum net transfer is exactly what a colluding manager and auditor would agree to make to the owner. Therefore, to avoid reducing the minimum receipt from the manager, i.e. to limit losses from collusion, the owner must restrict the risk-sharing to a set of higher outcomes. The resulting owner-manager and owner-auditor contracts are consistent with those observed in situations involving the leasing of income producing assets in which the owner cannot independently observe the income produced by the leased asset.

CAAA 1990

CONCURRENT SESSIONS 3A

Sunday, June 3  
10:45am - 12:15pm  
Elliott 168

**ISSUES IN PUBLISHING**

**Rashad Abdel-Khalik** (University of Florida, Editor of Accounting Review)  
**David Cooper** (University of Calgary, Editor of Critical Perspectives on Accounting)  
**Bill Scott** (University of Waterloo, Editor of Contemporary Accounting Research)

Where we have been and where we are going.

**RESPONSE MODE EFFECTS IN SUBJECTIVE PROBABILITY ASSESSMENT: AN EXPERIMENT IN AUDITING JUDGMENT****Craig Emby** (Simon Fraser University)

This study reports the results of an experiment which examined auditors' judgment. The environment in which this judgment must be exercised is characterized by uncertainty. The Probabilistic Judgment Paradigm provides a methodology for decision making which explicitly recognizes this uncertainty. This study presents the results of an experiment involving Fraud Investigation which required the auditor-subjects to make subjective probability judgments based on indirect, qualitative evidence. The experiment examined the effects of providing the auditors with different response modes to express their judgments, and differing levels of prior tutoring in axiomatic probability theory. A visually-based graphical response mode which allowed the auditors to make their probability judgments without the need for complex arithmetical processing eliminated both the violations of probability axioms and non-conformance with Bayesian patterns of belief revision, with or without any prior tutoring in formal probability theory. The visually-based graphical response mode also enhanced secondary characteristics of the judgments such as consensus, confidence and speed of decision making, with respect to those judgments.

**ON THE SHAPE OF AUDIT TECHNOLOGIES****David Finley** (University of Houston)

An audit technology is defined as a function of cost, where the technology is the conditional probability of detecting an adverse condition, such as materially false financial statements. The shape of the technology is important in finding and characterizing solutions to constrained optimization, decision theory, interactive, and agency models of auditing and its economic role. For many models, a concave technology leads to pure auditor strategy choices for equilibrium solutions, but such simplification does not occur for non-concave audit technologies.

The shapes of audit sampling technologies depend on sampling effectiveness functions and the functions giving sample size for given costs, if both these functions are concave, a technology is concave. Two particular sampling approaches are investigated. First, for discovery sampling, the sampling effectiveness function is shown to be strictly concave. Second, the normal distribution effectiveness function is strictly concave for the most likely application parameter values, but not for all such parameter values. Further investigation is needed to determine whether other sampling effectiveness functions and more comprehensive audit technologies are concave.

# **THE PRESENT STATE OF SOCIAL DISCLOSURE: CONTENT AND MEDIA ANALYSIS USING FIRMS REGARDED AS SOCIAL PERFORMANCE LEADERS AND FOLLOWERS**

**Irene Herremans** (University of Calgary)

The social disclosure of 49 social performance leaders and 46 social performance followers was analyzed by content and media format. This research project was undertaken to determine the extent that the firms in each group communicate their attention to social issues (their corporate responsibility) to their stakeholders. The depth and breadth of content and the quality of the social disclosure was studied to determine if the leaders included more and better social disclosure in their 1987 annual reports than did the followers. The results of the descriptive study show that both firm groups actively engage in social disclosure; however, a strong positive correlation was found between social performance and social disclosure, indicating a better quality of reporting with greater depth and breadth among leading social performers.

# **SOCIAL VERSUS PHYSICAL REALITY IN ACCOUNTING AND THE MEASUREMENT OF ITS PHENOMENA**

**Richard Mattessich** (University of British Columbia)

This paper exposes, and hopefully resolves, some fundamental issues of social reality, the neglect of which was led to interesting, but hitherto unresolved problems and surprising interpretations in the accounting literature (e.g. Heath [1987], Sterling [1988], Thornton [1988]).

Apart from conceptual clarification (presentation of a reality model which fully conforms to everyday activity and language, etc.), we demonstrate that Heath's claim that income and stockholders' equity are mere concepts without any reality behind them, is based on a confusion between two fundamental dichotomies: while Heath believes to deal with the distinction between "concepts vs. reality" he actually is confronted with the juxtaposition of "social reality vs. physical reality." Thus, we can demonstrate that income, owner's equity and similar accounting concepts are not empirically empty, but usually have a social reality behind them. For similar reasons Sterling's assertion that most accounting figures do not represent real phenomena is rejected. But here the additional problem of "value in exchange" as a social and hence empirical phenomenon requires clarification. The article shows that the resolution of Sterling's problem cannot be found by denying the reality status of value phenomena (as reflected in financial statements), but must be sought in a better understanding of the ontological and methodological difficulties and, above all, the pragmatic (cost/benefit) problems of accounting measurement. If our aim is understanding reality, and our means is conceptual representation, then a confusion of means and ends, and the questioning of the reality status of accounting values, indicate unresolved foundational problems that deserve clarification.

**FEATURES OF A HEALTHY RELATIONSHIP BETWEEN THE UNIVERSITIES AND THE PROFESSIONS**

**Mike Gibbons** (University of Alberta)  
**Lorne Bolton** (Laventhol and Horwath)  
**John Hylton** (Executive Director, Society of Management Accountants of Alberta)  
**Thomas Beechy** (York University)

The many significant changes going on within the university system and within the accounting professions are creating stress in and uncertainty about the relationship between university accounting departments and the accounting professions. With the background provided by the previous day's plenary session on "The Challenge of 2000", this session will address what is happening now in universities and the professions and what is likely in the future, focusing on the necessary features of a future healthy relationship between academe and practice, one that will reflect cooperative effort to benefit both.

Topics to be addressed include:

- Funding changes and pressures in the Canadian university system
- Relative strengths of universities and the professions in accounting education
- Program and other academic priorities within the universities
- Universities' ability to provide and interest in offering "professional" material
- Professions' expectations of university education
- Changing priorities in public accounting
- Changing priorities in industry
- Changing priorities in the professions' education structures
- Making healthy cooperation work

Speakers will provide information on the above topics intended to focus on how to build a strong cooperative relationship in the future rather than on complaints about the past. Each speaker will bring a different perspective to the topics. Tom Beechy, York University, will speak as an accounting academic and senior administrator in a major university. Lorne Bolton will speak as a public practitioner and observer of professional education for CAs. John Hylton will speak as a manager of the CMA education effort and participant in cooperative activities between universities and the profession.

CAAA 1990

CONCURRENT SESSION 4A

Sunday, June 3  
4:00pm - 5:30pm  
Elliott 166**THE CONTINUING SHORTAGE OF DOCTORALLY QUALIFIED ACADEMIC ACCOUNTANTS****George Gekas** (University of Western Ontario)

The shortage of doctorally qualified academic Accountants and its implications for Accounting education in Canada is a cause of deep concern for many who are directly involved with it. The severe shortage of academic Accountants coupled with the market demand for better trained, professionally qualified Accountants has put a great strain on universities. The demand for a larger commitment to Accounting education is occurring at a time when programmes are under severe financial constraints.

Universities have produced large numbers of Accountants in the last decade, at least enough to meet the immediate needs of the Canadian economy. Although the demand and supply of Accounting graduates has not always been balanced, one can claim that the supply of Accountants has been large enough not to cause a major concern.

As long as Accounting graduates are produced, few seem to be interested in the production process. The major production problem-shortage of doctorally qualified academic Accountants is largely unknown. Unless this shortage is filtered down the system causing a more visible shortage of university Accounting graduates, it is doubtful that the university system will respond properly to this shortage.

This study is an appraisal of the continuing shortage of doctorally qualified academic Accountants. Its purpose is to explore the forces, trends, and pressures that shape the current status of the Accounting discipline. The identification of these forces will offer insight into possible changes in Accounting education in the future and may at the same time indicate those areas where changes should be made.

**A UNIQUE EXPERIENCE IN COMBINING ACADEMIC AND PROFESSIONAL ACCOUNTING EDUCATION: THE NEW ZEALAND CASE****Reginald Mathews** (Massey University)

This paper describes and analyses the system of professional accounting education currently used in New Zealand. The historical system is set down followed by an integrated approach employed by the New Zealand Society of Accountants and the providers of tertiary education in New Zealand.

The system may be regarded as integrated since it began with a review of the accounting profession and its future needs. This was followed by the development of a Body of Knowledge (BOK) which is regarded as the minimum entry level knowledge for accountants.

New Zealand universities structure programmes to meet both their own regulations and the BOK. These programmes are approved by the New Zealand Society of Accountants for accreditation which means that graduates have completed all the educational requirements for entry and have only experience and a minimal final qualifying examination before entry.

The paper compares this system with others in the Anglo-American accounting world and considers some of the strengths and weaknesses of this probably unique system of professional accounting education.

CAAA 1990

CONCURRENT SESSION 4B

Sunday, June 3  
4:00pm - 5:30pm  
Elliott 168**MANAGERIAL EQUITY HOLDINGS AND EARNINGS MANAGEMENT IN A MULTIPERIOD SETTING****Ramy Elltzur** (University of Toronto)  
**Varda Yaari** (Bar-Ilan University)

This study examines in a multi-period setting the effects of executive equity holdings in the firm on earnings management and on management effort. The study contributes to the existing literature in its multi-period analysis of the link between earnings management, tax payments, and managerial equity holdings. Furthermore, a testable hypothesis is developed in this study. This study also serves to illustrate the importance of disclosure of ownership by managers as proposed in SEC release No. 34-2633 [1988]. The analysis focuses on the effect of a compensation package comprised of bonus and equity holdings on the optimal reporting function of the manager. After observing the "true" income of the firm, the manager selects an "optimal" reported income which consists of the true income plus a selected earnings management operator. The effect of earnings management on tax payments is examined. The potential effect on taxes occurs due to the alternative minimum tax (AMT) provision of the Tax Reform Act of 1986. The implication of this provision for our case is that management of earnings could create an additional tax outflow. Next, we examine the relation between earnings management and executive managerial holdings under different degrees of market efficiency. The findings of this study indicate that executive equity holdings in the firm tend to affect earnings management and to increase management effort. The study then proceeds to develop empirical implications of the model.

**AN EXAMINATION OF THE "NEGATIVE RESULT" BIAS: SOME EMPIRICAL EVIDENCE AND A STATISTICAL REDRESS****Murray Lindsay** (University of Saskatchewan)

Evidence is provided to assess the extent of the "negative result" bias (studies failing to attain statistical significance at conventional levels of significance) in the social sciences in general and accounting in particular. Results from surveying 39 management accounting articles indicate that accounting researchers and/or reviewers, like their counterparts in other disciplines, are biased against publishing negative results. Two reasons are advanced to explain the occurrence of the bias. First, researchers operate under the conception which sees science advancing by way of finding relationships between variables (i.e., rejecting the null) instead of (primarily) through criticism. Second, the scientific community considers achieving statistical significance to be synonymous with scientific rigour and the establishment of new facts. The consequences of the bias are then demonstrated to be profoundly significant: it undermines the objectivity underlying the rationale of the test of significance procedure and, at a more basic level, impedes scientific advancement. In an attempt to establish a framework for coping with the problem, a statistical redress is provided which can be used to establish reasonable boundaries on the problem and to estimate a research conclusion's degree of susceptibility to it. The article concludes with a call for the discipline of accounting to replace statistical significance with reasonable precision as the criterion for publication.



**THE BERLE-DODD DEBATE ON THE QUESTION OF "TO WHOM ARE CORPORATE MANAGERS ACCOUNTABLE?"****John MacIntosh** (University of Windsor)

This paper re-examines the question of "To Whom are Corporate Managers Accountable?" raised in the Berle-Dodd debate of the 1930's. In the debate, Berle held that the management of corporations was accountable only to the stockholders whereas Dodd argued that corporations should be accountable to society as well as their security holders. The issue, which still applies to present day financial reporting, has still not been properly resolved. The debate is examined in relation to the conditions under which it took place together with the perceived need to regulate financial reporting as the means of ensuring that management is accountable for its actions. It concludes that the actions of management and the extent to which they are accountable for their actions are only partially dependent upon the regulation and control of financial reporting. The extent to which corporate management is accountable for its actions to their stockholders and society is, therefore, largely dependent upon the attitudes of management and this is unlikely to change.

**A CROSS-SECTIONAL ANALYSIS OF CEO COMPENSATION: THE CASE OF COMMERCIAL BANKS****Michel Magnan** (Ecole des Hautes Etudes Comm)

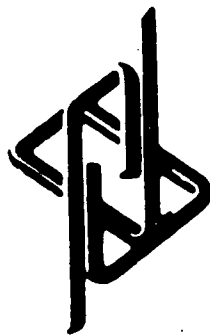
This paper investigates differences in CEO compensation practices within the commercial banking industry. The paper studies both the relation between proxies for a bank's economic and regulatory environment and compensation levels as well as the relation between accounting-based performance indicators and first differences in compensation.

Empirical results indicate that bank-specific environmental variables have significant incremental power over size in explaining compensation levels. In addition, accounting signals other than net earnings are found to provide incremental explanatory power over return on assets and stock returns in determining first differences in compensation.

**L'ASSOCIATION CANADIENNE  
DES PROFESSEURS DE COMPTABILITÉ**

**CONGRÈS ANNUEL DE 1990**

**RÉSUMÉS DE MANUSCRITS**



**LE DÉFI DE L'AN 2000**

<b>Bob Elliott</b>	(Associé, KPMG Peat Marwick et membre de l'AICPA Accounting Education Change Commission)
<b>Efrim Boritz</b>	(University of Waterloo)
<b>Gerry Mueller</b>	(Ancien président de l'AAA, University of Washington)

La "technologie de l'information" c'est les réseaux, les données d'information, les ordinateurs et les logiciels. C'est....

....changer tout,  
...créer des nouveaux produits et remplacer les produits inusités,  
...rendre la globalisation possible et nécessaire,  
...l'industrie déjà changé,  
...le changement actuel dans la profession de comptabilité,  
...et ça va modifier l'éducation.

Qu'est ce que vous et votre institution allez faire pour modifier vos produits (dire "estudiants") pour rencontrer le défi qui existe dans ce monde d'information technologique?

Ces questions et d'autres comme elles sont des soucis qui préoccupent la profession de comptabilité.

Est' il nécessaire de changer les programmes d'étude?

Est' il possible?

**ANALYSE DE L'IMPACT DE LA POLLUTION SUR LES INDICATEURS FINANCIERS**

**Denis Cormier** (U.Q.A.M.)  
**Bernard Morard** (U.Q.A.M.)  
**Normand Roy** (Université de Moncton)

La tendance actuelle en matière de comptabilité sociale tend à démontrer que les entreprises accordent une place de plus en plus grande à l'image qu'elles donnent d'elles-mêmes. Ce postulat pourrait être en contradiction avec l'objectif traditionnel de maximisation de la richesse de l'investisseur. Toutefois, le concept d'investisseurs "moraux" pourrait réconcilier les deux approches. L'étude que nous avons conduite s'articule en deux phases: d'une part la liaison entre la rentabilité boursière et ses variables financières et sociale, cette dernière étant perçue au travers de la variation du taux de pollution; d'autre part, le rapport entre l'indice de pollution et les variables financières. Sur le premier aspect, les résultats basés sur une analyse de régression ne permettent pas de conclusion tranchée. En ce qui concerne le second aspect, les résultats du modèle logistique semblent faire ressortir une association positive entre la performance sociale et la performance financière.

**LA COMPTABILITE ET L'INCERTITUDE: PROGRAMME DE REFORMES**

**Daniel Thornton** (University of Calgary)

L'incertitude devrait-elle être communiquée aux lecteurs d'états financiers et si oui, comment? C'est une question fondamentale pour les sciences comptables et tous ceux qui établissent des normes en tiennent compte dans leurs programmes. Cette communication propose cinq axiomes pour fixer des normes ayant trait à l'incertitude et suggère un programme précis pour la mise en place de réformes d'ensemble.

L'A.C.P.C. 1990

**SÉANCE CONCOMITANTE 1B****Samedi, 2 juin  
11h.00 - 12h.30  
Elliott 062****COMMENT RÉPONDRE AU DÉFI DE L'AN 2000****Bill Swirsky** (Affaires professionnelles, Institut canadien des comptables agréés)**Don Brown** (Associé directeur, Coopers & Lybrand et président du groupe de travail de l'I.C.C.A. sur la technologie de l'information)**Wes Gibson** (Vice-président des finance Pioneer Grain Cy Ltd)**Keith Scott** (Directeur de l'éducation, A.C.G.A.)

Réponse à la question demandé par Bob Elliott, "qu' est-ce-que vous et votre institution allez faire pour modifier vos produits pour rencontrer le défi qui existe dans ce monde d'information technologique?"

**RECRUTEMENT DE CANDIDATS PAR LES CABINETS D'EXPERTS- COMPTABLES FAISANT  
ENTRER EN LIGNE DE COMPTE LEURS VALEURS PERSONNELLES****Ron Davidson** (University of Calgary)

Cette étude cherche à prouver que le processus de recrutement fait entrer les valeurs des candidats en ligne de compte. Des recherches effectuées précédemment montrent que les organisations homogènes telles que les cabinets d'experts- comptables prennent en considération les valeurs, l'attitude et le comportement des candidats. On aura tendance dans ces cabinets à vouloir perpétuer certaines attitudes et traditions propres à l'organisation en n'offrant des postes qu'aux candidats qui semblent entretenir certaines valeurs. Les résultats obtenus montrent clairement que les valeurs des diplômés en sciences comptables se voyant offrir des postes différaient nettement de celles des diplômés n'ayant pas été pris en considération.

**COLLABORATION ENTRE LES GESTIONNAIRES ET LES COMPTABLES: UNE ETUDE DES  
ROLES ET DE L'INTERDEPENDANCE DES OBJECTIFS****Lois Etherington** (Simon Fraser University)  
**Dean Tjosvold** (Simon Fraser University)

L'examen des rôles et de l'interdépendance des objectifs a permis d'évaluer l'interaction entre les gestionnaires et les comptables. Trente et un gestionnaires d'une compagnie s'occupant de recherche et de production de systèmes énergétiques de haute technologie ont été interviewés en utilisant la méthode de l'incident critique. Contrairement aux attentes, les rôles comptables de planification, d'aide, de surveillance et de contrôle ne réussissaient pas à prédire le succès de l'interaction. Par contre, l'interdépendance des objectifs permettait de faire des prévisions. En particulier les situations dans lesquelles les gestionnaires croyaient que leurs buts étaient liés à ceux des comptables se caractérisaient par des progrès, une appréciation et une compréhension accrues de l'importance de la comptabilité et le sentiment qu'une collaboration allait s'ensuivre.

Les résultats précisent également les antécédents ayant conduit à l'interdépendance des objectifs, les interactions existant alors que les objectifs diffèrent et leurs conséquences. Pour cinq sur sept aspects de la comptabilité, les gestionnaires ont jugé que le rôle idéal de la comptabilité était considérablement plus important que le rôle qu'elle jouait à l'heure actuelle au sein de l'organisation.

**LE FARDEAU FISCAL DES NOUVELLES ENTREPRISES: UNE ETUDE COMPARATIVE QUEBEC-ONTARIO****Renaud Lachance** (Ecole des Hautes Etudes Commerciales)

Cette étude compare le fardeau fiscal Québec-Ontario de trois nouvelles entreprises créées au Québec après la réforme de la fiscalité des entreprises mise en place en 1981. La comparaison couvre les trois premières années d'exploitation et elle est effectuée, d'abord selon la législation fiscale en vigueur pendant ces années, puis selon la législation en vigueur en 1989\*\*. Les résultats de ces comparaisons montrent que le fardeau relatif d'une nouvelle entreprise québécoise par rapport à une entreprise ontarienne est fonction de quatre éléments; la définition du fardeau fiscal comparé, la rentabilité de l'entreprise, ses dépenses en recherche et développement et enfin la valeur du salaire moyen payé par celle-ci.

D'autre part, cette étude examine aussi l'effet sur le fardeau fiscal au Québec de deux mesures fiscales destinées à alléger le poids des charges fiscales fixes (taxes sur la masse salariale et sur le capital). Ces mesures sont le congé fiscal et le crédit d'impôt remboursable pour pertes. Le congé fiscal est une exonération d'impôt sur les bénéfices et de la taxe sur le capital pour une nouvelle entreprise au cours de ses trois premières années d'imposition. Les résultats de cette étude montrent que le congé fiscal profite surtout aux entreprises rentables déjà favorisées par la structure d'imposition du Québec avant même de considérer le congé fiscal. De son côté, le crédit d'impôt remboursable pour pertes nous oblige à distinguer le fardeau fiscal imposé par la structure de taxation du Québec et le prélèvement de fonds qu'elle exige d'une entreprise déficitaire. Cette distinction doit être considérée dans l'évaluation de la position concurrentielle relative d'une nouvelle entreprise du Québec.

A partir des résultats de cette étude, aucune conclusion n'est faite sur l'existence d'un fardeau fiscal inférieur ou supérieur pour une nouvelle entreprise au Québec. Cependant, l'analyse des effets du congé fiscal indique que cette mesure est critiquable dans son objectif d'alléger les charges fiscales fixes des nouvelles entreprises. A cette fin, l'auteur favorise plutôt la réduction des contributions à l'assurance-maladie compte tenu de leur importance dans le fardeau fiscal fixe.

\*\*Cette comparaison Québec-Ontario est basée sur la législation en vigueur en 1989. Cependant pour la présentation lors du congrès en juin 1990, je vais ajouter une section où j'analyserai l'impact des budgets du Québec et de l'Ontario pour l'exercice 1990-1991.

L'A.C.P.C. 1990

**SÉANCE CONCOMITANTE 2A**

(continué)

**Samedi 2, juin  
14h.45 - 16h.15  
Elliott 168****FISCALITE NEUTRE DES AVANTAGES SOCIAUX ET DES DEPENSES DES EMPLOYES RELIEES A LEUR TRAVAIL****Alan Macnaughton** (University of Waterloo)

Cette communication présente des règlements fiscaux sur les avantages sociaux qui ne dénaturent pas les décisions des contribuables grâce à des effets de substitution. Ces règlements fiscaux "neutres" nécessitent moins de renseignements qu'auparavant car il suffit de consulter des études sur les exigences des consommateurs. Il n'est pas nécessaire d'évaluer les écarts salariaux entre les différents groupes de travailleurs. La présente étude élargit également le domaine exploré précédemment en parlant de la fiscalité pour les employeurs, les marchandises indivisibles et le choix entre les avantages sociaux et les dépenses des employés reliées à leur travail. On examine la neutralité des règlements fiscaux canadiens concernant les automobiles des employés et des employeurs à la lumière de ces résultats.



**LA FABRICATION DES BUDGETS**

<b>Alistair Preston</b>	(Boston University)
<b>David Cooper</b>	(University of Alberta)
<b>Rod Coombs</b>	(University of Manchester)

On examinera dans cette étude les processus de création des systèmes de comptabilité par centres de responsabilité dans le cadre des organisations. On se servira des approches récentes (Latour 1987) qui cherchent à comprendre le processus de création en science et en technologie et on tentera d'établir comment les budgets soumis par les gestionnaires dans les hôpitaux britanniques sont adoptés ou rejetés. On y critique la notion que les systèmes comptables sont des mécanismes bien précis qui sont conçus et mis en place (ou opposés). L'étude montre au contraire que les budgets de gestion sont fabriqués de toutes pièces et ne sont nullement immuables. Les nouveaux systèmes comptables n'utilisent pas de méthodes fixes ayant des buts bien définis et des responsables bien déterminés mais sont en fait des échafaudages modifiables. Les budgets de gestion sont établis sans principes, buts et utilisations bien précis et lorsqu'ils sont conçus et mis en oeuvre, de nouvelles possibilités quant aux prises de décision et définitions de responsabilité peuvent surgir. En étudiant la pratique de la comptabilité, cette étude voit sous un jour nouveau les processus suivis par les systèmes comptables et budgétaires lorsqu'ils cherchent à gérer les hôpitaux en utilisant la logique économique. La présente étude pourra également servir de point de départ pour discuter du rôle de l'établissement des budgets et de la comptabilité au sein des organismes de soins de santé dans de nombreux pays.

**UTILISATION DES RESULTATS COMPTABLES INTERNES PERIODIQUES CHEZ LES GESTIONNAIRES GOUVERNEMENTAUX: UNE ANALYSE CONCERNANT LES VILLES****Joyce Holley**

(Texas A &amp; M University)

Cette étude traite de l'utilisation de l'information comptable périodique par les gestionnaires municipaux en ce qui a trait aux fonctions administratives suivantes: contrôle interne, évaluation du rendement du personnel, évaluation des programmes, gestion de la trésorerie, établissement du budget et prise de décisions concernant les investissements. On examine les facteurs propres à la ville pour déterminer s'il y a des différences quant à l'utilisation des rapports périodiques. En se basant sur des résultats de recherche indiquant les facteurs significatifs dans la communication de l'information financière par les municipalités, l'étude prend un échantillon de villes et analyse le rapport entre les pratiques de présentation périodique de l'information et la taille de la ville, d'après la population, les recettes et les dépenses, les dettes à long-terme et les P.C.G.R. en vigueur dans l'état.

L'étude indique quelles sont les utilisations (par ordre décroissant) des rapports internes périodiques par les directeurs financiers: l'établissement du budget, la gestion de la trésorerie, le contrôle interne, la prise de décisions quant aux investissements, l'évaluation des programmes et du rendement du personnel. Les états périodiques pour les fonctions administratives sont (par ordre décroissant): les dépenses réelles et estimées, les recettes réelles et estimées, les prévisions quant à la position de trésorerie - tous les fonds, les recettes et dépenses comparées, l'état combiné des encaissements et des décaissements - tous les fonds et le bilan.

Les résultats des tests-t montrent que les villes utilisent l'information différemment pour la prise de décisions quant aux investissements, la gestion de la trésorerie, le contrôle interne et l'établissement du budget. Les villes ayant dans leur budget moins de recettes, de dépenses et de dettes à long terme par habitant se servaient plus des états financiers.

L'A.C.P.C. 1990

**SÉANCE CONCOMITANTE 2C****Samedi, 2 juin  
14h.45 - 16h.15  
Elliott 166****CHOIX DE LA DIRECTION ET SOUS EVALUATION DES NOUVELLES ACTIONS : THEORIE ET INFORMATION PROBANTE AU CANADA**

**Norman Betts** (Queen's University)  
**Dean New** (University of Calgary)

Au moment de l'émission des actions et de la demande d'une nouvelle liste boursière, la direction et les investisseurs potentiels ne disposent pas des mêmes renseignements en ce qui concerne la valeur de l'entreprise. Cette étude examine la relation entre les mécanismes de contrainte utilisés par la direction pour réduire ces différences d'information et le niveau de sous estimation lors de l'émission de nouvelles actions. On utilise un échantillon de 163 compagnies ayant émis des actions à revenu variable et demandé de nouvelles cotes de la Bourse de Toronto entre 1985 et 1987 pour examiner ces relations. La théorie et les résultats élargissent la recherche précédente en prenant en considération l'incidence des décisions prises par les directeurs sur la sous-évaluation. On y donne des exemples canadiens pour compléter les études américaines.

**OPERATIONS DE COUVERTURE CONTRE LES RISQUES DES CONVERSIONS APRES SFAS NO. 52: UNE ENQUETE EMPIRIQUE****Carol Houston** (San Diego State University)

Des études précédentes ont conclu que SFAS NO. 8 a entraîné ou accru le phénomène de couverture contre les risques des conversions pour contrebalancer les variations de revenu importantes. On présume que le remplacement de SFAS No. 8 par SFAS No. 52 a réduit ces opérations de couverture car il n'est plus nécessaire d'inclure les gains et pertes résultant des conversions dans le revenu net. Ceci veut dire que les compagnies ayant de nombreuses filiales utilisant les devises étrangères cesseraient de se couvrir.

Toutefois, en examinant les données des compagnies pour un petit échantillon de compagnies qui se sont couvertes en vertu de SFAS NO. 8 il en est ressorti que la majorité des compagnies continuant à se couvrir avaient principalement des filiales utilisant des devises étrangères. Il était donc difficile de prévoir la conduite d'une compagnie en matière de couverture même si celle-ci avait principalement des filiales utilisant des devises étrangères. Dans l'échantillonnage présenté ici, on voit que la concentration géographique des compagnies ayant surtout des filiales se servant de devises étrangères ne se couvrant plus après avoir adopté SFAS NO. 52 différait grandement de celle de leurs homologues qui continuaient à se protéger. On présente aussi des exemples montrant une grande différence dans la proportion des risques de change à l'extérieur des E.U. entre les entreprises qui continuaient à se couvrir et celles qui avaient cessé de le faire. Il a aussi été difficile de trouver des différences entre la composition des éléments d'actifs et l'incidence des méthodes de conversion différentes sur le montant communiqué de dépenses de dépréciation. L'étude conclut que si l'on se base sur les caractéristiques des compagnies qui continuaient à se couvrir, on ne peut pas éliminer les effets sur les états financiers du passage de la méthode temporelle à la méthode du taux courant comme facteur dans la décision de la compagnie de continuer ou de cesser de se protéger après avoir adopté la SFAS No. 52.

## PERSPECTIVES POUR LA RECHERCHE EN VÉRIFICATION DANS LES ANNÉES 1990

**TESTS EXPERIMENTAUX SUR LA VERIFICATION EN TANT QUE MECANISME ENGENDRANT LA CREDIBILITE****Nicholas Dopuch**  
**Ron King**(Washington University)  
(Washington University)

Le but de cette étude est d'examiner les questions touchant la demande pour des "services de vérification" dans les marchés expérimentaux. Nous envisageons diverses conditions expérimentales qui pourraient influencer l'acquisition volontaire de ces services et comment la demande est affectée quand le service de vérification est fourni par un agent stratégique. Dans le marché de base il y avait un seul vendeur d'un élément d'actif et trois acheteurs qui ont transigé pendant un nombre connu et déterminé d'exercices. Chaque exercice, le vendeur mettait un élément d'actif en vente et sa valeur prévue pour les acheteurs pouvait être accrue si le vendeur effectuait un investissement coûteux. Après avoir choisi son investissement, le vendeur apprenait quel était l'élément d'actif et divulguait ensuite aux acheteurs la nature de celui-ci (sans que cela corresponde forcément à la réalité).

Les acheteurs n'étaient pas en mesure de voir si l'on avait bien fait l'investissement coûteux ou quel genre d'actif était détenu par le vendeur. Après avoir reçu la présentation de renseignements de la part du vendeur, chaque acheteur présentait une offre, l'offre la plus élevée recevait l'élément d'actif à un prix équivalent à la deuxième offre la plus élevée. Les acheteurs n'apprenaient le montant des paiements en argent liquide pour la valeur active (des paiements en argent liquide plus élevés ne correspondant pas à des éléments d'actif de plus grande valeur) que lorsque celle-ci avait été acquise par l'un des acheteurs. Nous avons envisagé les questions suivantes:

- 1) Les vendeurs vont-ils engager un vérificateur stratégique (humain) et effectuer l'investissement coûteux aussi souvent qu'ils acquièrent un vérificateur non stratégique (informatisé)?
- 2) Les acheteurs vont-ils engager un vérificateur stratégique (ce qui incite le vendeur à choisir l'investissement coûteux) aussi souvent qu'ils acquièrent un vérificateur non-stratégique et quel est le taux de fréquence comparé à celui du vendeur engageant le vérificateur stratégique?
- 3) La fréquence de l'engagement du vérificateur par les acheteurs sera-t-elle affectée par la dissémination du message du vérificateur et la ventilation du coût encouru en engageant le vérificateur?

Pour résumer les résultats, nous avons constaté que si le vérificateur humain n'était pas crédible (en raison des problèmes combinés de danger moral et d'indépendance), les vendeurs étaient moins en mesure d'obtenir un profit pour l'investissement coûteux, diminuant ainsi la rentabilité économique. De la même façon, lorsque les acheteurs étaient relativement homogènes ils n'engageaient pas de vérificateurs (crédibles) réduisant les investissements coûteux de la part du vendeur. Le résultat le plus surprenant toutefois était que dans les marchés où les acheteurs hétérogènes pouvaient engager le vérificateur on obtenait une rentabilité plus élevée que prévu. Les acheteurs étaient disposés à engager le vérificateur avec des conditions différentes de dissémination de message et de ventilation de coûts. Nous n'avons pas constaté les échecs de marché prévus par notre modèle.

**DEPISTAGE DES FRAUDES****Ella Mae Matsumura**  
**Robert Tucker**(University of Wisconsin)  
(University of Wisconsin)

Cette communication utilise la théorie des jeux pour modéliser l'interaction entre un vérificateur et un gestionnaire. On examine les effets de la pénalisation du vérificateur, la qualité du système de contrôle interne, les exigences de la vérification et les frais de vérification sur le dépistage et la prévention des fraudes. Le modèle permet au vérificateur de mettre au point une stratégie de vérification qui dépiste les fraudes. On a évalué les prédictions du modèle dans un cadre d'économie expérimentale pendant plusieurs exercices. Lorsque l'on accroissait la responsabilité du vérificateur, les fraudes diminuaient, les tests détaillés des soldes augmentaient, les tests de contrôle interne diminuaient et le dépistage des fraudes augmentait. De plus grandes exigences au niveau des tests augmentaient les coûts de vérification, diminuaient les tests discrétionnaires, accroissaient le dépistage des fraudes et décroissaient la perpétration des fraudes. Avec un bon contrôle interne, les vérificateurs augmentaient les tests de contrôle interne et dépistaient les fraudes plus fréquemment; les gestionnaires commettaient des escroqueries moins souvent. Une augmentation des coûts de vérification diminuait la fraude. Les résultats empiriques montrent un lien entre les tests, le dépistage et la prévention des fraudes.

**LA COLLUSION EN VERIFICATION**

**Stan Baiman** (Carnegie Mellon University)  
**John Evans** (University of Pittsburgh)  
**Nandu Nagarajan** (University of Pittsburgh)

Nous analysons ici un modèle de mandataires en vérification comportant trois personnes et permettant une collusion entre les mandataires. Nous n'examinons pas le processus des accords collusoires mais l'interaction entre le potentiel de collusion et le choix de contrats incitatifs pour les mandataires par le propriétaire.

Comme dans les études de Townsend (1979), Evans (1980), Noel (1987), notre modèle présume une vérification parfaite. Toutefois, alors que leurs résultats indiquent que le gestionnaire ne court aucun risque avec des résultats moins favorables, nous constatons qu'en raison de la possibilité de collusion, le gestionnaire ne court aucun risque que dans le cas de résultats plus favorables. Ce résultat indique qu'un partage des risques parfait quant aux résultats les moins favorables demanderait de réduire le transfert net minimum qui serait fait par le gestionnaire. Mais ce transfert est exactement ce qu'un gestionnaire et un vérificateur ayant fait des arrangements collusoires accepteraient d'effectuer pour le propriétaire. Par conséquent, pour éviter de réduire la rentrée de fonds minimum du gestionnaire, c'est à dire pour limiter les pertes entraînées par une collusion, le propriétaire doit limiter le partage des risques à des résultats plus favorables. Les contrats propriétaire- gestionnaire et propriétaire-vérificateur qui en résulteront correspondent à ceux existant dans les situations où l'on loue des biens fournissant des revenus lorsque le propriétaire ne peut pas observer de façon indépendante le revenu produit par le bien loué.

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**SÉANCE CONCOMITANTE 3A****Dimanche 3, juin  
10h.45 - 12h.15  
Elliott 168****QUESTIONS CONCERNANT LES PUBLICATIONS**

**Rashad Abdel-Khalik** (University of Florida, rédacteur en chef de *L'Accounting Review*)  
**David Cooper** (University of Alberta, rédacteur en chef de *Critical Perspectives on Accounting*)  
**Bill Scott** (University of Waterloo, rédacteur en chef de *Recherche comptable contemporaine*)

Où nous avons été et où nous allons aller.



**EFFETS DES MODES DE REPONSE DANS L'EVALUATION DE LA PROBABILITE SUBJECTIVE:  
UNE EXPERIENCE DE JUGEMENT DE VÉRIFICATION****Craig Emby** (Simon Fraser University)

Cette étude présente les résultats d'une expérience examinant le jugement des vérificateurs. L'environnement doit être caractérisé par l'incertitude. Le paradigme de jugement probabiliste fournit une méthodologie pour prendre des décisions en tenant compte de cette incertitude. On présente les résultats d'une expérience lors d'une enquête de fraude où les vérificateurs devaient faire des jugements subjectifs de probabilité basés sur des preuves indirectes et qualitatives. L'expérience consistait à examiner les résultats lorsque l'on donnait aux vérificateurs différentes façons de répondre pour exprimer leur jugement et que ceux-ci n'avaient pas le même niveau de familiarité avec la théorie de probabilité axiomatique. Un mode de réponse visuel permettant aux vérificateurs d'effectuer des jugements de probabilité sans calculs arithmétiques complexes éliminait à la fois les violations des axiomes de probabilité et la non-conformité aux modèles bayesiens de révision des opinions avec ou sans connaissance de la théorie formelle de probabilité. Le mode de réponse visuelle améliorait également les caractéristiques secondaires des jugements tels que consensus, confiance et rapidité de la prise de décision.

**LA FORME DES TECHNOLOGIES DE VÉRIFICATION****David Finley** (University of Houston)

Une technologie de vérification se définit comme une fonction du coût, la technologie étant la probabilité conditionnelle du dépistage d'une condition défavorable comme des états financiers inexacts. La forme de la technologie permet de trouver et de caractériser des solutions à l'optimisation limitée, la théorie décisionnelle, les modèles interactifs et de mandataires de vérification et son rôle économique. Pour de nombreux modèles, une technologie concave entraîne des choix stratégiques du vérificateur pour des solutions d'équilibre mais on ne peut pas obtenir une telle simplification pour des technologies de vérification non concaves.

Les formes des technologies d'échantillonnage en vérification dépendent des fonctions d'efficacité de l'échantillonnage et des fonctions donnant la taille de l'échantillon pour des coûts donnés. Si ces deux fonctions sont concaves, une technologie est concave. On examine deux méthodes d'échantillonnage. Pour l'échantillonnage de dépistage la fonction est complètement concave, la fonction d'efficacité de la distribution normale est, quant à elle complètement concave pour les valeurs de paramètres d'application les plus probables mais non pas pour toutes les valeurs de paramètres. Des recherches supplémentaires sont nécessaires pour déterminer si d'autres fonctions d'efficacité d'échantillonnage et des technologies de vérification plus générales sont concaves.

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SÉANCE CONCOMITANTE 3C

Dimanche, 3 juin  
10h.45 - 12h.15  
Elliott 166**L'ETAT ACTUEL DE LA PRESENTATION D'INFORMATION SOCIALE: CONTENU ET ANALYSE DES MEDIA EN UTILISANT DES ENTREPRISES CONSIDEREES COMME DES CHEFS DE FILE OU DES IMITATRICES SUR LE PLAN SOCIAL****Irene Herremans** (University of Calgary)

La présentation d'information sociale de 49 entreprises considérées comme des chefs de file et 46 considérées comme des imitatrices en ce qui concerne le rendement social a été analysée selon le contenu et le format des media. On a entrepris ce projet de recherche pour déterminer dans quelle mesure les entreprises dans chaque groupe font part de leur préoccupations quant aux questions sociales (leur responsabilité en tant qu'entreprise) aux intéressés. On a étudié l'étendue et la qualité de la présentation de l'information sociale pour déterminer si les chefs de file donnaient une présentation de l'information sociale plus complète dans leur rapport annuel de 1987 que les imitatrices. Les résultats de l'étude descriptive montrent que les deux groupes d'entreprises prennent l'initiative de faire une présentation de l'information sociale. On a toutefois constaté un rapport très net entre le rendement social et la présentation d'information sociale, montrant une présentation plus détaillée et plus approfondie chez les chefs de file sur le plan social.

**LA REALITE PHYSIQUE COMPAREE A LA REALITE SOCIALE EN COMPTABILITE ET  
L'EVALUATION DE LEURS PHENOMENES****Richard Mattesich** (University of British Columbia)

Cette communication présente et nous l'espérons résout certaines questions essentielles de réalité sociale, le fait de ne pas y avoir prêté attention a entraîné certains problèmes intéressants mais non encore résolus et des interprétations surprenantes dans les publications comptables (Heath[1987], Sterling [1988, 1989], Thornton [1988]).

Mis à part la clarification des concepts (présentation d'un modèle de réalité qui se conforme complètement aux activités et à la langue de tous les jours, etc.), nous démontrons que l'affirmation de Heath voulant que le revenu et le capital des actionnaires sont de simples concepts sans aucune réalité se fonde sur une confusion entre deux dichotomies essentielles: Heath croit parler de la distinction entre les "concepts par opposition à la réalité", il a en fait affaire à la juxtaposition de "la réalité sociale et de la réalité physique". Nous pouvons ainsi démontrer que le revenu, le capital du propriétaire et d'autres concepts comptables de même nature ne sont pas empiriquement vides mais ont habituellement une réalité sociale. Pour les mêmes raisons, nous rejetons l'affirmation de Sterling voulant que la plupart des chiffres comptables ne représentent pas des phénomènes réels. Le problème supplémentaire de la "valeur d'échange" comme phénomène social et donc empirique a besoin d'être clarifié. L'article montre que l'on ne peut pas résoudre le problème de Sterling en niant la réalité des phénomènes de valeur (en se basant sur les états financiers) mais en acquérant une meilleure compréhension des difficultés ontologiques et méthodologiques et surtout des problèmes pragmatiques (coût/bénéfice) de l'évaluation comptable. Si nous avons pour but de comprendre la réalité et nous nous servons de la représentation conceptuelle alors une confusion des buts et des moyens et la mise en doute de la réalité des valeurs comptables témoignent de problèmes de base non résolus qui ont besoin d'être clarifiés.

**CARACTERISTIQUES DES BONNES RELATIONS ENTRE LES UNIVERSITES ET LES PROFESSIONS**

<b>Michael Gibbins</b>	(University of Alberta)
<b>Lorne Bolton</b>	(Laventhal et Horwath)
<b>John Mylton</b>	(Directeur de la Society of Management Accountants of Alberta)
<b>Thomas Beechy</b>	(York University)

Les nombreux changements se déroulant au sein des universités et des professions comptables engendrent du stress et de l'incertitude quant aux relations entre le monde universitaire et professionnel dans le domaine des sciences comptables. La séance plénière de la journée précédente "le défi de l'an 2000" servira d'introduction à cette séance. Cette dernière parlera de ce qui se passe à l'heure actuelle dans les universités et le milieu comptable ainsi que des perspectives d'avenir. L'accent sera mis sur les traits essentiels d'une bonne relation entre les milieux comptables universitaire et professionnel et sur l'importance de la collaboration.

Les sujets traités comprendront:

- .Les changements dans le financement et les pressions dans le système universitaire canadien
- .Une comparaison des points forts dans les universités et les professions comptables dans le domaine de l'enseignement
- .Les priorités au sein des universités
- .La capacité des universités à fournir un enseignement professionnel de qualité
- .Le changement dans les priorités au sein des cabinets d'experts-comptables
- .Le changement dans les priorités pour l'industrie
- .Le changement dans les priorités pour l'enseignement professionnel
- .L'usage de la coopération

Les conférenciers traiteront de ces différents sujets en mettant l'accent sur les perspectives de coopération plutôt que sur les problèmes rencontrés auparavant. Chaque conférencier jettera la lumière sur un aspect différent. Tom Beechy, York University, présentera le point de vue d'un professeur de sciences comptables et d'un administrateur dans une grande université. Lorne Bolton présentera les vues d'un praticien intéressé par la formation professionnelle des CA. John Hylton parlera en qualité de directeur des programmes de formation des CMA et de participant à des activités coopératives entre les universités et la profession comptable.

**LA PENURIE CONTINUE DE PROFESSEURS DE SCIENCES COMPTABLES DETENTEURS D'UN DOCTORAT****George Gekas** (University of Western Ontario)

La pénurie de professeurs de sciences comptables possédant un doctorat et les répercussions pour l'enseignement de la comptabilité au Canada préoccupent grandement les personnes concernées. La grave pénurie de professeurs de sciences comptables de même que le besoin de comptables mieux formés ont mis les universités à rude épreuve. Cette demande pour une expansion des programmes de sciences comptables arrive au moment où les universités sont soumises à des contraintes budgétaires très strictes.

Au cours de la dernière décennie, il y a eu un grand nombre de diplômés universitaires en sciences comptables, du moins suffisamment pour répondre aux besoins immédiats de l'économie canadienne. Même s'il n'y a pas toujours eu un équilibre de l'offre et la demande pour les diplômés en sciences comptables, le nombre de diplômés a été suffisant pour ne pas créer trop de problèmes.

Tant qu'il y a des diplômés en comptabilité, il est peu probable que l'on se pose des questions sur l'enseignement dispensé. Peu de gens semblent au courant du manque de docteurs dans ce domaine. Si cela n'entraîne pas un manque de diplômés en sciences comptables, les universités ne vont sans doute pas réagir.

Cette étude constitue une évaluation de la pénurie de professeurs de sciences comptables détenteurs d'un doctorat. Son but est d'explorer les forces, tendances et pressions existant à l'heure actuelle dans le domaine de l'enseignement des sciences comptables permettant ainsi de déterminer les changements à effectuer.

**UNE EXPERIENCE UNIQUE COMBINANT L'ENSEIGNEMENT DE LA COMPTABILITE  
UNIVERSITAIRE ET PROFESSIONNELLE: LE CAS DE LA NOUVELLE-ZELANDE****Reginald Mathews** (Massey University)

Nous analysons ici le système d'enseignement comptable professionnel en vigueur en Nouvelle-Zélande. Après un historique de ce système on y explique l'approche intégrée utilisée par la New Zealand Society of Accountants et les établissements universitaires.

On peut parler d'intégration car on a d'abord procédé à une évaluation de la profession comptable et de ses besoins. On a ensuite déterminé quelles devaient être les connaissances de quelqu'un qui débiterait dans la profession (BOK).

Les universités néo-zélandaises mettent sur pied des programmes répondant à leurs exigences et à celles du BOK. Ces programmes sont approuvés par la New Zealand Society of Accountants ce qui veut dire que les diplômés ont pris tous les cours nécessaires et ne doivent passer qu'un examen de fin d'études avant d'entrer dans la profession.

On compare ici ce système original avec les approches utilisées dans le milieu comptable de l'Amérique du nord et on en évalue les forces et les faiblesses.

**LA POSSESSION DE CAPITAUX-ACTIONS PAR LES CADRES ET LA GESTION DES PROFITS PENDANT PLUSIEURS EXERCICES****Ramy Elitzur**  
**Varda Yaari**(University of Toronto)  
(Bar-Ilan University)

Cette étude examine au cours de plusieurs exercices les effets de la possession de capitaux-actions par les cadres au sein de l'entreprise sur la gestion des profits et les efforts des cadres. Elle complète les communications déjà publiées en analysant pendant plusieurs exercices le lien entre la gestion des profits, les paiements de taxes et la possession d'actions par les cadres. On y formule une hypothèse et on y illustre l'importance de la divulgation concernant la propriété de l'entreprise par les cadres comme il a été proposé dans la publication NO. 34-2633 [1988] de la SEC. L'analyse met l'accent sur l'effet d'un programme de rémunération comprenant un bonus et des capitaux-actions sur la fonction de communication de l'information optimale de la part du cadre. Après avoir observé le "véritable" revenu de la compagnie, le directeur choisit un revenu communiqué "optimal" comprenant le véritable revenu plus un opérateur choisi de gestion des profits. On examine l'effet de la gestion des profits sur les paiements de taxes. La disposition de la taxe minimum de rechange de la loi sur la réforme des taxes de 1986 affecte les taxes. Cette disposition a des répercussions pour notre cas car la gestion des profits pourrait créer un exode de taxes supplémentaires. On examine ensuite la relation entre la gestion des profits et les capitaux-actions des cadres dans des conditions diverses d'efficacité du marché. Les résultats de cette étude indiquent que les capitaux-actions des cadres dans l'entreprise ont tendance à affecter la gestion des profits et à accroître les efforts de la direction. On présente également les implications empiriques du modèle.

**UN EXAMEN DU PARTI-PRIS DE "RESULTAT NEGATIF": PREUVE EMPIRIQUE ET RECTIFICATION STATISTIQUE****Murray Lindsay** (University of Saskatchewan)

On évalue ici l'étendue du parti-pris de "résultat négatif" (des études n'obtenant pas de résultats statistiques considérés comme significatifs) dans les sciences sociales en général et la comptabilité en particulier. Les résultats obtenus après avoir consulté 39 articles sur la comptabilité de management indiquent que les chercheurs et réviseurs en comptabilité comme leurs homologues dans d'autres disciplines n'aiment pas publier des résultats négatifs. Il peut y avoir deux raisons expliquant cette attitude, d'abord les chercheurs estiment que la science progresse en trouvant des relations entre les variables (c'est à dire en rejetant le zéro) et non grâce à la critique. Ensuite, la communauté scientifique pense que la signification statistique est synonyme de rigueur scientifique et d'établissement de faits nouveaux. On prouve que les conséquences de ce parti-pris sont très significatives, sapant l'objectivité de la raison d'être du test de procédure significative et faisant obstacle au progrès scientifique. Afin d'établir un cadre pour résoudre le problème, nous fournissons une rectification statistique permettant d'établir des limites raisonnables et d'estimer un degré de prédisposition à la conclusion de la recherche. L'article conclut avec un appel pour que la discipline comptable remplace la signification statistique par la précision raisonnable comme critère de publication.

**LE DEBAT BERLE-DODD SUR LA QUESTION "DE QUI DEPENDENT LES DIRECTEURS D'ENTREPRISES?"****John Macintosh** (University of Windsor)

Cette étude reprend la question "De qui dépendent les directeurs d'entreprises?" soulevée dans le débat Berle-Dodd des années 30. Dans ce débat Berle soutenait que la gestion des entreprises ne dépendait que des actionnaires tandis que Dodd affirmait que les entreprises devaient dépendre de la société et des détenteurs de titres. Cette question qui est toujours pertinente pour la communication de l'information financière n'a pas été résolue de façon satisfaisante. On examine ce débat par rapport aux conditions dans lesquelles il s'était déroulé de même que par rapport au besoin perçu de réglementer la communication de l'information financière pour s'assurer que la direction est responsable de ses actions. L'étude conclut que les actions de la direction et le degré de responsabilité qu'elle assume ne dépendent que partiellement de la réglementation et du contrôle de la communication de l'information financière. Le degré de responsabilité de la direction pour ses actions envers ses actionnaires et la société dépend donc dans une grande mesure des attitudes de la direction et il est peu probable que cet état de choses change.

**UNE ANALYSE SECTORIELLE DE LA REMUNERATION DES DIRECTEURS GENERAUX: LE CAS DES BANQUES COMMERCIALES****Michel L. Magnan** (Ecole des Hautes Etudes Commerciales)

Cette communication examine les différences dans la rémunération des directeurs généraux dans le secteur des banques commerciales. On se penche sur la relation entre les mandataires pour un environnement bancaire économique et de régulation et les niveaux de rémunération de même que sur la relation entre les indicateurs de rendement basés sur la comptabilité et les premières différences de rémunération.

Les résultats empiriques indiquent que les variables environnementales propres aux banques ont un pouvoir différentiel plus considérable que la taille pour expliquer les niveaux de rémunération. De plus, on constate que les signaux comptables autres que les revenus nets ont un pouvoir différentiel d'explication plus élevé que le rendement de l'actif et des actions pour déterminer les premières différences de rémunération.



# USE OF PERCEIVED PERSONAL VALUES IN RECRUITING BY PUBLIC ACCOUNTING FIRMS

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## 1. INTRODUCTION

Personal characteristics of accountants have been studied for different reasons. DeCoster and Rhode [1971, p. 651] wanted to find if the stereotype of accountants as "cold, aloof, and impersonal" was warranted, and concluded that it was not. In a five year longitudinal study, Rhode, Sorensen and Lawler [1976] found some significant differences between accountants who left accounting firms compared to those who did not. Aranya and Wheeler [1986] related personal characteristics to the professional and organizational commitment expressed by accountants. Harris [1972] wanted to find if accounting students and accountants had the same personality traits. Baker [1976] compared values expressed by accounting majors with other students but no significant differences were found.

Personal characteristics have also been studied to try to explain observed differences in behaviors and decisions, but without much success (for example, see DeCoster [1971], DeCoster and Rhode [1971], Harris [1972], Aranya and Wheeler [1986], and Choo [1986]). None of the published studies attempted to determine if public accounting firms selected new recruits on a basis that was consistent with measurable personal attributes. There are reasons why employers would consider personal characteristics of applicants. Merchant [1985] and Ouchi [1979, 1980] state that one type of control, called personnel controls or clan control, depends on the employees having, or at least appearing to have, similarities in behaviors, attitudes and values. If members of an organization are characterized by similarities in personal characteristics (for whatever reason), they might also be expected to select new members who are perceived to be similar to the existing members.

The purpose of this study is to compare applicants who received job offers from public accounting firms to those who did not. The personal characteristic selected for study is the set of personal values perceived to be held by graduating students who are accounting majors. Perceived values were chosen for this study as previous research indicates that public accounting firms have a strong organizational culture and similarities in values are one of the key indicators of a strong culture.

This study finds that the values perceived to be held by graduating accounting majors who received job offers from public accounting firms are significantly different from students who also interviewed the same public accounting firms but received no offers. Although this study considered only one group of students from one graduating class at one university, this finding is especially interesting as the perceived values were measured by fellow students. Job offers are made by recruiters from the accounting firms in consultation with their colleagues. This finding suggests that values perceived to be held by students can be detected by both their fellow students and by recruiters in a consistent manner and that values are somehow related to the evaluation of applicants.

## 2. PREVIOUS STUDIES

Harris [1972] administered the California Psychological Inventory test to 38 partners, 64 managers, 31 seniors, and 119 accounting students. He compared the mean scores of the partners on the 18 scales to the mean scores of the managers, seniors, and students. Of the 18 scales, 12 were significantly different when partners were compared to students. The number of significant differences dropped to 6 when partners were compared to

seniors, and to just one when partners were compared to managers. Harris speculates that the reduction in the number of differences may result from age, work experience, attrition, and/or indoctrination, but was not able to determine which of these caused the increasing similarity among the staff of public accounting firms.

Schein [1988] calls this process "organizational socialization," the process of "learning the ropes," of being indoctrinated and trained, being taught what is important in an organization. It is the process by which a new member learns the value system, the norms, and the required behavior patterns of the organization. To be successful in an organization, a person must conform to the norms of the group.

This process has also been related to a method of control, called personnel or cultural controls [Merchant, 1985] or clan control [Ouchi, 1980]. This type of control occurs when the individuals in an organization willingly do what is best for the organization with no need for more overt forms of control such as detailed rules of activity or output standards. They either are convinced that what is best for the organization is best for them, or are unwilling to break group norms of behavior.

Group norms are fostered by two methods: selection of only certain new members and the socialization of existing members [Ouchi, 1979]. In the recruiting process, applicants will have already self-selected by deciding to apply for a position, based at least partly on the reputation of the industry or organization [Fry and Berkes, 1983]. However, recruiters have guidelines for evaluating applicants or at least have an informal conception of the type of person they are seeking. Recruiters will implicitly or explicitly assess the applicant's attitudes, values, and behaviors and will compare them with the norms existing in the organization. Recruiters will tend to make offers to those applicants who are believed will "fit in" with the group or organization, which should mean to those applicants whose attitudes, values, and behaviors are perceived to be most similar to the existing group norms.

Public accountants generally agree that the basic purpose of auditing is to render the appropriate opinion on financial statements. This level of agreement should contribute to the formation of groups with well-defined norms. Such groups have been called "clans" [Ouchi, 1979, 1980] or groups with a strong "culture" [Wilkins and Ouchi, 1983]. Wiener [1988] and Ouchi indicate that one of the main indicators of a strong culture is the similarity in the set of values held by group members. They use the term "values" in a fairly general sense, of what ought to be or beliefs about ideal modes of behavior or end states of existence [Sathe, 1983, 1985; Schein, 1985; Dyer, 1986]. They state that the degree of congruence of the set of values is more important to the formation of a clan than the actual values.

The values held by accounting majors were compared to those held by other students but no significant differences were found [Baker, 1976]. Harris [1972] found fewer significant differences among personality measures after applicants joined public accounting firms, which would be expected if the firms have strong cultures that tend to encourage similarities among firm members. Other researchers who suggested that public accounting firms will develop strong cultures include Schandl [1978] and Macintosh [1985].

Graves and Powell [1988], in a study of 393 interviewers, found that candidates who are perceived to be similar to recruiters in attitudes and background are liked more, are viewed as being more qualified and more suitable for hiring than a candidate who is not. They found perceived similarities were strongly correlated (.51) with the interviewers' assessment of the subjective qualifications of the applicants, which were highly correlated (.74) with the interview outcome. The subjective qualifications

measured were the ability to express ideas, interest in working for the organization, job-related training and experience, demonstrated initiative, knowledge of the position, and intelligence.

Following these arguments, it would be expected that recruiters will tend to make job offers to applicants whose characteristics are perceived to be most similar to those of the recruiters. This tendency does not need to be a conscious decision. Recruiters will naturally be attracted more towards applicants who seem to be most similar to them and their colleagues. Graves and Powell also found that the degree of perceived similarity was highly correlated with interpersonal attraction (.68), which was also significantly correlated with the interview outcome (.16).

This finding should also occur in public accounting firms. Recruiters would be expected to favor applicants who are perceived to be most similar to the recruiters and other members of the firms. As a common set of values perceived to be held by group members is one of the characteristics that identifies a strong group, the values perceived to be held by applicants who receive job offers should be different from those who do not receive offers.

### 3. EMPIRICAL TEST

A strong test of the proposition that perceived values are considered in the recruiting process would compare the values held by members of different firms with the values of the students who received job offers from them. If each firm has different values, they would prefer students with a different set of values. Since each firm makes job offers to a limited number of students, this test would require a large group of observations. Since the number of graduating accounting majors each year is relatively limited, this test is difficult to undertake. A second testing strategy would be to consider all public accounting firms as a group and compare their collective offers. Using this strategy would involve comparing the values of students who receive a job offer from any public accounting firm with the values of the students who receive no offers from any firm.

To combine all public accounting firms together would be justified only if all public accountants have strong inter-firm similarities. Since public accountants are professionals, some degree of similarity should result from commitment felt to the profession. Professional and organizational commitment has been considered in several studies [Aranya, Pollock, and Amernic, 1981; Norris and Niebuhr, 1983; Aranya and Ferris, 1984]. Perhaps the most interesting finding of these studies is that public accountants do appear to feel committed to both their organization and their profession. There is a strong sense of professionalism that is expressed by public accountants in each of these studies. This feeling of professionalism should be strong enough to result in all public accountants exhibiting similarities in their attitudes, values, and behaviors. If this is correct, then all public accounting firms should share certain similarities. If this is the case, they will all tend to prefer certain types of applicants over others and will tend to make job offers to applicants who exhibit certain characteristics that are the most similar to other public accountants.

Assuming a reasonable market for accounting graduates, applicants should form two different groups, those who do receive job offers from public accounting firms, and those who do not. The preferred characteristics may be strong enough to exhibit measurable differences between the two groups.

The measurement of a variable such as values is subject to a large amount of measurement error. The concept of "values" cannot be defined rigorously and obviously cannot be measured with a high level of reliability. In this

situation, Cook and Campbell [1979] suggest that reliability can be enhanced by using a questionnaire that has been subjected to extensive prior testing with positive results, using group averages rather than data for individuals, and using multiple data sources such as several raters rather than just one per observation. These three suggestions were followed in the present study.

Three instruments that have been used to measure values were considered: Hofstede's questionnaire, the Rokeach Values Survey, and SYMLOG. Hofstede [1980] used his questionnaire more than 116,000 times to study differences in values held by members of an organization in 50 different countries. Hofstede's questionnaire was developed for subjects to indicate the values they believe are important for success in an organization. The Rokeach Values Survey [Rokeach, 1968] has also been widely used. This instrument contains two lists, one list has 18 terminal and the other has 18 instrumental values. Subjects are required to rank the 18 values in each list in order of importance. SYMLOG (System for the Multiple Level Observation of Groups) was developed by Bales and Cohen [1979] to rate values held by people in small groups. The SYMLOG instrument has been used more than 10,000 times, most frequently in the United States, but recently in several other countries [Polley, 1987]. The SYMLOG questionnaire can be used by subjects to rate themselves, or by other people to rate subjects they know well.

The method selected to measure values was SYMLOG. SYMLOG was developed to measure general values that are not specific to any situation or organization. This method was chosen for two reasons: it can be used to rate subjects by other people and it is a very simple method to use, consisting of only one page with 26 questions. Since applicants for employment are rated by recruiters, the values that are important are those that are perceived to be held by the applicants and not those that result from a self-assessment. SYMLOG summarizes all values into three groups, described as three dimensions: (1) desire for material success and power (called dimension U for Upward in SYMLOG) and its opposite, ascetic self-denial (called D for Downward), (2) group-centered values (called P for Positive) as opposed to self-centered values (called N for Negative), and (3) conforming values (called F for Forward) as opposed to nonconforming values (called B for Backward) [Bales and Cohen, 1979]. After a slight amendment to the wording of several of the questions, Polley [1987] statistically validated the SYMLOG instrument using a set of 6432 ratings. After his amendments, all 26 questions correlated with the appropriate value dimensions.

The SYMLOG questionnaire consists of 26 questions that give descriptions of behaviors. Raters assess how well the descriptions describe the person being rated, using the response categories of "Rarely," "Sometimes," and "Often." These responses are quantified by assigning numerical values to the response categories (0, 1, and 2 respectively) and mean responses are computed. Even though the response categories are strictly ordinal, they have been found to be "close enough" to interval to justify the use of parametric statistics such as means and standard deviations [Davidson, 1989].

Means are computed by adding the responses for the nine descriptions that include one value or "direction" (for example, conforming values or F direction) and deducting the sum of the responses for the nine descriptions that include the opposite value or direction (here nonconforming or B). The range for any such value is +18 to -18 using the response scale suggested. For example, a person who is rated 14, -6, and 10 for dimensions UD, PN, and FB respectively, would be described as having a strong desire for material success and power, moderate self-centered values, and moderately strong conforming values, but such descriptions are strictly judgmental.

The actual value scores are not considered to be as important as the differences between group averages. However, the mean scores and the variability of these scores for each of the three dimensions should provide some descriptive information about the subjects being rated. Such descriptive information must be considered as being very limited as there would be many other attributes that would be sought in candidates by accounting firms.

In this study, one group of students was used as subjects. The subjects were not selected randomly. The students were those enrolled in the two sections of a final accounting course at a large American university at the end of the fall semester. Very few students who are not accounting majors take this course. Discussion with the students indicated they had generally completed all intended interviews and had already received indications from public accounting firms if offers were forthcoming. It is recognized that this very limited sample does not permit the findings to be generalized to other students without replication of the tests.

Data from the students was obtained during a regularly scheduled class. Students were informed their participation was strictly voluntary but no student declined the request to participate. Each student received a general questionnaire for demographic data such as age, major, GPA, firms interviewed, etc. plus three forms to gather data on values perceived to be held by three fellow students that they knew personally. It was expected that the students would know several of their classmates fairly well as the classes were not large, the students had been classmates for at least three years, and they had previously been required to work in small group projects in several classes.

A total of 50 students completed the questionnaires and provided 110 SYMLOG ratings forms. Of the 50 students described (19 male and 31 female), four were not accounting majors and three of the accounting majors did not expect to graduate in the current year, leaving a total of 43 final year accounting majors. The average SYMLOG values and other demographic data for the 50 students rated are presented in Table 1.

**TABLE 1: SUMMARY OF DEMOGRAPHIC DATA AND SYMLOG VALUES**

	<u>MEAN</u>	<u>STANDARD DEVIATION</u>
Age (Range: 21 to 44, median 25)	27	6.3
GPA (Range: 2.0 to 4.0)	3.19	.51
GPA, accounting only (Range 2.0 to 4.0)	3.2	.58
SYMLOG dimension:	UD	-0.788
	PN	5.728
	FB	3.548

Table 1 shows that the "average" student had mean scores of -0.788, 5.728, and 3.548. It would be interesting to compare these scores with the general population. SYMLOG scores are not designed for the centroid (0, 0, 0) to describe the "average" person. No published data were found for a very large study, but in a personal communication with the author, Polley indicated that for his sample of 6,432 ratings of students and office workers (used in Polley [1987]), the means would be approximately 3, 5, and 4. This would indicate that the "average" student exhibits values that tend more towards ascetic self-denial than material success and power (dimension UD), slightly stronger group centered values (dimension PN), and slightly less conforming values (dimension FB). The fairly large standard deviations indicate that these descriptions must be made with caution.

#### 4. RESULTS OF TESTS

The first part of the test was to ensure that the students did intend to become public accountants. This was operationalized by asking the students if they intended to become CPA's. Students were divided into two groups by their response to this question and the SYMLOG ratings of the students in the two groups were compared. Of the 50 students, 42 replied positively (including the four non-accounting majors and three accounting majors who were not in their final year) and eight negatively.

Evidence of self-selection by these final year accounting majors into those students who do intend to become CPA's and those who do not was sought. For the 43 final year accounting majors, the ratings forms were matched by name to the demographic data and the average rating was computed for each student. This process involved the matching of the ratings made by other students to the demographic data provided by each student. Mean scores for each student were used rather than the scores from the individual ratings forms as recommended by Cook and Campbell [1979]. Students received an average of 2.2 ratings, with a range of one to five. The demographic data and SYMLOG scores were compared. Results are shown in Table 2.

**TABLE 2: SYMLOG VALUES FOR FINAL YEAR ACCOUNTING MAJORS  
GROUPED BY THEIR INTENTIONS TO BECOME A CPA**

	<u>INTEND TO BECOME CPA</u>	<u>DO NOT INTEND TO BECOME CPA</u>
Number of male students	11	5
Number of female students	<u>24</u>	<u>3</u>
Total	35	8
Age (Range 21 to 44)	26.3	28.5
GPA (Range 2.0 to 4.0)	3.294	2.762
GPA, Accounting only (Range 2.0 to 4.0)	3.33	2.737
SYMLOG dimension: mean (standard deviation)		
UD	-0.769 (3.521)	-0.087 (3.111)
PN	5.200 (5.256)	5.950 (4.314)
FB	3.109 (3.118)	4.075 (2.587)

The most obvious difference between the two groups in Table 2 is in the GPA scores, with the students who intend to become CPA's having the higher scores. This may indicate that the students with lower GPA's may have decided not to become CPA's. However, since the main variable of interest is the values the students are perceived to have even after affects of this possible self-selection, emphasis is placed on the SYMLOG scores. Table 2 shows that the differences in the average SYMLOG values between the groups are not very large. However, these small differences together may be significant if they are considered simultaneously in the three-dimensional Euclidean vector<sub>2</sub> space. To test this, a multivariate test statistic was computed, Hotelling's  $T^2$ . For each group, the means of the three SYMLOG values form a vector that Tatsuoaka [1971a, p. 73] calls a sample centroid. Hotelling's  $T^2$  statistic calculates the probability that the difference between two sample centroids will occur by sampling variation alone. The  $T^2$  statistic assumes that the samples are independent and that they are distributed as multivariate normal distributions

with equal variances. However, Tatsuoaka [1971b] indicates that "minor violations of these assumptions (normality and homogeneity of variances) do not drastically invalidate the results" [p. 51].

The calculated F-statistic for the calculated  $T^2$  is 0.3865 with 3 and 39 degrees of freedom. The probability of this F is approximately .50 (two tailed). The two sets of means are not significantly different. There is no indication that the perceived values of the students who state they do intend to become a CPA are significantly different from those who state they do not intend to become a CPA, for the sample tested.

Tests were also conducted to test the possibility that the stated intention to become CPA's may not be as significant as the positive act of undergoing interviews with CPA firms. Students were grouped into two groups depending on whether they reported any interviews. Differences in the three SYMLOG values were checked for significance using the multivariate test. Results were a calculated F statistic of .939 which has a probability of 0.60. Since this is not significant, this test also provides no indication of any difference in values resulting from self-selection.

The next test was intended to find if the students who received offers were different from those who did not. This test was operationalized by asking subjects if they had been interviewed by any auditing firms and if he or she had received any job offers. Of the 50 students, 17 reported no interviews and were excluded from this analysis. Of the 33 students who reported at least one interview, 18 reported receiving no job offers and 15 reported at least one job offer. Demographic data and average SYMLOG scores for these three groups are reported in Table 3.

**TABLE 3: DEMOGRAPHIC DATA AND SYMLOG SCORES FOR STUDENTS GROUPED BY THE RECEIPT OF JOB OFFERS**

	NO INTERVIEWS	-----INTERVIEWS-----	
		NO OFFERS	OFFERS
Number of male students	7	6	6
Number of female students	<u>10</u>	<u>12</u>	<u>9</u>
Total	17	18	15
Age (Range 21 to 44)	28.47	27.83	25.47
GPA (Range 2.4 to 3.9)	2.96	3.19	3.44
GPA, Accounting only (Range 2.0 to 4.0)	2.94	3.16	3.56
SYMLOG dimension: UD	0.688 (3.109)	-2.661 (2.979)	-0.213 (2.797)
PN	6.417 (5.797)	5.278 (4.041)	5.487 (5.365)
FB	3.318 (3.071)	4.589 (2.879)	2.560 (2.848)

Table 3 provides some indication of the characteristics that appear to be sought by auditing firms. Students who received job offers were slightly younger and had GPA's that were slightly higher than those who did not receive an offer. Those who received offers have values that tend more towards material success and power than ascetic self-denial (dimension UD) and more nonconforming values than conforming (FB). There is virtually no difference in the scores of dimension PN, which measures group-centered or self-centered values. A possible explanation for this lack of a difference may be the large standard deviations for this dimension. This large variability may indicate difficulties in making judgments about this characteristic. Since these scores result from the ratings made by other students, an assumption is being made that recruiters perceive the same values as fellow students.

A multivariate test statistic (Hotelling's  $T^2$ ) was computed for the three differences in values considered simultaneously. The calculated  $T^2$  statistic is 11.336. The calculated value of the F-statistic is 10.60 with 3 and 29 degrees of freedom. The probability of this F is less than .001. This very low probability indicates that the two groups do not appear to come from the same population. There is strong evidence that the values held by students who received job offers are significantly different from those who do not.

Since this test is intended to determine if differences in recruiting are occurring, interviewing should be a critical intervening factor. Interviews should be the method used by recruiters to perceive the different values. A simple test was undertaken to ensure this was the case. The 42 students who intended to become CPA's were divided into two groups by whether they had received any offers (15 had), disregarding whether they had interviewed. The SYMLOG scores<sub>2</sub> for these two groups were compared, and the multivariate Hotelling's  $T^2$  test was calculated (4.835). The resulting F-statistic is 1.576 with 3 and 88 degrees of freedom, which has a probability of .30 (two tailed) which is not significant at any reasonable level. This test indicates that interviewing is a critical step in the evaluation of an applicant's values. Ignoring interviewing results in two groups that are not significantly different. Considering interviewing results in two groups that have significantly different values. This test confirms that interviewing results in the difference between the two groups.

Tests were also calculated to ensure that other variables that may be correlated with values such as GPA and age did not account for the difference in the perceived value scores. The correlation matrix for GPA with the SYMLOG scores and age was calculated. Results are presented in Table 4.

TABLE 4: CORRELATIONS (and significance) OF VALUES AND GPA

	UD	PN	FB	AGE	GPA
UD	1.000 (0)	.05899 (.744)	-0.0291 (.872)	.049 (.733)	.30116 (.0885)
PN		1.0 (0)	.03928 (.828)	-0.170 (.238)	.14317 (.427)
FB			1.0 (0)	.148 (.304)	-0.07168 (.692)
AGE				1.0	.050 (.733)

Table 4 indicates that the correlations of GPA with the SYMLOG dimensions are small with the largest being with dimension UD at .30 with a probability of .0885 that it may be a zero correlation. This is an interesting finding as dimension UD measures the desire for material success and power. It might be expected that students who have a stronger desire for material success and power may strive for a higher GPA. However, it is possible that both these variables result from some other underlying factor that is not being considered. This test did not find any other obvious factor that would provide a better explanation for the differences in the two groups of students. Table 4 also indicates that the three SYMLOG dimensions are not intercorrelated and so measure three different factors.



## 5. SUMMARY AND CONCLUSIONS

This study attempted to determine if the values that are perceived to be held by graduating accounting majors are used by public accounting firms in recruiting. Previous studies have suggested that public accounting firms have strong group norms or "cultures" and that one of the distinguishing features of a strong culture is a similar set of values held by group members.

The data found in this limited study provides evidence that the values perceived to be held by students who receive job offers from public accounting firms are different from those of students who do not receive offers. However, the tests were conducted on only one graduating class in one university. The results should not be generalized without replication.

It must also be noted that the effect of other attributes such as age, sex, appearance, poise, and GPA were not considered in detail in this study.

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**THE CONTINUING SHORTAGE OF DOCTORALLY  
QUALIFIED ACADEMIC ACCOUNTANTS**

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## THE CONTINUING SHORTAGE OF DOCTORALLY QUALIFIED ACADEMIC ACCOUNTANTS

### ABSTRACT

The shortage of doctorally qualified academic Accountants and its implications for Accounting education in Canada is a cause of concern for some time now. The severe shortage of Accounting Ph.D.s coupled with the market demand for better trained, professionally qualified Accountants, occurring at a time of budgetary constraints, puts a great strain on universities.

The following study is an appraisal of this shortage. Its purpose is to explore the forces, trends, and pressures that shape the current status of the Accounting discipline. The identification of these forces will offer some insight into possible changes in Accounting education in the future and may at the same time indicate those areas where changes should be made.

### LITERATURE REVIEW

Several studies on the demand and supply of Accounting doctorates during the last few years have identified the short supply of Accounting Ph.D.s.

The 1980-81 Report on Supply and Demand for Accounting professors of the American Accounting Association reaffirmed the disturbing trend in Accounting education: An inadequate, stable, low supply of Accounting doctorates and an overwhelming demand for the select few Accounting Ph.D.s.

In 1982, the American Assembly of Collegiate Schools of Business Taskforce also identified the continued shortage of Accounting doctorates: While all business fields are experiencing this shortage, Accounting seems to have a particularly severe imbalance between the demand and the supply of qualified faculty (Kaplan, Porter, and Smith, 1982). Furthermore, the same report calculated that it would take over 22 years of the current doctoral production to fill the 1980-81 vacant Accounting faculty positions in the AACSB member schools.

Campbell and Hermanson (1982), while identified the same shortage of Accounting Ph.D.s, concluded that the expanding number of doctoral programmes will produce an increased supply of Accounting doctorates.

Stone (1974) and Max Von Zur-Muehlen (1971 and 1977) echoed similar conclusions and Max Von Zur-Muehlen and C.J. Weidmark (1979) reported over 200 full-time unfilled university positions in Business.

Beechy (1979) documented the severe shortage of Accounting Ph.D.s and Scott (1985) reaffirmed the continuing trend in the shortage. Furthermore, the Bovey Commission (1984) and the Council of Ontario Universities (1982) also reported on this shortage.

Brown, Geiser, and Tedford (1979) concluded that inadequate starting salaries and general economic incentives keep many capable students away from doctoral Accounting studies.

### DATA COLLECTION

This survey was conducted during the spring of 1988. Information was collected across the country from all Canadian university Accounting programmes of both official languages (English and French).

Fifty questionnaires were mailed out, one to each university. The response in general was prompt, forty-two replies were received in total, a return of 84%.

The overall objectives of the survey were:

- 1) to determine the overall demand and supply for Accounting doctorates,
- 2) assess the qualifications profile of Canadian Accounting faculty members, and
- 3) provide a comprehensive analysis of doctoral Accounting education in Canada.

Verification of mailing addresses were made in advance of mailing the questionnaires to ensure that they were going to the right place. It was decided to direct the letter to the Dean, Director, Chairperson, Head of the Accounting Programme depending on what title was the appropriate for each university. Name usage was avoided, although, a list of such names was compiled. Academic appointments change very frequently and calendars and other lists often do not reflect current appointments. Also sabbaticals and leaves make such lists less accurate. A cover letter explaining the nature of the survey and a self-addressed stamped return envelope was attached to each questionnaire.

### INFORMATION VALUE OF RESEARCH

All those familiar with doctoral Accounting education and academic Accountants should not be surprised with the results of this research. Most of the findings are within the expected range. They confirm the widely held view that there is an acute shortage of Accounting faculty with a doctorate. This may not reduce the information value of the research, for two primary reasons. First, it is always important to document market information especially when it is current and comprehensive, and second, this information is necessary in order not to rely on opinions no matter how widely these views are accepted.

The analysis of data is primarily descriptive in nature (describes existing conditions). As a result, the author's personal views and experience may have affected how the existing conditions are viewed. However, every effort was made to concentrate on empirical evidence and behavioural observation.

### LIMITATIONS OF THIS RESEARCH

This study was constrained by many factors including the following:

The response rate of the survey, although excellent (84%), still did not include the entire population of Canadian

universities. As a result, some information may not be reflected in the data and conclusions of this study.

Archival research was limited to the published material that the author was able to identify and locate. Therefore, some interesting literature on the topic may not have been taken into consideration.

The findings of this research was also limited by the methodology followed, the type of questions asked, their sequence of appearance, the distribution method of the questionnaire, even the timing of administering the questionnaire. All of these elements may have induced some biases in the findings of the study. However, these biases, if they exist, are unknown to the author.

Finally the time and money one could have spent in further researching the topic could also be viewed as a constraint of this research effort.

### SIZE OF ACCOUNTING FACULTY

The total number of full-time Accounting faculty teaching at all Canadian universities in 1988 was less than 450 individuals.<sup>1</sup>

The Canadian Academic Accounting Association (CAAA) in its October 1987 membership directory (with 42 universities reporting) lists 248 full-time Accounting faculty. This number is definitely lower than the actual number of full-time Accounting faculty. CAAA only reports its members. Accounting faculty who have not joined the Association are not listed.

The 1988 Accounting Faculty Directory compiled by James R. Hassleback (with 27 universities reporting) lists 317 Accounting faculty. Hassleback's Directory is primarily an American Directory. Many Canadian universities are not reported. Volunteer submissions of faculty names from each university may not be the right way to measure faculty size. Some schools may be induced to submit a long list of Accounting faculty to show a strong Accounting programme. Thus, the actual number of Accounting faculty reported may be inflated by including administrative positions (deans, department heads, directors) as well as professor emeritus that no longer teach, part-time lecturers and instructors, adjunct professors, and non-Accounting faculty. Some part-time Accounting faculty below the rank of assistant professor and/or full-time faculty with partial Accounting teaching loads may have been included, augmenting the total number of Accounting faculty reported.

This survey, with 42 schools reporting out of a total population of 50 universities, indicates a total of approximately 367 full-time Accounting faculty. The relevant question asked in the survey was: "How many full-time faculty members does your Accounting department/school have?" Since respondents were given a range of possible answers (less than 5, between 6 and 10, etc) the total number of 367 represents the middle range answer. If one estimates the faculty of the 8 universities that failed to respond to the survey ( $8 \times 367/42$ ) the total full-time faculty is certainly lower than 450 individuals. Some universities may have over-reported the number of Accounting faculty they employ. This is

possible by including in their reported numbers, faculty who teach one or two courses in Accounting but their primary teaching responsibilities are in another discipline. Also some schools which have employed Accounting practitioners on a part-time basis over a prolonged period of time tend to regard them as regular Accounting faculty. Continuous reliance on regular part-timers have lead some schools to award them the title of adjunct professor. Some discrepancies among the CAAA membership list, Hassleback's Directory, and this survey could be reconciled on the basis of the above explanations.

It is important to note (Table 2) that 38% of all universities employ less than five full-time Accounting faculty while 76% employ less than ten. That is, most Accounting departments in Canadian universities are of a small size. Less than a quarter of them employ more than 10 full-time faculty. The largest Accounting faculty are reported by Concordia University, Ecole des Hautes Etudes Commerciales, Universite du Quebec a Montreal and the University of Waterloo.

#### ADDITIONS TO ACCOUNTING FACULTY

According to this survey, 46 new Accounting faculty were hired in the 1987-88 academic year (Table 3). Considering the total full-time Accounting faculty of less than 450, the 46 additions represent a turnover higher than 10%. This is a high turnover which, among other things, points to a high mobility of Accounting faculty, and an active labour market for academic Accountants. Furthermore, it may suggest a willingness of universities to strengthen their Accounting faculty resources. Exactly half of the universities reporting did not add to their faculty. This may indicate that half of the schools may have reached a stage of maturity where student growth rates do not warrant additional faculty hiring.

However, 65% of the universities reported that they had approved but unfilled positions in Accounting (Table 8). The discrepancy between those schools who had an approved but unfilled positions (65%) and those who came out of the market empty-handed (50%) may indicate the difficulties universities have to recruit Accounting faculty.

Six universities were responsible for 54% of the hiring. This high concentration of hiring-14% of the universities doing 54% of the hiring-may reflect a number of things. Perhaps, these universities were able to shift more financial resources to the Accounting area and outbid other universities in the auction of hiring academic Accountants. It is also possible that universities which were successful in hiring academic Accountants already had strong and reputable programmes to attract additional Accounting faculty from elsewhere. Good Accounting programmes, after all, may have an easier time in attracting faculty in short supply. Most universities (nine) who hired Accounting faculty, hired only one person each (Table 3).

It is very interesting to note that 14 of the 46 new faculty additions (30%) were graduates of American institutes.<sup>2</sup> As in the



past, even today, U.S. schools seem to supply a good proportion of Accounting Ph.D.s to Canadian universities.

A closer look at the qualifications of the new 46 recruits indicates that only 18 (39%) had a doctorate in hand, while another 8 (17%) were hired as All but Dissertation candidates. This means that of the 46 new Accounting faculty hired by Canadian universities, 20 (43%) did not have a doctorate degree.

This analysis of qualifications may lead one to believe that many appointments are not tenure track appointments. Universities who made limited term appointments could be in the market for doctoral candidates perpetually again year after year until they find desirable doctoral candidates. Another alternative universities have is to make tenure track appointments available to non-doctoral candidates. This practice has been followed by many Canadian universities in the past.

#### ACCOUNTING FACULTY ATTRITION

An even more disappointing message is given by the analysis of the data of Table 4. The 46 celebrated new additions to Accounting faculty were matched with nineteen withdrawals from the Canadian academic system. That is, the net additions to the ranks of academic Accountants were only 27 (46-19) faculty. Fifteen universities were affected by faculty losses while 27 schools maintained their manpower. The sad part is that all nineteen faculty who left their academic position had a doctorate, while only eighteen of the new recruits (39%) had a Ph.D. in hand. Thus, the net gain of 27 additional Accounting faculty for the entire university system, in reality, represents a loss of one Accounting doctorate in Accounting. From the nineteen losses, only six represented resignations to accept a position at another Canadian university. The rest (13 losses) were withdrawals from the Canadian university system.<sup>3</sup> Another point that needs to be made is the job mobility that Accounting Ph.D. holders enjoy. All those who left their academic position had a doctorate degree. Non-doctoral faculty seem to be reluctant to leave their academic posts. While the reasons that Accounting doctorates are mobile are obvious (high marketability), the reasons for immobility of non-doctoral faculty are unclear. Perhaps, some non-doctoral faculty have been tenured and are not willing to undertake the risk of moving to another university where a doctorate degree is a prerequisite of tenure.

There are no prevalent reasons for Accounting doctoral faculty leaving their positions (Table 5). All three reasons, retirement, resignation to accept a position at a Canadian or foreign university appear to have more or less equal weight. The number of Accounting faculty leaving their position for a foreign university demonstrates the international character of the market for Accounting doctorates and implies severe competition for university recruiters in their search for appropriate candidates.

Tables 6 and 7 provide some information about the expected attrition of full-time Accounting faculty in the next five years. A total number of 44 Accounting vacancies is expected in Canada in

the next five years. Resignation to accept a position in another Canadian university is cited as a major reason (17 vacancies). It is not absolutely clear as to what motivates Accounting faculty to leave their academic position for another one elsewhere. There is evidence that Accounting faculty gravitate towards bigger schools where Accounting as a discipline is prominent, commanding more prestige and authority. On the other hand, smaller Accounting departments, where the Accounting discipline is not receiving much university attention, may have a harder time to maintain their highly qualified faculty.

Retirement is another main factor of Accounting faculty attrition. Retirements, unlike leaves, are permanent withdrawals for the entire university system. Under mandatory retirement provisions, it is impossible to arrest the attrition of academic Accountants. The federal government and various provincial governments have introduced, from time to time, faculty renewal schemes to cushion the impact of retirements. Such renewal schemes may not work for the Accounting discipline since the system does not produce enough Ph.D.s to easily replace retirees. Similarly, early retirement schemes may not work for Accounting either. Academic Accountants presented with early retirement schemes, due to good opportunities for gainful reemployment outside the university, may exit the university system in greater proportions than academics from other disciplines.

The impact of future attrition is not expected to be the same for all universities. Five are expected to absorb 36 of the 44 expected vacancies, while 19 (46%) of universities do not expect any attrition. It appears that more established, older universities due to the age profile of their professoriate, will lose to retirements a good part of their Accounting professoriate within the next five years. It is reasonable to assume that older, more established institutions have a greater share of older, near retirement, professoriate. This assumption is based on the previous argument that older more accomplished Ph.D. holders are attracted to more established institutions. Newly established universities and/or junior Accounting schools may also lose some of their faculty as faculty from these schools may leave to replace retiring faculty in more senior universities.

#### **NEED FOR ACCOUNTING PH.D.s**

Table 8 indicates the approved but unfilled full-time positions in Accounting that require a Ph.D. in Accounting. Twenty-seven universities (64% of the total) reported 69 such unfilled positions. These vacancies were not evenly distributed among all universities. The unfilled positions in each university ranged from one to eight positions. Fifty-two (75%) vacancies were reported by 24 (57%) of the universities. The reported vacancies that require a Ph.D. in Accounting do not have the same impact on each university. The universities with one vacant position are not as negatively affected as those with two, three or more vacancies. The greater the number of vacancies, the greater the hardship imposed upon the school. Many respondents reported that the

approved but unfilled positions have been opened for many years. Thus, the 69 vacancies is the result of cumulative not current shortages.

If one adds to the 69 approved but unfilled positions (Table 8) another 69 positions presently held by part-time instructors (Table 9) which universities would like to be replaced with full-time Accounting doctorates, a total of 138 vacancies is arrived at. Adding 13 faculty (Table 3 and 4) to account for Accounting faculty who left the university system (5 retirements, 6 resignations to accept positions at foreign institutions, 2 resignations to pursue a non-academic career) the total current vacancies amount to 151 unfilled positions. That is Canadian universities are in a position to employ 151 new Ph.D. graduates provided that the funding and the candidates are there.

If one adds the expected attrition of 44 faculty (Table 6 and 7) and expected growth of 93 faculty (Table 10) a total of 137 vacancies are to be created in the next five years. Adding together the 151 current vacancies and 137 projected vacancies, a total of 288 Accounting vacancies are expected by the 1993-94 academic year.

In an attempt to purifying the above data, one could reduce the total expected attrition (44) by resignations of faculty to accept positions at other Canadian universities (17). Such resignations do not entail losses for the entire university system. That is, the "pure" expected attrition may only be 27 (44 - 17) faculty.

One could claim that the expected growth projected by the respondents may have included the expected attrition of 44 faculty. In this case, the expected growth is reduced from 93 to 49 (93 - 44). The total projection of needs for Accounting faculty in the next five years under this purification of data is 227.<sup>4</sup> The above two calculations may develop into a high projection and a low projection scenario (Table 11).

#### **PROJECTIONS OF FUTURE PRODUCTION, DEMAND, AND SUPPLY OF ACCOUNTING DOCTORATES**

The answers to the question "How many faculty do you presently have on leave pursuing their Ph.D. in Accounting", indicate that there are some 39 faculty members from 16 different universities today who are pursuing an Accounting Ph.D. degree. Perhaps 5 or 6 of these Ph.D. students will be graduating in each of the next 5-6 years. If one further considers that 20% of those pursuing their doctorate are not expected to return back to their position, the net gain to the Canadian university system may not be as high as the absolute numbers indicate.<sup>5</sup>

The question "Do you think there is a shortage of Accounting Ph.D. programmes in Canada?" resulted in 30 answers in the affirmative and 12 answers in the negative. That is, 10 out of 14 respondents believe that there is a shortage of Accounting Ph.D. programmes in Canada. It seems that there is no major dispute about the shortage of Accounting doctoral programmes in Canada,

although some may disagree about the size and the reasons for the shortage.

The most frequent cited reason for the shortage of Accounting doctoral programmes is the lack of interested students followed by a perceived shortage of qualified professors and "a historical perception in this country that Accounting is largely a professional body of knowledge which can adequately be conveyed to students by non-Ph.D. faculty members."<sup>6</sup>

One university reported, "We have a Ph.D. programme but no students yet! Either graduates are moving to the U.S. for higher salaries or the U.S. graduates are not coming to Canada for the same reason. As a result, shortages of Accounting professors, doctoral programmes, and students exist."<sup>7</sup> Shortages of Accounting doctoral students and programmes are interlinked. Shortages of qualified professors and/or students cause a shortage of Accounting doctoral programmes and a shortage of programmes produces fewer Accounting students. It is not clear what is the cause and/or effect of this relationship.

One respondent claimed that, "The difficulty of training even one Ph.D. implies the more programmes, the more output. The very existence of a Ph.D. programme could create its own demand. Therefore, the more programmes, the more students, and hopefully more graduates will be produced."<sup>8</sup>

There are 15 Canadian universities that offer a doctoral programme in Business Administration. Accounting doctoral programmes though, are not common. In fact, only five (5) of these doctoral programmes in Business Administration offer a specialization in Accounting.

The reply to the question, "Does your university plan to offer a doctoral programme in Accounting within the next five (5) years?", only one university indicated so. That is, in the near future, to the extent that production of Accounting Ph.D.s depends on the number of programmes available, the supply of Canadian Accounting doctorates is not expected to be significantly improved. Furthermore, the answer to the question "How many Ph.D. Accounting students do you expect to admit in your doctoral programme over the next five years?", was equally disappointing. A total of 31 students are expected to be admitted to all five universities. Some indicated high costs, availability of doctoral supervisors, and length of doctoral studies as prohibitive factors for admitting more students. In fact, no university projected admitting more than two student per year.

The question "How many Ph.D. students majoring in Accounting are presently in each stage of your programme?", produced the following answers:

10 students at the thesis stage

3 students at the comprehensive examination stage

16 students at the course work stage

If one was to exclude foreign students from these numbers, the projected production of Accounting doctorates would be disappointing. Furthermore, the stage of the programme in which these students are in may influence their completion rate. One normally would expect a greater completion rate for those students

at the dissertation than those at the initial course work stage. As a student proceeds over the hurdles of the doctorate degree, natural attrition allows only the fittest to reach the final stage of the programme. Considering that only 10 students are at the thesis stage of the programme, the number of Ph.D. graduates may be much smaller than the total Ph.D. student number demonstrates.

### CONCLUSIONS

1. The improved professional status of professional Accountants, their earning power, the apparent emphasis of the Accounting profession on university education, the establishment of some 25 MBA programmes in Canada in the last thirty years, the shift from 3 to 4 year administrative programmes, and the influx of non-Accounting, non-Business majors into Accounting courses are the main reasons for the increased demand of academic Accountants and the creation of new Accounting faculty positions.
2. Many of these Accounting faculty positions requiring a doctorate degree remain vacant and/or unfilled.
3. There is a backlog demand from previous years for Accounting doctorates.
4. The demand for Accounting doctorates in the foreseeable future will exceed the limited output of Accounting Ph.D.s the Canadian universities produce.
5. The output of Ph.D.s produced at Canadian universities continues to be insufficient to satisfy Canadian needs. Ph.D.s earned abroad need to augment the supply side.
6. The supply of new Accounting doctorates may not be as high as the numbers of doctoral students indicates. Many Accounting doctoral students already hold a faculty position.
7. The annual supply of fresh Accounting Ph.D.s in Canada depends largely on the assumptions associated with the drop-out rates, length of completion of studies, proportion of Canadians studying abroad who would return to Canada, and non-Canadians who may stay in Canada at the completion of their studies.
8. The creation of new Accounting doctoral programmes increase the prospects for producing more Accounting doctorates. However, Ph.D. programmes need to strengthen their promotional strategies to attract a sufficient number of applicants.
9. The high number of Accounting baccalaureate degree holders has the potential of creating a healthier enrollment growth of Accounting Ph.D. students.
10. The employment pattern of Ph.D.s indicates that the great majority of Ph.D. students are recycled back into the university

system. Past expectations that a large number of Accounting Ph.D.s will be hired outside the university system has not materialized.

11. Considering a) the limited financial and human resources available to launch and maintain an Accounting Ph.D. programme, b) the economies of scale realized delivering a common centralized programme among a number of universities and c) the eventual elimination of non-price competition among competing schools, a consortium effort may improve the quantity and quality of Accounting doctoral output.

12. There is a lower proportion of Accounting faculty with Ph.D.s and therefore a disproportionately higher demand for Accounting doctorates as one moves from the West to the East coast.

13. Employment of part-time instructors and the increasing size of classes seems to disturb the direct relationship between enrollment of Accounting students and full-time academic Accountants employed at universities.

#### ENDNOTES

1. This number is an estimate. There were 367 full-time Accounting faculty reported in the survey. It is estimated that another 72 Accounting faculty are employed by the 8 non-reporting universities (8 times the average size of Accounting faculty in each university in Canada in 1988;  $367/42$ ).

2. Data derived from the tabulation of survey results to Question 3B.

3. See Table 5.

4. See Table 11.

5. Data derived from survey results to Question 12B.

6. Quotes taken directly from the survey questionnaires. Since the survey was completed anonymously, these quotations cannot be attributed to any particular individual.

7. See Endnote No. 6.

8. See Endnote No. 6.

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TABLE 1

## Qualifications of Accounting Professoriate at Canadian Universities 1986-87

<u>Qualifications</u>	<u>Number</u>	<u>Percentage of Total.</u>
Ph.D., CA, CMA, CGA	3	.73%
Ph.D., CA, CMA	3	.73
Ph.D., CA	41	9.78
Ph.D., CPA	12	2.86
Ph.D., CMA	15	3.58
Ph.D., CGA	4	.95
Ph.D.	65	15.50
	----	-----
TOTAL DOCTORATES	143	34.13%
MBA, CA, CMA, CGA	1	.25%
MBA, CA, CMA	18	4.28
MBA, CA	63	15.03
MBA, CPA	3	.73
MBA, CMA	22	5.23
MBA, CGA	2	.50
MBA	25	5.96
Master (other than MBA), CA	18	4.29
Master (other), CMA	3	.73
Master (other), CGA	3	.73
Master (other)	12	2.85
	----	-----
TOTAL MASTERS	170	40.57%
Undergraduate Degree, CA, CMA	4	.95%
Undergrad. Degree, CA or CPA	85	20.28
Undergrad. Degree, CMA	4	.95
Undergrad. Degree, CGA	0	0.0
Undergraduate Degree CA only	11	2.62
	2	.50
	----	-----
TOTAL UNDERGRADUATE DEGREES	106	25.30%
	=====	=====
<u>TOTAL</u>	419	100.00%

Note 1: DBA (Doctor of Business Administration) is included in the Ph.D. category

Note 2: It is very difficult to determine how many of the doctorate degrees are in Accounting. In fact, many of the doctorates are in other Business disciplines and some outside the Business area.

Note 3: MBA equivalents such as M.Comm (Master of Commerce) are included in the MBA category.

Source: 1987 Directory of Full-time Faculty Members in Management and Administrative Studies at Canadian Universities.

TABLE 2

**Size of Full-time Accounting Faculty at Canadian Universities  
1987-1988**

Number of Faculty	Number of Schools Reporting
less than 5	16
6 - 10	16
11 - 15	5
16 - 20	1
21 - 30	2
more than 30	2
	-----
Total	42

TABLE 3

**Full-time Accounting Faculty Hired by Canadian Universities  
1987-1988**

Number of Schools Reporting	Number hired	Total Faculty Hired
21	none	0
9	1	9
6	2	12
3	3	9
1	4	4
2	6	12
-----		-----
Total 42		Total 46

TABLE 4

**Frequency Distribution of Schools That Lost Accounting Faculty  
in 1987-1988**

Number of Schools Reporting	Number Left	Total Faculty Left
27	none	0
12	1	12
2	2	4
1	3	3
-----		-----
Total 42		Total 19

81  
TABLE 5

Full-time Accounting Faculty Leaving Canadian Universities  
per Reason of Exit 1987-1988

Reason for Exit	Number of Faculty Left
Retirement	5
Resignation to accept position at another Canadian university	6
Resignation to accept position at a foreign university	6
Resignation to pursue a non-academic career	2
Resignation due to other reasons (health etc.)	0
	----
Total	19

TABLE 6

Expected Attrition of Full-time Faculty at Canadian Universities For the Five Year Period  
Between 1989-90 and 1993-94

Reason for Leaving	Estimated Number of Faculty
Retirement	15
Resignation to accept a position at another Canadian university	17
Resignation to accept a position at a foreign university	6
Other reason (health etc)	2
	----
Total	44

TABLE 7

Expected Attrition of Full-time Accounting Faculty  
for the five year period between 1989-90 and 1993-94

Number of Schools Reporting	Expected Attrition	Total Attrition
19	none	0
8	1	8
9	2	18
6	3	18
		----
Total 42		Total 44

TABLE 8

Approved But Unfilled Full-time Positions in Accounting  
That Require a Ph.D in Accounting

Number of Schools Reporting	Number of Unfilled Positions	Total Positions Available
15	none	0
6	1	6
8	2	16
10	3	30
1	4	4
1	5	5
1	8	8
-----		-----
Total 42		Total 69

TABLE 9

Accounting Ph.D.s Needed to Replace Current Part-time  
and Not Tenured Track Accounting Faculty

Number of Schools Reporting	Number of Ph.D.s Needed	Total Number of Ph.D.s Needed
15	none	none
9	1	9
4	2	8
7	3	21
2	4	8
3	5	15
1	8	8
1	not reported	
-----		-----
Total 42		Total 69

TABLE 10

Projected Additional Needs for Accounting Doctorates  
for the Period 1989-90 to 1993-94

Number of Schools Reporting	Number of Projected Ph.D. Faculty	Total Projected Need
10	none	0
10	1	10
5	2	10
6	3	18
2	4	8
3	5	15
2	6	12
1	20	20
-----		-----
Total 42		Total 93

TABLE 11

TOTAL NEEDS OF ACCOUNTING PH.D.s BY THE CANADIAN  
UNIVERSITY SYSTEM 1989-90 TO 1993-94

PRESENT NEEDS	HIGH PROJECTION SCENARIO	LOW PROJECTION SCENARIO
Approved but unfilled full-time positions in Accounting that require a Ph.D. in Accounting	69	69
Accounting Ph.D.s needed to replace current part-time and not tenured track Accounting faculty	69	69
Total Accounting faculty leaving Canadian universities	13	13
<b>TOTAL PRESENT NEED</b>	<b>151</b>	<b>151</b>
5 Year projections (1989-90 to 1993-94)		
Expected additional needs for Accounting faculty (1989-90 to 1993-94)	44	27
Expected <sup>attrition</sup> <del>additional</del> needs for Accounting doctorates (1989-90 to 1993-94)	93	49
<b>TOTAL PROJECTION</b>	<b>137</b>	<b>76</b>
<b>TOTAL PROJECTED NEED</b>	<b>288</b>	<b>227</b>

TABLE 12

(QUESTION 12 DATA)

Canadian Faculty Presently pursuing a Ph.D. in Accounting

Number of Schools Reporting	Faculty Pursuing an Accounting Ph.D.	Total Number of Faculty Pursuing an Acct. Ph.D.	Faculty Expected to Return After Completion of Ph.D.
26	none	0	0
8	1	8	5
5	2	10	6
1	3	3	3
1	4	4	3
1	14	14	14
----		----	----
42		39	31

## QUESTIONNAIRE

1) Please indicate the name of the university where you are currently appointed.

---

2) How many full-time faculty members does your Accounting department/school have?

check one  
only

Less than 5

1 \_\_\_\_

6 - 10

2 \_\_\_\_

11 - 15

3 \_\_\_\_

16 - 20

4 \_\_\_\_

21 - 30

5 \_\_\_\_

more than 30

6 \_\_\_\_

3a) How many full-time faculty in Accounting, if any, did you hire to begin the academic year 1987-1988?

---

3b) Of the above number in Question 3,

How many came from a U.S. or other foreign institution?

---

How many have a doctorate degree in Accounting?

---

4) How many full-time faculty Ph.D.s in Accounting, if any, did you lose in the academic year 1987-1988 due to:

Retirement	1	___
Resignation to accept a position at another Canadian university	2	___
Resignation to accept a position at a foreign university	3	___
Resignation to pursue a non-academic career	4	___
Other reason (health etc.)	5	___

5) How many full-time faculty Ph.D.s in Accounting do you expect to lose in the next five (5) academic years due to:

Retirement	1	___
Resignation to accept a position at another Canadian university	2	___
Resignation to accept a position at a foreign university	3	___
Resignation to pursue a non-academic career	4	___
Other reason (health etc.)	5	___

6) How many approved but unfilled full-time positions in Accounting do you have which you would like to fill with Ph.D.s in Accounting?

\_\_\_

7) How many of your part-time instructors, limited contract, and non-tenure track Accounting positions would you like to fill with Ph.D.s in Accounting.

\_\_\_



8) Assuming that you could hire the desirable number of Accounting doctorates in Questions 6 and 7, how many additional positions for Accounting doctorates will you need over the next five (5) years?

9) In your opinion, to what degree is a Ph.D. in Accounting necessary for university teaching?

please circle a number

very important							not important at all	unable to judge
-------------------	--	--	--	--	--	--	----------------------------	-----------------------

1	2	3	4	5	6	7	8
_____	_____	_____	_____	_____	_____	_____	_____

10) Please indicate how important the following factors are in making tenure decisions in your department, and how important you think they should be.

Place a number next to each factor according to their level of importance.

very important							not important at all	unable to judge
-------------------	--	--	--	--	--	--	----------------------------	-----------------------

1	2	3	4	5	6	7	8
_____	_____	_____	_____	_____	_____	_____	_____

	actual importance	preferred importance
teaching effectiveness	_____	_____
scholarly publications	_____	_____
service to university community	_____	_____
service to the profession and discipline	_____	_____
service to the general public	_____	_____
doctoral degree	_____	_____

11) Please indicate your agreement or disagreement with each of the following statements by placing the appropriate number after each statement.

strongly

strongly unable to

agree

disagree judge

1	2	3	4	5	6	7	8

a) The decision making structure of the university is complex and involves different groups and different levels of power. Your department's faculty, as an academic body, enjoys a lower level of power than the average academic department.

---

b) It is unlikely that in the immediate future there will be a significant increase in budgetary allocation for business schools (Accounting departments) from the budget of this university.

---

c) Accounting programmes have a major obligation to align their academic requirements with those of the professional Accounting bodies (CA, CMA, CGA).

---

d) Professional accounting bodies (CA, CMA, CGA) should support, financially and otherwise, university Accounting programmes that educate their membership.

---

12a) How many faculty do you presently have on leave pursuing their Ph.D. in Accounting?

---

12b) Of the above number in Question 12, how many do you expect to return to your university on completion of their doctoral studies?

---

13) Do you think there is a shortage of Accounting Ph.D. programmes in Canada?

1 yes \_\_\_\_\_

2 no \_\_\_\_\_

If you answered yes to the above question, please explain the reasons, in your opinion, for the shortage.

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14) Does your university offer a doctorate programme in Business Administration?

1 yes \_\_\_\_\_

2 no \_\_\_\_\_

15) Does your university plan to offer a doctorate programme in Accounting within the next five (5) years?

1 yes \_\_\_\_\_

2 no \_\_\_\_\_

16) Does your doctorate programme in Business Administration offer a major in Accounting?

1 yes \_\_\_\_\_

2 no \_\_\_\_\_

17) How many Ph.D. students majoring in Accounting are presently in your programme?

At the dissertation stage \_\_\_\_\_

At the comprehensive examination stage \_\_\_\_\_

At the course work stage \_\_\_\_\_

18) How many Ph.D. Accounting students do you expect to admit in your doctoral programme over the next five (5) years?

\_\_\_\_\_

CONGRÈS  
ASSOCIATION CANADIENNE DES PROFESSEURS DE COMPTABILITÉ  
VICTORIA, JUIN 1990

LE FARDEAU FISCAL DES NOUVELLES ENTREPRISES:  
UNE ÉTUDE COMPARATIVE QUÉBEC-ONTARIO  
POUR LES ANNÉES 1989 ET 1990

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**Le fardeau fiscal des nouvelles entreprises:  
une étude comparative Québec-Ontario pour 1989 et 1990.**

## INTRODUCTION

L'objectif de la conférence est de vous présenter une étude comparative Québec-Ontario du fardeau fiscal des nouvelles entreprises. Cette étude diffère des analyses comparatives antérieures<sup>1</sup> puisqu'elle est la seule à s'intéresser de façon précise au fardeau relatif Québec-Ontario des nouvelles entreprises et à deux mesures fiscales du Québec, inexistantes en Ontario. Ces mesures sont le congé fiscal pour les nouvelles entreprises et le crédit d'impôt remboursable pour pertes.

Une étude comparative du fardeau fiscal Québec-Ontario est pertinente parce que les différents impôts et taxes influencent le coût des biens et services offerts par les entreprises. Ainsi, le fardeau fiscal relatif des entreprises peut avoir des effets non négligeables sur le choix de la province d'établissement des entreprises au Canada. Mis en place en 1981, le système actuel d'imposition du Québec est unique au Canada. Les choix différents d'outils de taxation effectués par le Québec affectent la compétitivité des nouvelles entreprises qui s'y établissent.

Cette conférence comporte trois parties. La première est une description des fondements de l'étude: méthodologie, critères de sélection des entreprises et définition du fardeau fiscal comparé. La deuxième fait la présentation des nouvelles entreprises sélectionnées et donne les résultats obtenus de la comparaison du fardeau fiscal au Québec et en Ontario pour leurs trois premières années d'exploitation. Cette comparaison est effectuée en fonction de la législation fiscale en vigueur en 1989 et en 1990. Enfin, la troisième propose certains éléments de réflexion sur le fardeau relatif des nouvelles entreprises du Québec.

## FONDEMENTS DE L'ÉTUDE

Méthodologie

Cette analyse comparative est une étude de cas de trois entreprises québécoises ayant débuté leurs opérations après 1981 et couvrent leurs trois premières années d'exploitation. Le fardeau fiscal supporté par l'entreprise au Québec a été établi à l'aide des déclarations d'impôt, relevés des salaires et autres documents pertinents. Ensuite, en conservant les mêmes données de l'entreprise et sans faire aucun ajustement à ses coûts d'exploitation, le fardeau fiscal, pour la même période en Ontario, a été déterminé avec la structure d'imposition prévalant dans cette province. Cette méthodologie qualifiée «d'analyse partielle» isole l'écart dans le fardeau fiscal Québec-Ontario expliqué exclusivement par les différences entre ces deux systèmes d'imposition. L'analyse de cet écart permettra d'identifier certaines caractéristiques de la structure d'imposition du Québec.

Critères qui ont servi au choix des entreprises

La pertinence d'une comparaison du fardeau fiscal Québec-Ontario repose sur l'influence exercée par les différents impôts et taxes prélevés par ces provinces sur la compétitivité d'une entreprise. Aussi fallait-il que l'entreprise puisse exploiter son marché, peu importe qu'elle soit installée au Québec ou en Ontario, puisque d'une part, elle peut choisir la province où le fardeau fiscal est le moins lourd et, d'autre part, elle peut faire face à une concurrence provenant de la province voisine. Ce critère éliminait donc une nouvelle entreprise dont le marché est exclusivement local (exemple: restaurant, dépanneur, etc.).

Ensuite, l'influence du fardeau fiscal sur la situation financière de la nouvelle entreprise devait être la plus significative possible. Une nouvelle entreprise filiale d'une corporation existante ne pouvait donc être incluse puisque la compagnie mère pouvait sans doute assurer ses assises financières, la rendant ainsi moins sensible au fardeau fiscal. La recherche visait plutôt une nouvelle entreprise créée de l'initiative de particuliers entrepreneurs comptant sur leurs ressources personnelles et sur les bénéfices tirés de l'exploitation pour en assurer la survie. Les ressources financières étant plus limitées dans ces cas, un écart dans le fardeau fiscal pouvait influencer la position concurrentielle de la nouvelle entreprise. De plus, il était nécessaire que la nouvelle entreprise respecte la définition d'une «corporation admissible» au congé fiscal, selon la Loi sur les impôts du Québec, si cette mesure avait existé au moment de sa création.

Pour identifier de telles entreprises, certains cabinets d'experts-comptables ont été consultés et ont soumis une liste de nouvelles entreprises répondant à ces critères et créées au Québec après 1981. Le choix s'est arrêté aux trois premières entreprises qui ont accepté de collaborer à l'étude en fournissant les données essentielles à la détermination du fardeau fiscal Québec-Ontario. Cependant, au moins une d'entre elles devait provenir du secteur manufacturier et une avoir subi des pertes au cours de ses premières années d'exploitation.

### Composition du fardeau fiscal comparé

Le fardeau fiscal comparé dans cette étude est composé exclusivement d'impôts et taxes sous le contrôle du Québec et de l'Ontario, l'intention étant de cerner l'effort fiscal exigé de ces entreprises par ces deux provinces. Cependant, certaines taxes et contributions patronales à différents régimes sociaux sont plus élevées au Québec qu'en Ontario, ce qui entraîne un impôt fédéral sur les bénéfices moins élevé au Québec. L'étude considère cette différence dans la détermination de l'écart relatif Québec-Ontario au niveau de l'impôt provincial sur les bénéfices.

Les éléments constituant le fardeau fiscal dans cette étude comparative sont:

- l'impôt provincial sur les bénéfices;
- la taxe sur le capital;
- la contribution de l'employeur pour:
  - l'assurance-maladie,
  - les normes du travail, et
  - les accidents du travail;
- les impôts locaux.

La description suivante de ces composantes du fardeau fiscal souligne les différences entre le Québec et l'Ontario pour l'année 1989 et 1990.

#### **Impôt provincial sur les bénéfices**

La description de l'impôt provincial sur les bénéfices prélevé par le Québec et l'Ontario se structure autour de quatre points: le calcul du revenu net aux fins de l'impôt, les taux d'imposition, les crédits d'impôt et l'exonération d'impôt.

##### **1° Calcul du revenu net aux fins de l'impôt**

Toute entreprise ayant un établissement au Québec ou en Ontario doit déterminer son revenu net aux fins de l'impôt sur les bénéfices réalisés dans ces deux provinces. Dans cette étude comparative, seulement deux différences dans le calcul distinct du revenu net ont été retenues. Elles sont reliées au traitement fiscal des dépenses de recherche et développement («R&D») et aux biens neufs de fabrication et transformation.

Une dépense de R&D engagée en Ontario après le 20 avril 1988 et admissible au crédit d'impôt fédéral à l'investissement permet une déduction supplémentaire («super-déduction») dans le calcul du revenu net aux fins de l'impôt sur les bénéfices en Ontario. Celle-ci est déterminée en fonction d'une moyenne mobile triennale des dépenses antérieures de R&D engagées en Ontario. Au Québec, plutôt qu'une déduction additionnelle, les dépenses de R&D accordent un crédit d'impôt présenté plus loin.



De son côté, l'achat de matériel neuf de fabrication et de transformation utilisé par une entreprise en Ontario permet une déduction ponctuelle et supplémentaire à l'allocation du coût en capital égale à 10 pour cent du coût des biens achetés en 1989 et 15 pour cent en 1990. Au Québec, ce même matériel, les ordinateurs et les logiciels d'exploitation acquis après le 12 mai 1988 sont inscrits dans une nouvelle catégorie aux fins de l'allocation du coût en capital amortissable au taux de 100 pour cent, sans la règle normale du demi-taux. De plus, si l'entreprise fait des affaires à l'extérieur du Québec, elle a droit à une déduction additionnelle de 35 pour cent en proportion de ses affaires réalisées hors Québec. Par exemple, une entreprise dont 40 pour cent des affaires sont réalisées à l'extérieur du Québec a droit à une déduction additionnelle de 14 pour cent.

## 2° Taux d'imposition

Le tableau 1 présente les taux d'imposition du Québec et de l'Ontario sur les bénéfices réalisés par une corporation privée sous contrôle canadien (CPCC) dont le revenu provient d'une entreprise exploitée activement. Ces taux ont servi à déterminer l'impôt sur les bénéfices des trois nouvelles entreprises. On constate que les taux d'imposition ontarien sont environ trois fois plus élevés que ceux du Québec.

TABLEAU 1  
TAUX D'IMPOSITION SUR LES BÉNÉFICES D'UNE CPCC

	BÉNÉFICE INFÉRIEUR À 200 000 \$	BÉNÉFICE SUPÉRIEUR À 200 000 \$
<b>QUÉBEC</b> (inclus la surtaxe)		
Après le 17 mai 1989	3,36	6,16
Après le 26 avril 1990	3,45	6,33
<b>ONTARIO</b>		
Après le 18 décembre 1985	10,0	14,5 ou 15,5

## 3° Crédit d'impôt

Un crédit d'impôt est une réduction de l'impôt à payer. On dit qu'il est remboursable si le contribuable peut le recouvrer même s'il n'a aucun impôt à payer. Au Québec, il existe deux crédits d'impôt pertinents à cette étude et qui n'ont pas d'équivalent en Ontario. Il s'agit du crédit d'impôt remboursable pour pertes et du crédit d'impôt remboursable pour les salaires en R&D.

Crédit d'impôt remboursable pour pertes - Québec: Le crédit pour pertes permet à une entreprise qui subit une perte fiscale d'encaisser immédiatement les impôts qu'elle économiserait seulement plus tard si elle reportait cette perte contre les bénéfices imposables d'années futures. Il ne s'agit donc pas d'une réduction d'impôt mais d'un déplacement d'une économie future d'impôt à l'année déficitaire. Le taux du crédit pour pertes est de 3,36% en 1989 et 3,45% en 1990, applicable à la perte fiscale qualifiée de perte autre qu'en capital. Ce taux est identique à celui de l'impôt sur les bénéfices réalisés au Québec.

Crédit d'impôt remboursable pour la R&D - Québec: Contrairement au crédit pour pertes, le crédit pour la R&D est une réduction véritable du fardeau fiscal non actualisé. En fait, il s'agit d'une forme de subvention qui utilise le mécanisme de l'impôt pour stimuler la R&D. Le crédit d'impôt est basé sur les salaires versés pour la R&D effectuée au Québec. Le taux est de 40% sur les premiers deux millions de salaires et 20% sur l'excédent pour une CPCC dont l'actif est inférieur à 25 millions ou l'avoir des actionnaires est d'au plus 10 millions.

#### ° Exonération d'impôt sur les bénéfices

Le Québec exempte d'impôt les bénéfices des nouvelles entreprises constituées après 1er mai 1986 dans le but d'exploiter de nouvelles activités qui n'étaient pas effectuées auparavant par des personnes qui leur étaient associées. Cette exonération s'applique aux premiers 200 000 \$ de bénéfices par année pour les trois premières années d'imposition, sans possibilité de report. En Ontario, une exonération semblable s'est appliquée aux trois premières années d'imposition d'une nouvelle entreprise constituée après le 13 mai 1982. Cependant, l'Ontario a aboli son exonération en date du 21 avril 1988.

#### Taxe sur le capital

Le Québec et l'Ontario ont chacun leur taxe sur le capital et le calcul du capital imposable («capital versé») est sensiblement le même dans ces deux provinces. Le tableau 2 présente les taux de taxation associés aux différents niveaux de capital versé d'une corporation autre qu'une banque ou une compagnie d'assurance. On constate qu'en Ontario, les corporations avec un faible capital versé profitent d'une échelle graduée de taxe sur le capital qui amène le taux de la taxe à son maximum de 0,3 pour cent lorsque le capital s'élève à 2 300 000 \$. Au Québec, il n'y a qu'un seul taux peu importe la valeur du capital versé. Par ailleurs, une nouvelle entreprise québécoise profite d'une exonération de cette taxe sur le premier deux millions de capital versé pour ses trois premières années d'imposition, sauf pour le montant minimum de la taxe. Cette exonération et celle de l'impôt sur les bénéfices sont les deux composantes du congé fiscal.

TABLEAU 2  
TAXE SUR LE CAPITAL

**QUÉBEC**

	<u>Taux (inclus la surtaxe)</u>
Après le 16 mai 1989	0,50% (minimum 112,00 \$)
Après le 26 avril 1990	0,52% (minimum 115,00 \$)

**ONTARIO**

° Après le 20 avril 1988

<u>Actif total-produit total</u>	<u>Capital versé</u>	<u>Taxe à payer</u>
1 000 000 \$ et moins...	-	0 \$
Plus de 1 000 000 \$ ...	Moins de 1 000 000 \$	100 \$
Entre 1 000 000 \$ et 1 500 000 \$	Entre 1 000 000 \$ et 2 000 000 \$	200 \$
Plus de 1 500 000 \$	Entre 1 000 000 \$ et 2 000 000 \$	500 \$
	Entre 2 000 000 \$ et 2 300 000 \$	500 \$ à 6 900 \$
	Plus de 2 300 000 \$	0,3% du capital versé

**Contributions de l'employeur**

**1° Assurance-maladie**

Le tableau 3 présente le calcul de la contribution exigible par les deux provinces pour le financement des soins de santé. En 1989, seuls les employeurs du Québec avaient l'obligation statutaire de contribuer au financement des soins de santé. En Ontario, les particuliers étaient redevants d'une contribution à la Régie de l'assurance-maladie de l'Ontario («RAMO»). Cette contribution est une taxe forfaitaire mensuelle entraînant ainsi un maximum annuel par personne. Au Québec, il s'agit d'un pourcentage du salaire et aucun maximum n'existe pour plafonner la contribution par employé.

TABLEAU 3  
CONTRIBUTION À L'ASSURANCE-MALADIE

**QUÉBEC** Contribution exigible des employeurs seulement

Après le 16 mai 1989	3,36% du salaire brut (surtaxe de 12% incluse)
Après le 26 avril 1990	3,45% du salaire brut (surtaxe de 15% incluse)

**ONTARIO**

1989 - Contribution exigible des particuliers seulement

PRIME ANNUELLE (note 1)

<u>Célibataire</u>	<u>Famille</u>
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357 \$	714 \$
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Note 1: En supposant un rapport Famille-Célibataire de 2:1, la contribution en 1989 est de 595 \$ par employé.

1990 et suivantes - Contribution exigible des employeurs seulement

Masse salariale en Ontario	Taux de contribution
200 000 \$ et moins	0,980%
200 001 à 230 000 \$	1,101
230 001 à 260 000	1,223
260 001 à 290 000	1,344
290 001 à 320 000	1,465
320 001 à 350 000	1,586
350 001 à 380 000	1,708
380 001 à 400 000	1,829
plus de 400 000 \$	1,950

Même si une contribution obligatoire pour un employeur ontarien n'existait pas avant 1990, plusieurs d'entre eux payaient la contribution exigible de leurs employés. Une étude du ministère du Trésor et de l'Économie de l'Ontario révèle qu'en 1981, 79 pour cent du total des primes provenant du secteur privé étaient payées par les employeurs<sup>2</sup>. Ce fort pourcentage incite à inclure cette contribution dans le fardeau fiscal d'une entreprise ontarienne en 1989. Cependant, nous la qualifions de fardeau facultatif afin de considérer son caractère non statutaire. Pour effectuer le calcul estimatif de cette contribution, il a été présumé qu'une entreprise paie deux tiers de ses primes au taux familial, le dernier tiers étant au taux pour célibataire. Ce taux composite correspond à celui rapporté dans

l'étude ontarienne précédemment citée<sup>3</sup>. Pour l'année 1990 et suivantes, l'Ontario a modifié son système de financement. Dorénavant, le calcul de la contribution est identique à celui du Québec, à l'exception des taux de contribution plus faibles et gradués pour les petites entreprises.

## 2° Normes du travail

Au Québec, les employeurs doivent obligatoirement contribuer à la commission responsable de l'application des normes du travail. En Ontario, il n'existe aucune contribution effectuée par les employeurs ou les employés. Cependant, cette contribution des employeurs québécois est plafonnée par travailleur et financièrement peu significative, soit environ 30 \$ par employé.

## 3° Accidents de travail

Le Québec et l'Ontario exigent une contribution des employeurs à leur commission des accidents du travail. Chaque entreprise se voit attribuer une ou des unités auxquelles correspondent un taux de cotisation. Le taux est établi par 100 \$ de salaires assujettis. Dans la présente étude, les salaires assujettis sont financièrement peu importants et les taux de cotisation du Québec et de l'Ontario semblables. Par conséquent, la contribution de ces entreprises n'a pas d'effet significatif sur leur fardeau relatif.

## Impôts locaux

Les impôts locaux représentent l'ensemble des impôts et taxes perçus par les administrations locales telles les municipalités, les commissions scolaires, les communautés urbaines et les municipalités régionales de comté. Les impôts locaux sont surtout des taxes sur le patrimoine qui prennent la forme de taxes foncières et de taxes d'affaires. Aux fins de cette comparaison, il s'agit de déterminer combien d'impôts locaux les entreprises à l'étude auraient payés si elles avaient été établies dans une municipalité ontarienne plutôt qu'au Québec.

A cette fin, la méthode d'évaluation retenue est fondée sur une comparaison globale des impôts locaux au Québec et en Ontario effectuée par le Ministère des Finances du Québec. Dans cette comparaison annuelle, le Ministère dégage le fardeau relatif associé exclusivement aux impôts locaux pour l'ensemble des entreprises du secteur privé. Ce fardeau, exprimé en pourcentage des impôts locaux ontariens, est obtenu en appliquant la structure de taxation de l'Ontario à l'assiette fiscale québécoise. Les résultats de cette comparaison montrent que le fardeau supplémentaire au niveau des impôts locaux pour l'ensemble des entreprises du secteur privé au Québec est d'environ -13% en 1989 et 1990<sup>4</sup>. Ce fardeau supplémentaire négatif signifie que la structure de taxation ontarienne, appliquée à l'assiette fiscale du Québec, entraînerait des impôts locaux plus élevés pour les entreprises québécoises qu'impose celle du Québec. Il faut souligner que cette méthode d'évaluation conduit forcément à des impôts locaux ontariens toujours supérieurs à ceux du Québec. Cependant, elle a peu d'impact sur l'importance des écarts relatifs.

## PRÉSENTATION DES ENTREPRISES ET DES RÉSULTATS

Les trois entreprises (identifiées par les lettres A, B et C) ont été sélectionnées selon les critères précédemment décrits. Toutes trois ont fait 100 pour cent de leurs affaires au Québec au cours de leurs trois premières années. Seule l'entreprise A a effectué de la R&D et subi des pertes lui donnant droit aux deux crédits d'impôt exclusifs au Québec. Le tableau 4 décrit les activités de ces entreprises et fournit des renseignements sur celles-ci permettant l'analyse des résultats.

### Résultats

Dans la présentation des résultats, la détermination du fardeau relatif des entreprises est faite par étapes, une approche qui pourrait être qualifiée «d'analyse à la marge».

#### 1° Comparaison du fardeau en fonction de la législation en vigueur en 1989

Le fardeau relatif est déterminé en quatre étapes dans le tableau 5. La première étape est celle du fardeau statutaire qui regroupe tous les impôts et taxes de la définition auxquels l'entreprise est soumise légalement. La seconde est celle du fardeau total, soit le fardeau statutaire additionné du fardeau facultatif constitué uniquement des contributions à la RAMO. Ensuite, pour l'entreprise A seulement, le fardeau total est déterminé en tenant compte du crédit d'impôt à la R&D, puis, en soustrayant le crédit pour pertes, on obtient le prélèvement ou l'apport de fonds entraîné par la structure fiscale.

**TABLEAU 4**  
**PRÉSENTATION DES ENTREPRISES SÉLECTIONNÉES**

**ENTREPRISE A** Activités : - recherche et développement de logiciels  
- services de traitement informatisé d'informations

	<u>1<sup>ère</sup> année</u>	<u>2<sup>e</sup> année</u>	<u>3<sup>e</sup> année</u>
Nombre d'employés	7	14	6
Chiffre d'affaires	310 073 \$	652 878 \$	328 683 \$
Salaire moyen	23 323 \$	24 409 \$	27 857 \$
Bénéfice (Perte) net avant impôts	(126 336 \$)	(140 450 \$)	(18 449 \$)
Actif total	408 067 \$	436 982 \$	80 515 \$

Note: Au cours de la troisième année, l'entreprise A a graduellement mis fin à ses activités.

**ENTREPRISE B** Activité : distribution en gros de pièces

	<u>1<sup>ère</sup> année</u>	<u>2<sup>e</sup> année</u>	<u>3<sup>e</sup> année</u>
Nombre d'employés	5	7	8
Chiffre d'affaires	239 319 \$	331 292 \$	622 599 \$
Salaire moyen	13 121 \$	10 847 \$	13 193 \$
Bénéfice (Perte) net avant impôts	7 982 \$	2 141 \$	102 191 \$
Actif total	151 801 \$	138 054 \$	223 652 \$

**ENTREPRISE C** Activité : fabrication de produits chimiques

	<u>1<sup>ère</sup> année</u>	<u>2<sup>e</sup> année</u>	<u>3<sup>e</sup> année</u>
Nombre d'employés	7	8	11
Chiffre d'affaires	436 318 \$	723 048 \$	938 860 \$
Salaire moyen	8 405 \$	13 067 \$	14 719 \$
Bénéfice (Perte) net avant impôts	19 833 \$	66 558 \$	50 158 \$
Actif total	155 052 \$	220 179 \$	375 199 \$

TABLEAU 5  
FARDEAU FISCAL 1989 - ÉCART (QUÉBEC-ONTARIO) EN % DU FARDEAU ONTARIEN

⊕ : fardeau supérieur au Québec

— : fardeau inférieur au Québec

<b>ENTREPRISE A</b>	<u>1ère année</u>	<u>2ième année</u>	<u>3ième année</u>
Fardeau statutaire	+236,6	+187,3	+ 99,1
Fardeau total	+ 18,4	+ 18,5	+ 18,1
Fardeau total avec crédit pour R & D	-165,7	-185,2	- 92,6
Prélèvement	-236,7	-219,4	-105,7

<b>ENTREPRISE B</b>			
Fardeau statutaire	+ 22,9	+ 51,7	- 49,2
Fardeau total	- 24,2	- 20,3	- 59,9

<b>ENTREPRISE C</b>			
Fardeau statutaire	- 10,7	- 41,2	- 14,9
Fardeau total	- 50,7	- 57,0	- 42,9

L'entreprise A supporte un fardeau statutaire fortement plus élevé au Québec qu'en Ontario. Cette entreprise, déficitaire au cours de ses trois premières années d'exploitation, ne profite pas de l'exonération d'impôt sur les bénéfices pour les nouvelles entreprises. De plus, l'exonération de la taxe sur le capital ne lui procure aucun avantage relatif, car en Ontario elle n'aurait payé aucune taxe sur le capital. Au niveau du fardeau total, les écarts relatifs défavorables au Québec diminuent sensiblement compte tenu de l'ajout des contributions à la RAMO dans le fardeau fiscal en Ontario. Le crédit pour R&D transforme le fardeau total supplémentaire en un fardeau total avec crédit sensiblement inférieur au Québec par rapport à l'Ontario. La «super-déduction» pour R&D de l'Ontario ne diminue en rien le fardeau fiscal de l'entreprise A, car cette entreprise déficitaire n'a pas de revenu imposable. La super-déduction vient uniquement accroître la perte fiscale reportable aux années futures. Enfin, en considérant le crédit pour pertes, le prélèvement de fonds imposé par la structure fiscale du Québec est considérablement plus faible que celui de l'Ontario. Tout compte fait, le poids financier de la structure d'imposition est moins lourd au Québec même si l'entreprise A supporte un fardeau fiscal total plus élevé dans cette province.



De son côté, le fardeau statutaire de l'entreprise B est défavorable au Québec pour les deux premières années d'exploitation et fortement favorable dans la troisième année. Ce renversement s'explique par la forte rentabilité de l'entreprise B dans sa troisième année d'exploitation qui lui permet de profiter de l'exonération d'impôt sur les bénéfices pour les nouvelles entreprises au Québec. Ce fait explique aussi le fardeau statutaire favorable au Québec pour l'entreprise C pour chacune de ses trois premières années d'exploitation. Au niveau du fardeau total, le fardeau est toujours inférieur au Québec pour ces deux entreprises.

## 2° Comparaison du fardeau en fonction de la législation en vigueur en 1990

A partir de l'année 1990, les employeurs ontariens doivent contribuer obligatoirement au financement des soins de santé. L'étape du fardeau total dans la détermination du fardeau relatif n'est plus nécessaire, car la contribution à la RAMO n'est plus facultative. La réforme du système de financement des soins de santé en Ontario est la seule différence majeure entre la législation fiscale en vigueur en 1989 et celle en 1990.

Le tableau 6 présente les résultats de la comparaison 1990. L'analyse de l'impact du nouveau système de financement des soins de santé en Ontario exige de comparer le fardeau total en 1989 avec le fardeau statutaire en 1990 puisque ces fardeaux regroupent les mêmes impôts et taxes. Ainsi, on constate que cette réforme avantage la position concurrentielle de l'Ontario pour les trois entreprises. Les écarts relatifs défavorables sont plus élevés et les écarts relatifs favorables sont plus faibles ou transformés en écarts défavorables. Pour l'entreprise A, les écarts relatifs demeurent favorables au Québec au niveau du fardeau fiscal compte tenu du crédit pour R&D et du prélèvement de fonds.

**TABLEAU 6**  
**FARDEAU FISCAL 1990 - ÉCART (QUÉBEC-ONTARIO) EN % DU FARDEAU ONTARIEN**

+ : fardeau supérieur au Québec      — : fardeau inférieur au Québec

<b>ENTREPRISE A</b>	<u>1ère année</u>	<u>2ième année</u>	<u>3ième année</u>
Fardeau statutaire	+103,1	+ 77,5	+ 53,4
Fardeau statutaire avec crédit pour R&D	-197,3	-210,8	- 82,6
Prélèvement	-317,2	-260,5	- 99,2
<b>ENTREPRISE B</b>			
Fardeau statutaire	+ 9,1	+ 33,8	- 51,4
<b>ENTREPRISE C</b>			
Fardeau statutaire	- 8,8	- 41,8	- 19,5

## RÉFLEXIONS SUR LE FARDEAU FISCAL DES NOUVELLES ENTREPRISES DU QUÉBEC

Cette partie propose certains éléments de réflexion sur le fardeau fiscal relatif des nouvelles entreprises du Québec par rapport à celles de l'Ontario selon les structures d'imposition en vigueur en 1989 et 1990, ainsi que sur l'efficacité du crédit pour pertes et du congé fiscal comme mesures d'allègement aux charges fiscales fixes. A ces fins, les propos sont illustrés avec les résultats de l'étude comparative.

### **Fardeau fiscal relatif des nouvelles entreprises québécoises**

Abstraction faite du congé fiscal, le fardeau relatif d'une nouvelle entreprise du Québec ne diffère pas de celui d'une entreprise déjà en place, car toutes deux sont soumises aux mêmes impôts et taxes. Ce fait permet de relier les résultats de cette étude à ceux d'autres auteurs<sup>5</sup> afin d'en dégager certains constats dans l'analyse de leur fardeau relatif.

Premier constat fort évident, une comparaison Québec-Ontario du fardeau fiscal des entreprises est influencée par la définition du fardeau comparé. Par exemple, avant 1990, une comparaison limitée au fardeau fiscal statutaire avantage l'Ontario, car elle exclut les contributions à la RAMO. Ce constat permet de nuancer l'analyse du fardeau relatif des études de Price Waterhouse (1986), de Laliberté Lanctôt (1983) et du Conference Board (1987) où une définition restreinte du fardeau comparé biaise assurément les résultats obtenus<sup>6</sup>.

Second constat, le fardeau relatif des entreprises du Québec est fonction de la rentabilité de leur exploitation. Toutes les études comparatives, incluant celle-ci, démontrent qu'une entreprise rentable profite des faibles taux d'imposition au Québec pour compenser de plus lourdes taxes sur la production et montrer ainsi un fardeau inférieur au Québec.

Troisième constat, une entreprise effectuant de la R&D profite au Québec d'un stimulant fiscal financièrement très important, identique pour une entreprise rentable ou déficitaire, et sans comparaison possible avec celui de l'Ontario<sup>7</sup>. L'étude Laliberté Lanctôt de 1986 en conclut que le Québec est un paradis fiscal pour une entreprise de haute-technologie<sup>8</sup>. Sur le strict point de vue de la charge fiscale, il est impossible de le nier. Pour le constater, il suffit de comparer le fardeau fiscal de l'entreprise A compte tenu du crédit à la R&D au Québec avec le fardeau fiscal en Ontario.

Le quatrième et dernier constat n'a jamais été soulevé par les autres études, mais il ressort clairement des résultats de celle-ci. Le fardeau relatif des entreprises du Québec par rapport à l'Ontario est influencé par la valeur du salaire moyen versé par l'entreprise. Le salaire moyen influence le fardeau relatif à cause des différences dans le calcul de la contribution à l'assurance-maladie dans les deux provinces. En 1989, la contribution du Québec est déterminée en fonction d'un pourcentage des salaires versés par employé, sans aucun plafond. Ainsi, plus le salaire d'un employé est élevé, plus la contribution de l'entreprise en son nom sera élevée. En Ontario, avant 1990, cette contribution était une taxe forfaitaire fixe. Par conséquent, il

existe un niveau donné de salaire où la contribution d'une entreprise pour un employé est identique dans les deux provinces. Ce niveau, que l'on pourrait appeler «salaire d'indifférence», est fonction du montant de la taxe forfaitaire en Ontario et du taux de contribution au Québec. Plus le salaire moyen de l'entreprise s'éloigne du «salaire d'indifférence», plus l'écart relatif au niveau de cette importante composante du fardeau fiscal sera grand. Par exemple, l'entreprise A est la seule à payer un salaire moyen supérieur au salaire d'indifférence et la seule à supporter un écart relatif défavorable au niveau de sa contribution à l'assurance-maladie en 1989. Plus cet excédent est élevé, plus l'écart est défavorable à cette entreprise.

En 1990, le financement des soins de santé en Ontario est modifié pour s'apparenter à celui du Québec avec une contribution obligatoire de l'employeur établie en fonction d'un pourcentage de la masse salariale allant de 0,98 à 1,95 pour cent (voir tableau 3). Cette réforme rend caduque la relation entre le salaire moyen payé par une entreprise, le salaire d'indifférence et son fardeau fiscal relatif Québec-Ontario. Cependant, les taux de contribution plus faibles en Ontario qu'au Québec entraînent forcément un écart relatif défavorable au Québec au niveau des contributions à l'assurance-maladie, car cette méthodologie garde constants les coûts d'exploitation d'une juridiction à l'autre. Pour une nouvelle entreprise, l'écart est d'autant plus grand plus sa masse salariale est inférieure à 400 000 \$ puisque l'écart entre les taux de contribution est plus grand.

A partir de ces constats, il est possible de positionner les combinaisons extrêmes d'une échelle illustrant le fardeau fiscal relatif d'une entreprise du Québec par rapport à l'Ontario. La combinaison optimale est une entreprise effectuant de la R&D et ayant une rentabilité élevée, mais payant un salaire moyen faible. La pire combinaison est une entreprise déficitaire opérant dans un secteur autre que la R&D et payant un salaire moyen élevé. Cependant, pour cette entreprise, plus la perte est grande, plus elle pourra compter sur un remboursement élevé de crédit pour pertes. Aussi, du point de vue du prélèvement de fonds exigé par les deux structures de taxation, les entreprises du Québec véritablement perdantes sont celles qui sont peu rentables ou faiblement déficitaires, payant un salaire moyen élevé et opérant dans un secteur autre que la R&D. En effet, celles-ci ne profitent pas des faibles taux d'imposition sur les bénéfices ou de l'exonération si elles sont nouvelles, ni du remboursement des crédits d'impôt pour pertes et R&D qui leur permettraient de compenser le poids financier de l'écart relatif défavorable qu'elles subissent au niveau des charges fiscales fixes comme la contribution à l'assurance-maladie.

#### **Crédit pour pertes et congé fiscal**

Le crédit pour pertes et le congé fiscal atténuent-ils le désavantage des charges fiscales fixes imposées aux nouvelles entreprises par la structure de taxation du Québec? Sans aucun doute, le crédit d'impôt pour pertes allège le poids financier des charges fixes des entreprises, nouvelles ou non, qui subissent des pertes. Cette mesure a l'avantage de tenir compte de la capacité de l'entreprise à supporter les charges fiscales. Plus la perte est élevée, moins l'entreprise dispose de ressources financières pour payer ses charges fiscales fixes, plus elle recevra un remboursement élevé de crédit pour sa perte. Dans cette étude, le crédit pour pertes de l'entreprise A est supérieur

à l'écart relatif défavorable au Québec constaté au niveau des charges fiscales fixes.

Cependant, le crédit pour pertes n'est pas une réduction du fardeau fiscal. De plus, pour une nouvelle entreprise, le moment où s'effectuent les entrées et sorties de fonds qui composent le prélèvement exigé par une structure de taxation pour une année donnée est important. Par exemple, l'entreprise A a payé pendant sa première année déficitaire sa contribution aux différents régimes sociaux et ses impôts locaux. Après avoir produit sa déclaration d'impôt au gouvernement du Québec, elle a reçu le remboursement du crédit d'impôt pour pertes lors de la réception de l'avis de cotisation de cette première année, soit environ 6 à 12 mois après la fin de cette année déficitaire.

Ainsi, l'entreprise A a d'abord payé en cours d'année, des charges fiscales fixes supérieures au Québec puis, après la fin de cette année, elle a encaissé le crédit pour pertes. Ce délai entre le paiement d'un fardeau fiscal fixe supérieur au Québec et le remboursement du crédit entraîne des coûts de financement supplémentaires pour l'entreprise A. Ces coûts supplémentaires au Québec, estimés à environ 3 pour cent du fardeau total de l'entreprise A, atténuent l'avantage financier que lui procure le crédit pour pertes.

De son côté, le congé fiscal présente certains défauts lorsqu'il est évalué à titre d'allègement des charges fiscales fixes des nouvelles entreprises. D'abord, il est difficile de croire que l'exonération de la taxe sur le capital peut entraîner une baisse sensible du fardeau fiscal. En fait, cette taxe occupe une part marginale du total des charges fixes comparativement à la partie occupée par la contribution à l'assurance-maladie ou les impôts locaux pour les trois entreprises. Ironiquement, même exonérées, les nouvelles entreprises à faible capital versé paient au Québec une taxe plus élevée qu'en Ontario. Cependant, l'exonération présente le mérite d'éviter et non de compenser une des charges fixes imposées aux nouvelles entreprises.

Par ailleurs, l'exonération d'impôt sur les bénéfices est bien une compensation et non une réduction du fardeau fiscal fixe. Cette mesure allège le poids financier des charges fixes en exemptant une charge variable basée sur la rentabilité de l'entreprise. Ainsi, la nouvelle entreprise paie en cours d'année ses charges fiscales fixes et évite, après la fin de l'année, le paiement de l'impôt sur les bénéfices. De plus, cette mesure est contraire au principe qui tient compte de la capacité de payer du contribuable dans la détermination de son fardeau fiscal, car, plus la nouvelle entreprise est rentable et en mesure de supporter un fardeau fiscal plus grand, plus elle profite de l'exonération, et inversement.

Enfin, la générosité du congé fiscal paraît discutable. A son maximum pour une année d'imposition, il permet d'économiser 10 285 \$ de taxe sur le capital pour les nouvelles corporations ayant deux millions de capital versé et 6 900 \$ d'impôt sur les bénéfices, soit 200 000 \$ de bénéfices multipliés par le taux de 3,45 pour cent. Les nouvelles entreprises qui ont ces caractéristiques au cours de leurs trois premières années ne sont probablement pas très nombreuses, car une nouvelle entreprise doit être une «corporation admissible» au congé fiscal. La définition d'une corporation admissible est très restrictive et

accompagnée d'un pouvoir discrétionnaire du Ministre afin de limiter le congé fiscal aux nouvelles entreprises créées de l'initiative de particuliers et constituées pour entreprendre de toutes nouvelles activités économiques. Le tableau 7 montre le nombre de corporations ayant réclamé le congé fiscal. On peut constater que très peu d'entre elles ont un chiffre d'affaires supérieur à 1 million. Enfin, il est possible pour le fisc de récupérer l'impôt exonéré à cause de l'impact de l'exonération d'impôt sur les reports et crédit pour pertes.

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TABLEAU 7  
NOMBRE DE CORPORATIONS AYANT RÉCLAMÉ LE CONGÉ FISCAL

(Statistiques confirmées le 16 mai 1990 par le Ministère du Revenu - Québec)

	<u>1986</u>	<u>1987</u>	<u>1988</u>
CORPORATIONS AYANT RÉCLAMÉ LE CONGÉ FISCAL	71	1 276	3 147
- CHIFFRE D'AFFAIRES			
1 MILLION ET PLUS	0	58	180

## CONCLUSION

Tout compte fait, le sort des nouvelles entreprises au Québec est-il aussi malheureux que certains veulent le croire? Les résultats obtenus d'une comparaison partielle comme celle-ci ne permettent pas de conclure sur l'existence d'un fardeau fiscal supérieur ou inférieur au Québec pour l'ensemble des nouvelles entreprises. Cependant, un fait ressort clairement: la structure d'imposition du Québec, en exemptant d'impôt les bénéfices des nouvelles entreprises, accentue sa caractéristique principale qui est d'encourager les entreprises rentables. De leur côté, les nouvelles entreprises déficitaires ne reçoivent de l'exonération de la taxe sur le capital qu'un allègement marginal pour leurs charges fiscales fixes. Pour elles, le crédit pour pertes est préférable au report des pertes fiscales contre les profits d'années futures, mais il ne réduit aucunement leur fardeau fiscal fixe et les sorties d'argent qu'il exige au cours de l'année déficitaire.

A mon avis, l'unique mesure fiscale québécoise destinée expressément aux nouvelles entreprises, soit le congé fiscal, est mal ciblée; elle encourage les entreprises rentables déjà favorisées par les faibles taux d'imposition sur les bénéfices au Québec. Si l'objectif du gouvernement québécois est d'accorder un véritable allègement aux charges fiscales fixes à ce petit nombre de nouvelles entreprises créées de l'initiative de particuliers entrepreneurs, il doit agir directement sur ces charges fixes plutôt que de compenser par l'exonération d'imposition sur les bénéfices. Au Québec, une charge fiscale fixe importante est la contribution à l'assurance-maladie. Aussi, il apparaît clairement que toute mesure fiscale destinée à réduire les charges fixes d'une nouvelle entreprise consiste à diminuer la contribution de ces entreprises au financement des soins de santé au Québec.

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## RENVOIS

1. Voir Québec, Ministère des Finances, *Discours sur le budget et renseignements supplémentaires, Budget 1989-1990, Annexe F: Fiscalité des entreprises*, le 16 mai 1989; le Conference Board du Canada, *Compétitivité du régime canadien d'imposition des sociétés*, février 1987; Laliberté Lanctôt, *Le fardeau fiscal des sociétés de haute-technologie et des particuliers de Montréal comparé à celui de Toronto, New York et Boston*, août 1986; Price Waterhouse, *Analyse comparative de la taxation sur la masse salariale et de l'imposition des sociétés au Canada et aux États-Unis*, mai 1986; et Laliberté Lanctôt, *Analyse du fardeau fiscal des sociétés et des particuliers comparé à l'Ontario et à l'Alberta*, mars 1983.
2. Ontario, Ministère du Trésor et de l'Économie, *Stratégie de remaniement de la structure fiscale de l'Ontario (Toronto: le Ministère, 1982)*, à la p. 15.
3. Ibid.
4. Ces données ont été confirmées par le ministère des Finances du Québec.
5. Supra, note 1.
6. La définition du «fardeau comparé» de ces études inclut les éléments suivants: Price Waterhouse (1986), et Laliberté Lanctôt (1983): «Impôt sur les bénéfices, taxe sur le capital et contributions statutaires des employeurs aux différents régimes sociaux», Conference Board du Canada (1987): «Impôt sur les bénéfices, taxe sur le capital et taxe de vente au détail».
7. Par exemple, 100 \$ de salaires associés à la R&D permet à une entreprise de récupérer 20 ou 40 \$ du gouvernement du Québec, alors qu'elle n'obtiendra de l'Ontario, dans la meilleure des hypothèses, qu'une réduction de son impôt sur les bénéfices égale à 8,75 \$.
8. Laliberté Lanctôt, *Le fardeau fiscal des sociétés de haute-technologie...*, supra, note 1, à la p. 4.



## **A UNIQUE EXPERIENCE IN COMBINING ACADEMIC AND PROFESSIONAL ACCOUNTING EDUCATION: THE NEW ZEALAND CASE**

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### **1.0 INTRODUCTION**

The discipline of accounting is socially constructed and affected by cultural factors. The manner in which the accounting function is organised within society, as professional (self-regulated) specialists in some countries and as para professional technicians working in conformance with government requirements in others, is also a reflection of the social, cultural and historical developments [Perera and Mathews, 1989].

The process of preparing accountants to operate within any particular social or economic system, whether it is regarded as education or training, or a combination of both, will be subjected to the same influences. This paper will briefly review professional education practices in a number of English speaking countries before concentrating on the (almost unique) practices in New Zealand. Understanding of the process by which accountants are qualified may assist in explaining the adoption of specific accounting techniques and standardised approaches to the preparation and disclosure of financial statements. This is an important feature of the comparative study of accounting education of which this paper is intended to be a part. However, it is not intended here to evaluate the different programmes available in New Zealand.

The paper is organised into four sections. First, the historical development of professional accounting education in New Zealand is outlined. Second, attention is given to recent developments. Third, the distinct features of the New Zealand system are compared with those of professional accounting education in the U.K., Canada, the U.S. and Australia. Finally, the future direction of New Zealand accounting education is considered and some conclusions drawn.

### **2.0 THE HISTORICAL DEVELOPMENT OF ACCOUNTING EDUCATION IN NEW ZEALAND**

#### **2.1 The New Zealand Society of Accountants**

The New Zealand Society of Accountants (NZSA) was formed in 1908 by an Act of Parliament. The NZSA was sponsored by members of two existing bodies, The Incorporated Institute of Accountants of New Zealand founded in 1894 and the New Zealand Accountants and Auditors Association founded in 1898. Over a period of time all other accounting bodies in New Zealand have amalgamated with the NZSA, resulting in a unified professional body which caters for all the varying special interests of modern accounting.

At 30 June 1988 the membership of the NZSA totalled 15,777 of whom 2613 (17%) were retired and 2497 (16%) were resident outside New Zealand. In the previous year 777 members were admitted by passing the appropriate examinations, 75% of whom were university graduates. Males made up 88% of all the membership and 53% of the total membership were university graduates. Members were distributed on an age basis as follows; 20-40 years 49%, 41-60 years 32%, 61-70 years 11% and 8% were over 70 years. The occupational distribution was 27% in public practice, 31% in private sector employment, 7% in the public sector, 1% were full-time educators, 17% retired, leaving 17% unaccounted for (NZSA, 1988).

#### **2.2 The Examination System**

In 1911 the NZSA asked the University of New Zealand (the original tertiary education authority in NZ) to conduct examinations for the NZSA (Graham, 1960, p.51). This system remained in force for many years.

There were attempts in both 1967 and 1971 to persuade members of the NZSA to agree to a system of graduate entry accompanied by a uniform final examination and three years of approved experience. This was rejected by the membership (perhaps on the grounds that it was too radical a change). Despite the rejection of graduate entry it is interesting to note that between 1972 and 1983 the proportion of new members who were graduates rose from 42% to 77% (Trow, 1983).

Following the rejection of graduate entry in 1971, an extensive review produced a compromise proposal for entry via an approved university degree or approved technical institute diploma plus a uniform examination controlled by the NZSA. This system was to replace the use of professional examinations set by the NZSA, from which exemptions could be obtained by passing appropriate university subjects.

Proposals to organise an approved technical institute diploma programme were delayed by changes within the Department of Education and the uniform final examination was also deferred. Nevertheless, there were strong pressures developing for the NZSA to move away from the examination of students and in 1979 yet another committee report proposed the introduction of a technical institute diploma of degree standard, which could be accepted on an equal footing with university degrees, as a prerequisite for sitting the final qualifying examination controlled by the NZSA. Furthermore, it was proposed that the current professional examination should be phased out. These proposals were criticised when exposed for discussion leading to the setting up of a review committee on the whole issue of the future development of the profession. This was 'Horizon 2000 and Beyond' which is discussed under 3.2 below.

In the meantime the education committee of the NZSA reviewed the syllabus and prescription for the professional examination resulting in a revised system which came into operation in 1985.

### **3.0 RECENT DEVELOPMENTS IN NEW ZEALAND PROFESSIONAL ACCOUNTING EDUCATION**

#### **3.1 Introduction**

This section begins with a discussion of the Horizon 2000 study of the accounting profession in NZ carried out by the NZSA in 1984. This is followed by a review of the Body of Knowledge developed by the NZSA Education Committee in 1987 and the approved tertiary education programmes which have been produced to cover the required Body of Knowledge.

#### **3.2 Horizon 2000 and Beyond**

In 1984 the NZSA initiated a study of the present and future position of the accounting profession. The terms of reference for the study were:

To establish the present profile of the profession, its present role in the community, how adequately it is discharging that role, to identify problem areas and means of overcoming them;

to project that profile through the next twenty years in an endeavour to anticipate the role the profession will be expected to play;

to recommend policies that the New Zealand Society of Accountants should set in place to assist in equipping its members with the necessary skills and abilities with which to fill that anticipated role.

In the discussion of horizon 2000 the following issues were considered.

1. The rate of societal change means that no organisation can plan for the future based on past accomplishments. The future must be anticipated if the organisation is to survive.

2. The NZSA is charged inter alia with providing professional education and promoting the interests of the profession.
3. Education is one of the key forces shaping our future. The gradual raising of educational levels throughout the world will lead to better informed and more demanding people who have higher expectations of the supplies of goods and services including members of the learned professions.
4. Education for life (as opposed to a specific vocational preparation) is increasingly important with an emphasis on thinking rather than on knowing.
5. There is a trend towards questioning the authority and knowledge of experts and professionals. Organisations must be in a position to adapt to change.
6. New Zealand has tended to be slow to adapt. This conservatism will have to be overcome if future professionals wish to maintain their present status.
7. Accountants deal in both mechanical and judgmental activities. The former will decrease in importance whilst the higher level skills inherent in judgmental activities will be in increased demand.
8. The NZSA has identified the basic qualities by which an accountant in 2000 AD will succeed or fail as, personal integrity and professionalism; technical competence, both generally and in specialist fields; skill in communication; skill in the management of people and resources; and flexibility in the application of their abilities. The report concludes that while there is satisfaction with the personal integrity, professionalism and technical competence of accountants they are likely to be deficient in the areas of communication skills, skill in the management of people and resources and flexibility in the application of their abilities.
9. It was noted that all professions have a body of specialised knowledge germane to their existence as a profession and this is dealt with in the next section.

### 3.3 The Body of Knowledge of the New Zealand Society of Accountants

Subsequent to the Horizon 2000 study, the NZSA developed a Body of Knowledge (BOK) required of all entrants to the profession. The BOK comprises compulsory core topics, advanced elective topics, other elective topics and professional knowledge. The list of broad topics from which the following is drawn does not specify the level of detail required by the Examination Committee.

The compulsory core topics include accounting, economics, law, business information systems, management, mathematics, and communication. Entrants are required to have a thorough knowledge of all of these topics. The specific accounting sub-topics are listed as; fundamentals, introductory financial accounting, introductory management accounting, analysis and interpretation of financial statements, elements of taxation, elements of auditing and an introduction to current theoretical issues in accounting.

The advanced elective topics section requires a thorough knowledge of four of the following: financial accounting, including current issues, pronouncements and controversies; management accounting, accounting concepts and methods for managerial control and decision making; advanced auditing, a critical study of professional audit requirements, audit planning and audit procedures; advanced taxation; advanced business information systems; business finance, the theoretical foundations of business finance, the management and control of financial resources.

The other electives listed are: any from the above advanced group not previously included; liquidations, receiverships and insolvencies; public sector accounting and finance; trust and farm accounting; managerial economics, specialist topics in business law; specialist topics in business information systems; marketing management; operations management; personnel management and industrial relations; other business related topics approved by the NZSA; up to two non-business related topics.

The professional knowledge requirements include; the constitution of the profession in New Zealand; technical pronouncements of the NZSA; international professional accounting organisations; relationships of the NZSA with government, statutory bodies and commissions and with the community; current issues facing the profession. These are not part of any tertiary qualification programme but form the material examined by the Final Qualifying Examination (FQE) taken after all other academic requirements have been satisfied.

### 3.3.1 IFAC Recommendations

The International Federation of Accountants has produced guidelines on the Core of Knowledge - Professional subjects (IFAC, August 1984) which outlines the professional knowledge required by those entering into membership of professional accounting bodies. It is noted (para 6) that technical material should be imparted to students within the context of the overall objectives of the professional preparation of accountants namely:

One such objective is to provide an understanding of the nature and role of accounting so that contemporary issues can be judged. This requires a historical perspective of the accounting profession, an ethical perspective and a theoretical perspective of the other disciplines ... skill in judgement, in oral and written communication, in integrating knowledge from different areas, in formulating proposals, in identifying important issues, and in distinguishing the relevant from the irrelevant. (IFAC, 1984, para 6).

The core of knowledge comprises the following areas and main topics. Financial Accounting containing scope, principles, reporting, reporting under regulatory acts, and data accommodation and analysis. Management Accounting including, nature and objectives, cost and revenue classification and analysis, accounting for costs, budgeting and standard costs, decision models, performance measurement, Information Systems and EDP under the topics, objective and scope of systems, basic elements and concepts of information systems, EDP systems and applications of EDP. Under the heading Auditing the following topics are covered, objectives, concepts, evidence, practices and procedures, and the rights, duties and liabilities of auditors. Taxation covers objectives, types and nature of taxes and the accountants role in taxation. Finally, Business Finance should cover the relationship of finance to accounting, financial environment, financial dimensions of organisations, financial decisions and financial uses of accounting data.

The IFAC guidelines conclude (para 36) with a strong statement about the need to integrate the knowledge and the background of supportive subjects; "such as behavioural sciences, economics, law, mathematics and statistics and functional business subjects, for example, management."

### 3.4 Approved University Degree and Polytechnic Diploma Programmes

The manner in which the various New Zealand Universities design their programmes is not interfered with, although there is some influence from the BOK. Each institution proposes a programme for approval by the education committee of the NZSA. Clearly this programme must meet the university requirements for the degree as well as the specific content requirements of the NZSA. In most cases the NZSA oriented programme is only one alternative way of structuring the degree.

The specific programmes which have been approved for 1989 are discussed in the next section.

As noted above, the NZSA progressed from the Horizon 2000 study to a detailed Body of Knowledge which must be covered by all entrants to the profession. In line with the sentiments of the Education Committee, entrance must also remain open to those who choose not to attend university but one of the approved technical institutes or polytechnics.

The appendices provide details of programmes which have been approved by the NZSA as having covered the BOK. In each case the experience and Final Qualifying Examination requirements are the same. Approval of the various degree courses majoring in Accounting means that graduates have completed the educational requirements of the NZSA and may advance to membership by fulfilling the experience requirements and passing the Final Qualifying Examination (FQE). At present the FQE, which is to be offered for the first time in 1989, consists of one paper dealing with professional matters (as noted in section 3.3).

It is interesting to note that the exemption schedules given in the appendix reveal considerable variations in content and levels of parts of the programmes. It is not proposed here to evaluate the relative academic merits of different programmes because without a detailed examination of syllabi, assessment procedures, etc. it is not possible within the scope of this paper to do so. Nevertheless, the variations referred to place the overall accreditation process under scrutiny. Conversely, the degree of regulation is not sufficient to stifle the natural differences between universities and their programmes. These differences result from past development, the resources available, and internal political pressures and educational philosophies to name just a few of the possible influences.

## 4.0 A UNIQUE EXPERIENCE

As noted in section 3 the New Zealand system has developed from a study of the present and future needs of the profession leading to a specification or Body of Knowledge. The BOK has provided the basis from which individual accounting programmes are evaluated. The approved programmes provide an entry to the NZSA subject to experience requirements and passing a minimal final qualifying examination.

### 4.1 A Comparative Overview

In contrast to this approach, other countries in the Anglo-American accounting world employ differing systems which are, at least superficially, more complex and potentially more expensive of resources. These programmes are outlined briefly in the sections which follow.

#### The United Kingdom

There are a number of professional accounting bodies in the United Kingdom, the best known of which are the chartered institutes of England and Wales, of Scotland, and of Ireland. The Chartered Association of Certified Accountants cater for both public practice and commercial accountants, and accountants in industry are often members of the Chartered Institute of Management Accountants. The Chartered Institute of Public Finance and Accountancy is mainly concerned with the issues particularly relevant to public sector accounting.

Although there are provisions for the entry of non-graduates to some bodies, this is comparatively rare, and the profession is rapidly becoming one which requires graduate entry. However, a relatively small proportion consists of graduates in accounting and finance or closely related disciplines and one of the main features of the preparation of accountants in the UK is the extensive professional examination system. There are few exemptions given, even for the graduate in a relevant area. There are typically three tiers of examinations with about four subjects in each tier. Graduates in accounting or related areas will typically be exempted from much of the first level but will still have to take all the examinations in the remaining two tiers.

It may be argued that the system employed in the UK encourages the entry of highly qualified and broadly educated people into the profession. Equally it may be argued that the processes by which graduates of non-accounting disciplines are prepared for entrance to the profession by (usually) part-time study and professional examination is likely to involve a training programme rather than an education in the discipline. Furthermore, requiring even successful and highly

qualified accounting graduates to undertake most of the professional examinations could be argued to be a wasteful and inefficient use of scarce educational resources. Conversely, this process frees educational institutions from outside influence and they may derive syllabi that they believe to be in the long term interests of their students.

### Canada

There are three professional accounting bodies in Canada, the Institute of Chartered Accountants, the Institute of Certified General Accountants and the Society of Cost and Management Accountants. At present only the Institute of Chartered Accountants require graduate entry.

Entry to the Institute of Chartered Accountants is achieved by graduate status, taking relevant courses at approved institutions, passing a set of examinations set by the Provincial body and by passing a uniform final examination.

To become a Certified General Accountant the candidate does not have to be a graduate but must take approved courses of study and pass examinations set by the professional body. There is no uniform final examination. The same general format applies to candidates for membership of the Society of Cost and Management Accountants excepting that they must pass three sets of uniform final examinations.

Further differences exist in the professional experience requirements of the different bodies. To become a Chartered Accountant requires the serving of articles with a public accounting firm; to gain membership of the Society of Management Accountants requires approved experience in management accounting. The Certified General Accountants have wider, less specific, experience requirements.

These differences, in entry requirements, both academic and practical experience, have had some effect on inter-professional relationships in Canada, particularly with regard to the integration of the profession. If an integrated profession is to be achieved it would appear necessary that a greater measure of agreement about entry standards and requirements be obtained. There have been similar difficulties in the history of the integration of the profession in Australia.

### United States

Each of the 50 states of the US has its own legislative body with extensive powers to control business activity within its own boundaries, including the confinement of the right to practice as a public accountant. The American Institute of Certified Public Accountants (AICPA) is the national body of professional accountants in the US, but its membership is not required as a condition for exercising the right to practice and many practitioners elect not to become members.

In the United States, candidates for entry to the accounting profession must be graduates and pass the uniform Certified Public Accountants (CPA) examination. In order to sit for the CPA examination, candidates must have taken a minimum number of credit hours study in Accounting and Business Law. Experience requirements for entry (in addition to success in the examination) vary between the different states.

Although the CPA qualification is the best known of U.S. business-oriented professional qualifications, there are several others related to accountancy including the Certified Internal Auditors, the Certified Financial Analysts and the Cost and Management accounting (this is the largest, run by the National Association of Accountants) qualifications.

Graduates from business schools will currently take at least the minimum 120 semester hours required by the AICPA before sitting the uniform examination. This programme is made up of general education, general business education and specific preparation in accounting. The minimum will be increased over the next decade as candidates will eventually conform to the 150 semester hour requirement for graduate degrees before being permitted to sit the CPA examination. Thus, at some not too distant time, all entrants to the accounting profession in the

United States will have post graduate accounting qualifications or the equivalent academic preparation.

### Australia

There are two bodies of professional accountants in Australia, the Australian Society of Accountants (ASA) and the Institute of Chartered Accountants in Australia (ICA). The ASA is by far the largest and most diverse of the two having a current membership of approximately 57,300. The ASA is similar to the NZSA in that it caters for a wide membership from all areas of accounting activity including private practice. The Institute of Chartered Accountants in Australia is mainly confined to servicing the needs of members in the area of public accounting.

Both the ASA and ICA prepared entrants by traditional professional examinations until about 20 years ago when graduate entry was introduced and professional examinations were phased out. The ASA has required graduate entry since 1966. The basic entry requirements at first included the attainment of a recognised degree or diploma together with appropriate experience. Individual courses of study were accredited to ensure that they contained an accounting major together with appropriate studies in auditing, business law and taxation. This position continued for several years but was then supplemented by additional requirements. The ASA introduced a Professional Orientation Programme (POP) in 1976 and the ICA developed the notion of a Professional Year at about the same time. The POP was discontinued in December 1984 when the Professional Schedule was introduced. The Schedule included inter alia the associate programme.

The present position is that the ASA requires entrants to complete the 'Associate Programme' in addition to holding a relevant degree and having appropriate experience. The programme is equivalent to 40 contact hours of study and is presented by distance learning techniques through Deakin University. The content covers professional ethics and accounting standards. Knowledge of the Continuing Professional Development requirements is also required. Potential entrants are then required to pass an examination and to attend a familiarisation session called the Colloquium. The ASA has a detailed system of additional qualification and preparation referred to as the professional schedule which involves a further 400 hours of study towards the Certified Practising Accountants (CPA) qualification. Although additional to the basic membership status, it is now taken by most entrants to the ASA and it is, therefore, appropriate to refer to it here. Distance learning techniques are employed and each of four selected segments of 130 hours study equivalent is examined.

As noted previously the ASA has a system of specialist designations for those members who are able to demonstrate appropriate skills. The requirements include the equivalent of one year of full time graduate study.

The ICA has a different system, the professional year, which includes module case studies, research projects, and module examinations and finally professional year examinations. Entry requires that the candidate has obtained an appropriate tertiary qualification and is employed by an accounting firm. Instruction is available at tertiary institutions, normally as part of a graduate qualification, but the Professional Year examinations are run by the ICA.

The relative merits and demerits of each of these systems has been the source of some discussion in Australia where integration proposals between the two bodies have failed on two occasions.

## 4.2 Philosophical Bases Underlying the New Zealand System

### 4.2.1 Educational programme must be widely based.

The education committee of the NZSA has clearly stated that the educational programme developed by the NZSA must be in line with the expected composition of the professional body. In other words given that there is only one integrated professional body catering for all areas of accounting employment then the education programme must be equally widely based.

The NZSA perceives a need to actively control entry to the profession by maintaining admission requirements. However, there is an inherent conflict in maintaining tight control over admission, with limited resources, and the need for wide membership and educational experience. The conflict is resolved by leaving the educational process in the hands of educational institutions.

#### 4.2.2. A policy of graduate entry only would be too simplistic

The wisdom of relying on graduate entry only has been the subject of much discussion. It is argued by many that it would be simplistic because the desired attributes for entrance can be achieved by means other than university preparation. These attributes include: (1) a demonstrated level of intellectual ability; (ii) a demonstrated technical knowledge to enable the entrant to function as a generalist within the profession; and (iii) a demonstrated practical competence in the application of technical knowledge. Since these attributes could be obtained, the argument continues, by the development of a technical institute diploma of equivalent standard to a university degree, equal recognition should be given for this qualification. However, it is important to note that to achieve equal recognition technical institutes would need to have appropriate resources, teaching staff and academic standards.

#### 4.2.3 Importance of continuing education

Education activities need to be divided between pre and post entry, since if attempts are made to provide all the learning experiences needed for a professional life of 40 years in one degree the resulting programme would be impossible for many students. What is desired is the minimum professional knowledge for functioning prior to entry, followed by post entry continuing education to provide for changing situations.

#### 4.2.4 A uniform final examination

There should be a uniform final examination operated by the NZSA for which the entrance requirement will be the completion of an approved degree or diploma. In addition, a substantial experience requirement is necessary for all entrants with a minimum of three years practical experience in an approved organisation.

#### 4.2.5 Specialist qualifications

Specialisation in accounting is not new. In academic circles specialisation is quite well recognised, at least in the major divisions of Financial and Management accounting, Auditing, Taxation, and more recently internal auditing, international accounting and international taxation to give a few examples. Specialisation also exists amongst professional accountants, particularly between management accountants, auditors and management services personnel. However, this is specialisation by task and career direction and not by qualification. Specialisation by qualification (i.e. the use of specialist qualifications) is comparatively recent and is an area which concerns the NZSA as well as similar bodies in other Anglo-American accounting countries.

The Canadian Institute of Chartered Accountants (CICA) set up a committee to examine specialisation in their own area and concluded that specialist qualifications would assist the client to make informed choices amongst the services available from members of the profession and also to have some minimum level of assurance about the competence of professionals claiming special skills. The committee recommended voluntary specialisation in taxation, insolvency, business valuation and computer audit.

The AICPA allows self-designation provided that the claim is not false, misleading or deceptive. The US also has a number of other professional organisations such as those for financial analysts, financial planning, internal auditing and cost and management accounting, which act as certifying agencies for specialist areas.

The Australian Society of Accountants (ASA) has a series of specialist designations in the areas of auditing, cost and management accounting, external reporting, insolvency and reconstruction, taxation and treasury. Additional post qualification preparation equivalent to one year of post graduate study plus three years of appropriate experience are needed for acceptance into a specialist area. There are also ongoing obligations covering continued employment in the



specialist area and appropriate specialised continuing professional development (ASA Handbook section pp.14102-14102.1).

The NZSA has had only one area of specialisation requiring further study, the Cost and Management Accounting Division. However, recent organisational changes have removed the Divisional status in favour of a less independent position within the NZSA. On the other hand recent statements have indicated that the position of specialisation is under review.

#### 4.3 Strengths and Weaknesses

The strength of the integrated approach lies in the manner in which diverse programmes can be brought together for evaluation without undue prescription. A minimum coverage or level is set and after that individual institutions may decide whether, and how far, to exceed the minimum requirements. The various technical institutes offering the National Diploma in Accountancy are more closely monitored because, on the whole, they do not have the same academic experience and resources as the universities.

The main weaknesses of the process is that the greater the degree of uniformity and the larger the proportion of total degree programmes given over to BOK material, the lower the proportion which is available for general education and elective study. If taken to extremes the NZ system could produce highly skilled technically oriented accountants with a relatively poor general education which must conflict with the traditional role of university education.

#### 4.4 Future of New Zealand Accounting Education

At this point some mild speculation about the future of N.Z. professional accounting education is in order. If the BOK is not uniformly observed it may be argued that increased validation and accreditation structures will be needed and that the universities will have to be included in these arrangements. If these steps are not successful the FQE may be expanded from the present one paper to include those areas which the universities and technical institutes do not uniformly address.

The other implication for the future of N.Z. accounting education is the need for post qualification education to cover specialist needs. The BOK is expressly intended to provide the minimum preparation for entry to the profession. It does not deal with post qualifying or specialist education. There may be a demand for graduate specialist education in similar areas to those used for designation by the Australian Society of Accountants, which would be additional to the BOK, but in line with the philosophical bases outlined in Horizon 2000 and Beyond.

### **5.0 CONCLUSIONS**

This paper has provided a description and preliminary analysis of the current system of professional accounting education in New Zealand. This system is probably unique and is certainly quite different from that in use in other Anglo-American accounting countries such as the U.K., Canada, U.S. and differs considerably from that used in Australia, which is probably the closest comparable system. The unique characteristics include a review of the future of the profession, followed by the development of a body of knowledge, which in turn is used to provide a structure for universities and technical institutes to follow in the design of academic programmes.

The universities produce their own degree structures which are given approval by the NZSA, provided that they meet the BOK. Graduates fulfil the educational requirements of the NZSA by completing the relevant degree. There is a minimum coverage of the BOK material plus any additional material which the particular institution wishes to include. This leads to considerable variation in structure, which may indicate that the full effects of the BOK have not yet been felt, or that some institutions are resisting this (minimal?) pressure towards uniformity.

The technical institutes which have been approved to operate the National Diploma of Accountancy have relatively little opportunity to design alternative programmes. They are subject to stringent accreditation procedures by the NZSA.

It may be predicated that attempts will be made to extend the accreditation process to the university system; an event which will lead to mixed reactions. Serious resistance may result in increased pressure for an extension of the FQE which is currently designed as a minimum one paper exercise, but which could be expanded if the BOK approach does not work in the manner intended.

Although pressures towards uniformity may have some advantages, there are also disadvantages if the general and elective aspects of education are squeezed out in favour of additional technically oriented programmes. It must also be remembered that the BOK does not deal with specialist post entry education and specialist qualification, an important area of professional accounting education.

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## An Editor's View of Publishing in Academic Journals

A presentation at the Canadian Academic Accounting Association  
held in Victoria on June 2, 1990.

**Speaker:** A. Rashad Abdel-khalik  
Graduate Research Professor at  
the University of Florida  
and Editor of *The Accounting Review*

Not too long ago, *The Accounting Review* was the only research journal in accounting. The pool of research papers was almost dry and editors were always short of submitted manuscripts. I was told that some previous editors had to solicit manuscripts to ready an issue for the printer. Nowadays, the situation is quite different: we have over forty journals in accounting and the Editor of *The Accounting Review* receives nine times as many manuscripts as is ultimately published. The development in the field and the progress made in the past two decades has pushed the frontiers of research beyond most expectations. Both the subject matter and the research methodology have evolved in so many ways that the quality of research in accounting began to compete with other research in the relatively more mature disciplines. Yet, we still have a long way to go. The schism between practice and academia does not provide comfort for researchers who find themselves trying to meet the demands of several masters at once. The possible confusion arising from the multiplicity of objectives had led the American Accounting Association (AAA) to establish two additional Association-wide journals: *The Accounting Horizon* and *Issues in Accounting Education*.

In June 1987, the Publications Committee and the Executive Committee of the AAA announced the agreed upon objectives of the three Association-wide journals. In that statement of policy, *The Accounting Review* is "viewed as the premier journal for publishing articles reporting the results of accounting research and explaining and illustrating research methodology. The scope of acceptable articles should embrace any research methodology and any accounting-related subject, as long as the articles meet the standards established for publication by the journal. No special section should be necessary. The primary, but not exclusive, audience should be--as it is now--academicians, graduate students, and others interested in accounting research." (*Accounting Education News*, June 1987.) With this delineation of objective and primary audience, *The Accounting Review* has been designated as the outlet for high quality academic research. While greater linkage to practice issues might be encouraged, it is the contribution to accounting literature and thought that counts. The ultimate impact on practice might take long to develop, but need not be contemplated as an immediate objective of the research publishable in *The Accounting Review*. *The Accounting Horizons* was established to provide that role. Similarly, *Issues in Accounting Education* was given the mission of enhancing education research in accounting.

Operationally, the above stated objective of *The accounting Review* is translated into a set of editorial policies and procedures. Among those are the set

of criteria used in the peer review process of submitted manuscripts. Each manuscript sent out for review is accompanied by an evaluation sheet which spells out those criteria. First, and foremost, is the **contribution** to the literature. Its nature, specificity and significance are all important ingredients in evaluating the increment to accounting literature and thought. Adding to the literature is like ploughing new fields, planting new seeds and harvesting new crops. Conducting academic research is, in some ways, similar to making wine: it is best when it is *well done*, and to be tasted it must be poured into empty glasses because *adding a drop to a full cup is a waste*.

The second criterion is the **rigor and quality of analysis**. As in the previous segment, it is difficult to clearly and objectively delineate rigor. It is very likely that the judgment on the sophistication of modeling, analysis, or method is an evolving conception and is very much a function of the state-of-the-art. As the quality of doctoral education improves and as advances in other disciplines continue to have an increasingly greater influence on our own advance, the definition and judgment of rigor will also evolve. Because the conception of rigor is a moving target, no suitable standard can be specified *a priori*. For this reason, more than one reviewer is asked to provide input and evaluation of every submitted manuscript that is considered to be at the level that warrants seeking independent peer review evaluation.

The quality of **communication and presentation** is the third criterion used in evaluating manuscripts. It is rare that a manuscript that is judged to score high on the *contribution and rigor* would be rejected on the basis of presentation; it is easier to rework and rewrite the manuscript than it is to fix a fundamental flaw in logic, design, analysis, or contribution. Poor communication has its cost, however. It is often the case that reviewers find it difficult to judge the contribution or the rigor of analysis of submitted papers if they cannot parsimoniously assess **what** was done, **why** it was done, **how** it was done, and **what** it all means. An author of a good idea may risk its failure if the paper is written such that experts cannot be availed of appraising **what, why, how and so what?** In general, we all need to improve our communication skills by a wide margin. Even the accepted papers that have naturally undergone several iterations and revisions do require significant editing and tightening in order to enhance their effectiveness in communicating the ideas to absentee readers.

Next, it is worth knowing the reviewers' own thoughts about the pros and cons of publishing or rejecting a paper. The reviewers are, therefore, asked to provide discussion of the aspects in the manuscript that might lead to its eventual acceptance as well as those aspects that might ultimately lead to rejecting it. It is quite beneficial to the editor and to the author to identify the strong and the weak sides of the paper. Perhaps the authors have ways of effectively mitigating the weak aspects if they were to be spelled out; authors might disagree with the weights assigned to the negative views; or the editor might find the reasons advanced for eventual rejection to be of the type that seeks perfection and, thus, will be weighed differently.

Finally, for the benefit of the authors, reviewers are asked to provide some suggestions for improvement even if their recommendation is to reject the paper. Since the reviewers have invested the time to examine the papers thoroughly, it is of little cost to share the hypothesized thought for improvements with the authors. In this setting, everyone benefits: the reviewer has an opportunity to articulate his/her thoughts, and the author has the advantage of benefitting by other points of view.

The problems of publishing in a top quality research journal are numerous. First, there is a high degree of tendency on the part of the authors to **rush** and submit manuscripts that are still in the embryonic stage. The "green paper" effect was most felt when I started as editor of *The Accounting Review*; there were many such papers submitted within a short period of time. Although the number and frequency of submitting green papers has slowed down, it remains a serious problem. It is true that at some universities, all research faculty are self-starters with limited access to sources of critical feedback, a situation for which there ought to be a solution. Nevertheless, using the reviewing process as the first line of defense is a strategy that can only reduce the chances of success. Once a manuscript is thought of poorly, it could take a lot more effort than normal to change the reviewers' view of it. It is thus imperative that authors attempt to test their papers at workshops and subject them to critical scrutiny by colleagues, doctoral students and others prior to submitting them for the rather formal and highly competitive peer review.

It is of import that the author be his/her own critic and look at the paper from the reviewer's vantage point. The criteria outlined above can serve as a good guide for each author's assessment of his/her own work. It is crucial to be able to come up with strong positive responses for each criterion. It is totally inadequate to evaluate the acceptability of a paper by reasoning that "sometime ago, so and so published a similar paper," which is an often-heard reason. That paper might have been the first in that area, it might have added a new thought for that time and age, or it might have been acceptable using the state-of-the-art prevailing at that time. This type of reasoning by past analogies will not advance the field and will not satisfy the primary criterion of acceptance: making an incremental contribution to literature and thought.

Currently, the acceptance rate at *The Accounting Review* varies around 13% and the submission-to-acceptance cycle varies considerably. The well-thought-out papers that are carefully done have a very short cycle relative to most. Papers that are poorly motivated or attempt the *n<sup>th</sup>* study on some issue have the highest rate of mortality.

There is a lot an editor can say, but for the sake of time I will close by one thought. No one has monopoly on the advancement of knowledge; if there is the will to labor, everyone can contribute in some way.

# The Education of Accountants: The Challenge of 2000

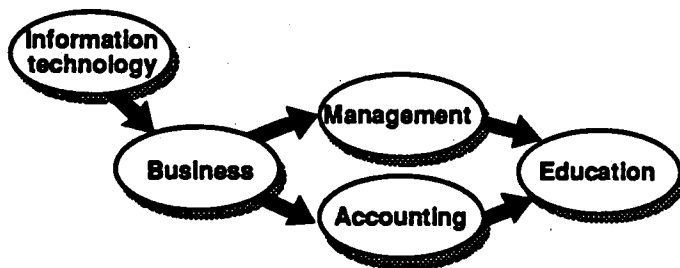
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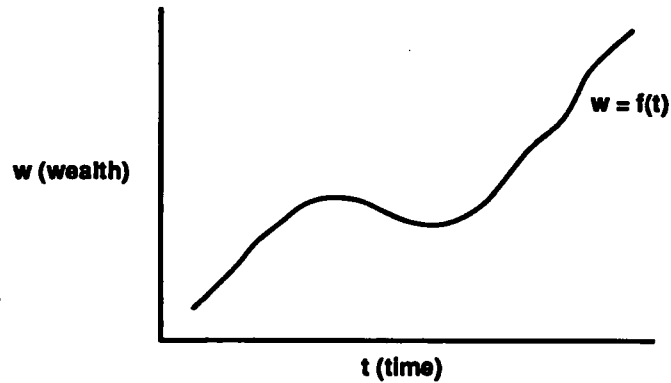
Bob Elliott  
*KPMG Peat Marwick*

### A chain of effects



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## (Notation)



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## (Additional notation)

$w$  = wealth  
 $w'$  = income (rate of change in wealth)  
 $w''$  = rate of change in income

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# The Education of Accountants: The Challenge of 2000

## The Third Wave\*

- Original condition of man:  
Foraging, fishing, hunting, herding
- First wave of change (ca. 8,000 BC):  
Agricultural revolution
- Second wave of change (ca. 1650 AD):  
Industrial revolution
- Third wave of change (1955 AD):  
Information revolution

\* Alvin Toffler

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## Technologies

<i>Technology</i>	<i>Wave</i>		
	<i>I</i>	<i>II</i>	<i>III</i>
Information technology	Writing	Printing	Digital computer
Accountability	Single entry	Double entry	?
Physical technology	Agriculture	Steam engine	Transistor

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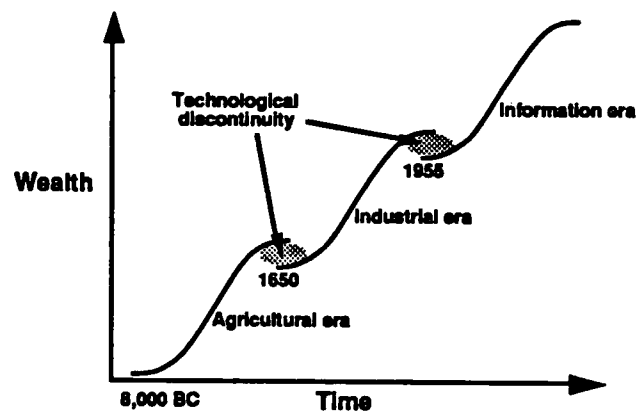
## Accounting paradigms

<i>Accounting</i>	<i>f(t)</i>	<i>Function</i>	<i>Statement</i>
Single entry	w	Position	Balance sheet
Double entry	w'	Rate of change in position	Income statement
Triple entry (?)	w''	Rate of change in income	"Thrust"

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## A new era results in discontinuities



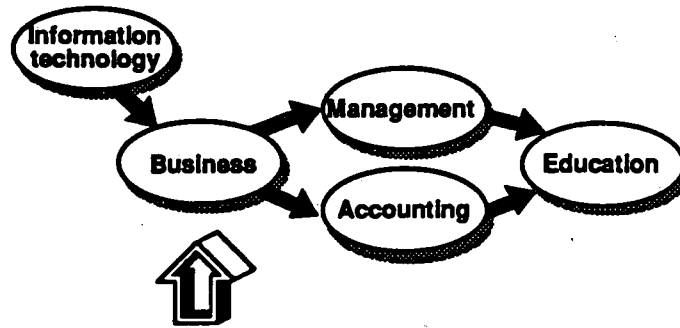
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**I/T changes business**



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**Information technology (I/T)  
first enables change...**

- Closer to customer
- Improved quality
- Demassification
- Global competition

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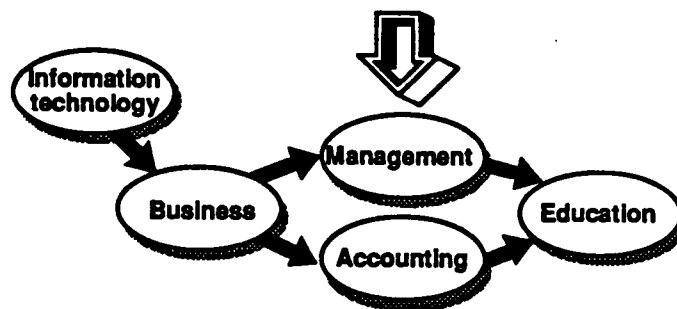
**...then demands change!**

- Emphasis on quality
- Decreasing cycle times
- Focus on the creation of value
- Globalization
- Partnering/alliances
- Downsizing
- Strategic use of I/T

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**Changed business needs  
new management styles**



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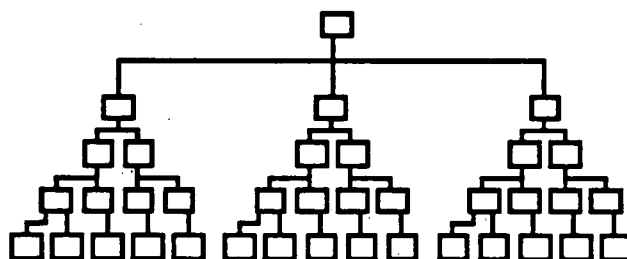
## Industrial era management styles

- Hierarchical organization structure
- Managing rates of activity

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## Hierarchical organization structure



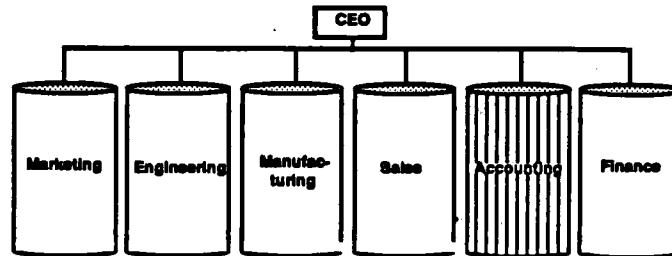
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Industry was "stovepiped"



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One effect of stovepiping:

- Detroit took 6 years to go from a product idea to the showrooms

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## Managing rates of activity

- "Taylorism"
- Produce an optimal rate of return ( $w$ )
- Even an optimal rate of scrap!

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## Information era management styles

- Networked organization structure
- Managing rates of improvement in rates of activity ( $w''$ )

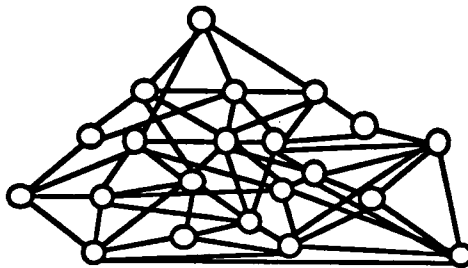
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The new organization  
form is "networked"



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Networking contributes to results

<i>Company</i>	<i>Product</i>	<i>Old cycle</i>	<i>New cycle</i>
Honda	autos	5 years	3 years
AT&T	phones	2 years	1 year
Navistar	trucks	5 years	2.5 years
H-P	printers	4.5 years	22 months

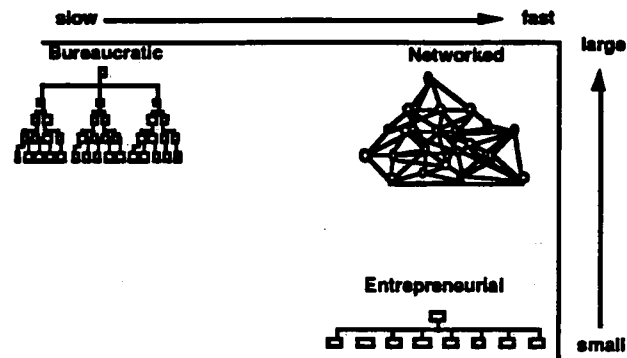
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## New organization theory



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## Managing changes in resources

- Globalization
- Downsizing
- Technology Investments
- Shift from manual labor (blue collar) to knowledge work (white collar)

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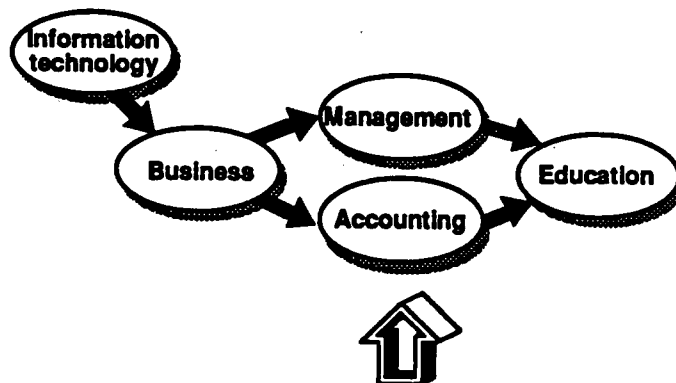
## Managing changes in processes

- Shrinking product and production cycles
- Customer orientation
- Ever-improving quality

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## Changed business also needs new accounting styles



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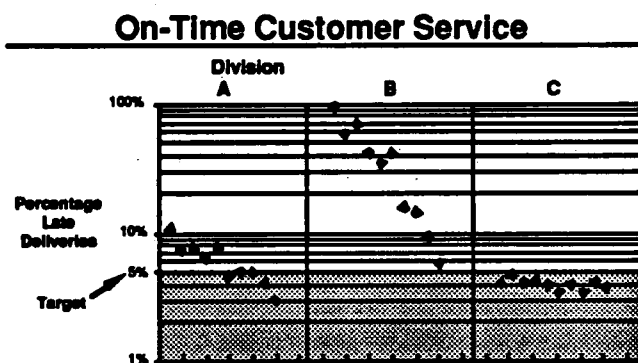
## Industrial era accounting styles

- Measures resources (w) and changes in resources (w')
- Maps the Taylor model
  - Cost accounting
  - Standard costs
  - Variances
- Typical measurements at the rate of activity level (w')

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## Old-Style Quality Measure



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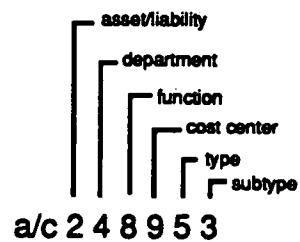
## Industrial era measurements

- Tangible assets
  - Coal, iron, steam engines
- Costs (i.e., product orientation)
- Exchanges (events)
- Maps the hierarchy

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## Hierarchical map



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## Industrial era measurements

Industrial era	Information era
Resources (w) and processes(w')  Tangibles  Products  Events  Maps hierarchy	?

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## Information era accounting styles

- Measures rates of change in resources (w') and processes (w'')
- Repudiates the Taylor model
- Typical measurements at the rate of change in activity level (w'')

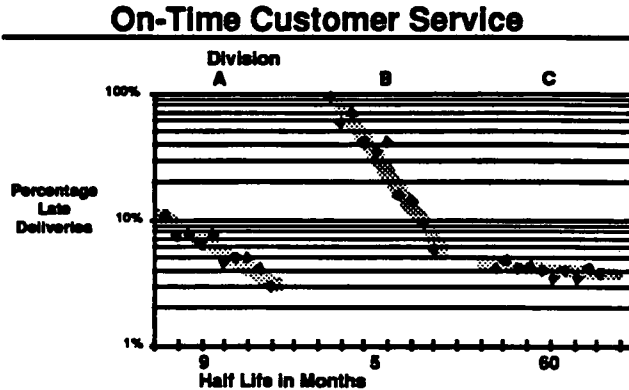
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## New-Style Quality Measure



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## Information era measurements

- **Intangible assets**
  - Information, Intellectual assets, learning capacity
- **Values (I.e., customer orientation)**
- **Processes**
  - Real-time dials on the business
  - CIM drives most production processes toward continuous processes
- **Maps the network**

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## CIM's effect on process cycles

<i>Company</i>	<i>Product</i>	<i>Old cycle</i>	<i>New cycle</i>
GE	circuit breakers	3 weeks	3 days
Motorola	paggers	3 weeks	2 hours
H-P	testers	4 weeks	5 days
Brunswick	fishing reels	3 weeks	1 week

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## Information era measurements

<b>Industrial era</b>	<b>Information era</b>
<b>Resources (w) and processes(w')</b>	<b>Rates of change in resources (w') and processes (w'')</b>
<b>Tangibles</b>	<b>Intangibles</b>
<b>Products</b>	<b>Customers</b>
<b>Events</b>	<b>Processes</b>
<b>Maps hierarchy</b>	<b>Maps network</b>

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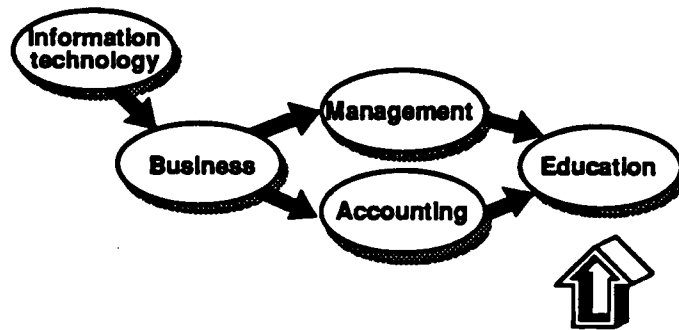
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# The Education of Accountants: The Challenge of 2000

**New management and accounting  
affect education**



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## Implications for graduates

- Graduates must be able to function in the information-era entity
- The specific capabilities required were stated in the (then) Big-8 paper "Perspectives on Education: Capabilities for Success in the Accounting Profession"
- Industrial-era accounting training is not adequate preparation for practice

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## Required Capabilities

### Skills

- Communications skills
- Intellectual skills
- Interpersonal skills

### Knowledge

- General knowledge
- Organizational and business knowledge
- Accounting and auditing knowledge

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## Implications for curriculum

- Curriculum must become more relevant to the emerging business world
- Curriculum design is the university's "product design" function (customer orientation)
- Curriculum design is not "one shot" (w) but a continuous process (w")
- Curriculum must integrate...
  - ...accounting
  - ...business
  - ...general knowledge

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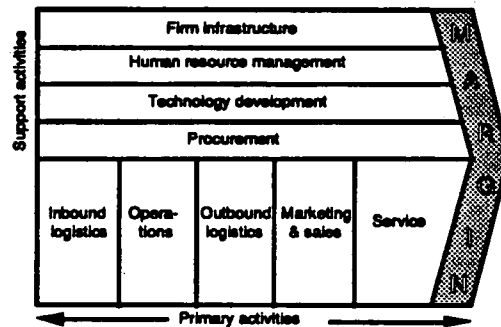
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## Generic Value Chain\*

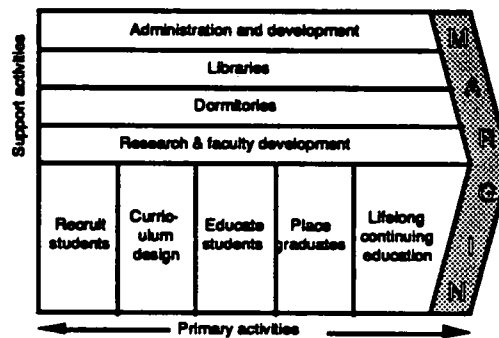


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\*Michael Porter

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## Value chain for a university



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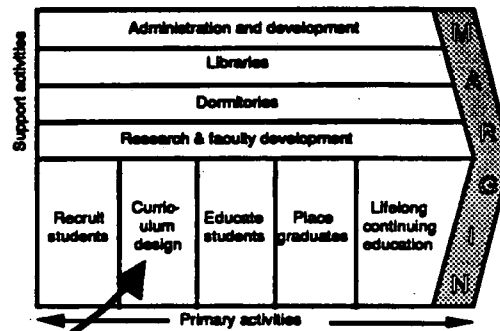
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## Value chain for a university

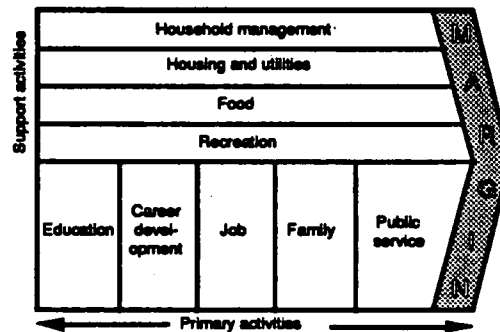
Curriculum design is the primary activity that links the university value chain to the purchasers' (that is, the students' and their employers') value chains.



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#1

## Value chain for a student



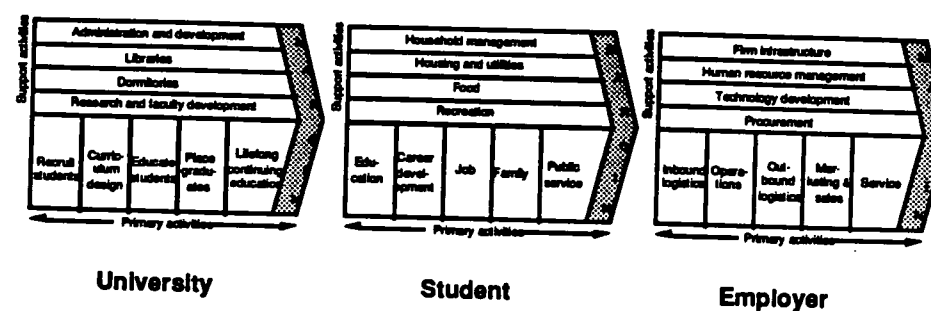
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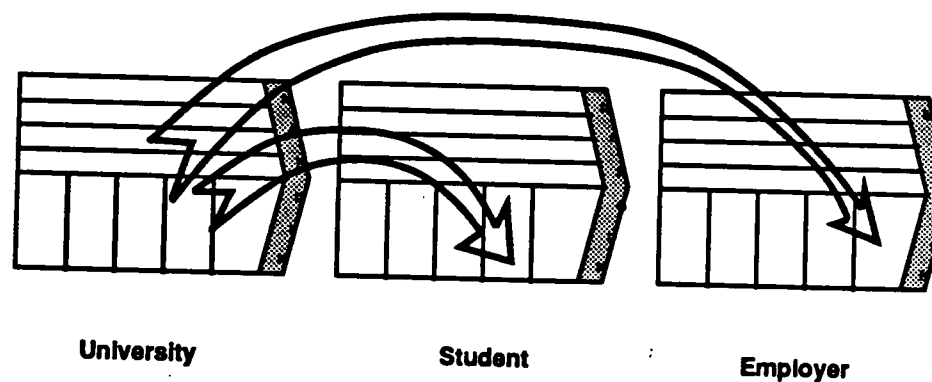
We can link the value chains...



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...to see how curriculum can create  
value for students and employers



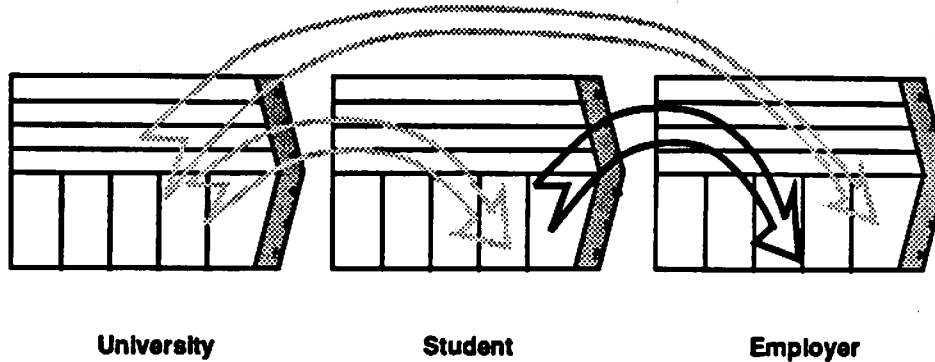
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# The Education of Accountants: The Challenge of 2000

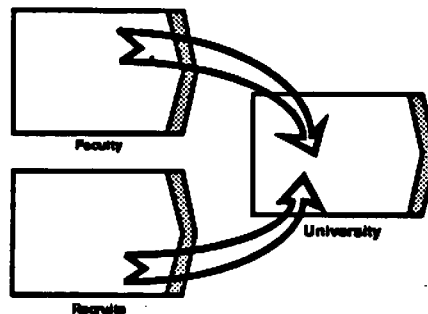
...noting that the needs of students  
and employers are related



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And also look  
"backward" in the chain



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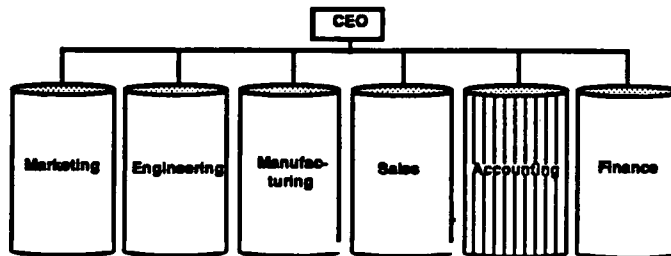
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# The Education of Accountants: The Challenge of 2000

**Educational institutions  
are stovepiped too**



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**Implications:  
Curriculum design is a  
primary value builder**

- Infrastructure to support continuous curriculum design and continuous improvement
- Integration across faculties/schools/departments
- Institutional networking
- Faculty incentives for curriculum design
- "Market research" function with employers and graduates

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# The Education of Accountants: The Challenge of 2000

**Implications:  
Education is the *central*  
value builder**

- Shift incentive structure to teaching
- Place senior and broad-based faculty in constant and substantive contact with students
- Enhance secondary education and students

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**Implications:  
The university has an obligation  
for faculty development**

- Assert educational values:
  - Teaching
  - Scholarship
  - Curriculum development
  - Research
- Assess faculty capabilities in all of these areas
- Fill gaps in capabilities

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# The Education of Accountants: The Challenge of 2000

## Implications: Technology in the curriculum

- Incorporate up-to-date technology into the curriculum
- Networks as well as workstations
- Not just the introduction of computers into the classroom, but
- Ability to function in the information era

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## Implications: Globalism in the curriculum

- Every business entity has global issues
- Globalism across-the-curriculum

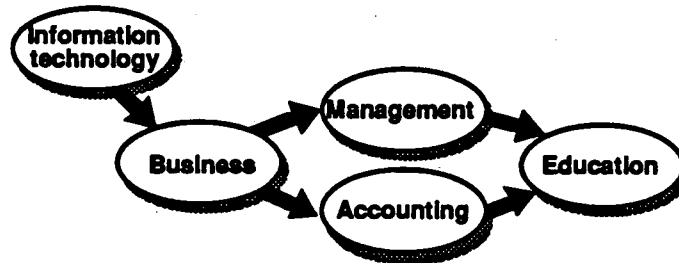
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# The Education of Accountants: The Challenge of 2000

## Summary



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## Change has become possible!

There's a consensus for curriculum reform in the U.S.

- Faculty
- Administrators
- Employers
- Regulators
- Accreditors

There's a funded Accounting Education Change Commission to...

- Sponsor experiments
- Disseminate knowledge
- Attack barriers

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**1990 CAAA Conference**



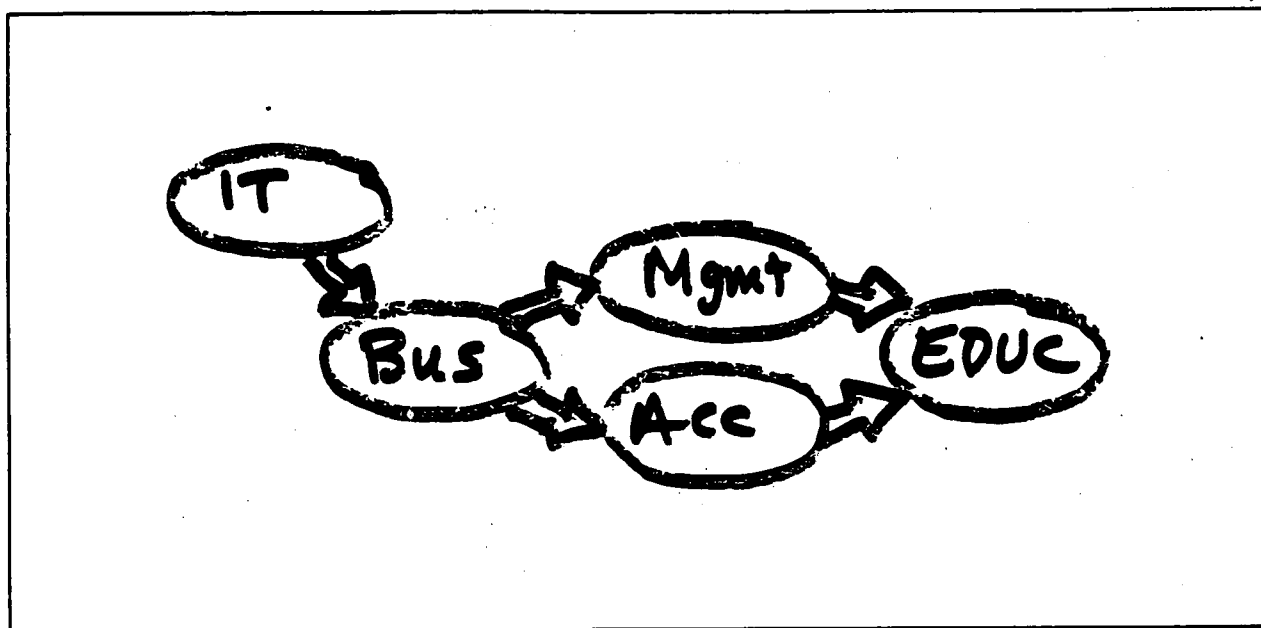
**Discussant's Comments on the Presentation by Bob Elliot**

**CAAA Annual Conference  
Victoria BC  
June 2, 1990**

**J. E. Boritz**

It's a great pleasure and, I might add, an honour for me to be invited to comment on Bob Elliot's excellent presentation. Bob has been at the hub of activity aimed at understanding and improving professional practice for many years. Therefore, in some respects, it is difficult to criticize the points being made by Bob since they are based on an extremely informed and well reasoned point of view.

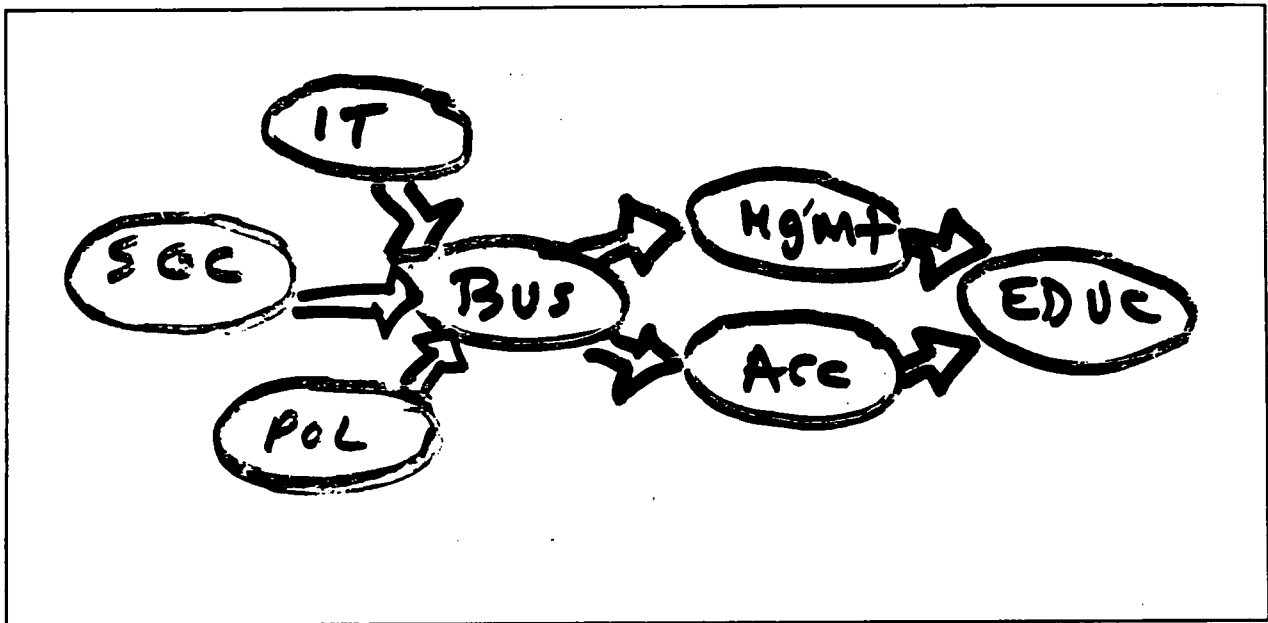
What I would like to do, instead, is to take this opportunity to reflect, taking advantage of points that Bob has made so well, to see what other perspectives might be used to help us achieve a better understanding of the role of education in the massive changes that are taking place around us, apparently driven by information technology.



In thinking about Bob's presentation, the first thing that struck me was the fact that education was at the tail end of the diagram. At first I thought, "Alas for the world that education has sunk so low! A tail at the end of a dog. Simply a cog pushed by forces such as the changes in business, management and accounting, which, in turn, are pushed by the great forces of change in information technology that we are all experiencing." I know education must be responsive to the environment around it, but Bob's model has education being driven by, not merely responding to, several external forces.

Is this the role that I envisioned for education when I was drawn to academe? Is this a role that we should accept now? Is it our lot in life to be merely pawns, prodded by the changes in business and management processes to serve up, the things that business and management request, or in Bob's terminology, DEMAND!

Is Bob's model complete? I would say no.



Missing, except in brief passing, are the social, cultural, political, and dare I say, philosophical, dimensions. Some social and political pressures are in complete contradiction to the apparent short-term needs of business. This is most evident in the attention being paid to environmental issues around the world, possibly enhanced by information dissemination, but certainly not always good for business. Similar points can be made with reference to pressures for safer working conditions, higher wages, land reform in some parts of the world, and so on.

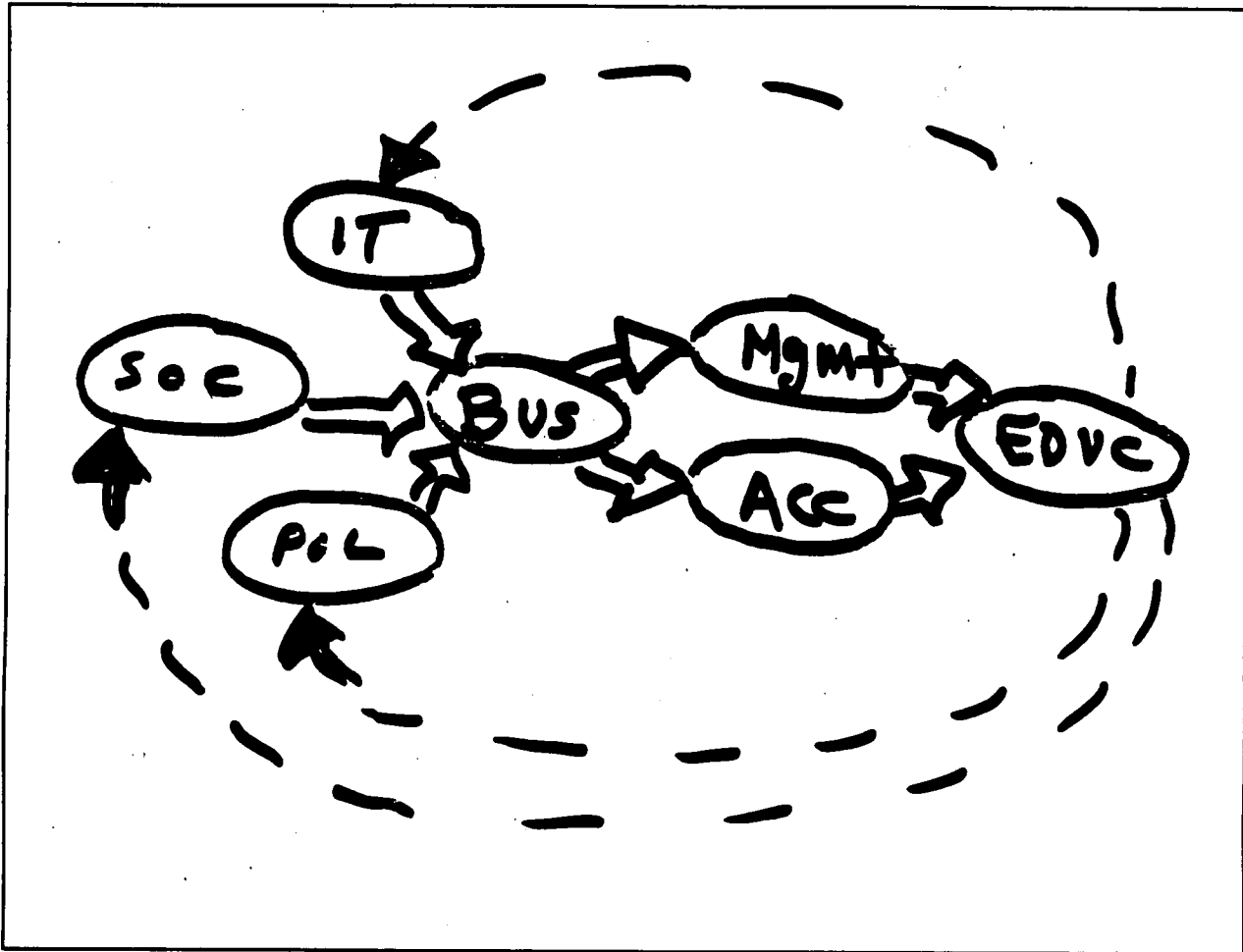
Information technology is a great medium for dissemination of information. But is it the driving force that Bob makes it seem to be? What about the great changes taking place in the European Community, only indirectly related to information technology, which have profoundly influenced how business views itself and its competitive position in the world? What about the great economic changes taking place in the Pacific rim? These changes also promise to have a profound impact on business and management needs. How will these changes interact with information technology?

In summary, my first point is that technology is only one of many forces swirling around us, demanding our attention as educators. While I too am impressed with IT because of my own previous practice and teaching background and experience in this field, on another level I am more impressed by the human dramas being played out throughout the world that seem driven by deeper human passions, values and aspirations.

At a recent conference that I attended, someone made the insightful distinction between the external world in which we work and the internal world (our inner soul) in which we live. While a deep appreciation of the philosophy behind this distinction seems to require a study of philosophers such as Habermas, quite beyond my limited reading in philosophy, the power of this distinction continues to resonate within me still. It reminds me that it is this inner world of each student that I, as an educator, want to influence. In other words, I question the appropriateness of the strong coupling between the forces that Bob seems to take for granted, implying a priority to serving business, management, and accounting rather than serving a deeper need of students (that some of them may not even acknowledge) to be touched in their inner being, perhaps even at the expense of their most immediate priorities of launching successful careers.

Bob's vision is probably more pragmatic and, undoubtedly, more realistic than mine. Its internal logic is compelling. After all, he represents the top echelons of a powerful, multi-national, enterprise. He is surely qualified to speak about information technology and the needs of business, management, and accounting. However, I must say, without any disrespect intended, that, with all its pragmatism, Bob's model doesn't arouse my sense of idealism. It doesn't seem to represent my aspirations, those very same ones which made me an academic in the first place; it also doesn't seem to speak on behalf of student's broader needs, or those of society at large.

My third observation is that Bob's is a very linear, uni-directional, model; technology drives business, business drives education, education must respond. Is it possible that the model is missing a feedback loop from education to information technology; or, could it even be the wrong way around? After all, information technology did not arise through a big bang process!



In my view, advances in information technology have been fuelled by the energy and vitality found within academic institutions and, to a lesser extent, by business and government-sponsored research centres which funded and encouraged experimentation and innovation. For example, consider the great foresight shown by, arguably, our premier computer manufacturer.

**"I think there is a world market for about 5 computers."**

**(Thomas J. Watson, Chairman of the Board of IBM, 1943)**

**"The computer has no commercial future."**

**(IBM, 1948)**

How about some other visionaries on the subject of IT?

**"Where a calculator on the ENIAC is equipped with 18,000 vacuum tubes and weighs 30 tons, computers in the future may have only 1,000 vacuum tubes and perhaps weigh only 1.5 tons."**

**(Popular Mechanics, March 1949)**

But there's more...

**"That's an amazing invention, but who would ever want to use one of them?"**

**(Rutherford B. Hayes, US President, 1876, after seeing the telephone).**

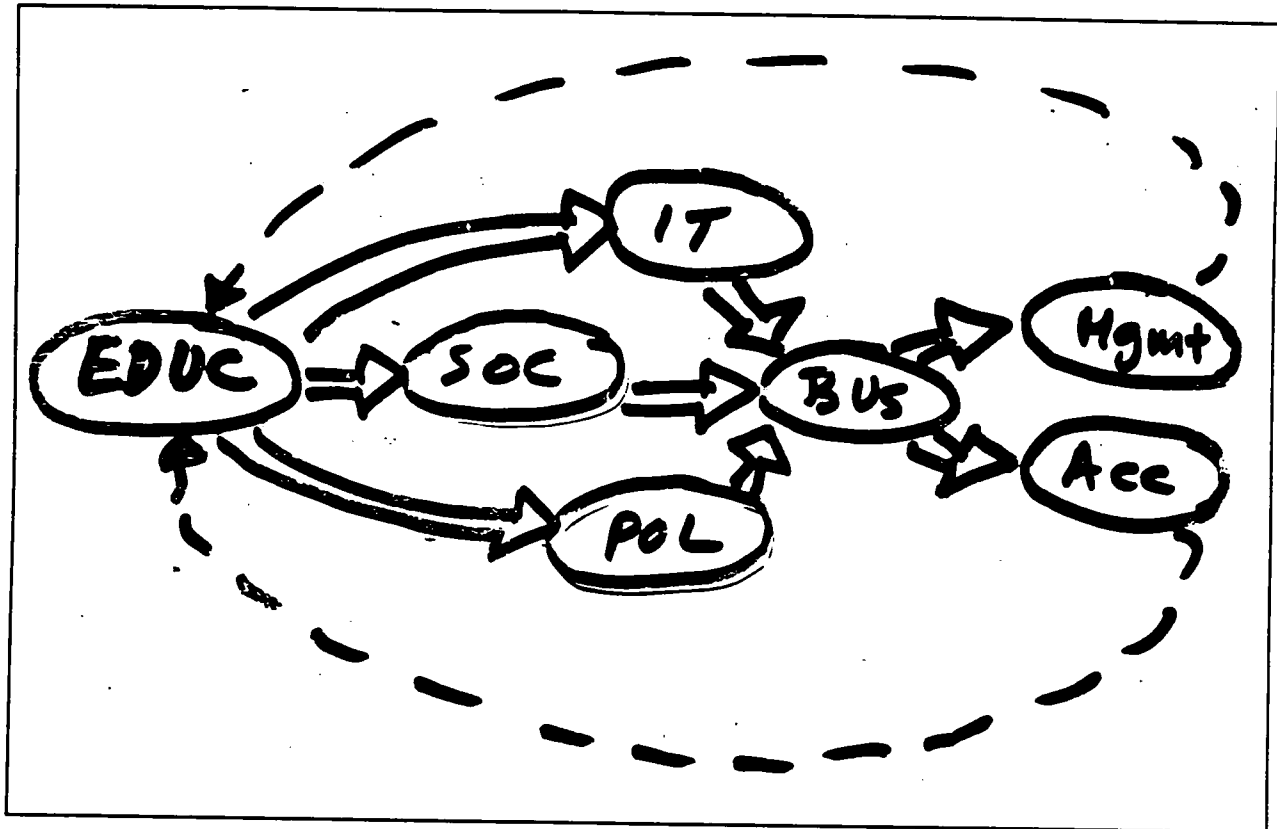
**"Everything that can be invented has been invented."**

**(Charles H. Duell, US Patent Office, 1899)**

In other words, none of us, including business leaders, have a direct line to the future. It is very dangerous to tailor education to serve today's "knowns".

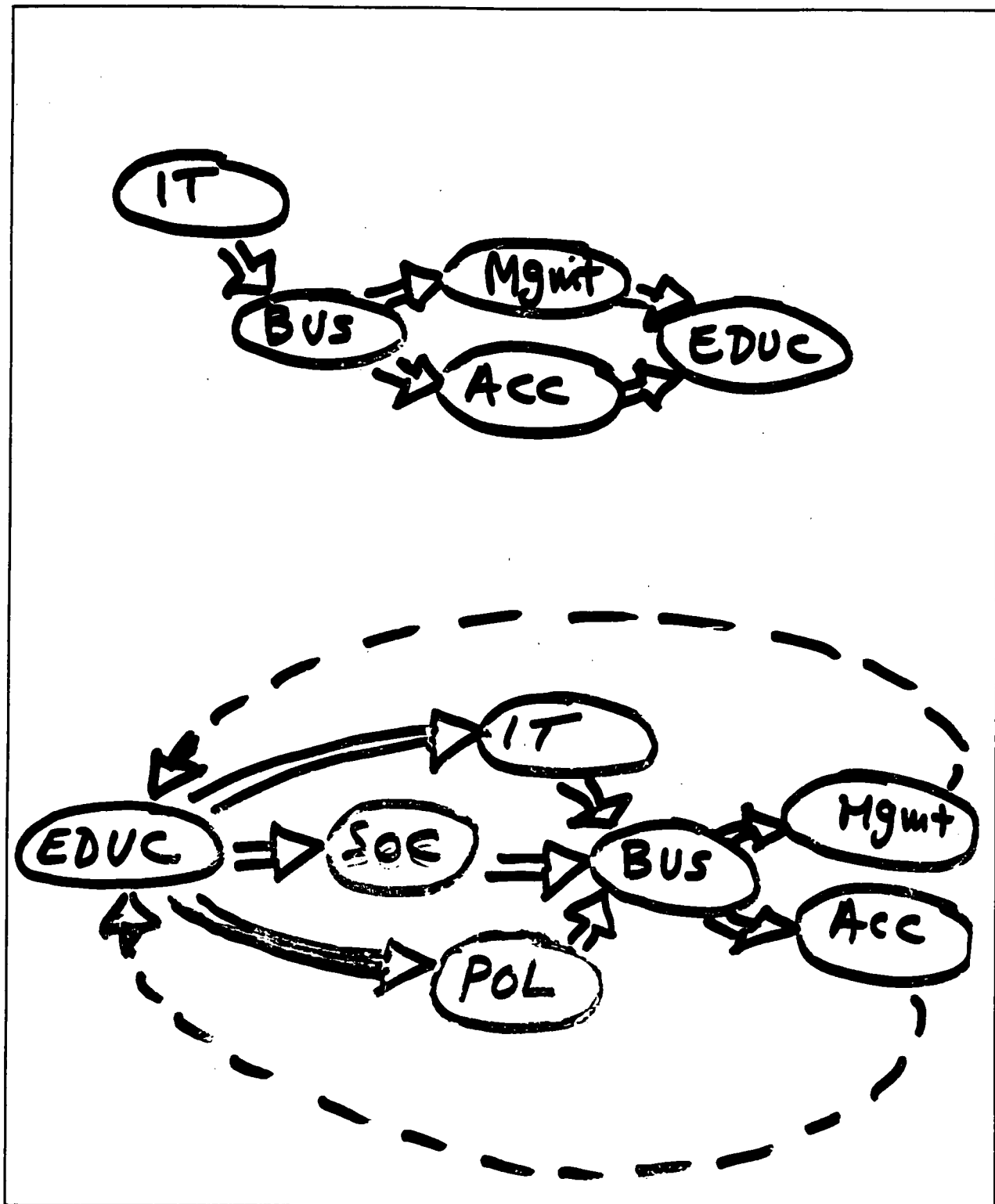


Education has been driving information technology because it asks what can be, rather than serving what is.



This is much closer to the view of academe that I had when I first was attracted to it -- the potential of education to launch great forces to transform our world and society, hopefully, for the better.

Of course, even if you buy my model, you may experience the nagging doubt that, having launched this great wave of innovation, the academic institutions have worn themselves out, lost their vitality, have been unprepared to deal with the monster they created. Or, it could be that policy makers have forgotten the role that universities have played in enriching our lives. Why else would they be taking policy decisions that undermine and debilitate the ongoing capabilities of universities to nurture and guide the very forces that provide so much vitality and wealth to our society (and, in some cases even threaten it with massive changes in the structure of organizations, our way of life, the way in which our political systems function, and so on).



In Bob's model, if education fails to respond, it is like the loss of a branch on a tree, significant but manageable. In my model, if education is undermined and destroyed, the head of the corpus is chopped off, leaving the individual parts without a sense of purpose, serving only short term needs.

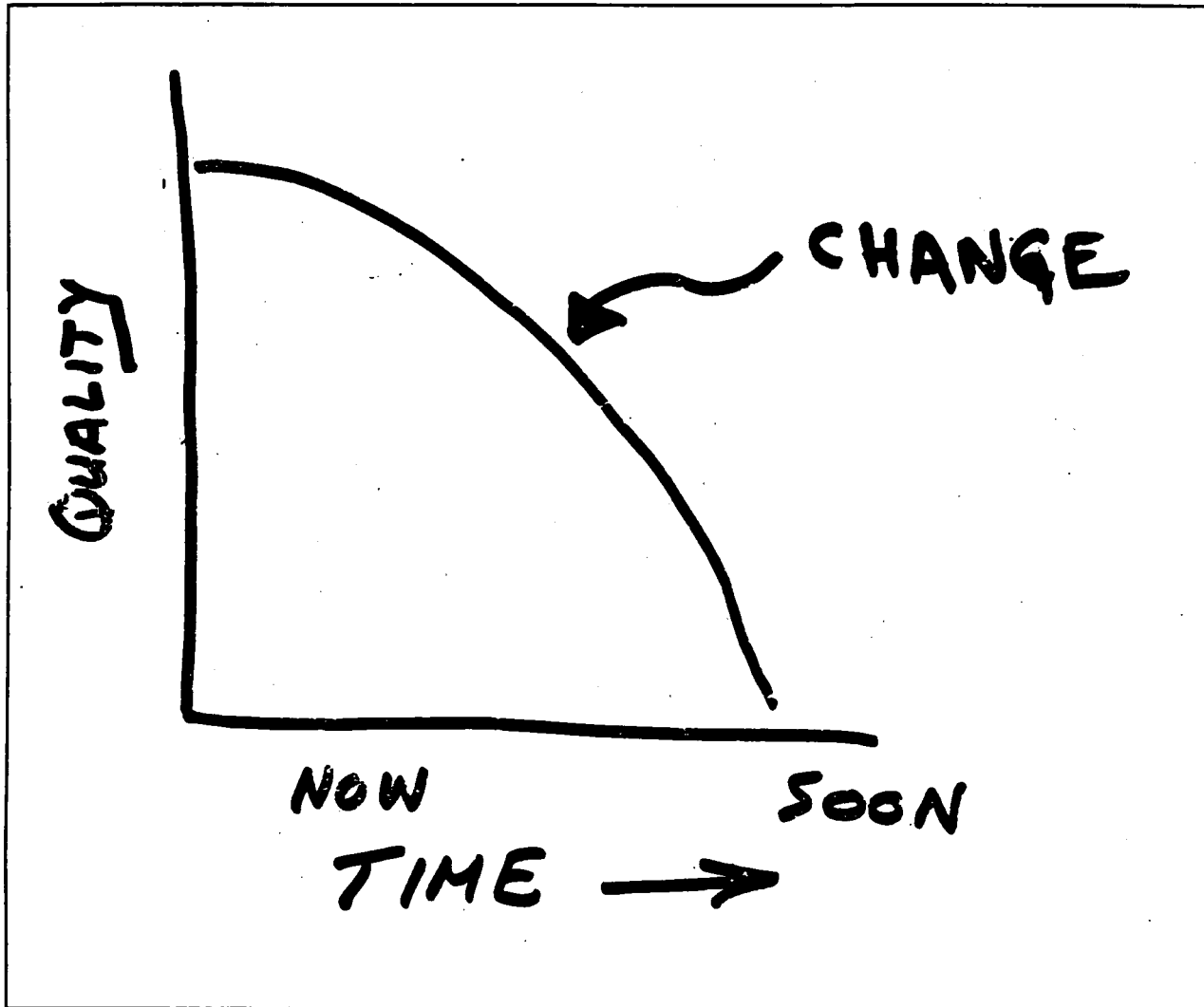
(I have heard members of the accounting profession say, "If the universities can't do it, we'll do it ourselves". What a telling statement! It would take me hours to express all the things that are wrong with the statement: the cavalier manner in which it is expressed, the arrogant sentiments behind it, the superficial understanding of the respective roles of various institutions in our society, and the assumptions about "what is good" that it lays bare.)

While the initiatives taken in the U.S. appear well-intentioned and deserve to be applauded, the situation in Canada is nothing short of demoralizing. In Canada, we educators are essentially civil servants, with virtually no influence. Whether the central position of education in the hearts and minds of leading practitioners, politicians, civil servants, and even ourselves can be recaptured is uncertain. It would be bucking the trend. And the world is an ever more complex and difficult place in which to take strategic action. The forces and conflicting objectives dominating public discussion today make it difficult to see **who will champion education?** Attitudes such as this one are not uncommon.

**"I am tired of all this thing called science...We have spent millions in that sort of thing for the last few years, and it is time it should be stopped."**

**(Simon Cameron, US Senator from Pennsylvania,  
1861)**

Would a change commission do any good here? We already have change, as the slope on this diagram indicates.



Our educational system is being undermined. Its spirit is sapped through chronic underfunding, the ever-pressing need for short-run justification of educational and research activity, and internal squabbling within universities over the bones thrown to them by politicians with no vision and questionable values.

We are increasingly judged by how well we serve narrowly-defined, short term needs of business or the profession (our anticipated benefactors) rather than how well we serve our students and society. We are expected to simply fall-in, marching in lock-step, to a tune played by forces beyond our control, rather than reflecting, and questioning where we are going, and why.

We should not be responding to changes in IT, we should be creating them! We should not be reacting to the needs of business, management and accounting, but defining them!

We academics have lost a great deal of our authority. We may become irrelevant if we worry about the external place where our students work at the expense of the internal place where they live, and will continue to live, even after they have earned their degrees, certificates and titles.

We should not let ourselves become the irrelevant branch of the tree; but rather, we should remember that we are its root!

CAAA 1990 Annual Conference  
Victoria, British Columbia  
June 3, 1990

Thomas H. Beechy  
Faculty of Administrative  
Studies  
York University

## FEATURES OF A HEALTHY RELATIONSHIP BETWEEN THE UNIVERSITIES AND THE PROFESSIONS

### Introduction

Canadian universities are under increasing pressure. Enrolment is up and government funding is down. Provincial governments have been stressing accessibility, but they have not provided the funding that is essential to maintain significantly increased enrolments. At the same time, the accounting profession is placing increased demands on the universities, often expecting the universities to bear the entire burden of preparing students for professional practice. The approach taken by some of the professional accounting bodies places pressures on the business schools that the schools simply cannot absorb. Constraints on the business schools (and on the accounting departments within the business schools) come from increased enrolment pressures, from declining funding, and from the broader responsibilities of the university and the business school. In addition, the accounting departments have a responsibility to serve a broad group of students who have varied career objectives; they can not design their programs to serve only a specific professional group.

Given the severe pressures that universities in general and accounting departments in particular are experiencing, it is essential that the universities and the various professional accounting bodies work together to share the responsibility for professional education. To make the sharing as cost-effective as possible, the tasks assigned to each of the two groups should take advantage of their best capabilities; the universities should not be performing functions that are better served by the profession, while the profession should not be trying to accomplish educational goals that are more effectively achievable by the universities. Unfortunately, the division of tasks has not always been appropriate.

This paper will review the pressures on the universities and will look at the role of university education and the way in which business schools fit into that role. We will then propose an effective division of responsibilities between the universities and the profession, and we will make some specific recommendations on how the profession can assist the accounting faculties and can ease some of the pressures that now exist.



## The Plight of the Universities

The traditional university-age population has declined somewhat through the 1980s. Despite the decline in the 18-21 age group, the total university enrolment in Canada rose 50% from 1972-73 to 1987-88. Chart 1 illustrates the growth. An increasing proportion of individuals from all age groups are pursuing higher education. In the 18-21 age group, for example, the participation rate had been fairly stable at around 10.5% to 11.0% for many years, and then in 1982 it began rising. By 1987-88, the participation rate for the 18-21 group had risen to 15.0%, an increase of 45%. The participation rate in other age groups has also increased, the 22-24 group by 35%, and the 25-39 group by 31%.<sup>1</sup> Chart 2 illustrates the increase in participation rate for the 18-21 age group.

During the past ten years, the provincial governments have, of course, increased their funding to the universities. Indeed, one of the ways in which some of the provinces persuaded the universities to accept increasing numbers of students was to tie grant increases to enrolment increases, a practice that is euphemistically called "accessability funding" by the provincial governments. The truth of the matter is that if a university declined to accept more students, it would be financially penalized (usually indirectly, by being awarded an operating grant increase that is far below the inflation rate and below what is necessary to retain capable staff). Universities are classic examples of organizations with a ratchet fixed cost structure, wherein costs at any enrolment level are 80% fixed; the fixed costs go up when enrolment goes up, they do not decline if enrolment goes down.

Since 1977, operating grants from the provincial governments have increased 112%, from roughly \$2.0 million to \$4.2 million. During the same period of time, enrolment (in FTEs) has increased by 31%. On the surface, it would appear that government funding has been quite generous. However, when one deflates the grants for inflation, the government operating grants, per FTE in constant dollars, has actually declined by 20%. Charts 3 and 4 illustrate the change in government funding, first in total constant dollars and then in constant dollars per student.

As an example, Ontario announced an 8% increase in base funding for 1990-91. This increase is above the rate of inflation and seems quite generous, except that 5% is reserved for the through-put of students that entered the system in prior years (under "accessability funding") and another 1.6% is being taxed back under the province's new payroll tax for health care. That leaves only about 1.4% to accommodate cost increases of about 6%; as a result,

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<sup>1</sup> All of the statistics in this paper have been derived from Trends: The Canadian University in Profile, 1990 Edition, published by the Research, Policy and Planning Division of the Association of Universities and Colleges of Canada (Ottawa: AUCC, 1990).

all Ontario universities are facing significant operating budget cuts.

The operating grant situation does not deal with the capital grant situation, which is dismal in most provinces. The burgeoning student population is being accommodated in essentially the same physical plant that existed in 1970. The ageing facilities are strained as the result of overuse, thereby requiring a level of maintenance that the universities are not able to provide from their operating grants; thus, they are physically deteriorating.

The import of this litany of financial distress is that it is unreasonable for the accounting profession to expect the universities to do more than they currently are. The universities are bulging at the seams, and the seams are coming apart. There is little, if any, room for accommodating more students, or for accommodating the same students for longer periods of time. The oft-stated "ideal" of a 5-year program for professional accountancy is not realistic; it may have been realistic 20 years ago when the universities had the financial flexibility to seek out new programs and more students, but current proponents of 5-year programs do not seem to understand that the world has changed. To cite Ontario again, the province has just completed an exercise known as "corridor enrolment planning" which has frozen university enrolment levels for the rest of the decade. Within such a zero-flexibility system, attempts to establish new programs or to push accounting faculties to claim more university resources are doomed to failure.

#### The Role of the University Business School

Why has the accounting profession turned increasingly to university-prepared entrants? Two reasons may well be self-serving: (1) to shift a greater portion of the cost of accounting education to the public purse, and (2) to enhance the public "image" of the profession. But surely there is a recognition of the need to have individuals in the profession who are better educated (rather than only technically trained), people who have an understanding of society and of the environment in which business operates. Accounting is an information discipline; accounting information is pointless unless it conveys information that influences behaviour and aids in making decisions. To provide useful information, accounting must be aware of the broader picture, and the university helps students to obtain the broader perspective that is essential to being a good professional accountant (as opposed to being a high-class bookkeeper). Therefore, the role of the universities in accounting education must be to:

- provide a broad educational background; to help students understand the functioning of societies and the role of business and other organizations in society,

- teach students about business and the role of managers; to help them understand the role of accounting in influencing behaviour and aiding decisions,
- provide the core of accounting knowledge, the framework upon which professional talents can be developed, and above all,
- develop students' cognitive skills; to teach them to think.

The last point above is crucial. The development of cognitive skills is a long-range process. Cognitive development includes the ability to see issues from different points of view, to analyze arguments and propositions and to relate them to objectives, and to reach conclusions that satisfy objectives and that are internally consistent. In addition, students must learn to communicate their analyses and conclusions persuasively, both orally and in writing. None of this can be done in a short period of time (such as in a UFE prep course), but takes years. Neither can it be accomplished very well by distance education. Cognitive development requires direct inter-personal interaction with teachers and fellow students over an extended period of time.

Cognitive development is also most effective if it occurs within the context of a knowledge discipline that has the student's interest. Therefore, accounting education has a fully legitimate place in universities, but it should be built in such a way as to develop students' cognitive and communication abilities. Technical content is not irrelevant, but it should be used as a base for cognitive development, not as an end in itself.

### Constraints on University Accounting Programs

University accounting programs exist within business schools (with rare exceptions), and the business schools exist within the broader context of the university's mandate for general education. Therefore, the content of a student's university accounting program will consist of three categories of knowledge:

- General knowledge
- Organizational and business knowledge
- Accounting/Auditing/Tax knowledge

The general knowledge component of a 4-year degree program usually comprises about 2 years of a student's program. The business core, which delivers the organizational and business knowledge, claims roughly another year or more. That leaves approximately one year maximum for accounting course delivery. Professor Barry Boothman, in a paper he is presenting almost simultaneously at the ASAC conference in Whistler, has analyzed the 46 university business programs in Canada. He found the following characteristics:

- 26 programs (57%) require at least 6 non-management core courses; 9 (20%) require at least 9 non-management core.

- 27 (59%) require at least 6 non-management electives; 14 (30%) require at least 9 non-management electives.
- 42 (91%) require at least 12 business core courses; 22 (48%) require at least 15.
- 21 (46%) limit the number of business electives to a maximum of 8 or less; an additional 9 programs (20%) permit a maximum of 9 to 11.

Professor Boothman reports that 26 of the management programs permit a concentration in accounting. "Four to six courses tend to constitute a concentration. Most programmes do not have well defined caps upon electives in sub-areas, but about half require students to take a minimum of two upper-level courses in other sub-areas. Thus, in real terms, six to eight electives may be taken in a sub-area."<sup>2</sup>

The significance of his finding is that in most business schools, there is a significant constraint on the number of accounting and auditing courses that a student may take to count towards her or his degree requirements. In contrast, the expectation of the professional associations often far exceeds the maximum.

Taking the Ontario example once again, the Institute of Chartered Accountants of Ontario (ICAO) requires eight accounting courses, three auditing courses, and two tax courses, for a total of 13. Two of the accounting courses usually are part of the business core requirements (reducing the elective requirements to 11), but business law is usually not a part of the business core and should be added. Therefore, the ICAO requires students to have a minimum of 12 elective courses beyond their business core, when most programs have a cap of 6 to 8 electives. Clearly, the 4-year university programs cannot, by and large, accommodate the requirements of that segment of the profession. The Society of Management Accountants is somewhat better, requiring an average of only 9 electives, but their advanced standing requirements vary on the basis of the course content in each university, and rise much higher at some schools.

The result of the disparity between the expectations of some professional societies and the capabilities of the universities is widespread frustration. The profession is frustrated because students cannot get the courses within their degree programs. The business schools are frustrated because the profession is making demands that the business schools can not meet without distorting the nature of their programs and defeating the broader mandate of

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<sup>2</sup> Barry Boothman, "Something Wicked This Way Comes: Orientations and Curricula of Undergraduate Business Programmes in Canada," a paper presented at the ASAC Annual Conference, Whistler, B.C., June 1990.

their programs. Students are frustrated because they can not obtain the courses that are required within their business program, but neither can they take the courses after graduation because the universities lack the resources to mount additional courses or to accommodate additional student enrolment.

It is exceedingly naive of any professional institute to expect the universities to tailor their business and accounting programs to suit the whims of that particular institute. Not only do the universities not have the resources, they also have a broader mandate to prepare accounting graduates for a wide spectrum of potential accounting careers, whether CA, CMA, CGA, private business, government, Revenue Canada, or nonprofit organizations. No business program of quality is going to succumb to the pressures of any one group and cast aside its broader mandate.

### Cooperation between the Profession and the Universities

I believe that I have made it abundantly clear that the universities are stretched quite thin, and that they can not do the whole job of professional accounting education. On the other hand, I do not doubt that the accounting profession feels the pressure of a constantly expanding body of knowledge. A new era of cooperation is drastically needed; battling between the profession and the universities is destructive and dysfunctional. The profession must bear some of the burden of education; the question is, Who Should Do What?

I believe that the answer lies in separating cognitive development from technical knowledge. The universities have the long time frame and the interpersonal contact to enhance students' cognitive development. Much technical content, on the other hand, can be delivered quite effectively in professional development courses (including distance education) that are outside of degree program requirements. The profession can easily (although not cheaply) assume the responsibility for further technical education; the SMA and CGA-Canada have demonstrated the practicality of providing quality technical education to large numbers of students without a classroom setting. The current movement of the SMA towards requiring a university degree may suggest that the CMAs recognize the contribution that the university can make to cognitive development, and cognitive development is the essential base upon which professional judgement is founded.

To be honest, however, I must confess that many universities do not do a very good job of cognitive development, at least not in the accounting curriculum. Far too much time is taken up with the minutiae of the CICA Handbook or the Income Tax Act, without using the material as the context for developing cognitive level or professional judgement. Two examples may help to understand my point. Both are drawn from areas in which I have some intimate familiarity.

In intermediate accounting courses, we often spend 2 or 3 weeks on accounting for corporate income taxes (a.k.a. deferred tax accounting). While the basic concepts of tax allocation are quite straight-forward, their application in practice can be quite difficult. By focusing on the detailed application of deferred taxes in the classroom, we do nothing to develop students' professional skills. Since classroom time is limited, time spent on delivery of such highly technical skills displaces time that could be spent on case analysis (for example). Not only does the strictly technical material force out cognitive development, it even obscures the basic concepts that we are trying to teach. How many students, after working out complex problems (such as interperiod tax allocation in loss years without virtual certainty but with reversible timing differences in the carryforward period), have completely lost sight of the basic, powerful concepts underlying tax allocation? Other topic areas of intermediate accounting would provide similar examples, such as long-term leases and pensions, where technical complexity tends to be overwhelming.

My second example is that of advanced accounting. Much of advanced accounting could, in my view, be dispensed with in the university setting. Particularly disturbing is the excessive amount of time spent on consolidations. There are important and fundamental concepts underlying consolidated reporting and business combinations, but too much classroom time is consumed on technical matters. What does it matter whether students can make eliminations for intercompany bond transactions, when they haven't a clue about the judgemental factors involved in determining the purchase price, or in the allocation of the purchase price, or in determining whether a business combination has really occurred, or in the substantive impact of non-consolidation vs. consolidation on the financial statements and the users thereof? There are many areas of judgement involved in intercorporate reporting, but I have never had a request to include more judgemental factors in my advanced accounting text, only requests for more technical material!

To build an effective program for professional accounting education, the various branches of the profession must get together with the universities and work out a division of responsibilities. The universities should concentrate on cognitive development, firmly grounded in the core of accounting knowledge. The profession bodies should undertake to fill in the technical details, either by developing and delivering their own courses or by contracting with selected universities to deliver technical courses on a non-degree basis (that is, independent of the governmental operating grants). Some universities are doing their part well, and some professional bodies are already doing their part well also. But too many universities are delivering technical courses and ignoring cognitive development, while too many professional bodies are demanding more technical material from the universities than they can possibly deliver within a quality program.

### Supporting University Faculties

In addition to sorting out the educational responsibilities of the universities and the profession, the profession should underwrite certain specific developmental activities of the universities. The profession should not attempt to underwrite university operating costs, in my opinion, because experience has shown that the professions can not keep their fingers out of the curriculum once they become financially involved, no matter how trivial the amount of the contribution!

I would suggest that the following activities are in need of financial support:

1. Curriculum development: Curriculum development is expensive. Keith Scott has commented that it cost CGA-Canada about \$2 million to rewrite the CGA curriculum to integrate information technology and the computer. Many accounting departments would dearly love to develop their curriculum along the same lines, but lack the resources, both money and time. Professional bodies can provide considerable assistance, both for direct costs and for buying course relief for faculty to undertake curriculum development. Development is needed in a number of areas, not only in information technology.
2. Teaching development: It may seem rude for me to say this, but I believe that part of the inadequacy of universities in developing students' cognitive complexity is the result of a lack of pedagogic knowledge and skills on the part of the faculty members. It is easier to teach technical material than case material. The profession can contribute significantly to underwriting the very substantial cost of training faculty members to teach non-technical material that will lead to cognitive development and the development of professional judgement.
3. Educational research and publication: All three professional bodies, the CICA, the SMA, and the CGA Research Foundation, have been generous in providing research funds to Canadian accounting academics. What is now needed is support for education research. If curriculum and teaching development are believed to lead to better-prepared students, then that hypothesis can be tested and the results published. Similarly, curriculum and teaching development can lead to publishable material in its own right, as either student material or teaching (i.e., instructor-oriented) material. Student material may be commercially viable, but may need financial support to get to a publishable stage. Instructor material is less viable commercially, but could be supported through the auspices of the CAAA.
4. New faculty members: There continues to be a world-wide dearth of PhD-qualified accounting professors. The ICAO has

made a really significant contribution to relieve this problem over the past decade through its doctoral support program. Each year, the ICAO commits to generous financial support of three doctoral students for each of three years; the support is in the form of a loan which is forgivable if the candidate returns to teach in Ontario. It is hard to exaggerate the importance of this program to the Canadian academic accounting community; it has enabled many excellent people to pursue a doctorate who otherwise would not have been able to afford it. The ICAO program is, quite reasonably, limited to CAs in Ontario. Other bodies in Ontario and across the nation should consider similar programs. The programs are expensive and the payoff is long term, but the benefits are very real.

### Conclusion

The Canadian university system is under severe pressure. There are too many students and not enough money. The accounting profession must understand the universities' new reality. There is no room for more students or new programs, and the business programs (along with other university programs) have no degrees of freedom. The university system can not be dedicated to fulfilling the needs of a particular professional group, and especially not to a subgroup within that profession (e.g., the CAs or CMAs).

The societal role of the universities is to educate students, not to train them. University is where students learn to think, not to memorize. Universities strive to give students a broad societal context and to help students develop their cognitive skills. The accounting profession should build on the natural advantage of university to develop cognitive or professional skills, and should bear more of the responsibility for delivering strictly technical content.

Nevertheless, the university accounting faculties need help. There is no money available for curriculum development or for teaching development. There are not enough academically-qualified faculty. The profession can help in these areas. But the profession must resist the temptation to try to transfer all of the costs of accounting education to the university, it just won't work. Above all, the profession, through its many constituent bodies, must cooperate with the universities. We have many common goals and concerns, and it is a waste of time and energy to be fighting with each other when we should be talking and listening to each other.

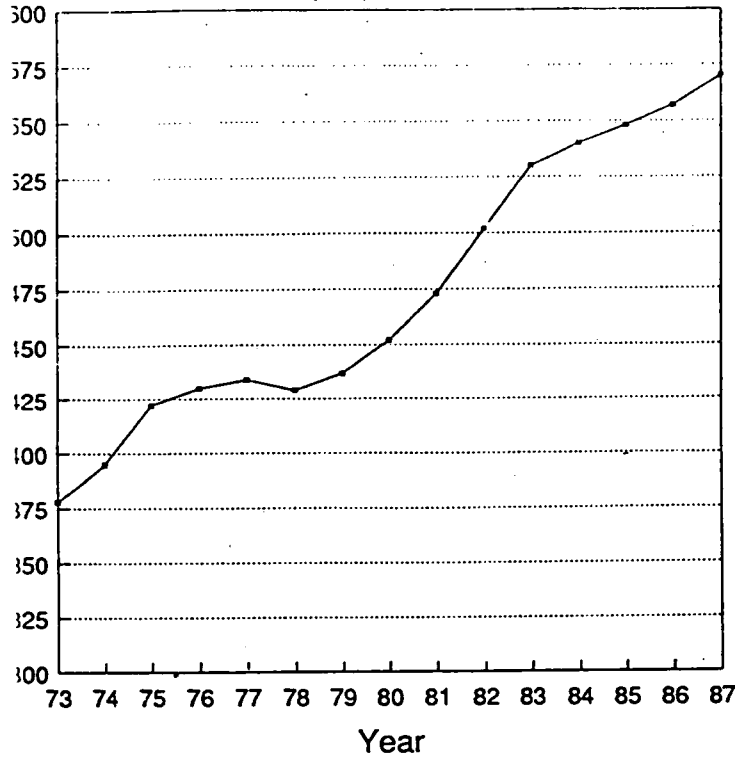


# TOTAL UNIVERSITY ENROLLMENT

175

# Participation Rates 18-21 Age Cohort

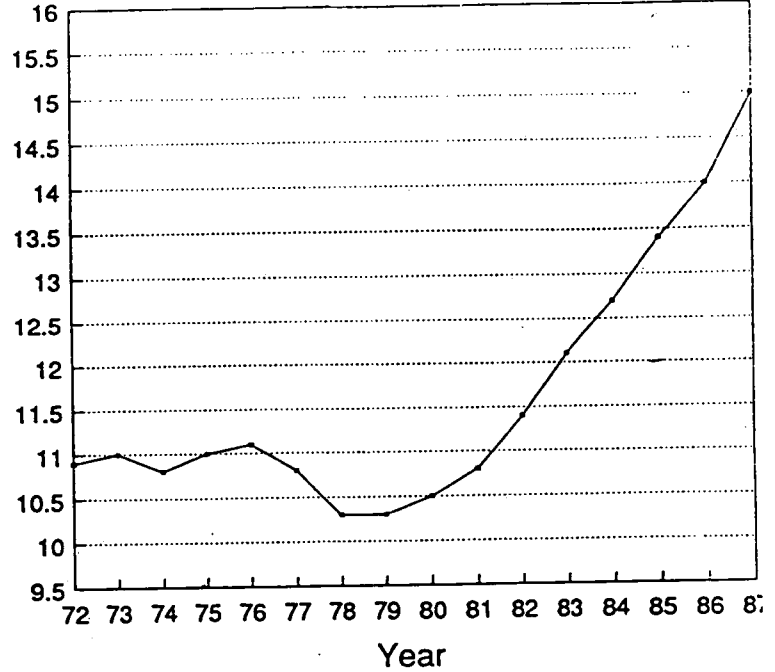
Thousands of Students (FTE)



—●— Enrollment

CHART 3

Percent



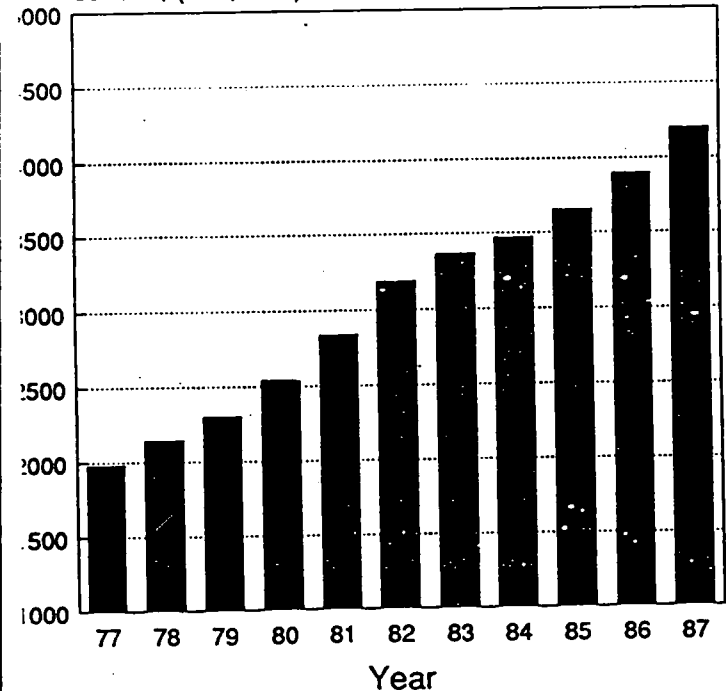
— Participation Rate

CHART 4

## GENERAL OPERATING INCOME FROM GOVERNMENT

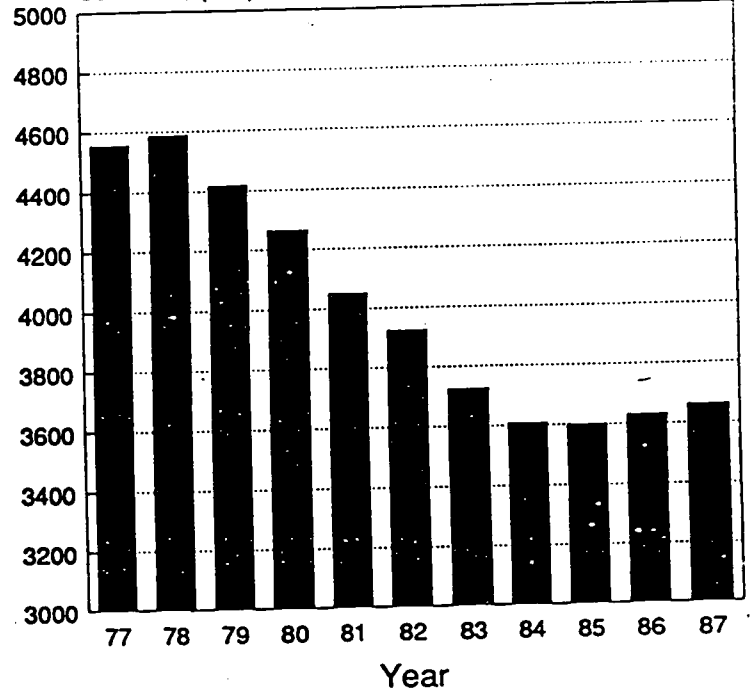
## GENERAL OPERATING INCOME FROM GOVERNMENT

Current \$ ('000,000's)



■ Income

Constant \$ (CPI) Per FTE



■ Dollars

TABLE 1

<u>Year</u>	<u>Total university enrolment, in FTE*</u>	<u>18-21 Partic- ipation rate</u>	<u>Government operating grants</u>	
			<u>Total, in current \$</u>	<u>per FTE, constant \$</u>
1972-73	364 352	10.9%		
1973-74	378 987	11.0%		
1974-75	395 334	10.8%		
1975-76	422 679	11.0%		
1976-77	430 942	11.1%		
1977-78	434 645	10.8%	1 981 035	4 558
1978-79	429 571	10.3%	2 147 300	4 589
1979-80	437 048	10.3%	2 303 525	4 420
1980-81	452 654	10.5%	2 549 613	4 264
1981-82	473 875	10.8%	2 842 363	4 053
1982-83	502 499	11.4%	3 193 999	3 925
1983-84	530 139	12.1%	3 371 212	3 725
1984-85	540 571	12.7%	3 472 599	3 609
1985-86	548 695	13.4%	3 658 309	3 601
1986-87	557 557	14.0%	3 905 015	3 631
1987-88	570 206	15.0%	4 201 182	3 663

\* FTE = full-time equivalent

Source: Research, Policy and Planning Division, Association of Universities and Colleges of Canada, Trends: The Canadian University in Profile, 1990 Edition (Ottawa: AUCC, 1990), as follows:

Enrolment, page 14

Participation rate, page 42

Government operating grants, page 98

## **IN A CHANGING ENVIRONMENT OF MANAGEMENT ACCOUNTING EXPERTISE: HOW THE PROFESSION AND UNIVERSITIES CAN COOPERATE**

**John Hylton**  
**Society of Management Accountants of Alberta**

### **Introduction**

Cooperative efforts between the accounting profession and the universities are built on understanding the effective role that each can play in attaining the goals of professional education and accreditation. The Society is about to embark on such a cooperative effort, the success of which will depend on the cooperation of both parties. I don't believe the Society overtly understands the amount it must rely on this partnership effort, but that will become very clear over the next few years.

To begin this look at cooperation, we need some historical background.

### **History**

The Society began in 1920 to serve the special needs of industrial accountants. It evolved into an education and accreditation organization and grew through all the stages of similar groups. A number of events happened in the mid-eighties which changed the organization significantly.

On July 1, 1985 the Society announced it had changed the designation of its members to better reflect their environment. The Registered Industrial Accountant became the Certified Management Accountant. This event changed the Society for all time, refocusing the organization towards its evolving territory.

A year prior to this momentous event, the Society added comprehensive examinations to capstone its accounting program. They involve fourteen hours over four days which can be written in three segments/sittings. Although not separate from the education system at the start, their new focus began the separation of education and accreditation processes.

The Society removed itself from providing a nationally coordinated education program in 1988-89. This grew out of an understanding that universities and colleges can provide education more effectively and efficiently, at less direct cost to the student. Some areas of Canada are not as well served as others. Therefore, it may be necessary to continue to provide for local education gaps until such time as the system is able to react to the Society's change in focus.

At about the same time, a Task Force produced the first Strategic Plan for the Society which led to a definition of the territory of management accounting to help explain the Society's mission. It reads:

"Certified Management Accountants, as professionals on the management team, provide business advice and direction on strategic, tactical and operational decisions. Certified Management Accountants' professional contribution is based on indepth knowledge about what information is required and how it must be organized and presented to improve decisions across all functions and levels of the organization."

### **The Needs of Business**

The territory statement clarified for CMAs a picture of where they fit into business. It elicited questions of how well our education/accreditation model fit the definition and the realities of the marketplace.

Market research revealed a gap between employers' expectations of accounting professionals and future graduates of the Society's program as it existed. A professional is expected to be technically competent, but not necessarily perform technical duties. Business expects the professional to act as a manager soon after graduation, and therefore requires him/her to have a solid understanding of management skills, as well as traditional accounting expertise.

Research activities, in which the Society was involved, revealed a changing technical environment in business. There was a need to create better information to ensure effective decision-making in a highly volatile and competitive economic environment. Management accounting knowledge is advancing quickly to meet this situation and the Society needs a vehicle to ensure graduating CMAs are as up to date in knowledge as possible.

### **New Accreditation Process**

Management accountants must be future-oriented creative thinkers who are prepared to take risks, and I believe the Society has shown these qualities in its approach to developing an accreditation process which is very creative in design. It meets the future needs of business for leading edge management accounting expertise and trained managers. It also meets the logical wishes of students to decrease their entry risk. The program will start at the end of June and early this fall. The following is a brief outline of this innovative process:

#### **Pre-Professional Program**

The program is designed with the expectation that colleges and universities can and will provide the bulk of traditional accounting education. The Pre-Professional Program is provided through this vehicle. Most of our future students will come from university accounting programs and will have taken the material required by the syllabus by the time they obtain their degree. As a reference point, this syllabus is the current syllabus of the old program.

### Entrance Examination

Upon completion of course work, which matches the Pre-Professional Syllabus of the Society, the student presents him/herself during the last week of June to write the Entrance Examination which is designed to test the candidate's preparedness to enter the Professional Program. The examination consists of eight hours over two days and is comprehensive and conceptual in style. Depth of understanding of accounting material is left in the hands of the post-secondary institutions where it is appropriately addressed. The Society is attempting to establish the candidates who will make appropriate CMAs in future years as this examination is the barrier point to entry to the profession; a radical approach from other accounting bodies.

### Profession Program

Upon passing the Entrance Examination, the candidate spends the next two years in part time study while obtaining complementary, full time pre-approved work experience. The study program adds leading edge knowledge in management accounting and information systems. It provides in depth management skills training and also, professional education in the area of ethics and integrity. The material is better presented by the profession for reasons of timing and emphasis.

The program is based in independent study sewn together with seminars and residential sessions. The presentation is to be at a graduate level and should represent at least a quarter of an MBA program. It is aimed at preparing professionals to provide expertise to business. There are marks throughout the program for assignments, presentations, simulations, and participation. The Final Examination, a four hour case study, completes the process and comprises 45 % of the total marks for the program. The pass rate is expected to be high due to the spreading of marks over several parts of the program.

### **Summary**

I believe the Society of Management Accountants of Canada has developed a model of cooperation between what post-secondary institutions can provide effectively and what the professional organization should provide to ensure its candidates are ready for professional membership. In the future it will be important for universities to cooperate with the Society in curriculum development to ensure their graduates attain the necessary level of competence to successfully enter this new program. In turn, the Society will need to understand the goals of university curriculum to make this partnership work. With the appropriate willingness to cooperate and a Society goal to add the necessary programming to fill in students gaps in training and education, this model should be very successful.

George L. Morfitt, F.C.A.  
Auditor General of British Columbia

Remarks to the Canadian Academic Accounting Association  
Victoria, B.C.  
June 2, 1990

Thank you for inviting me here today.

I wish to particularly welcome those of you who are visiting the West Coast from points east. We hope you will take some holiday time out here before you have to head home.

The audit of government is certainly intriguing:

- . \$15 Billion a year enterprise in British Columbia;
- . Myriad of active programs; and a consequent
- . Public expectation that there be strong accountability by the government as to its stewardship of public resources.

The giving by the Legislature, to the government, of responsibility for the management of public resources requires an appropriate accountability back from government as to how well it has performed that management function.

My Office has a strong role to play in holding the government accountable to the Legislature, and the public.

I speak to you from a background which is relevant to your interests in at least two respects:

- . I have occupied an unusual array of positions in the University community;  
and
- . I consider myself as being in the field of applied academics.

I wish to speak briefly today to two related subjects:

- . Operational independence
- . Operational accountability

### Operational Independence

We are soul brothers when it comes to Operational Independence. It is something I, as Auditor General, treasure dearly.

Independence from government is a cornerstone of my functioning as the legislative auditor for the province. Independence from government is similarly asserted at every opportunity by those of you who are full-time academics.

Concerning my Office:

- . I am appointed by, and a servant of, the Legislative Assembly - and not by and of the Government.  
- I report directly to the Legislature
- . The Government is accountable to the Legislature for its stewardship of public resources. I am asked to evaluate the state of that accountability, and to offer suggestions for improvement.
- . At the same time, the Government exercises control over the Legislature. So, to be providing a valued service, I must convince the government of the day that my recommendations are sound, and are beneficial to the administration of the public's business.

There are two main areas in which I see independence as being important to the achievement of objective inquiry and comment:

- . Program content (audit; teaching and research)
- . Funding of resources

In some respects, independence of program content is the easiest to achieve:

- . Government and governors, in general, realize that they do not have the background knowledge to be able to comment on, or redirect, program priorities approved by those having intimate knowledge of program goals and objectives.

However, when governments see public resources as being available for the furtherance of government programs, strong efforts may be mounted to directly utilize academic resources for government program purposes - to have academic programs and program priorities "rearranged".

We have all seen such efforts pursued by government. And that utilization may be alright, if it is consistent with academic purposes. However, if there is a lack of compatibility in this regard, then severe conflict can occur in the setting of academic priorities.

### Tenure

By the way, I have always championed academic tenure. But my support has always been in the context of academic accountability.

I am fully supportive of the view that the presence of occupational tenure is necessary whenever an important component of the occupational mandate is to offer critical appraisals of established government and societal institutions and processes. Without tenure, informed criticism would be both constrained and compromised.

My Office of Auditor General has a 6 year term certain, as provided by the terms of the Auditor General Act. That term certain is a key element in providing me with the independence which is so fundamental to the effective carrying-out of my duties.

Most, but not all, legislative auditors enjoy a legislated term of office. However, recently, the State Auditor for Kansas had his mandate changed from a term certain to a situation where his removal may be determined at any time by a simple majority vote of an 11-person committee.

In the Topeka newspaper the headline read, "Auditor Loses Tenure";

In the Wichita newspaper the headline read, "Auditor Receives Lifetime Appointment".

### Operational Accountability

Operational independence should not be equated with an absence of any requirement for accountability for, in my view, true independence can only be achieved when appropriate accountability is provided by the party to whom independence is granted.

I'm saying that independence always has a string attached to it. That string is "accountability".



Responsibility is most freely given when linked to an appropriate program of accountability. The granting of the one is not usually possible without the provision of the other.

This is perhaps true of all of life's interrelationships, and the Universities and Colleges, and the Office of the Auditor General, are no exceptions.

In the mid-80's, when university budgets were being severely constrained, there were many hard accountability questions being asked by government. And solid answers from the university community were hard to come by.

Merely complaining about lack of funding wasn't enough to change the attitude of government. A determination and demonstration of the value of post-secondary education was required to mobilize public, and consequent government, support.

In recognition of this fact, the University of British Columbia, for one, began portraying itself as the "Engine of Recovery" - an essential resource base of economic recovery for British Columbia and the country. Our other two B.C. universities followed suit, and support of the universities has since significantly increased.

However, my experience is that the university community has, in general, demonstrated considerable reluctance to be fully accountable, in specific terms, to the government or the public. Many reasons are given for this: difficulty in quantifying the effectiveness of program outputs; the variable relationship between teaching and research; etc.

But, the practical truth is that the more and better accountability that is provided, the greater the extent of independence and responsibility likely to be conferred.

So I would encourage the post-secondary educational community, as I would encourage my Office, not to be insular, not to be defensive. But to be positive, and proactive. To demonstrate that we understand, appreciate and practice value for money principles in the programs we undertake.

In many ways, I feel that, with the resources available, I am able to but scratch the surface in my examination of the government's management of public resources. At the same time, I am pleased with the many improvements in government management and reporting which, over the years, my Office has been instrumental in bringing about.

You can all be sure that I, and my independent legislative auditor colleagues across the country, will be constant in our efforts on your behalf to further improve and expand public accountability in Canada.