Copyright ©2000 by The Fraser Institute. All rights reserved. No part of this book may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

The authors of this book have worked independently and opinions expressed by them are, therefore, their own, and do not necessarily reflect the opinions of the members or the trustees of The Fraser Institute.

Printed in Canada.

Canadian Cataloguing in Publication Data

Main entry under title:

Safe enough?

Includes bibliographical references.
ISBN 0-88975-208-7


HM1101.S33 2000 363.1 C00-910918-8
## Contents

About the Authors / vii

Introduction / 3
Laura Jones

1 Risks All around Us

Risk Aversion: The Rise of an Ideology / 13
Mark Neal

Unknown Causes, Unknown Risks / 31
Lydia Miljan with Kate Morrison and Kelly Torrance

2 Case Studies in Risk Management

Science and Policy in the Economic Assessment of Transport Regulations / 53
William G. Waters, II

Second-hand Smoke and Cancer: The Research Evidence / 73
John C. Luik

Much Ado about (Almost) Nothing: Greenpeace and the Allegedly Toxic Teethers and Toys / 107
William T. Stanbury with Elaine Atsalakis, Dian Choi, Vivian Lau, Tammy Lee, Sindy Li, Olivia Tsang

Genetically Engineered Angst: From Frankenstein to Frankenfoods / 135
Douglas Powell
3 Too Safe?

Progress at Risk: Using the Precautionary Principle as a Standard for Regulatory Policy / 155
H. Sterling Burnett

Dying Too Soon: How Cost-Effectiveness Analysis Can Save Lives / 165
Tammy O. Tengs

The Reluctance to Use Cost-Effectiveness Analysis in Regulatory Decision-Making / 187
Peter J. Neumann

Reforming Risk Regulation in Canada: The Next Policy Frontier? / 195
William T. Stanbury
About the Authors

H. STERLING BURNETT is the Senior Policy Analyst with the National Center for Policy Analysis, a non-partisan, non-profit, research and education institute in Dallas, Texas. Mr. Burnett has an M.A. in Applied Philosophy from Bowling Green State University and expects to receive his Ph.D. in Applied Philosophy in 2000. He specializes in environmental ethics. He has been published in Ethics, Environmental Ethics, International Studies in Philosophy, The World and I, and the USA Today.

LAURA JONES is the Director of Environment and Regulatory Studies at The Fraser Institute. She joined The Fraser Institute in 1996 to develop the Institute’s policy on the environment. During 1997, she edited Fish or Cut Bait! The Case for Individual Transferable Quotas in the Salmon Fishery of British Columbia and Global Warming: The Science and the Politics. Ms Jones has also published articles in Fraser Forum, The Vancouver Sun, the Ottawa Citizen, and the Financial Post. She is the author of Crying Wolf? Public Policy on Endangered Species in Canada and was a co-author of the first and second editions of Environmental Indicators for Canada and the United States, a Fraser Institute Critical Issues Bulletin. She received her B.A. in Economics from Mount Holyoke College in Massachusetts, and her M.A. in Economics from Simon Fraser University in British Columbia. Prior to joining the Institute, she taught economics at Coquitlam College and is currently teaching Economic Issues at the British Columbia Institute of Technology.

JOHN C. LUUK has taught philosophy and management studies at a number of universities, has been Senior Associate of the Niagara Institute with responsibility for its work in public policy and leadership and organizational change, and has worked as a consultant for governmental institutions, professional organizations, and corporations in the United States, Europe, Asia, Africa, the Middle East and Latin America.

He was educated on a Rhodes Scholarship at the University of Oxford where he obtained his B.A., M.A. and D.Phil. degrees. His academic interests include public policy, particularly the use of science in policy and the question of government intervention to change risky behaviours, the ethics of advertising and business, and philosophy. He is a frequent media commentator and conference speaker and the author of numerous ar-
LYDIA MILJAN is the Director for the Alberta Initiative of The Fraser Institute. She holds a Ph.D. in political science specializing in politics and the media from the University of Calgary. Her dissertation, which will be published in fall, 2000, is a survey of Canadian journalists and will provide the first publicly available survey of French and English journalists compared with how the news is reported.

Dr. Miljan is also the Director of the National Media Archive at the Fraser Institute. She has been at the Fraser Institute since 1988. One of her first studies at the Institute was a controversial content analysis of CBC television and the Globe and Mail’s coverage of the free-trade agreement. Since that initial study, Dr. Miljan has conducted over 80 content analyses on television, radio, and newspaper coverage of public-policy issues. Her analysis of issues ranging from free trade to privatization, from health care to women’s issues and from elections to referendum campaigns has made her a most sought after media critic. This body of work has been printed in almost every newspaper in the country and she has been a guest on many open-line talk shows and television programs in Canada and the United States.

Dr. Miljan’s tenure at the National Media Archive has received international recognition as well. She is a member of an international organization, members of which assess media coverage in their own countries. In 1994, Dr. Miljan was invited by the British Commonwealth Secretariat to travel to South Africa to help establish a methodology for their monitoring of the South African Election campaign. Her work in that capacity helped to ensure a free and fair electoral process. In 1996, she was awarded the H.B. Earhart Fellowship.

MARK NEAL is Lecturer at Zayed University in the United Arab Emirates. He is currently researching the hidden costs of health, safety, and environmental regulations, particularly those concerning the pharmaceutical, chemical, food, and biotechnology industries. In 1995, he wrote Keeping Cures from Patients: The Perverse Effects of Pharmaceutical Regulations, London, Social Affairs Unit. Dr. Neal has further research interests in comparative and international management; he has a Ph.D. in International Management and is the author of The Culture Factor:
Cross-Cultural Management and the Foreign Venture (Macmillan Business). Most recently, he was co-author of the book, The Corporation under Siege: Exposing the Devices Used by Activists and Regulators in the Non-Risk Society (Social Affairs Unit 1998). He has also carried out extensive research on the gambling industry.

Peter J. Neumann is an Assistant Professor of Policy and Decision Sciences in the Department of Health Policy and Management and the Deputy Director of the Program on the Economic Evaluation of Medical Technology at the Harvard School of Public Health. His research focuses on economic evaluations of medical technologies, including ongoing evaluations of pharmacological treatments for Alzheimer’s Disease, asthma, lung cancer, and schizophrenia. He has also contributed to the literature on the use of willingness to pay and quality-adjusted life years (QUALYs) in valuing health benefits.

His other research has focused on the Food and Drug Administration’s regulation of health-economic information, government uses of cost-effectiveness analysis, and the impact of medical technology on health costs. His articles have appeared in the New England Journal of Medicine, Health Affairs, Medical Care, the Health Care Financing Review, and many other journals. From 1990 to 1992, Dr. Neumann served as Special Assistant to the Administrator at the Health Care Financing Administration. He received his doctorate in health policy and management from the Harvard School of Public Health.

Douglas Powell completed a B.Sc. (honors) in molecular biology and genetics at the University of Guelph in 1985 and a doctoral degree in the department of Food Science at the University of Guelph in May 1996, applying risk-communication theory to issues of food safety and agricultural biotechnology. In August 1996, he began an appointment as Director of the Science and Society project at the Universities of Guelph and Waterloo and is currently an assistant professor in the Department of Plant Agriculture at the University of Guelph. Dr Powell is currently director of the five-year Agri-Food Risk Management and Communication project at Guelph, where he leads a diverse research team that integrates scientific knowledge with public perceptions to garner the benefits of a particular agricultural technology or product while managing and mitigating identified risks.

William T. Stanbury recently retired from his position as UPS Foundation Professor of Regulation and Competition Policy, Faculty of Commerce and Business Administration, University of British Columbia. He obtained his Ph.D. in economics from the University of California at Berkeley in 1972. Dr. Stanbury has published studies on many areas
of government regulation, including airlines, telecommunications, rent control, financing of political parties, forestry, marketing boards, and occupations. In 1989, he won the Jacob Biely and Killam prizes for his research in university-wide competitions.

**TAMMY O. TENGS** is an Assistant Professor in the departments of Urban and Regional Planning and Environmental Analysis and Design in the School of Social Ecology at the University of California, Irvine, and has been an Assistant Research Professor in the Center for Health Policy at Duke University. She completed her doctorate in Health Policy and Management at the Harvard School of Public Health in 1994. Before entering Harvard, she earned an M.A. in Industrial Engineering and Operations Research at the University of Massachusetts, Amherst, and studied in the Engineering-Economic Systems Department at Stanford University. Dr. Tengs directed the four-year Life-Saving Priorities Project at the Harvard Center for Risk Analysis, supervising a team of 20 that amassed cost-effectiveness data for hundreds of lifesaving interventions. She is the principal author of the papers, *Five-hundred Life-Saving Interventions and Their Cost-effectiveness* and *The Opportunity Costs of Haphazard Societal Investments in Life-saving*. When the *Wall Street Journal* published an article based on the Life-Saving project in 1994, about 20 other newspapers followed suit, and since then she has received approximately 1,500 requests for these publications. Dr. Tengs is a “decision scientist.” Her research interests include the rational allocation of societal resources devoted to averting premature death and the economic efficiency of investments in science.

**WILLIAM G. WATERS**, II, is Professor and Chair, Transportation and Logistics, in the Faculty of Commerce and Business Administration at the University of British Columbia. He is also Editor-in-Chief of *Transportation Research E (Logistics and Transportation Review)*, a highly respected international academic journal. Dr. Waters has published extensively, over 100 publications including demand, cost, and productivity analysis in transportation, ocean shipping and bulk logistics systems, railway costing and performance measurement, project evaluation methods and the analysis of public policies.

He has taught 20 different university courses in economics, transportation, public utilities, project evaluation, and relations between government and business. He has held visiting appointments at the Universities of Oxford, Sydney, Tasmania, and Wisconsin. He has served as a consultant to companies large and small, to various governments and other agencies including the World Bank and the Association of American Railroads.