This talk described future actuarial research needs and directions of the profession from the perspective of the author who is in a unique position within the actuarial community. First, a brief review of past and current research activities were discussed. Then, an examination of the consumers and providers of actuarial research was noted.

With this background, a number of issues for the future were identified. As the role of the actuary and his/her operating environment changes, so must the education, training and tools. What the future actuary needs to survive professionally will dictate important directions for research. On the other hand, work by actuarial researchers may point toward areas that might benefit from the expertise of actuaries.

At a practical level, there are strong implications for actuarial researchers. To a certain degree, the needs of the profession must be met in a practical manner in areas of concern to the various constituencies. Actuarial researchers will find that funds will become available to conduct research in specific areas while other topics will lack in financial support. Furthermore, research at a practical level will take on a more contractual approach.

The basic education of students in actuarial science programs and those taking actuarial exams may require adjustments and rethinking. Finally, continuing education for practicing actuaries takes on a whole new meaning in terms of specialties, and changing professional responsibilities. The future of actuarial research has many possibilities, but must continue in the way that best enhances the profession.
I. Introduction
A. Acknowledge Cecil Nesbitt's influence over past 2 years
B. My role
C. Management perspective/carry out policies of Research Policy Committee and Board of Governors
D. Task Force on Research carefully reviewing role of actuarial research
E. Critical stage for research today

II. Current overview of actuarial research
A. Experience
   1. Mortality/morbidity
   2. Valuation tables
B. Practice
   1. Surveys/tools to do the job/1985 CIDA diskette
   2. Standards of practice/interpretations
C. Theory
   1. Basic Research
   2. Actuarial principles

III. Another view and a look toward the future of actuarial research
A. Old problems:new data
   1. Revised mortality/morbidity studies seriatim basis
   2. Economic statistics for actuaries
B. Old Problems:new tools/techniques
   1. Use of analysis of variance/contingency table analysis for individual disability insurance valuation tables
   2. Applications of risk theory credibility theory and financial analysis
   3. Asset liability marketing
C. New Problems
   1. Valuation actuary (new emphasis/cash flow projections)
   2. Prediction of solvency/insolvency in companies
   3. Investigation of basic concepts for possible application later on

IV. Background for future of actuarial research
A. Membership research needs expressed as practical
   1. Solve problems better/easier
   2. Cookbook/handbook approach in many cases
   3. Data bases for information
B. Board of Governors/officers want to strengthen research
   1. Increased SOA research development fund
   2. Link research to educational system
   3. See need for research to help practitioners
C. Profession
   1. Continued significance
V. Implications for research and researchers
   A. Members
      1. Solution to problems
      2. continuing education/professionalism
   B. Profession
      1. Expansion of opportunities/role
      2. Basic education

VI. Strategies to consider
   A. Be concerned about leadership’s priorities
      1. Actuary of future
      2. Symposia
      3. 1989 centennial celebration of profession
      4. Broader representation of actuaries in public policy forum
   B. Member needs
      1. Valuation actuary
      2. Pension/employee benefits
      3. Health
      4. Continuing education (career changes/enhancements)
   C. Students
      1. Basic education
      2. Specialized education
      3. Future opportunities
   D. Employers of actuaries
      1. Skilled people
      2. Support in data and tools
      3. Principles/standards

VII. Why be concerned
   A. Perceived gap
      1. Academic vs. practitioners perspective
      2. Theory vs. practice
   B. Limited resources
      1. Money
      2. People
   C. Policy direction
      1. Away from research
      2. Toward data and tools

VIII. Changes to research
   A. Demonstrate practical approaches
   B. Prepare study notes (basic/continuing education)
   C. Write for broader audience

IX. Results
   A. Barriers removed
   B. More research funds
   C. Integration of education with practice
   D. More support for basic research
   E. Enhancement of profession
F. Public recognition

XI. Future research
A. Time of adjustment - short term
   1. Toward new data/new tools
   2. Study notes
   3. Continuing education
   4. Targeted projects
   5. Contract research

B. Long term
   1. Integration of University work with profession
   2. More research money
   3. Encouragement of new ideas (basic research)
   4. Expansion of what is considered actuarial science
   5. Seed money/grants in addition to contracts
   6. Actuarial research centers

C. Benefit to profession
   1. Academic members viewed more positively
   2. Theory nurturing practice
   3. Balance of research by whatever terms we define it