MINNESOTA WELLSPRING

TASK FORCE ON TECHNOLOGY

AND THE

EXPANSION OF EMPLOYMENT



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WELLSPRING TASK FORCE EXAMINES TECHNOLOGY AND THE EXPANSION OF EMPLOYMENT

St. Paul, MN -- Minnesota Wellspring announced today the creation of a 26member Task Force on Technology and the Expansion of Employment, chaired by William C. Norris, Chairman of Control Data Corporation and a Wellspring Board member. The group, comprised of representatives from labor, business, education, government, and community organizations, will examine issues affecting innovation including research and development, commercialization of technology, and education and training of scientific and technical personnel. Results of committee work will include specific short- and long-range recommendations for policies and programs aimed at expanding employment in Minnesota and the initiation of actions toward their implementation. The task force is the first to be formed as part of Wellspring's Economic Strategy Process, led by Dr. Sung Won Sohn, Senior Vice President and Chief Economist of Northwestern National Bank of Minneapolis.

"This task force is aimed at expanding the job base in Minnesota and reflects Minnesota Wellspring's commitment to partnerships among major societal sectors to resolve mutual problems," Norris said. He emphasized the importance to committee work to develop both short- and long-term programs to improve Minnesota's economy.

Task force members were invited to serve by Governor-Elect Rudy Perpich, Honorary Chairman of Minnesota Wellspring, David Roe, President of the Minnesota AFL-CIO, and Raymond Plank, Chairman of Apache Corporation, both Wellspring Co-Chairmen. Members of the task force are: Richard Aguilar, President Minnesota Hispanic Chamber of Commerce, St. Paul: John Brandl, State Representative, Minneapolis; Maria Van Brunt, Director, East Hillside Nursery, Duluth; Jack DeLuca, President, Abe W. Matthews Engineering, Hibbing; Willis Drake, Chairman, Data Card Corporation, Minnetonka; Dennis Dunne, President, First National Bank of Duluth, Duluth.

John Fedo, Mayor, City of Duluth, Duluth; Don Fraser, Mayor, City of Minneapolis, Minneapolis; Gleason Glover, Executive Director, Minneapolis Urban League, Minneapolis; Peter Gombrich, President & CEO, Integrated Microcircuits, Minneapolis; Joann Gould, Chairman & CEO, Data Text Inc., Bloomington; Fred Green, Executive Vice President, Ault Incorporated, Minneapolis; Warren Hanson, West Bank Community Development Corporation, Minneapolis; Nils Hasselmo, Vice President, University of Minnesota, Minneapolis.

Nancy Henninger, Executive Vice Preisdent, Bemidji Area Chamber of Commerce, Bemidji; Marlene Johnson, Lt. Governor-Elect of Minnesota, St. Paul; Phyllis Kahn, State Representative, St. Paul; Tom Kelm, President, North State Instruction, Minneapolis; Richard LaBord, President, Hibbing Electroncis, Hibbing; Roger Moe, State Senator, District-2 Ada; Msgr. Terrence Murphy, President, College of St. Thomas, St. Paul.

William C. Norris, Chairman & CEO, Control Data Corporation, Bloomington; Harry C. Piper, Chairman of the Board, Piper Jaffray & Hopwood, Incorporated, Minneapolis; Harry Sieben, State Representative, Newport; John Thoemke, Business Manager, International Brotherhood of Electrical Workers, St. Paul; Harold Zigmund, President & CEO, Blandin Company, Grand Rapids.

CHARTER ...

EXAMINE ALL ISSUES AFFECTING INNOVATION INCLUDING
RESEARCH AND DEVELOPMENT, COMMERCIALIZATION OF
TECHNOLOGY, EDUCATION AND TRAINING OF SCIENTIFIC AND
TECHNICAL PERSONNEL AND RECOMMEND STRATEGIES, POLICIES
AND PROGRAMS FOR EXPANSION OF EMPLOYMENT.

PREMISES ...

- EXPANDING EMPLOYMENT REQUIRES BOTH CREATION OF NEW JOBS AND APPROPRIATE EDUCATION AND TRAINING FOR A GROWING WORK FORCE.
- MOST JOBS RESULT FROM INDUSTRIAL INNOVATION WHICH IS

 THE APPLICATION OF TECHNOLOGY TO CREATE NEW PRODUCTS.

 SERVICES AND PROCESSES OR TO IMPROVE EXISTING ONES.
- THE UNITED STATES' ONCE STRONG COMPETITIVE POSITION
 IN TECHNOLOGY HAS BEEN STEADILY ERODING AS OTHER
 COUNTRIES HAVE TAKEN MANY ACTIONS TO ACCELERATE ITS
 DEVELOPMENT AND APPLICATION. WITHOUT AGGRESSIVE
 ACTION TO REVERSE THIS TREND. THE U.S. WILL SUFFER
 FURTHER SERIOUS LOSSES OF JOBS TO FOREIGN COMPETITORS.
- A NUMBER OF STATES ARE MOVING AGGRESSIVELY TO EXPAND INNOVATION IN HIGH TECHNOLOGY FIELDS.
- OUR EDUCATIONAL SYSTEM IS ERODING, ESPECIALLY IN THE FIELDS OF SCIENCE, MATHEMATICS AND ENGINEERING.
- OTHER COUNTRIES ARE INCREASING NUMBERS OF SCIENTIFIC AND TECHNICAL PERSONNEL TRAINED FASTER THAN THE U.S.

TENTATIVE MAJOR AND INTERRELATED GOALS FOR TECHNOLOGY & EXPANSION OF EMPLOYMENT PROGRAMS

- 1. CREATION OF 60,000 TO 70,000 NEW JOBS DURING THE NEXT 15 YEARS TARGETED TO AREAS OF HIGHEST UNEMPLOYMENT.
- 2. ACHIEVE MORE EFFICIENT DEVELOPMENT OF NEW TECHNOLOGY
 AND UTILIZATION OF EXISTING TECHNOLOGY THROUGH
 INCREASED COOPERATION AMONG INDUSTRY, ACADEMIA AND
 GOVERNMENT.
- 3. MORE SUPPORT FOR THE STARTUP AND PROFITABLE GROWTH OF SMALL BUSINESSES.
- 4. GREATER AVAILABILITY OF CAPITAL FOR HIGH GROWTH COMPANIES.
- 5. IDENTIFY GROWTH INDUSTRIES FOR MINNESOTA AND MAJOR
 ACTIONS NECESSARY TO HELP ASSURE CONTINUING EXPANSION
 OF EXISTING ONES AND THE ESTABLISHMENT OF NEW ONES.
- 6. IMPROVE VIABILITY OF SMALL AND MEDIUM-SIZED FAMILY FARMS AND DEVELOP SMALL SCALE FOOD PROCESSING.
- 7. IMPROVED PRODUCTIVITY, AVAILABILITY, QUALITY AND RELEVANCE OF EDUCATION AND TRAINING.
- 8. MAINTENANCE OF EMPLOYMENT (INCLUDES RETRAINING OF DISPLACED WORKERS AND CONSTRUCTIVE PLANT CLOSINGS AND MERGER LEGISLATION).
- 9. INCREASE IN NUMBER OF PERSONS SELECTING CAREERS IN SCIENCE AND ENGINEERING.
- 10. INCREASE THE CAPACITY OF CITIZENS AND LOCAL AND NEIGH-BORHOOD DEVELOPMENT ORGANIZATIONS TO IDENTIFY AND DE-VELOP OPPORTUNITIES FOR JOB CREATION AND EXPANSION OF

TENTATIVE MAJOR AND INTERRELATED GOALS

FOR TECHNOLOGY & EXPANSION OF EMPLOYMENT PROGRAMS

- 1. CREATION OF 60,000 TO 70,000 NEW JOBS DURING THE NEXT 15 YEARS TARGETED TO AREAS OF HIGHEST UNEMPLOYMENT.
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TENTATIVE PROGRAM OVERALL GOAL FOR JOB CREATION

GOAL -

CREATION OF 60,000-70,000 NEW JOBS DURING THE NEXT 15
YEARS TARGETED TO AREAS OF HIGHEST UNEMPLOYMENT.

PROBLEMS INCLUDE:

- PERMANENT LOSS OF JOBS IN N.E. MINNESOTA DUE TO IRREVERSIBLE CHANGES IN STEEL AND AUTO INDUSTRIES.
- HIGH UNEMPLOYMENT IN MANY SMALLER COMMUNITIES WHICH LACK INDUSTRY AND BUSINESS BASE TO CREATE NEW JOBS.

FAST TRACK RECOMMENDATIONS

- ADOPTION OF TARGETED JOB CREATION PROGRAM DEVELOPED BY

 SMALL BUSINESS COMMITTEE OF MINNESOTA BUSINESS

 PARTNERSHIP.
- STATE FUNDS FOR ASSISTING COMMUNITIES IN PLANNING AND ESTABLISHING JOB CREATION NETWORKS. \$25,000 MAXIMUM FOR EACH COMMUNITY AND TO BE MATCHED BY PRIVATE FUNDS.

 (MCO+MSCF+B.T.C.)

1983 AND LONGER RANGE

• ANALYZE NEED FOR ADDITIONAL JOB CREATION EFFORTS AND RECOMMEND APPROPRIATE ACTIONS.

TECHNOLOGY

GOAL

ACHIEVE MORE EFFICIENT DEVELOPMENT OF NEW TECHNOLOGY AND COMMERCIALIZATION OF EXISTING TECHNOLOGY THROUGH INCREASED COOPERATION AMONG INDUSTRY, ACADEMIA AND GOVERNMENT.

PROBLEMS INCLUDE:

- THE UNITED STATES' ONCE STRONG COMPETITIVE POSITION IN TECHNOLOGY HAS BEEN STEADILY ERODING AS OTHER COUNTRIES HAVE TAKEN MANY ACTIONS TO ACCELERATE RESEARCH AND DEVELOPMENT.
- MPROVEMENT NEEDED IN THE PRODUCTIVITY, QUALITY AND RESPONSIVENESS OF EDUCATION AND TRAINING, ESPECIALLY IN THE FIELDS OF SCIENCE, MATHEMATICS AND ENGINEERING.
- A NUMBER OF OTHER COUNTRIES ARE INCREASING THE NUMERS OF SCIENTIFIC AND TECHNICAL PERSONNEL TRAINED FASTER THAN THE U.S.
- A NUMBER OF STATES ARE MOVING AGGRESSIVELY TO EXPAND INNOVATION IN HIGH-TECHNOLOGY FIELDS.

FAST TRACK RECOMMENDATIONS

- STIMULATE MORE EFFICIENT DEVELOPMENT AND COMMERCIALIZATION OF TECHNOLOGY BY:
 - A. BECOMING A PARTNER WITH THE PRIVATE SECTOR IN FUNDING THE MICROELECTRONICS AND INFORMATION SCIENCE CENTER AT THE UNIVERSITY OF MINNESOTA.
 - B. PROVIDING MATCHING FUNDING FOR ONE OR MORE ADDITIONAL SCIENCE CENTERS SUCH AS BIOMEDICS AND ONE IN N.E. MINNESOTA IN THE FIELDS OF TACONITE AND OTHER MINERALS, PEAT, TIMBER AND WATER.
 - C. ESTABLISHMENT OF PROGRAM TO FACILITATE TRANSFER OF UNIVERSITY CREATED TECHNOLOGIES INTO INDUSTRY ALONG LINES OF ONGOING MBP WORK GROUP ON METHODS FOR FACILITATING TRANSFER OF TECHNOLOGY FROM ACADEMIC INSTITUTIONS.

1983 AND LONGER RANGE

• CONSIDER OTHER PROGRAMS RELEVANT TO THE ATTAINMENT OF THE GOAL.

SMALL BUSINESS

GOAL

MORE SUPPORT FOR THE STARTUP AND PROFITABLE GROWTH OF SMALL BUSINESSES.

PROBLEMS INCLUDE:

- DECREASING ACCESS TO TECHNOLOGY BY SMALL BUSINESS
- INCREASING COMPETITION FROM BIG BUSINESS
- INADEQUATE AVAILABILITY OF STARTUP CAPITAL

FAST TRACK RECOMMENDATIONS

- ESTABLISHMENT OF STATE RESEARCH FUND TO BE USED FOR PHASED AWARDS TO INDIVIDUAL ENTREPRENEURS AND SMALL COMPANIES. SECOND-PHASE GRANTS TO BE MATCHED BY PRIVATE SECTOR FUNDS.
- A HELP-START-A-COMPANY PROGRAM SIMILAR TO ONE BEING DEVELOPED BY THE MINNESOTA BUSINESS PARTNERSHIP BE ESTABLISHED THROUGH WHICH LARGER COMPANIES CAN ASSIST IN THE STARTUP OF SMALL ENTERPRISES.
- ESTABLISH INCENTIVES IN THE FORM OF TAX CREDITS FOR CORPORATE AND INDIVIDUAL CONTRIBUTIONS TO THE MINNESOTA COOPERATION OFFICE AND SIMILAR COMMUNITY ORGANIZATIONS SUPPORTING JOB CREATION.
- IN TARGED AREAS PROVIDE SUPPORT AS DESCRIBED IN MINNESOTA BUSINESS PARTNERSHIP JOB CREATION PROGRAM.

1983 AND LONGER RANGE

CONSIDER OTHER ACTIONS FOR HELPING SMALL BUSINESS INCLUDING ENCOURAGEMENT OF MORE PENSION FUND INVESTMENTS IN SMALL BUSINESSES.

CAPITAL FOR HIGH GROWTH COMPANIES

GOAL

GREATER AVAILABILITY OF CAPITAL FOR HIGH GROWTH BUSINESSES.

PROBLEMS INCLUDE: .

• BECAUSE OF LACK OF FINANCING ON SUITABLE TERMS FROM

TRADITIONAL SOURCES SUCH AS VENTURE CAPITAL AND BANKS,

SMALL AND MEDIUM-SIZED HIGH GROWTH COMPANIES SELL OUT

TO BIG COMPANIES OR MOVE TO OTHER STATES WHERE

FINANCING IS AVAILABLE.

FAST TRACK RECOMMENDATIONS

NONE

1983 AND LONGER RANGE

• DEVELOP DETAILS OF PROGRAM, POSSIBLY PATTERNED AFTER

MODEL USED IN MASSACHUSETTS.

SMALL SCALE AGRICULTURE & FOOD PROCESSING

GOAL

IMPROVE VIABILITY OF SMALL AND MEDIUM-SIZED FAMILY FARMS AND DEVELOP SMALL SCALE FOOD PROCESSING.

PROBLEMS INCLUDE:

- INCREASING INTEREST IN SMALL FARMS BUT LACK OF TECHNOLOGY.
- MOST OF THE PRODUCE CONSUMED IN MINNESOTA IS SHIPPED IN FROM OUTSIDE THE STATE.

FAST TRACK RECOMMENDATIONS

NONE EXCEPT TAX CREDITS ON LOANS WHICH ARE PART OF TARGETED JOBS EXPANSION PROGRAM.

1983 AND LONGER RANGE

- CONSIDER WAYS OF ACCELERATING DEVELOPMENT OF TECHNOLOGIES

 MOST APPROPRIATE FOR SMALL AND MEDIUM-SIZED COMPANIES.
- DEVISE AND RECOMMEND ADOPTION OF MORE EFFECTIVE SUPPORT
 WHICH INCLUDES IMPROVED METHODS OF DISSEMINATING KNOWLEDGE
 AND MORE AVAILABLE FINANCING.

GROWTH INDUSTRIES

GOAL

TDENTIFY NEW HIGH GROWTH INDUSTRIES FOR MINNESOTA AND MAJOR ACTIONS NECESSARY TO HELP ASSURE THEIR ESTABLISHMENT AND ACTIONS TO ASSURE CONTINUING GROWTH OF EXISTING GROWTH INDUSTRIES.

PROBLEMS INCLUDE:

- SCARCITY OF RESOURCES
- GROWING FOREIGN COMPETITION

FAST TRACK RECOMMENDATIONS

• NONE

1983 AND LONGER RANGE

- LOOK AT ALL POSSIBILITIES.
- MEDICAL EQUIPMENT AND COMPUTERS HAVE CONTINUING HIGH GROWTH POTENTIAL.
- ELECTRONIC PUBLISHING IS AN EMERGING INDUSTRY WITH GREAT POTENTIAL.
- SMALL SCALE AGRICULTURE AND SMALL SCALE FOOD PROCESSING HAS GOOD POTENTIAL.

EDUCATION & TRAINING

GOAL

IMPROVED PRODUCTIVITY, AVAILABILITY, QUALITY AND RELEVANCE OF EDUCATION AND TRAINING IN MINNESOTA.

SCOPE - PART A: PRIMARY & SECONDARY EDUCATION & TRAINING

EXAMINE ALL RELEVANT ISSUES AND RECOMMEND STRATEGIES, POLICIES AND PROGRAMS FOR THE IMPROVEMENT OF PRODUCTIVITY, AVAILABILITY, QUALITY AND RELEVANCE OF PRIMARY AND SECONDARY EDUCATION AND TRAINING WITH EMPHASIS ON SCIENCE, MATHEMATICS, COMPUTER LITERACY AND LANGUAGES.

PROBLEMS INCLUDE:

- HIGH AND EVER ESCALATING COST OF PRESENT HIGHLY LABOR INTENSIVE EDUCATION SYSTEM IS BECOMING UNAFFORDABLE. MAJOR CAUSE IS LACK OF APPROPRIATE USE OF ADVANCED TECHNOLOGY IN TEACHING AND ADMINISTRATION.
- MATH, SCIENCE, COMPUTER LITERACY AND LANGUAGE COURSES ARE UNAVAILABLE IN MANY SCHOOLS.
- NEW SKILLS TRAINING NEEDED--ESPECIALLY N.E. MINNESOTA.
- COMPETENT SCIENCE AND MATH TEACHERS SCARCE.
- LACK OF RETRAINING PROGRAM FOR DISPLACED TEACHERS.
- LACK OF INTEREST IN MATH AND SCIENCE BY MANY STUDENTS.
- INADEQUATE ASSISTANCE IN GETTING DISADVANTAGED AND DISABLED PERSONS TRAINED AND EMPLOYED.

FAST TRACK RECOMMENDATIONS

- A. ENCOURAGE EVERY SCHOOL DISTRICT IN MINNESOTA TO DEVELOP A FIVE-YEAR PLAN FOR IMPROVING QUALITY, AVAILABILITY AND PRODUCTIVITY OF EDUCATION, ESPECIALLY IN MATH, SCIENCE, COMPUTER LITERACY AND LANGUAGE FIELDS. THE PLAN TO FEATURE:
 - OPTIMUM USE OF TECHNOLOGY IN THE TEACHING PROCESS
 - COMPETITIVE SALARIES FOR TEACHERS

- INCREASED COOPERATION AMONG PRIMARY, SECONDARY AND POST-SECONDARY INSTITUTIONS.
- INCREASED COOPERATION BETWEEN INDUSTRY AND EDUCATIONAL INSTITUTIONS.
- B. ESTABLISHMENT OF SPECIAL STATE FUND TO PROVIDE SEMINARS AND CONSULTING SERVICES FROM APPROVED SOURCES TO ASSIST EVERY SCHOOL DISTRICT IN 5 YEAR PLAN PREPARATION.
- C. STATEWIDE PROGRAM FOR STIMULATING INTEREST IN SCIENCE, ENGINEERING AND TECHNICAL CAREERS THROUGH COMMUNICATIONS AND RECOGNITION OF STUDENT AND GOVERNMENT ACHIEVEMENTS.
- D. ESTABLISHMENT OF TWENTY MODEL CENTERS IN HIGH SCHOOLS FOR DEMONSTRATING USE OF TECHNOLOGY IN THE TEACHING PROCESS DURING THE NEXT TWO YEARS, TO BE FOLLOWED BY AN ORDERLY STATEWIDE PROGRAM PHASED IN OVER A FIVE YEAR PERIOD.
- E. PLAN PROGRAM DURING 1983 FOR INITIAL IMPLEMENTATION IN 1984 TO TRAIN TEACHERS IN THE MANAGEMENT OF TECHNOLOGY.
- F. 1983 INTERIM PROGRAM TO RETRAIN AND PLACE 100 TEACHERS DESIRING OR REQUIRING CAREER REDIRECTION. DURING 1983 DEVELOP PLAN FOR FIVE YEAR RETRAINING PROGRAM.

1983 AND LONGER TERM

- G. DEVISE METHODS FOR INCREASING COOPERATION AMONG SCHOOLS, PARENTS, BUSINESS, INDUSTRY, LABOR.
- H. INDUSTRY-GOVERNMENT PROGRAMS TO ASSIST DISADVANTAGED AND DISABLED YOUTH TO GET STARTED IN TECHNICAL AND PROFESSIONAL CAREERS BY LINKING EDUCATION AND WORK EXPERIENCE.
- I. EXPAND MODEL CENTER PROGRAM (D ABOVE) TO INCLUDE K-12 GRADES.
- J. DEVELOP PLAN FOR MOST EFFICIENT STATEWIDE UTILIZATION OF TECHNOLOGY IN MATH, SCIENCE, COMPUTER LITERACY AND LANGUAGE CURRICULUM IN HIGH SCHOOLS.

SCOPE - PART B: POST-SECONDARY EDUCATION & TRAINING

EXAMINE ALL RELEVANT ISSUES AND RECOMMEND STRATEGIES, POLICIES AND PROGRAMS FOR THE IMPROVEMENT OF PRODUCTIVITY, AVAILABILITY, QUALITY AND RELEVANCE OF POST-SECONDARY EDUCATION AND TRAINING WITH EMPHASIS ON MATHEMATICS, SCIENCE, ENGINEERING, COMPUTER LITERACY AND VOCATIONAL TRAINING.

PROBLEMS INCLUDE:

- EVER ESCALATING COST REQUIRING INCREASING STATE APPROPRIATIONS.
- INADEQUATE FACULTY SALARIES
- SHORTAGE OF FACULTY IN MATH, SCIENCE AND ENGINEERING.
- GROWING NEED IN INDUSTRY FOR MORE ENGINEERS AND TECHNICIANS.
 - •• UNIVERSITY OF MINNESOTA ENGINEERING SCHOOL UNABLE TO ACCEPT ALL QUALIFIED APPLICANTS.
 - ABSENCE OF 2-YEAR TECHNOLOGY CURRICULUM FOR TRAINING TECHNICIANS.

FAST TRACK RECOMMENDATIONS

- A. ENCOURAGE EACH INSTITUTION TO DEVELOP A FIVE-YEAR PLAN FOR IMPROVING QUALITY, AVAILABILITY AND PRODUCTIVITY OF EDUCATION, ESPECIALLY IN SCIENCE, COMPUTER LITERACY AND ENGINEERING. THE PLAN TO FEATURE:
 - OPTIMUM USE OF TECHNOLOGY IN THE TEACHING PROCESS
 - COMPETITIVE SALARIES FOR TEACHERS
 - INCREASED COOPERATION AMONG PRIMARY, SECONDARY AND POST-SECONDARY INSTITUTIONS.
- B. ESTABLISHMENT OF SPECIAL STATE FUND TO PROVIDE SEMINARS AND CONSULTING SERVICES FROM APPROVED SOURCES TO ASSIST EVERY SCHOOL DISTRICT IN 5 YEAR PLAN PREPARATION.
- C. DEVISE METHODS AND INCENTIVES FOR INCREASING COOPERATION AMONG ACADEMIA, BUSINESS, LABOR UNIONS AND GOVERNMENT.
- D. ESTABLISH 10 FRESHMAN (PREP) CENTERS AT COMMUNITY COLLEGES AND AREA VOCATIONAL TECHNICAL INSTITUTES FOR DELIVERY OF COLLEGE PREP AND FIRST YEAR COLLEGE MATH, SCIENCE AND COMPUTER LITERACY AND LANGUAGE COURSES.

- E. UPGRADE TWO YEAR TECHNOLOGY CURRICULUM AT DESIGNATED COMMUNITY COLLEGES, STATE UNIVERSITIES AND AREA VOCATIONAL TECHNICAL INSTITUTES.
- F. LAUNCH ONE FOUR-YEAR SPECIALIZED ENGINEERING SCHOOL AT UMD AND ONE AT A STATE UNIVERSITY SITE IN 1983. IN ADDITION, DURING 1983, ASSIST IN IDENTIFYING SOURCES OF PRIVATE FUNDS TO ESTABLISH ENGINEERING SCHOOL AT A PRIVATE COLLEGE.
- F. CENTERS AND SCHOOLS IN D, E, & F WOULD:
 - 1. USE ADVANCED TECHNOLOGY IN TEACHING PROCESS, AND,
 - 2. MANAGEMENT OF CENTERS CONTRACTED TO INDUSTRY.
- G. ESTABLISH DATA BASE TO INVENTORY CURRENT AND FUTURE SKILLS REQUIREMENTS.

1983 AND LONGER RANGE

- H. STUDY AND MAKE RECOMMENDATIONS FOR CURRICULUM OF THE NEWLY ESTABLISHED FOUR-YEAR SPECIALIZED ENGINEERING SCHOOLS
- I. DEVISE ALTERNATE METHODS FOR FINANCING EDUCATION.

MAINTENANCE OF EMPLOYMENT

SCOPE

EXAMINE ALL RELEVANT ISSUES AND RECOMMEND STRATEGIES, POLICIES AND PROGRAMS FOR MAINTENANCE OF EMPLOYMENT INCLUDING RETRAINING DISPLACED WORKERS, PLANT CLOSINGS AND MERGERS AND ACQUISITIONS.

PROBLEMS INCLUDE:

- LACK OF RETRAINING PROGRAMS, BOTH IN NUMBER AND SUBJECT MATTER MATCH TO INDUSTRY NEEDS.
- INADEQUATE DATA ON DISPLACED OR THREATENED WORKERS AND
- SKILLS NEEDED FOR THE FUTURE.

FAST TRACK RECOMMENDATIONS

A. 1983 INTERIM PROGRAM TO RETRAIN DISPLACED WORKERS FOR NEW CAREERS.

1983 AND LONGER TERM

- B. DURING 1983, DESIGN MEANS OF ESTABLISHING ON-GOING DATA BASE AND MEANS OF IMPLEMENTATION OF SYSTEM WHICH WILL PROVIDE UP-TO-DATE INFORMATION ON:
 - DISPLACED WORKERS
 - CURRENT AND FUTURE SKILL NEEDS
- C. COMMENCE EFFORT TO DESIGN THE BASIS FOR CONSTRUCTIVE PLANT CLOSING AND MERGER LEGISLATION.

TENTATIVE PROGRAM TO INCREASE ENTRANTS IN SCIENCE AND ENGINEERING

GOAL

INCREASE NUMBER OF PERSONS SELECTING CAREERS IN SCIENCE AND ENGINEERING.

PROBLEMS INCLUDE:

- SCARCITY OF PERSONS IN MANY FIELDS WITH SCIENCE, ENGINEERING AND TECHNICAL SKILLS.
- ONLY ABOUT ONE-SIXTH OF ALL HIGH SCHOOL STUDENTS TAKE A JUNIOR OR SENIOR SCIENCE COURSE.
- THE U.S. RANKS FOURTH BEHIND JAPAN, GERMANY AND THE U.S.S.R. IN SCIENCE LITERACY. THE U.S.S.R. GRADUATES THREE TIMES AS MANY ENGINEERS AS THE U.S. AND JAPAN, WITH HALF OF OUR POPULATION, GRADUATES ANNUALLY 5,000 MORE ELECTRICAL ENGINEERS. HENCE, BOTH OUR COMPETITIVE POSITION IN WORLD MARKETS AND MILITARY SECURITY ARE THREATENED.

FAST TRACK RECOMMENDATIONS

• GOVERNOR ANNOUNCES IN FEBRUARY THAT PROGRAM IS UNDER DEVELOPMENT TO FOSTER INTEREST BY YOUNG PEOPLE IN SCIENCE AND MATHEMATICS.

1983 AND LONGER TERM

- DESIGN DETAILS OF GOVERNOR'S PROGRAM WHICH WILL INCLUDE INCENTIVES AND RECOGNITION AND AWARDS AT BOTH COMMUNITY AND STATE LEVEL.
- REVIEW INITIAL RESULTS AND REFINE PROGRAM.