

Withdrawal/Redaction Sheet

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. resume	David D. Schmitz' resume (partial) (1 page)	n.d.	P6/b(6)

COLLECTION:

Clinton Presidential Records
Domestic Policy Council
Gaynor McCown (Subject Files)
OA/Box Number: 7328

FOLDER TITLE:

[The Education Summit - A Fortune Magazine Seminar, D.C., September 19-21, 1993]
[2]

2011-0255-S
rc188

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P1 National Security Classified Information [(a)(1) of the PRA]
- P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P3 Release would violate a Federal statute [(a)(3) of the PRA]
- P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

- b(1) National security classified information [(b)(1) of the FOIA]
- b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

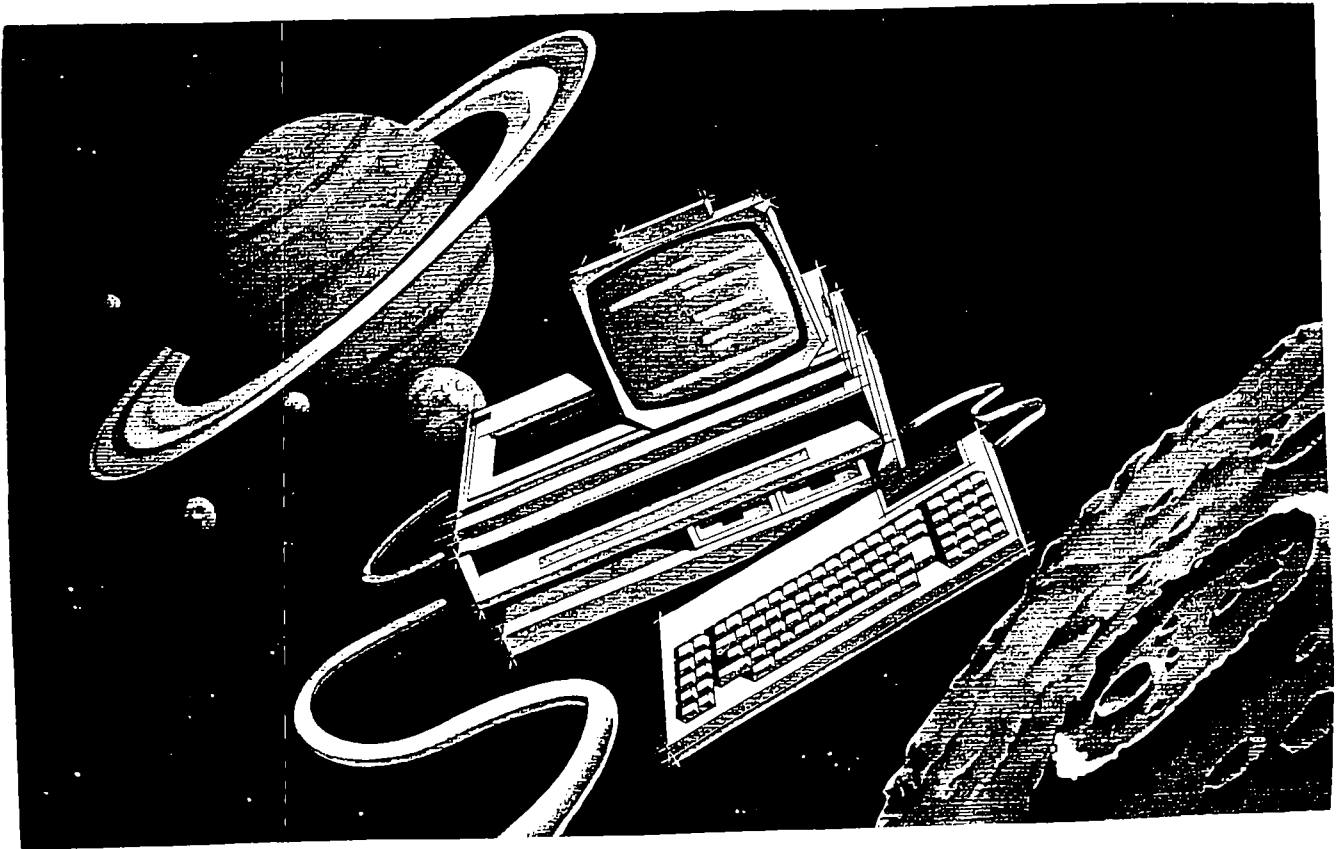
IMAGIN

VOCATIONAL EXPLORATION SYSTEMS

PHOTOCOPY
PRESERVATION

IMAGIN

VOCATIONAL EXPLORATION SYSTEMS



DESCRIPTION OF SYSTEM

This is a computerized, interactive, voice-activated vocational exploration system which would be used to assist individuals in identifying an appropriate job goal. This multi-media system would "walk a person through" a vocational exploration process, start to finish. It would emphasize "user-friendliness."

Components of this system would include the following:

- Computerized testing which would include interests, personality and occupational values testing. Most of this vocational testing is already available. This will also interpret the vocational testing for the individual.
- Computer software which matches an individual's work experience, education and interests with appropriate occupations. There are approximately 24 software packages available. Factors such as physical restrictions and other individual needs would be taken into consideration.
- A video library with information on various occupations, appropriate training for jobs of the future, job seeking skills training, and video programming which would demonstrate how to obtain further information regarding specific careers and interests and how to obtain funding and enroll in different programs. There are some videos available. However, considerable resources will be needed to develop this portion of this system.

HARDWARE

Voice activation components

Computer - Hard drive, CD-ROM, modem

Monitor

Keyboard

Printer

Accessories - mouse, etc.

VCR

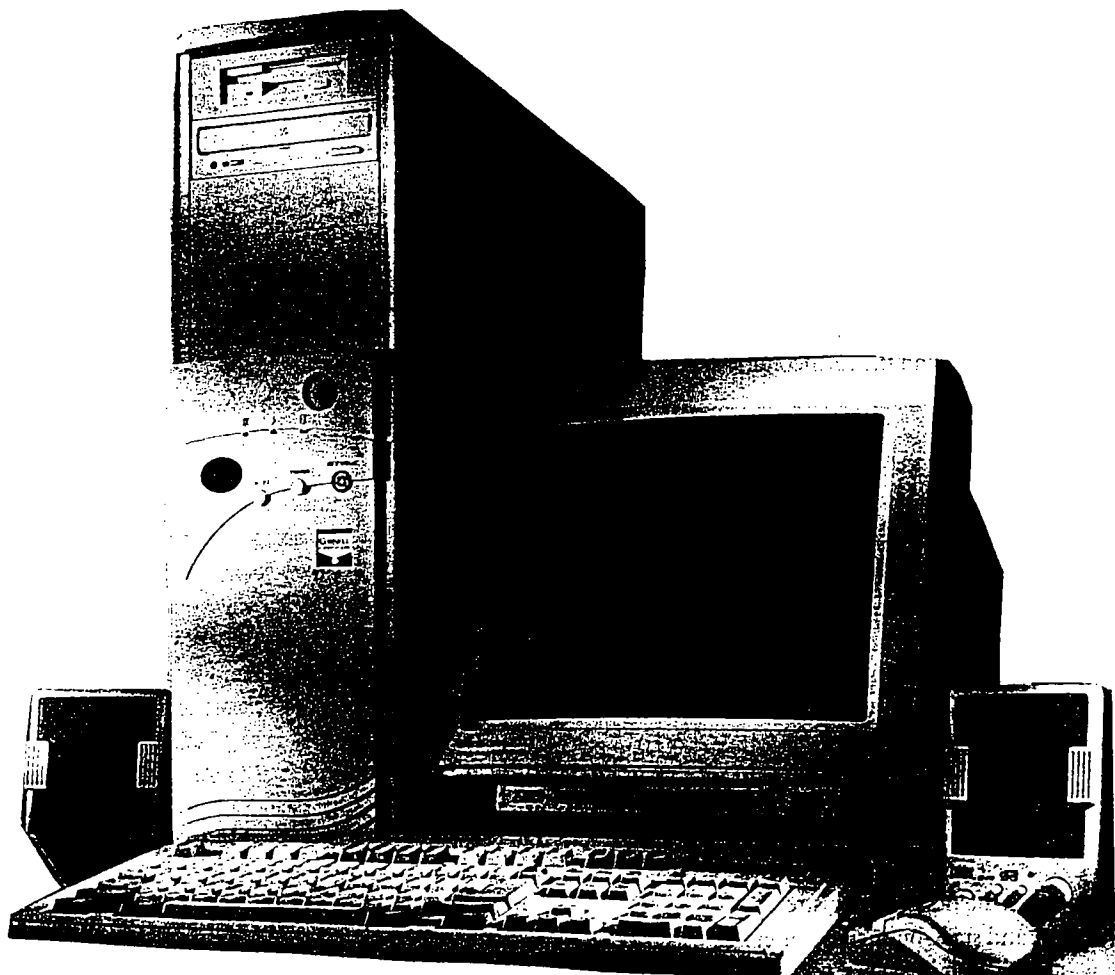
Large television

Stereo receiver, speakers, tape deck

VCR reproduction machine

Interactive hookups for all components of hardware

Handicapped accessible adaptive equipment



SOFTWARE

Word processing program

Voice activation software

Dictionary of Occupational Titles Community Marketing Program

- 12,900 job titles

- describes each job

Guide for Vocational Exploration

- Type of training, education, physical demands of job

Western Michigan University Vocational Assessment Profile

Library of tests for achievement, aptitude, interest, personality, profiles,
career profiling

Encyclopedia

Dictionary

Thesaurus

Internet software

Job seeking skills software

Informational interviewing

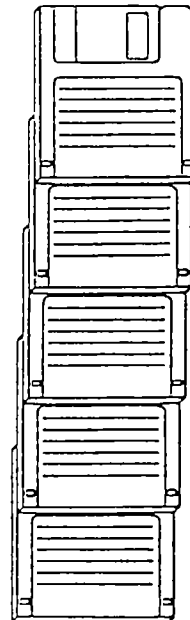
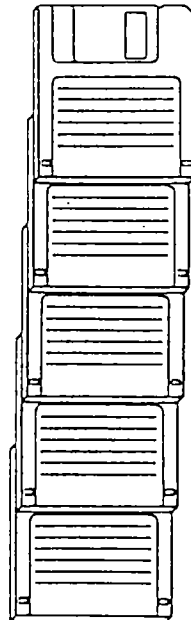
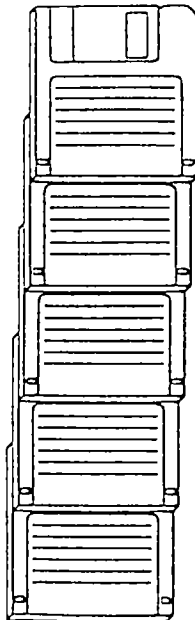
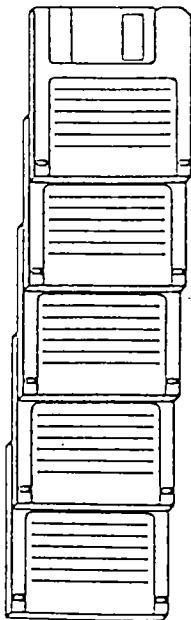
Resume writing

Job search training

Sample of interview questions

Software for interaction of software

(Many of these will be obtained from existing sources, so they will not have to be compiled. It will be necessary to obtain the appropriate updated disk.)

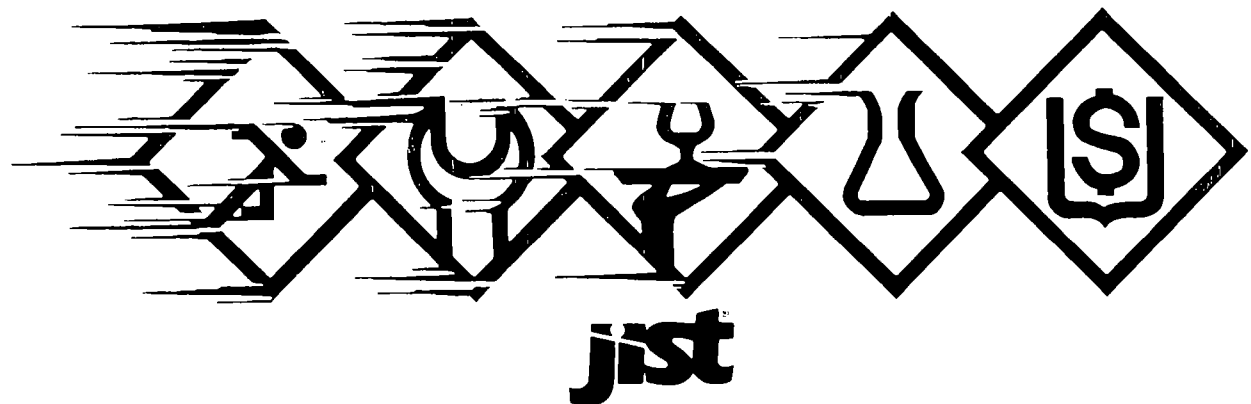


The Complete Guide for Occupational Exploration

Edited by:
J. Michael Farr

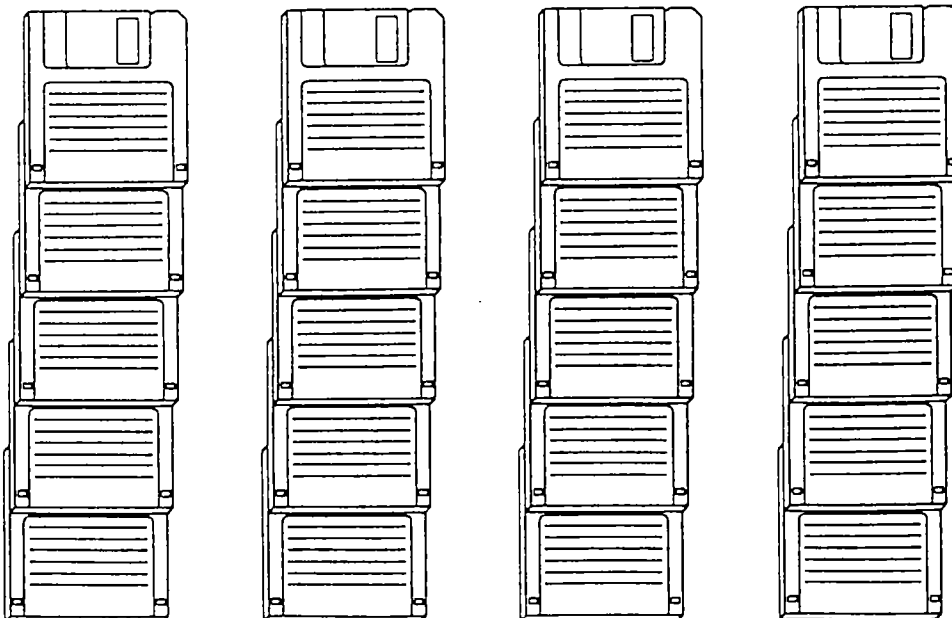
Based on a common-sense and easy-to-use system developed by the U.S. Department of Labor, this book organizes virtually all jobs in the U.S. labor market into groups of related jobs. The result is a valuable tool for career and educational planning, career exploration, career changing, and job seeking.

● Contains over 12,000 jobs defined in the revised edition of the *Dictionary of Occupational Titles*, published by the U.S. Department of Labor ● Organizes all jobs into 12 interest areas – 66 work groups and 348 subgroups ● Includes information on: Nature of Work, Working Conditions, Education and Training Required, and other details ● Contains reproducible career-planning checklists and forms ● Cross-references occupations by interests, leisure and home activities, previous experience, school subjects, and military experience ● Includes strength and training required for each job plus skill levels in math, language, and reasoning ● Contains an appendix of all job titles in alphabetical order plus their DOT, OES and GOE codes ● Much more!



DATA BASES

1. Financial aid listed by state
2. Occupational associations
3. Michigan Occupational Information System (MOTS), which lists schools, vocational centers, training facilities, apprenticeships
4. Job training partnership act agencies and rehabilitation services
5. Licensure and certification (if available, same type of program for each state in U.S.)
6. Information & referral agencies
 - Counseling agencies
 - Support groups
 - Support agencies (Catholic Social Services, drug & alcohol abuse, counseling, domestic violence)
 - Support services for senior citizens, women, elderly
 - Rehabilitation agencies for handicapped individuals
 - Training institutes for handicapped
7. Transportation services for handicapped individuals
8. Transportation options/resources
9. Child care options/locations/costs/subsidies (listed by state)
10. Dictionary of occupational titles (DOT)
11. Guide for vocational exploration



Dictionary of Occupational Titles

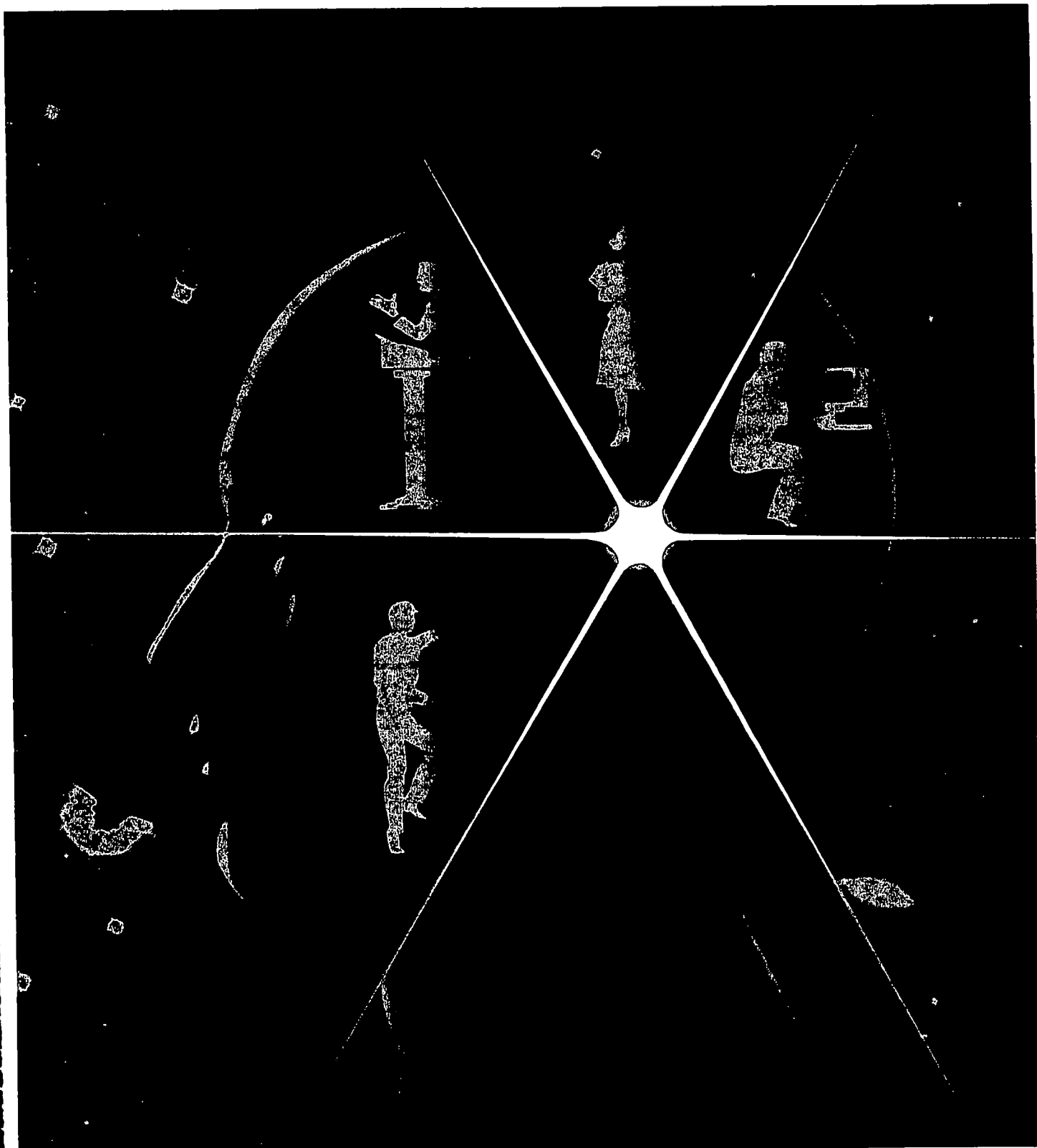
Volume I
Fourth Edition, Revised 1991



Originally published by U.S. Department of Labor
Employment and Training Administration 1991

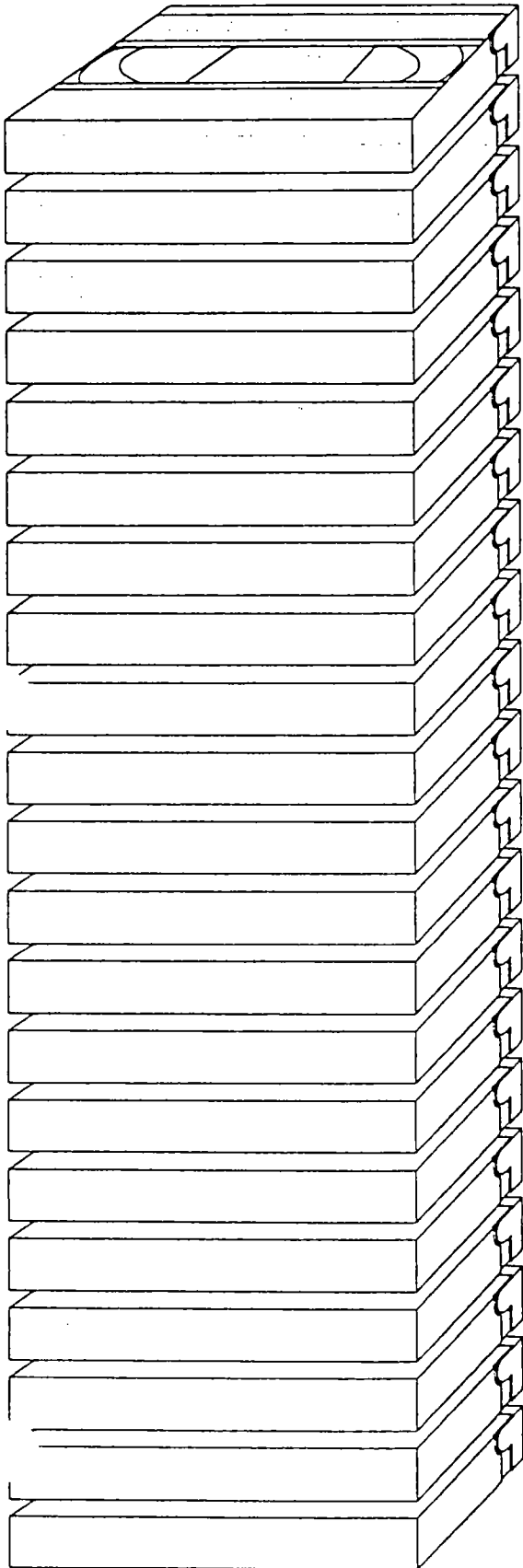
Distributed by

just the job search
people

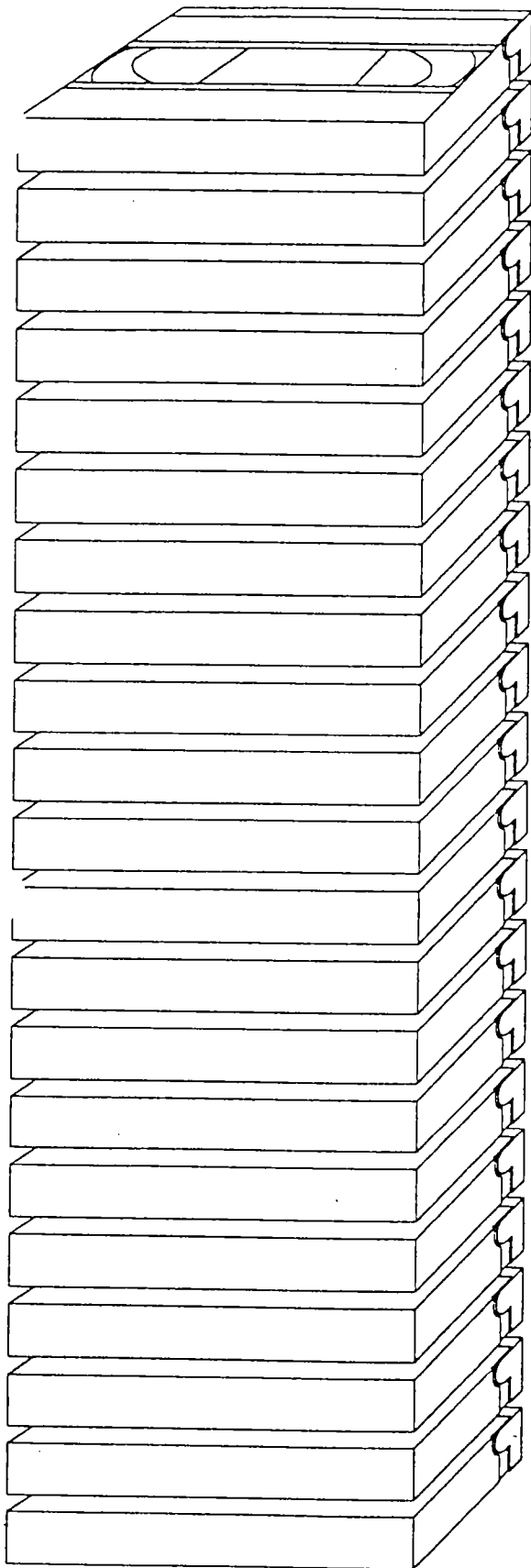


VIDEO LIBRARY

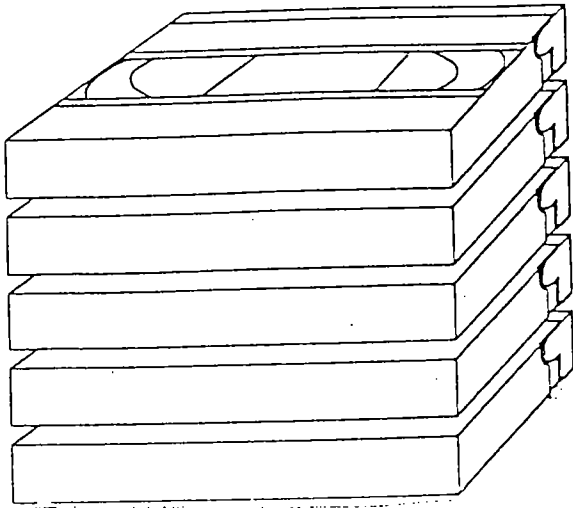
The following is a partial list of possible educational videos used with this system.



1. Informational interviewing - how to do it, samples of it, etc.
2. Job seeking skills training
3. Resume writing
4. What employers are looking for when they hire someone/what do they want from employee (i.e. honesty, dependability, responsibility, getting along well with others, etc.)
5. Attitude / people skills development
6. Career ladder - showing where can start out and then move up - giving ideas of where they may want to be on the career ladder
7. Changing technology / changing economy/different skills needed
8. Vocational process - explaining (how to research, how to develop a vocational plan)
9. Appropriate dress / hygiene / grooming information
10. Motivation / interests - how to incorporate this into the job search
11. Behavior / Reality Therapy
12. Understanding themselves / victims behavior, creating a positive image
13. HOPE! Self esteem training
14. Empathy & problem solving / communication skills/listening group, teamwork skills
15. How to research employers -- resources
16. Characteristics of a good company/win-win. Sample of dysfunctional company,

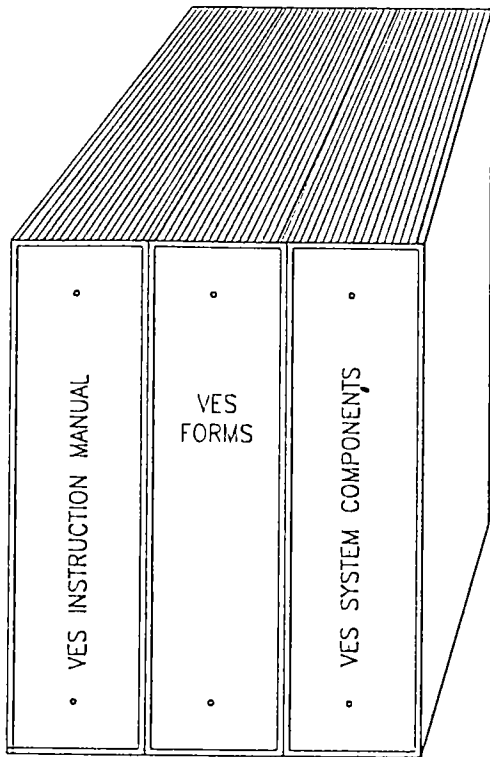


17. Sample of interview questions
18. How to use the public library
19. Success stories (several)
 - Handicapped person
 - Ghetto person
 - Drug/alcohol abuser
 - Low self-esteem (Back into work age 50 person)
20. 10 major conflicts/problems at work and ways to deal with them (Problem solving)
21. Set up for success win/win
Set up for failure
22. How to be realistic in goal setting
23. Perspective of worker
Perspective of supervisor
(Giving an idea of what other does and the other's needs)
24. Choices/options -- learning it's a big world out there with lots of choices
25. Ways to make money working for yourself or for someone else
26. Executive displacement
27. Motivation to change habits, etc.
28. How to find your positive attributes
29. How to say no -- how to know your limits
30. What to do when you lose your job
 - How to take care of yourself
 - Don't isolate
 - Stages of loss
 - Needs met by their work
 - Seek out support!!
 - Execs - get over the thing of it's not ok to ask for help
 - Join/start support group



31. How to keep your job
32. Burnout "How to take care of yourself."
33. Video explanation of how to use system, overview of system's organization.
34. Video of informational interviews with professionals in different fields.
35. Information is power video.

WRITTEN MATERIALS



Brochure of System

Handouts to clients - (Job seeking skills training, master list of handouts, etc.)

Sample resumes and cover letters

Forms - release of information (for clients)

Employment history forms

Forms for client background information (for vocational counselor)

Written instruction manual for entire package (user friendly)

Overview of system components

Information and referral agencies list

VOCATIONAL TESTING

Attached is a print out of the WMU Vocational Assessment Profile which includes personality, occupational values and vocational interest questionnaires. This vocational testing is 90 percent valid and reliable. The following is a brief summary interpretation of the enclosed test results: This individual is very persistent and is desirous of order and structure. He is very assertive and likes to be in control of his own life. The occupational values questionnaire indicates that he values accomplishment, organization, and wants to work with people. He's also desirous of having security, being a leader and making money. He is an individual who likes intellectual stimulation and likes to use his creativity in solving problems. The vocational interest questionnaire indicated the following interests: industrial engineering, broadcaster, counselor and psychologist, social worker, bank vice president, office manager/supervisor, public relations specialist, and purchasing agent.

This type of testing can be very useful in working with individuals who are not sure of what type of work they would like to do or are capable of doing. This information provides an accurate baseline which can be used to obtain a profile of the individual's interests, personality and occupational values.

Western Michigan University

Personality Questionnaire Profile Sheet 1

Name _____ Social Security Number _____ Date Tested _____

Personal Characteristics	Ratio Score	Percent	***** P R O F I L E *****
Achievement / Success	8 / 20	40	*****
Intellectual / Academic	8 / 20	40	*****
Endurance / Persistence	17 / 20	85	*****
Extroversion / Outgoing	12 / 20	60	*****
Introversion / Inward	1 / 20	5	***
Aggressive / Critical	12 / 20	60	*****
Dominance / Control	13 / 20	65	*****
Deferent / Dependent	4 / 20	20	*****
Autonomy / Independent	10 / 20	50	*****
Nurturance / Aid	9 / 20	45	*****
Successance / Comfort	3 / 20	15	*****
Order / Structure	17 / 20	85	*****
Intraception / Analytical	6 / 20	30	*****
Change / Variety	3 / 20	15	*****
Abasement / Self Critical	1 / 20	5	***
			1 10 20 30 40 50 60 70 80 90 99

Western Michigan University
Occupational Value Questionnaire
Profile Sheet 4

Name:

Date:

Job
Descriptions
(Ratings)

Value

Comparing Jobs (Rankings)

Very
Low

Low

Average

Average

High

High

Very
High

Highly Desirable

Accomplishment

Desirable

Leisure

Highly Desirable

People

Undesirable

Things

Indifferent

Data

Indifferent

Assistant

Desirable

Profit

Indifferent

Helper

Indifferent

Recognition

Desirable

Culture

Desirable

Intellectual

Highly Desirable

Organization

Desirable

Creativity

Desirable

Support

Indifferent

Religion

Desirable

Leader

Highly Desirable

Security

Indifferent

Diversity

Indifferent

Self-Direction

Undesirable

Activity

Desirable

Promotion

L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

Forestry	6/42	Group 6	Math and Science	7/42	Group 11	Personal Services	2/42
st		D	Biologist		D	Airline Attendant	
Warden		I	Chemist		D	Barber/Cosmetologist	
		I	Geologist		D	Cook	
		D	Mathematician		D	Daycare/Domestic Worker	
		I	Meteorologist		D	Model	
		D	Oceanographer		D	Tailor	
		D	Physicist		D	Waiter/Waitress	
cas	6/36	Group 7	Medically Related	2/54	Group 12	Social Services	22/43
ficer		D	Dental Hygienist		L	Counselor/Psychologist	
cal Technician		D	Dietitian		I	College Teacher	
		D	Medical Technologist		I	Elementary Teacher	
yyee		D	Occupational Therapist		I	Religious Leader	
		D	Pharmacist		I	Secondary Teacher	
		D	Physical Therapist		L	Social Worker	
		I	Registered Nurse		D	Speech Pathologist/Audiologist	
	3/84	D	Respiratory Therapist		D	Teacher of Handicapped	
		D	X-Ray Technician				
nician		Group 8	Medicine	1/42	Group 13	Business Administration	25/42
orker		D	Dentist		L	Bank Vice-President	
nician		D	General Physician		I	Business Manager	
technician		D	Gynecologist		D	Motel Manager	
nt Operator		D	Optometrlist		L	Office Supervisor	
		D	Pediatrician		I	Personnel Director	
		D	Surgeon		I	Public Administrator	
		D	Veterinarian		I	Small Business Owner	
er		Group 9	Arts and Entertainment	13/42	Group 14	Business-Analytical	11/35
Mechanic		I	Artist		D	Accountant	
		D	Dancer		D	Bookkeeper	
		I	Entertainer		I	Computer Programmer	
	2/24	D	Fashion Coordinator		I	Computer Systems Analyst	
		I	Interior Designer		D	Financial Analyst	
		I	Musician		I	Marketing Research Analyst	
		D	Photographer		Group 15	Business-Clerical	11/42
reation Director		Group 10	Literary and Legal	18/36	D	Bank Teller	
	13/60	L	Broadcaster		D	Cashier	
Engineer		D	Language Interpreter		I	Computer Operator	
		I	Lawyer		D	Court Reporter	
r		I	Librarian		D	Data/Word Processor	
nce Engineer		I	Reporter		I	Secretary	
gineer		I	Writer		I	Shipping and Receiving Clerk	
Engineer					Group 16	Business-Merchandising	27/43
gineer					I	Advertiser	
gineer					D	Life Insurance Agent	
gineer					L	Public Relations Specialist	
Engineer					L	Purchasing Agent	
Engineer					I	Real Estate Broker	
					D	Sales Person	
					I	Securities Broker	
					I	Travel Agent	

Western Michigan University
Vocational Interest Questionnaire
Profile Sheet 2

Name _____ Social Security Number _____ Date Tested _____

Interest Areas	Percent	
<u>Pragmatic</u>		
Agriculture & Forestry	1	*
Protective Services	1	*
Skilled Trades	1	*
Sports	1	*
<u>Scientific/Analytic</u>		
Engineering	10	*****
Math and Science	10	*****
Medically Related	1	*
Medicine	1	*
<u>Cultural</u>		
Arts and Entertainment	20	*****
Literary and Legal	10	*****
<u>Social</u>		
Personal Services	1	*
Social Services	1	*
<u>Business</u>		
Bus. Administration	90	*****
Business-Analytical	30	*****
Business-Clerical	50	*****
Business-Merchandising	90	*****
		1 10 20 30 40 50 60 70 80 90 99

APPLICATIONS OF VOCATIONAL EXPLORATION SYSTEM

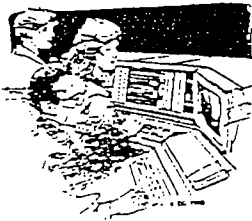
The following is a partial list of the applications of this vocational exploration system:



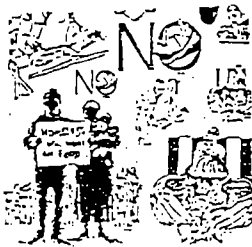
Displaced workers - Individuals who have lost their jobs due to technology, economic cutbacks or government spending cutbacks could use this system to explore career alternatives and the skill-building needed to develop the new career.



Education - Students from later elementary school through college and graduate school can use this system to explore career options, set goals, undertake long-term planning, find financial aid, and obtain information on specific training in order to achieve their goals.



Career Development - Individuals who do not attend college can use this system to explore vocational training, vocational apprenticeships, and other vocational options.



Welfare - This system would be helpful to welfare recipients who are exploring vocational options available, including job placement, retraining or work in a government-subsidized position.



Criminal Justice - A number of juvenile and adult criminal offenders would be able to use this system to set career goals and strategies, learn people skills such as relationship-building, successful communication, and self-esteem building, create a vocational plan, find training and explore funding for training.



Career Changes - For individuals who have reached a plateau in their careers and who do not enjoy the work they are doing, this system would be helpful in identifying other vocational options available within their interests and abilities.



Military - Military cutbacks and base closings continue to create the problem of displaced workers. This system could be used by the military and by government contractors to help these individuals find alternative employment or other work in the military.



Business and Industry - The human resources/personnel departments of many companies could significantly increase productivity and decrease costs, including health costs, by insuring that their employees are placed in a position that maximizes their potential and dovetails with their interests and abilities. This system can aid companies in the placement of employees in an optimum position. Implementation of this project could actually

improve our gross national product (GNP). If we can reduce inefficiency and waste, then we as a nation become more productive. This also improves the quality of life for the individuals involved and their families. If the average worker spends approximately two thousand hours working each year, people (who work) spend a significant portion of their lifetime working. Hopefully, they will have found an appropriate line of work which is within their interests and abilities. This system provides a win-win situation for the employer and employee.



Individuals Retired or Semi-Retired - Since many individuals are living longer and some are retiring at a younger age, this system would be useful in identifying another career within the individual's interests and abilities. This is productive for the individual involved, helpful to society in terms of utilizing the individual's transferrable skills and experience and also makes us a more productive society.



Vocational Rehabilitation with Handicapped individuals - This vocational exploration system (VES) would be extremely helpful to many handicapped individuals. This system could be utilized in either private vocational rehabilitation or through state or federally funded vocational rehabilitation programs.

BENEFITS OF SYSTEM

The particular benefit of this system is that it will serve as a central depository of vocational information which is easily accessible to the individual. It also places many skill-building tools at an individual's fingertips. It offers data bases to access significant additional support in the way of mentors and volunteer "career boosters", and it does all this with a minimum need for one-on-one intervention. It would offer the tools to help people help themselves, teach themselves, to obtain the knowledge and skills they need to find their rightful place in the work world. Information often is scattered and hard to come by and takes legwork to find. This program eliminates a lot of the legwork for individuals.



Many people are overwhelmed with the process of career planning and training. They don't even know where to start. This program helps them get started and encourages them to complete what they have started. It should also be noted that many people today want more than a job. Many individuals want to find a line of work they find challenging and interesting. The following are four examples of the usefulness of this system:

1. Research has shown that some of the keys to motivation are goal setting, planning on how to achieve those goals, and having a clear vision of the outcome. Students could begin in elementary school to envision themselves in the work world. If they start right out being tested for their aptitudes, interests and skill levels, they can then make a vision for themselves that they carry with them throughout their education experience. The danger of pigeonholing children would be diminished with the individual's control over the process, with the flexibility of the system allowing the person to adapt, change and modify career goals as his or her interests and situation changes.

When you ask many students what they want to do for a living, many are unsure. Beginning in late junior high school, counselors could sit students down in front of a computer, switch on the vocational exploration system, and have the students walk themselves through testing that would determine what they like doing, and what occupations are most suited to their interests and abilities. For instance, a child told her parents recently she wanted to be an astronaut. Then she asked what sort of things she'd have to learn to be an astronaut. From there she was able to make more of a determination of whether she wanted to make that commitment. Students could be continually refining their career options and desires. This system could even be "tooled" to allow the exploration of general fields of interest, followed by special fields of interest as the child grows and begins to choose courses and interests. If students set up a career or vocational "plan", then they could keep track as they go through school on job availability, additional technological training needed, and so forth. If each school district in America designated one vocational counselor to administer this system, the benefits would be substantial:

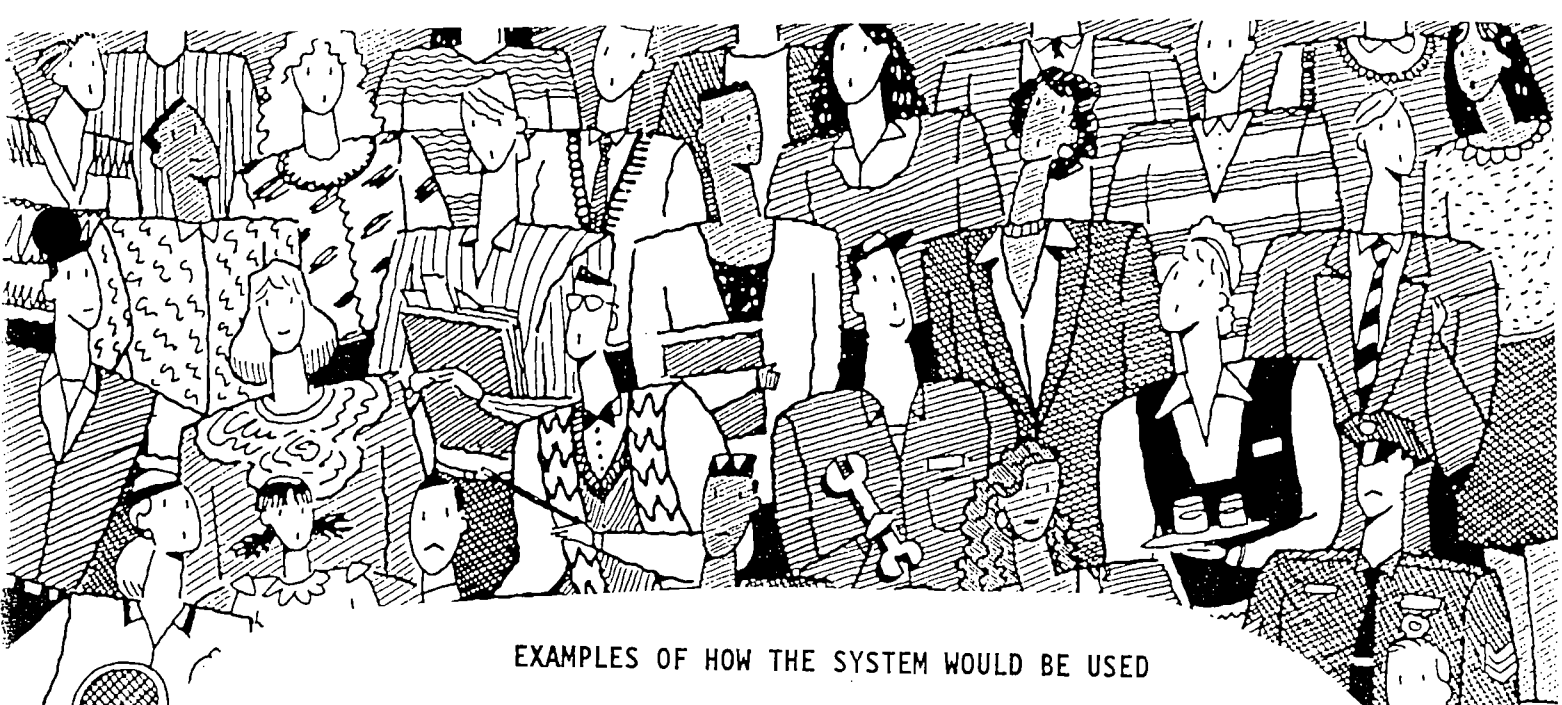
- a) Students destined for welfare would instead be inspired to achieve their vocational goals.
- b) Students destined for low-paying minimum wage jobs have a plan, from early in their educational career, that would inspire them to achieve what they have envisioned since youth.
- c) The program could include all kinds of job training skills--how to write a resume, good grooming habits, problem solving, communication, and self-discipline skills and a host of others. Students would learn these things in school, instead of struggling with these issues in the workplace.
- d) Students "in trouble" or troubled would have access to a multitude of self-help services. There could be data bases for agencies and institutions with helping programs, self-help books and tapes, and even a national mentoring service set up through the Internet. Students could be taught to empower themselves.

2. Getting a better job is an issue with many people. This system could be set up at local colleges or universities. A counselor could assist

individuals in getting started. The individuals would work their way through the system. Possibly even vocational "centers" could be set up, with local, state, or national funding, that would require a minimum of manpower. Individual states can add on to this system and make it their own.

3. Social service agencies could bring a career counselor on staff and, using this system, test, motivate, and obtain training and education for their welfare clients. Data bases would be available listing financial aid opportunities. The system could offer access to a wide spectrum of self-help tools, such as self-esteem building, relationship-building, ending victim behaviors, getting out of abusive situations and so forth. A data base of mentors and/or self-help groups could be included. A volunteer network of career "support people" could be on hand to give moral support to welfare recipients.

4. Every prison in America could have this system. Inmates could use this system for vocational exploration, goal setting and to develop a vocational plan, obtain training within the criminal justice system, and then follow through once they are released. Some inmates may have a job by the time they are released. Parole officers would find this system very helpful. Recidivism could be reduced, particularly if there is some means of the individual having help staying on track with his/her vocational plan once he/she leaves prison. Inmates could also use self-help data bases to teach them relationship skills, help them build self-esteem and build self-confidence.



EXAMPLES OF HOW THE SYSTEM WOULD BE USED

The following are examples of individuals who would find this vocational exploration system useful:



Welfare Recipient

Ruth is a 22-year-old individual with a two-year-old son. She has never been married and is currently in an abusive relationship with her boyfriend. She has completed the tenth grade and has no other formal training or experience other than working in minimum-wage jobs. She is currently working in a minimum-wage job, but also receives partial welfare benefits in the form of Medicaid, food stamps and some rental assistance. As a child, she dreamed of being a veterinarian and enjoys working with dogs.

Ruth was referred to the local Women's Resource Center, which offers vocational counseling and training to women in transition. The center utilizes this vocational exploration system. Ruth met with Mary, her vocational counselor, who is a very competent, caring, and confident professional counselor. Mary met with Ruth for the initial session and suspected Ruth was in an abusive relationship with her boyfriend. In the second meeting, Ruth confided in Mary about the abusive relationship. Mary was very supportive and made it clear that it was not in Ruth's best interest nor her son's best interest to stay in this type of relationship. Ruth started developing a counseling relationship with Mary. Ruth decided she wanted to be confident and have a career like Mary had. Ruth started using the vocational exploration system.

Testing via the vocational exploration system indicated that Ruth was desirous of having more financial and career security. She wanted to work with people and enjoyed working with animals. She also wanted plenty of leisure time to spend with her two-year-old son. Through computer matching, she researched the requirements to become a veterinarian or dog trainer. It was clear that Ruth would need many years of college to become a veterinarian. Ruth realized this career desire was not realistic, given her situation.

High School Graduate Without Skills

Deb is an 18-year-old high school graduate who does not know what she wants to do, vocationally. She lacks self-confidence and has no plan for the future. She babysits and works part time in a minimum-wage job. A friend of hers heard about services at a career counseling center and Deb decided to give it a try. The center uses the computerized vocational exploration system. She completed the system's vocational testing, which indicated she enjoys working with people, did not particularly want to work with numbers, and would like a lot of variety in her everyday work situation.

The computer matching element of the vocational exploration system provided a number of job ideas, including working as a medical assistant, nurse's aide, occupational therapy assistant or respiratory therapist. Deb started informational interviewing with individuals employed in these above-mentioned occupations. She especially liked the vocation of occupational therapy assistant and found that she could become certified in this occupation with a two-year associates degree. She decided to go back to school using student loans and working part time. She became a certified occupational therapy assistant and obtained a job in a school for handicapped children. She loves her job and is very good as a COTA. She makes good money, has excellent benefits, and has her summers off. She did several informational interviews with veterinary assistants and veterinarians and found that she could become a veterinary assistant through on-the-job training. One particular veterinarian was impressed with Ruth's sincere interest in working with animals and became her "mentor". He hired her for \$5 per hour plus benefits, with the understanding that she would be able to earn \$7 per hour plus benefits after six months of on-the-job training. Ruth also met a dog trainer through the veterinarian, who taught her how to train dogs. She became an excellent dog trainer, which she later did on a part-time, self-employed basis.

She loved being a veterinarian's assistant and dog trainer. She finally felt confident enough to leave her abusive boyfriend. The veterinarian she worked for was very understanding and flexible with regards to hours. She found she had enough leisure time to spend with her son, who also loved dogs and other animals. She was able to get off welfare and later became a mentor to another young individual who was interested in working with animals. She also obtained her GED.

Juvenile Delinquent

Larry is a 15-year-old individual who lives in an urban, high-crime area. He and his friends have been caught stealing and have been in several fights. He is now on probation. He is not doing well in school and lives with his mother, a single parent, and his sister. His probation officer made it clear that with one more arrest, Larry could be sent to a juvenile home for 18 months. Larry didn't want to be sent to the juvenile home, yet did not know where he "fit in".

A counselor at school recommended that Larry participate in the computerized vocational exploration system. Larry enjoyed working on the computer and found it quite interesting. There were many more options available than he was aware of. The school counselor spent extra time with Larry in order to develop a counseling relationship, and Larry enjoyed this "extra attention". The computer matching element of the vocational exploration system indicated Larry had numerous interests, particularly in the medical field. He researched many different vocational options, and later in high school he did some informational interviewing with a number of people in the medical field and decided to become a respiratory therapist. He obtained his two-year associate's degree and became a licensed respiratory therapist, where he earned \$14 an hour and excellent benefits. He later became a volunteer probation officer and a mentor to another young person interested in becoming a respiratory therapist.

Human Resources/Personnel

Bob is an individual who works at a large company doing paperwork. He completes warranty forms, which he finds quite boring. A part of Bob's job involves working on a computer. Bob spends a considerable amount of time playing computer games instead of doing his job. Bob's supervisor is concerned about the quality and quantity of work being performed by Bob. Bob's supervisor discusses this concern with the personnel manager. Bob is offered an opportunity to spend time on the vocational exploration system, which Bob finds fascinating due to the high-tech, multi-media approach of the vocational exploration system. Bob later decides to become a computer programmer. His company indicated it was willing to pay for computer training for Bob as long as he performed his job adequately. Bob was able to develop a completely new computer program for this company, which automated the completion of warranty forms, eliminating his position. This company later placed Bob in a position as a computer programmer/operator. This was a win/win situation for the company and for Bob.

Inmate In Prison

Bill is a 22-year-old single person who briefly worked in construction after graduating from high school. He was arrested on drug charges and served 18 months in prison and was later placed on probation. While in prison, Bill was given an opportunity to spend time on the computer in the vocational exploration system. Bill enjoyed the multi-media aspect of the vocational exploration system. He found it not only interesting but entertaining. Through considerable research of vocational options, Bill decided upon the field of Computer Aided Design. Bill completed a computer class while in prison. He also identified financial aid sources for CAD training. Once he was released on probation, Bill enrolled in a local community college and completed his two year associates degree in Computer Aided Design. He was later able to obtain a good job as a CAD designer with an engineering firm and purchased a personal computer, which he uses at home.

Worker Displacement

Julie was a 43-year-old middle-level manager in a large company. Julie had a four-year degree in business and felt very lost and betrayed by her company, laid her off, along with other middle-level managers. She was offered the opportunity to use the vocational exploration system, which was made available to these displaced workers. She met with the system's counselor, who asked her what type of work she thought she was capable of doing or what she would like to do in the future. Julie didn't have a clue. The vocational testing was very helpful in that Julie had never considered areas of personality, occupational values or interests. Julie viewed numerous videos related to displaced workers, changing technology, informational interviewing, and jobs of the future.

The computer matching element of the vocational exploration system churned out numerous job possibilities in relation to positions Julie was qualified for. This was shocking to Julie, since she had never before considered the many job options available to her. Instead of being threatened with the job loss, Julie became quite enthusiastic about informational interviewing and the job options available to her. She later accepted a position as a customer service supervisor in a large company. Her job responsibilities included training new customer service representatives to handle customer complaints. She was excellent in this position and later obtained a promotion to department manager.

Withdrawal/Redaction Marker

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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. resume	David D. Schmitz' resume (partial) (1 page)	n.d.	P6/b(6)

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[2]

2011-0255-S
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RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

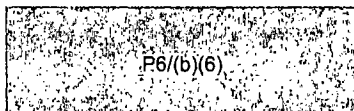
Freedom of Information Act - [5 U.S.C. 552(b)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
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C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

DAVID D. SCHMITZ, MA, CRC, LPC



{001}

LICENSURE AND CERTIFICATION:

Licensed Professional Counselor(LPC)-State of Michigan (#6401000787)
Certified Rehabilitation Counselor(CRC)-National Certification (#15933)
Certified Social Worker(CSW)-State of Michigan (#6801019520)
Formerly testified as a Vocational Expert(VE) for Administrative Law Judges for the
Social Security Administration.

EDUCATION:

Western Michigan University
Kalamazoo, Michigan

1976-1977

Master of Arts

Counseling/Personnel with an emphasis on Agency Counseling.
Graduated with honors

1969-1972

Bachelor of Business Administration

Major: Business
Minors: Management and Paper Engineering

WORK EXPERIENCE:

1993-Present

Rehabilitation Counselor

Cascade Rehabilitation Counseling, Inc.
Grand Rapids, Michigan

Responsibilities include medical case management, vocational counseling, on-site job analysis, job accommodation, job seeking skills training, and job development and placement. I also assist handicapped individuals with selecting a re-training program and in developing a self-employment (business) plan, when appropriate.

1989-1993

Rehabilitation Counselor

Scott B. Silver and Associates
Grand Rapids, Michigan
Job duties same as described above.

WORK EXPERIENCE (CONTINUED)

- | | |
|-----------|--|
| 1984-1989 | Rehabilitation Consultant
Conservco (Subsidiary of Travelers Insurance)
Grand Rapids, Michigan
Job duties same as described above |
| 1982-1984 | Rehabilitation Counselor
Human Resource Associates (Private Practice)
Grand Rapids, Michigan |
| 1980-1981 | Director of Group Therapy
Forest View Psychiatric Hospital
Grand Rapids, Michigan
Responsibilities included supervising two treatment teams of nurses and mental health workers, administrative duties, counseling, treatment planning, facilitating and leading therapy groups. |
| 1978-1979 | Rehabilitation Counselor
Pine Rest Christian Rehab Service (now Hope Rehab)
Grand Rapids, Michigan |
| 1974-1976 | Agency Director
Switchboard, Incorporated Helpline
Grand Rapids, Michigan
Job duties included supervising 3 paid staff, 100 volunteer "listeners", 24 trainers and reporting to the Board of Directors (of 15 individuals). I served on 13 committees, budgeted and handled administrative duties. |

HOBBIES AND INTERESTS:

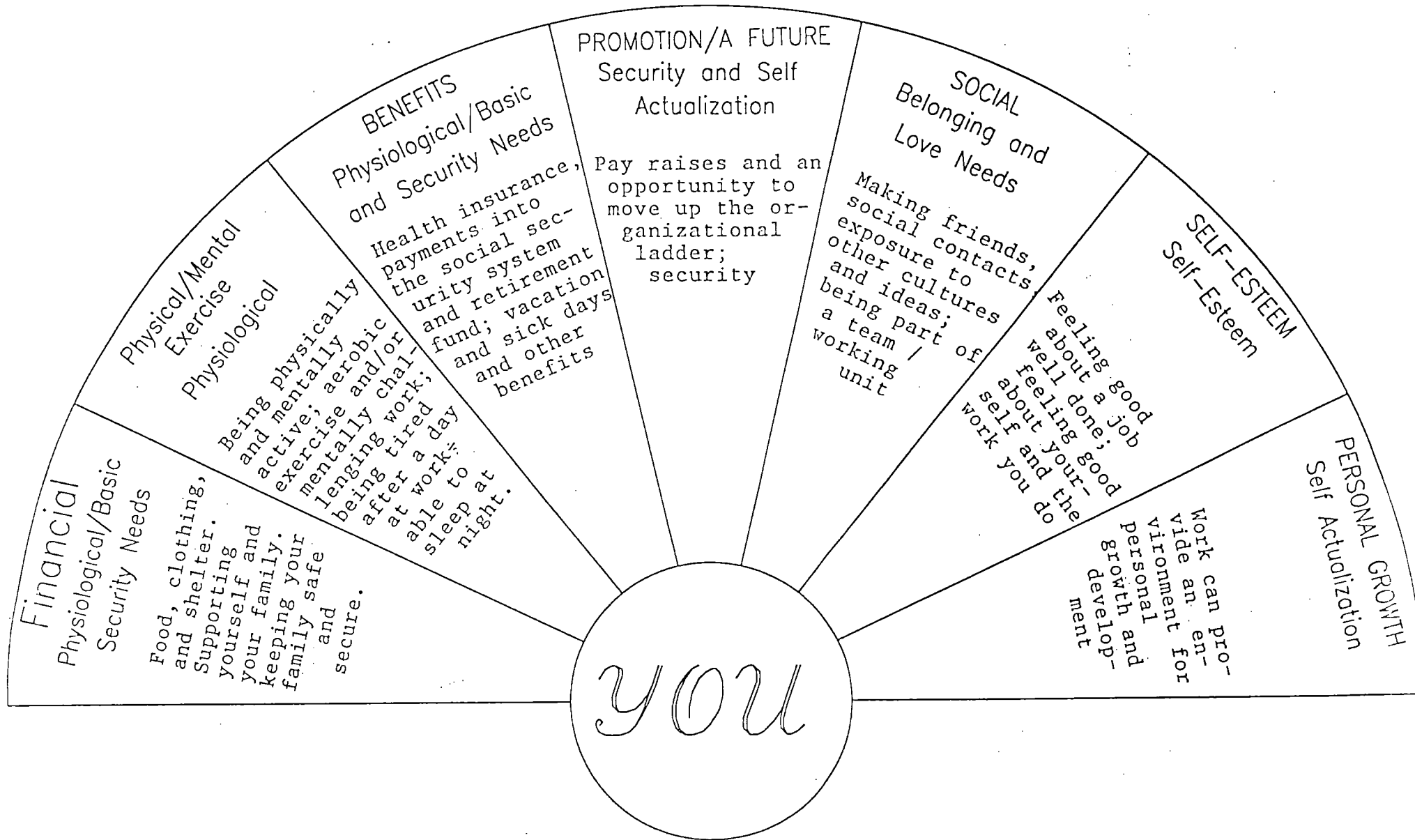
I enjoy reading, camping, tennis, and volleyball. I have volunteered as a coach for AYSO soccer for seven years and currently serve as a referee for Ayso Soccer.

References Furnished Upon Request

THE NEEDS MET BY WORKING

AS RELATED TO MASLOW'S

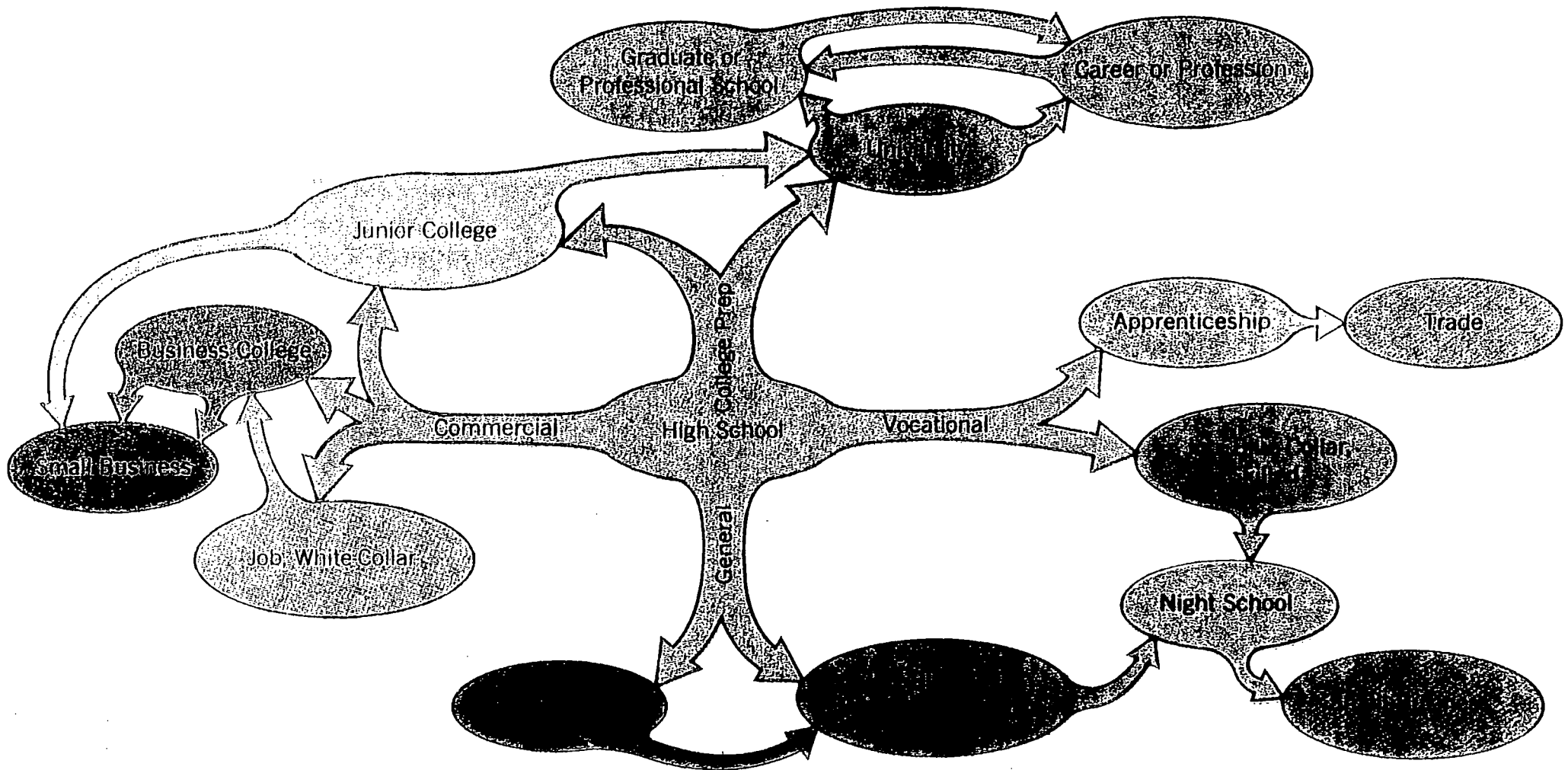
"HIERACHY OF NEEDS"



THE POWER OF WORK

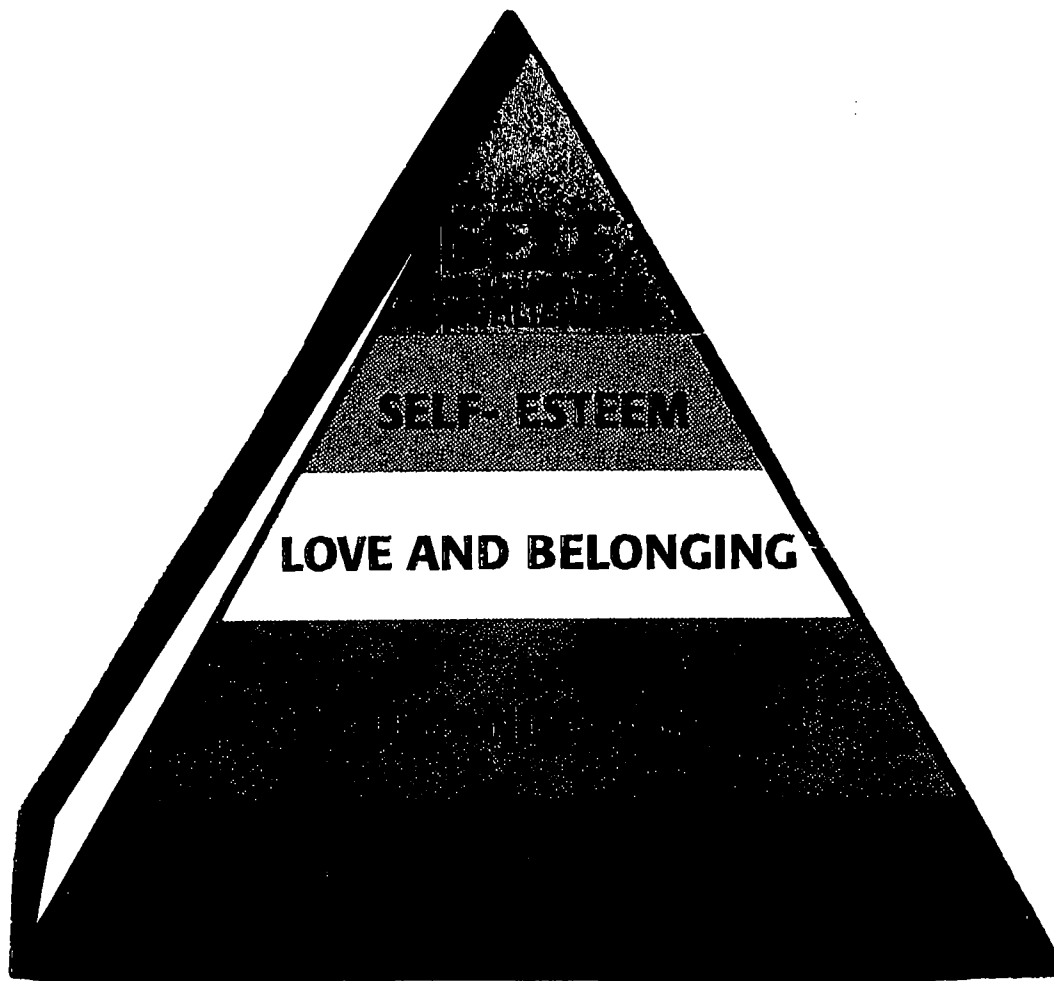
We get many of our needs met through working. Whether we work in a factory, office, in the home or "out in the field" we get many of our needs met through the world of work. The following is a partial list of the needs we get met through working:

1. The feeling of satisfaction from a job well done.
2. Physical activity which keeps us in shape and condition.
3. Mental exercise which keeps our mind active, engaged; we are always learning and this is good for our mind.
4. Making money to support ourselves and buy the things we want to buy.
5. Fringe benefits of insurance, vacation, sick days, retirement and holidays.
6. A feeling of purpose in that we have a job to do and a role to fill in our lives.
7. Social interaction; meeting new friends and acquaintances and networking with other individuals with similar interests and backgrounds.
8. Promotion, working our way up through the organization; pay raises; keeping up with inflation.
9. Specialization; learning about specific specialized areas within a given field.
10. Competence; having a sense that we know about a particular area and have competent within that area.
11. Self respect and the respect of others. Contributing to the community; doing more than just "a job"; making this a better place to live; helping others.
12. Having a challenge; work can tax our abilities to the point where we're tired at night but we can get a good night's sleep and start over the next day.



This is a flow chart which demonstrates the numerous possibilities/choices/work available in career development. The individual can follow a particular pathway and then start a whole new career along a different route. This flow chart was taken from a textbook called Developmental Psychology Today by CRM Publications.

The following diagram illustrates Maslow's Hierarchy of Needs.



Maslow's five levels of needs are 1) food, clothing and shelter, 2) safety and security, 3) love and belonging, 4) self-esteem, and 5) self-actualization. Broken down level by level, they can be explained as follows:

Food, Clothing, and Shelter

Individuals who are having difficulty meeting their basic needs of food, clothing and shelter will normally center their attention on meeting basic needs first. It will be difficult to focus on their needs for security, love, and belonging, self-esteem, or self-actualization. They're going to be looking at getting food in their stomachs and a roof over their heads.

When we consider the relatively poor quality of life of homeless individuals, it is clear they will normally attempt to satisfy their need for shelter before they strive to meet their other needs. Likewise, if a person doesn't have the money to buy groceries or has to walk to work in the winter and has no boots, he will be first concerned with meeting those basic needs. Issues of health, adequate transportation and child care, and many other concerns affect individuals' ability to meet their basic needs.

Safety and Security

For an individual who has adequate food, clothing, and shelter, but lives in a unsafe neighborhood, his energy will be concentrated on the need to feel safe and secure. Humans have a basic need to feel both physically and psychologically free from danger. This can include danger from crime, environmental pollution, or natural catastrophes. And it can include such problems as domestic violence -- where a person may not feel safe in his or her home because of an abusive family member.

Issues of love and belonging, self esteem and self-actualization usually take a back seat to individuals' immediate need to feel safe and secure.

Love and Belonging

After people have fulfilled their needs for food, clothing and shelter and their needs for safety and security, they move on to focus their attention on their need to **be loved and to love** and their **need to belong** to a social system. We humans are social beings. We have a need to love others and be loved by others. We also have a need for social relations, which can be satisfied by our interactions with family, friends, church or other community groups. It's important to be both internally and externally connected to others to fulfill the need for love and belonging. A person may have all the external trappings of belonging -- a family, a circle of friends, and a place in his or her community, but may feel very lonely and unloved.

Loneliness and isolation can be very debilitating, causing substance abuse problems or obsessions such as being a workaholic, having an eating disorder or indulging in excessive shopping. Eventually, loneliness and isolation takes it toll on a person. If it is not recognized as a need and dealt with, some life event will usually force the issue. If the person is lucky, he or she will fill the void in his or her life and continue in their growth process.

Self-Esteem

Once people's need for love and belonging is basically satisfied, they then attempt to enhance their self-esteem. Self-esteem is usually defined as a need to care about ourselves, to be self-confident and content with who we are. In other words, we put our attention on learning to value ourselves and increase our self-respect. Maslow says; "All people in our society have a need or desire for a stable, firmly based, usually high evaluation of themselves." Maslow also says we have a need for the esteem of others. This is not a superficial need for other people's approval based on how we look, how well we throw a baseball, or whether we can understand the intricacies of computer technology. Rather it is a deeper need to feel acknowledged and appreciated by others.

Self-Actualization

Maslow said that after all of our other needs are met, "we may still often (if not always) expect that a new discontent and restlessness will soon develop, unless the individual is doing what he, individually, is fitted for. A musician must make music, an artist must paint, a poet must write, if he is to be ultimately at peace with himself. What a man can be, he must be. He must also be true to his own nature. This need we may call self-actualization." Maslow also said self-actualized people concentrate much of their energy on becoming more self-aware. For them, physical, economic, educational, and social imperfections and shortcomings are far less important than character defects. They continually strive to improve themselves.

Self-actualization can mean many things to many people, but its unifying force is a sense in those who have achieved it of having reached a level of self-awareness and self-fulfillment.

One way to envision self-actualization is to compare us, as human beings, to cars and trucks. There are many different types of cars and trucks. There are American-made cars and foreign cars. There are small cars and trucks, intermediate-sized vehicles, and large, luxury models. Some have small, four-cylinder engines which lack power. Some have four-cylinder engines that are very powerful (because the engines have been designed for high-performance.) Of course, there are six-cylinder and eight-cylinder engines as well. Some vehicles have front-wheel drive, some rear-wheel drive and some have four-wheel drive. Obviously there is tremendous diversity in cars and trucks, as there is in people.

Some of the smaller vehicles with four-cylinder engines run very well and are "running on all four cylinders"; some have numerous mechanical problems and are not running on all four cylinders. Therefore, they are not functioning up to their fullest potential.

And then there are larger, six-cylinder vehicles which have more power. Some of these vehicles are running on all six cylinders and functioning up to their potential. Some of these vehicles are only running on five cylinders and are not functioning up to their potential.

Self-actualization is a term used where we, as individuals, are functioning at our highest potential. We are, in our daily lives, being all that we can be. When we are living up to our fullest potential, there is a certain synergy that kicks in which may be described as overdrive. There are a few high-performance vehicles, operating at their fullest potential, which very efficiently glide through their gears and smoothly kick into overdrive for maximum performance.

To continue the analogy, people who are self-actualized have become the kind of vehicle they want to become. If they've always dreamed of being a foreign sports car, then they will have achieved that goal. Some of us want to be Volkswagen Beetles and some of us want to be pink Cadillacs. Those who are self-actualized all-terrain vehicles are happily spending the majority of our time chugging up and down mountains and over hills and plains.

Self-awareness in self-actualized people makes it possible for them to relate to others in a way that enhances their well-being. They've overcome much of their limiting and self-defeating behavior. They accept themselves and others. They get along well with others. They are supportive of others. They have a great capacity for compassion and kindness. They've learned not to take themselves or the world too seriously. They're noted for their humility and sense of humor. Lastly, they've learned to take responsibility not just for themselves but in a limited respect for the world around them.

They are honest, dependable, and sincere. They have depth and great creativity.

To summarize, Maslow presents us with a recipe for happiness. The Hierarchy of Needs could be envisioned as ladder that we climb from food, clothing and shelter to safety and security to love and belonging to self esteem and self-actualization.

The Hierarchy of Needs theory can help us understand what is motivating us at any given time. We can look at this spectrum of needs and determine where we are on the ladder. Most of us are in a state of disequilibrium trying to satisfy our needs. We are constantly striving to pull ourselves up the ladder of personal growth and development.

ARTICLES RELATED TO THIS
VOCATIONAL EXPLORATION SYSTEM

PINION USA

Clinton's new jobs plan

Labor secretary says proposal will provide help and retraining the jobless need.

Christie Jerrolds and Linda Barner both lost their jobs last year when the Williamsport, Pa., paper factory where they worked closed its doors.

Today, Christie is completing her second semester of college, aided by a federal check that helps finance business programming courses to land her a new job.

But Linda, who is also studying to learn new skills, gets no federal training help at all, even though she worked under the same contract and lost her job at the same time.



By Robert B. Reich, secretary of Labor.

Why?

Christie made paper napkins. Linda made paper cups.

Paper napkins were considered an industry threatened by foreign competition. Paper cups were not. Christie got a helping hand. Linda did not.

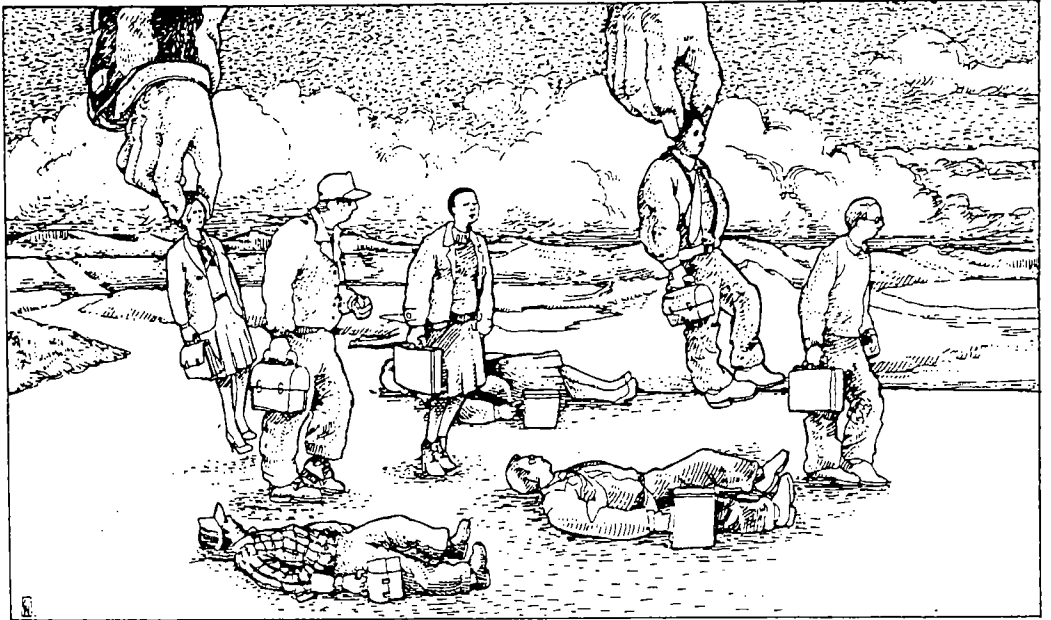
Their stories offer further proof that the USA's system for moving unemployed workers into new jobs is really not a system at all. It's a hodgepodge of programs that help some people but leave others behind.

In its place, the Clinton administration will establish a serious plan for getting workers back on the job. In the next week, we will introduce legislation to turn our unemployment system into a *re-employment* system.

Here's why we need to change:

In the past, when a worker lost a job, he or she often returned to that job as soon as the business cycle picked up again and the company was ready to rehire. The unemployment system was designed largely to tide workers over during temporary dry spells.

But today, when a worker loses a job, that job is often



By Web Bryant, USA TODAY

gone forever.

Last year — in the midst of an economic recovery — more than three out of every four of the USA's job losers expected to lose their jobs *permanently*, the highest rate of permanent job loss since statistics were first collected. A year after losing a job, more than half of all displaced workers remain unemployed, or working in a job that pays less than 80% of their former wages.

Corporate downsizing, defense reductions, global competition, and technological change are reshaping the economic landscape. Job change is becoming the norm, not the exception.

No longer can a person expect to work for one company for an entire career.

In the new economy, workers will change jobs repeatedly during a lifetime, and each new job will demand ever greater skills.

Fortunately, our economy has done pretty well at generating these new jobs. In the last year, 1.7 million new private sector jobs were created — more than in the previous four years combined. The Bureau of Labor Statistics projects that by 2005, there will be a net increase of about 7.8 million good jobs that won't require a college degree.

But while the jobs exist, the

pathways to them aren't always clear.

To help people move from the old jobs that are disappearing to the new ones that are emerging, the Clinton administration is sending Congress the Re-Employment Act of 1994. This legislation will transform the safety net of unemployment insurance into a springboard to launch workers into new jobs.

It will make significant improvements on the current system:

► **No more narrow requirements:** The Re-Employment Act will consolidate the patchwork of dislocated-worker programs into a coherent system that focuses on what customers need to get their next job, not why they lost their last job. Meaningless distinctions — like the one between paper cups and paper napkins — won't matter.

► **Real help in getting a new job:** Most unemployed workers don't need much retraining, just some basic help organizing their job search. This legislation will help provide useful services — like job counseling and job search assistance — that can get people back to work quickly.

► **One-stop shopping:** Unemployed workers waste too much time waiting in long lines, trudging from one office

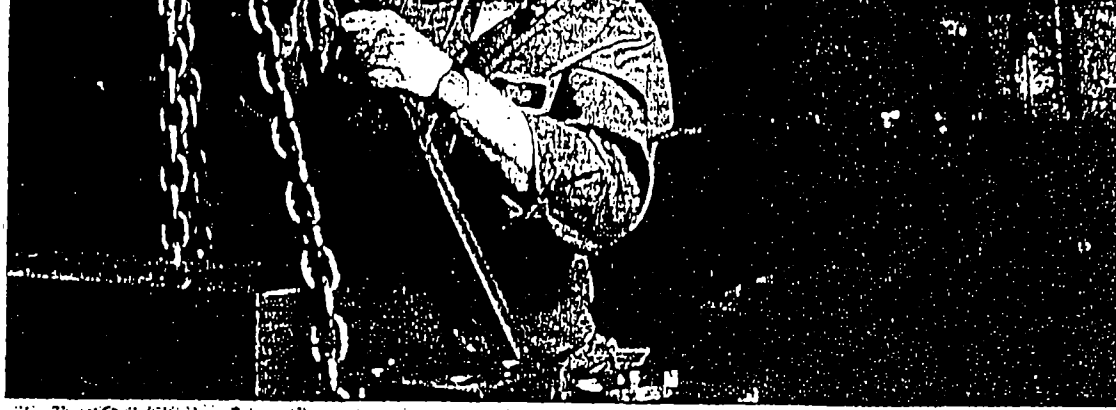
to another and filling out endless forms. A central feature of our plan will be one-stop career centers that offer, under one roof, access to all parts of the re-employment system.

► **A National Jobs Data Bank:** Workers need quality information about where the jobs are and what skills they require. We will use advances in computer and communications technology to give them instant access to that information and to help employers make quicker and less costly connections with prospective employees.

► **Retraining where it's needed.** While most workers need only information and basic services to get a new job, some need training in new skills. The Re-Employment Act will offer workers access to skill-building programs — for as long as a year and a half — along with income support to let them take advantage of longer-term training when they need it.

The Re-Employment Act will connect the USA's workers to new jobs by eliminating the obstacles that now stand between them and the work they can do.

By clearing the pathways, we open opportunity to everyone — people who make paper napkins, people who make paper cups, and anyone else who wants to get back to work.



PRESS PHOTO/REX D. LARSEN

staying

ahead

Walter Salmon is happy with the \$23 an hour he makes as a tool-and-die worker for General Motors Corp. The pay has provided a comfortable lifestyle for his family. For his son, it's a different story, one of struggle. "The middle class is going down," Walter Salmon says.

SLIPPING from the MIDDLE CLASS

*American dream tough to reach
for a hard-pressed generation*

By Ted Roelofs
Grand Rapids Press

With just a high school education, Walter Salmon has been lucky to grab his piece of the American dream.

At age 52, Salmon earns \$23 an hour as a tool-and-die worker at the General Motors Corp. metal fabrication plant in Wyoming. He's married, raised three kids and bought and paid off a house in Comstock Park he purchased 30 years ago.

Now he wonders whether his youngest son will ever see more than a glimpse of the good life.

"The middle class is going down, I tell you," says Salmon, pausing a moment as he aligns a die at the beginning of his second shift.

"We all say it around the plant. The big wages and the good days are over. I know my son is having a terrible time of it."

While his father grosses more than a \$1,000 a week and enjoys a plush benefits package, son Walter struggles on the \$7.50 an hour he earns at a tool-and-die shop. He lives in a Grandville apartment with his wife, Susan, and their two young children.

With mounting credit problems, they had their telephone cut off when they failed to pay their bills - this despite the job that Susan works as a clerk at Value City department store.

"If I can ever get my credit paid off I think things will be OK," says the younger Salmon, who is grateful for the Geo Metro his father bought for him so he'd have reliable transportation.

"If it wasn't for my dad we'd probably be living on the street. I owe pretty

much everything I have to him."

Economic observers believe the Salmons typify a shift in the landscape just now sinking in: Contrary to our cherished American belief in endless better tomorrows, this may be the first generation in decades worse off than the one before it.

"There is no doubt in my mind that this generation is setting a new plateau and this plateau is less than their parents," says Jim Palmeri, job placement director at Grand Rapids Community College.

The irony, notes Palmeri, is that all this is happening amid a robust recovery that has dropped local unemployment below 5 percent and left many employers begging for workers.

To be sure, Palmeri says, middle class America isn't about to drop off a cliff.

Many of us live well enough to afford the house, minivan, home computer and CD player that define the good life. West Michigan's economic engine continues to chug along at a healthy clip, as \$200,000 homes sprout in subdivisions and newspaper want ads are jammed with jobs.

But Palmeri warns that this economic security blanket is unraveling at the edges, leaving blue- and white-collar workers alike out in the cold.

As we grapple with corporate "downsizing," plant shutdowns and stagnant wages, political experts see more trouble ahead. The rise of Texas billionaire Ross Perot in 1992, the 1994 Republican revolution at the polls, the posturing of both parties toward a tax cut - one ob-



PRESS PHOTO/JON M. BROUWER



PRESS PHOTO/HOLLY N. WILLIAMS

**They're
struggling
to stay even**

Bonnie Lake, above, earns \$6.91 an hour at Meijer Inc. She is two years behind on the taxes for her home and two months behind on the \$250 monthly mortgage payments. Mike VanRosmalen, left, helps Josephine Wertsch, in his part-time job as a physical therapist aide. Two years ago he was laid off as an industrial engineer at American Seating. He and his wife, Lisa, were about to close on a new house.

server thinks middle class blues are behind the numbers.

"The middle class has reason to be alarmed," says William Ballenger, editor of Inside Michigan Politics, a Lansing-based political newsletter.

"I think a lot of it ties into the angry white male syndrome. They feel economically threatened. There has been a decline in their purchasing power. When you look at the national deficit, the national debt, the trends - it's pretty scary for the middle class."

But the signposts to this trend are

more than anecdotal, the effects more than political.

In one of the most comprehensive studies of the middle class, researchers at the University of Michigan have found evidence of the steady erosion of the middle class as a percentage of the population since the late 1960s.

According to the U-M's Survey Research Center, the fraction of middle-income households has declined from 60 percent in the late 1960s to just below

see DREAM, E4

50 percent in 1990.

Richard Kemler, economic analyst for the Michigan Employment Security Commission, said the trend has been evident for years — even if there is "no hard definition" of middle class.

Kemler pegs middle-class boundaries at \$25,000 to \$100,000 a year in household income, but said those numbers are variable. "The middle class are those that can do a number of things that people in the lower class can't," he concludes.

Economic observers peg several factors for the squeeze, chiefly the decline in production wages, automation and the shift to a service economy from one based on manufacturing.

Cut-throat global competition and free trade are further pushing the trend, as American companies vie with foreign firms that pay workers a fraction of the going wage here.

U.S. Sen. Carl Levin points to a study of economic growth from 1950 to 1978 by the Department of Labor, in which the top, middle and lower income families shared similar growth.

"All boats were going up together then," Levin said.

Working harder, getting less

But from 1970 to 1993, the middle 20 percent of the population experienced a 3 percent income drop while the top 20 percent's income climbed by 18 percent. And this occurred despite longer work weeks and the rise of women in the work force from 34 percent in 1950 to 58 percent today.

"I think the middle class is stagnant," Levin said. "We are working harder, putting in more hours per family."

In the 1950s and 1960s, according to the U.S. Department of Education, a single production worker with a high school diploma could earn a "family wage" — enough money to support a spouse and child, buy a car and own a home.

In the 1990s, it takes two earners, each with high school plus two years of post-secondary education, to achieve a family wage.

As the economy shifts from manufacturing to service jobs, Levin says, it strains the pocketbooks of families earning service wages — many pegged between \$5 and \$10 an hour.

According to the State of Working America, a book by the Economic Policy Institute, a Washington D.C. think tank, service jobs climbed from 19 percent of the work force in 1979 to 27 percent in 1993. Manufacturing jobs in the same period dropped from 23 percent to 16 percent.

In the Grand Rapids-Holland-Muskegon metropolitan areas, service-producing jobs jumped by more than 200 percent from 1970 to 1994, according to the MESCC while goods-producing jobs grew by less than 40 percent.

"That is very tough going. We've got to win back the better jobs," Levin says.

Not all economists buy the notion that middle class America is slipping.

Herb Stein, an economist with the American Enterprise Institute, argues that the "middle class is better off than any middle class has ever been in the United States or is now in any other country." He maintains that while household income may have stagnated, the size of the American household has been shrinking — leaving per capita income in better shape.

Stein further argues that nostalgic comparisons to the 1950s ignore substantial quality of life differences. He notes that the typical house of 1950 had about 1,200 square feet, with no air conditioning, VCR or microwave. Cable television was not an option, nor were high-tech medical procedures.

Marvin Kosters, a 1960 graduate of Calvin College and resident scholar at the American Enterprise Institute, believes it's a matter of perspective.

"The growth is much less rapid than during the 1950s and 1960s but that's a different thing than saying people are doing worse and worse," Kosters said.

Nor does Kosters buy the premise that service sector jobs are dead-end, low-pay alternatives. The preponderance of teen-agers working in fast-food jobs at low wages, Kosters asserts, gives a misleading picture.

"Service jobs are becoming higher-wage, higher-training jobs," he maintains.

No margin for frills

Dutton residents Doug and Jeanne Quist know better than most how difficult it can be to raise a family on the wages they earn in the service economy.

Doug earns \$8.25 an hour as a hardware consultant at the Kentwood Builders Square store, while Jeanne just quit her part-time job in that store's kitchen design department to care for



PRESS PHOTO/CHRISTINA MACIAS

Doug and Jeanne Quist squeak by on his \$8.25-per-hour pay, but they wonder about college for their son, Patrick.

purchase groceries, there is little margin for frills like vacations, movies or dinners out — let alone long-range financial planning or a college fund for their children. They drive one car and Doug says he's prepared to ride his bike to work this summer.

"If we do eat out it's because we have to, like in the cafeteria at Meijer's," he says.

Quist says he looked at manufacturing work that might pay better but has been unable to connect. "I've tried, but age 44 is already up there for those people," he says.

The Quists hope for a better life for their children — but they're realistic.

"If Patrick wants to go to college he's probably going to have to pay for it himself," Jeanne Quist says.

While the Quists ride along just above the poverty line, there are other service-based workers about to slip below.

Bonnie Lake, a 47-year-old employee of the shoe department at the Meijer Inc. store at 2425 Alpine Ave. NW, earns \$6.91 an hour for 40 hours a week after 10 years at Meijer — and is on the verge of losing her West Side home. "Right now, I'm trying my hardest to come up with what I can," says Lake. "There are people at work trying to help."

Struggling from behind

But she remains two years behind on the taxes for her home on Broadway Avenue NW and is now two months behind on the \$250 monthly mortgage payments. Her husband, James, is only able to work occasional odd jobs because of problems with his lungs and stomach, she says.

Lake has taken on a second job, stocking groceries at the same Meijer where she sells shoes, to try to make ends meet.

"Working retail, the only good thing is the benefits. If it wasn't for the benefits, I wouldn't be here. You need the money because you have got to live. They expect more out of you but they won't pay you."

Lake's 21-year-old daughter, Tammy, is making it so far on factory wages of about \$10 an hour, but Lake doesn't see a bright future for the younger generation.

"I feel sorry for these kids," she says. "I would like to take the owners of these companies and pay them what they pay us and see if they can survive. They couldn't do it."

Lake says the long hours and stress of holding her family together take a toll. "I'm just so tired at night, I don't want to cook. I'm just whipped," she says.

She's not alone.

According to the Economic Policy Institute, an average worker spent 1,765 hours on the job in 1989, the equivalent of two full weeks more time than the 1,683 hours worked in 1979.

Until recently, Cliff Bergeron, a production worker at Roe International, was putting in 60 hours a week or more. That meant seven days a week, including eight hours on Saturday and five on Sunday.

It's a mixed blessing for the Greenville resident, who makes \$7.80 an hour and is glad to

decide of blue-collar wages.

Calculated in 1994 dollars, average national production wages have dropped from \$14.02 an hour in 1978 to \$12.06 in 1994 — a 14 percent decline. For Grand Rapids-Holland-Muskegon area, according to the MESCC, wages fell by 13 percent, from \$15.03 to \$12.13.

Over the same period, according to Department of Labor figures, average wages for men with high school degrees fell even further — 17 percent.

At the same time, corporate America continues to chop away at the security of middle management as it "downsizes" the white-collar work force in the name of efficiency.

Two years ago, Mike VanRosmalen was an industrial engineer at American Seating, a Grand Rapids office furniture and public-seating manufacturer. He and his wife, Lisa, were about to close on a new house. Then he got laid off, one of about 30 executives to lose jobs that year.

"I thought this is a good company, a good opportunity for me," says VanRosmalen, 35. "I felt pretty secure there. I had spent five years there. I was married and had a child while I was there."

"I was in the process of selling my home and before I was able to close on the sale I had the news at American Seating that I was no longer employed."

For Mike and Lisa, it's been a hard fall. They live in a Northeast Side apartment now with their 3-year-old daughter, Samantha, surviving in part on the equity from the sale of their house. Lisa earns about \$20,000 annually as a records clerk at Blodgett Memorial Medical Center.

Mike VanRosmalen is now embarked on a new career path as a physical therapist. He's taken several classes at Grand Rapids Community College, works part-time as a physical therapist aide and is hoping to be among 60 of 400 students accepted into this year's Grand Valley State University program.

Part of him still hopes to find a place in manufacturing. "I keep my eyes open for opportunities. The right one just hasn't come along," he says.

A local job expert says VanRosmalen's plight is more common than we might believe.

A real sorting out

"This is the way it's going to be," says Lorie Messing, a job search coach for Area Community Services Employment and Training, a non-profit retraining agency. "People need to understand that they need to spend their lives in continuous learning."

Messing is the founder of Next Executive, a support group for middle-management victims of the new economic order.

"There is a real sorting out in society of what's needed and what's not. Companies want to reduce their payrolls to save money. I think the amount of technology that people are expected to know and have mastery over is overwhelming."

She presides over twice-weekly sessions with those in predicaments similar to that of VanRosmalen: an executive who lost work when Meijer's Source Clubs closed, engineers caught in the wave of layoffs from Smiths industries, accountants whose jobs were phased out.

"These are people who consider themselves leaders," Messing says.

But even with the best intentions, Grand Rapids Community College's Palmer believes the future — especially for the under-educated — will be rough. "You have to get training or education. It's an absolute must. And you've got to be mobile. If the job isn't here, you've got to go where the job is."

As technology pervades our society, Palmer notes that the gap in earnings between high school and college graduates is widening. College educated workers earned 38 percent more than high school graduates in 1979, but 56 percent more in 1989.

Michael Hopson, a 26-year-old 1991 graduate of Michigan State University, wishes more in his generation would take education seriously. He isn't about to concede the future.

"It's still achievable. This is still America. The dream is still alive. But there's a lot more distractions and a lot more competition."

"For African Americans, it's going to be a harder trail anyway. I try to tell them that college provides more choices."

A 1986 graduate of Ottawa Hills High School, he is math and science coordinator for Upward bound at Grand Rapids Community College. Still single, he has just purchased a house and has set his sights on a master's degree in educational administration.

"I think some people don't have the na-

ESSAY



The Rev. George K. Heartwell
Special to The Grand Rapids Press

Welfare issue misses a step

Shared values should be used as a framework for debate

From the halls of Congress to the chambers of City and County Commissions, from the talk show circuit to the living rooms of America, in churches, in union halls, in corporate board rooms, welfare reform debate finds center stage.

In the midst of the maelstrom of rhetoric swirling around this controversial issue is a void. Given our American penchant for instant solutions, we have neglected a fundamental step. We have not carefully considered the underlying values which should frame reform. In fact, when we do use "values language" it is often to polarize.

It must be possible — especially on such a divisive issue as welfare reform — for us to identify shared values which can then form the foundation for debate on reform and serve to critique the product of the reform movement.

The purpose of this essay is to step away from the heat of partisan debate to see if a set of values can be identified.

Since the process of seeking consensus on values seems not to have occurred in Washington prior to the introduction of reform legislation, perhaps citizens "back home" must fill that gap.

The value of child well-being

In her recently published book *Pitied But Not Entitled*, University of Wisconsin professor Linda Gordon looks at the history of welfare for single mothers with children in the United States.

The "mother's aid" movement of the last decades of the 19th Century and the first decades of the 20th rested on three pillars. The first, was that children were a social "resource" and that raising them was a socially necessary labor, which could logically be supported by tax money. The second, was the potential social disorder that could be stimulated by poverty and unrest. The third pillar was altruism, concern for those who suffer.

These historical values can be instructive to us as we frame the debate around reform.

What is the state of well-being of children in our own community today? According to the report, *A Brighter Future for Kent County Children*, one quarter of those children live in poverty. The statistic rises to one third for Hispanic children and to one half for African-American children. Indeed, 40 percent of all people in poverty in Grand Rapids are children. A child living in a poor family is three times as likely to die before age 15 as is a child from a family earning over \$25,000 per year.

Could we not agree that the well-being of children ought to be a high — if not the highest — value for a nation? As we consider reforming the system that presently provides some modest income support, nutritional supplement and health care insurance for these children would it not be reasonable to set as a goal the reduction of child poverty?

Yet even as we affirm that the well-being of our children, and the health of their families, are shared community values, we must admit that something has gone awry. Increasing numbers of families have sought the safety net of public support even as the nation has experienced unprecedented growth and

see ESSAY, E4

George K. Heartwell, Grand Rapids City Commissioner from the Third Ward, is an ordained minister in the Reformed Church in America and pastor of Heartside Ministry. A previous essay he wrote was on the violence he observed while visiting South Africa compared to the violence of poverty he sees in Grand Rapids.

ESSAY Arguments stumble over facts in debate over welfare reform

CONTINUED FROM E1

peacetime prosperity.

In 1993, while the top 5 percent of U.S. households brought home 20 percent of the national income, the bottom 20 percent earned only 3.6 percent of the national income, according to U.S. Department of Labor Statistics. And as the Dow Jones Industrial Average skates by the 4,000 mark on its way to greater heights, 14.6 million American children are living in the depths of poverty.

Has welfare created dependency among recipients who lead a life of ease at the expense of working people? Is welfare a free ride in a

much higher standard of living and could better provide for their children.

Work as a community value

Could we not agree that work is a community value, that it contributes to individual worth and community vitality — work that engages men and women at a level of skill and education appropriate to each — work that provides a means of family support and lifts individuals out of poverty — work that contributes to the stability of the community?

Reform policy must be grounded in the value of work. Therefore, meaningful welfare reform must involve education reform, particu-

place integration initiatives have succeeded, and when able-bodied workers have been entirely removed from public assistance, there will still be those who require social income support. Reform efforts must take into account the merit in caring for the most vulnerable among us.

Program elimination solely to enrich the taxpayer is inimical to the religious traditions of the people of this nation and to the tenets of justice contained in our Constitution.

Surely no reform effort should result in the weakest members of society being "pushed from the lifeboat" out of vague concern that we might be sinking.

The initiation of a citizen dialogue that starts with shared values, navigates the Scylla of easy acquiescence and the Charybdis of polarizing argument, and moves through compromise to consensus. This process requires hard work, knowledgeable participants, discipline and honesty.

Is such a citizen dialogue possible? Of course. Is it happening? Rarely. Is there a consequence to it not happening? Definitely. When people are not willing to study and debate social issues they abdicate responsibility to the few and the powerful who then govern the state or manage the economy in a virtual vacuum.

Perhaps this essay can serve as a

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Economic equality just a myth

► *The United States is the
most economically stratified of
the world's industrial nations.*

By Keith Bradsher
N.Y. Times News Service

WASHINGTON — New studies on the growing concentration of American wealth and income challenge a cherished part of the country's self-image. They show that rather than being an egalitarian society, the United States has become the most economically stratified of industrial nations.

Even class societies like Britain, which inherited large differences in income and wealth over centuries going back to their feudal pasts, now have greater economic equality than the United States, according to the latest economic and statistical research, much of which is to be published soon.

Economic inequality has been on the rise since the 1970s. Since 1992, when Bill Clinton charged that Republican tax cuts in the 1980s had broadened the gap between the rich and the middle class, it has become more sharply focused as a political issue.

Many of the new studies are based on the data available then, but provide new analyses that coincide with a vigorous debate in Congress over provisions in the Republican Contract With America.

Indeed, the drive by Republicans to reduce federal welfare programs and cut taxes is expected, at least in the short term, to widen disparities between rich and poor.

Federal Reserve figures from 1989, the most recent available, show that the wealthiest 1 percent of U.S. households — with net worth of at least \$2.3 million each — owns nearly 40 percent of the nation's wealth. By contrast, the wealthiest 1 percent of the British population owns about 18 percent of the wealth there — down from 59 percent in the early 1920s.

Further down the scale, the top 20 percent of Americans — households worth \$150,000 or more — have more than 50 percent of the country's wealth, a higher figure than in other industrial nations.

Income statistics are similarly skewed. The lowest-earning 20 percent of Americans earn only 5.7 percent of all the after-tax income paid to individuals in the United States each year. In Finland, a nation with an exceptionally even distribution of income, the lowest-earning 20 percent receive 10.8 percent of such income.

The top 20 percent of American households in terms of income — \$55,000 or more — have 55 percent of all after-tax income.

Jobs go unfilled for lack of skilled workers

By Hugh Vickery
Grand Rapids Press News Service

American companies have eliminated 1.4 million jobs since the beginning of the current recession, swelling the nation's unemployment rolls to more than 8 million people.

But there are still plenty of jobs going begging because employers can't find the skilled people to perform them.

These include lab technicians, word processors, machinists, pipe fitters, physical therapists, bank tellers, computer specialists and chemical and electrical engineers.

"You go out to talk to employers and you find they are not talking about a lack of bodies. They are talking about a lack of qualified people," says Thomas Nardone, an economist with the government's Bureau of Labor Statistics.

"There is a tremendous skill gap in the work force," adds Helen Bensimon, a spokesman for American Society for Training and Development. "Workers just don't have the right skills."

Despite a loss of more than 700,000 manufacturing jobs in the past year, for example, industrial companies are scrambling to find craftsmen.

A recent survey of more than 350 companies conducted by Towers Perrin, a New York employment consulting firm, found that half were short of skilled workers such as plumbers, carpenters and machinists.

"There is a tremendous skill gap in the work force."

Helen Bensimon

In Illinois, for example, five field offices of the Department of Employment Security joined forces to buy television advertising for hard-to-find health workers, machinists and engineers.

"Jobs in certain areas are not being filled or are taking a long time to be filled," says Andrea Holliday, a spokesman for the department. "This is a trend that is growing as workplace technology is advancing."

Ingersoll Milling Machine Co. in Rockford, Ill., has to recruit skilled workers from as far as 1,000 miles away to work on its shop floor because local high schools aren't producing graduates who can handle the increasingly sophisticated computers and machinery, says Brian Howard, the company's vice president of human resources.

One problem is too many students who should be trained for a vocation are being sent off to college where they don't learn skills that translate into jobs, he says.

Even monetary incentives sometimes aren't enough to overcome the skill gap. For example, there is also nationwide shortage of tool and die makers even

though experienced journeymen can make as much as \$80,000 a year.

Tool and die making requires apprentices to be smart, especially in mathematics, as well as good with their hands — an increasingly rare combination with today's high school graduates, says Roger Sustar, owner of Fredon Corp., a precision machine shop outside Cleveland.

Sustar usually has to start from scratch when training new apprentices. Even then, it takes four years on the job to become a journeyman.

Skilled secretaries and word processors are also in short supply in many parts of the country, says Sharon Canter of Manpower Inc., the nation's largest temporary help company.

Companies are clamoring for people who can operate the modern office computers and other equipment, Canter says. As a result, Manpower relies on its own training program to ensure it has enough qualified people.

"The office technology has moved very quickly and the new software packages come and go," she says. "There hasn't been time to build a pool

of people who know them."

Fewer students also are willing to take the difficult math and science courses needed to go into engineering despite a long-term demand for engineers in a variety of specialties.

"Most kids don't want to work that hard," says Bob LoPresto, president of the high-tech division of Rusher Loscavio and LoPresto, a San Francisco executive search company. "The work ethic in this country has declined since World War II — we've gotten fat, dumb and happy."

Corporations increasingly are solving the shortage problem by stepping up their own training and working with local schools to produce more qualified workers.

De Anza College in Cupertino, Calif., for example, currently has more than \$900,000 a year in contracts with 25 to 30 Silicon Valley companies to train workers in everything from basic mathematics to industrial management.

Amdahl Corp., a computer manufacturer in Sunnydale, Calif., has more than 1,000 employees training at De Anza. Other companies that use the college for training include Apple and Hewlett-Packard.

"Industry is running as fast as it can to make up for the deficit in the public education system," says Betty Vetter, executive director of the Commission on Professionals in Science and Technology, a Washington research group.

Poor find jobs don't bring end to poverty

By Joe Frolik
Newhouse News Service

CLEVELAND — Donald Reel and his family spent a decade on welfare. But now he and his wife Christine are both working and off the dole.

Only problem is, they and their four children are still poor.

"I wanted to show my kids I can make a living without depending on anything from the government," Reel says. "I went out, I got off welfare — but sometimes it seems like I'm no better."

Reel, a barrel-chested former farmhand who quit high school in the 11th grade, works as a security guard. His wife is a clerk at a discount store. He makes \$6 an hour, she gets \$4.25, the minimum wage. But neither of them has been able to get full-time work. And so the Reels don't earn enough to lift them above the federally defined poverty line of about \$19,000 a year for a family their size.

They aren't alone. Nearly three-fifths of America's 7.7 million poor families have at least one member who works either full-time or part-time. And one in six poor households is like the Reels — two workers still not enough cash to meet the federal minimum standard many consider woefully inadequate.

"The theory that the poor don't want to work is certainly not consistent with these figures," says George Zeller, a researcher with the federally funded Council on Economic Opportunities in Greater Cleveland.

"They do work. They just aren't able to generate enough income from their wages."

And that affects every part of their lives. Donald Reel has spent the past few days in agony, looking for a dentist who'll fix his broken teeth and then pay the bill a little at a time.

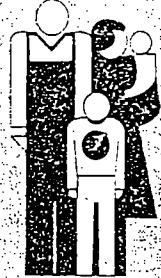
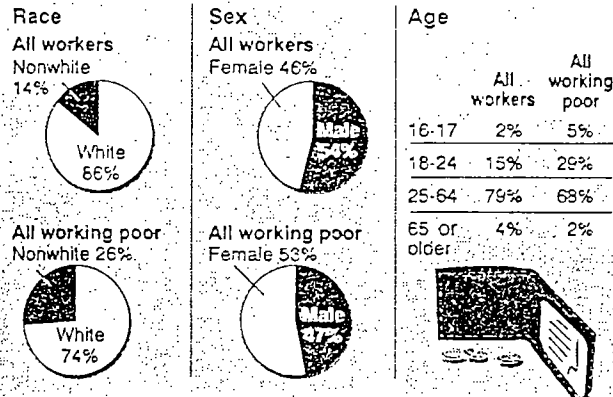
"We have our suffering moments," says Brenda Johnson, who says her low-paying factory job still beats welfare any day. "But I be proud of myself because at the end of the day I can look at myself and I say I made it through."

Johnson and other members of the working poor in cities such as Cleveland are the people who, as Jesse Jackson puts it, "catch the early bus." They mop the floors in office buildings, and to the children of suburban lawyers and change the sheets in hotels. Of course, not everyone who does such jobs is poor — but many are, especially those who work only part-time or as temporary employees.

Economists, social workers and others who study or assist the poor say these Americans are caught in a web of complex factors. Average wages have been declining since the early 1970s and "persons at the low end of the scale have been falling the furthest and the fastest," says Jared Bernstein, a poverty expert at the Economic Policy Institute in Washington.

During his campaign for the White House, Bill Clinton often said no one who works should be poor. David Roth, who heads Cleveland

Who are the working poor?



- 35.7 million Americans lived below the poverty line in 1991.
- 39.8% of those poor Americans 15 and older worked some time during the year. That's more than 9.2 million people.
- 9% of the poor worked full-time, year-round. That's more than 2 million people.
- In 58.4% of poor families, at least one person worked part time or full time.
- In 16.8% of poor families, two people worked full time or part time.

Source: U.S. Census Bureau

Newhouse News Service

Works, a program to bring welfare recipients into the workforce, says Clinton is right, that the very idea someone can work and still be poor flies in the face of the American Dream.

"We shouldn't accept the working poor; those two words, those two ideas, are not compatible," Roth says. "It's a demeaning, destructive message to say to people that even though you're working, this is as good as it gets."

America's supposedly forgotten middle class got most of the attention during the presidential campaign. Relatively little was said by any of the candidates about the country's estimated 35.7 million poor.

But when he did address the issue of poverty, specifically the 20 million working poor Americans, Clinton pledged to "make work pay." Making that a reality will require a variety of short-term and long-range initiatives, say poverty experts.

Two immediate moves that might aid the working poor are expanding the earned income tax credit and raising the minimum wage. Clinton and running mate Al Gore promised to do both in their campaign book, "Putting People First."

The earned income tax credit, basically a cash refund for low-income workers, enjoys broad support across the political spectrum. The Bush administration sought to expand it in 1989 after the president vetoed a Democrat-backed hike in the minimum wage. A compromise eventually did both, raising the minimum wage from \$3.35

to \$4.25 an hour and expanding the credit.

But it still wasn't raised enough to lift full-time, low-wage workers out of poverty.

Right now, says Wendell Primus, staff director of the House Ways and Means Committee, the credit would leave a family of three with one minimum-wage income about \$2,500 a year shy of the poverty line. Clinton says he'll raise it enough to close that gap.

Conservatives in the past have supported the credit because it is targeted at workers who have the work ethic.

Liberals like it because it varies with family size: More dependents mean a bigger refund.

There's less consensus on the minimum wage, which Clinton has said he'd like to index to inflation. Liberals generally support that idea, although they say they'd like to see a significant, immediate hike, too.

But business interests usually have opposed raising the minimum wage. They argue it leads to the elimination of many low-wage jobs and benefits many people — say, middle-class teen-agers working at fast-food restaurant — who aren't in need.

Barbara Bergmann, an economist at American University who served in the Kennedy White House, says two other areas are critical to the working poor: day

care and health care. Difficulty obtaining and paying for both pulls people back to public assistance, Bergmann says.

"Day care alone can take 20 percent to 40 percent of their income," says Bergmann, who just finished a study of low-income working mothers. "It puts them in a terrible bind. It reduces the benefit they get out of working."

Jared Bernstein of the union-oriented Economic Policy Institute agrees that all of these steps are important to helping the working poor. But, he cautions, to do something more comprehensive, "you have to get the economy on a high-wage growth path."

That, of course, was a major theme of Clinton's campaign and of his transition economics teach-in in Little Rock. But his calls for increasing the skills of workers may have special significance among the working poor, many of whom are younger and less educated than the general population.

To help them, says Case Western Reserve University poverty specialist Claudia J. Coulton, "we've got to improve literacy, (math skills), the ability to think, to learn on the job."

Bergmann agrees those things need to be tried, but she cautions against excessive expectations.

"You have to realize all this other stuff is a long-term program and it's still not guaranteed," she says. Bergmann says permanent wage supplements may be needed to ensure the working poor a reasonable standard of living.

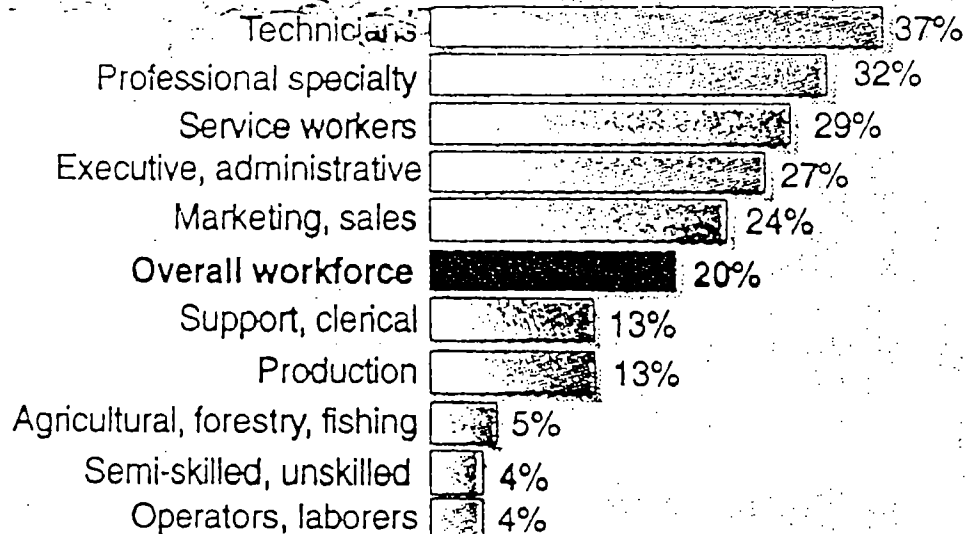
'New artisans' in high demand



By Anne Ryan, USA TODAY

Computers and factory automation have propelled technical workers into the forefront of the U.S. workforce. As high-tech machinery becomes more common, demand for people to operate and fix it is increasing. Above are two high-tech workers: Eleanor Truman, left, and Mary Lou Perlberg, are automated-system specialists at Milwaukee-based Allen-Bradley Co.

Projected employment growth, 1990-2005:



Source: Bureau of Labor Statistics

By Suzy Parker, USA TODAY

COVER STORY

Technicians lead the way to the future

WORKING IN THE '90s TODAY: WHERE THE JOBS ARE

By Julia Lawlor
USA TODAY

MILWAUKEE — When the Allen-Bradley company opened what it called the world's most automated factory here in 1985, Chris Iwanski was skeptical.

Accustomed to working on a traditional assembly line, Iwanski had only a high

school education, had never used a computer and couldn't type. Yet, eight years after leaving the shop floor for the high-tech world of computers, lasers and robotics, he can't imagine ever going back.

"You don't have to get your hands dirty," says the 46-year-old technician, one of 17 people who maintain the machines that produce motor starters for the industrial parts supplier. At work, he wears a lab coat and spends much of his time typing commands onto a computer keyboard. "I was stifled in my old job. Here, there's so much new technology, I'm constantly learning."

Iwanski has gotten a head start in what the Bureau of Labor Statistics says is now the fastest-growing job category in the USA: technical work. BLS predicts the number of technicians will grow 37% to 5.7 million by 2005 vs. 1990, compared with a growth rate of 20% for all jobs.

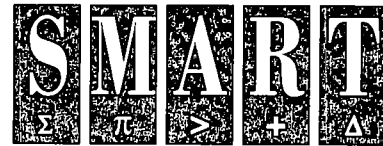
As factories automate more production, and as service businesses grow more computerized, technical workers are becoming the linchpin of the '90s workplace. Yet these "new artisans" don't fit easily into job categories left over from the Industrial Age. They're neither blue collar nor white collar, manager nor executive.

"They're betwixt and between the cultural categories we use to define work," says Stephen Barley, director of the Program on Work and Technology at Cornell University in Ithaca, N.Y. "They do something between manual and mental labor. They may wear a shirt and a tie and look like a white-collar worker, but they make things or fix things, which most white-collar workers don't."



PHOTOCOPY
PRESERVATION

*A New Solution for Math and
Science Education in LA Schools*



Science/Math Advancement and
Resources for Teachers



Top Ten Action Steps

- Action 1** • Create a training institute for math & science teachers
- Action 2** • Create a training institute for parents & volunteers
- Action 3** • Expand industry & university internship opportunities for teachers
- Action 4** • Partner math & science professionals with teachers in schools
- Action 5** • Create a clearinghouse to distribute industry, university & community resources to schools
- Action 6** • Expand existing network programs linking math & science teachers
- Action 7** • Install a telecomputing network for Los Angeles math/science teachers
- Action 8** • Use distance learning & cable TV to expand math & science training & learning opportunities
- Action 9** • Install teacher phone-mail systems to enhance communications
- Action 10** • Provide schools with technology learning stations for mathematics & science

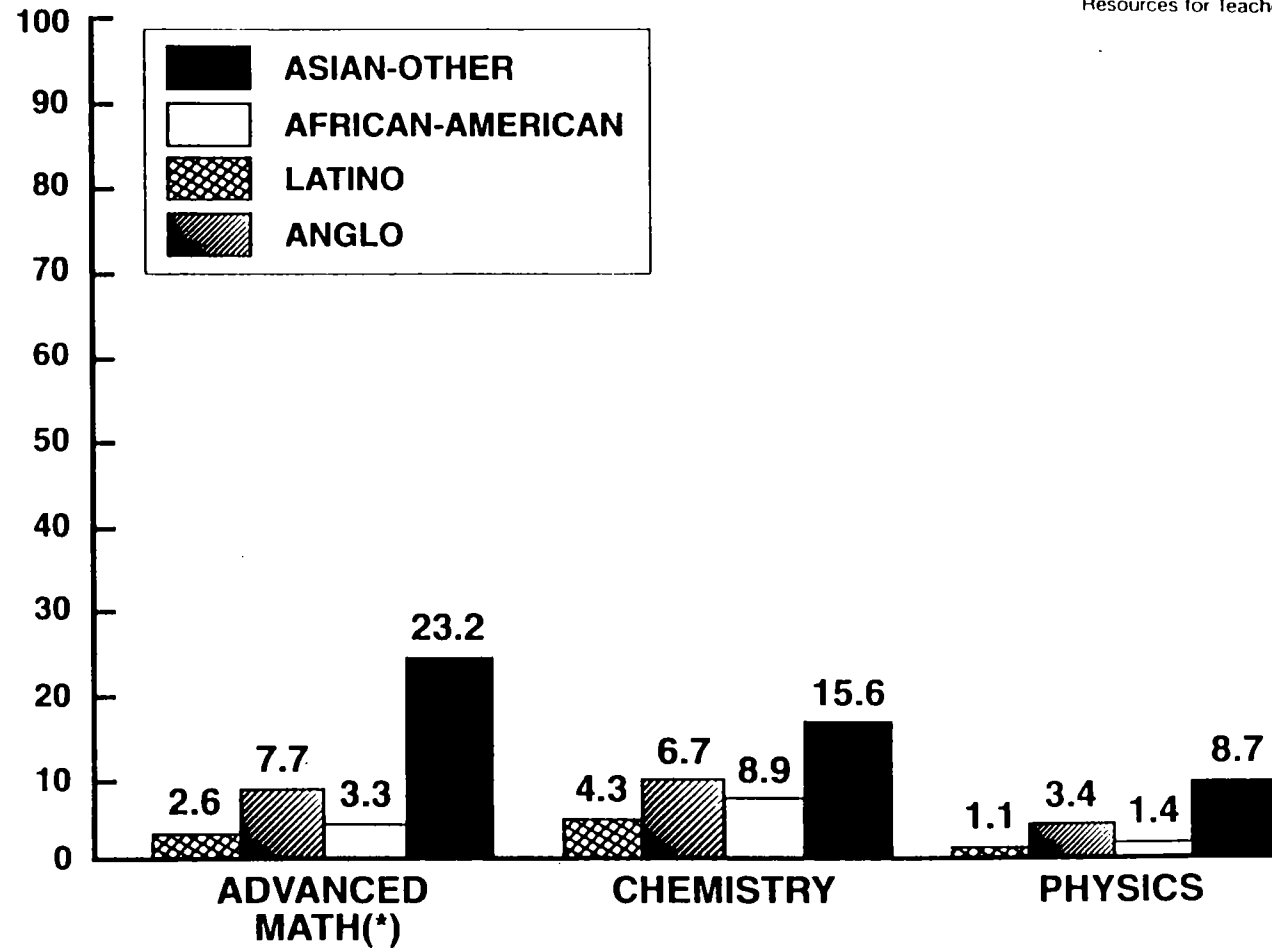
The Pipeline Problem

A New Solution for Math and
Science Education in LA Schools



Science/Math Advancement and
Resources for Teachers

% OF
GRADE 9-12
STUDENTS
ENROLLED IN
ADVANCED
MATH &
SCIENCE



(*) BEYOND ALGEBRA 2

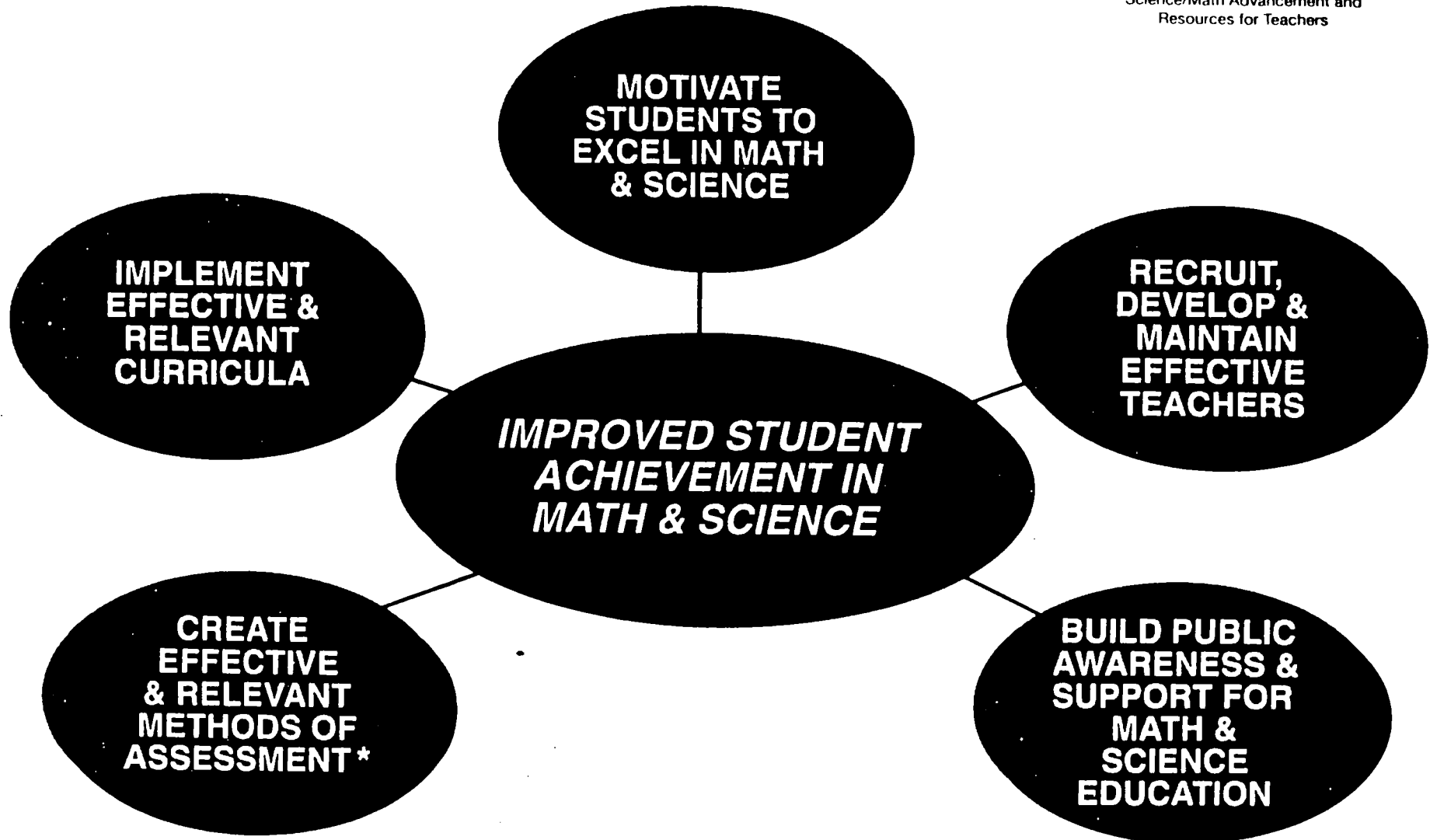
SOURCE: L.A. COUNTY OFFICE OF EDUCATION

5 Goals For Student Improvement

A New Solution for Math and
Science Education in LA Schools



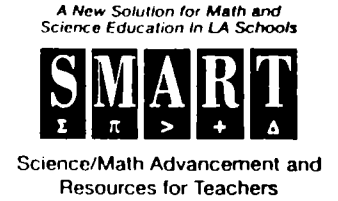
Science/Math Advancement and
Resources for Teachers



★ AND HOLD ALL CONSTITUENCIES ACCOUNTABLE

Los Angeles SMART Initiative

Current Sponsoring Corporations



- Rockwell International
- ARCO
- Lockheed
- GTE
- Times Mirror
- The Aerospace Corporation
- Northrop
- Department of Water & Power
- Hughes
- TRW Space & Defense
- Pacific Bell
- UNOCAL
- Chevron
- Union Bank

Los Angeles SMART Initiative

Current Committed School Districts

*A New Solution for Math and
Science Education in LA Schools*



Science/Math Advancement and
Resources for Teachers

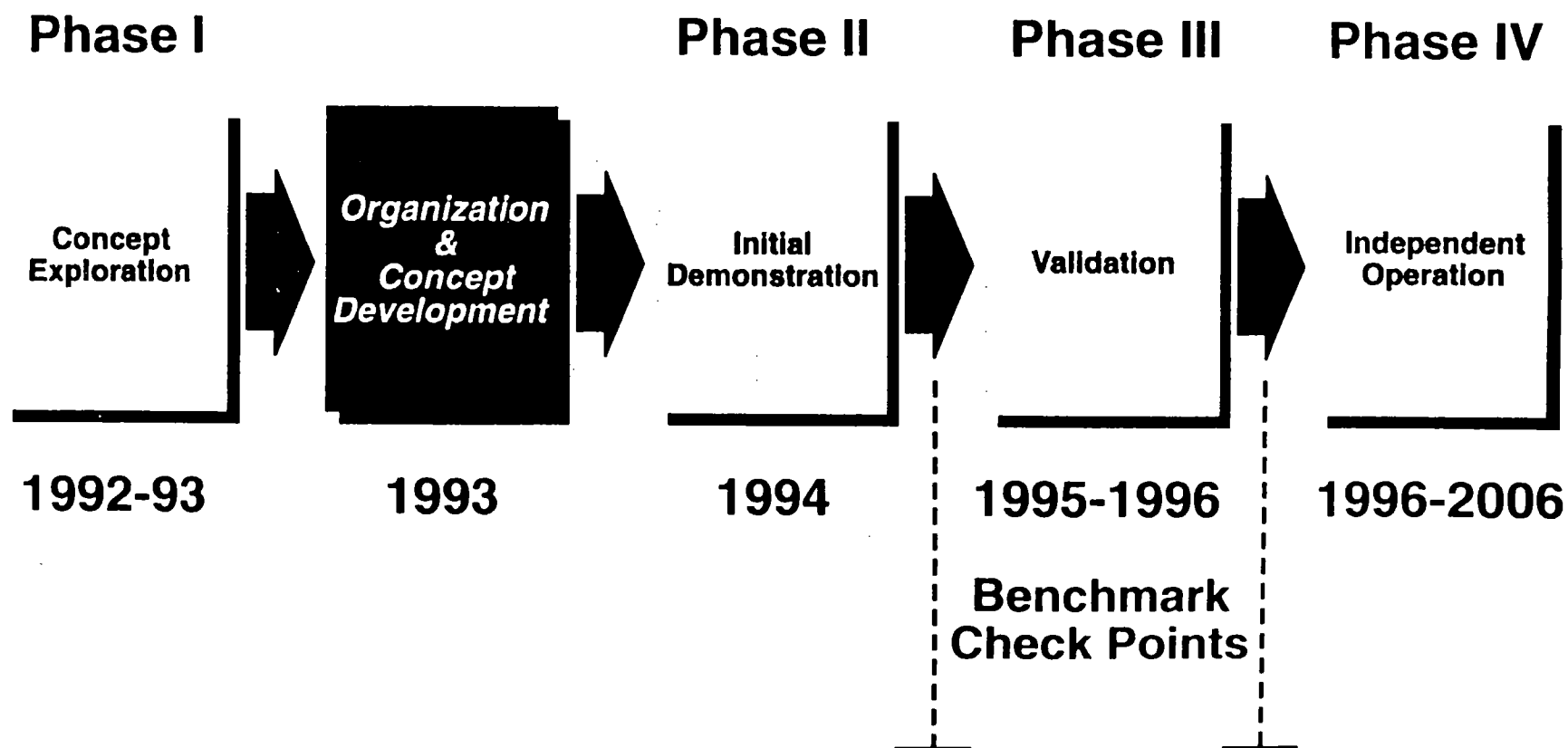
- **Los Angeles County Office of Education**
- **Los Angeles Unified**
- **Long Beach Unified**
- **Pasadena Unified**
- **Flintridge/La Canada Unified**

Phased Implementation

A New Solution for Math and
Science Education in LA Schools



Science/Math Advancement and
Resources for Teachers

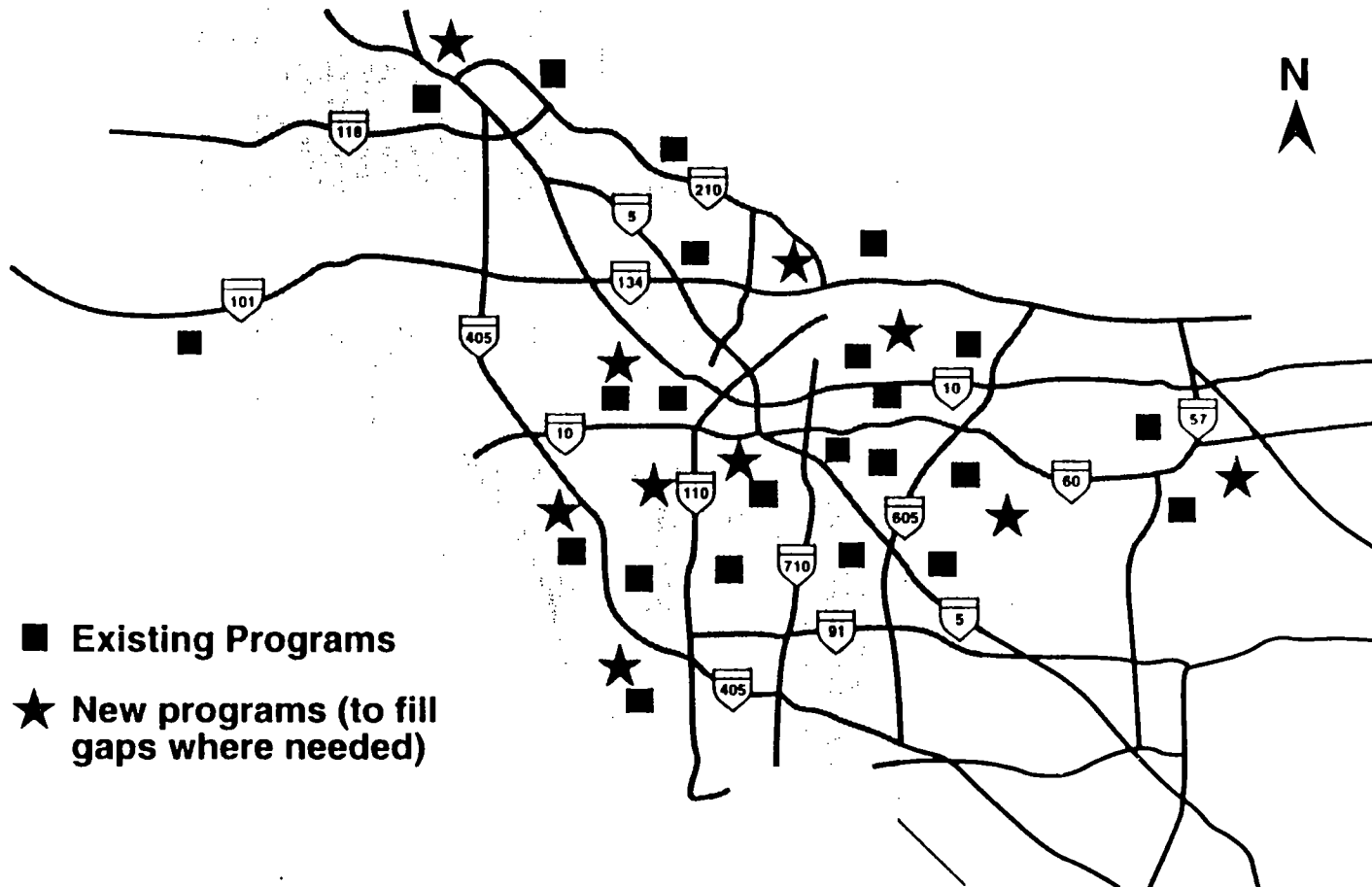


The L.A. "Freeway" Institute

A New Solution for Math and
Science Education in LA Schools



Science/Math Advancement and
Resources for Teachers



THE ROLE OF THE MATH-SCIENCE COALITION

- **To serve as:**
 - **Coordinator**
 - **Clearing House**
 - **Standards Setter**
- **Explore approach through local prototypes**
- **In three years establish program on its own independent footing and stable funding**

ROLE OF BUSINESS IN L.A. MATH-SCIENCE COALITION

Short-Term

- **Help "Jump Start" Program In Development
And Initial Implementation Phases**
 - **Human Resources**
 - **In-Kind Services**
 - **Financial Support**

Long-Term

- **Provide opportunities for educators to gain insight and/or
experience relating to the skills required in the workplace**
 - **Teacher-industry internships**
 - **Mentoring/volunteer programs**
 - **"Transition to work" advisors**

THREE YEAR IMPACT (PHASE II & III)

Direct Impact

- 40,000 teachers with expanded opportunities to learn more relevant and effective teaching methods
- 550 teachers with industry/university experience training other teachers
- 1500 additional teachers sharing ideas via networks
- 100,000+ parents and school volunteers with opportunities to support education through training and effective involvement
- 250 teachers each partnered with a math/science professional creating "real world" curriculum
- 50 schools with distance learning capabilities, phone mail, and/or technology learning stations



Broader Impact

Approximately **600,000** students involved in enhanced math and science education

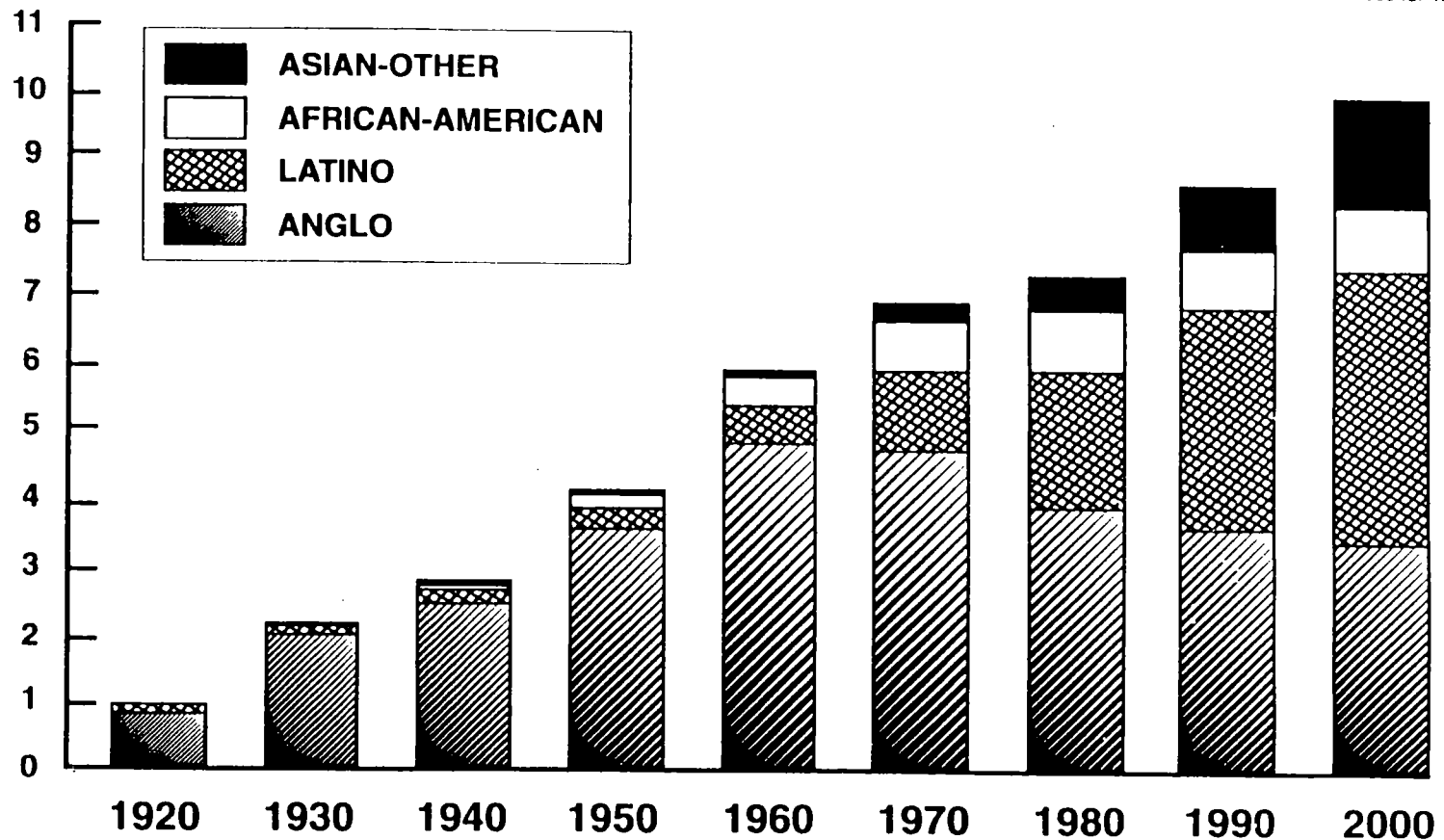
The L.A. Workforce Of Tomorrow

A New Solution for Math and
Science Education in LA Schools



Science/Math Advancement and
Resources for Teachers

POPULATION IN MILLIONS



POPULATION TRENDS & PROJECTIONS BY RACE & ETHNICITY,
LOS ANGELES COUNTY, 1920 TO 2000

SOURCE: PROJECTIONS BY THE LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES & DATA PROCESSING DEPARTMENT (1987), COUNTY OF LOS ANGELES. ACTUAL TRENDS FROM THE U.S. BUREAU OF CENSUS REPORTS, 1920-1990.

THE L.A. SMART PLAN

(L.A. SCIENCE AND MATH ADVANCEMENT + RESOURCES FOR TEACHERS)

LOS ANGELES MATHEMATICS/SCIENCE COALITION

STRATEGIC REPORT

1993-2005

*"All who have meditated on the art of governing Mankind have been
convinced that the fate of empires depends
on the education of their youth."*

ARISTOTLE

*There is no shortage of motivated Americans
with good ideas about how to serve our children better. In short supply,
however, is the ... capacity to aggregate enough resources,
to build a ... consensus for action,
and—most important—
to persist with a specific program of reform long enough for it to take effect,
at least a decade and maybe two.*

CARNEGIE COMMISSION ON SCIENCE,
TECHNOLOGY and GOVERNMENT, 1991

LOS ANGELES MATHEMATICS/SCIENCE COALITION

Statement of Purpose

In Southern California, we are rapidly losing our competitive edge in a global economy, at least in part, because the level of student achievement in mathematics and science has not kept pace with the demands of an increasingly technological marketplace.

To meet this challenge, the Los Angeles Mathematics/Science Coalition forged an urban alliance among business leaders, scientists, engineers, educators, academics, and community representatives in Los Angeles County. The Coalition established a comprehensive action plan that will raise K-12 student achievement in mathematics and science and that will reform the strategy and focus of the way these subjects are taught in our local schools.

In realizing this action plan, the Coalition decided to set a 12-year deadline - with year-by-year status reports - to provide guidance for a new generation of learners and teachers.

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I. Introduction

In an era of profound national and regional economic restructuring, Southern California is still locked in a fierce struggle for jobs, markets and technology primarily with Japan, Europe and even other U.S. regions. Yet any competitive hope for the region in the race for resources and innovation is dependent, among other things, on a high level of technical and analytical skills, which, unfortunately, are becoming increasingly difficult for K-12 students to acquire in local schools.

Today, many teachers find themselves overwhelmed by the amount of knowledge they need to possess in order to help students learn complex math and science skills. Many schools lack the most rudimentary materials and resources to help teachers and students understand current and future math- and science-education issues. From kindergarten to twelfth grade, the majority of students are not being prepared - beyond the required minimums - to tackle higher-order problems in math and science classes. As a result, thousands and thousands of young people - most of whom are under-represented minorities in Los Angeles County- are losing ground in pursuit of academic and career success.

And with their loss, a steady decline in opportunity for the entire region's economy in the 1990s and the 21st Century will follow.

This loss of opportunity is made all the more tragic, particularly in a region that can still claim to having one of the largest and most diverse economies in the world, to having some of the world's best universities, to having a strong technological base and to having a prosperous financial and investment infrastructure. The region's entertainment and film industry, international trade activities and most manufacturing sectors, despite huge defense cuts and the recession, remain healthy. Its centers of excellence in fashion design and engineering continue to attract many investors and businesses. Moreover, because of its climate, Greater Los Angeles annually draws millions of tourists and thousands of immigrants looking for the California dream.

Given this contrast between impoverished ability and potential opportunity, the Los Angeles Mathematics/Science Coalition, an urban alliance of business leaders and educators in Southern California, is determined to deal directly with the problems in mathematics and science education - over the next 12 years.

To devise a plan for action, the Coalition's Working Group of scholars, teachers, managers, administrators and academics met for nearly two years to review and discuss the most pressing issues

in math and science education in Los Angeles. The Coalition heard testimony, reviewed promising practices, visited classrooms, read reports, analyzed statistics, and considered advice from teachers, administrators, and other experts in the field about demographic trends, tracking, curriculum and assessment, finance and accountability, and the conditions of teaching and learning these critical subjects in Southern California schools.

The Coalition also concluded that, to improve student performance in math and science, it is most critical to first motivate students to study math and science. In addition, the Coalition decided that the **best** way it could motivate students is to provide them with enthusiastic, knowledgeable teachers — teachers who were empowered with the necessary training and resources to effectively teach math and science to a diverse student population. Training and retraining the current teaching force of 40,000 teachers in Los Angeles County, in one very important sense, would be at the core of any reform measures in the next three years of its 12-year plan, according to the Coalition.

We do not intend this to be a “never-ending” project. Ultimately, as teachers and schools become more empowered to address problems and create and implement changes, we believe that these improvements will become self-perpetuating. However, we cannot deceive ourselves into thinking that the problems will be resolved quickly or simply, nor that teachers and schools can do it alone. To improve math and science education in Los Angeles will require a long-term, broad scale effort of the part of the entire community — nothing more, nothing less.

II. Goals and Ten Initial Action Steps

Upon completing this research phase and identifying the challenges, the Coalition moved to define **five key strategic goals** that will surely be a prerequisite to improving student performance in math and science:

STRATEGIC GOALS

- *Motivate students to excel in mathematics and science.*
- *Recruit, develop and maintain effective mathematics and science teachers.*
- *Implement effective and relevant mathematics and science.*
- *Build awareness and provide support for mathematics and science education in the Los Angeles community.*
- *Create effective and relevant methods of assessment and hold all constituencies accountable.*

Seeking to promote action within these five areas, the Coalition then developed the L.A. SMART Action Plan (Los Angeles Science and Math Advancement + Resources for Teachers), an integrated program of an initial ten **action steps** to begin pulling Los Angeles into the top ranks of world leadership in math/science education.

However, we must emphasize that the ten actions in the L.A. SMART Action Plan are simply first steps. To lead the initiative for improving math and science education in Los Angeles, the Coalition will work to implement these ten actions over the next three years. In so doing, we plan to engage a large cross section of the Los Angeles community in the effort, including school districts, teachers, parents, corporations, universities and colleges, schools of education, and community organizations. But three years and these ten actions alone will not erase the problem. Therefore, during the next three years, the Coalition is also committed to developing a long-term action plan that will take our efforts through the year 2005. In addition, we will coordinate with the California Statewide Systemic Initiative and continue to work on expanding the effort and encouraging other organizations not only to participate in our efforts but to take additional initiative.

This, in brief, is first stage of the L.A. SMART Action Plan (Los Angeles Science and Math Advancement + Resources for Teachers) first steps:

L.A. SMART ACTION PLAN

FIRST STEPS: 1993-1996

- **ACTION #1:** *Create a training institute for math and science teachers.*

To significantly enhance the knowledge of math and science teachers, a training institute, called The Los Angeles "Freeway Institute" (Institute) will be established to encompass any and all training or instructional programs based on the California Mathematics and Science Frameworks throughout Los Angeles County. The Institute will represent programs provided by local school districts, universities, community colleges, for-profit and non-profit organizations and businesses. The Institute will develop and distribute a catalog of teacher training opportunities provided by these programs. In addition, the Institute will develop new training opportunities to fill critical gaps in existing math and science training for teachers.

The Institute's principal goal will be to help K-8 school teachers understand current developments in mathematics and technology, learn innovative and proven teaching techniques, and become more aware of modern applications of science and mathematics in contemporary business and society. Emphasis will be placed on implementation of the California State Frameworks in mathematics and science, issued and promoted recently by the California State Department of Education.

The Institute will incorporate relevant training classes and seminars already offered by a variety of institutions, including local school districts, teachers' unions, colleges and universities, schools of education, corporations and community institutions. Examples include the Jet Propulsion Laboratory's Project SEED, the Access program and other Subject Matter Projects available on California State campuses, and the PRAXIS project of the University of California. An advisory council of teachers and local experts will be created to establish standards of quality for inclusion in the SMART catalog. In addition, the advisory council will work with experts from across the country to develop new training opportunities to fill critical gaps in existing math and science programs for teachers.

An incentive system will be developed to encourage teachers and schools to partake of the various training opportunities offered. The incentive system, including grant opportunities, will

be structured in conjunction with the action items to create a comprehensive, integrated action agenda.

- **ACTION #2:** *Create a training institute for parents and volunteers.*

The Institute will also develop and distribute a catalog of training opportunities for parents and community volunteers, using the same model as the SMART catalog for teachers outlined above. Parent classes will focus on supporting the child's formal education in the home and also teaching parents more about mathematics and science; volunteer classes will help prepare volunteers, scientists, engineers and mathematicians, to provide effective support to teachers and programs in schools.

As with the teachers' program, the parent and volunteer catalog will be built around existing training opportunities, but new classes will also be developed to fill gaps in existing programs. Incentives, including grant awards, will also be provided to schools for their parents' participation in the training classes, to encourage schools to communicate with and build outreach efforts to their parents and their local school community.

- **ACTION #3:** *Expand industry and university internship opportunities for teachers.*

Teachers from seventh to twelfth grade classrooms will participate in six- to eight-week paid assignments in corporate and university research environments during school intersession time. Such "hands-on" internships away from the classroom will provide teachers an opportunity to strengthen their knowledge and analytical skills and enhance their perspective of how mathematics and science are applied in the workplace.

Through the Institute, teacher interns will be given assistance in translating their experience into relevant, "real world" curriculum for their students, and will be given the opportunity to train other teachers by sharing their experience and curriculum ideas through Institute seminars and workshops.

- **ACTION #4:** *Partner math and science professionals with teachers in the schools.*

Volunteer math and science professionals from industry, universities, and government agencies will be partnered with K-8 teachers in the classroom to help develop relevant curriculum and deepen the content of instruction. Special attention will be given to the creation of a corps of retired corporate professionals

who can provide curriculum support to the schools in math and science disciplines based on their wealth of experience and knowledge.

Working in the classroom, industry and university partners will assist students and teachers in the development of inquiry-based activities that are derived from current research and industry applications. In addition, mathematics and science partners will help deepen the content background of teachers by sharing knowledge and expertise and will serve as role models and mentors to students.

As with the teacher internships, curriculum and ideas developed by partner teams will be disseminated to other teachers through Institute workshops and seminars.

- **ACTION #5:** *Create a clearinghouse to distribute industry, university and community resources to schools.*

An on-line clearinghouse system will be established to collect and distribute surplus resources (computers, calculators, laboratory equipment, classroom supplies, etc.) to schools and teachers. Corporations, universities, government agencies, and the general public will be invited to participate in the clearinghouse and asked to give County schools first priority when disposing of useful equipment.

As currently envisioned, the clearinghouse will operate as an interactive on-line "want-ad" system in which donating organizations can "advertise" expertise and surplus resources they would like to make available to schools. Educators can review the "ads" to determine what they might want to acquire or use. Similarly, schools will be able to advertise their needs for expertise and resources. Donating organizations (including other schools) can review those requests to determine what resources and expertise they might be able to contribute.

As part of the incentive system, the clearinghouse will be operated as a "membership" system, with membership awarded to those teachers and/or schools that participate in the Institute and/or achieve a targeted level of improvement in student performance.

- **ACTION #6:** *Expand existing network programs linking math and science teachers.*

The Institute will provide advocacy and coordination for the rich and growing number of networks already linking area math/science teachers, such as the Los Angeles Unified School District's (LAUSD) Professional Development Collaborative, the

State of California's Model Technology Schools, Family Math, the California Subject Matter Projects, and the Los Angeles Educational Partnership's (LAEP) Target Science and +PLUS+ (Professional Links with Urban Schools) programs.

Teacher-directed collaborative networks encourage teachers to initiate reforms in classroom instruction by empowering them to direct and implement their own professional development opportunities. The Institute will provide a link for these groups and work to expand leadership, networking and professional development opportunities for those participating in their programs.

Membership in the networks will be provided to those teachers and schools who achieve a targeted level of participation in Institute programs and classes, and/or demonstrate measurable improvement in their students' performance.

- **ACTION #7:** *Create an integrated telecomputing network for L.A. math/science teachers.*

Teachers who complete a targeted level of participation in Institute classes will be designated "Institute Fellows" and equipped free-of-charge with modems and telecommunications software that will link them to a region-wide math/science telecomputing network. This network will integrate and build on existing telecommunications networks in L.A. County, such as the California State University (CSU) system's CSUNet, and LAEP's TELEventure, and will provide Fellows with instant access to each other as well as to other industry, university, and community resources.

Through the network, teachers will be able to converse with hundreds of other teachers about classroom resources and strategies, keep up-to-date on Institute classes and events, access the on-line resource clearinghouse, request assistance from industry and university science and math professionals, receive the latest information about grant opportunities for math and science teachers, and generally stay informed about current advances in science and technology and issues influencing K-12 education.

- **ACTION #8:** *Use distance learning and cable TV to expand math and science training and learning opportunities.*

Video technology and distance learning techniques will be further integrated into Los Angeles classrooms through expansion of TEAMS (Telecommunication Education for Advances in Mathematics and Science), a federally funded Stars Schools project managed by the L.A. County Office of

Education. Satellite dishes and distance learning instructional materials will be provided to schools that have a large number of teachers involved in Institute programs and/or that demonstrate success in improving student performance in mathematics and science and integrating technology into learning.

Through TEAMS, schools will be able to access live, interactive mathematics and science instruction via satellite. Instructional programs will "address critical concepts and content identified by national studies and professional organizations" and use "state of the art" instructional practices. Programs will be made available through the Institute to help teachers and parents effectively use and support the program.

In addition to the TEAMS program, the Institute will also videotape some of its classroom demonstrations and acquire other video-based programming on promising practices. These materials will be distributed by a tape-lending library. Also, L.A.-based cable companies will be asked to accelerate in the Los Angeles area the current cable industry program of cost-free wiring for the nation's schools, and time will be negotiated on L.A. area cable networks for broadcasting education news, student lessons and teacher training programs.

- *ACTION #9: Install teacher phone-mailbox systems to enhance communications.*

Schools that have a large number of teachers and parents involved in Institute programs will be rewarded with a state-of-the-art phone mailbox system to help improve teacher-parent communication. The Coalition hopes to expand the success achieved through similar programs such as Pacific Bell's Homework Hotline.

With such a phone mailbox system, each teacher in the school will be given an electronic voice-mailbox. Parents will then be able to phone in any time to hear messages recorded by teachers about classroom activities and homework assignments. Messages can also be expanded to include lunch menus, PTA information, school activities, and so forth. As such, teachers and schools can keep parents informed and help them support their children's efforts. Phone mail systems also allow parents to leave detailed messages for teachers who are in the classroom during the school day.

Institute classes will be offered to teachers and parents at the school to instruct them in the use of the phone mail box system and to understand how the system can help support improvements in student learning.

- **ACTION #10:** *Provide schools with multimedia technology stations to enhance learning in mathematics and science.*

Schools that "graduate" a significant number of Fellows from the Institute, who develop school-wide plans to improve math and science achievement, will be eligible for the L.A. SMART School Technology program. Building on the success of such programs as GTE's Smart Classroom and the State of California's Model Technology Schools program, this program aims to equip schools with the latest in computers, software, telecommunications, interactive cable, and video and laser disc technology for use in mathematics and science instruction.

Through the Institute, schools participating in the SMART School Technology program will be given specific training in the use of the various technologies and how to effectively integrate the technology into classroom instruction.

In support of the above actions, the Coalition will also undertake a variety of publicity efforts to improve mathematics and science education in Los Angeles County. The publicity will be designed to highlight successes, disseminate promising practices, acknowledge and honor dedicated organizations and individuals contributing to the cause, and engage more of the Los Angeles community in the effort.

The Coalition also wants to make other communities across the country aware of the local efforts to reform math and science education and to encourage other communities to take on similar efforts. The Coalition believes the SMART plan can be prototype for improving student performance in mathematics and science education around the nation and become the catalyst to move America back to the forefront of global achievement in engineering, high technology, applied industrial research, space exploration, biomedicine and other vital scientific pursuits.

III. Vision Statement

We envision a future in which the best mathematics and science education is available for all children in Los Angeles County, at every grade level, in every school, as a part of every subject.

In the Coalition's vision, all students have the opportunity to become excited about mathematics and science, to see the importance of these subjects in their everyday lives, and to consider careers that emphasize thinking skills and abilities in mathematics and science.

We envision students learning in teams, initiating their own projects, and using math, science and technology to solve problems relating to their lives. In our vision, the curriculum is vital, engaging and challenging for all students at every level of interest and ability.

Technology plays a major role in our vision of the future. Each child will have an opportunity to become fluent in technological language and skills. Each school will be well equipped with up-to-date technology and laboratory equipment. Each student will have full opportunity to prepare for a career in which technology plays an increasingly important role.

Parents, families and guardians, in our vision, are directly involved in their students' mathematics and science education. They are in regular communication with teachers and support classroom activities at home. Their own skills in mathematics and science have been expanded so that they can be better resources to their children.

All teachers, in our vision of the future, have ample opportunities to build their knowledge and skills in mathematics and science. They have access to teacher networks, to enriching courses, to mentors and specialists, and to time and resources for creating excellent classroom programs.

Our vision includes a diverse mathematics and science teacher pool. Racially, ethnically and gender diverse teachers serve as role models for all students, encouraging them to achieve in mathematics and science and to seek careers in these fields.

The community, the corporate world, and public opinion strongly support mathematics and science education in our vision. Corporations are actively involved in partnerships with schools to improve instruction. The larger community supports legislative and financial measures to improve mathematics and science education. Public opinion reinforces the schools efforts to do an excellent job in promoting the importance of mathematics and science education.

IV. Current Challenge

Two centuries of progress in providing education for all once made America's schools the guiding light of the world. That is no longer true.

We are faced in this nation with a sad irony: Probably no nation on earth knows more than our own about how children learn — and yet, with each passing year, the math and science test scores of America's children inch lower and lower in the academic rankings of developed countries.

As perhaps nowhere else in America, the diversified economy in Southern California demands versatile, technologically literate citizens and a growing supply of highly skilled, creative workers. Without adequate schooling in math and science, the fate of our children in Los Angeles is made certain — a future of social dependency and a lower standard of life from which future generations may never escape.

The following statistics help to illuminate the current state of mathematics and science education in Los Angeles County:

- In 1989-90, California Assessment Program (CAP) scores in science for eighth graders in Los Angeles County averaged 247, slightly below the statewide average of 250 and 4% below the statewide target of 256.
 - Average eighth grade science scores in the 82 school districts in Los Angeles County ranged between 175 and 349.
 - In the Los Angeles Unified School District (LAUSD), which enrolls 44% of the Los Angeles County public school students, the eighth grade science score average was 226, 10% below the statewide average.
- In 1989-90, the Los Angeles County average for eighth grade CAP scores in mathematics was 249, just below the statewide average of 250.
 - The average scores of the 82 districts ranged from 176 to 380.
 - In the LAUSD, the average score was 226, 10% below the statewide average.
- Only 6.4% of all high school students in Los Angeles County were enrolled in an advanced mathematics class (i.e., beyond Algebra II), and only 9.8% were enrolled in an advanced science (i.e., chemistry or physics) class.

- Among Latinos and African-Americans, which combined represent 59% of the high school population in Los Angeles County, only 2.7 percent were enrolled in an advanced mathematics class and less than 6.8% were enrolled in an advanced science (chemistry or physics) class.
- After several years of effort and improvement, the 1990 high school dropout rate in Los Angeles County still stood at 27.9%.
 - Though the overall County rate declined, the dropout rate in one-third of Los Angeles County's public school districts increased over the past five years.
 - In the Los Angeles Unified School District (LAUSD), which enrolls 44% of the Los Angeles County public school students, the dropout rate for the class of 1990 was 40.9% overall, and 52% for African Americans, 44% for Latinos, and 43% for Pacific Islanders.
- Two-thirds of large employers in the Los Angeles area say that employees' skills in math have decreased over the past five years. [National Alliance of Business (NAB) Survey, October 1990]
 - Fifty three percent of the NAB survey respondents said they must interview 6 or more candidates to find one qualified entry level employee. [NAB Survey, October 1990]

What is more, these statistics only begin to tell the story. There is broad consensus that our children are simply not leaving school with the tools they need to meet the demands of the 21st Century. Why? Unfortunately, there are no simple answers. Behind the statistics lurks a multitude of large, complex, intertwined issues contributing to the poor performance of our students in mathematics and science. For example :

There are significant issues related to the **teaching force**, e.g.:

- There is a critical shortage of *well-qualified* mathematics and science teachers, and few are currently in the training pipeline;
- Pre-service training in schools of education is not providing new teachers with the skills they need to effectively teach math and science in local classrooms filled with diverse student populations.
- Teachers are isolated in their classroom, and do not have adequate access to new ideas and promising practices for engaging student's interest and improving student performance in mathematics and science

- Grades K-8 teachers are generally poorly prepared to teach mathematics and science to their students, and consequently often focus their efforts and their teaching time on other subjects
- The entire teaching force needs to be retrained in new hands-on and cooperative learning techniques, problem-solving curriculum, the new mathematics and science frameworks, etc.

There are significant issues with **curriculum and assessment**, e.g.,

- Despite the farsighted California curriculum frameworks in mathematics and science, curriculum and teaching methods have not kept pace with the technological and scientific advances in society
- Though California has played a leading role in pioneering new assessment techniques, current assessment techniques are out of date; they do not emphasize and reinforce the analytical and critical thinking skills that are needed in today's society.

There are significant issues with **school facilities and equipment**, e.g.

- Most equipment and instructional materials are outdated;
- The types of laboratories, equipment and materials needed to conduct effective, hands-on, inquiry-based learning are in short supply;
- The technology that has become such an integral part of our society, particularly in industry, (e.g., computers, video cassette players, calculators, phone mail systems, multimedia equipment, satellite communications) is noticeably lacking in schools.

In addition, Los Angeles is home to a significant array of promising educational practices and instructional resources. Ten miles from downtown, the UCLA Center for the Study of Evaluation is intimately involved in the development of educational assessment methods that will set the standard for California and the nation. A few miles further west, the RAND Corporation, a leading educational research organization, is currently guiding the New American Schools Development Corporation in the quest for "break the mold" schools, like the LAEP-sponsored Los Angeles Learning Center, to lead America into the twenty-first century. No less than seven graduate schools of education are located within the area's boundaries. And innumerable programs at the K-12 level, including highly successful teacher network initiatives, model technology schools, innovative telecommunications networks and

satellite learning programs, student and teacher mentoring programs, and minority outreach efforts are proving everyday that students in Los Angeles can learn and can succeed in mathematics and science.

V. Objective: Measurable Improvement

The objective of the Los Angeles Mathematics/Science Coalition is to significantly improve the abilities of Los Angeles County's students in mathematics and science by the year 2005. To assess our success in achieving this objective, we will use the indicators described below to *measure* our progress over the next 12 years. If at anytime progress is not satisfactory, the Coalition will reassess efforts and modify our actions accordingly.

This is not an effort the Coalition is "taking lightly." As the seventh-largest "state" in the country, we aim to make L.A. the fastest improving state in mathematics and science education. We challenge the entire Los Angeles community to make a "test case" of our city and to set the standard for math and science education across the nation.

Indicators for Student Success

The Coalition advocates the use of performance-based indicators to measure student improvement and performance, as it believes these type of indicators most accurately measure and promote the types of critical-thinking and analytical skills that students need to keep pace in today's society.

However, appropriate performance-based indicators and the corresponding baseline data are not yet available for widespread use. Therefore, the Coalition has set 1995 as the target year for performance-based standards to be developed and baseline data collected. Standards will be developed for the years 2000 and 2005, and progress against these standards will be evaluated every year. The new performance-based standards will be developed in conjunction with the National Standards effort currently in progress and with assistance of the UCLA CRESST Center and other experts in the field, as appropriate.

In the short-term, until such performance-based measures can be developed, the Coalition proposes to use the following traditional indicators of student performance to assess our progress in improving math and science education in Los Angeles:

INDICATOR: Increase the proportion of 4th, 5th, and 8th graders' scoring at higher levels on California Achievement Program (CAP) mathematics and science tests

- By the year 2005, the percent of Los Angeles County 4th, 5th, and 8th grade students scoring below the 1991 California statewide 25th percentile on the CAP tests will be reduced by 20 percent.

- By the year 2005, the percent of Los Angeles County 4th, 5th, and 8th grade students scoring above the 1991 California statewide median on the CAP tests will be increased by 10 percent.
- By the year 2005, the percent of Los Angeles County 4th, 5th, and 8th grade students scoring above the 1991 California statewide 75th percentile on the CAP tests will be increased by 10 percent.

INDICATOR: Increase the proportion of high school students completing advanced math and science courses.

- By the year 2005, double the percentage of Los Angeles County high school students completing Algebra 2, using the year 1991 as the baseline.
- By the year 2005, double the percentage of Los Angeles County high school students completing a Chemistry course, using the year 1991 as the baseline.
- By the year 2005, increase by 50% the proportion of Los Angeles County high school students completing Calculus, using the year 1991 as the baseline.
- By the year 2005, increase by 50% the proportion of Los Angeles County high school students completing a physics course, using the year 1991 as the baseline.

INDICATOR: Increase the percentage of underrepresented students completing advanced math and science courses.

- By the year 2005, increase the percentage of African-American, Latino, Native American, and other under-represented students completing advanced mathematics and science courses (e.g., Calculus, Physics, Chemistry) such that the proportion of each under-represented group completing advanced mathematics and science coursework is equivalent to the proportion of *all* students completing such coursework.

Although the Coalition will supersede these traditional indicators with appropriate performance-based measures by 1995, we will continue to measure our progress against these standards through the year 2005 to provide some long-term continuity. We will collect baseline data on each school as it begins participation in the Coalition's efforts; data on each participating school will then be collected and assessed on an annual basis thereafter. However, we want to emphasize that changes in student performance cannot be expected "overnight," and we do not expect nor anticipate significant improvements in student

performance, as measured by these traditional indicators, for several years.

Other Indicators of Performance

Since measurable changes in student performance will not be evident in the short-term, the Coalition also proposes to establish secondary indicators of success in the areas of teacher effectiveness, school involvement, parent and community involvement, and corporate involvement. These secondary indicators will help the Coalition assess our success in implementing our action plan and engaging the various constituencies in reforming math and science education in Los Angeles over the next few years. The Coalition proposes to establish these secondary indicators for success in 1993-1994, when full-scale implementation of our action agenda is scheduled to begin.

VI. Conclusion

The goals and action steps proposed in this SMART document are intended to tackle the widening gap in the mathematics, science and technological literacy of students in our society. They speak not only to a concern for students who might pursue college degrees and careers in mathematics and science but a recognition that all students at every ability level, in every subject area, from every racial and ethnic group, need to be better prepared in mathematics, science and technology.

It is not the Coalition's goal to invent new teaching methodologies. America knows more about teaching than any other country.

It is not the Coalition's intention to conduct additional experiments in learning among our young. What the world knows about childhood education was largely learned in American universities and classrooms.

This alone is the Coalition's simple commitment: **To train teachers to teach - what we know works - to the overwhelming majority of students who are ready and willing to learn.**

To fulfill that commitment, we must make sure that students and teachers have the tools appropriate to the task. And we intend to accomplish that task **with all deliberate speed** in a program that cannot wait another year, another week, another day.

With this report, therefore, we are issuing a challenge to the citizens of Los Angeles County to join in a noble undertaking that is local in its rewards but global in its implications for the education of elementary school children everywhere.

In the course of this undertaking we fully expect to change — and change forever — the outmoded ways we teach math and science to K-12 students. It is an **inclusive revolution** that will be ultimately directed at every child in the elementary and secondary schools of Los Angeles County. And it is focused on the teacher — who is, after all, at the heart of the learning experience.

We intend in Los Angeles to set the global standard by which math and science education will be measured in the first decade of the next century.

If we succeed, we will make a difference in the future of Southern California and the lives of our children.

We cannot afford to fail.

Getting SMART: Plan targets math skills

By Rick Redding
COPLEY NEWS SERVICE

Declaring it time to revive a dying interest in math and science, Los Angeles education and business leaders Wednesday unveiled an action-oriented, multimillion-dollar plan that links hundreds of schools and communities with a steady stream of resources and equipment.

"The United States ranks near the bottom of quality in math and science education. That simply has to change," said Donald Beall, chief executive officer of Rockwell International.

"Our children aren't getting the skills they need and everyone pays the price for it."

Hoping to change that is the Los Angeles Science/Math Advancement and Resources for Teachers, known as SMART.

The kindergarten through 12th-grade program aims at reforming the way students and teachers view traditionally dull, complex topics by invigorating the system with experiments and other analytical studies.

L.A. SCHOOLS

It faces a steep challenge.

According to SMART officials, only 6.4 percent of all high school students in the county are enrolled in advanced math classes, while only 9.8 percent take advanced science courses. Among Latinos and blacks who comprise nearly 60 percent of the total enrollment, only 2.7 percent are enrolled in advanced math classes and 6.8 percent are in advanced science studies.

"This is a jump start to math and science education in Los Angeles County," Beall told a group of SMART backers at a meeting at Wadsworth Avenue Elementary School in South-Central Los Angeles. "This is about motivating teachers and students and getting them the equipment they need."

Begins in fall

SMART begins this fall with the first of 10 phases to be implemented over the next 12 years.

First up is the "Freeway Institute," described as a comprehensive training

This is a jump start to math and science education in Los Angeles County. This is about motivating teachers and students and getting them the equipment they need.

— Donald Beall,
chief executive officer of Rockwell International

center "without walls."

Over the next three years, the center will connect thousands of teachers, schools, parents and business communities to existing and future math and science resources, such as colleges, universities and the space industry. The first phase also will provide small grants and other incentives to teachers, computer hardware and software, and training in telecommunications and other advanced technologies.

Future phases include a parent and volunteer training center, increased industry and university internship opportunities for teachers, a partnership sending math and science professionals into schools and an extensive computer, tele-

phone and cable television network connecting teachers across the county.

In stark contrast to a dismal state climate where public education dollars are constantly shrinking as educators fight for survival, funding for the new program appears to be in abundance. The first phase alone is estimated at \$9.9 million.

Corporate backing

SMART is backed by 14 corporate powerhouses such as TRW Space & Electronics Group, Northrop Corp., Unocal, Hughes Aircraft Co. and Rockwell International. Working through the Los Angeles Educational Partnership, it also

SKILLS/B4

Skills

FROM PAGE B1

has the support of dozens of school districts, including Los Angeles Unified.

"We've decided to band together and turn danger into opportunity," Stuart Gothold, superintendent of county schools, said of the latest effort to link schools and businesses. "There are over one million children in L.A. County schools. We're sitting on a gold mine with these kids and we're ready to start mining."

Pat Atlow, a fifth-grade teacher at Wadsworth, and 11 of her students demonstrated the new approach with a quick experiment on pendulums. Starting with a hypothesis and observations, the group determined that pendulums with shorter strings swing faster than those with longer ones.

"This is about exploring and having fun," said Atlow, who was given the first grant, a \$1,000 check, and a trip to the U.S. Space Camp in Alabama. "Hopefully, the students will then continue exploring."

Program aims to boost math, science education

By Jeanne Mariani
Daily News Staff Writer

Patricia Atlow hopes to use the SMART plan to open new doors into math and science education for her pupils at her neighborhood elementary school in South Central Los Angeles.

To be announced today, the multimillion-dollar SMART plan — or Science/Math Advancement and Resources for Teachers — will provide teachers in Los Angeles County training and equipment to spur hands-on learning in the disciplines.

"I think this will work because it is child-centered," said Atlow, a teacher for 13 years. "The training that this program offers allows teachers to explore and customize

teaching to fit their children's needs."

SMART was created by the Los Angeles Math/Science Coalition, a consortium of senior business executives and educators.

The coalition has the support of 14 major corporations, including Rockwell International, Arco, Lockheed and GTE, said John McDonald, spokesman for the Los Angeles Educational Partnership, a nonprofit group that spawned the coalition.

Los Angeles County Superintendent of Schools Stuart Gothold and Donald R. Beall, chairman and chief executive officer of Rockwell International, planned to introduce the program today at Wadsworth

See SMART / Page 6

'Child-centered' program seeks to boost math, science education

SMART / From Page 4

Avenue Elementary School, where Atlow teaches.

"It allows children to explore the phenomena, make observations and conclusions, test their hypothesis and then they form the big idea," Atlow said. "It's hands-on... inquiry-based and it's discovery — all at the same time."

McDonald said the \$20 million, 12-year SMART plan, to be paid with corporate and private funds, grows out of the need to build a new work force by improving math and science education in public schools.

"The types of jobs that are paying well are going to be the ones that require technological skills and to do those jobs you have to have

an understanding of math and science," said McDonald. "The key to improving student performance is to improve teachers' skills and knowledge."

SMART will create training institutes for math and science teachers, as well as for parents and volunteers, officials said.

It also will expand industry and university internship opportunities for teachers; pair math and science professionals with math and science teachers; and create a clearinghouse where donated equipment, such as computers, will be distributed to neighborhood schools.

SMART also will equip schools with technology learning stations — including computers and telecommunication gear — for math and science studies, said Steve

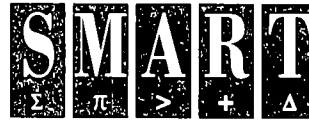
Horowitz, spokesman for the Los Angeles County Office of Education.

"Out teachers know a lot about content, but what they have not had is sophisticated training in how to teach kids in this problem-solving, hands-on manner," Horowitz said.

As far as Atlow is concerned, the future is in the minds of those children she teaches daily at her school on East 41st Street.

"I got involved with this because I love science and I love kids," she said.

"I really believe that if we don't do this now and work on math and science, then we will not have the future scientists we will need to remain a world power... the children can't wait."



Science/Math Advancement and
Resources for Teachers

For Release:

June 16, 1993 (Embargo Until Release Date)
Contact: John McDonald

Los Angeles Mathematics/Science Coalition
315 West 9th St.
Los Angeles, CA 90015
(213) 622-5237

**Business/Education Coalition Announces Action Initiative to
Reform Math and Science Education in Los Angeles County**

*SMART Plan Outlines Agenda/Resources for Teacher Training and Other Actions
to Jump Start Student Performance in Math and Science*

A coalition of Los Angeles business leaders and educators today announced The SMART Plan, a long term, multi-million-dollar commitment to improve K-12 mathematics and science education throughout Los Angeles County. The SMART plan will provide resources and professional development opportunities in support of the new California state frameworks in math and science education.

The SMART Plan (Science Math Advancement and Resources for Teachers) sets forth 10 key actions to revitalize math and science education in Los Angeles. Ranging from increased and improved teacher professional development opportunities to the use of high tech distance learning and advanced telecommunications, these action items provide an agenda for improving math and science education to be implemented over the next 12 years. Implementation of the first three-year phase of the SMART Plan calls for an investment of \$9.9 million in private and public funding, hardware, software, training, and other resources.

In its first phase, The SMART Plan will:

- Create the *Freeway Institute*, a comprehensive training center "without walls" linking teachers, schools, parents and community members to existing and newly created professional development opportunities in math and science. A Smart Plan catalog, describing *Freeway Institute* opportunities will be distributed to every K-6 teacher and every math/science teacher grades 7-12 in Los Angeles County.
- Provide grants and other incentives to teachers and schools participating in *Freeway Institute* training opportunities.
- Provide hardware, software and training to teachers and schools to increase the use of telecommunications and computer technologies in science and mathematics instruction.
- Link teachers, students and schools with skilled private sector "Partners" to develop curricular and instructional approaches to improve student achievement in mathematics and science.

The SMART Plan was created by the Los Angeles Math/Science Coalition, a consortium of senior business executives and educators working in conjunction with the Los Angeles Educational Partnership. The coalition is supported by 14 major corporations, the Los Angeles County Office of Education, the Los Angeles Unified School District and other school districts in L.A. County, as well as by the California State University system and other educational organizations. The Coalition is chaired by Donald R. Beall, chairman and CEO of Rockwell International. To date, the coalition has raised more than \$700,000 to launch the first phase of the SMART Plan and is committed to raising the required funding and in-kind support necessary to implement the initiative.

Smart Plan
Page Two

"Achievement in math and science is the gateway to success for our future," said Beall. "Effectively teaching math and science to all the children of Los Angeles County is key not only to the lives of our children, but to having the kind of work force industry will need to compete in the 21st century. The challenge we are undertaking is enormous, but so is our determination to dramatically improve the teaching of these critical subjects and the achievement of our kids."

According to statistics detailed in the SMART plan, only 6.4 percent of all high school students in Los Angeles County are enrolled in advanced mathematics classes, and only 9.8 percent are enrolled in advanced science classes. Among Latinos and African Americans, who together represent 59 percent of the high school population in Los Angeles County, only 2.7 percent were enrolled in advanced mathematics classes and only 6.8 percent in advanced science classes.

"While some students excel, many more need to achieve higher levels of performance in mathematics and science," said Dr. Stuart Gothold, Los Angeles County Superintendent of Schools. "The key to motivating more students to excel is knowledgeable, enthusiastic and highly skilled teachers, so that is where the SMART Plan is focused. By providing access and incentives to teachers and schools for professional development opportunities we are taking a significant step toward improving student achievement."

The SMART Plan was developed by The Los Angeles Math Science Coalition through a collaborative working process involving teachers, principals, school administrators, industry engineers and scientists and corporate public affairs representatives. During the process the group consulted with education experts, reviewed written reports and materials, and visited sites of exemplary practice. The SMART Plan is designed to build on existing proven programs and promising practices. Acting as a coordinator and clearing house, the Los Angeles Math Science Coalition will provide funding support for the achievement of excellence in math and science learning. The Coalition will also continue to unite and expand a broad range of educational, business, academic, government, and community interests in support of the SMART Plan and other activities to improve mathematics and science learning.

"The SMART Plan represents the first step in a long term commitment to improve math and science achievement among all children and opens the door to community collaboration to improve schools," said Peggy Funkhouser, president of LAEP. "It will not be easy, but it is vital to the future of our children and our community."

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Editors Please Note: A complete listing of the goals, objectives and action items for the SMART Plan, as well as a listing of supporters is attached. Statistical information regarding the current status of math and science education in Los Angeles County is also included. A complete copy of the SMART plan is available from the Los Angeles Educational Partnership at (213) 622-5237.

PHOTOCOPY
PRESERVATION

PEPSI *NEWS INFORMATION*

The Pepsi logo, featuring the word "PEPSI" in a bold, sans-serif font above a dark rectangular bar. A white, stylized "S" shape is positioned on the right side of the bar, partially overlapping it.

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Hope For The Inner City: Average Kids *Can* Succeed

Somers, NY-- At a high school in bleak southwest Detroit, the dropout rate is down by a third. More than two thirds of the kids graduating go on to additional schooling. This year's graduating class earned a million and a half dollars worth of scholarships.

The dropout rate at a mostly minority high school in central Dallas is down too. The number of kids who graduate and go on to further education has more than doubled. And they're doing it with a million dollars worth of scholarship funds.

This is a story of success--all too unusual when the subject is kids, and the setting is the inner city. But perhaps most unusual--this isn't about the one-in-a-million musical prodigies or budding NBA draft picks whose exceptional gifts lift them above and away from their peers.

This is about average kids. Hundreds of them. It's also about a special program, and a special group of teachers who've helped these kids change the directions of their lives. And, remarkably, their own professional lives as well.

The name of the program is the Pepsi School Challenge. It began as a modest experimental outreach program four years ago, created by the

Pepsi-Cola Company to encourage students to complete their education through high school at least, and to provide them with the incentive and opportunity to continue their schooling beyond.

The Challenge program has succeeded far beyond initial expectations. It's providing participating students with the support system and motivation they need, not only to succeed academically, but to build productive lives as well. And it's helped make the two schools, L.G. Pinkston in Dallas and Southwestern in Detroit, into showcase schools within their systems.

In the most surprising developments, faculty members who serve as teacher-mentors report that their participation has reinvigorated their teaching, and revitalized their commitment to teaching. Parents, who previously had limited impact or involvement, have significantly expanded their roles in the learning process.

And, in a wholly unanticipated development, the Challenge program has helped the communities around the schools. At least in part, that's due to multiple community outreach efforts initiated by the students. But in addition, environmental improvements in the schools have spread into adjacent neighborhoods.

Southwestern's drop-out rate has been slashed by more than one-third since the start of the program, from 33% to 20%. At Pinkston, college and trade school enrollment has more than doubled, from 29% to 66%.

Program Description

The Challenge program was created to serve as a practical countermeasure to the cycle of poverty-undereducation-poverty that mires America's inner cities. It specifically targets at-risk students--kids of average ability who lack the direction and incentives to learn successfully.

Students who sign up are asked to maintain a C-average or above. They must meet state-mandated attendance requirements, and remain drug-free. In return, they can earn \$250 per semester, up to a maximum of \$2000, which must be applied against accredited future education.

The program is open to every student, regardless of past grades or attendance record. Enrollment is timed to begin in the ninth grade, at a point in their education when large numbers of the targeted students typically make the decision to drop out of school.

Mentoring

While the \$2000 incentive is the most visible component of the program, it may not be the most important. What is, apparently, is the unique teacher-mentoring component: An individualized approach to education in which student and teacher form a new, personal kind of relationship that can go beyond the classroom.

Each student meets formally with his/her personal mentor about three times a month for academic review and guidance. However, students also work with mentors on extracurricular activities, which may range from field trips to volunteer projects, e.g., work with the homeless, children's services, meals for the homebound and books for hospitals.

"Every student should be known personally by at least one adult in school," says Southwestern Principal Betty Hines. In fact, Principal Hines has made the program the subject of her doctoral dissertation this fall. "The only way we can teach effectively is if we really get to know our students. Then, these kids become better students, because we become better teachers."

Southwestern graduating senior, Raul Bacon, the first in his family to attend college, agrees. He says that he'd always found it difficult to relate to teachers, until he enrolled in the Challenge program. He feels, "Mentoring made all the difference." Echoing him, Beverly Gill, another Challenger, speaks of her mentor as, "...my close friend Mr. Nichols who has really helped me out a lot."

As the program matures, it's clear the student-mentor relationships extend past the normal educational experience. Lillian Cunningham, a Pinkston mentor, observes, "The kids *want* to come to school now. They look forward to being here with the teachers. It's like a second home for them."

Graduates frequently maintain their personal relationships with mentors, and themselves become part of the support system. Says Southwestern mentor, Laura Royster, "We love to have them back, and we like them to talk to the younger kids. There's no better role model for a student who may be struggling, than one who's made it through."

Support Groups

Students aren't the only participants who value the Challenge program. Pinkston High School Principal Charles Fisher has voluntarily postponed his retirement for two years in order to see the program through to its conclusion. "We have long recognized that one of the chief benefits of the Pepsi School Challenge is the incentive it gives us to examine ourselves, to identify problems and try to do something about them. We are unlikely to succeed in changing our students unless we are willing to make some changes in ourselves," says Fisher.

Other faculty members almost universally report that the mentoring opportunity has enriched their careers as well. For most, their program activities extend well beyond those recommended, and for many of the teachers, the nominal stipend they receive for participation does little more than supplement the personal funds they contribute to their work with their students.

In a similar development, parental and community involvement with the schools has increased from virtually zero at the program's inception four years ago, to over 3,300 volunteer hours during the 1992-93 school year.

Assessments

The Challenge program's unique formula of involvement, support and realistic goal-setting gives students a chance to make the right decisions. In response, higher-than-expected numbers of students choose to stay in school and break the cycle of disadvantage through education.

Deretha "Dee" Goforth, Ph.d., of Citizens' Scholarship Foundation of America (CSFA), a non-profit organization which independently administers the program, confirms that, "The Pepsi Challenge works. The statistics are impressive, but the program is really about individuals--

kids who, maybe for the first time, are seeing opportunities open up that they never before knew existed."

Rebecca Madeira, Vice-President Public Affairs for Pepsi-Cola, assesses the program's success in practical terms: "The real growth for these students is in ambition. They see possibilities, and the means to achieve them. They've learned that education is the key to the future, and just as important, that their teachers are there to help them unlock the door."

The Pepsi School Challenge is the largest corporate program of its kind. To date, students have earned over \$1,750,000 in scholarship incentives. That total is expected to top \$2 million by the conclusion of the pilot program in 1994.

Since its launch in 1989, almost 2000 students have participated, and graduates have gone on to dozens of schools across the country, from community colleges to trade schools, as well as to higher education at institutions including Harvard, Wellesley and Johns Hopkins, among others.

Pepsi-Cola Company, based in Somers, New York, is a division of PepsiCo, Inc., Purchase, New York.

--end--

Editors Note: Those quoted in this release are available for interview.

8/93

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THE PEPSI SCHOOL CHALLENGE

"REAL LIFE" EXAMPLES

- Two years ago **Raquel Corpus** could not speak English; in May she graduated as class valedictorian and, this fall, will attend Tarleton State University.
- When **CaCendra Washington** was in sixth grade she watched her brother try to "make it" on the streets and nearly dropped out too. This year she graduated as class salutatorian. In August, she will enter the University of Texas.
- A single father, **Joseph Pulliam** worked as a cashier and stock boy to support his eight-month old son. Graduating meant making time for homework too. This fall he will attend El Centro Junior College.
- As the oldest daughter in a family of 13 children, **Fran Reynolds** had to juggle school work with her role as "second mother" to younger siblings. This fall she enrolls at Tennessee State University to study business administration--on a full scholarship.

What all these students have in common is that their lives have been turned-around by the Pepsi School Challenge. Entering its fifth year, the stay-in-school program is being hailed as a success by the students who are participating, the teacher-mentors who run it and the communities that serve its two pilot schools, L.G. Pinkston High School in Dallas and Southwestern High School in Detroit.

This year's Challengers are the first to graduate through the full four-years of the program.

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THE PEPSI CHALLENGE: FACT SHEET

- The Goal:** Improve the quality of tomorrow's work force by keeping kids in school, encouraging them to graduate and go on to post-secondary education.
- How It Works:**
- "Reach to teach" -- teacher-mentors foster close personal relationship with each Challenge-student, beyond the classroom.
- "Cs to Success" -- Unlike other programs that target "natural achievers", Challenge rewards C-students too -- borderline kids who can make it through with the right support. A first-time taste of success in the classroom sends self-esteem soaring and keeps kids with the program.
- The Challenge:** Maintain a C-average, or higher; meet state-mandated attendance record; remain drug-free.
- The Challengers:** Southwestern High School, Detroit
L.G. Pinkston High School, Dallas
- 9th-12th graders. Open to *every* student. Must achieve Challenge standards after two semesters to stay in the program.
- "Frontline Coaches":** Teacher-mentors, supported by parent/guardian; community.
- Honors:** 1991 US Department of Labor "LIFT " Award for creative solutions for tomorrow's work force.
- Timeline:** 5-year pilot program, kicked-off in 1989.
- The Sponsor:** Pepsi-Cola Company, Somers, N.Y.



NEWS RELEASE

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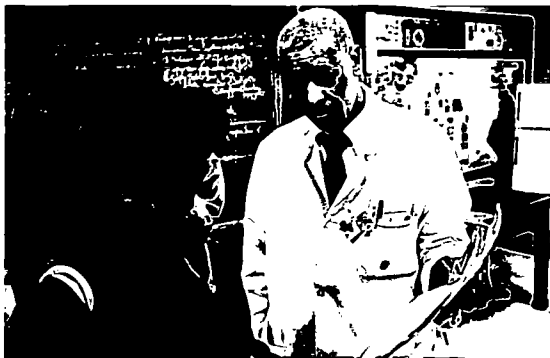
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THE PEPSI CHALLENGE: REPORT CARD

	<u>Southwestern</u>	<u>L.G. Pinkston</u>
Post-secondary enrollment up★	50% to 70%	29% to 66%
Drop-out rates down★	33% to 20%	13% to 12%
Pepsi Challenge graduates (to date)	574	455
Pepsi Challenge participants (to date)	1077	825
Pepsi scholarship \$\$ earned (to date)	\$967,750	\$795,000
Pepsi \$\$ earned by Class of '93 (accumulated 9th-12th grade)	\$207,250	\$142,250
Total school enrollment	1263	771

★ Comparison of current available figures with '88-'89 pre-Challenge school year.

Source: CSFA, 7/30/93



THE PEPSI SCHOOL CHALLENGE

Redefining Education



For many students the mentor program helped foster their first positive one-on-one relationship with a teacher.

The Pepsi School Challenge redefines the role of teachers. Now, the day includes breakfast, learning and a special personal touch.



An average student in a below average environment be a winner.



Magic Johnson helped convince students that their feelings and frustrations weren't unique.



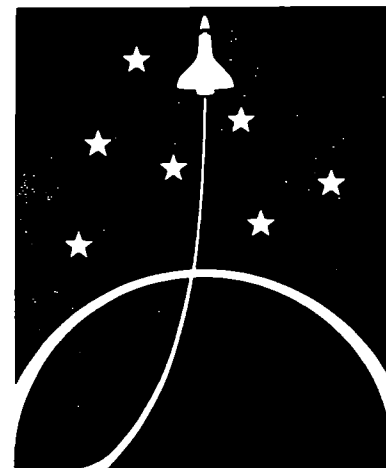
Montel Williams brought the message of self-worth to the students.



Growing consciousness understanding motivated students to understand the community.



Graduation a symbol of achievement the students themselves, but for as and it



Challenger
C E N T E R[®]

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1055 North Fairfax Street, Suite 100
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*Challenger Center for Space Science Education
uses space exploration as a theme
to create a positive learning experience
that raises students' expectations of success;
foster a long-term interest in science, math and technology;
and motivates them to pursue studies in these areas.*

*All Challenger Center educational programs are designed
using a four-part instructional model that emphasizes
content, cooperative learning, problem-solving and decision-making.
Additionally, all programs emphasize the incorporation
and encouragement of females, minorities,
and the underprivileged in the sciences.*

*Challenger Center is the nonprofit educational organization
founded by the families of the Challenger 51-L crew
to continue their educational mission.*

*The Challenger Research, Development and Training Center
is one of fifteen Challenger Learning Centers
in the United States and Canada.
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Washington, D.C.*



*Challenger Center for Space Science Education
invites you to*

"Rendezvous with Comet Halley"

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8th and H Streets, S.W.
Washington, D.C. 20024*

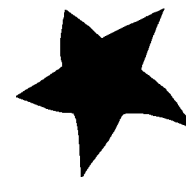
*Monday, September 20, 1993
6:00pm - 8:00pm*

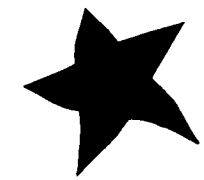
*Bus transportation for crew members
will depart from the front of The Capital Hilton
promptly at 6:00pm.*

Refreshments available after flight



*Flight limited to 40 flight crew members
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to Anne Roskell, (703) 683-9740*





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Designing State Assessment Systems

Increased policy-making activity at the state level is bound to increase demands by the states for relevant data that could be used to guide education reform. Mr. Cohen sketches here, in bold strokes, an assessment system that would meet these state-level needs.

BY MICHAEL COHEN

THE EDUCATION reform movement of the 1980s was initiated by *national* reports of educational decline. But most of the ongoing reform efforts have been initiated by the states, with substantial political and policy leadership provided by governors, state legislators, state boards of education, and chief state school officers.

The state share of education expenditures has been steadily increasing for some time; states now pay, on the average, about 50% of education costs. Education is the single largest item in the budget of almost every state. Moreover, in states as varied as Arkansas, Mississippi, Massachusetts, and Texas, high-quality education is viewed as a key to economic development.

State leadership in education policy making can also be viewed as a consequence of two decades of modernization of the legislative and executive branches of state government, which has enhanced state policy-making capacity in general.¹

MICHAEL COHEN is associate director of education programs for the National Governors' Association, Washington, D.C.



Meanwhile, the National Association of State Boards of Education is developing a set of recommendations to modernize state boards of education. If implemented, these recommendations would further strengthen state capacity for education policy making.

Increased policy-making activity at the state level is bound to increase demands by the states for relevant data that could be used to guide education reform. Therefore, I intend to sketch in bold strokes an assessment system that would meet state-level needs for data. Issues related to the design of a national

assessment effort are secondary to this task. I would recommend that state assessment systems be shaped to accommodate a larger national effort only when and where such accommodations will best serve state purposes.

In proposing a broad framework for a state assessment system, I have made several assumptions:

- Information needs will vary among the states,² and a state assessment system should meet the particular needs of its state. This would make state-by-state comparisons of results a problem. Where the states have information needs in com-

mon, however, they should try to arrive at common operational definitions. This would allow the aggregation of data nationally and would make comparisons among the states possible.

- Policy makers — including governors and their staffs, members of state boards of education, and chief state school officers and their staffs — will be the primary investors in and users of state assessment systems. Each of these groups plays a different role in the policy-making process, but recent research suggests that their information needs are similar.³ Therefore I am assuming that the same information will serve all these policy makers equally well.

- Ideally, local policy makers and educators — school board members, superintendents, principals, and teachers — would also use state assessment data. Therefore, a state assessment system should provide useful information to inform and guide local school improvement efforts.

- Finally, I have assumed that resources are finite and that a state assessment system will have to compete for funding with other programs and services. Therefore, a state assessment system will have to be as cost-effective as possible.

PURPOSES OF A STATE ASSESSMENT SYSTEM

A state assessment system should serve at least three broad purposes. First, it should play an important role in policy development. Second, it should mobilize and sustain political support for educa-

tion. Finally, it should improve educational quality.

POLICY DEVELOPMENT

To develop new policy initiatives, states need data on the effectiveness of the education system in meeting state goals and on current educational practices, processes, and programs that affect the attainment of goals. Only when data on both outcomes and practices are available can state policy initiatives be targeted on those aspects of the system most in need of strengthening.

For example, performance data showing that secondary students have poor writing skills can signal an area in need of attention. In order to develop an effective policy response, however, data that accurately locate the source of the problem within the education system are also needed. Is the problem characteristic of all secondary students, or are some subgroups more affected than others? Is the problem largely curricular in nature, stemming from the fact that students have too few opportunities to practice writing or to read the kinds of literature that cultivate writing skills? Is the problem largely an instructional one, stemming from the fact that teachers lack the training or skills necessary to teach or to evaluate student writing? Or is the problem largely structural, stemming from the fact that students in some tracks are unable to imagine realistic and appropriate audiences for their writing exercises? Is the problem more severe at certain grade levels or in different schools or districts? To design appropriate policies, these and

other questions must first be accurately answered.

The need for data on educational practices and outcomes does not end with the formulation and enactment of new policy initiatives. As implementation begins, the need for sound data persists. In recent years, for example, many states have enacted comprehensive reform packages aimed at increasing student achievement. Policy makers in such states need to know how well that goal is being achieved. More specifically, they need to know how well the various reforms are being implemented at the local level,

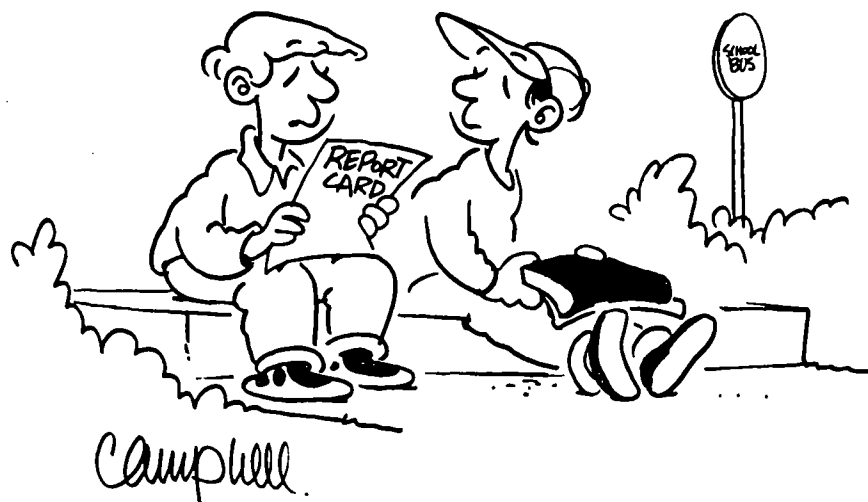
State policy makers need to know the cumulative and interactive effects of the various reforms.

what factors enhance or impede local implementation, and what assistance is needed.

In addition, state policy makers need to know the cumulative and interactive effects of the various reforms. For example, do career ladders and school incentive programs reinforce each other or work at cross purposes? Do new state testing programs and teacher evaluation procedures work together to give instructional activities a sharper focus, or do they restrict the scope of teaching?

State policy makers also need information on the costs of the new programs. Many factors suggest that state dollars for education are likely to continue to be in short supply.⁴ In order for policy makers to meet the policy objectives of the reform movement, they will have to spend these limited state dollars wisely. They will need to know which policies work best and which ones cost the least, because the states cannot fully support all the new initiatives for very long.⁵

Without good information on the costs,



"Guess I can stop worrying about bottoming out. . . ."

implementation, and local impact of state reform initiatives, state policy makers will have no way of knowing whether such initiatives are likely to achieve their intended effects. Nor will they have any way of adjusting the initiatives to enhance their effectiveness and to limit their unintended effects.

POLITICAL SUPPORT

As Michael Kirst has argued, sustaining the momentum of the reform movement is the most critical policy priority in education right now.⁶ Legislators and the public need solid evidence that reforms are being implemented and that they are improving the quality of education.

The political coalitions supporting education reform are fragile, and legislators are susceptible to backsliding. Moreover, the current reform movement does not appear to have a natural and committed constituency that can lobby effectively for its continued support. Educators are targets of reform as often as they are advocates of it, the public is not sufficiently organized to exercise the necessary political clout, and the business community expects results in return for its continued support. For all these reasons, the states need solid information on how reforms have been implemented and on how they have affected the quality of education.

IMPROVING QUALITY

Thus far I have treated state assessment systems as tools to serve policy makers. But state assessment systems also can (and do) help the states influence local practice more directly. They accomplish this purpose in at least four ways.

- Just by virtue of what they choose to measure and to report, state assessment systems can focus the attention of educators on certain goals, processes, and outcomes. We know, for example, that statewide tests can have important effects on curricular and instructional decisions at the district, school, and classroom levels.⁷

- By setting performance standards and attaching sanctions for students, teachers, or entire schools, state assessment systems can have powerful effects at the local level. Minimum competency tests are one example. Another is the Resource Allocation Program in the state of New York, which requires low-perform-

ing schools to take part in a state-sponsored technical assistance program.

- School incentive programs can reward successful schools with financial bonuses. South Carolina and Florida are trying such programs, which are intended to foster consensus on educational goals and schoolwide collaboration.

- State assessment systems can help the states perform their regulatory functions. Recent reports have called for a dramatic shift in the regulatory strategy employed by the states: instead of regulating inputs or processes, the states should accredit only those districts or schools in which the outcomes of schooling are satisfactory. Decisions about the use of resources and about the specific programs and practices to be implemented should be made at the building or district level and should be largely unregulated by the states. To the extent that this vision is incorporated into state policy, state assessment systems will become an integral part of the process of school accreditation. Moreover, decisions about the content of outcome measures and the ways in which these measures are operationalized will have enormous influence on educational practice.

Clearly, well-designed state assessment systems can make important contributions to the policy-making process. They can also directly affect the quality of the education systems in their states.

GUIDING PRINCIPLES

As I have already pointed out, a state assessment system must serve several purposes. Those who would design such a system should keep in mind several principles.

1. *A state assessment system should focus primarily on individual schools.* The literature on effective schools and on school improvement emphasizes the importance of the individual school as the fundamental unit of educational improvement. This implies that the school should be the primary level at which data are reported and that the reports should be designed to be useful to school-level decision makers. It also implies that assessments of reforms should focus on the cumulative and interactive effects of these reforms on educational practices in individual schools.

2. *State assessment should not be limited to students' academic performance.* In its entirety, the assessment system should reflect the long-range educational goals

The political coalitions that support reform are fragile, and legislators are susceptible to backsliding.

of the state, the short- and long-term effects of statewide reform initiatives and their intended and unintended consequences, the knowledge base related to effective schools and school improvement, and public perceptions of important schooling practices and outcomes. Only when each of these perspectives is reflected in the set of indicators employed by the state will the assessment system adequately serve its three missions of aiding policy development, mobilizing and sustaining political support, and improving the quality of education.

3. *State assessment systems should rely on multiple measurement and data collection strategies.* Depending on the data that are needed, sampling strategies may vary. A mix of school records, tests, surveys, observations, and interviews will be required. In most cases, the state should bear the costs of collecting such data. This will substantially increase the state's investment in assessment, but improvements in policy making and practice will more than justify the cost. These costs are also likely to be only a very small portion of the state's total investment in education.

4. *State assessment systems should be adaptive, continuously evolving over time.* The content, structure, and operational procedures of state assessment systems should be modified in response to such factors as early experience with the system, changing state goals for education, growth in the knowledge base regarding effective practices, and natural shifts in the attention of state-level policy makers. As issues cycle through the policy process, state assessment systems should anticipate information needs.

The indicators provide a rich composite picture of how well the education system meets the goals that are set.

5. The major focus of state assessment systems should be on changes over time. Although the relative effectiveness of each school is important, the crucial question to be answered is whether, and to what extent, the statewide system of education is improving over time.

KEY COMPONENTS

The major building blocks of useful state assessment systems will be annual school profiles for each school and a set of quality indicators derived from samples of schools, staff members, students, and the public.

ANNUAL SCHOOL PROFILES

The annual school profiles should serve to stimulate and support school improvement efforts by providing basic descriptive data on school performance and on those factors that contribute to performance and that can be altered by the school staff. Each profile should provide a foundation for the development and monitoring of a school improvement plan. The profile should include input measures, measures of educational practices that are known to be linked to school effectiveness, and output measures.

The input measures might include such things as school enrollment; the socioeconomic, racial, and ethnic composition of the student body; the proportion of students with special needs; enrollments in categorical programs; staff characteristics, such as level of education and certification status; financial resources available to the school; and patterns of school expenditures.

The measures of educational practice might include such things as consensus on school goals; instructional leadership (measured by teachers' perceptions); opportunity to learn (measured by such indicators as allocated time, time spent on homework, and data on course enrollments); school climate (measured by teachers' and students' perceptions); teacher engagement in staff development activities; and collegial interaction among teachers.

The outcome measures might include indicators of students' academic performance; the attendance rates of teachers and students; dropout and school completion rates; the performance of students at the next levels of schooling; the degree of satisfaction of parents and students; and indicators related to other state goals and individual school goals.

Note that these indicators go beyond existing data and beyond what most states or school districts contemplate including in their reports. The costs and effort involved in collecting the additional data are significant — or at least likely to be perceived as such by school staffs. However, most of the additional data can be obtained through surveys of teachers, students, and parents. Such surveys are frequently part of the "needs assessment" phase of effective schools programs. Thus field-tested instruments and efficient methods of data collection have already been developed for most of the proposed indicators. In addition, anecdotal evidence from many effective-schools projects suggests that the benefits of collecting such data generally outweigh the costs.

The annual school profiles will be most useful in guiding improvement efforts if they allow for comparisons of subgroups of students, comparisons of schools serving similar clienteles, comparisons of each school's current profile with its prior profiles (which should ratchet up expectations, especially for low-achieving schools), and comparisons between each school's profile and state standards and goals (which should stimulate all schools to improve).

Although the annual school profiles are intended primarily for use by individual schools, they are also useful for district and state-level policy makers. These profiles should help local districts identify those schools most in need of help, so that they can focus technical assistance, staff- and curriculum-development efforts, and other resources on those schools. State

policy makers can use information from annual school profiles for school accreditation, for school incentive programs, and for targeting assistance to schools in need.

QUALITY INDICATORS

The annual school profiles are well-suited for stimulating local school improvement efforts, but they are too limited to provide the information needed to develop policy and mobilize political support. Those needs could be filled by a broad set of quality indicators that reflect the overall condition, performance, and direction of the state education system. Quality indicators should reflect four things: the state's long-range educational goals; the short- and long-term consequences (both intended and unintended) of state reform initiatives; the growing knowledge base regarding school improvement and the practices of effective schools; and public perceptions regarding the important characteristics and outcomes of schooling.

Long-range goals. State goals provide direction for the education system. They also help to articulate the role of the education system in a broader social context, thereby supplying a rationale for public support of education. Academic achievement ranks high among the long-range goals of virtually every state; other goals include enhancing student interest in independent learning, recruiting and retaining talented teachers, reducing teenage pregnancy and dropout rates, establishing stronger ties with the business community, and increasing public support for education.

Indicators that reflect these goals might include: students' mastery of subject matter and cognitive skills, as indicated by their performance on standardized tests; college enrollment rates within the first two years after high school graduation; the performance of college freshmen from the state; the performance of high school graduates who complete training in the military; library and museum use by school-age youngsters; Scholastic Aptitude Test and Graduate Record Examination scores and college grade-point averages of individuals entering the teaching profession; the percentage of experienced teachers who plan to leave or who actually leave the profession; the reasons for these voluntary departures; teenage pregnancy rates; high school dropout rates; the number of school/busi-

ness partnership programs; employers' satisfaction with the performance of recent high school graduates; the level of parent involvement in the schools; and public attitudes toward the schools. This list is illustrative and would undoubtedly vary from state to state. But it illustrates at least three important points.

First, the indicators go far beyond student achievement. Indeed, they provide a rich composite picture of how well the education system meets the goals and expectations that are held for it. Second, these indicators vary considerably in terms of ease of measurement. And finally, the indicators undoubtedly vary in importance as well as in the extent to which they reflect the unique contributions of the education system.

Consequences of reform initiatives. A system of quality indicators should be sensitive to the short- and long-term consequences and to the intended and unintended consequences of recent reform initiatives. Many complex reforms, such as career ladders, will not produce quick changes in student achievement. But interim indicators may begin to show early signs of movement. For example, career ladders are intended to enhance instructional effectiveness by attracting and retaining more talented teachers, by providing teachers with more support and interaction, and by increasing teacher participation in important professional activities. These interim changes can be measured.

Similarly, changes in high school graduation requirements may be slow to affect student achievement. Often, they do not even take effect until several years after they have been enacted. But short-term indicators that show the early impact of these changes can help to sustain public support for them. The states can anticipate and look for such things as changes in patterns of course enrollments and in patterns of course offerings in the secondary schools.

Indicators of unintended effects are just as important as short-term indicators. For example, some observers worry that career ladders will increase competition among teachers, reduce collaboration, and adversely affect teacher morale. In the early stages of implementing career ladders, we need to ascertain whether or not these critics are right, so that policies and procedures can be adjusted or abandoned. If the critics are wrong, data that demonstrate this fact might serve to build support for career ladders during the implementation phase.

Similarly, an increase in graduation requirements could have unintended consequences. One obvious concern is that more rigorous requirements would encourage marginal students to drop out of school. But other unintended consequences are possible as well. For example, in states that do not fully cover the increased costs for additional teachers, increased graduation requirements might shift local funds away from other impor-

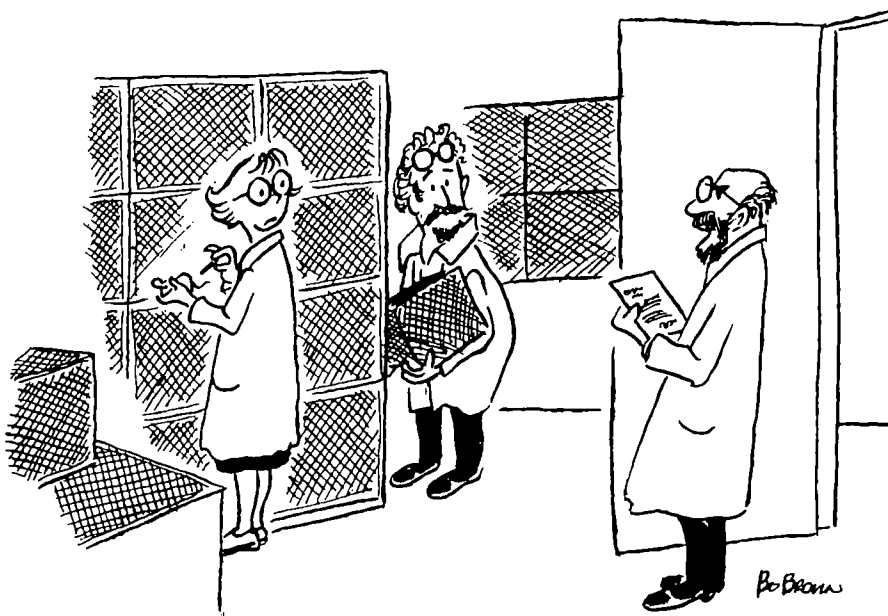
Clearly, there are limits to the inferences that can be drawn from state-by-state comparisons.

tant efforts, such as remedial programs. Therefore, we ought to pay close attention to indicators of the fiscal effects of state policies on local districts.

Practices of effective schools. Students, teachers, and schools don't experience individual reforms in isolation. A complicated web of reform programs, local initiatives, and local conditions interact to produce educational results. An effective-schools perspective enables the states to examine the overall impact of school reform, using such indicators as the amount of time that students spend on academically challenging work; teachers' subject-matter expertise; teachers' use of state-of-the-art instructional practices; the quality of teachers' evaluation practices; the nature and quality of instructional leadership; teachers' sense of professionalism and commitment; and teachers' perceptions of their work environment.

Some of these data can be found in the annual school profiles. Others require more costly and in-depth collection procedures. For example, it is difficult to measure the nature and the quality of instructional practices without classroom observations that take place over time. Such data can be collected only from a representative sample of teachers.

Public perceptions of schooling. To mobilize public support for education, the quality indicators should reflect those aspects of schooling that the public and its various segments — e.g., the business community, adults without children — use to judge the quality of public education. Some form of public input, such as public hearings or surveys, may be



"The Goodman Institute got the grant. Free all the damn mice."

necessary in order to reflect public perceptions accurately. The public seems likely to judge educational quality by such indicators as student achievement, teacher commitment, the amount of time that students spend on homework, frequency of disciplinary problems, and students' work attitudes.

IMPLICATIONS FOR DATA COLLECTION AND REPORTING

The quality indicators suggested by each of the four perspectives that I have just discussed will overlap. This is useful, because it will help us to establish priorities among potential indicators and thus condense what might otherwise be a lengthy list of measures. Priorities should be derived from judgments regarding the usefulness, feasibility, technical adequacy, and cost of each indicator.

Even when priorities are established, it is neither feasible nor desirable to gather data for each indicator from every school in a state. The states should rely instead on carefully selected, representative samples.

The states should carefully consider the tradeoffs between collecting a large amount of data from a small number of samples and collecting small amounts of data from a larger number of samples. The first approach increases the analytic value of the data. For example, if data on teacher morale and attitudes are collected from the same teachers whose classroom instruction is observed, researchers will have an easier time relat-

ing the two kinds of data. However, the second approach spreads the burden of responding more evenly.

The states should consider how frequently they need to collect and report data on each indicator. Some data should be collected annually, but other data could be reported every two or three years.

Finally, the states should explore alternative structures and strategies for collecting data. The state education department could collect some data, while other data-collecting efforts could be contracted out. For example, universities might conduct classroom observations, which would provide valuable training opportunities for university students and possibly lower costs for the states.

IMPLICATIONS FOR STATE-BY-STATE COMPARISONS

The assessment system that I have proposed here emphasizes indicators that reflect state goals and state reform initiatives. Since goals and reform initiatives differ significantly from state to state, state-by-state comparisons on any particular set of indicators would be of little value.

I believe that the purposes of a state assessment system can best be served through comparisons of performance and practice over time — either for the state education system as a whole or for subsystems within the state. An emphasis on improvement over time maximizes the chances of success for everyone, while placing no ceiling on performance.

Clearly, there are limits to the inferences that can be drawn from state-by-state comparisons. The likelihood of finding an appropriate comparison group for any given state seems remote, and thus the fairness of comparisons among states is always in question. The number of states is too small — and the differences among them too large — to make comparative analyses aimed at teasing out the relative effectiveness of one policy approach or another, while "controlling" for other factors, feasible. Comparisons among states on performance measures are unlikely to resolve such questions as whether school incentive programs are more or less effective than career ladders — or, for that matter, whether Tennessee's statewide approach to career ladders is superior to Utah's local-option approach.

However, state-by-state comparisons

have enough merit to cause me to recommend that procedures be built into state and national assessment programs that make such comparisons possible. I make this recommendation for two reasons. First, there are enough indicators that are common across states to make state-by-state comparisons possible. Effective schooling practices should be tracked across state lines, for example. So should such outcome measures as dropout rates, parental and public satisfaction with the schools, and levels of teacher morale.

Second, state-by-state comparisons can build and sustain support for education — or for needed improvements in the education system. In states that rank at or near the top, state-by-state comparisons can help citizens understand that their schools are doing a good job and are deserving of recognition and support. In states that rank at or near the bottom, state-by-state comparisons can be used to marshal public support for needed improvements. States such as Mississippi, South Carolina, and Arkansas used evidence of this sort to mobilize support for reform initiatives and for substantial increases in state expenditures for education. Finally, any state that finds itself ranking at or near the bottom on such indicators as teacher morale, use of effective practices, or student performance — even if the rankings are not entirely fair — ought to examine its education system and the policies that govern it very carefully.



"I'd say my happiest years were the years I spent in the third grade."

1. Denis P. Doyle and Terry W. Hartle, *Excellence in Education: The States Take Charge* (Washington, D.C.: American Enterprise Institute, 1985).
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3. Michael Cohen, *Meeting the Information Needs of State Education Policymakers: Report of a Survey of State Policymakers* (Alexandria, Va.: State Education Policy Consortium, 1985).
4. Michael W. Kirst and Walter I. Garms, "The Political Environment of School Finance Policy in the 1980s," in James W. Guthrie, ed., *School Finance Policies and Practices* (Cambridge, Mass.: Ballinger, 1980).
5. Michael W. Kirst, "Sustaining the Momentum of State Education Reform: The Link Between Assessment and Financial Support," *Phi Delta Kappan*, January 1986, pp. 341-45.
6. Ibid.
7. Andrew C. Porter, "The Role of Testing in Effective Schools," *American Education*, January/February 1983, pp. 25-28; and Linda Darling-Hammond and Arthur Wise, "Beyond Standardization: State Standards and School Improvement," *Elementary School Journal*, vol. 85, 1985, pp. 315-36.

Breakout Sessions

Case Studies on Local\City Reform

12:00 - 1:00PM

Monday, September 20

1. Milwaukee

New York Room

2. Flint

California Room

3. Los Angeles

Ohio Room

4. Chelsea

Massachusetts Room

**** A floor plan of the hotel's conference rooms is included in the General Information section of your binder.****

Breakout Session Assignments: 12:00 - 1:00 pm

B'out

#

3	Alexander, Anne S.	Vice President, Education Programs	AT&T Foundation
2	Anderson, Bonny	Vice President	MBNA America
2	Anderson, John L.	Education Consultant	IBM Corp.
4	Balzer, Dr. Simona	Chair, Education Committee	Business Men's Assur Co of Amer.
1	Barshop, Sam	Chairman	La Quinta Inns, Inc.
3	Barth, Richard	President	TEACH!
2	Bavaro, Mary Ellen	Project Manager	Jobs for the Future
3	Becker, Douglas L.	President	Sylvan Learning Systems
1	Becker, Valerie Anne	Nat'l Education Progs Administrator	Chrysler Corp
1	Bentley, Roseann	Board of Directors	Natl Bd/Prof. Teaching Standards
4	Berry, Nancy M.	Consultant	Frank Pace Jr. Foundation
2	Betti, Denise M.	Education Relations Manager	Ford Motor Company
1	Beyer, Paul K.	Senior Vice Pres, Community Relations	USAA
2	Blandin, Don M.	Director	Business-Higher Education Forum
1	Blaylock, Lou Ann	Director of Corporate Communications	Tandy Corp.
4	Blodget, Dudley F.	Dir of External Relations	Harvard Univeristy
3	Bloomfield, William	Executive Director, CCEI	Health Inst. New England Med Ctr
2	Bonstingl, John Jay	Director	Center for Schools of Quality
3	Brandt, Nancy	Dir of Education Programs	Continental Bank
3	Braswell, David	Corporate Administrative Specialist	Karsten Mfg Corp.
3	Brittain, Rebecca	Chief, Education Divsion	U.S. Army Recruiting Command
4	Brown, Julian	Director, Community Affairs	Northern Illinois Gas
3	Brown, Lawrence C.	President	Wave, Inc.
3	Buckles, Stephen	President	National Council on Economic Ed
1	Buckley, Jean M.	Senior Vice President	Junior Achievement Inc.
4	Burge, James D.	Corporate Vice President	Motorola
4	Burnette, Bill	Manager	NASA-Industry Educ. Initiative
2	Burtley, Dr. Nathel	Superintendent	Flint Community Schools
1	Busch-Johnsen, Tamra	Executive Director	Business-Education Compact
1	Cabell, Benjamin	Senior Vice President	MBNA America
4	Campbell, Edwin D.	Executive Director	Coalition of Essential Schools
1	Campbell, Mary	Education Program Specialist	U.S. Dept of Education

Breakout Session Assignments: 12:00 - 1:00 pm

2	Canevaro, Cynthia T.	Director, Performance Services	EDS
3	Carson, Jon	President	The Educational Publishing Group
3	Carson Figgins, Tena	Organizational Development Consultant	Delco Electronics
2	Castle, Dr. Nikki	President	NK Consultants
3	Cathcart, Emelda M.	Director, Corporate Contributions	Time Warner
2	Chapman, Rebecca	Vice President of Advancement	Michigan Partnership for New Educ.
1	Chargois, Michelle	Acting Dir, Off. of Educ. Affairs	Mayors Office, Washington, D.C.
4	Cimino, Larry C.	Corp Affairs Community & Guests Rels	Eli Lilly and Company
4	Clemente, Paul	Assoc Vice Pres for Financial Affairs	Boston University
3	Clurman, Emma	Public Relations Director	FORTUNE
1	Collins, Richard	President	Wisconsin Education Assoc. Council
1	Collins, Sue	Manager, Education Relations	Apple Computer, Inc.
1	Colvin, Geoff	Assistant Managing Editor	FORTUNE
1	Coy, John F.	President	The Consulting Network
3	Cross, Christopher T.	Exec Director - Education Initiative	The Business Roundtable
2	Crutchfield, Elnora D.	Assistant Principal	City of Flint School District
3	Darling, Martha	Manager - Government Affairs	The Boeing Company
4	Deitch, Sande	Executive Director	Miles Inc.
4	Denneny, James C.	President	Denneny & Associates
4	Dillon, John A.	President	Conn Assoc of Boards of Education
3	Dirmann, Jack	Associate Director	Found for Advancements in Sci & Ed
2	Donaghy, Patrick	President & COO	Optical Data Corporation
2	Donohue, William J.	President	Genesee Area Focus Council Inc.
3	Dow, Dr. John	President	National Academy Foundation
1	Drea, Stephanie	Vice President	Hager Sharp, Inc.
3	Drew, Lorraine M.	Mgr, Community Rels & Ed Services	Potomac Electric Power Comapny
2	Driscoll, John	Teacher in Residence	White House Off/Science & Tech Pol
4	Dulle, Dr. Paul	Executive Director	Southwest Cook Cty Coop for Spec Ed
3	Dunning, Dr. Art	Executive Director	Georgia Partnership for Excellence
3	Earhart, J. Troy	Education Consultant	Hasbro Children's Foundation/Trust
4	Eaton, Judith	President	Council for Aid to Education
2	Edelstein, Fritz	Director of Constituent Relations	U.S. Dept of Education
4	Egol, Mort	Managing Partner	Arthur Andersen & Co.
1	Eisen, Phyllis	Senior Policy Director	National Assoc. of Manufacturers
2	Erdahl, Becky	Director, Community Relations	Pillsbury

Breakout Session Assignments: 12:00 - 1:00 pm

2	Evans, Art	President	Flint Community Schools
2	Evans, Frank	Vice Pres - Asst to the President	Junior Achievement Inc.
2	Farmer, James E.	Vice Pres, Corporate Communications	Saturn Corporation
2	Fay, Toni	Vice President, Community Relations	Time Warner Inc.
1	Fazzano, Mary Louise	Director	Hasbro Charitable Trust
2	Ferguson, Betty	Dir. of Education & Employee Programs	Baltimore Gas & Electric Co.
3	Flemke, Karl	President & CEO	Junior Achievement, Inc.
3	Floyd, Donald T.	Vice President & COO	National 4-H Council
1	Forgione, Pascal D.	Superintendent	State of Delaware
2	Forsythe, Don	Vice President- Corporate Relations	Sprint
1	Francy, Patricia L.	Treasurer & Controller	Columbia University
3	Funkhouser, Peggy	President	Los Angeles Educational Partnership
2	Gallatin, Patricia M.	Ex Dir, Corp Phil, Cons Affs, Comm Rels	NYNEX
4	Gambaccini, Jill	Manager	Merck Institute for Science Ed
1	Goldman, Shelley	Research Scientist	Institute for Research on Learning
1	Goodwin-Hockaday, D.	Manager - Corporate Involvement	Union Carbide Corporation
2	Goodwyn, Dr. Jack R.	Dir, Communication & Public Affairs	Texas Eastman Div, Eastman Chem Co
2	Griffin, Camy	Executive Director	MATHCOUNTS Foundation
2	Gruskin, Susan	OERI Educational Partnerships Prog.	U.S. Department of Education
1	Hamburg, Sandra K.	Vice President	Committee for Economic Development
3	Harris, R.D.	Deputy State Superintendent	Mississippi State Dept of Education
1	Henkoff, Ron	Assoc. Editor - Chicago Bureau Chief	FORTUNE
3	Henschel, Peter	Executive Director	Institute for Research on Learning
1	Hogan, Cathy	Manager, Training & Development	J.M. Smucker Co.
2	Hollingsworth, Leslie	Education Coordinator	Gulf States Toyota, Inc.
2	Holmes, Craig	Education Programs Manager	United Parcel Service
2	Hopp, Michael A.	Dir, Management & Organization Dev	Martin Marietta Corporation
4	Howe, Walter	President	Washington Roundtable
3	Huntington, Barbara	Coordinator, External Programs	Calif Academy of Math & Science
2	Hurd, Deryl	Principal, Clinton Park Elem School	Houston, Texas
1	Irvine, Shawn	Consumer & Education Services	TU Electric
2	Irwin, Judith T.	Associate Director	Business-Higher Education Forum
3	Jackson, Michael	Director, Government Affairs	TRW Inc
4	Jewett, Truda	Assistant Executive Director	The Children's Aid Society
3	Johnson, Martha C.	Mgr, Corp Media Rels & Issues Analysis	Ashland Oil, Inc.

Breakout Session Assignments: 12:00 - 1:00 pm

3	Johnson, Ronald E.	Corp Affairs, Community & College Rels	Eli Lilly and Company
1	Jones, Robert V.	Manager, Media Relations	Lincoln National Corp.
3	Jones, Ronald C.	Vice President for Elementary Schools	United Federation of Teachers
1	Jones, Ronald M.	President	Janus Communications Corporation
1	Kaplan, Stanley H.	Founder and Chairman	Stanley H. Kaplan Educational Ctr
3	Katzman, Susan	Director, Career Education	St. Louis Public Schools
4	Keipper, Susan	Senior Vice President	Media Management Services
1	Kenner, Debra A.	President	Greater Milwaukee Education Trust
3	Konopnicki, Patrick	Director, Office of Vocational Ed	Virginia Beach City Public Schools
3	Kopp, Wendy	President	TFA, Inc.
2	Larson, Jan R.	Dir, Educational Initiatives	The Dow Chemical Co.
1	LeCornu, Cynthia	VP of Marketing & Strategic Programs	Computerworld Smithsonian Found.
4	Lerche, Renee S.	Mgr, Employee Dev & Ext Educ Planning	Ford Motor Company
1	Loeb, Marshall	Managing Editor	FORTUNE
4	Longcope, Beth M.	Education Manager	Sports Illustrated for Kids
4	Louderback, Mary Anne	Board Member	Illinois Educational Labor Rels Bd
2	Loving, Pamela	Secretary	Flint Community Schools
1	Marshall, Patricia A.	Education and Environmental Programs	Phillips Petroleum
3	McCormick, Betty	President	Critical Linkages Consulting
4	McCray, Joyce G.	Executive Director	Council for American Private Ed.
4	McDaniel, Linwood A.	Vice Pres, Education Consulting Group	National Exec Service Corps
1	McHugh, Thomas	President	Illinois Business Roundtable
1	McKinley, Daniel M.	Executive Director	P.A.V.E.
4	McLeod, Joyce C.	Sr VP, Ed in Chief, Math Sci & Health	Harcourt Brace School Publishers
1	McNamee, Catherine	President	National Catholic Education Assoc.
1	McSweeney, Eileen	Mgr, Contribution & Education Program	Champion International Corp.
2	Medler, Alex	Research Assistant	Education Commission of the States
3	Methia, Richard A.	Senior Vice President	Challenger Ctr for Space Science Ed
2	Mielcarek, Gary	Education Programs Manager	United Parcel Service
3	Mike-Mayer, Maria	Manager, Corporate Contributions	Texaco Inc.
3	Milano, Christina R.	Executive Director	Cleveland Scholarship Programs, Inc
4	Morrison, Ann M.	Executive Editor	FORTUNE
3	Mullen, Bennat	Professor	Stephen F. Austin State University
2	Muller, Henry	Editorial Director	Time Inc.
1	Murphy, John A.	Superintendent of Schools	Charlotte-Mecklenburg Schools, NC

Breakout Session Assignments: 12:00 - 1:00 pm

2	Nebel, Sherry L.	Corporate Public Relations Manager	The BOeing Company
2	Nelson, Judy	Vice President, Human Resources	Best Western International
1	Ordway, Susan	Civic Leader	Union Pump Co
2	Owens-Reed, JoAnn	Vice President	Flint Community Schools
4	O'Neill, Richard	Vice Pres, Marketing & Communications	Optical Data Corporation
1	Page, William	President	Insignia Financial Group, Inc.
3	Paluch, Diana	Dir of Marketing & Public Affairs	City of Chicago
4	Paulus, Norma	State Superintendent	Oregon Department of Education
1	Peery, W. Kim	House Majority Leader	Washington State House of Reps
3	Perry, Nancy J.	Associate Editor	FORTUNE
4	Pierce, Darlene S.	Director, Grants & Awards Dept.	Amer Assoc of School Administrators
3	Pinckney, Cynthia	Community Affairs Manager	Burger King Corporation
3	Preisendorfer, Rolf	Executive Director - MCI Foundation	MCI Telecommunications
3	Prescott, Ronald	Assoc. Superintendent	LA Unified School District
2	Purdy, Walt	Director, Educational Services	Edison Electric Institute
1	Randall, William	Chairman Emeritus	First Bank Milwaukee
2	Ratcliffe, Jim	Vice President, Corporate Relations	R.R. Donnelly & Sons
2	Ray, James E.	Assistant Superintendent	Flint COMMUNITY Schools
2	Reardon, Joseph		
4	Renegar, Susan L.	Community Relations Specialist	Duke Power Company
3	Rhodes, Donna C.	Executive Director	Nat'l Found for Improvement of Ed
1	Robinson, J. David	Vice President of Corporate Giving	Freddie Mac
1	Rosenblatt, Roslyn	Executive Director	PPG Industries Foundation
3	Rusnack, William	President	ARCO Products Company
4	Santoro, Anthony R.	President	Christopher Newport University
4	Sauer, Dr. Richard J.	President & CEO	National 4-H Council
1	Sawyer, Karen	Principal	Public Education Consulting Svces
2	Schaeffer, Esther	Sr VP, Education & Workforce Quality	National Alliance of Business
3	Schallau, Doug	President	Junior Achievement of NY, Inc.
1	Schmidt, Daniel P.	Senior Program Officer	Bradley Foundation
3	Schneider, Robert M.	Staff Consultant	Xerox Corporation
4	Scholz, James P.	Executive Director	Christian Urban Education Service
1	Schulz, Ralph	Executive Vice President	Junior Achievement Inc.
3	Scott, Jewel D.	Director, Research & Planning	Civic Council of Greater Kansas City
4	Sears, Douglas	Chairman	Boston University/Chelsea Partnersh

Breakout Sessions

Case studies on State Education Reform

3:45- 4:45pm

Monday, September 20

1. Washington

Congressional Room

2. Illinois

New York Room

3. South Carolina

Ohio Room

4. Georgia

California Room

Breakout Assignments: 3:45 - 4:45 pm

B'out

#

1	Alexander, Anne S.	Vice President, Education Programs	AT&T Foundation
1	Anderson, Bonny	Vice President	MBNA America
1	Anderson, John L.	Education Consultant	IBM Corp.
1	Balzer, Dr. Simona	Chair, Education Committee	Business Men's Assurance Co of Amer
1	Barshop, Sam	Chairman	La Quinta Inns, Inc.
1	Barth, Richard	President	TEACH!
1	Bavaro, Mary Ellen	Project Manager	Jobs for the Future
1	Becker, Douglas L.	President	Sylvan Learning Systems
1	Becker, Valerie Anne	Nat'l Education Progs Administrator	Chrysler Corp
1	Bentley, Roseann	Board of Directors	Natl Board for Prof. Teaching Stand
1	Berry, Nancy M.	Consultant	Frank Pace Jr. Foundation
1	Betti, Denise M.	Education Relations Manager	Ford Motor Company
1	Beyer, Paul K.	Senior VP, Community Relations	USAA
1	Blandin, Don M.	Director	Business-Higher Education Forum
1	Blodget, Dudley F.	Dir of External Relations	Harvard Univeristy
1	Bloomfield, William	Executive Director, CCEI	Health Inst., New England Med Ctr
1	Bonstingl, John Jay	Director	Center for Schools of Quality
1	Brandt, Nancy	Dir of Education Programs	Continental Bank
1	Braswell, David	Corporate Administrative Specialist	Karsten Mfg Corp.
1	Brittain, Rebecca	Chief, Education Divsion	U.S. Army Recruiting Command
1	Brown, Julian	Director, Community Affairs	Northern Illinois Gas
1	Brown, Lawrence C.	President	Wave, Inc.
1	Buckles, Stephen	President	National Council on Economic Ed
1	Buckley, Jean M.	Senior Vice President	Junior Achievement Inc.
1	Burge, James D.	Corporate Vice President	Motorola
1	Burnette, Bill	Manager	NASA-Industry Education Initiative
1	Busch-Johnsen, Tamra	Executive Director	Business-Education Compact
1	Cabell, Benjamin	Senior Vice President	MBNA America
1	Campbell, Edwin D.	Executive Director	Coalition of Essential Schools
1	Campbell, Mary	Education Program Specialist	U.S. Dept of Education
1	Canevaro, Cynthia T.	Director, Performance Services	EDS
1	Carson, Jon	President	The Educational Publishing Group

Breakout Assignments: 3:45 - 4:45 pm

1	Carson Figgins, Tena	Organizational Dev Consultant	Delco Electronics
1	Castle, Dr. Nikki	President	NK Consultants
1	Cathcart, Emelda M.	Director, Corporate Contributions	Time Warner
1	Chapman, Rebecca	Vice President of Advancement	Michigan Partnership for New Educ
1	Chargois, Michelle	Acting Dir, Off. of Educ. Affairs	Mayors Office, Washington, D.C.
1	Cimino, Larry C.	Corp Affairs Community & Guest Rels	Eli Lilly and Company
1	Clurman, Emma	Public Relations Director	FORTUNE
1	Collins, Richard	President	Wisconsin Education Assoc. Council
1	Collins, Sue	Manager, Education Relations	Apple Computer, Inc.
1	Colvin, Geoff	Assistant Managing Editor	FORTUNE
1	Coy, John F.	President	The Consulting Network
1	Cross, Christopher T.	Exec Dir - Education Initiative	The Business Roundtable
1	Darling, Martha	Manager - Government Affairs	The Boeing Company
1	Deitch, Sande	Executive Director	Miles Inc.
1	Denneny, James C.	President	Denneny & Associates
1	Dillon, John A.	President	Conn Assoc of Boards of Education
1	Dirmann, Jack	Associate Director	Found. for Advancements in Sci & Ed
1	Donaghy, Patrick	President & COO	Optical Data Corporation
1	Donohue, William J.	President	Genesee Area Focus Council Inc.
1	Dow, Dr. John	President	National Academy Foundation
1	Dozier, Therese A.	Spec Advisor to Sec'y on Teaching	U.S. Dept of Education
1	Drea, Stephanie	Vice President	Hager Sharp, Inc.
1	Drew, Lorraine M.	Mgr, Community Rels & Ed Services	Potomac Electric Power Comapny
1	Driscoll, John	Teacher in Residence	White House Off of Science & Tech
1	Dulle, Dr. Paul	Executive Director	Southwest Cook Cty Coop for Spec Ed
1	Dunning, Dr. Art	Executive Director	Georgia Partnership for Excellence
1	Earhart, J. Troy	Education Consultant	Hasbro Children's Foundation/Trust
1	Eaton, Judith	President	Council for Aid to Education
1	Edelstein, Fritz	Director of Constituent Relations	U.S. Dept of Education
1	Egol, Mort	Managing Partner	Arthur Andersen & Co.
2	Eisen, Phyllis	Senior Policy Director	National Assoc. of Manufacturers
2	Erdahl, Becky	Director, Community Relations	Pillsbury
2	Evans, Art	President	Flint Community Schools
2	Evans, Frank	Vice President - Asst to President	Junior Achievement Inc.
2	Farmer, James E.	Vice Pres, Corporate Communications	Saturn Corporation

Breakout Assignments: 3:45 - 4:45 pm

2	Fay, Toni	Vice President, Community Relations	Time Warner Inc.
2	Fazzano, Mary Louise	Director	Hasbro Charitable Trust
2	Ferguson, Betty	Dir. of Education & Employee Progs	Baltimore Gas & Electric Co.
2	Flemke, Karl	President & CEO	Junior Achievement, Inc.
2	Floyd, Donald T.	Vice President & COO	National 4-H Council
2	Forgione, Pascal D.	Superintendent	State of Delaware
2	Forsythe, Don	Vice President- Corporate Relations	Sprint
2	Francy, Patricia L.	Treasurer & Controller	Columbia University
2	Funkhouser, Peggy	President	Los Angeles Educational Partnership
2	Gallatin, Patricia M.	Ex Dir, Corp Phil, Cons Affs, Comm Rels	NYNEX
2	Gambaccini, Jill	Manager	Merck Institute for Science Ed
2	Gidwitz, Ronald J.	President & CEO	Helene Curtis Industries Inc.
2	Goldman, Shelley	Research Scientist	Institute for Research on Learning
2	Goodwin-Hockaday, D.	Manager - Corporate Involvement	Union Carbide Corporation
2	Goodwyn, Dr. Jack R.	Dir, Communication & Public Affairs	Texas Eastman Div, Eastman Chem Co
2	Griffin, Camy	Executive Director	MATHCOUNTS Foundation
2	Gruskin, Susan	OERI Educational Partnerships Prog	U.S. Department of Education
2	Hamburg, Sandra K.	Vice President	Committee for Economic Development
2	Harris, R.D.	Deputy State Superintendent	Mississippi State Dept of Education
2	Henkoff, Ron	Assoc. Editor	FORTUNE
2	Henschel, Peter	Executive Director	Institute for Research on Learning
2	Hogan, Cathy	Manager, Training & Development	J.M. Smucker Co.
2	Hollingsworth, Leslie	Education Coordinator	Gulf States Toyota, Inc.
2	Holmes, Craig	Education Programs Manager	United Parcel Service
2	Hopp, Michael A.	Dir, Management & Organization Dev	Martin Marietta Corporation
2	Howe, Walter	President	Washington Roundtable
2	Huntington, Barbara	Coordinator, External Programs	Calif Academy of Math & Science
2	Hurd, Deryl	Principal, Clinton Park Elem School	Houston, Texas
2	Irvine, Shawn	Consumer & Education Services	TU Electric
2	Irwin, Judith T.	Associate Director	Business-Higher Education Forum
2	Jackson, Michael	Director, Government Affairs	TRW Inc
2	Jewett, Truda	Assistant Executive Director	The Children's Aid Society
2	Johnson, Martha C.	Mgr, Corp Media Rels, Issues Analysis	Ashland Oil, Inc.
2	Johnson, Ronald E.	Corp Affairs, Comm & College Rels	Eli Lilly and Company
2	Jones, Robert V.	Manager, Media Relations	Lincoln National Corp.

Breakout Assignments: 3:45 - 4:45 pm

2	Jones, Ronald C.	VP for Elementary Schools	United Federation of Teachers
2	Jones, Ronald M.	President	Janus Communications Corporation
2	Kaplan, Stanley H.	Founder and Chairman	Stanley H. Kaplan Educational Ctr.
2	Katzman, Susan	Director, Career Education	St. Louis Public Schools
2	Keipper, Susan	Senior Vice President	Media Management Services
2	Kenner, Debra A.	President	Greater Milwaukee Education Trust
2	Konopnicki, Patrick M.	Director, Office of Vocational Ed	Virginia Beach City Public Schools
2	Kopp, Wendy	President	TFA, Inc.
2	Larson, Jan R.	Dir, Educational Initiatives	The Dow Chemical Co.
2	LeCornu, Cynthia	VP of Marketing & Strategic Programs	Computerworld Smithsonian Found.
3	Leininger, Robert	State Superintendent of Education	Illinois State Board of Education
3	Lerche, Renee S.	Mgr, Empl Dev & External Educ Plan	Ford Motor Company
3	Loeb, Marshall	Managing Editor	FORTUNE
3	Longcope, Beth M.	Education Manager	Sports Illustrated for Kids
3	Louderback, Mary Anne	Board Member	Illinois Educational Labor Rels. Bd
3	Loving, Pamela	Secretary	Flint Community Schools
3	Marshall, Patricia A.	Education and Environmental Programs	Phillips Petroleum
3	McCormick, Betty	President	Critical Linkages Consulting
3	McCray, Joyce G.	Executive Director	Council for American Private Educ
3	McDaniel, Linwood A.	VP, Education Consulting Group	National Exec Service Corps
3	McHugh, Thomas	President	Illinois Business Roundtable
3	McKinley, Daniel M.	Executive Director	P.A.V.E.
3	McLeod, Joyce C.	Sr VP, Ed in Chief Math Sci & Health	Harcourt Brace School Publishers
3	McNamee, Catherine	President	National Catholic Education Assoc
3	McSweeney, Eileen	Mgr, Contribution & Education Prog	Champion International Corp.
3	Medler, Alex	Research Assistant	Education Commission of the States
3	Methia, Richard A.	Senior Vice President	Challenger Ctr for Space Science Ed
3	Mielcarek, Gary	Education Programs Manager	United Parcel Service
3	Mike-Mayer, Maria	Manager, Corporate Contributions	Texaco Inc.
3	Milano, Christina R.	Executive Director	Cleveland Scholarship Programs, Inc
3	Morrison, Ann M.	Executive Editor	FORTUNE
3	Mullen, Bennat	Professor	Stephen F. Austin State University
3	Muller, Henry	Editorial Director	Time Inc.
3	Murphy, John A.	Superintendent of Schools	Charlotte-Mecklenburg Schools, NC
3	Nebel, Sherry L.	Corporate Public Relations Manager	The Boeing Company

Breakout Assignments: 3:45 - 4:45 pm

3	Nelson, Judy	Vice President, Human Resources	Best Western International
3	Ordway, Susan	Civic Leader	Union Pump Co
3	Owens-Reed, JoAnn	Vice President	Flint Community Schools
3	O'Neill, Richard	VP, Marketing & Communications	Optical Data Corporation
3	Page, William	President	Insignia Financial Group, Inc.
3	Paulus, Norma	State Superintendent	Oregon Department of Education
3	Peery, W. Kim	House Majority Leader	Washington State House of Represent
3	Perry, Nancy J.	Associate Editor	FORTUNE
3	Pierce, Darlene S.	Director, Grants & Awards Dept.	American Assoc. of School Admins
3	Pinckney, Cynthia	Community Affairs Manager	Burger King Corporation
3	Preisendorfer, Rolf	Executive Director - MCI Foundation	MCI Telecommunications
3	Prescott, Ronald	Assoc. Superintendent	Los Angeles Unified School District
3	Purdy, Walt	Director, Educational Services	Edison Electric Institute
3	Randall, William	Chairman Emeritus	First Bank Milwaukee
3	Ratcliffe, Jim	Vice President, Corporate Relations	R.R. Donnelly & Sons
3	Reardon, Joseph		
3	Renegar, Susan L.	Community Relations Specialist	Duke Power Company
3	Rhodes, Donna C.	Executive Director	Nat'l Found for Improvement of Ed
3	Richards, Roy	Chairman & CEO	Southwire Company
3	Robinson, J. David	Vice President of Corporate Giving	Freddie Mac
3	Robinson, Ronn	Corporate Dir, Education Affairs	The Boeing Company
4	Rosenblatt, Roslyn	Executive Director	PPG Industries Foundation
4	Santoro, Dr. Anthony	President	Christopher Newport University
4	Sauer, Dr. Richard J.	President & CEO	National 4-H Council
4	Sawyer, Karen	Principal	Public Education Consulting Svces
4	Schaeffer, Esther	Sr VP, Education & Workforce Qual	National Alliance of Business
4	Schallau, Doug	President	Junior Achievement of New York, Inc
4	Schmidt, Daniel P.	Senior Program Officer	Bradley Foundation
4	Schneider, Robert M.	Staff Consultant	Xerox Corporation
4	Scholz, James P.	Executive Director	Christian Urban Education Service
4	Schulz, Ralph	Executive Vice President	Junior Achievement Inc.
4	Scott, Jewel D.	Director, Research & Planning	Civic Council, Greater Kansas City
4	Sears, Douglas	Chairman	Boston University/Chelsea Partners
4	Sharrit, E. Thomas	President	Partners In Learning Programs, Inc.
4	Sheehan, Daria	Ass't VP, Corporate & Comm Affairs	Citibank

Breakout Assignments: 3:45 - 4:45 pm

4	Shumate, Helen D.	Director, External Relations	Ameritech
4	Sidwell, Rolin	Senior Executive Policy Analyst	Executive Office of the Mayor, Wash,
4	Siebert Murphy, Nancy	Senior Public Relations Rep	Sallie Mae
4	Simmons-Holmes, B.	Interim Program Coordinator	Case Western Reserve/Upward Bound Pr
4	Solheim, K. Louis	Vice President	Karsten Manufacturing Corporation
4	Solmon, Lewis C.	President	Milken Inst. for Job & Capital Forma
4	Somerville, Janis	Executive Director	Philadelphia Schools Collaborative
4	Stokley, Frederick J.	Superintendent of Schools	Ridgewood Public Schools
4	Sullivan, Dr. Louis	President	Morehouse School of Medicine
4	Taylor, Dr. Daniel B.	Deputy Executive Director	Natl Assessment Governing Bd.
4	Terry, Toni	Board Member	Sports Outreach, Washington
4	Turner, Devon		Greater Milwaukee Trust
4	Van Den Berg, Jay	Vice Pres, Ed & Community Relations	Whirlpool Corporation
4	Van Scotter, Richard	Vice President - Education	Junior Achievement, Inc.
4	Wadsworth, Deborah	Executive Director	The Public Agenda
4	Walker, Debra M.	Marketing Manager, Auto Tires	Goodyear Tire & Rubber Co.
4	Walling, Willoughby G.	President	A Different September Foundation
4	Ward, Laura	Director, Special Guidance Projects	Montgomery Public Schools
4	Ward, Terrence R.	Assistant to the Chairman	H&R Block, Inc.
4	Warner, Beverly	Manager, School Partnership	Salomon Brothers, Inc.
4	Weihenmayer, Ed	Managing Director	Salomon Brothers, Inc.
4	Welsh, Tani R.	Manager, Educational Services	Southern California Edison Company
4	White, Arthur H.	President & CEO	WSY Consulting Group
4	Williamson, R. Thomas	Executive Vice President	Clarkson University
4	Williamson, Thomas A.	President	Harcourt Brace Educ. Dev. Corp.
4	Wilsford, James	Executive Director	S Carolina Business Educ Subcommittee
4	Wise, Robin	President & CEO	Junior Achievement - Rocky Mountain
4	Womack, Eva	Volunteer	New American Schools Development Cor
4	Woodrick, Nathaniel	Vice President - Education	National Executive Service Corps
4	Young, James E.	Assistant to the Chairman	EDS

STATEMENT ON EDUCATION QUALITY

THE MICHIGAN PARTNERSHIP FOR NEW EDUCATION
253 Erickson Hall
Michigan State University
East Lansing, Michigan 48824-1034

CREATING WORLD-CLASS SCHOOLS: SYSTEMIC CHANGE AND LESSONS FROM THE PAST

As Michigan faces the dual challenges of education reform and school finance, a significant amount of attention is being directed to funding education. The Michigan Partnership for New Education believes the real issue is the kind and quality of education to be funded. It is not nearly responsible enough to simply re-finance the very system that does not work for all students. The question then, is how will our resources be used to spur the kind of reform necessary for the highest quality public education?

After a decade of multiple reform efforts and a nearly 40% increase in spending, we have few substantive gains to show for countless improvements and solutions. The Michigan Partnership has analyzed the past failures of school reform and with this knowledge, the Partnership is creating a collaborative school reform agenda.

Past Failure #1 -- Underestimating the Magnitude and Complexity of Change -- Changes at the margin are not enough, they must be systemic. We must change education in the context of its aims, its quality standards and accept responsibility at all levels for the desire and implementation of a higher performance education system based on world-class standards. Figuring out how to make interconnected change across fragmented and autonomous parts is complicated, and requires the sustained and responsible leadership of diverse key actors.

Past Failure #2 -- Ignoring the Reasons Education Stays Stuck in the Past -- The conditions of teaching have not changed in almost a century, despite significant social, economic and demographic changes. Unlike other professions, which have transformed themselves dramatically in the course of the 20th century through responsible, applied R & D, college graduates pursuing teaching careers find working conditions almost identical to the early 1900s.

Past Failure #3 -- Thinking that More of the Same Would be Substantially Better -- Of the lessons learned from early reform efforts, perhaps the most critical, and yet the most dangerously close to being repeated is that *more of the same does not equate to better*. More time teaching the same old stuff in the same old ways just doesn't work, and is in fact counter productive to the kind of results we must now achieve.

Past Failure #4 -- Ignoring Lessons Already Learned from Research & Experience -- Those committed to changing schools need to practice what we already know through research. For example, we must address the preparation of teachers and their work in the classroom, and connect educators and schools more directly with their communities.

Introduction

As Michigan faces the dual challenges of reforming both education and school finance, a significant amount of attention is being directed to funding education. The Michigan Partnership for New Education believes the real issue is the kind and quality of education to be funded. How will our resources, no matter what their specific source, be used to fund the kind of education that provides high performance teaching and learning. Our current circumstances in Michigan provide not only an opportunity for property tax relief and to decrease funding disparity among school districts, it is the occasion to create world-class Michigan schools.

School reform efforts have been taking place in earnest at the local, state and national levels over the last ten years. Yet, we have few substantive gains to show for countless improvements and solutions. Student achievement has not noticeably increased, nor has the way we educate children changed. The Partnership has analyzed the past failures of school reform and through this understanding is creating an innovation system that will result in substantively higher quality public education.

Past Failure #1 -- Underestimating the Magnitude and Complexity of Change

This was a serious mistake. The severity of the problem was likely slighted because the people reforming education, most being college graduates, had succeeded under the old system. These reformers thought the problem was simple, that students and educators were not working hard enough, or tough enough, or long enough. If a few policies were adopted that either mandated or encouraged more work and recognition, our educational system would be back on track. But that estimate was wrong. Reformers did not grasp the depth and severity of the problem.

- **Change in education must be systemic:**

Current education is out of sync with its environment and the demands upon it. Changes at the margin, "school improvements", have moved schools in a positive change direction, but this is not enough. As a state we must change education in the context of its aims, its quality standards and accept responsibility at all levels for the desire and implementation of a high performance education system based on world-class standards. The National Goals and the Michigan Model Core Curriculum provide direction, but systemic change must occur from the state policy level to classroom implementation of higher levels of teaching and learning, where important knowledge and powerful skills are made central to all aspects of schooling for all students.

Change must occur both vertically, throughout the system as well as across it. Consider that various parts of the system include the broad, but splintered curriculum, the pedagogical models, the grouping practices, the testing program, the grading practices, the text and materials, the school's interface with the community, the roles and responsibilities of the parents, and so on. **If you change deeply one part of this interlocking, interdependent system and don't adjust the others (as in the case of an organ transplant into the human body), it will be rejected and eventually destroyed by the stronger operating parts of the system.** Figuring out how to make interconnected change across these autonomous parts is horrendously complicated, however. It requires *sustained* and responsible leadership on the part of multiple and diverse key actors (faculty, parents, policy-makers, administration, board, university, business, and community members).

Implications for The Partnership Strategy (past failure #1):

First we must get the needed changes to actually occur somewhere--not in theory nor in more articles--but in real schools and communities. We must turn to places that are themselves eager to innovate, and agree to collaborate in doing whatever it takes to get some initial places "caught up;" -- learning as we go, of course,

because we don't have all the answers. Then we use those places and the innovators in them to help other places create new education. Each round of in-house innovation increases the number of places in which we can work, for we get increasingly smarter about the process as we go; we have more real examples of what is possible; and we have more knowledgeable innovators prepared to help others change. By networking competent experienced innovators with others wanting to change, we increase the supply of capable "know how" for responding to the demand.

Past Failure #2 -- Ignoring the Reasons Education Stays Stuck in the Past

- **The conditions of teaching have not changed:**

The most common cliché in the reform literature concerns the need for education to be ready for the 21st century. Most professional fields have transformed themselves dramatically since the beginning of the 20th century--adapting steadily to new demands, new technologies, and even to a growing acceptance of human diversity. The transportation field left the horse and buggy early in the 20th century, replacing it with autos and aircraft of great sophistication. The field of communications was revolutionized, as sound, and then images, were captured and shared at such speeds that we watched our most recent war on television, as it occurred. And so with medicine, architecture, banking, anthropology, engineering, and so on. These professions, and the work of the practicing professionals in them, have been fundamentally altered such that neither practicing nor future professionals expect to work as their counterparts did at the turn of the century.

Except for teachers. College graduates pursuing careers in teaching today find working conditions almost identical to those that public school teachers found in the early 1900s. The dominant work is confined to a classroom; the primary technologies are still chalk, erasers and blackboard; the major communication lines are out-of-date textbooks and lectures from educators equally dated because of little opportunity for staying abreast in their field. Novice professionals with minimal experience and training are still given the most difficult teaching and learning assignments, with no help for handling them. And with modest exception, the instructional setting for teachers is not just low tech, it is "no tech". Not only do they do without computers, video and fax machines--teachers do without phones, while being asked to stay in closer touch with students, families and community members.

- **The absence of a research and development education agenda in a systemic approach to sound innovation:**

Huge sums of money are invested in carrying out the sprawling education enterprise as it currently operates, while practically no money is invested in responsible innovation leading to cumulative, on-going improvement. The history of past efforts to change education does not inform contemporary decision-makers. Piecemeal solutions drift in and out of style as various ideologies sway popular opinion, leaving a vast array of fads swept over the education landscape. Quality definition stays effusive *and* illusive. The meager R & D investments that are available remain sporadic and basically disconnected from critically needed ties with education policy-makers and practitioners.

The universities conducting the bulk of the research and development in the U.S. give short shrift to the study of teaching and learning. And what R & D they do contribute is focused primarily (some argue "excessively") on the problems of the current system as it now operates--a system that we already know is broken. Existing investments neglect applied research, leaving current educational practice unaffected by a number of potentially important ideas. Development and discovery work that could help practicing educators be more effective with students is not highly valued.

Implications for The Partnership Strategy (past failure #2):

The Partnership engages universities as essential collaborators in education renewal efforts. University faculty join school faculty in the sites dedicated to "making reform happen someplace." They learn about challenges and promising reform initiatives right along with faculty from the schools. Together, they combine expertise and begin the essential work of implementing new approaches and studying their effects on students' learning. Together, they redesign teacher preparation, so that the future education workforce is prepared at the edge of best current practice, and ready to make changes themselves in the schools in which they will eventually work. The dissemination of innovations is enhanced by having new ideas and skills carried via those who work with Michigan children, *as well as* through faculty publication in learned journals.

Past Failure #3 -- Thinking That More of the Same Would be Substantially Better

- **Changing the way we teach and learn:**

Of the lessons learned from early reform efforts, perhaps the most critical, and yet the most dangerously close to being repeated, is that *more of the same does not equate to better*. More time spent teaching the same old stuff in the same old ways just doesn't work. It is, in fact, counter productive to the kind of results we must now achieve.

The paradigm of *"teaching as telling, learning as passive listening, knowledge as disconnected facts, and tests as memory samples"* is no longer viable for education (neither in schools nor colleges). Such a paradigm served society when knowledge was developed and applied very slowly; when it was recorded and transferred via expensive labor-intensive processes; when there was less to learn than there is today.

Information and knowledge is now produced, stored, retrieved and distributed at great speeds. Knowledge is dynamic rather than static. People expect to learn for a lifetime, instead of "having it done" by graduation. Employers want problem solvers and people prepared to work effectively within a pluralistic, global society.

Implications for The Partnership Strategy (past failure #3):

The Partnership Strategy is grounded in a new paradigm of educational practice and policy. Instead of *teaching as telling--learning as passive listening--knowledge as disconnected facts--tests as memory samples--* there is a new paradigm aimed at continuous, high quality learning for all students. The new paradigm emphasizes more complex teaching that guides students' development of curiosity, intellectual confidence, engagement with important ideas and powerful skills, and constructive interaction with persons different from themselves in more active, flexible learning environments. The learning is meaningful and connected to students' experiences, both in and out of school. Students come to view knowledge and skills as dynamic human constructions--finding and using new information and insights to reason, think and create. The testing emphasizes students' actual performance--their ability to use knowledge in its authentic application.

Through The Partnership's innovation sites (professional development schools embedded in local area partnerships) we discover and develop models of new education practices and policies suited to the more complex teaching and ambitious learning we need.

Past Failure #4 -- Ignoring Lessons Already Learned from Research and Experience

- **Preparing and retooling the educational workforce:**

First, America's poor record of performance with education reform has been documented--even when modest changes were sought. Having studied this dismal record of reform, scholars agree that one of the reasons we fail so consistently is because *we overlook the working conditions and intellectual needs of teachers*. It seems obvious that we won't get higher level learning for students without getting higher level learning for teachers--but reformers typically overlook this truism. Educators unprepared for the new goals and outcomes they are expected to achieve will fail--no matter how well intentioned. Quality initial preparation, as well as quality time for continuous teacher learning must be a central element of any successful reform strategy.

Second, research has also shown that more ambitious learning goals for students require more active and more integrated learning tasks. The construction and management of these new learning opportunities for students, in turn, requires more ambitious forms of pedagogy and teacher guidance. We now know that more complex pedagogy can in fact produce substantially better learning outcomes for more students than we have reached before--but it requires elementary teachers to have much greater depth, understanding, and flexibility with the subjects they teach. And it requires secondary teachers to have much greater depth of knowledge and understanding of children and youth--how they think, why they communicate and behave as they do, and what motivates them to learn subjects that matter. Similarly, the more ambitious, flexible pedagogy requires a longer period of teacher development and practice than was needed when teaching was simply telling and when it didn't matter if all students learned. Targeted retooling efforts for the school and university faculty who prepare educators are essential aspects of effective reform strategies.

Third, we have learned that more ambitious teaching methods cannot be sustained over time, since it is extraordinarily labor intensive. Teachers engaged in this kind of teaching need more time to construct meaningful learning tasks, and more opportunity to interact with their colleagues for more integration and more efficient, coherent student learning across different subject areas. These changes, in turn, call for changes in the organization and management of schools--and they call for new tools and teaching arrangements. Inventing, developing and discovering new organizational arrangements and new technologies for substantially better teaching and learning are built into effective reform strategies.

Fourth, the research also demonstrates that the quality of students' learning in school cannot be divorced from their learning outside of school. What is taught in the home and community either helps or hinders what is learned in school (and vice versa). Thus, what and how much children learn--as well as how well or how poorly they perform on school-administered tests is a reflection of their opportunities for learning in both places. The "bottom line" of their learning, therefore, cannot be left at the door of the educators alone. The responsibility must be shared with parents and community members who must also advocate on behalf of learning for our children and youth. The means of connecting educators with families and schools with their communities must be an essential part of an effective reform strategy.

Implications for The Partnership Strategy (past failure #4):

The Partnership Strategy must connect research and practice in order to achieve our purpose of advancing educational practice, educational policy, and education research. Efforts to learn from the most promising work now recognized throughout the country must be made available for review, application, and adaptation by school and university faculty working at the frontiers of new learning for students and teachers. The Professional Development Schools have a central role in this regard.

Conclusion

In the rush to create a new education finance system, we must take time to address the kind of education we are funding. We must examine the reasons why, despite significant attention to school reform over the past decade, the system, nor its results, have significantly changed. Many solutions, quick fixes, will be touted in the next few months. But unless we take time to learn from our past reform efforts and failures, we will continue to throw money at silver bullet ideas that once again will not produce the high performance learning required to meet world-class standards.

Now is the time to link the quality issues with *all* cost and finance considerations in Michigan, since prior discussions have focused so heavily on budgetary issues in isolation. There has been a tendency also to focus on thinking about funding the education system *pretty much as it is*, rather than serious planning of alternatives. Further, as we think about quality and its costs, we should press for realistic state funding *at the same time* that we pursue options that might reduce operating costs and increase learning productivity and effectiveness in Michigan's educating institutions. The Michigan Partnership for New Education believes that succeeding dialogues and decisions should focus on the aims, quality, responsibility and resources for Michigan education as a way to examine potential solutions in terms of their relatedness to a broader and more substantive policy agenda. The Partnership believes the most central questions shaping the policy agenda relate to priorities for learning important knowledge and powerful skills. At the heart of the economic and social aspirations of our state are the aims of education associated with the levels of standards that should be maintained for students achieving this knowledge and skill. In order to achieve these aspirations, a sound and fair quality system for all Michigan students must be in place. Adults in this state have a responsibility to ensure a quality education for all children. To accomplish the aims, to ensure quality, to fulfill responsibility, we address this issue of resources. Who pays and how?

January 19, 1995

MEMORANDUM FOR: Patricia McNeil
John Weintraub

cc: Bill Galston

FROM: Mickey Levitan

SUBJECT: Perkins Follow-up

The meeting yesterday was helpful in closing the loop. By way of summary, I took away the following points:

- The overall strategy is to promote a bill that is fully supportive of and integrated with the other pieces of the lifelong learning agenda, incorporates key lessons learned from previous programs, and creates a responsible form of devolution that utilizes mutually determined measures of accountability, does not sacrifice equity, and aligns with the new approach to federalism that the President is framing in his public messages.
- In response to the request from Barry White, your team will produce in the next two weeks a 3-5 page paper which recommends an Administration approach to Perkins. I will be happy to review the paper and participate in crafting the piece on capacity building.
- A critical aspect of the political and substantive debates on Perkins will center around the issue of accountability. Assuming that the forces which want a full devolution of federal role and resources do not hold sway, the challenge is to devise a workable system for ensuring the responsible use of federal resources. Your idea about accountability that is mutually determined by the federal government and states seems on target. And we seem to agree that part of the predetermined agreement must include provisions for what happens to resource streams when there is variance between expected outcomes and actual results.

You suggested the possibility of convening a group of experts to develop a process/mechanism for accountability in Perkins under a devolution scenario. The recommendations of this group can then serve to guide subsequent discussion and debate. In the absence of such an effort we risk, at worst, devolution without accountability or, at best, a system for accountability that is hastily created because we did not have the forethought to fully develop a workable option. I would be happy to work on this effort and to assist in mobilizing participation.

- Regarding the confusion over the actual School to Work Project, versus the School to Work Umbrella concept, perhaps in public statements we can begin to talk about the STW *seed program* versus the STW *system* or *approach* to differentiate.

Please let me know if I've missed anything important. In the meantime, Trish - I hope you get well.

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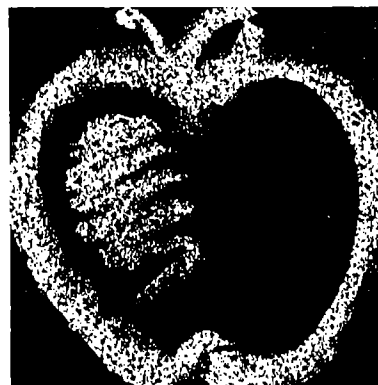
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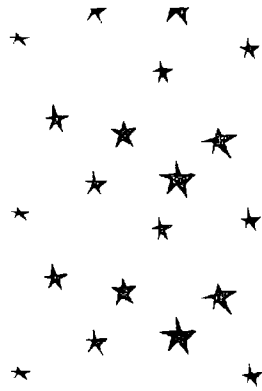
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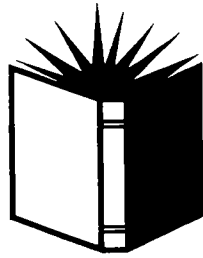
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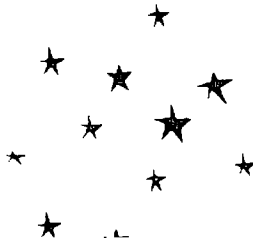
BACK ROW (left to right), Marcus Leonard, Edward Anhalt
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