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## ABSTRACT

Summary information on arts and humanities occupational clusters, obtaining occupational information, career ladder and lattice possibilities, job projections, and job competencies for arts and humanities careers is presented in this report of research, which resulted in a series of 11 arts and humanities career exploration resource guides for grade 7-12 teachers, counselors, and students. Each chapter includes some discussion of rationale and methodology as well as findings. Chapter 1 is a discussion of the redefinition of the arts and humanities occupational clusters. It includes charts of the arts and humanities clusters in relationship to other clusters; lists of job titles for dance, theater and media, music, visual arts and crafts, writing, and humanities; and a table which lists for each job title its functions or skills and level of educational preparation necessary. Chapter 2 describes the methods used to obtain occupational information on the various jobs and presents the outline guide used for gathering information regarding job description, supervision vs. autonomy, tasks and activities, time, geographic considerations, qualifications, job acquisition (career ladders), outlook, income, influences on career choice, activities and experiences, setting or work environment, other factors, unrealistic expectations, factors leading to particular job, job satisfaction, advice for students, and conflicts. Chapter 3 deals with examination of career ladder and lattice possibilities in each of the arts and humanities areas and chapter 4 with job projections in each area. The final chapter is a discussion of suggested competencies for arts occupations and for humanities occupations. (JT)

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A PRELIMINARY EXPLORATION OF OCCUPATIONS  
IN THE ARTS AND THE HUMANITIES

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COMPANION DOCUMENTS ALSO AVAILABLE IN THIS SERIES:

EXPLORING DANCE CAREERS: A STUDENT GUIDEBOOK

EXPLORING MUSIC CAREERS: A STUDENT GUIDEBOOK

EXPLORING THEATER AND MEDIA CAREERS: A STUDENT  
GUIDEBOOK

EXPLORING VISUAL ARTS AND CRAFTS CAREERS: A  
STUDENT GUIDEBOOK

EXPLORING WRITING CAREERS: A STUDENT GUIDEBOOK

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288 WAYS TO EXPLORE ARTS AND HUMANITIES CAREERS:  
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AN ANNOTATED BIBLIOGRAPHY OF SELECTED CURRICULUM  
MATERIALS IN THE ARTS AND HUMANITIES

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ARTS AND HUMANITIES OCCUPATIONAL CLUSTERS:  
A DISCUSSION OF CLUSTER REDEFINITION

"Exotic Dancers - Projected Nebraska Two-Year Need: 1060"

That bit of datum appeared in Occupational Opportunities in Nebraska, published in 1974 by the Nebraska Research Coordinating Unit for Vocational Education. Interestingly, every one of those 1060 exotic dancers is needed in a small four county region. The temptation is to send hordes of sociologists there to study the folkways and mores of Eastern Nebraska residents, or more soberly, to inquire of the Research Coordinating Unit about possible typographical errors.

Those exotic dancers exemplify two problems with which Technical Education Research Centers (TERC) staff has been grappling since the U.S. Office of Education sponsored project began in July, 1974. The first is one of defining and classifying, and the second is one of obtaining reliable data on occupations in the cluster.

In re-defining the Fine Arts and Humanities Cluster from its original U.S.O.E. design, several points were considered: a) Public Law 89-209; b) characteristics common to groups of occupations; c) the relationship of occupations within the original cluster; d) the relationship of this cluster to the other fourteen devised by the U.S. Office of Education; and e) the project goal for students - to broaden their career aspirations and help them make career choices based on the realities of the arts and humanities working world.

Definitional problems arose from the original title of the U. S. Office of Education scheme for the occupations under consideration, which included the word "fine" as a qualifier for "arts." While one might question whether an exotic dancer is an artist at all, there are very few people who would call an exotic dancer a "fine artist." Yet it is an economic fact of life that people do make a living as exotic dancers (a sign in a Bourbon Street, New Orleans, bar in December, 1974, advertized for "Go-Go Dancers" at \$200 a week), and it is economic reality that some fine arts dancers may subsist temporarily as exotic dancers. If exotic dancers, as an example, were to be excluded by a narrow definition of arts and humanities, our project goal of helping students make career choices based on accurate information about all aspects of a field could not be met, nor could the project goal of broadening students' career aspirations by acquainting them with a wide variety of jobs.

These examples of the economic realities explain our decision to drop the word "fine" from the title of the original cluster. "Fine arts" is simply too restrictive. Furthermore, Public Law 89-209, by referring to such fields as industrial design and tape and sound recording gives official support for our desire to broaden a definition of the arts beyond that implied by the use of the word "fine."

The Public Law, by creating a separate endowment for Arts and for Humanities, allowed TERC to explore a second point of departure from the original U.S.O.E. cluster scheme: the possibility of separating arts from humanities in presenting information about jobs. As we examined characteristics common to groups of jobs, and certain characteristics of the people who are central in those groups of jobs, we came to agree strongly with the thinking behind the Public Law's division. While one of the most appealing aspects of arts and humanities occupations is interrelatedness, there does exist a real distinction. In simplistic terms, the central people in humanities fields, (the teachers, researchers, analyzers, synthesizers and administrators) call heavily upon cognitive skills. The central people in the arts (the creators and performers) rely more heavily on affective and psychomotor skills. Supporting this distinction is educational custom. Commonly, preparation for humanities occupations requires a baccalaureate degree as a minimum; advancement usually requires higher degrees. In the arts, while many performers, creators and others working in relation to them do obtain at least a baccalaureate degree, (often primarily because they must supplement their performing or creating income through teaching, for which this kind of degree is required), it is quite possible to enter and advance in arts occupations with specialized school training or private instruction. Job advancement in the arts does not depend on acquiring advanced degrees.

This consideration of common skills required and common pathways to obtaining and advancing in jobs was the major factor in our decision to split the original U.S.O.E. cluster in two. Our next consideration, the relationship of jobs within the two clusters, led to decisions regarding disciplines or fields for the arts and major job families in the humanities.

Commonalities of activity, setting, and competencies, as well as traditional classifications, permitted us to establish six arts disciplines: dance, media (television, film, and radio), music, theater and entertainment, visual arts, and writing. The occupations within the total arts cluster were then grouped into components which exist in the working world:

1. introducing the central concept of creation, performance;
2. applying or producing the concept which was created; producing the performance;
3. providing business services to give the concept financial support;
4. providing educational services to make the concept available to and understood by a larger public.

As Chart I shows, these four components operate for all six of the arts fields, although with some specific variations in application and production. This over-all scheme also shows that jobs and fields are interrelated. In dance, for example, choreographers and dancers are essential, but musicians and designers may also be a necessary ingredient of the central performance concept. Producing a performance requires the same kinds of jobs for dance, music, theater, and media. Architects and environmental designers are essential in the central concept of creation, and also in the application of that concept. The person with writing skills could be occupied at one time or another in each of the components of the working world of the arts. These examples of interrelatedness of the six arts fields and four working components point up the complexities of redefining the arts Cluster.

Chart 1

WORKING WORLD OF THE ARTS

I. Performance, Creation

A. Dance

1. Choreographers
2. Dancers
3. Musicians
4. Designers

B. Media (Television, Film, Radio)

1. Actors
2. Announcers
3. Directors
4. Producers
5. Dancers
6. Musicians
7. Designers
8. Writers
9. Artists

C. Music

1. Instrumentalists
2. Vocalists
3. Conductors
4. Composers
5. Dancers
6. Designers (opera)

D. Theatre and Entertainment

1. Actors
2. Entertainers
3. Directors
4. Producers
5. Writers
6. Designers
7. Dancers
8. Musicians

E. Visual Arts

1. Fine Artists
2. Craftspersons
3. Commercial artists
4. Architects and environmental designers
5. Photographers

F. Writing

1. Literary writers
2. Journalistic writers
3. Specialized writers

II. Production and Application

A. For Dance, Music, Theater, Music, Television, Film

1. Production management
2. Camera, lights, sound, other technical equipment
3. Performance recording
4. Stage set, properties
5. Costumes, hairstyles, make-up
6. Musical technical services

B. For Visual Arts

1. Visual communications
2. Product design
3. Environmental design
4. Crafts
5. Technical services

C. For Writing

1. Editing
2. Production management
3. Technical printing services

III. Business

- A. Arts Business Management
- B. Sales, Promotion, Exhibition
- C. Professional Associations and Organizations
- D. Publishing
- E. Musical Instrument Building
- F. Recording Industry
- G. Legal and Financial Services

IV. Education

- A. Teaching
- B. Community Arts Services (museums, libraries, cultural affairs)
- C. Therapy
- D. Writers, Researchers about Arts Fields
- E. Government Services

Redefining the humanities cluster was an even more complex task. Chart 2 indicates our definition of humanities fields and major job families; the definition was achieved after extensive deliberation with those members of the Project Advisory Committee whose specialty is one of the humanities. As the following discussion indicates, additional processes were involved in arriving at a definition of the humanities cluster which will most effectively serve the project goals.

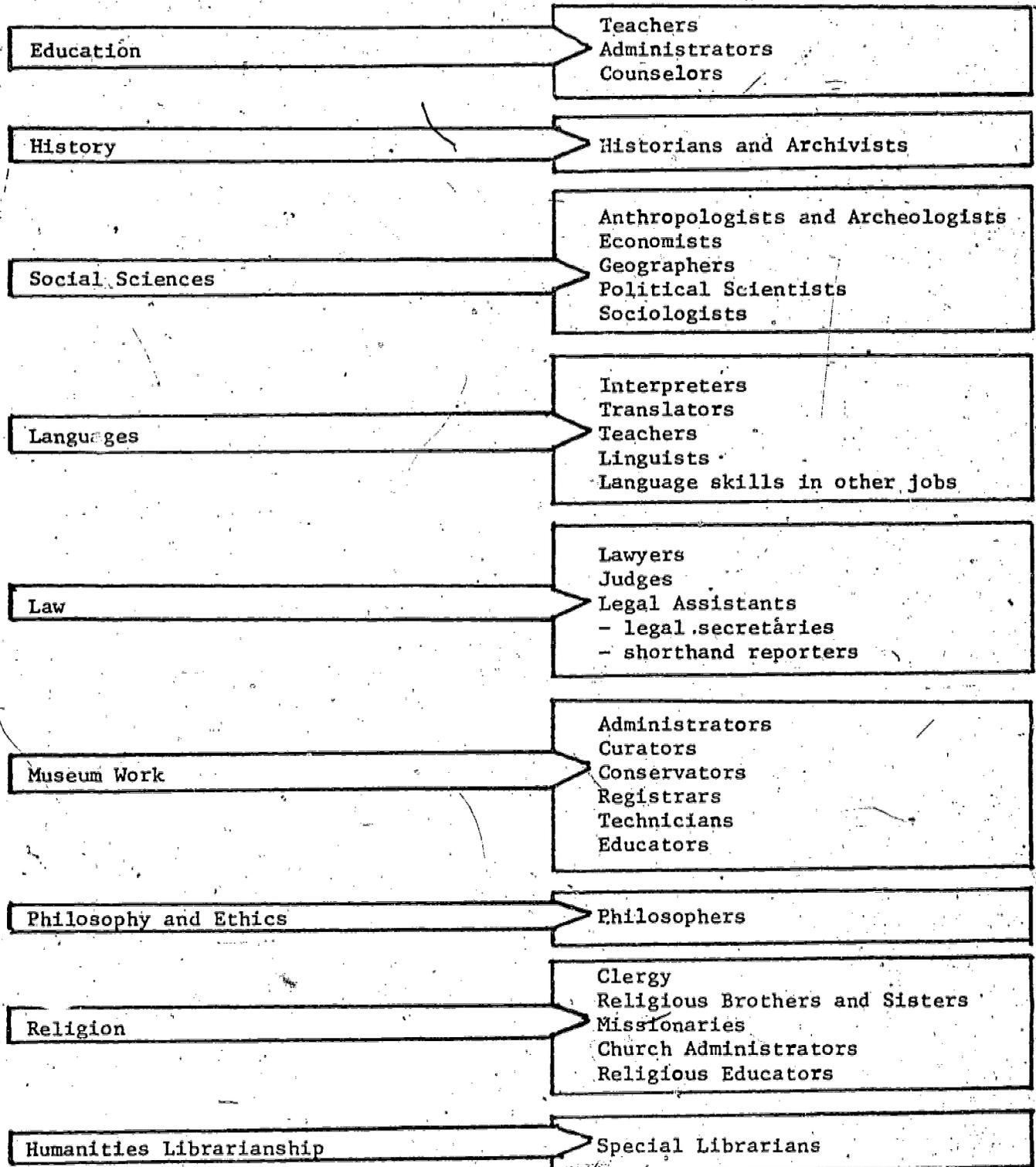
The definition of the humanities sub-cluster developed by U.S.O.E. in April, 1971, included only creative writing, languages and history. As this definition seemed too narrow for the purpose of TERC's project, the humanities group of the Advisory Committee was presented with a broader list of tentative fields. They were: history, anthropology, sociology, psychology, political science, economics, geography, literature, languages, linguistics, philosophy, religion, ethics, and jurisprudence. The first reaction of the members in academic occupations was that the definition should be "intellectually clean" -- humanities should be limited to those fields or subjects that involve valuing. This would have meant the exclusion from the tentative list such fields as sociology, political science, economics, geography, psychology, and linguistics.

However, this intellectually acceptable definition was at variance with the Act of Congress which established the National Endowment for the Humanities and defined humanities "as including (but not exclusively) the following: language, both modern and classical; linguistics; literature; history, jurisprudence; philosophy; archeology; comparative religion; ethics; the history, criticism theory and practice of the arts; those aspects of the social sciences which have humanistic content and employ humanistic method; and the study and application of the humanities to the current conditions of the national life."

HUMANITIES OCCUPATIONAL CLUSTER

As suggested by Public Law 89-209 which established the National Endowment for the Humanities

--Chart 2



In response to the Public Law definition, the Advisory Committee suggested defining humanities as those fields not funded by the National Science Foundation. However, this guideline would result in such anomalies as including archeology but not anthropology.

The Advisory Committee then began to consider what definition would be most useful to students. It was pointed out that the occupational information would be taught in already existing high school courses, which, for the humanities, would presumably be courses in English, foreign languages, and social studies. Furthermore, the Advisory Committee and project staff felt strongly that they wanted to expose students to as many occupations as possible and thus wished to avoid too narrow a definition of the humanities, even though some overlap with other occupational clusters might result.

It was then suggested that perhaps one way to overcome the intellectual objections to the inclusion of the social sciences and other fields, such as psychology and jurisprudence, not generally regarded as part of the humanities, was to use the term "social studies" as an umbrella term including many of these fields. This seemed to remove the last stumbling block and the final recommendation of the Advisory Committee was that humanities be defined as including occupations in the following areas: languages; literature; social studies, which would include history, all the social sciences (political science, economics, geography, anthropology, and sociology), psychology; jurisprudence; and religion, philosophy, and ethics.

However, after the Advisory Committee meeting, TERC's humanities specialist found it necessary to modify this definition somewhat. To begin with, the implication at the meeting was that humanities would include occupations from the following categories in the Dictionary of Occupational Titles:

045 (Psychology); 050 (Economics), 051 (Political Science), 052 (History), 054 (Sociology), 055 (Anthropology), 059 (Other Social Science); 090 (College and University Education), 091 (Secondary School Education, 092 (Primary School and Kindergarten Education), 094 (Education of the Handicapped), 099 (Other Education); 100 (Librarians), 101 (Archivists), 102 (Museum Curators); 110 (Lawyers), 111 (Judges), 119 (Other Legal); 120 (Clergy), 129 (Religious Workers); 130 (Freelance Writers), 132 (Writers and Editors for Publications), 137 (Interpreters and Translators), 139 (Other Writers); 195 (Social and Welfare Work). It became apparent, however, that not all the D.O.T. jobs -- especially many in education, library science, and museum work -- would fit into the fields recommended by the Advisory Committee. Project Staff then raised questions about the recommended fields themselves. In particular, there were reservations about including psychology; the clinical practitioner might consider his or her work an "art," but most professionals in psychology emphasize scientific methodology. A third problem concerning the Advisory Committee recommendations is that there were many potential overlaps or gaps with other occupational clusters, particularly public service, which ostensibly dealt with education, library, museum, judicial and social work occupations. However, the public service cluster is defined as dealing with those occupations "usually supported by tax revenues"<sup>1</sup> and as a result the curriculum covers judges, but not lawyers. Furthermore, although public service covers library occupations to some extent, the project did not deal with museums, since staff decided that the requirements, opportunities, and salaries in this field overlapped those in education and library science.<sup>2</sup> In the field of education, the public service curriculum deals just with teaching and only on the elementary level.

<sup>1</sup> California State Department of Education, "Orientation to Public Service Occupations: Career Education Curriculum Guide," p. xiii.

<sup>2</sup> Ibid., pp. 87-88.

The resolution of all these considerations was to make some modifications in the Advisory Committee's recommended definition of humanities. Education was added as a separate field, in part to avoid having to repeat the same teaching positions in each of the other fields and in part to cover educational occupations, especially teaching on the secondary and college level and administration, which are not dealt with by the public service cluster. As a result appropriate occupations were included from the 166 (Personnel and Training Administration) category in the Dictionary of Occupational Titles. The emphasis in the materials will be on secondary and post-secondary education occupations, rather than elementary. Museum work was also added as a separate field. On the other hand, psychology was deleted and with it most counseling occupations, except those in education. Because they are based on psychology and covered to a large extent in the public service materials, social work occupations were also omitted. Except for special librarians in the various fields, e.g., music librarians, law librarians, etc., library occupations were omitted, partly because the public service materials cover these jobs, and partly because they do not require a humanities background. Legal occupations were retained, but since the emphasis will be on lawyers and related occupations, it was decided to call the field "law" rather than "jurisprudence." In keeping with the Congressional definition of the humanities, history and criticism of the arts was added as a separate field ("practice of the arts" is included in the arts cluster). The final modification was, while retaining literature in the humanities, to include "writing" as a field within the arts cluster. While writing skills are called upon by many practitioners of humanities occupations, writing as a creative endeavor is more closely allied to other arts disciplines. Therefore, as it now stands, the humanities cluster is defined

as including occupations in the following fields: languages; literature; history and criticism of the arts; history; social sciences (political science, economics, geography, sociology and anthropology including archeology); law; religion; philosophy and ethics; education; museum work; and humanities librarianship.

The Choice of Particular Jobs for Each Cluster

Choosing particular jobs to include in these newly defined clusters caused project staff first to look closely at the other fourteen U.S.O.E. clusters. As Chart 3 reveals, there is potential overlap with every other cluster except for transportation, but we decided to ignore this overlap, because broadening career aspirations for students necessitated going beyond the occupations originally assigned to arts and humanities. Further, in clusters where the overlap is great (communications media, recreation and hospitality, and public service, for instance) the funded curriculum development projects have defined their clusters in a way that excludes certain jobs which we consider germane to arts and humanities. We concluded that students will receive greater benefit from being allowed to explore the same job or group of jobs in more than one curriculum than to miss becoming acquainted with some jobs altogether, and indeed are troubled by possible gaps more than by duplication.

In selecting jobs to include in either cluster, we began with the 36,000 defined titles in the Dictionary of Occupational Titles (D.O.T.), but have added jobs which exist in the working world if not in the D.O.T., and have excluded some job titles which do not seem relevant. "Mermaid" (merperson?) in entertainment; "delineator I" in graphic arts; "bellyman," "flyfinisher," "headtucker" in musical instrument building -- are the kinds of jobs which either no longer provide much employment opportunity, or are highly specific aspects of assembly-line production.

This latter distinction was particularly important in selecting crafts jobs. In recent times the hand-making of objects with a utilitarian function

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\* Unfortunately, data from the revision process of the D.O.T. can not be made available by the Department of Labor until publication of a thoroughly revised edition of the D.O.T.

Chart 3

The Arts and Humanities Clusters as They  
Overlap with Other Career Clusters

The following is a list of jobs cited in the Career Clusters (as defined by the U.S. Office of Education) which overlap either directly or indirectly with the Jobs in the Arts and Humanities Cluster. Overlap exists among the arts and humanities cluster and 13 of the other 14 clusters. The only cluster with no apparent overlap is Transportation.

The need for communication skills (writing, editing, speaking) is stressed in all clusters.

1. Business and Office Occupations

Mining and Quarrying - Exploration - Seismographic  
- Photo-Grammetric

Production - Horticultural Products - Landscaping

2. Business and Office Occupations

(communication skills in general)

3. Communication and Media

Publishing - Graphic Arts - Printing Processes  
- Silk Screen Making and Printing  
- Bookbinding

Publishing - Journalism - Creative Writing  
- Reporting  
- Editing  
- Publication

Publishing - Commercial Art - Illustration  
- Animation  
- Layout Processes

Audio Visual - Photographic Reproduction - Lithography and Photography  
- Plate Making

Audio Visual - Recording - Industrial Electronics Systems  
- Audio Systems

Language - Signs/Symbols, Design, Production - Sign Painting  
- Drafting/Illustration  
- Advertising  
- Servicing/Fabrication

Language - Equipment Design, Production - Research and Development

Broadcasting - Radio/Television - Broadcasting, Radio and TV Announcing

4. Construction

Design - Architectural - Residential  
- Commercial  
- Industrial  
- Landscape

Design - Civil

Contracting - Crafts - Masonry  
- Metal  
- Wood  
- Glass and Plastic

Interior - Design - Layout  
- Illustration

Interior - Decoration - Painting, papering  
- Draperies  
- Decor

Interior - Furnishings - Furniture  
- Floor Covering  
- Lighting Fixtures

5. Consumer and Homemaking Education

Clothing, Apparel and Textile Industry - Design - Creating and Designing Garments  
- Patternmaking

Housing Design, Interior Decoration - Design & Decoration - House Designing  
and planning  
- Interior Decoration  
- Counseling on House  
Design & Decoration

6. Environment

Developments and Control of Physical  
Man-Made Environment - Ornamental Horticulture - Design & Culture of Land Covers  
- Design & Culture for Stabilizers  
- Design & Culture for Beautification  
- Design & Culture for Behavioral  
Control to Maintain Open Space.

7. Health Occupations

Mental Health, Mental Illness & Retardation - Psychiatric Services - Therapy

8. Hospitality & Recreation (Tourism)

Environment Management - Recreation & Planning - Design, Landscaping

Human Development - Education - Museums & Libraries  
- Recreation Activities Instruction

Human Development - Arts - Graphic  
- Performing  
- Fine  
- Social  
- Photographic

Human Development - Humanities - Celebrators, Festivals, Fairs  
- Special Cultural Programs (Indian, Black, Youth etc.)  
- Language Development  
- Historic Preservation/Interpretation  
- Creative Writing

Human Development - Movement - Physical Recreation Programs  
- Children's Games

Mobility - Media Utilization - TV & Radio  
- Mass Media

Mobility - Space - Urban Open Space Design

Health Care - Counseling - Avocational Counseling

Health Care - Therapy - Therapeutic Recreation  
- Correctional Recreation

9. Manufacturing

Design - Product - Packaging

Distribution - Advertising - (Product Promotion)

10. Marine Science

Marine (Oceanographic) Exploration - Ocean Current and  
water Research - Aerial Photographic  
Monitoring

11. Marketing & Distribution Occupations

Marketing Systems - Service Trades - Travel, Recreation & Entertainment

Sales Promotion - Advertising - Media  
- Organization

Sales Promotion - Display - Display Houses  
- Windows & Interiors

12. Personal Services

- Cosmetology - Theatrical & Television Make-up - Characterization Analysis  
- Selecting an Application of Make-up for Specific Medium  
- Make-up Technology  
- Maintaining Products & Supplies

13. Public Service

- Education - Instruction - Teaching  
- Counseling  
- Supervision  
- Support Activities

- Parks & Recreation - Services - Amusement  
- Recreation

14. Transportation

No obvious overlap.

has become a viable method of earning a living; persons who are hand-crafting objects in some cases consider themselves fine artists, and are being recognized as such through museum and gallery exhibits. Crafts is thus an important part of the visual arts field. However, the word "crafts" also has an industrial denotation, and many of the crafts jobs listed in the D.O.T. are clearly assembly-line types of jobs. Crafts jobs in the arts cluster refer only to those jobs which produce a hand-made product or a prototype design for industrial production.

The rationale for choosing jobs in both arts and humanities always related to the project goal of broadening students' career aspirations. With the listing of particular jobs in each arts field and humanities job family, we want students to realize that starting either from particular competencies or a keen interest in a given field it is possible to work in a broad range of tasks, of larger functional areas, such as business or education, and of settings. In the arts, we attempted to be consistent by selecting those jobs which have a clear relationship to the central idea of creation; there is inconsistency in that makers of musical instruments are included (except for assembly-line tasks) while makers of print-making equipment or manufacturers of stage lighting equipment, as examples, are not listed. Such an inconsistency can be excused primarily because production of many musical instruments is enhanced by music competencies and crafts competencies on the part of the worker. In humanities, we felt that the job titles themselves reveal very little to most students about some of the functions performed (this is also true of some of the arts job titles, but the arrangement according to "performance," "production," "business," and "education" helps to clarify the function). In the humanities, by showing the main functions performed in each job, the job list should add immediately, even if

cursorily, to students' understanding of humanities occupations. Including functions assisted in broadening the selection of humanities occupations for the list.

Choosing and arranging particular arts and humanities occupations thoughtfully was a beneficial prelude to obtaining specific information about jobs. The complete list of arts jobs, with D.O.T. numbers if existing, is attached to this report. The jobs are arranged within each of the six fields according to the four working world components. If a career ladder exists in a particular group of jobs, the jobs are listed in descending order and are so marked. Those jobs which do not customarily require formal education beyond high school are check-marked.

The attached complete list of humanities jobs also includes existing D.O.T. numbers. This list indicates the functions usually performed in each job, the level of preparation generally necessary to obtain the job, and whether the job provides an opportunity for part-time employment. The jobs are arranged according to humanities fields and job families within each field.

DANCE

Formal Education  
Beyond High School  
Not Customarily  
Necessary -

D.O.T. Number

I. Performance and Creation

A. Choreographers

151.028

- 1. Ballet
- 2. Modern dance
- 3. Jazz dance
- 4. Theater
- 5. Film
- 6. Television
- 7. Night clubs
- 8. Folk dance ensemble

B. Dancers

151.048

- 1. Ballet
- 2. Modern
- 3. Jazz
- 4. Popular
- 5. Theater
- 6. Film
- 7. Television
- 8. Night club entertainers

C. Dance Notators

- 1. Notator
- 2. Reconstructor
- 3. Autographer

D. Musicians

152.048

E. Designers

142.081

- 1. Stage scenery designer
- 2. Lighting designer
- 3. Costume designer

II. Production and Application

A. Production Management - Manager, Dance Company

B. Camera, Lights, Sound

C. Stage Set, Properties

D. Costumes, Hairstyles, Makeup

III. Dance Business

A. Arts Business Management: concert management

B. Sales

- 1. Manager, dance studio 187.168
- 2. Salesperson, dancing instruction 259.358

C. Professional Associations and Organizations

D. Legal and Financial Services

IV. Dance Education

A. Teaching 151.028

- 1. School, college
- 2. Private studios
- 3. Folk dance societies
- 4. Ballroom studios

B. Community Arts Services

- 1. Library Services - Bureau of Dance notation

C. Dance Therapy

- 1. Hospitals
- 2. Clinics
- 3. Correctional institutions

D. Writers and Researchers

- 1. Dance critics
- 2. Dance historians

E. Government Services

- 1. State and regional councils on the arts
- 2. City officers of cultural affairs

THEATER AND MEDIA

Formal Education  
Beyond High School  
Not Customarily  
Necessary -

D.O.T. Number

I. Performance (descending within each category)

A. Actors

Actor	150.048
Double	961.868
Stand-in	961.868

B. Entertainers

Comedian	159.048
Magician	"
Puppeteer	"
Mime	"
Dramatic Reader	150.048
Story Teller	"
Master of Ceremonies	159.048
Impersonator/Mimic	"
Hypnotist	"
Ventriloquist	"
Model	297.868
Photographer's Model	"
Artist's Model	961.868
Barker	342.858
Show "girl"	159.848

Circus Performers

Clown	159.048
Acrobat	159.248
Aerialist	"
Juggler	159.348
Thrill Performer	"
Ringmaster	159.368
Stunt Person	
Fire Eater	159.348

C. Newspeople/Announcers

Broadcast Journalist	131.068
Announcer	159.148
Specialized television reporters	963.168
Sportscaster	159.148
Disc Jockey	"

D. Directors. 159.168

II. Writers and Script People

A. Playwrights

B. Scriptwriters

Screenplay Writer	131.088
Continuity Writer	131.038
Scenario Writer	"
Gag Writer	131.088
Title Writer	"
Reader	"
Script Clerk	969.368
Script Assistant	963.368

III. Designers and production people

A. Designers

Scene Designer	142.081
Costume Designer	
Lighting Designer	
Sound Designer	
Art Director (motion picture)	149.031

B. Backstage Theater

Technical Director	
Stage Manager	
Assistant Stage Manager	

Master stage carpenter		✓
Stage settings painter		✓
Grip (stagehand)	964.884	✓
Fly person	964.887	✓
Curtain person		✓
Rigger	962.887	✓
Circus supervisor	964.138	
Property master	962.138	
Property person	962.887	✓
Prop maker	969.281	✓
Costumer	969.261	
Wardrobe Mistress	346.878	✓
Dresser (wardrobe attendant)	"	✓
Master electrician	824.381	
Lights operator	964.781	✓
Master sound technician	194.282	✓
Sound person	"	✓
Make-up person	333.271	✓
Hair stylist	332.271	✓
C. Media Production		
Technical director		
Stage manager		
Camera person	143.062	
Motion picture equipment foreman	962.132	
Motion picture projectionist	960.382	
Film editor	962.288	
Film technician	976.131	
Vault custodian	223.138	
Film clerk	223.387	
Film assistants	976.588	
Special effects person	962.281	

Master carpenter		
Set decorator	142.051	
Painter	840.381	✓
Greens person	962.884	✓
Grip	962.884	✓
Rigger	962.887	✓
Stage/production person	963.168	✓
Property master	962.138	
Property person	962.887	✓
Prop maker	969.281	✓
Shopper	962.158	✓
Property custodian	223.387	
Costumes Supervisor		
Dresser	346.878	✓
Wardrobe attendant	346.878	✓
Gaffer	962.132	
Studio electrician	824.884	
Lights technician	962.381	
Sound effects person	194.281	
Recordist	962.782	✓
Mixer	194.282	
Re-recording mixer	976.381	
Cutter		
Engineer	963.382	
Playback person	194.382	
Mike operator	963.782	✓
Microphone boom operator	962.884	✓
Audio operators		
Make-up supervisor	333.271	
Hair stylist	332.271	

IV. Business

A. Producers

Producer	187.168
Executive Producer	"
Associate Producer	"
Assistant Producer	"

B. Theater Businesspeople and Managers

General (business) manager	191.118
Production (company) manager	
Publicity director (Public relations manager)	
Press agent (assistant)	
Advance press agent	
Theater manager	187.168
House Manager	"
Box office treasurer	
(Head) usher	344.878
Ticket taker	344.868

C. Television and Radio Directors

Program department director	
Production manager	
News director	
Program (production) assistant	
Public affairs director	
General (station) manager	
Business manager	
Copyright expert	963.288

D. Agents and Salespeople

Literary agent (and script rental agent)	191.118
Personal manager (business agent)	191.118
Booking agent	"
Ticket broker	259.158
TV-Radio Time Salesperson	
Sales manager	
Traffic manager	

V  
V

V. Education

A. Teachers and Librarians

- |   |         |
|---|---------|
| 1. College or university faculty member | 090.228 |
| 2. Secondary school teacher             | 091.228 |
| 3. Elementary school teacher            | 092.228 |
| 4. Adult/community education teacher    | 099.228 |
| 5. Private acting teacher               | 150.028 |
| 6. Film librarian                       | 100.168 |

B. Writers about Theater and Media

- |   |         |
|---|---------|
| 1. Critic   | 132.088 |
| 2. Research/dissertation writer                         |         |
| 3. Instructional writer                                 |         |
| 4. Theatrical biography writer                          |         |
| 5. Research director (motion picture technical advisor) | 052.088 |
| 6. Historian  | 052.168 |

MUSIC

D.O.T. Number      Formal Education  
Beyond High School  
Not Customarily  
Necessary - ✓

I. Performance and Creation

A. Instrumentalists      152.048

1. Solo performers

- a. Concert
- b. Television, radio
- c. Recording studio
- d. Night club
- e. Special events

2. Accompanists

- a. Recitals
- b. Choral concerts
- c. Opera rehearsals
- d. Ballet rehearsals
- e. Dance classes
- f. Music shows, music theater
- g. Night club
- h. Television, radio
- i. Recording studio

3. Orchestral and Band Musicians

- a. Symphony
- b. Theatre
- c. Ballet
- d. Opera
- e. Popular bands and groups ✓
- f. Recording studio
- g. Radio, television
- h. Chamber music ✓
- i. Armed forces bands

4. Organists and other Church Musicians

- a. Organists (pipe and electric)
- b. Minister of music
- c. Other instrumentalists (special performances) ✓
- d. Carillon

B. Vocalists 152.048

1. Soloists

- a. Concert
- b. Chamber music
- c. Opera
- d. Music theater, music show
- e. Church soloist
- f. Popular vocalist

✓  
✓

2. Ensemble

- a. Opera chorus
- b. Music theater chorus
- c. Chamber singers, madrigal
- d. Professional chorus
- e. Church choir

C. Conductors 152.048

- 1. Symphony and chamber orchestra
- 2. Ballet
- 3. Opera
- 4. TV and Radio
- 5. Schools, colleges, universities
- 6. Civic musical organizations
- 7. Popular bands
- 8. Armed forces bands

✓

D. Composers 152.088

1. Composers

- a. Symphonic, chamber, opera
- b. Popular song
- c. Commercial jingle
- d. Motion picture
- e. Music theatre
- f. Music for teaching

✓

---

2. Arrangers 152.288

- a. Orchestrators "
- b. Copyists 152.588

3. Librettists 139.088

4. Lyricists 130.088

E. Dancers

- 1. Ballet dancers in opera
- 2. Chorus dancers in music theater
- 3. Dancer in night club reviews

F. Designers in Opera and Ballet

142.081

- 1. Scene
- 2. Costume
- 3. Lighting

II. Production and Application

A. Production - Performance Management

- 1. Symphony orchestra managers
- 2. Chorus managers
- 3. Stage managers

964.158

B. Sound, Lights, Technical Equipment Operators

- 1. Acousticians
- 2. Sound equipment operators
- 3. Light show operators
- 4. Lighting engineer

194.282

824.381

C. On Site Recording and Broadcasting

- 1. Broadcast director
- 2. Broadcast engineer
- 3. Camera person
- 4. Announcer
- 5. Recording engineer

143.062

159.148

962.138

Studio Recording

- 1. Record producer
- 2. Artist and repertoire person
- 3. Recording engineer
- 4. Sound person
- 5. Sound mixer
- 6. Sound and lab engineer
- 7. Recording machine operator
- 8. Microphone operator
- 9. Dubbing machine operator

962.138

194.282

976.381

194.782

963.782

962.885

D. Stage Set, Properties

- 1. Opera
- 2. Ballet
- 3. Musical comedy

E. Costumes, Hairstyles, Makeup

1. Opera
2. Ballet
3. Musical comedy

F. Musical Technical Services

1. Acousticians
2. Instrument Building and Maintenance

a. Customarily hand-crafted acoustic instruments

- |                     |         |   |
|---------------------|---------|---|
| (1) Fretted string  | 730.281 | ✓ |
| (2) Harp            |         | ✓ |
| (3) Harpsichord     |         | ✓ |
| (4) String (violin) |         | ✓ |
| (5) Brass and Wind  |         | ✓ |

b. Music instrument repair

c. Instruments customarily produced in factories

- |  |         |   |
|--|---------|---|
| (1) Accordion                            | 730.281 | ✓ |
| (2) Pipe organ builder, installer, tuner |         | ✓ |
| (3) Brass and wind instruments           |         | ✓ |
| (4) String instruments                   |         | ✓ |
| (5) Pianos                               |         | ✓ |
| (6) Percussion instruments               |         | ✓ |
| (7) Fretted instruments                  |         | ✓ |

d. Electronic musical instruments 730.281

- (1) Synthesizer
- (2) Electronic organ
- (3) Electric guitar
- (4) Electric piano
- (5) Electric versions of other instruments

---

3. Piano tuners, organ tuners 730.381

G. Publishing

- |                   |         |
|-------------------|---------|
| 1. Publisher      |         |
| 2. Music editor   |         |
| 3. Proof reader   |         |
| 4. Music grapher  | 970.381 |
| 5. Music engraver | "       |
| 6. Music copyist  | 152.588 |

III. Music Business

- A. Arts Business Management: Concert Management 191.118
  - 1. Concert manager
  - 2. Booking agent
  - 3. Business agent
  - 4. Hiring contractor
  
- B. Sales, Promotion 287.358
  - 1. Salesperson, musical instruments and accessories
  - 2. Sales person, sheet music
  - 3. Sales person, recordings, tapes
  
- C. Professional Associations and Organizations
  
- D. Publishing
  
- E. Instrument Manufacture
  
- F. Recording Industry
  
- G. Legal and Financial Services
  - 1. Music copyright lawyers
  - 2. Copyright experts 963.288
  - 3. Performing and broadcast rights organizations

IV. Education

- A. Teaching
  - 1. Public School
    - a. Supervisor 091.168
    - b. Director 152.028
    - c. Teacher "
  
  - 2. College, conservatory "
  - 3. Community music school "
  - 4. Private studio/ "
  - 5. Music store "

B. Community Arts Services

1. Museum Services

Curator, historical instrument collection

2. Library Services

- a. Institutions (public, university) 100.388
- b. Performing organization
- c. Music theater
- d. Opera

3. Community Cultural Affairs Coordinator

C. Music Therapy 079.128

- 1. Hospitals
- 2. Clinics
- 3. Correctional institutions

D. Writers about Music

- 1. Musicologists
- 2. Music critics 139.088
- 3. Program annotators 130.088
- 4. Album note writers "

E. Government Services

- 1. State and local councils on the arts
- 2. City office of cultural affairs
- 3. Program monitor

VISUAL ARTS

Formal Education  
Beyond High School  
Not Customarily  
Necessary -

D.O.T. Number

I. Commercial Art: Visual Communications

A. Illustration

- 1. Illustrator
- 2. General Illustrator
- 3. Technical Illustrator
- 4. Fashion Artist 141.081
- 5. Cartographer
- 6. Cartoonist (printed media) 144.081
- 7. Colorer 970.884
- 8. Medical Illustrator 141.081
- 9. Calligrapher 970.381
- 10. Court room artist
- 11. Cartoonist, motion picture, TV 144.081
- 12. Scenic artist 144.081
- 13. Architectural renderer

B. Graphic design

- 1. Graphic designer
- 2. Production manager, advertising 141.161
- 3. Director, art 141.031
- 4. Book designer
- 5. Cover designer 141.081
- 6. Typographer
- 7. Layout person 141.081
- 8. Paste-up person
- 9. Mechanicals person 141.081

C. Printing process

- 1. Printer 979.081
- 2. Compositor
- 3. Lithographer 971.281
- 4. Etcher 704.884
- 5. Silk screen printer 979.381
- 6. Screen maker, photographic process 971.381
- 7. Photoengraver "
- 8. Engraver 979.281
- 9. Music grapher 970.381
- 10. Stripper
- 11. Color separator

D. Displays and Signs

1. Manager, displays	142.031
2. Display designer	142.081
3. Display artist	142.081
4. Director, merchandising display and specialties department	164.168
5. Display person	298.081
6. Display assembler	739.381
7. Sign designer	142.081
8. Diorama model maker	739.381
9. Sign painter	970.381
10. Sign writer, hand	970.081

✓  
✓  
✓  
✓  
✓

E. Photography

1. Photographers

a. Photographer	
b. Photographer, news	143.062
c. Photographer, commercial	"
d. Photographer, portrait	
e. Photographer, I.D. bureau	143.382
f. Photographer, scientific and biological	143.282
g. Photographer, aerial	
h. Photographer, finish	
i. Photographer, street	143.858
j. Photo researcher	
k. Photographer, photoengraver	971.382
l. Photographer, lithographer	972.382

✓  
✓

2. Photo-Technicians

a. Photo technician	
b. Film developer	976.782
c. Copy camera person	979.381
d. Photo finisher	976.886
e. Negative cutter & spotter	976.884
f. Photo checker and assembler	976.687
g. Photograph retoucher	970.281
h. Colorist, photography	970.381

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

II. Commercial Art: Product Design

A. Industrial Design

1. Industrial designer	142.081
2. Commercial designer	142.081
3. Model maker	149.281
4. Package designer	
5. Industrial renderer	
6. Patternmaker	781.381
7. Sample maker	700.281
8. Model builder	709.781
9. Designer with specialties in	
a. furniture	142.081
b. cabinetry	660.280
c. fixtures	142.081
d. metalwork	142.081
e. musical instruments	
f. jewelry and flatware	142.081
g. glassware	
h. tile	142.081
i. toys	142.081

B. Textile and Fashion Design

1. Textile designer	
2. Cloth designer	142.081
3. Screen printer	979.884
4. Clothing designer: also in fur, hats, shoes, handbags	142.081 784.884
5. Copyist	142.081
6. Master tailor	785.261
7. Dressmaker	785.361
8. Wallpaper designer	141.281
9. Carpet designer	

III. Commercial Art: Environmental Design

A. Architecture

1. Architect	001.081
2. Draftsperson, architecture	001.281
3. Renderer, architecture	970.281
4. Architectural modeler	149.281

B. Landscape Architecture

- a. Landscape Architect 019.081
- b. Draftsperson, landscape 019.281

C. Environmental Designer

- a. Urban planners 199.168

D. Interior Designer

- a. Interior designer 142.051
- b. Color expert 141.051
- c. Stage set designer 142.081
- d. Miniature set designer 142.081

IV. Fine Art

A. Fine Artists

1. Two-Dimensional Art

- a. Painter 144.081
- b. Draftsperson
- c. Muralist
- d. Photographer
- e. Printmaker
- f. Calligrapher

2. Three-Dimensional Art

- a. Sculptor 148.081

3. Other "Mixed" Media Art

- a. Experimental materials artist
- b. Independent film maker
- c. Computer artist
- d. Media artist
- e. Experimental artist

B. Craftspersons

1. Craftsperson in:

- a. Wood
- b. Clay
- c. Leather
- d. Stone
- e. Plastic
- f. Horn/bone/shell
- g. Fiber
- h. Glass
- i. Metals
- j. Print
- k. Miscellaneous/combined materials
- l. Miscellaneous/other materials

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

V. Crafts

A. Hand Crafts/Craftspersons and Designers

1. Wood Design

- a. Cabinet maker 660.280
- b. Woodcarver 761.281
- c. Boatbuilder 860.381
- d. Wood sculptor
- e. Instrument maker

✓  
✓  
✓  
✓  
✓

2. Clay Design

- a. Ceramicist
- b. Potter
- c. Tile designer 142.081

✓  
✓  
✓

3. Leather Design

- a. Leather worker 789.884
- b. Leather seamstress, custom
- c. Shoemaker, custom 788.381
- d. Sandal and belt maker
- e. Saddle and harness maker 789.781

✓  
✓  
✓  
✓  
✓

4. Stone Design

- a. Sculptor 771.381
- b. Carver 771.281
- c. Worker

✓  
✓  
✓

5. Plastic Design

- a. Sculptor
- b. Jeweler

6. Horn/Bone/Shell Design

- a. Carver
- b. Jeweler
- c. Scrimshaw artist

7. Fiber Design

- a. Weaver
- b. Basket maker
- c. Spinner
- d. Dyer
- e. Needleworker
- f. Quilt maker
- g. Fabric printer
- h. Macramaist
- i. Non-loom fiber worker
- j. Rug maker
- k. Custom seamstress

769.884

8. Glass Design

- a. Glass blower
- b. Glass decorator
- c. Stained glass worker
- d. Mosaicist

772.281  
 775.281  
 142.081  
 779.781

9. Metal Design

- a. Silversmith (goldsmith)
- b. Jeweler
- c. Metal sculptor
- d. Blacksmith
- e. Enamelist

740.864

10. Printmaking

- a. Bookbinder, hand
- b. Small press printer

11. Miscellaneous/Combined Materials	700.381	✓
a. Bead maker		✓
b. Toy maker		✓
c. Crafts tools designer		✓
12. Miscellaneous/Other Materials	142.081	✓
a. Floral designer		✓
b. Candlemaker		✓
c. Paper craftsperson		✓
d. Decoupage worker		✓
B. Technical Services, Fine Art	739.884	✓
1. Picture framer	"	✓
2. Mat cutter		✓
3. Fine art printer		✓
VI. Art Education		
A. Teaching		
1. Faculty member, college or university	090.228	
2. Teacher, secondary school	091.228	
3. Teacher, elementary school	092.281	
4. Teacher, kindergraten	092.228	
5. Teacher, nursery school	359.878	
6. Teacher, visiting	099.208	
7. Instructor, vocational training	097.228	
8. Director, Art department		
9. Teacher, adult education	097.228	
10. Director, vocational training	097.118	
11. Director, special education	094.118	
12. Art supervisor		
13. Educational specialist		
14. Instructor, on-the-job training	159.228	

### Settings

It is impossible to list teaching jobs by subject, as every skill, and every possible combination and permutation of skills which appear in these listings, can conceivably be taught. Instead, teaching jobs will be listed by setting rather than by subject.

The above can work in:

pre-, private or public schools  
elementary, junior, or senior high schools  
specialized schools  
community centers  
junior colleges  
colleges  
universities

trade schools  
Army bases  
recreation departments  
educational T.V. stations  
prisons  
private studios  
workshops

#### B. Museum Education

1. Museum educator
2. Museum designer
3. Publications specialist
4. Publicity specialist
5. Conservator

#### C. Writers about art

1. Critics
2. Art reporters
3. Art reviewers

#### D. Art librarians

#### E. Art Therapy

1. Art therapist
2. Occupational therapist
3. Expressive or play therapist

VII. Arts Business and Management

A. Arts, Crafts Management

- 1. Arts manager
- 2. Director, art/crafts organizations, government or private
- 3. Researcher, art/crafts organizations, government or private
- 4. Administrator, art/crafts organization, government or private
- 5. Public relations worker, art/crafts organization, government or private

B. Exhibiting and Sales and Promotion

- 1. Gallery director
- 2. Gallery assistant
- 3. Private dealer
- 4. Collections "advisor"
- 5. Director, crafts center
- 6. Director, crafts fair
- 7. Craftspersons' agent
- 8. Artists' agent
- 9. Publicist
- 10. Appraiser 149.281
- 11. Cataloguer
- 12. Owner, retail shop or gallery
- 13. Manager, photogallery or studio 143.062
- 14. Salesperson, art/crafts 149.028
- 15. Salesperson, signs and displays 258.258
- 16. Director, hobby shop 187.168
- 17. Sales, import crafts
- 18. Arts, crafts supply salesperson
- 19. Designer, shop or gallery exhibits

✓  
✓  
✓  
✓  
✓  
✓

WRITING

Creating	<u>D.O.T. Number</u>	<u>Formal Education Beyond High School Not Customarily Necessary - ✓</u>
<b>A. Literary Writers</b>		
1. Poet	130.088	
2. Novelist	130.088	
3. Short story writer	130.088	
4. Essayist	130.088	
5. Non-fiction writer		
6. Biographer	152.088	
7. Playwright	131.088	
8. Scriptwriter for radio, TV, film	131.088	
9. Librettist	139.088	
10. Lyricist for music	130.088	
<b>B. Journalistic Writers</b>		
1. Social Commentator		
2. Political commentator	132.068	
3. News reporter	132.268	
4. Feature writer	132.268	
5. Humor writer	139.088	
6. Arts Critic		
a. Theater	132.088	
b. T.V.	132.088	
c. Movies	132.088	
d. Music	132.088	
e. Visual Arts	132.088	
f. Architecture and design		
g. Books and other publications	132.088	
7. Special reporter	132.268	
a. sports		i. concerns of special groups
b. human relations		j. health topics
c. home-related topics		k. community and public affairs topics
d. social events		l. puzzles, games
e. hobbies		m. headlines, captions
f. travel		n. obituaries
g. financial topics		o. arts
h. governmental topics		p. education
8. News analyst	131.068 (radio & TV)	
9. Editorial writer	132.088	
<b>C. Specialized Writers</b>		
1. Advertising copywriter (newspaper, magazine, radio, TV, other advertisements)	132.088	
2. Public relations writer (newspaper, other media releases, articles placed in trade journals or publications sponsored by a particular company or organization)	165.068	
3. Technical writer (company news releases, advertisements, sales materials, journal articles, grant proposals)	139.288	

- 4. Educational writer
  - a. texts and other instructional materials
  - b. journals and other media
  - c. reference publications
    - 1. Lexicographer 132.088
    - 2. Encyclopedia research worker 109.288
- 5. Greeting card and other message writers
- 6. Game creators

II. Editors

A. Literature (books and journals)

- 1. Chief editor 132.068
- 2. Editor 132.288
- 3. Editorial assistant 132.288
- 4. Manuscript reader 132.288
- 5. Copy Editor 132.388
- 6. Index Editor 209.688
- 7. Proofreader

B. Journalism (newspapers, magazines, TV, radio)

- 1. Managing Editor, all media 132.018
- 2. Specialized editors, all media
  - a. editorial pages or TV/radio time 132.038
  - b. city, state, U.S. or international news editor 132.038
  - c. specialized department editor 132.038
  - d. photography and film editor 132.288
- 3. Editorial assistant 132.288
- 4. Rewrite person 132.288
- 5. Copy editor 132.288
- 6. Proofreader 209.688

C. Specialized writing

- 1. Advertising editor
- 2. Public relations editor, rewriter
- 3. Technical editor 132.038
- 4. Editor for educational materials
- 5. Editor, copyreader for greeting cards and other messages 139.088
- 6. Proofreader for all special writing 209.688
- 7. Game reviewers

III. Business and Management Occupations

A. Literary Agent for manuscript sale 191.118

- 1. Book, magazine, and newspaper sales
- 2. Sales to TV, film and radio

B. Promotion agent for speeches and other public/media appearances

C. ~~Legal counsel for copyright, publication contracts,  
liability in content of written material~~

D. Technical/production Occupations

- |  |         |
|--|---------|
| 1. Production supervisor, all media        | 141.081 |
| 2. Art supervisor, all media               | 141.031 |
| 3. Printers, film or videotape reproducers | 973.381 |

E. Finished product sales

- |   |         |
|---|---------|
| 1. Book store distributor and retail market sales | 289.358 |
| 2. Film/TV distribution                           |         |
| 3. Newspaper syndicated column distribution       |         |

IV. Educators about Writing

- |  |                                  |                     |
|--|----------------------------------|---------------------|
| A. Teachers of literature, journalism, specialized writing | 090.228 (college,<br>university) | 091.228 (secondary) |
| B. Librarians  | 100.168                          |                     |
| C. Critics, reviewers                                      |                                  |                     |

HUMANITIES OCCUPATIONS

Key to Chart

✓ = necessary for the occupation

M = might be necessary for the occupation

Six digit number in left hand column = source is Dictionary of Occupational Titles

Note: Consulting, Interpreting, Librarianship and Criticizing are all narrowly defined for the purposes of this chart.

Consulting: seeking or giving professional advice for a fee, rather than the day-to-day consultation which goes on between people who work together.

Interpreting: refers to that skill which enables a person to repeat words spoken in one language in another language.

Translating too is used only as it applies to languages.

Librarianship: refers to that group of skills which mark the professional librarian rather than reference skills which are useful to all humanities occupations.

Criticizing: refers only to that skill by which arts critics earn their livelihood rather than the skills involved in the processes of critical thinking.

OCCUPATIONS IN EDUCATION

FUNCTION OR SKILL

PREPARATION NECESSARY

OCCUPATION

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's  
 Doctorate  
 Part-time  
 Opportunities

College and University

090.118 Academic dean

" Alumni secretary

" Dean of students

" Director, extension work

" Financial aids officer

" President, educational institution

090.168 Department head

" Director of admissions

" Director of student affairs

" Director, summer sessions

" Registrar

" Scholarship counselor

090.228 Faculty member

" Instructor, extension work

" Teacher, teachers' college

090.999 Graduate assistant

045.108 Residence counselor

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's	Doctorate	Part-time	Opportunities
College and University																				
090.118 Academic dean			✓																	
" Alumni secretary			✓													✓				
" Dean of students			✓	✓													✓			
" Director, extension work			✓														✓			
" Financial aids officer			✓	✓												✓				
" President, educational institution			✓															✓		
090.168 Department head	✓	✓	✓		✓															
" Director of admissions			✓														✓			
" Director of student affairs			✓													✓				
" Director, summer sessions			✓														✓			
" Registrar			✓													✓				
" Scholarship counselor				✓												✓				
090.228 Faculty member	✓	✓			✓														✓	
" Instructor, extension work	✓																M			
" Teacher, teachers' college	✓																	M		
090.999 Graduate assistant	✓	✓															✓			✓
045.108 Residence counselor				✓												✓				

OCCUPATIONS IN EDUCATION - 2

FUNCTION OR SKILL

PREPARATION NECESSARY

OCCUPATION

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Equivalent  
 Doctorate  
 Part-time  
 Opportunities

099.108 Foreign student adviser

166.168 Director of placement

166.268 Loan counselor

" Placement officer

Affirmative action officer

Secondary and/or Elementary

045.108 Counselor

" Director of guidance

" Psychologist, school

045.118 Director of guidance in public schools

195.108 Social worker, school

091.118 Principal

" Headmaster

" Superintendent, schools

091.228 Educational therapist

094.118 Director, special education

094.228 Teacher, blind

Teacher, deaf

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's or Equivalent	Doctorate	Part-time Opportunities
099.108 Foreign student adviser				✓													✓		
166.168 Director of placement			✓	✓													✓		
166.268 Loan counselor			✓	✓													✓		
" Placement officer			✓	✓													✓		
Affirmative action officer	✓			✓			✓					✓		✓			✓		
<u>Secondary and/or Elementary</u>																			
045.108 Counselor				✓													✓		
" Director of guidance			✓	✓														M	
" Psychologist, school				✓													✓		
045.118 Director of guidance in public schools			✓	✓														M	
195.108 Social worker, school				✓													✓		
091.118 Principal			✓															M	
" Headmaster			✓															M	
" Superintendent, schools			✓																M
091.228 Educational therapist	✓																✓		
094.118 Director, special education			✓																M
094.228 Teacher, blind	✓																✓		
Teacher, deaf	✓																✓		

FUNCTION OR SKILL

PREPARATION NECESSARY

OCCUPATION

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's or Equivalent	Doctorate	Part-time Opportunities
" Teacher, handicapped	✓															✓			
" Teacher, mentally, retarded	✓															✓			
099.118 Director, educational program			✓				7									M			
" Supervisor, education			✓	✓												✓			
099.168 Audiovisual specialist	✓		✓												✓				
" Director, experimental schools			✓													M			
" Educational specialist		M	M													M			
" Governess	✓															✓			
099.208 Tutor	✓															✓			
" Instructor, correspondence school	✓				M											✓			
Teacher aide	✓														✓				
<u>Secondary only</u>																			
091.228 Teacher	✓															M			
Department head	✓		✓													M			
<u>Elementary only</u>																			
092.228 Teacher, elementary	✓														✓				
" Teacher, kindergarten	✓														✓				



OCCUPATIONS IN EDUCATION - 4

FUNCTION OR SKILL

PREPARATION  
NECESSARY

OCCUPATION

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Equivalent  
 Doctorate  
 Part-time  
 Opportunities

Other

099.288 Teacher, adult education

School librarian

Occupations related in similarity of training to those in education:

Counseling

Personnel workers (DOT 166.088-.268)

Employment counselors (DOT 045.108 and 166.168-268)

Rehabilitation counselors (DOT 045.108)

(All omitted because setting is not education)

Director, Education (DOT 166.118,.228) for a service or industry

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's or Equivalent	Doctorate	Part-time Opportunities
099.288 Teacher, adult education	✓															✓			
School librarian										✓							✓		
Occupations related in similarity of training to those in education:																			
<u>Counseling</u>																			
Personnel workers (DOT 166.088-.268)																			
Employment counselors (DOT 045.108 and 166.168-268)																			
Rehabilitation counselors (DOT 045.108)																			
(All omitted because <u>setting</u> is not education)																			
Director, Education (DOT 166.118,.228) for a service or industry																			



OCCUPATIONS IN HISTORY

OCCUPATION

FUNCTION OR SKILL

PREPARATION NECESSARY

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Equivalent  
 Doctorate  
 Part-time  
 Opportunities

052.088 Historian

M ✓ M ✓ M M

✓

" Geneologist

✓ ✓

✓

" Historian, dramatic arts

✓ ✓

✓

052.038 Director, state historical society

M ✓

M

152.168 Director, research (movies)

✓ ✓

✓

101.168 Archivist

✓ M M M ✓

✓

Note: In history and the following social science occupations, a limited number of opportunities also exist for researchers, writers, and editors for special projects and professional publications. These positions require an educational background in the field plus appropriate writing or research skills.

FUNCTION OR SKILL

PREPARATION NECESSARY

OCCUPATIONS IN SOCIAL SCIENCE

OCCUPATION

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Equivalent  
 Doctorate  
 Part-time  
 Opportunities

ANTHROPOLOGY

055.088 Anthropologist

M	✓	M	✓	M								M
---	---	---	---	---	--	--	--	--	--	--	--	---

												✓
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" Anthropologist, physical

M	✓		✓	M								
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												✓
--	--	--	--	--	--	--	--	--	--	--	--	---

Anthropologist, cultural

M	✓		✓	M								
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												✓
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055.088 Archeologist

M	✓	✓	✓	M								✓
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												✓
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052.381 Archeological assistant

	✓		✓									
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	✓	M										✓
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055.088 Ethnologist

M	✓		✓									
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												✓
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Ethnohistorian

M	✓		✓									
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												✓
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Visual anthropologist

M	✓		✓	M								
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												✓
--	--	--	--	--	--	--	--	--	--	--	--	---

Linguist

M	✓		✓	M	M							✓
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												✓
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Descriptive linguist

M	✓		✓	M	M							✓
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												✓
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Comparative linguist

M	✓		✓	M	M							
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												✓
--	--	--	--	--	--	--	--	--	--	--	--	---

059.088 Philologist

M	✓		✓									
---	---	--	---	--	--	--	--	--	--	--	--	--

												✓
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Applied anthropologist

M	✓		M	M								
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												✓
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Urban anthropologist

M	✓		M	M								
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												✓
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OCCUPATIONS IN SOCIAL SCIENCE - 2

FUNCTION OR SKILL

PREPARATION NECESSARY

OCCUPATION

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Equivalent  
 Doctorate  
 Part-time  
 Opportunities

GEOGRAPHY

029.088 Geographer

" Physical geographer

" Economic geographer

" Political geographer

Regional geographer

Social geographer

Urban geographer

Cartographer

Map Librarian

POLITICAL SCIENCE

051.088 Political scientist

" International relations specialist

Director, polling or opinion survey

Legislative Aide

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's or Equivalent	Doctorate	Part-time Opportunities
029.088 Geographer	M	✓	M	M			M							M				✓	
" Physical geographer																		✓	
" Economic geographer																		✓	
" Political geographer																		✓	
Regional geographer																		✓	
Social geographer																		✓	
Urban geographer																		✓	
Cartographer		✓												✓		✓			
Map Librarian			M							✓							✓		
<u>POLITICAL SCIENCE</u>																			
051.088 Political scientist	M	✓	M	✓			M							M				✓	
" International relations specialist																			
Director, polling or opinion survey		✓	✓		M		M							✓			✓	M	
Legislative Aide		✓			✓		M										✓		









OCCUPATIONS IN LAW - 2

OCCUPATION

FUNCTION OR SKILL

PREPARATION NECESSARY

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Equivalent  
 Doctorate  
 Part-time  
 Opportunities

Judges

111.108 Judge

111.118 Magistrate

Other

119.118 Appeals reviewer

119.168 Patent agent

" Title supervisor

119.288 Law clerk

" Title examiner

100.168 Law librarian

Paralegal

Occupations related to jurisprudence:

Legislator (no DOT number)

Legal secretary (201.368)

Court reporter (202.388)

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's or Equivalent	Doctorate	Part-time Opportunities
111.108 Judge		✓	✓		M							✓	✓	✓				✓	
111.118 Magistrate			✓										✓	✓					
119.118 Appeals reviewer	✓											✓	✓	✓					
119.168 Patent agent	✓																		
" Title supervisor			✓																
119.288 Law clerk	✓				✓														
" Title examiner	✓																		
100.168 Law librarian										✓							✓		
Paralegal	✓					M									✓				
Legislator (no DOT number)																			
Legal secretary (201.368)																			
Court reporter (202.388)																			

OCCUPATIONS IN MUSEUM WORK

FUNCTION OR SKILL

PREPARATION NECESSARY

OCCUPATION

- Teaching
- Research
- Administration
- Counseling
- Writing
- Editing
- Consulting
- Translating
- Interpreting
- Librarianship
- Criticizing
- Counseling (legal)
- Litigating
- Analyzing

- High School
- Bachelor's
- Master's
- Equivalent
- Doctorate
- Part-time Opportunities

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's	Equivalent	Doctorate	Part-time Opportunities
Director			✓																	✓
Registrar			✓														✓			
102.118 Curator	M	✓	✓		✓		✓											✓		
Assistant Curator		✓	✓		✓		✓										✓			
102.381 Museum Technician																				
Conservator																		✓		
Dioramist																✓				
Preparator																✓				
Taxidermist																	✓			
Ceramic restorer																✓				
102.381 Restorer, lace & textiles																✓				
109.281 Armorer technician																✓				
Educational director	M		✓														M			
Instructor - guides	✓															✓				✓
109.118 Supervisor, historic sites	M		✓															M		
109.288 Research assistant		✓														✓				✓

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OCCUPATIONS IN RELIGION

OCCUPATION

FUNCTION OR SKILL

PREPARATION NECESSARY

Teaching  
 Research  
 Administration  
 Counseling  
 Writing  
 Editing  
 Consulting  
 Translating  
 Interpreting  
 Librarianship  
 Criticizing  
 Counseling (Legal)  
 Litigating  
 Analyzing

High School  
 Bachelor's  
 Master's or  
 Doctorate  
 Part-time  
 Opportunities

120.108 Clergyman: minister, priest, rabbi

✓	M	✓	✓	✓															
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" Missionary

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129.108 Director of religious activities

		✓																	
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" Director, religious education

M		✓																	
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120.208 Parish worker

M		✓																	
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Religious brother or sister

Functions differ according to religious order joined

\*\*

Church or temple administrator

		✓																	
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\*\* educational requirements differ according to order joined, most require high school

OCCUPATIONS IN HISTORY  
and CRITICISMS OF THE ARTS

FUNCTION OR SKILL

PREPARATION  
NECESSARY

OCCUPATION

Teaching  
Research  
Administration  
Counseling  
Writing  
Editing  
Consulting  
Translating  
Interpreting  
Librarianship  
Criticizing  
Counseling (legal)  
Litigating  
Analyzing.

High School  
Bachelor's  
Master's or  
Equivalent  
Doctorate  
Part-time  
Opportunities

ART

Aesthetician

Art historian

Folklorist

100.168 Art librarian

132.088 Art critic

MUSIC

Musicologist

Music librarian

132.088 Music critic

THEATRE

052.088 Historian, dramatic arts

132.088 Drama critic

MEDIA

100.388 Music librarian (radio)

100.388 Music librarian, internat'l broadcast

100.168 Film librarian

132.088 Movie critic

TV critic

OCCUPATION	Teaching	Research	Administration	Counseling	Writing	Editing	Consulting	Translating	Interpreting	Librarianship	Criticizing	Counseling (legal)	Litigating	Analyzing	High School	Bachelor's	Master's or Equivalent	Doctorate	Part-time Opportunities
Aesthetician	M				✓						✓							✓	
Art historian	✓	✓	M		✓		M											✓	
Folklorist		✓			M					✓							✓		
100.168 Art librarian										✓							✓		
132.088 Art critic											✓						✓		
Musicologist	✓	✓	M		✓		M											✓	
Music librarian										✓							✓		
132.088 Music critic											✓						✓		
Historian, dramatic arts	✓						✓										✓		
Drama critic											✓						✓		
Music librarian (radio)										✓						M			
Music librarian, internat'l broadcast										✓						M			
Film librarian										✓						M			
Movie critic											✓						✓		
TV critic											✓						✓		

II.

ARTS AND HUMANITIES OCCUPATIONS:  
A DISCUSSION OF OBTAINING OCCUPATIONAL INFORMATION

Back to those 1060 exotic dancers needed in Nebraska: while it is not simple to obtain accurate occupational information for any complex cluster, there are particular difficulties for arts and humanities. First of all, Bureau of Census data and Bureau of Labor Statistics data are arranged in categories which do not lend themselves to easy identification of all the jobs in the revised arts and humanities clusters, nor do such sources include appropriate breakdowns of jobs within fields. Further, in the arts and humanities clusters, contrary to industrial fields, there are few single employers of large numbers of people from whom it is possible to obtain accurate information regarding career ladders, career lattices, salary scales, and peoplepower needs projections. We have examined government publications, commercial publications (such as Science Research Associates' Occupational Briefs), and responses to letters of inquiry sent to over 300 professional organizations (including unions) to obtain certain kinds of occupational data which will be discussed in later sections of this paper. Additional data is being collected for presentation in the Student Resource Book on Arts and Humanities Occupations, to be published in 1976.

As the sources of information are examined, TERC's project staff evaluates each for its merits in providing data for our purposes of occupational analysis, and also as references to recommend in subsequent project products for teachers, counselors and students. An example of these preliminary evaluations prepared by the project Humanities Specialist includes some of the following comments:

Occupational Outlook Handbook, published by the Bureau of Labor Statistics, has been a major source, because it is more up-to-date than most other sources; it contains more of the information required for TERC's project than do other sources and the write-ups are generally clear and accurate. The bibliographies list the major professional associations which can be contacted for further information.

Science Research Associates Occupational Briefs contain separate articles on various occupations, but they cover more occupations than does the Occupational Outlook Handbook. On the other hand, the briefs are up-dated only periodically instead of every two years -- some of them date back as far as 1969 -- which may explain the occasional inaccuracies. Their bibliographies have been very helpful in locating further sources of information, by listing both professional associations and career publications.

Chronicle Guidance Publications Occupational Briefs are also updated only periodically, but most seem to have been published in 1973 and 1974, instead of many in 1970 as is the case with SRA. The bibliographies list career publications and in many cases the lists are extensive.

Career Publications are generally brochures or pamphlets, often published by the professional association for a particular field. Sample titles are: Careers in Geography from the Association of American Geographers; Foreign Languages and Careers from the Modern Language Association; etc. While not all professional associations publish such pamphlets, those that have been reviewed are very useful; generally the information is very specific about requirements for and types of occupations in that particular field. For some reason there is an especially large fund of such career publications in the field of foreign languages. Some associations have been candid in informing us that the publication is out-of-date, usually in respect to job projections and salaries.

Career Books refers to the several series of books on careers in various occupations. Of the ones reviewed by project staff, the series published by Richards Rosen Press seems best for the humanities cluster, as the books cover much of the required information and are usually fairly recent. Other series are published by Julian Messner (although published recently, these books tend to be rather general and personal to be of great use to the project), Henry Z. Walck (much of the information in these books is too old and too general to be very helpful), and E.P. Dutton (only one book in this series reviewed thus far; although out of date, some information about the field was useful.) Another area of career books are those which describe a field in general rather than specific jobs; these are more useful for staff than as potential resources for teachers, counselors and students.

In discussing these sources of information, the staff Humanities Specialist pointed out inaccuracies and problems with datedness. All other staff specialists report the same difficulties. The Music Specialist, in checking job projections for piano tuners, for instance, found that Chronicle Guidance Publications continues to make available a 1971 Occupational Brief #424 stating that "There is a large demand for piano tuners at this time," and elaborating on "making a considerable amount of money." The 1974-75 edition of Occupational Outlook Handbook p. 450, reports that "little growth in the number of piano tuners... is expected through the mid-1980's." The Piano Technicians Guild, in an undated information sheet which we received in November, 1974, reports, "Recently, much misleading information has appeared in the newspapers conveying the idea that there exists a severe shortage of piano tuners. This is not true." The American Music Conference printed Career Opportunities in Music in 1966, and regrets not having funds to update the salary figures and job projections; the 1966 publication, which is being distributed to students upon request, states that "there is room for more well-trained tuner-technicians." The Complete Course in Electronic Piano Tuning by Floyd A. Stevens (Chicago: Nelson-Hall Co., 1974), makes such comments as "...fewer than 100 persons a year are entering the piano servicing field." "...piano experts often exceed the income of most other professionals who require lengthy college training..." This book then estimates the number of pianos in America (10 million) and the number of full-time tuners (3,000), implying that because the people employed can't possibly tune all those pianos, America could use lots more technicians and therefore, everyone should buy the book and go out and tune pianos.

The obvious reason for bias in the last mentioned source makes it easy to temper the projection, but bias, contradiction and datedness in written

sources of information mandated that the staff talk personally with practitioners in the arts and humanities occupations. Although, as the Humanities Specialist points out "much of the information may be so tied to the practitioner's specialty and personal experience that it is not applicable to the field as a whole, these interviews have been a major source of information about career lattices (but not ladders), job satisfaction, and value considerations."

Because the revised arts and humanities scheme includes over 1,000 jobs in both clusters, we are necessarily restricting our interviewing to people holding jobs or performing work which represents various aspects of a particular field. To show many facets of all the fields within each cluster, we are interviewing people who perform work or hold jobs that: 1) employ large numbers of people, 2) have growing numbers or can be considered an emerging occupation, 3) are entry level but have advancement opportunities, 4) are entry level without advancement possibilities, 5) are highly visible, 6) are not visible, 7) have high change-of-setting or career lattice possibilities, 8) require traditional preparation, 9) can be successfully performed without such preparation, 10) exemplify either free-lance and thus unstable income or relatively stable income. Most of the interviews are being conducted personally in the Boston area for reasons of economy, but other personal interviews are being conducted in New York, Washington, D.C., and the Southwest and California; a questionnaire form of the interview schedule is being mailed to practitioners in other parts of the country to obtain further geographic distribution. Each interview schedule or questionnaire has to be adapted to fit the respondent, but basic questions were evolved by the project staff in order to design an instrument which could be adaptable for all arts and humanities practitioners. The kinds of questions (as adapted for an "educational researcher in crafts") are:

To help students understand some of the details of a job, we'd like you to respond to specific questions about your job (work).

A. JOB DESCRIPTION

1. First, if you had to give your job a title, or if someone has already given it a title, what would that be?
2. How long have you been an educational researcher in crafts?
3. Is your position one which you created, or is it one which existed before you held it?
4. Have you changed the nature and scope of your position? If yes, how?
5. What product or service results from your being an educational researcher in crafts?

SUPERVISION VS. AUTONOMY

6. For whom do you work?
7. As an educational researcher in crafts, do you feel that you generally have a great deal of autonomy, independence, freedom, some, or very little?

TASKS AND ACTIVITIES

8. What different kinds of tasks and activities are you likely to do during your working time?
9. Beyond the time that you spend working, what kinds of activities do you participate in that enhance your being an educational researcher in crafts?
10. How much time per week do you spend in these activities?

TIME

11. Is your time flexible, for daily working hours? for vacations?

GEOGRAPHIC CONSIDERATIONS

12. In what particular geographic areas are there likely to be high concentrations of educational researchers?
13. Can educational researchers in crafts obtain work equally successfully in rural and suburban areas as in urban areas?

B. QUALIFICATIONS

PREPARATION

14. Let's talk for a minute about your preparation. What was your formal education?
15. Was your educational background in any sense a conscious preparation for your job as an educational researcher in crafts?
16. Do you have an internship or apprenticeship or any on-the-job training for this job?
17. To what extent are you self-taught?
18. Has your working experience always been related to your present field?  
If not, could you tell me about jobs and other kinds of experience you've had?

IDEAL PERSON FOR YOUR JOB

19. If you were to hire someone for the job that you hold or if you wanted to pass on the tradition of being an educational researcher in crafts to someone, what would the qualities and qualifications of that person be?
20. What would the preparation be ideally?
21. What talents or abilities would this ideal person have?
22. What about specific skills and competencies?
23. What kinds of personality characteristics would you be looking for?
24. Any particular physical capabilities?

C. JOB ACQUISITION -- Career Ladders

Students are interested in the process of how people obtain work, and also they wonder about the question of advancement -- which could mean advancing in income, or advancing in responsibility, or advancing in freedom from outside influences or advancing in "quality." These next questions attempt to provide us with a better understanding of how a person obtains work as an educational researcher in crafts, and how a person advances.

25. How do you and others with your job obtain work?
26. Did your last job lead to this one? how?
27. What other jobs might your present job lead to?

28. What constitutes advancement?
29. Are there any particular reasons why people might not get work or advance as an educational researcher?
30. What other jobs could you be doing with your background?

D. OUTLOOK

As society changes, fields and jobs change, of course. We don't want to write materials for students, teachers, and counselors about arts and humanities occupations which may be outdated even before these materials reach the schools in a couple of years. So we'd like to learn your views about the future.

31. For instance, what do you think is the general outlook through the next five years for people who are educational researchers in crafts?
32. What changes do you foresee in twenty years?
33. Do you see any new occupations or sources of income emerging in the future?
34. What factors affect change and/or growth in the field of educational research?

E. INCOME

While there are many aspects about jobs which interest students, one is probably an interest common to all students -- from one viewpoint or another -- and that is income, so we have a few questions which focus on this subject.

35. Does the major portion of your annual income result from your work as an educational researcher in crafts?
36. If "no" or "not at all," what percentage does, approximately?
37. If "no" or "not at all" how do you supplement your income as an educational researcher?
38. Is the income from being an educational researcher in crafts a stable income?
39. What factors could affect your income as an educational researcher?
40. Young people might be interested in knowing how different people in arts and humanities occupations are paid, for example, by an annual salary, by a negotiated commission per piece of work, by the hour, or by some other standard.

How are you paid as an educational researcher in crafts?

How does this affect your work?

F. INFLUENCES ON CAREER CHOICE

Since the students we are concerned with are in grades 7 through 12, they will be interested in the process by which people make decisions about entering a field or a particular job within that field. This next set of very important questions will help us to help students understand how career decisions are made. There are typically seven or eight factors which either determine or influence a person's career choice.

41. The first factor is the role of parents. How did your parents influence you in entering the field of educational research?
42. What about the role of other adults whom you knew personally?
43. Some people were influenced in entering a field by heroes, whom they may not have known personally, or by some image of the field. Were they a force in your entering the field of educational research?

ACTIVITIES AND EXPERIENCES

44. Did you participate in either high school or college extracurricular activities related to the field of educational research?

Did these activities play a major role in your entering the field for a career?

45. Were there other particular experiences which led you into the field of educational research?

SETTING OR WORK ENVIRONMENT

46. What was the importance of setting or work environment to you when entering the field of educational research?

OTHER FACTORS

47. Were there any other factors which influenced your entering this field?

UNREALISTIC EXPECTATIONS

48. When you committed yourself to the field of educational research, did you have any notions about that field that proved to be unrealistic?

FACTORS LEADING TO PARTICULAR JOB

49. We've been talking about the field of educational research just now. Earlier, I was learning about your job as an educational researcher in crafts. It would be helpful to know if there were factors which led you particularly to working as an educational researcher in crafts.

G. JOB SATISFACTION

In grades 7 through 12, students are exploring themselves, hopefully, and are interested in the feelings of people about jobs to help themselves match their own feelings in this exploration process. So we would like to know how you feel about being an educational researcher in crafts. For example, what satisfies you and what dissatisfies you?

50. What is the most satisfying thing about being an educational researcher in crafts?
51. What about the least satisfying?
52. Do you think these feelings are shared by most educational researchers in crafts?

H. ADVICE FOR STUDENTS

In thinking about entering and advancing in arts and humanities careers, and your job in particular, what advice would you have for a student who is considering entering this occupational area?

53. Let's talk about the field of educational research first.
54. Now, how about advice for students who might be or should be considering educational research in crafts. What particular advice do you have?

I. CONFLICTS

55. Students will be interested in the kinds of conflicts they may encounter in the field of educational research. We would appreciate your suggesting some conflicts that people in your field may have to deal with.

Responses to some questions are reported in the sections of this paper on "Career Ladders and Lattices" and "Job Projections." As indicated, information from practitioners will be reported fully in the Student Resource Book, to be published in 1976.

III.

ARTS AND HUMANITIES OCCUPATIONS  
A DISCUSSION OF CAREER LADDER AND LATTICE POSSIBILITIES

While it is regrettable that each section of this working paper on arts and humanities occupational analysis begins with pointing out problems, that is a reality of the working world of arts and humanities. In considering career ladders and lattices in each cluster, for yet another example of problems one must be aware of the idiosyncratic nature (with some few exceptions) of the occupations. Even in those occupational areas where a career ladder can be clearly defined on paper, the practitioners gum it up by jumping fifteen rungs in two days; or slipping out of a hierarchical setting into a totally amorphous one; or quitting the hand production of an art object to set up a corporation with designers, production workers, accountants, and salespeople; or holding three different jobs, only one of which may involve a recognizable career ladder; or creating functions which never quite existed before; or performing in one job while continuing to become prepared for another.

Such gumming up is not, of course, done purposely to confound the notion of career ladders and lattices. The gumming may result from the nature of the beast (whether one refers to an arts or humanities field or to the practitioners) or from sources (or non-sources) of financial support, or from the horrendously rapid shifts in public opinion, or from custom or attempts to overcome tradition.

Although TERC's report does not pinpoint the reasons for lack of clarity in ladders and lattices, we will surely point out in materials for students those areas in which hierarchy and structure exist and those fields and occupations where such ladders as do exist are set in sand. Our preliminary report on career ladders follows, arranged for arts according to the six disciplines, and for humanities by job families. Redundancies among sections of the report have not been eliminated, for these tautologies reflect the conditions which exist from field to field.

### A. Career Ladders and Lattices in Dance Occupations

There are two principal areas of work for dancers: education and performance. The settings for education are the private studio, the college or university, the specialized secondary school, and, rarely, the public school. The settings for performance are generally: ballet, modern dance, and jazz. dance companies, as well as free-lance work for Broadway shows, theater, films and television. A featured soloist with a company may also pursue a free-lance solo career, making guest appearances with other companies. Another setting for free-lance work is the night club, dinner theater, or supper club and even "burlesque" theaters.

In both performance and education, the nature of advancement, or career ladder, is determined by the setting. A dancer working in a company, college, university, school, or troupe is working under a hierarchy which provides the career ladder. A dancer working in a free-lance situation must, in a sense, build his or her own career ladder, since there is no established hierarchy.

In the area of performance there seems to be a general life-long progression: from student, to performer in a company or troupe, to featured soloist, to choreographer and teacher. Traditionally, for classical ballet and modern dance, the student period begins very early and lasts very long. For a serious professional dancer, the study of dance often begins as early as age seven, and continues to the early twenties, indeed, never stops. Even the most accomplished ballet dancers take classes with their companies. This same kind of rigorous daily practice and continuous study is common to all performing arts.

The performing part of a dancer's career is often quite short as compared with other performing artists. While there are notable exceptions, in general the dancer does not perform past age fifty, and many dancers cease performing as early as thirty. Dancing professionally requires the athletic energy and physical suppleness of well trained young people.

The career of a dancer is not over when he or she is through performing, however. Many dancers continue to train other dancers, or establish new companies, studios, or schools. Also, the years of dancing experience are the best preparation for choreography, so the experienced dancer often extends a career by directing others in the creation of new dance forms, as well as the training of new dancers.

For many dancers working free-lance, the job ladder is merely a progression from job to job. They must audition for every job they want, and there is no guarantee of how long the job will last. In the case of a Broadway show, for instance, the dancer hired for a show takes a risk. If the show is a "flop" he or she is out of work again; if the show is a success, then the employment can be long term. A successful performance can often lead to another job offer, or another audition for another show in this highly competitive world.

Similar in its free-lance nature is the highly competitive world of dancers working in large night clubs and other entertainment establishments. These jobs are often "dead-ends" for dancers, although a dancer with some other talent, such as acting, could be "discovered" and begin a new career in film or television. The keen competition and the haphazardness of the free-lance career ladder are impediments for entry and advancement except to dancers with a high degree of competency and great dedication to the field.

Dancers do not have to belong to companies or perform in staged productions. Many are teachers. The setting in which the teaching occurs determines the structure of the career ladder. Dance is taught in private studios, in colleges, and universities, and sometimes in public schools.

In the public school setting, dance is commonly taught in the physical education department. In this situation, it is sometimes necessary for the dance teacher to build a career ladder by creating a demand for a full dance course, which means convincing students, parents, school principals, fellow teachers and finally the school board of the worth of such a program in order to advance in one's career.

Similar problems exist in colleges and universities, but where dance departments do exist, the career ladder is the traditional one for faculty members in those settings.

The private studio dance teacher can perceive advancement in a career to be acquiring more students, higher fees, or a job teaching in a bigger and better dance studio.

The career ladder for the dance therapist is also one which often has to be built. A dance therapist interviewed by TERC project staff had a master's degree in motor therapy and was working as a low-paid ward attendant in a state hospital. She later advanced to assistant occupational therapist. She described her strategy as this: enter a state hospital on any level possible, then try to demonstrate the effectiveness of dance therapy by working with appropriate patients, and next/attempt to develop a full-fledged dance therapy program at the hospital. This

strategy requires that a considerable amount of salesmanship has to be used by the dance therapist to convince doctors and hospital staff of the effectiveness of this form of non-verbal therapy with certain kinds of patients. The strategy is necessary since very few hospitals have programs which include the non-verbal forms of therapy. In hospitals where positions exist, dance therapists typically begin as assistants, advance to therapists and then to chief therapists, depending on the structure of the hospital or clinic.

#### Horizontal Movement in Dance Careers

Most professional dancers receive training in three styles: classical ballet, modern dance, and jazz dance. Diversified training gives a dancer the opportunity to select the style he is most suited for. It also allows dancers to take different kinds of performing jobs, such as Broadway shows or television specials, or ballet performances. This form of lattice movement in dance involves little change of activity or setting.

Another possibility for lattice movement in dance occupations is that of going from performing to education. Movement into education from performance often requires additional coursework for certification and degree attainment which is not normally part of the performer's training.

Dancers from education and performance areas may, with further training on the graduate level, enter dance therapy.

Folk dancers can branch into ethno-musicology and other aspects of sociology involving the cultural background of the dances with which they work.

Horizontal, or lattice, movement in dance occupations must often be the result of a creative effort on the part of the individual in much the same way as the aforementioned career ladder strategy of the dance therapist. In general, versatility of dancing style and thorough training will help a dancer make these lateral movements.

## B. Career Ladders and Lattices in Music Occupations

The concept of career ladders in the sphere of music raises questions regarding 1) the nature of "advancement," 2) the role of chance in career development, 3) the fact that careers can be complicated arrangements of many types of jobs, and 4) systems exist in music that obscure the shape of career ladders.

There are, of course, identifiable career ladders in music. These usually exist under a corporate structure such as a symphony orchestra or academic institution. In very general terms there are three possible kinds of career ladders: the corporate structure; the free-lance or self-employed musicians; and a combination of the first two, a free-lance musician who also works in an academic institution or corporation.

The first question in discussing any of these possibilities is the nature of advancement. As in most creative fields, the criteria for success are unique for each individual musician. A performing musician may see advancement as greater income, or more critical acclaim, or more attendance at concerts, or the growth of musical skills. However, all these values are not necessarily related. Musical maturity may not correspond to an increase in income. Increased attendance at concerts may mean that good public relations work has been done; it may not indicate musical maturity.

Even on career ladders within existing structures, the criteria for advancement or promotion may be basically non-musical. A good music teacher may be promoted to director because of good administrative ability, not because of good musicianship. Also, in many academic situations, salaries and promotions are often based on seniority and academic attainments rather than ability and performance.

The second problem is that of the role of chance, often called "the breaks." In the performance area of music, there are many legends about overnight rises to

stardom. The famous stars sometimes seem to go straight to the top. One of the best known example is Leonard Bernstein's meteoric rise to conductor of the New York Philharmonic. Another manifestation of the role of chance in career progression is the fact that every week another popular recording group moves up to the top ten, displacing one of last week's groups. Factors which affect the rise and fall of many entertainers' careers are popular taste, public relations, and previous successes. Popular taste and public relations are closely wedded. The public buys what is advertised effectively, and likes what is in vogue. Previous successes are a factor because financial backers will often support a star performer or a successful group before they will support an unknown, untried group.

Career ladders are often difficult to identify because working musicians may have many different jobs in different settings. One guitar player interviewed by TERC project staff does recital work, has teaching work in a conservatory, teaches in a secondary school, and teaches private lessons in his home. One jazz musician teaches music theory in a college level program, writes and records commercials, and plays in supper and night clubs. For these two individuals and many more in the field, one aspect of their own career may be advancing while another declines. All must apply their talents in diverse ways in order to survive. As an opera company's assistant director said in an interview, "You don't close your options too soon. You shouldn't leave any of your talents unexplored because in music versatility often equals survival."

In many situations in music where one would expect to find career ladders, the actual job progression is not at all obvious. One such field is opera. The chorus singer at first glance seems to be in a stepping-stone position towards featured soloist. In fact, this is hardly ever true. If a singer wishes to star in the Metropolitan Opera Company, the place to begin is not in the chorus

of the Met, but in an opera company in Europe. Proven success in Europe is almost mandatory for a successful solo career at the Metropolitan.

The audition system of our nation's orchestras has not always provided for the advancement of qualified musicians in an equitable way, which is another manifestation of a system that obscures the nature of the career ladder. Donald Hanahan, in an article about the audition system (New York Times, October 15, 1974) says, "...auditioning for a symphony or opera orchestra can be an experience combining the worst features of a debut recital, a commando obstacle course and a kangaroo court trial." He describes how hiring can be biased in favor of the students of an orchestral section leader. In this case, an unseen part of the career ladder is becoming the student of a certain section-leader. Pressures are being brought to make auditioning more equitable, but many inconsistencies remain.

In the area of musical performance occupations, advancement is often determined by audition. For a symphony player, auditions are a constant fact of life. Once accepted for a position in a section of a symphony, he may audition, as vacancies occur, for the position of leader of that section. In the case of violinists the final stage is that of concert master of the orchestra, the first chair first violin. Lateral movement is expressed by moving from one orchestra to another. A good violinist in the Chicago Symphony, for instance, may audition for the concert master's chair of the Cleveland Orchestra, if the vacancy exists.

A free lance player must audition for nearly every job played. For a free-lance musician, advancement on the career ladder is a matter of more money, more work, and more prestigious jobs.

In the area of dance accompaniment, we see a job with almost no vertical movement possibilities. Most schools and dance companies who hire accompanists hire only one or two. In the case of schools, the accompanists are often

students working their way through school. In the case of dance accompanists for companies, the only possible move is to another company. Moving from a regional ballet to a nationally based company would be considered a vertical move.

In the area of the professional rock group, vertical movement is determined by the popular and financial success of a group through concerts and record sales. Movement in this field is vertical as long as a group is successful. When a group begins to lose its appeal, musicians will often break from the group to pursue solo careers, or join or form other groups.

In music business and production the advancement of an individual is often shaped by an existing corporate structure. In publishing, an assistant editor may advance to chief editor. A copyist may advance to autographer. In instrument building, advancement depends on setting. If employed in a factory as part of a large company, an individual may advance from assembler to foreman. An individual craftsman building musical instruments in his own workshop may advance to the point of hiring assistants, who may learn enough in the course of their work to set up their own shops.

In the area of education, once again setting determines the nature of the career ladder. A teacher working privately in his or her own studio may advance by getting higher lesson fees and gaining more students. In a public school, the career ladder may be from non-tenured teacher to tenured teacher to supervisor, although the move to supervisor takes one out of the classroom and away from daily musical work with students. In a college setting, the progression is from instructor to assistant professor to associate professor to full professor to dean. Again, a move into administration takes a musician away from daily musical work with students. In education, moving between settings is frequent, and many teachers in schools and colleges also teach private students.

Lateral movement between areas is common in music. Many times careers are made up of many different jobs in different musical areas. Performing musicians often supplement their incomes by teaching. Musicologists may apply their talents simultaneously to the fields of publishing, education, curating, and sometimes arranging and performing.

While vertical and lateral job progression is difficult to generalize about in musical occupations, there are some conclusions which can be drawn. First, vertical movement advancement may or may not have anything to do with musical ability. Second, lateral movement is often necessary for survival especially to combine jobs into a career. For such lateral motion, the versatile musician has a tremendous advantage over the specialist.

C. Career Ladders and Lattices in Theater, Film and Television

There are difficulties in tracing career ladders and lattices in the fields of theater, film and television.

1. There are few set patterns in theater and media careers because jobs may not be sequential.
2. Many practitioners are either unwilling or unable to describe any models of career patterns.
3. In the world of theater and media a step up on the career ladder is frequently achieved via a change of setting rather than a change of job.
4. Many jobs are only part-time, and other (often unrelated) jobs are held at the same time. Thus, often another discipline must be mastered.
5. Connections and chance occurrences are too often the means by which positions are secured, rendering career ladders practically useless.

Particularly in the area of performance, immediately preceding jobs have little or nothing to do with the present job. The actor and actress are just as often the former secretary, bookstore clerk, or salesperson as they are the former model or backstage person. One practitioner interviewed said there was "no set outline" to explain how one job leads to another. Most of the people interviewed felt quite sincerely that their last job did not lead directly to the one they are holding now. The drama teacher interviewed said that she was a waitress at Howard Johnson's immediately before securing her present position; however, as a teacher, this person can follow the career ladder pattern existing in the public school system.

Not only are there no ideal models showing job ladder and lattice movements, but also suggested models are difficult to obtain from practitioners. They are unwilling to accept that a logical sequence of jobs exists in the theater

and media world. A movie producer-director said quite flatly that he could think of no job ladders.

Clearly there are some. Many entertainers, for instance, move ahead to acting. Mimes, comedians, models, and show girls have often entered acting careers. The mime, Marcel Marceau, starred recently as an actor in a motion picture. Marty Brill, stand-up comedian, became a leading actor in the stage play, "Lenny." Cybil Shepherd was the nation's leading model before launching into a lucrative career as a motion picture actress. In films, a double or stand-in may eventually become an actor.

Most good directors are former actors or stage managers. Gerald Freeman, director of the original off-Broadway production of Hair, painted scenery and then acted in summer stock before becoming a director. Hal Prince, George Abbott, Milton Katselas and other fine directors are all former stage managers.

It is also quite clear that in order to reach a design position in theater and media (set, lights, costume) one may either 1) work in some sort of backstage capacity first: painting scenery, costuming, hanging lights, etc., or 2) start by designing for community and amateur theater groups and then, from recognition received for previous efforts, advance to a job designing for professional theater. The example of the designer is only one of many jobs in theater and media where advancement is defined by change of setting, instead of by change of job.

A disc jockey for a small town radio station may advance by becoming a disc jockey in a big city. Numerous actors in community and summer stock theater have landed roles on television soap operas. A part-time costumer for a university theater program may progress to a costuming job in a repertory company. An executive producer for a television station told TERC project staff that one should "apply to lesser jobs at smaller TV stations and then work your way up to a larger station."

The field of education is often a step in many career ladders in theater and media. The theater arts professor who is teaching performance was often an actor and/or director himself prior to teaching: Howard Bay, professor of design at Brandeis University, worked as a designer for professional theater prior to teaching. There are many others like Mr. Bay, some of whom do both at the same time. A director for a Boston television station also teaches part-time at a university in the area.

This pattern may also work in reverse. Teachers often leave the educational environment and move into some area of business, production, or performance in theater and/or media. For example, the producer of educational films may move laterally to produce works on the stage.

While working in the world of theater and media, it is often necessary to hold another, and often unrelated, job in order to live. Most actors and actresses work at some other job as they wait patiently for a "break." Without supplemental income the young actor or actress literally could not eat. Screen Actors Guild claims that 85 percent of the Guild's members are unemployed all or most of the time; mastery of another skill becomes mandatory under those conditions. Many actors also teach. The magician interviewed for TERC's project is president of a wholesale liquor business and definitely uses his magician income only as a luxury. A playwright we interviewed is in the hotel and travel business. Producers must have another income as they make no money until a show opens and attracts continuing audiences.

Our practitioners told us that the most important factor in securing a job has nothing to do with the job or jobs previously held. Instead, the key to obtaining a job in theater, film and television is to know someone. When we asked Joseph Kierland, playwright, how he and others with his job obtained

work he answered, "Meet people who are in positions to get positions. Know people who know people." His advice was to attend parties and functions where people in important positions will be present. James Kofman, magician, used his liquor business to find work as a magician, and now gives shows at national sales meetings to help the liquor business. Every single person interviewed in theater or media said that contacts were largely responsible for procuring a job. "Meeting people" should be the first step on every career ladder for jobs in theater and media.

D. Career Ladder and Lattice Movement in the Visual Arts and Crafts

Career ladder-lattice movement in the visual arts and crafts presents several problems which preclude the identification of clear, overall patterns.

In brief, some major problems are:

1. The jobs in this field are performed in a variety of settings, with distinct employment patterns, so that an individual's career ladder may be defined by where one works, not by what one does.
2. These jobs include a variety of employment modes, in that some may be stable, full-time, salaried jobs, while others are subject to the vagaries of free-lance self-employment.
3. Many specialties within the visual arts are not economically supported by society, thereby treating them as "hobbies"; this lack of support puts the practitioners in the position of needing additional job(s) in order to support their primary work.
4. Economic factors may necessitate occupational flexibility on the part of many practitioners.
5. Formal education is not crucial for all upper-level jobs in these fields, except for those which require academic degrees or licenses. In many cases practitioners can be largely self-taught in their specialties. Practitioners may, however, need degrees in order to compete for scarce jobs, even when those degrees are of questionable relevance to the work performed.

Visual arts and crafts jobs can be divided roughly into two main types of career patterns: free-lance and corporate. The latter group includes full-time salaried jobs in academics, industry, business and cultural institutions.

The jobs in this field which are set in industry have generally predictable employment patterns. A "mechanicals person" in a publishing company can follow a career pattern from designer to senior designer to art director, or from calligrapher to designer to art director. In any case, he/she can expect promotions based on seniority and regular pay increments. Those in hierarchical fields like academics can also identify possible ladders from instructor to assistant professor, to associate professor, to full professor, to department chairman to dean. Of course there are variations in these patterns. One

university may expect its art department chairman to be a practicing artist, while another is looking for a distinguished academician or an experienced administrator. In a field like publishing, the nature and size of the organization may determine the limits of one's professional growth. Advancement for a senior designer could mean transferring to a larger organization at a lesser level, or from a well-defined job in a large company to a more autonomous job in a smaller one. For the art director, advancement may mean leaving the top level of the specialty (art) for the middle level of another (business management) or continuing in his/her area of expertise in another setting, such as an advertising agency. This same person may have begun a career with no expectation of rising above "mechanical person" or as a Master of Fine Arts willing to accept underemployment in order to work up to a directorship.

For fine artists and craftspersons, career ladders cannot be equated with corporate promotions. These people work for the most part on a free lance speculative basis with all the uncertainties of self-employment: A sculptor who was interviewed, for instance, could not describe his work as a "job," since he has no employer, no place in a corporate hierarchy and no salary. For him, advancement is not linear, but qualitative and episodic. There are inescapable elements of chance involved in public exposure, acceptance, and market value. Furthermore, young artists and craftspersons are in the position of needing other earning skills in order to support their careers until their primary skills become profitable. One weaver interviewed supports herself by working in a small crafts shop and gallery. An artist can work on a commission basis, rather than on speculation, but these are only temporary contracts, which need to be solicited on a regular basis. One is constantly "job hunting" for every piece of work. For those who have reached the point of contractual agreement with a gallery, there

are still no assurances that the work will be critically accepted, or sold at a price commensurate with the time it took to create. There is also no assurance that the gallery affiliation will continue for a significant period.

In a free-lance dominated field like crafts, the direction of an individual's career may be determined by a subjective definition of advancement. The crafts-person may judge personal success as a combination of improved quality of work, increased demand, increased production and/or higher fees. As many of the craftspeople interviewed indicated, work may change from a part-time occupation to a full scale business as their techniques improve and demand increases. A logical progression would then be for the craftsperson to hire assistants, train apprentices or teach courses, thereby advancing along the career ladder by broadening his or her range of activities.

Advancement is not always achieved by changing the scope of one's activities, but at times by refining the quality of one activity. For example, the illustrator may begin by having to solicit piece-meal assignments. Later, when this person has developed a reputation and a steady lucrative clientele, any subsequent career movement is lateral, rather than linear. Once one has become a successful illustrator, any career change must be from the top rung of that ladder, to the equivalent, though middle, rung of another. For example, the illustrator who can advance no further in that field must move to some related work, such as graphic design.

Educational background is not a constant factor in job acquisition or advancement in arts and crafts. Clearly an architect, urban planner, professor or curator needs a strong academic background. However, most managerial or partly managerial jobs like advertising production manager or art director can conceivably be obtained without formal education, but they rarely are. Graphic or industrial

designers might possibly learn their trades informally, but they are at a distinct disadvantage because degree programs do exist in these fields. In such free-lance dominated fields as crafts or photography, formal education may be an advantage in that it is a highly efficient way to gain exposure to a field. Formal education is not, however, likely to provide sufficient experience in all aspects of the practitioner's career, like marketing and small business management. Apprenticeship is frequently a necessary adjunct to formal education. For lower-level industrial jobs, such as printing or photo-processing, non-academic on-the-job training is the only kind available.

For some professionals, academic preparation is not in itself an adequate prerequisite for job acquisition without parallel experience. A recent graduate in art education must be simultaneously gaining teaching experience and a graduate degree if he/she plans on moving to administration or college level teaching. A newly licensed architect should ideally have a degree and related work experience in order to compete for a job. Even in less rigidly hierarchical fields like arts management an academic background is not enough without complementary work experience, and vice-versa.

The charting of career patterns in this field is further complicated by the fact that for many artists and craftspersons, careers are made up of multiple jobs. In order to survive economically, many artists must maintain several part-time jobs. For example, so few fine artists make an adequate income from the sale of their works, that they find it necessary to teach, do free-lance illustration, or accept any related work available.

All careers are subject to economic fluctuations, but some more acutely so than others. Free-lancers are always in jeopardy of losing their clientele, or finding that their specialties, such as cartoon animation, are no longer in demand. The stability of a salaried job may be less dependent on happenstance, but general economic fluctuations affect every industry.

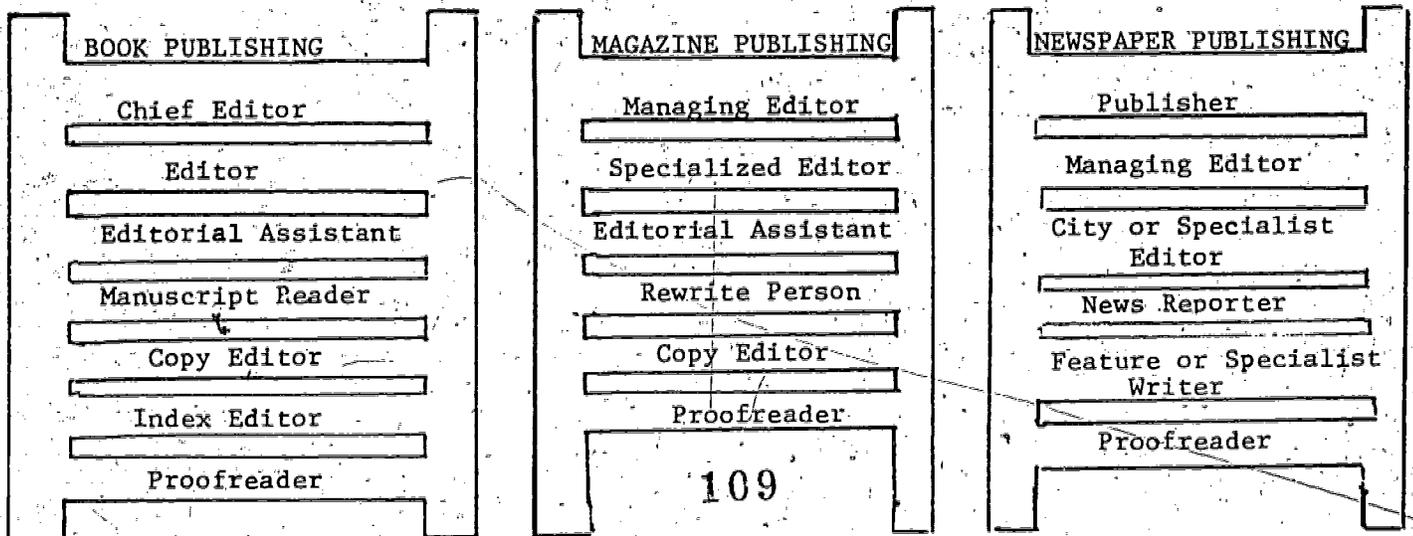
In a period of recession, for instance, small crafts shops may not be able to sell moderately priced items to the public, while major galleries are doing a brisk business in "investment" quality works. A sculptor may find that small pieces are difficult to sell, while commissioned public works are in demand. Practitioners frequently find it necessary to change the settings or scope of their work in order to continue in their specialties.

Lateral career movement includes the ability to perform the same task in different settings. When one has acquired managerial skills in advertising art direction, for instance, it is feasible to take over the same kind of job in a graphics studio. A cabinet maker could also apply his skills to fields as diverse as set building, or museum installations. Many such jobs in this cluster require skills which can be applied to a variety of jobs. Highly specialized jobs tend to be more limiting. An illustrator would need additional training to use his/her drawing skills in architectural drafting, or advertising layout. A fabric designer would need a great deal of additional training to go into commercial design, while a broadly trained industrial designer could easily move from one specialty to another. Flexibility is, for many, the major quality which allows for career change in cases where only lateral movement is possible.

E. Career Ladder and Lattice Movement in Writing

Careers in writing will be discussed according to salaried and free-lance occupational possibilities. While there is cross-over between the two, (the newspaper journalist who sells an article or a book to a publisher, the television script writer who takes a temporary salaried position during "dry" writing spells, the university professor who publishes book reviews, are examples of the cross-over) most students aspiring to writing careers will use their skills in salaried positions and will never publish on a free-lance basis. Although the media, by acquainting us with those free-lance writers who make large sums of money as novelists, may lead aspirants to believe that earning a living as a free-lancer is rewarding, only a small number of people classifying themselves as "writer" on income tax returns actually make a full-time living or even a very meager base.

Writers employed in such corporations as book, magazine, and newspaper publishers may work up through a clearly structured career ladder. The similarities among the three are shown in these sketches of possible ladders (which do not show printing and other technical jobs related to publishing):



Other writers employed as public relations and internal communications people or as technical writers/editors can advance within the public relations or technical writing department of an organization to become director or manager of that department. However, because such departmental jobs are considered support or staff positions, the writer rarely advances into top management, and will thus move to a larger organization in the same position for advancement. The public relations writer who has acquired competencies in development (fund raising) can become part of top management in small non-profit organizations such as hospitals, where public relations decisions and fund raising are integral to the organization's success. In large industries where public sensitivity to the firm's corporate behavior affects buying of stocks, sales, or regulatory legislation, the director of public relations may be involved in policy-making decisions as part of top management. At this level, however, writing skills have long since been less important than an understanding of the climate of public opinion.

Entry into salaried writing positions usually requires an A.B. degree in English or journalism, except in newspaper work which will be discussed later. A degree in communications, often on the master's degree level, can allow entry into corporate jobs such as writing the company's internal newsletter or public relations jobs. The communications degree with course emphasis on advertising can provide entry into advertising, either with a firm employing its own advertising staff or a firm which specializes in advertising. In terms

of advancement, the advertising world is highly competitive, and as an advertising writer proceeds up the career ladder, success may depend less on writing skills than on maintaining excellent rapport with the firm's clients and on managerial skills. Advancement in salaried writing jobs does not usually depend on additional preparation except for some business and highly technical industry positions, for which the writer may need scientific courses or business courses in order to write knowledgably about the subject. Advancement in magazine and book publishing enterprises depends in success in choosing authors, books and articles which will sell; on maintaining a good relationship with authors, so that they do not leave for another journal or book publisher; and on acquiring managerial and financial acumen.

In the newspaper world, a high school graduate can obtain beginning reporter jobs on small weekly or daily newspapers if as a student she or he worked extensively on the school paper and, perhaps as a volunteer, for a commercial newspaper during vacations as well as the school year. The high school graduate will eventually have to acquire a college degree, however, for advancement. An A.B., and, increasingly, an M.A. (the degrees can be in English, Journalism, or Communications, or for people who aspire to specialized reporting jobs one of these degrees combined with one in political science, as an example) are required for entry-level reporting jobs on larger newspapers; generally previous paid experience on a smaller paper is an additional requirement. High school and college newspaper writing and editing experience is also usually mandatory. Advancement depends on writing and investigative skills, and for top editorial positions

on managerial skills. As large newspaper reporters are becoming increasingly specialized, advancement depends upon acquiring great knowledge in a specific field, although not yet necessarily through formal education. On small town or suburban newspaper staffs, the reporter is still more of a generalist: a thorough knowledge of the community in addition to writing competency is necessary for advancement (and in some cases, for entry as well). The newspaper field remains fluid in terms of educational requirements for entry and advancement; however, this situation may change as more people with advanced degrees in fields such as teaching and law seek newspaper positions because the job market is highly competitive in the fields for which they prepared.

For those people who teach writing or journalism, the career ladder is equivalent to that described in the discussion of humanities teaching ladders. A B. A. degree is essential for high school teaching and an M.A. or Ph.D. for postsecondary teaching. Teaching creative writing on both the high school and postsecondary levels is almost always accompanied by teaching literature courses, so that the degree should be in English, comparative, or American literature. In colleges with strong journalism departments, the faculty member will teach journalistic writing and other journalism courses. Postsecondary institutions may hire a noted writer or journalist for a term to teach only that person's specialty (e.g. poetry, architectural reporting).

For free-lance writers, whether literary, journalistic, or specialized writers, the career ladder is based on the practitioner's personal sense of advancement. Increased income through sales, greater public recognition, critical

recognition, or an inner sense of advancement in craftsmanship and quality constitute the "ladder". Initial publication (assignments for scriptwriters, or production for playwrights and musical writers) generally occurs "over the transom"\*: a publisher buys an unsolicited manuscript from the individual. After a free-lancer has sold several pieces, he or she may acquire a literary agent who will conduct future sales and arrange contracts for ancillary sales rights such as paperbacks. Most free-lancers who earn their living solely as free-lancers write mainly in one genre and advance in that genre by increasing quality and sales. The well-known free-lance writer also advances by being solicited to write book reviews of other works in his genre, or to move out of the genre (the novelist may be asked by a magazine publisher to report on a major political event, for example). Recognized writers are also invited to school campuses as "writers-in-residence" which may require some teaching. While formal education clearly enhances the writer's ability to perform, it is not essential for initial publication or subsequent advancement.

Career lattice possibilities based on the use of writing skills are broad. Free-lance writers can take temporary or permanent positions as editors or writers for any kind of publication, including technical publications (indeed, the manager of one large industrial technical editing department prefers that the employees are also creative writers in their non-paid time.) Writers

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\* For readers acquainted only with modern buildings, there was a small window over the door of interior offices in many old buildings which was often left open; the aspiring writer who could not get an appointment with an editor would pitch a manuscript through the window or simply mail it-hoping that the editor would read it and be excited by the quality. "Over-the-transom" sales avoid the need for an agent or a personal acquaintance with an editor.

and editors on salary can move rather easily from a magazine to a newspaper, but somewhat less easily to a book publishing firm. Business firms use writers for public relations, internal communications, report writing and editing. Social service agencies, educational institutions, and research firms seek employees with writing skills, although usually in combination with other competencies.

As with writers, editors can also move from one editorial job to another for career advancement although having only editorial skills can be quite limiting for lateral changes in employment. In the business jobs which support writing endeavors, a high degree of specialization makes lateral movement more difficult.

Despite the fact that few people make a living as free-lance writers and that advancement in salaried writing positions may require other competencies, writing skills are a tremendous asset in most professional positions.

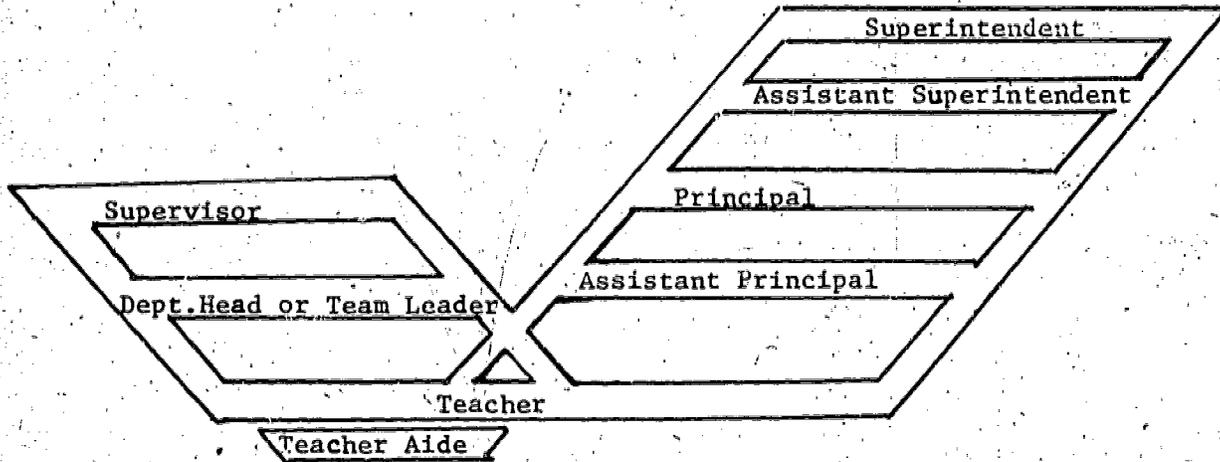
F. Humanities Cluster: A Discussion of Career Ladder and Lattice Possibilities

Career ladder possibilities in the humanities occupational cluster can be described rather clearly because most work opportunities for people in humanities fields occur in settings with a hierarchical arrangement. Career lattice possibilities generally involve transferring particular competencies and functions from one setting to another. TERC's overall system for classifying humanities occupations includes both enterprises (e.g. "education") and fields (e.g. "political science") in order to show students a broad range of occupations. This discussion of career ladders will focus first on the enterprises we have included, demonstrating the existing ladders and showing lattice possibilities by example, and then will outline ladders and lattices for humanities practitioners in fields not covered by the first discussion.

Because education is by far the largest enterprise in which humanities occupations exist, it deserves major attention; further, people in all of the humanities fields can function in the enterprise of education, and for most fields, more people are employed as educators than in any other enterprise (law and religion are fields where the largest number of employees are not strictly in "education"). In fact, for many people in humanities, education is the only viable enterprise.

Elementary and Secondary Education

Career ladders for elementary and secondary school continue to follow two well established patterns:



As the chart shows, from the starting rung of teacher, advancement may be up a ladder towards supervision of other teachers or up another towards administration of a school or school system. These ladders exist in both public and traditional private schools up to the rung of principal, which is generally the top administrative position in a private school. With advanced degrees, it is becoming increasingly possible to skip several rungs on a ladder: for example, one starts as a teacher, leaves to get a master's or doctorate, and return as an assistant superintendent. In the alternative school movement, the career ladder distinctions may be blurred but the large majority of elementary and secondary school positions follow these patterns.

Except for the teacher aide, entry into this career ladder necessitates an A.B. or B.S. degree either in education or in a particular discipline complemented by education courses. The teacher aide cannot advance without obtaining an A.B. or B.S. degree. As school populations decline and the supply of teachers with education credentials remains constant, public schools are increasingly unwilling to hire teachers who have not taken appropriate education courses in

college. Private and parochial schools remain less concerned about education courses than about discipline courses; in the more prestigious private schools, however, entry teaching jobs are frequently given to teachers with Master of Arts or Science degrees, and advancement to the higher positions of department head or principal (headmaster) may require a Ph.D. degree.

Advancement in public schools usually depends on acquiring credits beyond the A.B. from a recognized educational institution to comply with certification requirements set forth by the legislatures and Boards of Education for each state: the second grade school teacher cannot become principal of the school through demonstrating leadership qualities alone, but must have additional courses in administration. Requirements for each step of advancement can limit the possibilities for highly competent people who are unable to take additional courses; however, these requirements have eliminated inequities occurring through politics or through a custom of choosing principals and other administrators from the high school athletic coaching ranks. As school systems move slowly and cumbersomely toward some sort of "merit" system, the established career ladders may be replaced. No radical change can be expected for many years in elementary and secondary education patterns of advancement.

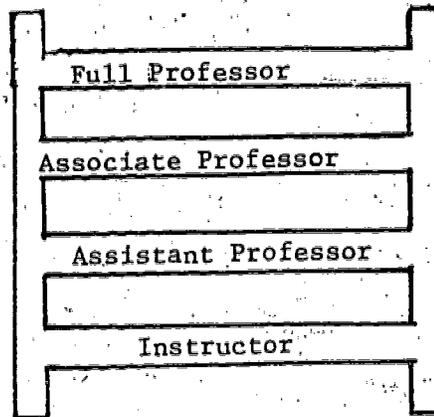
Lattice movement occurs in various ways for elementary and secondary school educators. The teacher may transfer to a larger school system on the same teaching level, or from one level to another (elementary to junior high to senior high) depending on certification requirements. Since differences in salaries

for each level have been generally eliminated, movement from one to another occurs more for the teacher's interest in a different age group or educational approach than for career ladder reasons; in other words, the high school teacher is no longer considered more "advanced" than the elementary teacher.

Teachers may move out of the classroom into curriculum writing or counseling (with additional courses) for a school system, into textbook editing (which usually requires teaching experience for elementary and high school texts), into industrial training and management development instruction, into business occupations (though additional training may be required) especially if the occupation requires a great deal of public contact, or into public service occupations (although, again, additional preparation may be required.) The lattice possibilities for educational administrators are not as varied as for teachers, perhaps because administrators are more specialized. Typically, administrators move to a different setting; for example, a principal may move from a junior to a senior high, from a private school to a public (though this is not very common because public schools require certification not required by private schools), or a superintendent from a smaller to a larger school system. Administrators can move into teaching administration in college departments of education, into business management and personnel work, and into educational research firms or foundations.

#### Postsecondary Education

This paper will focus a great deal of attention on postsecondary teaching positions because in many humanities fields that is where most jobs exist. In a few fields such as philosophy or linguistics, college and university teaching posts offer nearly the only job opportunities at this time. The career ladder is very clearly delineated:



There is a clear break after assistant professorships, for it is at that point that tenure decisions are made. An assistant professorship may be renewed once before tenure is granted or denied; if tenure is denied, the assistant professor may no longer remain on the faculty of that institution.

Entry into postsecondary teaching requires a minimum of a Master's Degree although in four year colleges and universities, a Ph.D. degree (or all advanced course work minus a Ph.D. dissertation) is now the entry level requirement. Advancement paths in an academic faculty vary somewhat according to the setting. In a university offering advanced degrees, the move up the ladder of faculty members entering with a Ph.D. is based on scholarly research and publication in recognized scholarly journals, rather than on merit in teaching. In two-year colleges and in four year colleges offering few or no advanced degrees, scholarly publication is much less essential. Advancement and the granting of tenure in these schools may be based on involvement with teaching or projects which enhance the school, but the person who enters without a Ph.D. is likely to find advancement difficult, primarily because Ph.D. holders who formerly sought positions in universities are quite willing - indeed delighted - to obtain teaching jobs at any level of accredited postsecondary institution.

Although Affirmative Action legislation is attempting to ameliorate the "buddy" or "old boy" process of entry and advancement in postsecondary teaching ("buddy" refers to jobs being available only through a faculty member's recommending a graduate student for placement to his buddy who is hiring at another university,) the process still tends to be highly discriminatory at the university level. Among those discriminated against are women, minorities, and all students receiving Ph.D.'s from less prestigious universities (which includes most state universities). There is a definite academic "aristocracy" and the job-seeking Ph.D. who does not have entree to this aristocracy through the buddy system will gain admission only through publication of highly respected scholarly research. Prestigious universities were once able to absorb one another's graduates into the faculty; as this is no longer economically feasible, the Ph.D.'s from these universities are acquiring teaching positions at less prestigious ones. The Ph.D.'s graduating from the lower-rated universities are getting jobs at two and four-year colleges or secondary schools or not at all. The extension of the buddy system via the Ph.D.'s from prestigious schools teaching at non-prestigious schools may raise the quality of academic instruction or the prestige level of state universities; whether it opens or further restricts academic advancement for Ph.D.'s graduating under this new generation of buddies has yet to be determined. One already apparent positive aspect of extending the "aristocrats" into less well-rated schools impacts on the promising undergraduate: with recommendations from a faculty member holding a Ph.D. from a prestigious school, this student is more likely than in previous years to be admitted to top-rated graduate schools, and therefore have entree into the buddy system.

The buddy system has ramifications not only for entry into postsecondary teaching positions but also for advancement. While advancement within an institution is based on a clear-cut hierarchy, advancement in the eyes of the scholarly world is related to the prestige of the postsecondary school where one teaches. Thus the full professor of geography at a second-rate school probably does not consider himself/herself as "advanced" as the assistant professor of geography at a prestige school, and unless he publishes a "brilliant" piece of original research, will never be invited to teach full-time at a prestige school (though if he obtained his Ph.D. at a prestige school, there is a very slight chance that the buddy system could work in his favor with the publication of a less than brilliant work - and textbooks usually don't count). A teacher on the top rungs of a prestige university ladder, with publications, is likely to receive offers from both prestige schools and other academic institutions which are seeking to improve their ratings.

The role of publication in advancement is also tied in with the buddy system. Just as there are aristocrats among schools, there are particular journals for each scholarly field which are the aristocrats, and the editors of these journals are generally themselves faculty members at prestige schools. For the postsecondary teacher seeking advancement, a "note" in one journal may be far more valuable than a full-length article in another. There are examples, which will never be documented, of an article being rejected when submitted through a lesser institution but the exact article being published when submitted through a prestigious university. In the field of economics, the role of the

buddy system in publication has been examined to the extent that an investigation of articles published in the two leading journals for economics scholars shows that a less-than-random sample of authors teach at certain postsecondary schools. While one may interpret these findings to mean that the publishable articles are written by scholars on the faculty of prestige schools, one may also infer that the buddy system is at work.

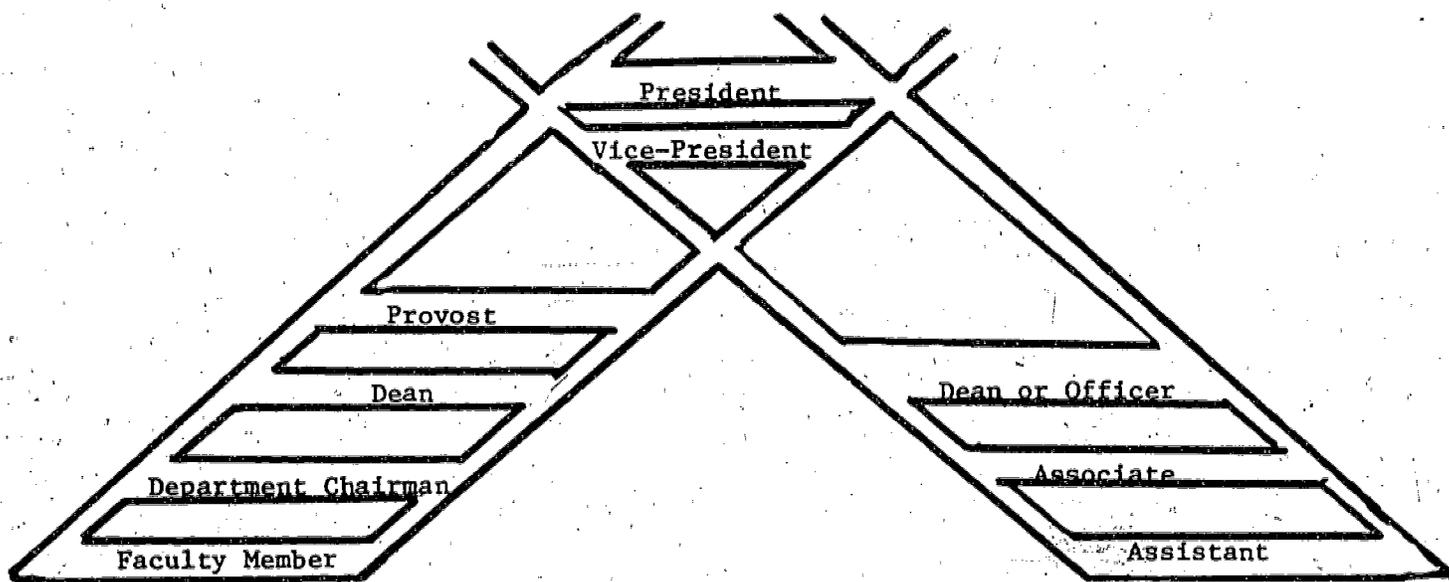
When one reaches full-professorship status at a top-rated university, there are still degrees of advancement. The ultimate in the scholarly world seems to be holding an endowed chair at the university whose department in one's particular discipline is rated as the very best, teaching one small seminar of graduate students every two years, and spending the majority of one's time in research for further publication.

For the young person interested in a humanities field, this discussion of career ladders on the postsecondary teaching level may seem invalid if his or her goal is to teach in a college or university. However, the person satisfied by the intrinsic rewards of excellence as a teacher must be aware of the entry and advancement paths described. For the person seeking recognition in the scholarly world and concerned with the academic level and caliber of students being taught, it is crucial that he or she understand the ramifications of career ladders in the scholarly world.

The greatest potential change in the career ladder will be brought about by changes in granting of tenure. Some schools are already experimenting with renewable contracts even after a teacher has been at that school for seven years. Publication rather than merit as a teacher will probably remain the standard for advancement until standardized procedures are developed for identifying excellence in teaching.

Career lattice possibilities for postsecondary teachers depend greatly upon the particular field. Faculty members in social sciences have greater possibilities for moving into government or business jobs than do teachers of language, literature, history of the arts, or philosophy, simply because there are more non-teaching jobs requiring social sciences skills. For teachers of economics, geography, political and social science, possibilities continue to be open for research and administrative jobs outside the educational enterprise; because universities can allow leaves of absence, tenured faculty members have great flexibility in moving out of education for a year or two and then back in at the same professorial level. The more education one receives in non-social sciences humanities fields and the more one advances on the postsecondary career ladder, the less able one is to move laterally. As the declining economy and federal government policies prohibit innovative public service ventures which formerly were able to absorb some of the professors seeking career lattice movement, a locking-in is occurring for people in the academic world.

In addition to teaching ladders, postsecondary institutions also offer administrative career possibilities. One is that of "line" administrative occupations which deal directly with the faculty; the other is the "staff" administrative occupations. The latter are support services such as admissions, financial aid, placement, development, record keeping, and Affirmative Action. At the top, the two ladders converge in the positions of vice-president and president:

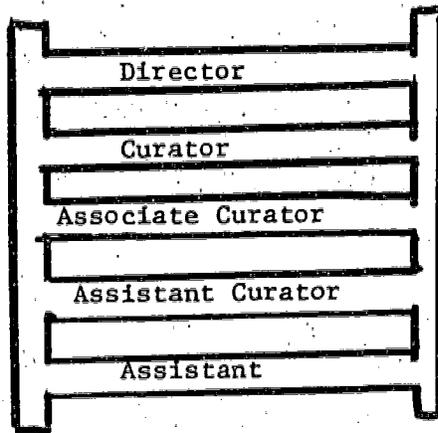


Because they are progressions from faculty positions, line occupations generally require advanced degrees, but a bachelor's degree may be sufficient for many staff occupations. Staff position career ladders seldom lead one to the position of president of a postsecondary institution.

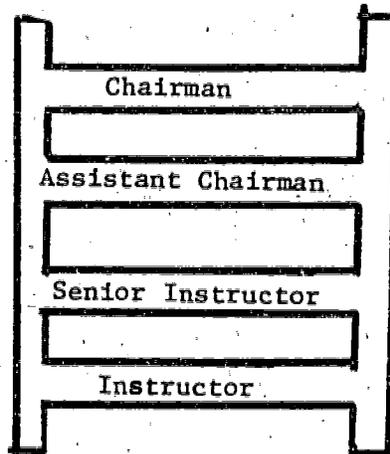
Career lattice movements for staff positions in postsecondary education are more possible on lower levels where the position does not yet require highly specialized knowledge or experience. The assistant Affirmative Action officer could move into a staff position in placement at the same institution, although the move would more likely to be upward to officer or sideways to a larger institution as either assistant or Officer for Affirmative Action. As one progresses up the administrative staff ladder, it becomes more difficult to move out of the educational enterprise, even into other non-profit organizations. A hospital, for example, would much more likely hire a personnel director from another hospital than from a university. Large businesses almost always require previous experience in a business setting for higher-level staff jobs. The move for holders of these positions would thus generally be from one postsecondary institution to another.

Museum Work

An enterprise similar to the world of education in having clearly defined career ladders is the museum world, perhaps because there has traditionally been a close relationship between museum curators and academic scholars. The career ladder for curatorial work could be pictured as:



Under the museum director is the administrative staff--the business manager, public relations director, registrar--but as these positions are not usually direct pathways to museum directorships, they are not placed on this career ladder. Similarly, the exhibition function of a curator's department is supported by a staff of conservators, preparators, technicians; but again, since these do not lead directly to curatorial positions, they are not on this ladder. The steps of the ladder are not always as clearly defined as this diagram depicts. In small museums a curator may act simultaneously as director. In very large museums, the director is likely to be someone with a great deal of administrative experience and/or a background in museology and curatorial work. Other museum departments, such as library, education or exhibition, have their own career ladders. For example, this is the career ladder for a museum department of education:



As for career lattices in museum work, curators may move back and forth between museum work and university teaching. Similarly, persons in museum education occupations may have come from elementary or secondary school positions or move back to them. Museum technicians (carpenters and photographers, for example) can apply their specialized skills in a wide variety of settings, of course, as can accountants, public relations people, and others who are employed on the museum administrative staff. Technician level jobs in museums are among the few in the humanities field which can be obtained with less than a baccalaureate degree.

#### Other Humanities Occupations

For occupations in the humanities aside from education and museum work, the career ladders are determined by the specific settings in which the occupations exist. For example, if a person works for the federal government, the career ladder is that of the U.S. Civil Service; if he or she works for a business or industry, the career ladder of that particular organization prevails. In some cases, as in the arts, ladders do not follow a traditional pattern, but are determined by individual practitioners who include such considerations as autonomy and personal satisfaction in their concept of a ladder.

Career lattices are also varied. Because lattice movement depends highly upon individual practitioners, this discussion will cite those lattice possibilities described by practitioners interviewed by TERC project staff. For many of these occupations, entry requires an advanced degree beyond the baccalaureate; as holders of Ph.D.'s move from teaching into non-academic jobs, the mere availability of such people will tend to make the Ph.D. degree necessary for advancement.

In languages, a practitioner with a B.A. in a foreign language who is presently working as an escort interpreter for the State Department indicated in an interview that he might also work for the government in the Foreign Service, for the State Department in other capacities, in AID, or in private agencies partly financed by the government such as the African American Institute. Outside the government, this person could translate literature or information for a business; work in the travel industry as a chaperone or a group leader; teach in private language schools, in elementary or secondary schools (if certified as a teacher), in literacy programs, or in a child care program; or work as an interpreter for a social service agency. Additional possibilities include businesses such as import/export or banking where fluency in a particular language (or languages) is often required in addition to sales, administrative, secretarial or other skills. If one is good at balancing trays, restaurants with menus printed in a foreign language are a possibility.

In the field of literature, most of the occupations are in teaching, and most of the career lattice possibilities are in writing. Someone with a background in literature could edit or write textbooks, compile anthologies, or edit or annotate previous editions of literary works. Creative writing, critical writing, and reviewing are also possible career options. However, these possibilities, with the exception of editorial work, are generally supplemental rather than full-time career opportunities.

For arts historians and critics the career lattice possibilities are varied. For example, a musicologist could edit, give performances that are historically authentic, or be a curator of an historical instrument collection. Career lattices for critics of the arts include teaching, writing, and if it is consistent with their training, performing in their specialty as artist, musician, actor or broadcaster. For an art historian who is presently an associate professor at a liberal arts college, the lattice possibilities are: a curator in an art museum, an academic dean of a college, a teacher of art history, or history in a secondary school, or an administrator of a secondary school. This person could also work in the art publishing field; in galleries or dealerships; in urban or community planning as, for example, a consultant on a project or as the organizer of a program to teach children about the visual aspects of their community; in the conservation of works of art or architecture; or in the education department of a museum.

Most practitioners in the field of history are faculty members in colleges or universities, but there are lattice possibilities. An historian could be employed by the federal government as, for example, an intelligence specialist for the Department of Defense; or a writer of historical information for the National Park Service; or the Smithsonian Institute. An historian could also function as a writer of popular historical works; as an editor of historical books and/or journals; as a curator or director of an historical museum; or as a consultant for dramatic productions or for the restoration and interpretation of historic sites. With training in archival techniques, an historian could work as an archivist in the National Archives, or a library, or as a curator of manuscripts in a museum. Increasingly, archivists are able to obtain work in local and state governments, in private businesses and in professional associations.

Career lattice possibilities in the field of political science are greatly varied as the two following examples will indicate. An interview with a public policy analyst with a master's degree employed by a private research company revealed that that person could move into government work as a policy formulator and evaluator or as a program manager, for a governmental agency or private firm as a planner, or for a non-profit or professional organization as a planner or resource person. Another person interviewed who holds a bachelor's degree in political science is presently a legislative aide for a state representative; he informed TERC project staff that he could find employment in the executive branch of the government as an agency aide or for an international agency such as those sponsored by the U.N. His advancement could conceivably include running for elective office.

In the field of economics, the career lattice possibilities can also be described by citing examples of practitioners. A market research analyst for a company which manufactures consumer products could also be employed as a sales analyst for the same or a different company, as an economic analyst for the federal or state government, or in a variety of sales, administrative, or management positions. An economist who is presently working for a bank forecasting trends in loans and deposits indicated that he could move into another position with the same bank or could work for a brokerage or insurance firm conducting industry studies. Another possibility is performing basic market research or sales forecasting for a business firm.

The majority of geographers are faculty members in colleges and universities. An important career lattice for geographers is working for the federal government in intelligence or map work for various departments such as Defense, Interior, Bureau of the Census, and Bureau of Outdoor Recreation. Geographers also can work for state and local governments as planners for private businesses doing site research, for textbook and map publishers, and occasionally, for travel agencies.

In the field of sociology the major occupation is again that of faculty member in a college or university: 90% of America's practicing sociologists are academics. The career lattice possibilities are teaching in secondary schools; providing clinical services in social service agencies such as marriage or family clinics; conducting research for non-profit organizations such as political groups, hospitals, religious organizations, and independent research organizations; or working for a government agency.

Anthropology is another field where the great majority of practitioners are faculty members in colleges or universities. There are a few career lattice possibilities such as working for government agencies, research organizations, foundations. For example, an anthropologist might investigate the impact of a planned military installation or a super highway on people and the natural environment. There are some opportunities in business helping to design airplane cockpits and other "created" environments such as the leisure center for Alaskan pipe-line workers. Anthropologists also work for government agencies and museums discovering, restoring and preserving historic sites and artifacts. Some anthropologists combine teaching and museum work.

In the fields of philosophy and ethics, the major career opportunity is teaching. Career lattice possibilities are limited, but include computer programming, consultant work for private foundations or government agencies interested in philosophical foundations of policy formation, and personnel work.

Most religious practitioners serve as the clergyperson for a congregation. In some groups, a clearly hierarchical ladder exists with movement between congregation determined by the leaders of the denomination's headquarters or regional administrative offices; in others a clergyperson is "called" from one congregation to serve another, often moving from assistant to head clergyperson.

In some cases the clergy member is assigned to his/her position. Other clergy members may choose to serve in the armed forces, in hospitals, prisons, schools, drug clinics, family counseling centers, or missions located in other countries. Lattice possibilities are as varied as the many churches and religious organizations and the talents and skills of the people who work for them.

People receiving training in law (where degrees are now considered the equivalent of a Ph.D.) are finding keen competition in obtaining entry level positions because the number of annual law graduates is more than twice the number of law positions available. Within a large law firm, a hierarchy exists with advancement culminating at full partner. Advancement for a person practicing individually is determined by increase in numbers of paying clients and in the kinds of cases the lawyer is asked to assume. Lawyers can also become judges. For lawyers there are career lattice possibilities within the field - for example, lawyers can move from a general practice to a specialized one, from practicing law to teaching it, from private practice to being a government lawyer. Career lattice possibilities for lawyers include seeking elective office or working in a business. An occupation in the field of law which does not require a law degree is that of paralegal. For paralegals, lattice possibilities include working as an administrative assistant in a government agency, private business or bank, and cataloging for a museum or a library.

To conclude this discussion of career ladder and lattice possibilities in the humanities, these points need emphasis:

- 1) In such enterprises as education and museum work, clear career ladders can be drawn; occupations in other enterprises will follow the career ladder of the specific governmental agency or corporation in which the person is employed.
- 2) For humanities occupations which involve college and university-level teaching, a Ph.D. is becoming the entry educational requirement; publication is mandatory for advancement in many four-year colleges and all universities.
- 3) For fields which have an application to business or governmental enterprises (translating and interpreting, geography, economics, political science, sociology) there are occupations requiring only a master's degree or possibly a bachelor's degree; however, as Ph.D.'s become more available for non-teaching jobs, there will be far fewer opportunities for people holding lesser degrees.
- 4) In times of economic strength, there is a good possibility of movement among business, educational and social service/governmental enterprises. However, many humanities occupations tend to be considered a luxury in times of economic recession, thus constraining possibilities for lateral movement as well as for entry and advancement.
- 5) For women, defining what constitutes career advancement may be a special problem. Interviews with several women in middle-management positions or in occupations where most of the practitioners are men revealed that the women tended to define career advancement in terms of personal fulfillment or satisfaction. Men in similar positions, however, generally defined advancement in more traditional terms, e.g., moving up to the next position in the hierarchy, a salary raise, or similar measures of success. The obvious question is whether women tend to define success in personal terms because they are afraid of being frustrated in their effort to attain the traditional standards.

Certainly an interesting variety of possibilities exists in the humanities occupational cluster. Making this variety available to individuals depends on a climate which includes a stable economy and an attitude of acceptance for the importance of humanities practitioners in the daily lives of American citizens.

IV.

ARTS AND HUMANITIES OCCUPATIONS:  
A DISCUSSION OF JOB PROJECTIONS

If a young person asked a member of TERC's arts and humanities project staff in early January, 1975, "Do I have much chance of getting work in these fields?" the answer could realistically be "no", based on research in the employment outlook for the vast majority of jobs in these clusters. TERC had known when beginning occupational analysis six months earlier that we were looking at crowded, highly competitive fields but had hoped to offset distressing projections by broadening the original cluster concept to include a range of jobs related to central arts and humanities occupations. We had hoped that our investigation would be encouraging by revealing emerging occupations and new ways of putting together jobs so that interested students could indeed anticipate earning a living in arts or humanities fields.

Data has now been assembled from written sources, a number of practitioners have been interviewed; reports such as the Ford Foundation's The Finances of the Performing Arts have been scrutinized by project staff.\* During the time of conducting these activities the overall unemployment rate has risen to over 7% (and will likely reach 8% by the end of January, 1975) and the inflation rate is over 12%. The country has a new President and a number of new governors, all of whom are pledging to combat inflation by trimming government spending. Foundations are

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\*as Robert Brustein reports, "what this weighty massive 446-page document manages to say...is that if you think the performing arts are in financial trouble now, just wait until 1981." (Reprinted from the New York Times in the October-November issue of the Grantsmanship Center News, p. 45.

reducing grants because of reduced capital and dividends from stock investments. School populations are declining on most educational levels, and educational institutions are restricting staff budgets. The consequent impact on all occupations, but particularly on arts and humanities can most succinctly be described as grim.

Despite this gloomy outlook, we do not plan to say "no" to students interested in exploring these careers. We did learn about a few emerging occupations; we did interview arts practitioners who are creating careers in innovative ways; we even found one or two teaching areas which may offer increased employment despite declining school population and inflation; and there are some interesting quirks in which the recession has actually expanded employment opportunities.

More importantly, we believe that arts and humanities are essential for the intellectual and social growth of this country. These occupations and preparation for them are not luxuries to be abandoned in times of combined recession-inflation. Norman Cousins wrote recently, "The most serious problem right now is that the American people are psychologically depleted and are not primed for innovation." (Reprinted from Saturday Review/World in the Boston Globe, January 5, 1976, p.A-1.) We believe that artists, humanists, and those people working with them are integral to restoring the American spirit.

In student materials TERC will point out the realities of employment outlook. Students with limited interest or marginal potential for acquiring competencies may be discouraged by these realities, but the student with strong commitment should be encouraged by exploring the breadth of possibilities. This student will eventually contribute to the country's regaining, again quoting Norman Cousins, "confidence in ourselves, in our history, and the ultimate power of ideas."

TERC's discussions of job projections for the humanities cluster and the six components of the arts cluster are based on national trends existing in January, 1975. While these trends may change, we are prognosticating from the situation in 1975, not being wise enough to choose correctly among contradictory economic forecasts nor to prophesy policy of present or future government administrations nor to foresee whether zero population growth is only a cyclical social goal. Some factors are common to all projections, particularly economic conditions and government policies. Foundation policies and contributions from business and individual citizens also affect projections in many arts occupations. The following table derived from Ford Foundation's The Economics of the Performing Arts, indicates the importance of such contributions:

Percentage of total operating income (100%) received through earned and unearned income, 1970-1971.

	<u>Total Earned Income</u>	<u>Total Unearned Income</u>	<u>Appendix C page</u>
Theater (not including Broadway, dinner theater)	66.4	33.6	13
Opera	50.5	49.5	22
Symphony	47.0	53.0	31
Ballet	54.4	45.6	40
Modern dance	68.6	31.5	49

The report concluded that private patrons, foundations, and corporations as well as governments must all substantially increase support of these performing organizations in order merely to maintain the 1970-71 financial level.

In considering factors affecting job projections, TERC staff encountered a dilemma regarding public taste. Particularly in the arts, shifts in attitudes of the public can create new work swiftly or just as swiftly eliminate employment. A question arises as to the precise relationship between economics and public taste. For example, did Peter Brooks' design for a British Shakespearian production in the 1960's influence public taste to the point that subsequent designers used simple sets to accommodate public taste? Or has the use of simpler sets evolved because mounting a play with elaborate sets and changes of set between acts or scenes is too expensive to allow a financial return to the investors? Is the upsurge in popularity of etchings attributable to a change in public taste or the fact that fine artists can produce etchings at a more reasonable price than one-of-a-kind works? Did the use of a large string section behind a country western group in recording fade out because the string section cost money or because the public no longer insists on background as well as foreground music? TERC's curriculum development project cannot possibly arrive at any reasonable conclusions regarding the relationship between the economy and public taste. We raise the question because it affects job projections: if one could say simply, "economy prevails," then projections would be simply "small orchestras, or small whatever in times of recession, and thus fewer jobs;" if public taste is the dominant factor, projections would be more difficult, but some generalizations could be drawn based on cycles of styles and tastes, or projections could simply be avoided altogether. At the very least,

TERC can in materials written for students create an awareness of both economics and rapid shifts in public taste on employment outlook; our conclusions for now are that versatility and flexibility on the part of the individual practitioner are essential for surmounting employment obstacles caused by either the economy or a particular fad. Although raising the question of relationships tempts us to stray into considerations of various factors involved in public taste, we will be content with arousing awareness on the part of students of the question's ramifications on earning a living in arts or humanities.

As TERC is conducting all U.S.O.E. obligations with the ultimate aim of broadening students' career aspirations and helping them make realistic career choices, we wanted to present job projections in a readily perceived format. A possibility for this format to which the staff devoted undue attention was charting specific jobs on a state-by-state basis to show 1970 employment figures, and projected employment needs for 1980. All fifty states, Puerto Rico, and Guam were asked for available data, and two thirds had responded by the end of 1974.

Examining the state documents revealed an immediate problem. In most cases the job classifications included are those determined by the U.S. Bureau of Census for use in such documents as Occupational Characteristics. The groupings do not reflect the kinds of discrete titles in TERC's classification system; instead, "musicians" and "composers" are lumped together; "editors" and "reporters" are listed as one item, as are "painters" and "sculptors" and "teachers of art, drama, and music(college and university)." This kind of lumping together is no help to the student interested, for instance, in being a junior high school band director, to know exactly what employment outlook is projected for the desired career.

The examination revealed additional problems. Some states provided projections for 1975, or 1976, but not for 1980. Other states indicated annual average job openings which may not necessarily be equivalent to estimated needs over a ten-year period. The tables of projections did not always indicate whether openings were anticipated due to growth of a field or to replacements because of death or retirement; as the difference can be important, omission of precise reasons for projected employment needs caused a problem. The most difficult problem is that unaccountable variances occur among tables: totals in one state's chart for a particular group of jobs do not equal expected totals in another chart in the same document.

Because of these variances, TERC's research librarian consulted staff of the regional U.S. Bureau of Labor Statistics (BLS) office. The BLS is responsible for the Occupational Outlook Handbook (OOH) and tabulates data obtained from every state as part of the Interim Manpower Projections Program.

Each state provides data on employment according to industry, and the BLS in turn uses the data to provide projections by occupation and estimated people-power needs during the next several years. The base data used is obtained from the 1970 census, and the occupational categories are the same as the census classification mentioned previously.

Several potential sources for inaccuracies in this data exist. The projections which the states use are based on a national staffing pattern and are not individualized according to state, although a state may make changes to reflect specific conditions in that state. For example, a state which has a particularly high proportion of persons employed in a certain industry probably will have a higher proportion of persons employed in various occupations which are part of that industry. Unless the state adjusts the figures, the projections may not accurately reflect that state's needs.

Projections for 1980 are usually based on the same percentage of growth for each industry as was used during previous periods, which does not necessarily take into consideration changes that may have affected an industry due to economic conditions, for example.

There are also difficulties in using census figures as base data for employment projections. The census is based on place of residence, not place of employment, and does not take into account mobility of people between states.

Currently the BLS is developing a new national matrix which will be based on place of employment, thus hopefully increasing the accuracy of the data obtained. It will also be based on employment figures over a three-year period, rather than on the decennial census. Each succeeding year will be added and the first year eliminated, always maintaining figures for a three-year period. This is known as the Occupational Employment Statistics (OES) program, and about 29 states are presently involved in it. It is hoped that eventually state patterns, not just national ones, will be reflected in the base data.

Also undergoing change is the Bureau of Census Occupational Classification which is gradually being replaced by the Standard Occupational Classification (SOC).

For reasons stated above the validity of the state data seems questionable, resulting in minimal usefulness for a chart of peoplepower projections by state. In fact, some of the introductory explanations of various states' information advised that the data be used as indicators or trends, not as actual figures and forecasts.

Rather than use state figures at all, TERC decided to rely primarily on data from the 1974-75 edition of the Occupational Outlook Handbook. The BLS staff members we consulted suggested this as preferable to data from individual states.

They also suggested using information from Occupational Manpower and Training Needs, (BLS bulletin 1701), but since it was published in 1971 and is based on 1968 employment figures, we decided to use only the more current OOH.

In addition to the Occupational Outlook Handbook, each staff specialist writing a report on job projections for a given field used other published information such as occupational briefs from Science Research Associates, Teacher Supply and Demand in Public Schools, 1972, (National Education Association, 1972), and Projections of Educational Statistics to 1982-83 (U.S.O.E.). Current reports from newspapers and journals have been valuable in reflecting up-to-the-minute thoughts on these fields, as have interviews with people presently working in arts or humanities occupations. Each staff specialist brings his or her current knowledge of job opportunities and trends in a particular field which will affect opportunities in the future; staff knowledge has been applied to temper some of the published projections which are no longer realistic. Though the job projections reports are generally grim, project staff has been and will continue to be alert to emerging opportunities and to innovative ways for people to be employed in these clusters.

A. Job Projections in Dance

Competition for the few positions available to professional dancers is very heavy considering the small number of dancers able to find work: 4000 in 1972, (OOH) a figure which includes stage, screen and television. Since women account for 90% of all professional dancers, the situation for trained male dancers is less competitive because dance companies try to maintain equal numbers of men and women.

As the number of jobs in the area of professional performance is directly related to the funds available to dance companies, financial predictions about these companies can indicate some general trends in the future job market. The Ford Foundation recently released The Finances of the Performing Arts, (Ford Foundation, 1974) which reported on 166 non-profit performing organizations with annual budgets of \$100,000 or more, including ballet companies and modern dance troupes. The total earnings gap of the 166 organizations during the 1970-71 season was \$62 million, and over half of them did not balance their budgets even with unearned income contributed from various sources. The earnings gap will continue to increase, according to the Ford Foundation report, through 1980 to a figure close to \$335 million. The Ford Foundation's recent decisions to cut spending by 50% by 1978 will have an adverse effect on many ballet companies who must now look to local private patrons for support. Because both private and national foundations depend on investment income, economic conditions will determine how much of the earnings gap can be filled from these sources. Foundations and patron gifts provided ballet with 81% of the total unearned income in the 1970-71 season; many ballet companies are, therefore, faced with the challenge of seeking a different financial base.

The impact of foundation support on modern dance companies is serious but not so critical as for ballet because foundations and patrons provide only 32% of total unearned income to modern dance troupes; the remaining 68% is contributed by government grants on federal, state, and local levels, while ballet companies receive 19% from government support. Government grants are supplied by the National Endowment for the Arts as well as the state and local councils on the arts. Support from such sources is enhanced through positive action by federal and state legislatures, but with pressure to cut government spending the future of such subsidies is unclear. Another source of anxiety for ballet companies is competition from European companies touring the United States. In these times of inflation and recession, American dancers are put in the position of competing for the same audience against their European colleagues, who are mainly supported by their own governments.

The Broadway musical has long generated employment for trained dancers, but, as Jerry Herman, who wrote Mame and Hello, Dolly!, has pointed out, "There will be nothing but small musicals on Broadway for at least the next five years - shows with casts of twenty or less and no chorus. You have to spend \$1 million now to produce a big show, so there's no way. The economic problem of the musical is wildly out of control." (UPI, December, 1974). It seems apparent that dancers will have difficulty finding jobs on stage for at least the next five years, not only in ballet and modern dance but also in music theater and night club shows.

Film and television provides modern dance companies with only .3% of the total earned income and an even smaller percentage for ballet, according to the Ford Foundation report. However, individuals working on a free-lance basis at the large film and television studios can expect continued sporadic employment.

The practice of filming large Broadway musicals should continue to provide some employment on screen. Fewer jobs could result, however, as the film industry seeks to economize production costs to cope with inflation, and of course, when the original musical is mounted with a small number of dancers.

Beyond the limited opportunities available in the performance area is a wider field of opportunity in dance education. Many opportunities exist for dance teachers in private studios working with all age groups, and general interest in dance of all kinds continues to grow. According to Shirley Ririe, who is a member of TERC's National Advisory Committee and a professional dancer as well as educator, more dance courses are being established in public schools, creating a demand for dance teachers. Ms. Ririe cites such programs as Artists in Schools which stimulates interest and support for dance as contributing to this growth. In the form of an educational program, dance has an edge over other programs, like music and theater, because it is quite economical to maintain, needing only space with practice bars, a teacher, and a way of providing music (music and theater curricula require expensive instruments and often elaborate and expensive stage equipment). In a time of economic recession and inflation, this economy favors the introduction of a dance program.

Since most dance therapists work in state hospitals, they must rely on positive action on the part of state legislatures for job opportunities. While some dance therapists are working in large private hospitals, the growth of employment opportunities is slow, owing to a lack of research and to a lack of acceptance on the part of the medical profession of this form of non-verbal psychological therapy.

A final and very important factor in discussing job projections for performing dancers relates to the age at which training begins. Authorities in the field believe that a dancer's training should begin as early as age 8. Professional auditions begin when the dancer reaches mid-adolescence. Essentially, there is no job outlook for an aspiring dancer who has not begun training at an appropriate age.

B. Job Projection in Music

In a recent letter in response to a TERC staff member's inquiry, Margaret Sears, the Executive Director of the National Association for Music Therapy, Inc. wrote:

"Available positions in this field (music therapy) are not presently as plentiful as was true two years ago, due to the unsettled economic conditions this country is experiencing. However, in recent months we have noticed an increase in the number of job openings. Hopefully this is a trend heralding better days."

Mrs. Sears goes on to say:

"Currently, most music therapists are employed in governmental institutions, thus the actions of legislative bodies determine to a great degree growth of the field. The most significant deterrents (to growth) have probably been the absence of a significant body of research and a public relations program."

In the paragraphs quoted it is possible to see the complexity of making job projections. For music therapists and most other musicians, the future job market is closely tied to several complicated and interrelated factors. Some of these are:

1. Economic conditions
2. Policies of foundations
3. Public support
4. Legislative actions
5. Impact of technology
6. Declining population

Of these, the most complex and the most frequently mentioned by interviewed practitioners is the economy. Musicians and other artists are often among the first to feel the effects of an economic crunch. A school administrator forced to cut expenses, for example, will usually make reductions in music and art programs long before cutting back support of strictly academic areas, or athletics. As a private violin teacher interviewed by TERC staff explained, she is caught "between the devil and the deep blue sea" in times of economic hardship, for if she raises rates to offset inflation, she loses students. For many non-musicians, music is considered entertainment and therefore dispensable.

Inflation has put the big Broadway musical out of business. As quoted earlier, Jerry Herman, successful writer of Broadway musicals, says that only the small musicals will be produced on Broadway for at least the next five years. Producers will have to spend \$1 million to finance a big show. The rising and falling of the economy affects musicians working in all areas as it affects the musicians' sources of income.

One of the major sources of financial support of musical institutions is national foundations. Since the money available from a foundation is mainly income from investments, economic fluctuations cause more or less money to be available. The Ford Foundation provides many symphony orchestras and opera companies with substantial subsidies, and that Foundation's recent decision not to spend more than what is earned in dividends and to cut the amount of money awarded by fifty percent by 1978 will force many orchestras and opera companies

to change their financial base. Recently, 166 performing arts organizations, including symphonies and operas, were surveyed by the Ford Foundation. (The Finances of the Performing Arts, Ford Foundation, 1974.) The earnings gap of these organizations was \$62 million in the 1970-71 season, a figure which would triple by 1980. However, with the current rate of inflation, the deficit could reach as high as \$335 million. To close this gap, higher ticket prices could mean smaller audiences. Less money could mean smaller orchestras or fewer orchestras and opera companies, and the jobs in these companies would only be available to the most highly qualified musicians.

Economic conditions also have a great deal to do with the degree to which the public will support musical organizations and events. The public support of popular music is naturally stronger than that for serious music. The popular music field is greatly stimulated by advertising and mass marketing of recordings, and new opportunities in popular music are constantly being created as styles come in and out of vogue. Public support of large popular orchestras has dwindled in favor of smaller groups, which does not necessarily reflect a change in popular taste, for as larger groups have become less economically viable few of the large hotels and dance halls can afford a big band. Obviously this economic factor has reduced work available for popular instrumentalists and vocalists.

The shift in popular taste toward the electronically processed sounds of rock and roll, with electric guitars, electric organs, pianos, basses, and even electrically amplified drums, has created on one hand more opportunities for rock musicians and on the other hand fewer opportunities for musicians working with now less popular traditional instruments like clarinets, saxophones, and trumpets.

Public support of anything is stimulated by advertising. Because the advertising business realizes that a musical message creates a retention factor five times that of unaccompanied verbal messages, there will always be jobs in the recording studio for musicians writing and recording commercials. A recording engineer interviewed by TERC staff suggests that there is a great shortage of male vocalists who can read music to sing commercials. The same engineer also maintains that many firms actually increase their advertising during times of recession and inflation, creating more jobs for musicians who record commercials (a caution: not every recent recession has created advertizing-related jobs).

In the production area of instrument building, the vagaries of public support often determine how many instruments of which varieties will be produced. Sales of electronic instruments of all kinds are on the rise, and there is an increasing, though limited interest, in authentically produced early instruments such as harpsichords, lutes, recorders, as well as guitars and such folk instruments as dulcimers and autoharps. Opportunities for building these latter instruments can be expected for handcraftsmen.

The issue of public support for musical organizations and events is a difficult one because it is impossible to say whether changes occur as the result of changes in public taste, or as the result of changes in economic conditions, or as the result of a change in the artistic language initiated by the artists themselves. A trend toward more chamber music could be the result of public preference, the economic problems of the orchestras, or the preference of the musicians themselves.

Legislative action on both federal and state levels affects the National Endowment for the Arts as well as the various state councils on the arts. Such legislative action determines how much money is available for grants and various other programs for subsidizing musical organizations, with a direct bearing on the number of jobs available to professional musicians. Musicians who are directly employed in government agencies and institutions rely on positive action from the legislature to insure the existence of their jobs. This applies principally to music therapists who work in state mental hospitals, but with the rise of state symphonies, many more musicians are benefiting from positive action by state legislatures. One such model is that of the North Carolina State Symphony. Supported largely by the state legislature, the orchestra has a season of sixty to ninety concerts, mostly spent touring the State performing in schools and community centers. The support of the legislature not only provides seventy musicians with full time professional work, but also promotes a wide base of public support for serious music. If other states follow the model provided by North Carolina, the resulting employment outlook for symphonic musicians will be much brighter. Without such support we will continue to see many of America's most highly trained musicians working in orchestras in Canada supported by the Canadian government, or in other foreign countries.

One other aspect of the employment of musicians as affected by legislative action is the military band. The armed forces maintain bands in proportion to overall military strength. Any substantial reduction of military strength leads to a reduction in the number of military bands. Careers in military bands are available as are shorter term enlistments with this Military Occupational Specialty.

Technology for professional musicians has been a double-edged sword: while closing opportunities with one stroke, it has created new opportunities with the other. Far and away the most important impact of technology has been recording. The availability of near perfect performances produced in studios under tightly controlled acoustical conditions has put tremendous pressure on live performers to match this high quality in their public concerts. The increased use of recordings on radio, television, and in theatrical and dance productions has taken its toll in the number of positions available for live performing musicians, but on the other hand the wide distribution of recordings has brought more music to more people than live performances could hope for, stimulating the demand for more new recordings.

As the popular recording industry is an economy oriented one, short cuts are often used to save money. One common technique available in multitrack recording systems allows one musician to sing or play many parts. Instead of requiring three flute players, one player can record each part separately after which the recordings are combined electronically to produce the sound of a trio. Another common technique allows modification of the sounds of one instrument to sound like another. If a guitar is recorded at seven and a half inches per second and played back at fifteen inches per second it sounds like a mandolin, a fact which can eliminate the employment of a mandolin player in a recording studio.

Along with electric guitars and drums, many rock groups are today loading synthesizers into their equipment vans. A TERC staff member who recently visited a synthesizer factory learned from the company's educational director that there is a need for musically competent people in sales and promotion of these all-purpose electronic musical instruments. As the synthesizer becomes an accepted instrument

in conservatories, colleges, universities, and in many high schools, positions will be created for teacher administrators with special skills in electronic music.

The Piano Technicians' Guild maintains that there is an adequate supply of piano tuners, but some in the field of piano technology believe that expanded use of electronic instruments, such as stroboscopic tuners, could lead to increased employment in piano tuning, as an example of the effect of technology on jobs.

Technology has radically altered the face of music throughout its history: Consider the development of the violin, the piano, keys for wind instruments, valves for brasses, electronic sound generation. Predicting the impact of technology on the future musical worker is as difficult as predicting the next technological breakthrough in any other field.

For the many musicians who will seek work as public school music teachers, the outlook is not encouraging. There will be a decline in population in elementary and secondary schools from about 50 million now to about 45 million by 1982. (Projections of Educational Statistics to 1982-83, 1973 Edition, U.S.O.E.). During the same period, enrollment in higher education is expected to increase slightly. The number of college graduates prepared to teach in the music field rose 81.2% from 1950 to 1972, (Teacher Supply and Demand in Public Schools, 1972. Research Report 1972-p.8, NEA, 1972), and this increase can be expected to continue with a rise in college and university enrollment until approximately 1980. Even with only 56.2% of graduates qualified to teach high school music trying to enter the profession, the supply still exceeds the demand. The same is true for graduates qualified to teach elementary school music, with 66% of the qualified graduates trying to enter the field. (Ibid.)

Fundamental changes in the economy as well as changes expected in school populations reach out to affect a wide variety of educational support services, one of which is publishing. An editor of educational music interviewed by TERC staff indicated that her publishing company, along with many others, because of rising costs and declining school populations is cutting back staff strength through attrition.

Musical education may change its shape completely by 1980, however. New and well-publicized teaching methods, notably the Kodaly and Orff systems for vocal and instrumental music and the Suzuki method for strings, should provide more work opportunities for teachers trained to use these methods for innovative programs.

The citing of examples regarding the way many factors affect the job opportunities for musicians should make clear that the most versatile and flexible musicians will have the best chances to change the direction of their careers as job opportunities open up in different areas. More valuable to a musician than straight job projections is an understanding of the factors that affect the growth and decline of opportunities in the various areas of the working musical world.

C. Job Projections in Theater, Entertainment and Media

In discussing employment outlook, it is useful to combine the projections for jobs in theater, entertainment, film and television because of the consistent cross-over from field to field of many individual jobs. A designer, for instance, may move from theater to movie work as the employment situation changes. For some jobs, the outlook is similar in all of these fields.

In general the outlook for actors is not particularly good. Ruth Fischer in her June 1974 Change magazine article, "~~The Shame of Theater Arts,~~" states that there are few jobs available for professional actors anywhere. She cites the vast disparity between supply and demand: "There are literally hundreds of qualified applicants for every available job in the theater. There are more aspiring actors, directors, playwrights, designers, and technicians than all the theaters in the world could absorb in the next several centuries."

One cannot say for sure how many people there are in New York who are looking for acting jobs without success. One example of the problem of over-supply, however, is the Christian Science Center Repertory in New York which announces its list of yearly productions in trade papers and then holds auditions.

Christopher Martin, artistic director, states that in 1975 the advertisement drew approximately 500 applicants - only five of whom would be admitted to the troupe. Members are paid \$50 per week; Mr. Martin estimates that 5000 actors would audition if the pay were higher. Alan Hewitt, statistician for Actors Equity Association, states that of the more than 16,000 paid members of the union in the 1973-74 season only 23.1% found theatrical employment.

Even if an actor is fortunate enough to be cast in a small role on Broadway there is no guarantee that the role will even exist the next day. Three things could happen: 1) the play, as many do, could close right after it opened, or 2) the particular role could be cut from the play, or 3) the actor in the early rehearsal period may prove to be not what the director wanted for the role. Until 1972 Broadway was indeed the place where the greatest number of people were employed. However, a changing trend is exhibited by the 1973-74 season. John Beaufort in the January 6, 1975, Christian Science Monitor has ranked the settings for employment from where the most to the least are employed: 1) resident regional theater; 2) dinner theaters, 3) stock companies, 4) touring theater—"the road", and 5) Broadway. Alan Hewitt predicts that dinner theater will assume the lead shortly; in agreement with him is Frederick O'Neal, president of the Associated Actors and Artistes of America.

The Screen Actors Guild, the media counterpart of Actors' Equity, has reported that 85% of its members are unemployed all or most of the time. President Dennis Weaver says that more than 3/4 of SAG's 30,000 members earn less than \$3,500 per year as actors - a figure which is below the national poverty level. Of the close to 40,000 actors in the United States, few have received critical recognition. The big demand in the media now, because of increased product promotion through advertising, is for actors and models in television commercials, which causes jobs and public recognition for some actors.

Since directors are faced with the same opportunities and competition as actors, the outlook for them in both theater and media looks the same as it does for actors. Producers of theater are handcuffed by the cold statistics that only 8% of the plays which open are financially successful.

The projections for playwrights are equally discouraging. Science Research Associates\* quotes an anonymous play publisher as saying that 95% of the aspiring playwrights in the U.S. are trying to have a play produced on Broadway, but less than 1% succeed. Joseph Kierland, playwright, stated in an interview with TERC, that the outlook for playwrights is bad, partially because of the rise of regional theater and dinner theaters which use well-known plays rather than original scripts. However, he feels that technology will advance the theater by making it available to more people than ever before. Plays will be performed only once, he projects, and video-taped so that they can be watched by the whole nation on television. Clearly, writers can look forward to more opportunities in film and television than in theater; most of the available writing jobs are held by staff writers in some special area of television or films.

Designers are confronted with a contradiction in job projections. On one hand, plays like Shenandoah, which require little scenery and rely upon lighting effects to create the setting are popular in today's theater. On the other hand, revivals of big shows and musicals of the 1950's and 60's require elaborate design schemes and personnel. Both trends effect all areas of theater production: lights, set, sound, costumes, properties and make-up. However, most openings in backstage theater occur through death or retirement, rather than through increased numbers of positions.

The movie industry seems to be experiencing its most lucrative period in many years. There is a return to "big movies" which require "big stories, big directors, and big stars." A return to larger scale movies could open up more job opportunities for screen extras and for production and technical employees.

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\* Science Research Associates, Occupational Exploration Kit, "Occupational Brief #295."

Exemplifying the current movie industry attitude is Irwin Allen, producer of The Poseidon Adventure and The Towering Inferno, who believes in the "all-family picture". This kind of picture insures box office success because the picture will appeal to everyone. Allen says: "I include enough elements so you can't keep anyone away who wants to come. Inferno has five love stories. There's tremendous derring-do for the kids, there are great philosophical overtones for the senior citizens, and there's all kinds of hope for the teen-agers and young marrieds." (Newsweek, November 25, 1974). While one may disagree with Allen on aesthetic or even moral grounds, his attitude results indirectly in increased job opportunities.

The movie industry has increased the demand for public relations people because they often are responsible for the financial success of a movie. If a company makes the effort to publicize a movie carefully, it has a greater chance of succeeding financially. With The Last Tango in Paris United Artists used a review-quoting campaign which proved that even a controversial, possibly offensive movie can be popularly received.

Promotion is also important for live entertainers. Although strong competition exists in the live entertainment field, increased publicity either by a manager or by the entertainer himself/herself could increase the number of jobs found. As an example, the magician interviewed by TERC project staff has printed an inexpensive leaflet to advertise himself which he sends to business organizations and social groups.

He also advertises in the telephone book, by word of mouth, and by performing for charity groups without charge. Many of his jobs have been secured by someone's seeing him at a benefit and hiring him for a party or other function. This promotion could create a demand for more magicians and other live entertainers as the public becomes aware of their services for bar mitzvahs, cocktail parties, children's birthday parties, beauty pageants, or business functions.

In television and radio fields continued growth is expected for certain kinds of jobs. Disc jockeys, according to a 1974 Science Research Associates "Occupational Brief" have good opportunities for finding employment: "The number of broadcasting outlets is on the rise. If radio's present format...continues... more disc jockeys will be needed." The outlook for entry jobs for television announcers is not as good because even though television stations are increasing in number (from 939 to 953 during 1974), beginners are rarely hired. The slow growth of cable television may soon spurt, providing new job opportunities for announcers.

In the educational world the projections for drama and media teachers are somewhat optimistic. Although the possibility exists that an economic depression will eliminate all "luxury" teachers, the demand for teachers of theater and media is growing. More schools are introducing these fields, particularly film, into their curricula. The teachers interviewed by TERC staff feel that those schools which already have drama and media teachers will hire more personnel to teach such specializations as designing, sound, TV production, literature and directing. This sanguine attitude, however, has to be tempered by the demands for budget restrictions placed upon school administrators and school boards.

Major factors limiting job opportunities in theater and film are the economy and government policies. Escapism during depression is not a great enough impetus to bring people to live theater when the rent has to be paid and the grocery bill has sky-rocketed. Although the U.S. public has more to spend than in many other nations, the United States government contributes less to the arts per capita than any other major country.

Further, the outlook for jobs is dimmed by the use of contacts in securing jobs in theater and media. In order to acquire a backstage job (lighting, costumes, etc.), in a Broadway show or a job as a camera person or gaffer on a movie set, the most important preparation to have is being the son or daughter of someone who is already a production person. Director-producer Jerome Rosenfeld states that membership to IATSE (International Alliance of Theatrical Employees and Moving Machine Operators of the United States and Canada) and subsequent job acquisition is difficult if not impossible for the person who knows no one working in a production capacity.

A past success is also a strong factor in job attainment. In the design field, as is the case in many other aspects of theater and media, experience is the only means of securing a professional job. Producers will find work only if they have a success to their credit. The producer TERC interviewed presently has a successful show running and is looking for other shows to produce at the same time. Had his present show been unsuccessful, it would have been difficult for him to find work. He states: "People are not willing to trust losers. Had I lost [had the show not been a success] it would be a lot harder to produce new

shows." Peter Bart, an independent producer, says in Newsweek, "People are scared that a failure will put them out of business." Thus, people are trying fewer new genres and are returning to the old reliable material.

In comparison to the past, a more favorable outlook is projected for women and minorities. As more female and minority playwrights' plays are produced, increased acting jobs are available for these two groups. Few women have found success as disc jockeys, but members of male minority groups have been very successful in TV announcing.

Finally, a well-rounded theater and media person with a knowledge of theater, technology, music and design appears to be the most able to compete for community arts coordinator positions as these emerge.

D. Job Projections for Visual Arts Occupations

Economic fluctuations affect all practitioners in the visual arts, but are not constant factors for all persons in any given specialty. For example, an illustrator for a newspaper could be laid off due to cutbacks in publishing, while advertising firms have may have more illustration work to do than they can handle. For established fine artists, a period of recession can mean increased sales of their "investment-quality" works. This, in turn, creates a favorable market for gallery workers, agents, or publicists. Unfortunately, an upswing does not filter down to the younger artists and lesser galleries. In 1975, moderately-priced work is selling poorly, and few galleries dealing in this work can survive solely on sales from their exhibitions. One agent interviewed by TERC project staff suggested that artists will have to modify their work to be more decorative and materialistic if they hope to sell at all. He also noted that the government is becoming a major purchaser of art and that some specialists may be needed as buyers and advisors to these agencies.

A sculptor we spoke to supported these points by saying that he was forced to produce small, low quality pieces to offset the declining number of large-scale commissioned works being funded. As the volume of privately financed building decreases, federally-funded buildings become the major source of commissions for environmental sculptors. Some large three-dimensional work is also being done for television in place of traditional graphics. Many artists working in two dimensions are showing an interest in print-making as a means of producing work that can be sold more cheaply than

one-of-a-kind pieces, which could cause the establishment of more studios where artists can use the printmaking equipment they cannot afford to buy individually.

In the applied arts, there are some identifiable trends within industries, but no patterns to include all practitioners. In the 1975 economic situation there may be very little demand for young fashion designers in sportswear companies. There may be, however, opportunities for them to design leisure wear for the growing numbers of people who prefer to entertain at home, or for clothing accessories.

There was some consensus among the people we interviewed as to the future of the graphic design field: they felt that it would remain fairly stable despite its dependency on the general economy.

Roy Brown, Art Director of Houghton Mifflin Publishing Company, felt that because the public is becoming used to more visual information, graphic designers will continue to find work. Even though full-color full-scale designs have become prohibitively expensive, the demand for pictorial and graphic materials will increase. As new techniques such as computer art and modular design become popular, specialists will find jobs in designing formats.

Illustration is a free-lance field in which artists face competition from photographers. But an illustrator TERC interviewed believed that his work would continue to be in demand since it has always had great popular support. Popularity is not, however, a guarantee of continued employment. The animated cartoonist we interviewed explained that such a seemingly popular field

has nearly died out. Unionization has done away with most of the lower, training-level jobs, so that a beginner has no chance of working his/her way up. This fact, coupled with the public disinterest in short-features and censure of children's cartoons has closed down most of the studios and reduced the Screen Cartoonists Guild to 250 members. Much of the actual production work is done abroad.

Many traditionally stable jobs in printed graphics are becoming obsolete as well. The growing use of automated typesetters has diminished the need for compositors and pressmen, creating a need only for people to handle these machines. Photoengraving, which is part of the letterpress process, is also declining as offset printing becomes more popular. Only a few hundred new people per year will be needed, due to attrition. Lithography, however, is projected to remain an essential service.

The vast numbers of commercial photographers available makes this a very competitive field, but the demand for their work should remain high. Opportunities for them are probably best in technical fields, such as scientific and industrial photography, while competition is keenest among portrait photographers.

For commercial designers, there are likely to be jobs in television and package design, with a stable demand for mechanical lettering and paste-ups. The need for industrial designers is also stable, but in keeping with the trend for manufacturers to establish their own design departments, many will have to specialize in very narrow fields. According to one industrial designer we interviewed, designers may be required to

specialize in the styling aspect of their field, rather than the functional aspect of new product design. They may also face growing competition from engineers and architects forced out of work by the declining building trade.

Those designers working in an essential industry, such as ceramics, will find stable production, but increased automation and importation will limit expansion of job opportunities. More unstable industries, such as plastics, defy generalization. Although a major use in employment was expected for the entire industry, thereby creating a demand for designers, petroleum shortages can eliminate these openings.

Those design fields connected with furniture and ornament production are extremely vulnerable to general economic fluctuations. Because people tend not to buy new furnishings in a period of recession, such industries cut back accordingly. Interior decorators are usually the first to be affected by the economy. The interior designer we spoke to said that people who do buy furniture want ready-made goods and seek only the services of designers working in the stores. With fewer people demanding total design and fewer young couples setting up new homes, interior design is a very unstable field, with expansion only in semi-professional, retail store jobs.

The present outlook for architects is generally discouraging, as the entire building trade is cutting back, and new residential contracts are few and far between. There is, however, a growing need for city planners

and environmental architects to work on urban redevelopment and possibly new town planning. Young architects are far more likely to be successful in these areas than in joining established residential firms or beginning in private practice. Drafting, the traditional entry-level job in architecture, is in jeopardy of being replaced by standardised forms and procedures which can be used instead of hand-drafted work. Perhaps the most stable specialty is landscape architecture, as it is a versatile field in which practitioners can become involved in all aspects of environmental design.

In general, our interviewees indicated that most careers in the visual arts cluster are financially tenuous, and that most jobs are obtained through personal contacts or by reputation. They felt that they do not have much job security and even less geographic mobility to move away from large cities. For people dependent in some way on government funding, the attitude was apprehensive. Even with the National Endowment for the Arts this country gives less per capita to the arts than any major country, and spreads the money out too thinly to insure anyone's financial stability. Since the Ford Foundation has cut its current budget to almost half of its 1974 allotment, the situation seems to be growing worse. TERC did, however, hear some encouraging opinions about the growing public interest in visual arts. For example, Barry Gaither, art director of the Elma Lewis School, felt that the "whole cultural arena is broadening," and that increasing numbers of people are getting involved with art as a leisure-time activity. Many of TERC's interviewees felt that community-based art programs are becoming more popular than ever before, and that many art managers, instructors and community specialists will be needed. Of course, this is a nebulous promise, but it indicates that the visual arts are by no means dying.

### Job Projections - Crafts

Because hand crafts have only recently been recognized as a viable means of earning a living, no definite figures are available on the number of crafts producers in the U.S. In the national census data, some categories are included for crafts (such as cabinetmakers, jewelers, and blacksmiths) but because only vague definitions are given of these categories it is unclear as to whether industrial crafts and hand crafts are lumped together, or whether hand crafts occupations are included at all.

Most of the traditional sources of occupational information (such as the Dictionary of Occupational Titles, and the Occupational Outlook Handbook\*) include little or no information on hand crafts. When a crafts occupation is described, it is almost always in the context of an industrial setting.

The major reason that hand crafts have been neglected as an acceptable source of income is that craftspeople have had a difficult time competing for a market which is dominated by industrially produced goods. Because of high costs of production, lack of knowledge as to management and distribution, or inefficient means of production, the craftsman has had marginal economic return for his/her work. Many craftspeople have had to supplement their income through teaching, or by holding down "regular" jobs in addition and producing crafts only in their leisure time. If the craftsman has been able to eke out a living from crafts, it is usually on a seasonal basis, dependent on crafts fair sales, the local tourist season, or the Christmas trade.

\* The Occupational Outlook Handbook (1973-74) does provide information on jewelers and floral designers. Approximately 25,000 jewelers are currently employed and this number is expected to remain steady. Openings for floral designer are expected to increase until the mid-1980's, with approximately 30,000 employed in 1972.

Yet, in the face of such difficulties, some data indicates that the number of craftspeople and the crafts market are growing rapidly. For example, the number of colleges offering crafts curriculum has grown from 16 in 1962 to over 750 in 1974.\* The Northeastern Crafts Fair (a major fair sponsored by the American Crafts Council), held in Rhinebeck, New York in June 1974, had 500 craftspeople participating. Retail sales were double that of 1973, and wholesale purchases showed a 25% increase over 1973. Paid attendance increased from 21,000 in 1973 to 35,000 in 1974.\*\*

As the economic outlook has improved, national and local government leaders have begun to take an active interest in the preservation of the crafts. People are also beginning to realize a pressing need to maintain our natural resources and the environment, and as they prepare for a celebration of cultural and folk traditions in 1976, they have shown renewed interest in the hand crafts. The federal government has established an Interagency Crafts Board to encourage the development of the crafts as a significant part of our national heritage.

Member agencies of the Interagency Crafts Board, such as the Office of Economic Opportunity, (OEO), and the Department of Agriculture have also realized that crafts can be a means of generating jobs and income in impoverished rural areas within the U.S. In the late 1960's and early 1970's, OEO has

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\*John Coyne and Tom Hébert, By Hand: A Guide to Schools and Careers in Crafts (New York: E.P. Dutton, 1974), p.11.

\*\*William R. Seymour, "Crafts and the Cooperative: Answering a Need for Economic Development" (Paper delivered at "Aesthetic Responsibility Workshop" sponsored by the American Home Economics Association, Snowmass, Colorado, August, 1974, p.11.

spent an estimated \$12 million for craft development in depressed areas.\*

For example, the Shelburne Spinners in Burlington, Vermont, are using local renewable resources to provide unemployed persons with a means of learning a craft and earning an income. The Department of Agriculture has strongly supported and funded crafts cooperatives which can enable formerly isolated craftspeople to learn how to work together to maintain a shop through which they can provide themselves with collective management, business and marketing skills, wholesale materials, and joint purchase and use of equipment.

Data collected in 1972 from cooperatives show that members have been able to increase their production significantly after becoming members so that woodcraftspeople can earn between \$6 and \$12/per hour; potters, sculptors and glass craftspeople can earn as much as \$8/hour, and weavers and sewers, who formerly were drawing only \$.30-.50/hour can now earn \$1.20-\$2.00/hour.\*\* Obviously, "much of a craftsman's reward for his work is marginal in economic terms"\*\*\* even though the situation has improved. But interest is growing and many craftspeople are willing to make the necessary economic sacrifices to continue with their craft.

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\* William R. Seymour, "American Crafts: A Rich Heritage and a Rich Future" (Washington, D.C.: U.S. Department of Agriculture, 1972), p.1.

\*\* Ibid, p.2.

\*\*\* U.S. Department of Commerce, Economic Development Administration, The Potential of Handcrafts as a Viable Economic Force: An Overview (Washington, D.C.: Government Printing Office, 1974), p.22.

As several persons interviewed by TERC staff mentioned, craftspeople often face a personal dilemma in deciding whether to mechanize part of their craft production in order to make ends meet. Many would rather live at a subsistence level so as to maintain the traditional ways of producing the craft in its entirety, while others will turn to machine production for preparing raw materials, or other parts of their product.

However the craftsperson chooses to work, it is clear that if he or she is to survive there must be a market for the product and the craftsperson must know how to take advantage of this market. It isn't necessarily enough for the craftsperson to be an excellent artist, designer or technician. He or she must know how to manage a business, advertise, and distribute the product. Too often the craftsperson learns such skills in a haphazard way without any formalized training. If the earning potential of the craftsperson is to be maximized, craftspeople will have to find ways of preparing themselves to better manage and market their craft as well as create it. This preparation could be obtained through expanded curriculum offerings at the college level, or through continuing education sponsored by local adult education programs or a crafts cooperative.

Although it can be concluded both from the staff research and interviews with craftspeople that supporting oneself through the crafts can be very difficult, TERC feels that the crafts component of the visual arts deserves special emphasis. Not only are many craftspeople fine artists, but many ethnic craftspeople work to maintain the unique aspects of our cultural

heritage in a time when technology could easily override this heritage. The federal government has taken a special interest in the potential for the crafts both artistically and economically through various federal offices and the Federal Interagency Crafts Committee. The crafts are becoming increasingly visible and for these reasons, educators and students should become more aware of the possibilities for full and part time occupations and activities in this field.

E. Job Projections in Writing

A newspaper advertisement in the January 6, 1975 Christian Science Monitor reads "Chicago Man Reveals a Short Cut to Authorship" and continues, "discloses little-known angle by which beginners often get paid five to ten times more per word than the rates paid to famous authors." For the sake of truth-in-lending legislation, the advertisement does not promise a steady income as a free-lance writer.

Which is a good thing all around. The Federal Trade Commission would go after that Chicago man and perhaps the Monitor as well, and readers of the ad would be greatly duped. For the facts are that the job outlook for free-lance creative writers depends not on angles, or even muses, but on the vagaries of public taste and acquaintance with those who control the publication of creative works. A third factor in the job outlook for creative writers is the economy. In late 1974, for example, publishers dealt with rising production costs by raising the cost of books, thus limiting sales to libraries and individuals with a consequent reduction of writers' income through royalties; book publishers in 1975 announced plans to reduce (in some cases by half) the number of new books published. Publishers are reducing money spent on promoting the sales of a particular book, which can also adversely affect the writer's income.

Despite poets-in-residence programs sponsored by governmental agencies, foundation fellowships, and local school or university writer-in-residencies which attempt to provide a creative writer an income while working, only a minute percentage of those people aspiring to earn a living as a free-lance writer can

actually do so. Differences do exist in outlook for people doing different kinds of writing, according to shifts in public taste. In the mid-1970's, for example, the writer of short stories has less publishing potential than the novelist, who in turn has a smaller audience than biographers and other non-fiction writers. The poet has the least commercial publication potential of all. Magazine and book publishers have for the past ten years been limiting publication of poetry and fiction, and 1975 reductions in total publication will limit career possibilities for free-lance writers of all kinds. Some possibilities exist for specialized free-lancers in puzzle and word-game construction, for technical writing and editing jobs, and in educational writing work. As an example of the latter, textbook companies revising basic reading series will solicit or commission manuscripts from free-lance creative writers, (and the trend during the past few years to adapt published writers' works may be reversed by the 1974 problems in Kanawah County, West Virginia, thus increasing potential for free-lance writers). For the person who needs a stable income, free-lance writing - except for the infrequent exception - must be supplemented by other means of earning money.

The job outlook for salaried writers differs among fields, and there are differences within fields. In newspaper journalism, for example, the outlook for editors and beginning reporters varies according to region and size of community: keen competition for work exists in highly populated areas; positions are available with less competition in the growing suburban newspaper market, and on rural newspapers. In urban areas, journalists with special knowledge or ability in a particular area have greater job possibilities than those with general reporting skills.

Magazine and book publishers offer salaried jobs more generally to editors than to writers (except for industrial trade journals which employ writers who most likely will not get a byline, or for regular columnists in general audience journals.) As advertising dollars have transferred from magazines to television, many general magazines have had to cease publication, which reduces the job outlook for magazine editors, writers, and other employees. Magazines appealing to a small-circulation specialized audience are maintaining economic viability and provide the best outlook for salaried employees, although less generally to freelancers. In addition to advertising, factors which affect magazine employment opportunities are raised production and mailing costs in a time of inflation and potential decline in subscriptions accompanying the present recession. As indicated previously, book publishers in 1975 reduced the numbers of books published, thus decreasing the availability of salaried positions; this trend is not apt to change soon.

In addition to creative and journalistic writers, a third major category of writers is "specialized"; this somewhat catch-all category includes such fields as advertising, public relations writing, and technical writing and editing. In advertising, as the Occupational Outlook Handbook (OOH) indicates, competition for positions is great; however, the tendency for increased advertising during a recession may also increase job opportunities (although it may simply increase the workload on existing employees). A favorable outlook for public relations writing positions exists in organization whose economic survival depends on favorable public response to a service; in consumer product manufacturing, these positions are more likely to be available in a stable or growing economy than in a recession. The outlook

for salaried public relations positions which are promotional rather than strictly writing in nature is similar to the job outlook for advertising positions.

Another kind of specialized writer/editor deals with technical data.

While technical writer/editor positions are tied in with economic positions, the growth of some technologies will offset declines in others and should lead to stability and possibly increased growth in this area of specialized writing. Major opportunities for technical writing/editing fields predominate in areas which have a concentration of technological firms, such as the Northeast and the Southwest.

Business occupations which support the writing field are also adversely affected by reduction of publication; very simply, if book publishers reduce their lists of books to be printed, fewer printers will find work. Further, as newspaper and magazine publishers switch the printing process from hand-set type to lithography (offset printing), which can be computerized, fewer and different kinds of technicians are used. Literary agents selling to book publishers are more affected by an economic decline than are those selling scripts to the television and movie industry; similarly, the effect is greater on salespeople for which the finished product is a book rather than film, magazines, or newspapers.

Except for teachers, for whom the job outlook is generally gloomy, critics and others concerned with educating the public about the field of writing are enjoying slightly increased job possibilities, particularly in urban areas.

The past decade's increase in the number of college graduates has resulted in a somewhat larger public with an interest in discerning among publications. As a result some urban newspapers are carrying regular columns which critique magazines; journals such as the New Yorker regularly critique newspaper reporting; radio and television stations are now presenting book reviews, as are suburban and rural newspapers.

In the long run, an increase in the level of literacy among the public augers well for writers and those whose work relates to writing. In early 1975, that long run, sadly, seems a long way off.

#### F. Job Projections for Humanities Occupations

The major occupation for all fields in the humanities has traditionally been teaching. However, in the mid-1970's employment opportunities for all teachers, as well as other related occupations in the field of education, are severely limited. In postsecondary education, there is intense competition for the few available teaching positions. This reduction in college teaching opportunities is due to declining student enrollments, decreased turnover of existing personnel, and budget cuts necessitated both by the economic recession and a decline in government spending for higher education. In addition, the colleges and universities have been slow to adjust to the new conditions and are generally producing as many Ph.D. recipients as ever, thus adding to the already overcrowded job market. The Occupational Outlook Handbook (1974-75 edition) claims that jobs will be available in junior and community colleges as they hire more Ph.D. holders in order to upgrade the educational level of their facilities. Both the OOH and Chronicle Guidance Publications Occupational Brief #184 (1974) predict that enrollments at public institutions will increase and thus there will be greater employment opportunities at public than at private colleges and universities.

Declining enrollments and budget cuts also affect employment opportunities for college administrators. With the exception of a few new institutions, the only opportunities for "line" administrators - those who deal directly with faculty members - are replacing those who leave already existing positions. "Staff" administrators - those who operate the support services - are even more affected by the ubiquitous budget cuts: less money is available for services that might not be considered essential, such as counseling and placement. On the other hand, the OOH predicts that after the mid-1970's there will be

increased opportunities in career counseling and placement, especially in community and junior colleges, in response to the growing number of minority and low-income students.

Employment opportunities are equally restricted in elementary and secondary education. A major factor is the declining birth rate which has resulted in lower school enrollments and hence a decreased demand for teachers. However, the supply of trained teachers has not diminished by an equal amount. For example, a report by the National Education Association states that in 1972 the estimated supply of beginning elementary teachers was 102,852 while even the most optimistic estimate of the demand for such teachers was 83,659. The statistics for the supply and demand of beginning secondary school teachers are equally discouraging. The same NEA report estimated a supply of 22,966 beginning-English teachers and a demand for only 18,337; a supply of 26,747 social studies teachers and a demand for only 12,392; and a supply of 6,612 foreign language teachers and a demand for 5,237.\* In addition to beginning teachers, former teachers are also re-entering the field and the number of available teaching positions has generally been reduced even further since 1972. Thus, it is apparent that there will be increasingly intense competition for an increasingly fewer number of jobs. Both the OOH and Chronicle Brief #97 (1974) state that jobs still exist for teachers in mathematics, industrial arts, special education, and some vocational-education subjects. However, of these areas, only special education is included in TERC's humanities cluster, and the published sources may already be outdated. In a recent conversation, a supervisor at one of the major training institutions for special education teachers in the Boston area indicated that even in states such as Massachusetts

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National Education Association, Research Division, Teacher Supply and Demand in Public Schools, 1972, Research Report 1972-R8, 1972.

and Pennsylvania, which have laws requiring special education programs, it is difficult for special education teachers to obtain employment. In the area of early childhood education, current interest in services such as day-care centers and in programs for disadvantaged children may result in an increased demand for teachers, but the teaching positions may not be filled because of budgetary restraints and those positions that are available may go to experienced teachers rather than to those just entering the field. Many of the same considerations are true for teacher aides. According to Chronicle Brief #292 (1974), there is an increased interest in the use of teacher aides but budgetary restrictions, particularly a decline in Federal funds formally available under the Elementary and Secondary Education Act of 1965, might preclude many school systems from hiring aides.

Support services for elementary and secondary education, which includes occupations such as guidance counselors, school social workers and school psychologists, have also been affected by declining enrollments and the resulting budget cuts. Although the OOH predicts that there will be increased opportunities for school guidance counselors, recent experience in the field indicates this may no longer be true. The current economic recession and inflation coupled with declining enrollments have resulted in tax payers demanding greater fiscal accountability from their school systems. As there is often less obvious need for support services than for teaching personnel, the former area is often the first to experience budget cuts.

For elementary and secondary school administrators, most of the opportunities are in replacing those who die, retire, or leave the profession, and the competition for these jobs is intense. Since there are many more elementary than secondary schools, there are obviously many more elementary principalships;

but on the secondary level, frequently more than a hundred people will apply for a single principalship. Progressing up the career ladder as the number of jobs decreases, the competition increases. For a recent opening for an assistant superintendent, a suburban school system in the Boston area received 279 applications.

In humanities fields other than education, the employment outlook varies from field to field. The major occupation in the field of languages is teaching on the postsecondary, secondary and elementary levels and, as indicated in the foregoing discussion, the supply of trained teachers far exceeds the number of teaching positions available. The other occupations for which language is the primary rather than an auxiliary skill are interpreting and translating. Interpreting is a very small occupation; according to the OOH there are only about 600 interpreters working in the United States and competition exists for the few positions that become available, though openings may occur in a particular language, such as Arabic or Chinese. Recent job projections are less readily available for translators; the OOH does not discuss this occupation but Chronicle Brief #365 (1971) stated that there was a shortage of adequately trained translators. This is probably true only for certain areas of translating expertise.

No specific information is available about occupations in the field of literature: the Dictionary of Occupational Titles does not list literature occupations as such and therefore the field is not covered in the standard sources of occupational information, the Occupational Outlook Handbook, Chronicle Guidance Publications Occupational Briefs and Science Research Associates Occupational Briefs. Presumably, the major occupation in literature is teaching on both the postsecondary and secondary levels and, as indicated in the section on education, there are very few employment opportunities in these areas.

In the field of history and criticism of the arts, many occupations are in postsecondary teaching, e.g., art historian, musicologist. For these occupations, the aforementioned projections for college and university teachers would apply. Another occupation in this field is special librarian, e.g., art librarian, music librarian. The OOH predicts that employment of special librarians will continue to increase. However, Chronicle Brief/ #117 (1973) states that, due to the reduction of Federal funds for libraries, the employment outlook for special librarians is not favorable and, although the less recent source, this prediction seems more realistic in the light of the current economic situation. American Library Association reports a decline in employment prospects for all librarians.

A recent survey of the job market conducted by the American Historical Association in the fall of 1974 gives an indication of the employment opportunities for historians. Of the 1,315 Ph.D. holders and candidates who actively sought jobs for 1974-75, 918, or 69.8%, found history-related positions and 397, or 30.2%, did not. Of the history-related jobs, 655 were in college and university teaching and 606.5 of these postsecondary teaching positions were as full-time equivalent faculty members. However, for 1975-76, the colleges and universities responding to the questionnaire expect to hire only 266 full-time faculty members! As the survey itself points out, this may represent the minimum number of jobs available because the survey was conducted early in the academic year and a number of positions usually open in the spring and summer. (A similar survey conducted in the fall of 1973 projected 459.3 full-time positions for the 606.5 which were eventually filled. Nevertheless, in one year the projections dropped from 459.3 to 366, or almost 200 positions.)

However, as the demand for historians decreases, the supply does not. According to the survey, 1,317 Ph.D. holders and candidates are actively seeking jobs for 1975-76, about the same number as the previous year. In addition, 229 currently employed historians are in non-renewable jobs and the majority of these will probably seek history-related positions. Some attempt has been made to adapt to the restricted job market: the number of first-year graduate students in history has fallen steadily from 3,177 in 1970-71 to 2,278 in 1974-75. Nonetheless, it is apparent that many more historians will have to find jobs in areas other than college and university teaching.

The survey indicates that for 1974-75, 144 historians found history-related jobs in areas other than postsecondary teaching: 33 in secondary school teaching, 51 in archival or library positions, 14 in editing, 42 in government, and 4 in work on the bicentennial; and 33 held jobs not related to history: 20 in business, 8 in college administration, 1 as a free lance writer, 1 as a national association administrator, 1 as a church activities coordinator, and 1 as a priest. The American Historical Association itself is concerned about the employment problem and is currently preparing materials on non-academic careers for historians.

Information on job projections for political scientists is less complete than those for historians. The OOH and Chronicle Brief #119 (1974) agree that the number of political scientists with Ph.D. degrees will exceed the number of available jobs and competition will be very stiff for college and university teaching positions. The long range projections indicate an even greater oversupply of political scientists unless the number of degree candidates is reduced. Those with a master's degree may find some employment opportunities in government or industry. For example, as government regulation increases, there will be positions for

political scientists working as public policy analysts. There are a very limited number of jobs in political science for those holding only a bachelor's degree. Opportunities in one such job, that of legislative aide, may become less available as legislative operating budgets are reduced.

In economics, as opposed to most of the other social sciences, the major occupation is not postsecondary teaching: only about one-third of the economists are college and university teachers while one-half are employed by business and industry (the remaining one-sixth work for government agencies). Thus, although the academic job market is as overcrowded in economics as it is in other fields, there are many other employment opportunities for economists, particularly in business and industry, though entry level positions for those holding only a B.A. degree appear to be decreasing. The increasing reliance on analyzing and forecasting business trends will result in many jobs for economists with advanced training. For example, economists are now hired by banks to forecast such factors as loans and deposits, and the opportunities for bank economists are expected to increase. A similar development is anticipated in the area of market research. As competition for the consumer market grows, business will rely to a larger extent on market research services. The OOH predicts that the opportunities for market research analysts will expand rapidly for the next ten years. The OOH also states that the employment of economists in state and local government agencies will increase rapidly to meet the growing demand for analysis of programs, but federal employment of economists will only rise slowly, in line with all federal employment.

According to the OOH, job opportunities exist for geographers in all areas. The prediction of openings for geographers in college and university teaching is based on the assumption that college enrollments will continue to rise. However, since enrollments are not growing at the expected rate, academic

positions for geographers also may not increase. In other areas, the OOH predictions seem more realistic. The OOH claims that an increasing number of geographers will be employed by federal, state and local governments to work on planning, environmental, and similar projects. The OOH also anticipates that private industry will employ more geographers for market research and location analysis. Opportunities for those without advanced degrees are, however, limited.

In a letter of December, 1974, to the TERC humanities specialist, an executive associate of the American Sociological Association stated that 90 percent of their members are employed by colleges and universities. (The OOH states that 80 percent of all sociologists are in postsecondary education. Both figures may be accurate, for the professional association may attract a higher percentage of those in academic occupations.) The remaining 10 percent of the ASA members work for private research firms, government agencies, non-profit organizations and foundations, and business organizations. The letter goes on to say:

"Although the labor market is tight, we are unaware of any unemployed sociologists. The academic labor market does not appear capable of absorbing the current output of graduate departments. Consequently, some graduate departments are decreasing the number of students accepted for training. In other departments, applied sociology programs are being established in order to prepare sociologists for non-academic employment. At this time we have no reliable indicators of the potential non-academic labor market for sociologists. The academic labor market is expected to expand at the rate of about three to five percent into the 1980's."

According to the OOH, non-academic opportunities for sociologists will exist in programs dealing with social and welfare problems.

Anthropology is a very small field and one in which four-fifths of the occupations are in postsecondary teaching; consequently, as in all other areas of college teaching, competition for jobs will be very great. The OOH claims that there will be jobs for anthropologists in museums and in areas of applied anthropology such as mental and public health and poverty and community action, but these jobs depend on available state and federal government funding policies.

A sub-division of anthropology is archeology. Science Research Associates Occupational Brief #212 (1972) says that employment for archeologists is limited because of restricted job opportunities in colleges and universities. More openings will exist for archeologists trained as anthropologists than for classical archeologists.

There is not information readily available about job projections in the fields of philosophy and ethics. The Dictionary of Occupational Titles does not even list the occupation of philosopher and this occupation is not discussed in the standard sources, OOH, Chronicle Briefs, and SRA Briefs. However, the American Philosophical Association reports that the major occupation is postsecondary teaching, and, as in academic occupations in all other fields, the supply of trained philosophers exceeds the number of jobs available.

The major occupation in the field of religion is that of clergy-person, and the job projections vary according to the religion. For Protestant ministers the outlook is mixed: although a surplus of ministers exists in urban areas and in some parts of the country such as the Northeast, there is a shortage in rural areas and in other areas of the country. Similarly, although the number of congregations is declining because of mergers or lack of financial support, there are increased opportunities for women ministers serving either alone or in team ministries. According to the OOH, Protestant ministers can

also find employment in education, social work, and as chaplains in the armed forces. The projections for Jewish rabbis are also somewhat mixed: although the OOH claims that in 1972 there was a shortage of rabbis because of the growth of synagogues, particularly in suburban areas, it also states that some congregations are merging and this would decrease the demand for rabbis. It predicts a growing need for rabbis to work with social welfare and other Jewish organizations. For Catholic priests the outlook is clearer: the OOH predicts that more will be needed because the number of ordained priests is insufficient for the positions available. The assignment of minor duties to lay deacons will not reduce the demand for priests.

The growth in the number of law school graduates will make it increasingly difficult for lawyers to find jobs with law firms. In some parts of the country such as the Northeast that already have a large supply of lawyers, the competition for jobs will be particularly intense. Similar conditions exist for lawyers setting up their own firms; many parts of the country have an abundance of lawyers and there is great competition to secure business. Many more women are attending law school than in the past and hence there are many more women lawyers; they are subject to the same competition for employment as men. A legal occupation with better employment opportunities is paralegal work. Because it is an emerging occupation, there are many potential job openings, especially in larger law firms where the use of paralegals represents a saving in time and money. Some out-of-work young lawyers, however, view paralegal workers as competitors for entry-level positions.

Richard Grove, a consultant specializing in museums and education in the arts, stated in a telephone conversation with a TERC staff member that museology is a growing field. This observation is supported by the published sources: Chronicle Brief #393 (1971) says that there are more museums of all kinds. Obviously, ~~more museums should mean more jobs, but the distribution of employment opportunities~~ is not entirely clear (the OOH does not cover museum work). On the curatorial level, most sources agree that there will continue to be a great deal of competition for jobs. Mr. Grove stated that education departments are the fastest growing area in museums because of new programs instituted in the late 1960's and of the need to justify the expenditure of public money. A research associate in the Fogg Museum at Harvard University believes that the greatest number of jobs and opportunities for advancement are in the occupation of museum technician and are a result of increased interest in exhibit techniques.

In conclusion, it is apparent that for fields in the humanities where the major occupation is college and university teaching, the employment opportunities will be very limited. Even in the field of education itself, although the number of job openings is great, the supply of trained teachers is much greater. The only fields in which reasonable employment opportunities exist are those such as economics, where the majority of occupations are in areas other than postsecondary teaching. Despite such projections, TERC believes that humanities occupations are vital and will therefore not discourage appropriate students from entering any humanities field.

ARTS AND HUMANITIES OCCUPATIONS: POSTSCRIPT

The preceding discussion of job projections will be updated before presentation of information in the Resource Book for Students. The Department of Labor is preparing a revised version of the Dictionary of Occupational Titles, with cross-referencing to titles and numbers in the present edition; the Bureau of Labor Statistics is currently revising the methodology upon which projections in the 1974-75 Occupational Outlook Handbook were based; and some professional associations will be conducting new surveys of their memberships; as new data is obtained by TERC staff it will be incorporated into final project documents.

Materials for students, teachers and counselors will include considerably broader information about arts and humanities occupations than which is included in this report.

V.

ARTS AND HUMANITIES OCCUPATIONS  
A DISCUSSION OF COMPETENCIES

As part of its U.S. Office of Education contract responsibilities, TERC was asked to indicate competencies and skills required for performance in arts and humanities occupations. Such competencies and skills are generally considered a basic component for developing curriculum which prepares students for entering a particular occupation.

The following pages present our ideas about arts and humanities competencies. These ideas are intended to be suggestive rather than definitive.

Competencies in Arts Occupations

"Competence is the ability to apply to practical situations the essential principles and techniques of a particular subject-matter field." \*

For the occupations in the arts cluster, competencies exist on many levels, most of which are highly specific: for example, a violinist who cannot apply the principles of bowing to musical phrases cannot be considered competent because bowing is a necessary competency to a violinist. At such a level

of specificity, a list of competencies for the arts occupations would be essentially the same as a list of all the activities of all the jobs in all the arts.

To avoid what would thus be essentially task inventory, the TERC staff attempted to identify competencies of a higher order which can be applied to the arts in a more general way. While it was necessary to identify some competencies crucial to only one of the arts, staff primarily selected competencies which would emphasize the relationships existing among all the six disciplines in the arts occupational cluster.

For example, "color manipulation" is crucial only to visual artists working in chromatic media. "Composition/design/conceptualization," however, is a basic creative faculty common to all the artistic disciplines.

Again with the aim of displaying the interrelatedness of competencies among fields, two levels of relative importance were established. On the attached charts, occupations listed in Level One for a particular competency are those for which the skill is considered crucial for adequate occupational performance. In Level Two, the competency is useful for adequate functioning in an occupation, but not essential.

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\* Dictionary of Education, Canter V. Good, ed. McGraw Hill, New York, 1959.

"Hand dexterity," for example, is a competency which both an instrument builder and a sound equipment operator make use of, yet it is crucial only to the former. An instrument builder without "hand dexterity" is clearly incompetent. A sound operator with the dexterity needed to repair his own equipment may have a considerable advantage over a colleague without this skill, but both may be equally employable in the actual operation of the equipment.

In the creative aspects of the arts, the issue of competencies is quite controversial. Indeed, defining competencies precisely for a given field is somewhat like "trying to nail a drop of water to the wall," because each artist tends to create according to his or her own abilities. He shapes his work by making fullest use of particular strengths and avoiding areas in which he lacks particular competence.

The art of printmaking, for instance, can be pursued by an artist with a fine color sense, producing effective chromatic prints. Many printmakers, however, create effective prints exclusively in black and white. The competency of "color manipulation" while essential to one, is not important to the other.

The notion of competencies is also controversial in the arts because, unlike most occupations in other U.S. Office of Education clusters, there are no readily agreed upon criteria for success. Whether a work of art is successful because it fulfills the artist's intent, because it is critically acclaimed, or because it is commercially viable, is an issue not likely to be settled. The artist's judgement will always be subjective and the critic's judgement will always be equivocal. An art critic of the naturalist school may call an Audubon drawing successful, while a formalist may condemn it. In other words, the success of a work may be no indication of the competency of its creator.

In spite of the lack of criteria for success, there seems to be a general acceptance of some elements -- competencies -- necessary for adequate performance, as well as general agreement as to what the essential principles and techniques are in the various arts occupations. The competencies selected by the TERC staff are all basic principles or techniques in current use in the arts, without which adequate performance is not possible in the occupations included in the arts cluster. These competencies are teachable and are being developed in students through traditional educational processes or through exposure to experiences in the field.

The terms we have given these essential principles may, however, not be immediately recognizable to those oriented toward thinking of competencies on the level of tasks. As indicated earlier, the level of specificity was chosen to show how the competencies required in the occupations of one discipline are related to those of another. This level also shows a way of combining detailed skills into a broader competency.

A violinist, for example, does not go to a teacher with the precise idea of learning "ear-hand coordination." A violin teacher instructs in bowing, fingering, and other techniques which are part of a large group of specific skills contributing to "ear-hand coordination."

This level also allows the demonstration of alternative careers for people with particular competencies. A person with good "ear-hand coordination" who has limitations in other competencies required for performance may realize a career in tuning or in sound equipment operation. Such considerations preclude an exhaustive list of competencies.

Consultation with members of TERC's Arts and Humanities Project Advisory Committee, as well as other practitioners in arts occupations, lead us to conclude that our suggested competencies are appropriate for the arts cluster.

This conclusion is also supported by available discussions on competencies, traditional curricula and texts, and by widely accepted measures and standards of performance in the arts fields.

The following competencies are offered as being appropriate to the arts cluster:

1. Composition/Design/Conceptualization: the ability to isolate, abstract, and coordinate a cohesive image (visual, aural, or written) from the observation of random formal material. It is crucial to all those who synthesize creative work from observable phenomena.
2. Color Manipulation: the ability to select and apply color with an understanding of its individual and reactive chromatic qualities. It is crucial to those whose works are dependent for their success on chromatic effect and important for those whose work is primarily linear or sculptural.  
  
On the second level in this group are listed directors and choreographers who often must manipulate the color of costumes on dancers and actors to make an artistic effect.
3. Perception of Positive/Negative Space: the ability to visualize and manipulate in two or three dimensions the boundary between a form and its surrounding space. It is crucial to those who design the format of spatial arrangements and important to those who design within that given space.
4. Hand Dexterity: the ability to manipulate physical materials adroitly. It is crucial to those who do fine handwork and important to those whose work is basically manual.
5. Hand-Eye Coordination: the ability to integrate simultaneously the visual perception of a model with the manual reproduction of that model in line or form. It is crucial to those who do any form of copying and important to those who interpret from visual perception.
6. Hand-Ear Coordination: the ability to integrate movements of the hand, mouth, or voice, with aural perceptions. It is crucial to musicians and dancers, and important to those who process music electronically.
7. Voice Control: the ability to color and change the sound of the voice in many ways and to project that sound, regardless of the emotional state at the time of the performance. Beyond the direct application to singing, voice control is crucial to all those who use their voice in the service of their art. Voice control is useful to therapists and teachers who use their voices as a medium of communication.

8. Timing (Rhythm): the ability to time movements, actions, words, and musical ideas precisely in relation to the movements of others or in relation to a regular pulse. Beyond the musical use of rhythm, a sense of timing and pattern is crucial to those in other disciplines who must use it to achieve an artistic result.
9. Body Control: an exceptionally high degree of physical coordination with respect to movement of the body through time and space, along with a paramount sense of balance. Body control is crucial in the field of dance and useful to many entertainers and musicians.
10. Concentration: the ability to focus mental and emotional energy for extended periods of time. Essential for those who must "maintain character" or perform extended works on stage, concentration is useful to many writers working against deadlines, as well as workers behind public performance who must always remain alert.
11. Memory Skill: the ability to learn material for total recall during performance. Crucial to concert artists and actors, it is useful to many entertainers.
12. Symbolic Translation: the capacity to perceive a representative description of form (sound, movement) presented in one medium and to interpret it in another. It is crucial to those who must read blue prints, musical scores, scripts, and notation. It is also useful to those who work less directly with such symbolic languages.
13. Organizational ability: the ability to identify and delegate responsibilities, deal with personalities, and unite a variety of artistic endeavors into one production. Organizational ability is a quality associated with leadership. It is crucial to all managers, conductors, directors, and administrators. It is helpful in many areas of production.

While "Organizational Ability" is not on the same level as "Eye-Hand Coordination" or "Color Manipulation," it is included to reflect the many positions of leadership that are unique to the arts. A stage manager, for instance, draws his skills from such a wide variety of experience that a broader term is needed to describe his particular competencies. A film director may exercise competent judgment in visual art, dance, music, theater and writing, and yet cannot be described as competent in any of these fields. The film director's competencies exist in organizing a great variety of artistic and technical efforts into one creative statement.

The attached lists show the arts occupations from each of the six disciplines distributed by competency according to level one, crucial, and level two, useful, but not essential.

COMPOSITION / DESIGN / CONCEPTUALIZATION

Composition/Design/Conceptualization is the ability to isolate, abstract and coordinate a cohesive image (visual, aural, or written) from the observation of random formal material. It is crucial to all those who synthesize creative work from observable phenomena.

Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp; Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Dancers Choreographers Designers		Performers (musical) Composers	Stage Directors Designers Actors Mimes Storytellers Comedians Mimers Impersonators Puppeteers Magicians Hypnotists Ventriloquists Circus Performers	Fine Artists Architects Illustrators Compositors Cartoonists Photographers Designers	Literary Writer Journalists Specialized Writers Critics and Writers about Literature Journalistic Writers
<u>All Fields</u>					
Teachers					

Level II

<u>All Fields</u>	Masters of Ceremony	Artist-Repertoire Persons Property Makers Hair Stylists	Editors Manuscript Readers Rewrite People Literary Agents Production Supervisors Art Supervisors Publication Lay-out People Journalists
Publishers Researchers Librarians			

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COLOR MANIPULATION

Color manipulation is the ability to select and apply color with an understanding of its individual qualities and interaction with other colors. It is crucial to those whose works are dependent for their success on chromatic effect and important for those whose work is primarily linear or sculptural.

Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp; Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Designers	All Designers Set Decorators Make-up People Light Show Operators		Designers Painters, stage settings Make-up People	Fine Artists Designers Color Experts Colorers Ornamental Horticulturalist Art Teachers	

Level II

Choreographers	Camera People Lighting People Some Costume People Property Makers		Stage Directors Stage Managers Painters, stage settings Stage Electricians Property Makers	Illustrators Fashion Artists Sketch Portraitists Clay Designers Printmakers Paper Craftspersons Decoupage Crafts- persons Candlemakers	Printers
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PERCEPTION OF POSITIVE/NEGATIVE SPACE

Perception of positive/negative space is the ability to visualize and manipulate in two or three dimensions, the boundary between a form and its surrounding space. It is crucial to those who design the format of spatial arrangements and important to those who design within that given space.

Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp; Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Choreographers All Designers Dance Teachers	Directors All Designers		Directors All Designers	Fine Artists Designers Silhouette Artists Lay-out Persons Architects Urban Planners Compositors Art & Craft Teachers All Craftspeople	

Level II

Dancers	Actors	Actors Mimes	Photographers All Illustrators Printers
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## HAND DEXTERITY

Hand dexterity is the ability to manipulate physical materials adroitly. It is crucial to those who do fine handwork and important to those whose work is basically manual.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp;</u> <u>Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
	Set People Lighting People Costume People Sound People Make-up People Film Specialists & Processors Hairstylists	Instrumentalists Music Graphers	Mimes Magicians/Prestidigitators Puppeteers Waiter/Entertainers Designers Circus Performers Costume People Hairstylists Make-up People	Fine Artists Calligraphers All Illustrators Fine Arts Ceramicists Art Teachers	

### Level II

Actors Camera People Production Property People Other Sound People	Sound Equipment Operators Recording Engineers (for Maintenance) Copyists	Actors Stage Managers Grips Highrigging Persons Riggers Fly Persons Acrobatic Riggers Lighting People Property People Sound Persons Hypnotists	Everyone except managers, supervisors, editors, and other non-manual jobs	Printers Video, Film Producers
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## HAND-EYE COORDINATION

Hand-eye coordination is the ability to integrate simultaneously the visual perception of a model with the manual reproduction of that model in line or form. It is crucial to those who do any form of copying and important to those who interpret from visual perception.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp; Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
			Painters, stage settings	Sculptors Painters Draftspersons Printmakers Calligraphers Illustrators Cartoonists Court Room Artists Sketch Portraitists Silhouette Artists Sign Painters Delineators Architects Art Teachers	

### Level II

Notators	Make-up People Property Makers Hairstylists Costumers	Make-up People Property Makers Hairstylists Costumers	Fine Artists Patternmakers Die Makers Glass Decorator Architectural Modeler Designers Craftspeople
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## HAND-EAR COORDINATION

Hand-ear coordination is the ability to integrate the movements of the hand, mouth and voice with aural perceptions. It is crucial to all performing musicians and dancers and important to those who process music electronically.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp;</u> <u>Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Dancers Rehearsal Accompanists Dance Teachers		Performers Tuners Music Therapists Music Teachers			

### Level II

Sound Equipment Operators Recording Engineers	Sound Equipment Operators Recording Engineers Light-Show Operators
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## VOICE CONTROL

Voice control is the ability to color and change the sound of the voice in many ways, and to project that sound, regardless of the emotional state at the time of the performance. Beyond the direct application to singing, voice control is crucial to all artists who use their voice in the service of their art. Voice control is useful to therapists and teachers who use their voices as a medium of communication.

### Level I

#### Dance

Media  
(TV, Film, Radio)

#### Music

#### Theater & Entertainment

#### Visual Arts

#### Writing

Actors  
All Newspeople/  
Announcers

Vocalists  
Announcers  
Entertainers  
Voice Teachers

Actors  
Dramatic Readers  
Story Tellers  
Comedians/Mimics  
Masters of Ceremony  
Impersonators  
Puppeteers  
Ventriloquists  
Waiter/Entertainers  
Barkers  
Ringmasters  
Drama Teachers,  
Coaches

### Level II

Teachers  
Therapists

Stage Managers  
Stage Directors  
Hypnotists

## RHYTHM AND TIMING

Timing (rhythm) is the ability to time movements, actions, works and musical ideas precisely in relation to those movements of others or in relation to a regular pulse. Beyond the musical use of rhythm, a sense of timing and pattern is crucial to those in other disciplines who must use it to achieve an artistic result.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp;</u> <u>Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Dancers Choreographers Musicians Stage Managers Dance Teachers	Broadcast Directors Stage Managers Announcers Performers Light Show Operators	Musicians	Stage Directors Stage Managers Actors Mimes Dramatic Readers Story Tellers Comedians/Mimics Impersonators Magicians Circus Performers Hypnotists Theater teachers		Poets Lyricists Librettists

### Level II

Therapists	Production People	Composers Therapists	Masters of Ceremony Puppeteers Therapists Ventriloquists Waiter/Entertainers Models Barkers Show Girls	Calligraphers Therapists	Playwrights Reporters Feature Writers Advertising Writers Greeting Card Writers Game Creators Humor Writers Editors
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## BODY CONTROL

Body control is an exceptionally high degree of physical coordination with respect to movement of the body through time and space, a paramount sense of balance. Body control is crucial in the field of dance and useful to many entertainers and musicians.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp;</u> <u>Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Dancers Choreographers Dance Teachers	Actors Doubles Photographers Models Artists Models Teachers	Conductors Opera Singers Musical Comedy Singers	Ac Mimes Magicians/Prestigitators Models Show Girls Circus Performers Theater Teachers		

### Level II

Performers Set People	Comedians/Mimics Masters of Ceremony/ Impersonators Waiter/Entertainers Barkers
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## CONCENTRATION

Concentration is the ability to focus mental and emotional energy for extended or concentrated periods of time. Essential for those who must "maintain character" or perform extended works on stage. Useful to many writers who must work against deadlines, and to many workers behind public performances who must always remain alert.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp; Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Choreographers Dancers Musicians Stage Managers	Actors Photographers Model Artists Model All Newspeople/Announcers Script Writers Camera People Lighting People Film Specialists and Processors Teachers, Writers, Librarians Costumes People Most Sound People Make-up People	Performers Critics Dancers Broadcast Directors Conductors	Actors Stage Directors Stage Managers Mimes Dramatic Readers Story Tellers Comedian/Mimes Masters of Ceremony Impersonators Magicians Hypnotists Ventriloquists Waiter/Entertainers Barkers Playwrights Designers Circus Performers Production Historians Critics	Fine Artists Industrial Designers Cartoonists (motion pictures) Court Room Artists Silhouette Artists Photographers Craftspersons	Literary Writers Journalistic Writers Specialized Writers Editors Copy Editor Index Editor Proofreader

### Level II

Composers Announcers Production People (light, sound, set)	Set Watchmen Production Set People Production Lighting People Production Costume People Sound People Make-up People Hairstylist Stage Door People
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## MEMORY SKILLS

Memory skill is the ability to learn material for total recall during performance. It is crucial to many concert artists and theater artists. Useful to entertainers.

### Level I

<u>Dance</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp;</u> <u>Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Choreographers Dancers Musicians Teachers	Actors Teachers	Concert Performers Dancers Entertainers Conductors Teachers	Actors Story Tellers Comedian/Mimics Masters of Ceremony Impersonators Teachers		

### Level II

Composers	Mimes Magicians/Prestidigitators Puppeteers Ventriloquists Waiter/Entertainers Barkers Playwrights Composers	Literary Writers Journalists
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SYMBOLIC TRANSLATION

Symbolic translation is the ability to perceive a representative description of form presented in one medium and to interpret it in another. It is crucial to those who must read blue prints, musical notation, etc., and important to those who work less directly with symbols.

Level I

<u>Dancers</u>	<u>Media</u> (Television, Film, Radio)	<u>Music</u>	<u>Theater &amp; Entertainment</u>	<u>Visual Arts</u>	<u>Writing</u>
Choreographers Notators Musicians	Most Production People	Performers Composers Designers Instrument Builders Musicologists	Most Production People	Architects Modelers Draftspersons (architectural) Interior Designers Cartographers Display Assemblers Industrial Designers Model Builders and Makers Urban Planners Cabinet Makers Boat Builders Instrument Makers Leather Clothing Makers Weavers Needleworkers Quilt Makers Off Loom Fiber Crafts Custom Clothing Makers	All Workers in Field

Level II

Dancers	Designers	Acousticians Publishers Editors Copyists	Designers	Designers
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## ORGANIZATIONAL ABILITIES

Organizational ability is the ability to identify and delegate responsibilities, deal with personalities, and unite a variety of artistic endeavors into one production. Organizational ability is a quality associated with leadership. It is crucial to all managers, conductors, directors and administrators. It is helpful in many areas of production.

### Level I - All Fields

Performance Managers (includes Choreographers,  
Conductors and Producers)  
Visual and Industrial Arts Managers and Supervisors  
Museum Curators and Managers  
Sales Managers and Personnel  
Government Workers in Arts Fields  
Community Arts Specialists (all fields)  
Directors, Professional Associations  
Researchers  
Librarians  
Historians  
Critics, Writers about Arts  
Teachers  
Publishers

### Level II - All Fields

Designers  
Agents  
Therapists  
Production People

Competencies in Humanities Occupations

Those curriculum development projects in occupational education which are aimed at preparing students with employable skills require careful thinking about the competencies necessary for successful job performance in a given occupational cluster. In researching competencies necessary for occupations in the humanities field, TERC considered several factors:

1. The charge for our curriculum development under the U. S. Office of Education contract concentrates on helping students to explore humanities occupations rather than to prepare them for entry into the field;
2. Preparation for humanities occupations, because very few jobs can be obtained without a minimum of a baccalaureate degree, most frequently occurs beyond the secondary level and is thus beyond the charge of our curriculum development project, which is grades 7-12.
3. Problems in delineating humanities competencies also arise from the widely accepted U. S. Department of Labor scheme of examining competencies from the point of view of the worker's relationship to people, data, and things. Humanists are concerned, on one level, exclusively with data; even teaching is the passing on of data or eliciting from students the interest and ability in acquiring data. Yet the nature of the word "humanist" acknowledges a primary concern with people. Things have little importance for the humanist, except as a tool (e.g., the calculator for the econometrician involved in macroeconomics) for dealing with data. The D.O.L. scheme, further provides only a gross impulse that become highly differentiated competencies in actual practice: the professor of art history who advances on the career ladder to become chairman of an academic department depends upon a new relationship with people and a concern with totally

different kinds of data and is called upon to perform functions quite  
different from those of a post-secondary teacher; yet this person's  
"people-to-things" ratio would remain the same in the D.O.L.

preparation. Traditional views of competencies are thus inappropriate  
for the humanities cluster.

4. To depart from the D.O.L. scheme, preparation should provide potential practitioners with a number of competencies; however, post-secondary preparation has customarily (with perhaps the exception of training for elementary and secondary education) emphasized only the acquisition of a body of knowledge, with lesser emphasis on acquiring competencies in conducting research and analyzing the results. For example, the person preparing for a career in the field of literature is expected to become acquainted with the major works of English and American literature in each genre in each century. In terms of performance objectives, the goals are generally recognition and explication of meaning. Preparation generally includes some attention to skills in research: methods of obtaining, analyzing, validating, and presenting information coherently. The fortunate student preparing for a career in literature may also be taught expository writing skills, and on the graduate level some teaching skills through learning-by-doing and perhaps even some on-the-job training. Learning how to acquire theoretical knowledge and how to think critically are the broad competencies one can expect to obtain from traditional preparation for humanities fields.

5. Most secondary school students have little exposure to practitioners in the humanities occupations except for their own teachers and have limited understanding of either detailed competencies required for or functions performed in the different humanities jobs.

Against this background and with the junior high and secondary school student in mind as the eventual target population for research in humanities occupations, TERC decided to present "competencies" in the same format as "functions." We can thus equate the kinds of activities performed in a job with the kinds of competencies required for that job. This equation would not be valid in writing curriculum which prepares a student with employable skills, but it is an effective way of informing potential humanists about competencies that are at best elusive during the educational process and at worst incomprehensible to young people who are exploring career choices.

In the Chart of Humanities Occupations (see pages 45-60), those competencies or functions which are considered crucial are indicated by a check mark (✓). Those competencies or functions which could be important for successful job performance are indicated by an "M." The titles of the functions/competencies are self-explanatory for the level of detail with which a junior or senior high school student needs to be familiar in the career orientation process.

Two weaknesses in this scheme of presentation are that 1) it does not show important components of a larger function/competency (for example "librarianship" does not indicate that "cataloging" may call upon different skills than "reference work" does) and 2) it shows only cognitive competencies because those skills correlate well with job functions ("relating well with people" may enhance a political scientist's success in a career, and indeed may be as teachable a competency as "analyzing" but it is not a basic function of the political scientist's job). Despite the weaknesses in our equating functions in humanities occupations with broad competencies, we believe that this format is intelligible for young people exploring the cluster.