Chapter 21

Mental Health Practitioners and Trainees

Farifteh F. Duffy, Ph.D.; Joyce C. West, Ph.D., M.P.P; Joshua Wilk, Ph.D.; William E. Narrow, M.D., M.P.H.; Deborah Hales, M.D.; James Thompson, M.D., M.P.H.; Darrel A. Regier M.D., M.P.H.
American Psychiatric Association

Jessica Kohout, Ph.D.
American Psychological Association

Georgine M. Pion, Ph.D.
Vanderbilt Institute for Public Policy Studies

Marlene M. Wicherski
Research Consultant

Nancy Bateman, LCSW-C, CAC; Tracy Whitaker, ACSW
National Association of Social Workers

Elizabeth I. Merwin, Ph.D., R.N, F.A.A.N.; Debra Lyon, Ph.D., R.N., C.S., F.N.P.; Jeanne C. Fox, Ph.D., R.N., F.A.A.N.
Southeastern Rural Mental Health Research Center, University of Virginia

Kathleen R. Delaney, R.N., DNSC
Associate Professor, Rush College of Nursing Clinical Nurse Coordinator, Children's Inpatient Unit

Nancy Hanrahan, R.N., C.S., Ph.D.
University of Pennsylvania Center Health Outcomes and Policy Research

Rex Stockton, Ed.D.; Jeffrey Garbelman, M.A.; Jennifer Kaladow, M.S.
Indiana University / American Counseling Association

Thomas W. Clawson, Ed.D.; S. Christian Smith, M.S.
National Board for Certified Counselors

David M. Bergman, J.D.; William F. Northey Jr., Ph.D.
American Association for Marriage and Family Therapy

Laura Blankertz, Ph.D.
International Association of Psychosocial Rehabilitation Services

Alex Thomas, Ph.D.
Miami University

Larry D. Sullivan, Ph.D.; Kevin P. Dwyer, M.A., N.C.S.P.
National Association of School Psychologists

Michael S. Fleischer, Ph.D.
Commission for Applied and Clinical Sociology (a joint initiative of the Society for Applied Sociology and the Sociological Practice Association)

C. Roy Woodruff, Ph.D.
Executive Director, American Association of Pastoral Counselors

Harold F. Goldsmith, Ph.D.; Marilyn J. Henderson, M.P.A.; Joanne E. Atay, M.A.; Ronald W. Manderscheid, Ph.D.
Center for Mental Health Services, Substance Abuse and Mental Health Services Administration

Introduction

Late in 1987, research staff from the American Psychiatric Association (APA), the American Psychological Association, the National Association of Social Workers (NASW), and representatives of professional psychiatric nursing formed a work group on human resources data with staff from the National Institute of Mental Health (NIMH). This workgroup had four major purposes:

(1) To identify common, basic human resources data that could be reported on by each of the four core mental health disciplines (psychiatrists, psychologists, social workers, and psychiatric nurses).

(2) To prepare a chapter for *Mental Health, United States, 1990* (Dial et al., 1990) that presented and described these data.

(3) To identify data gaps and plan steps by which these gaps might be corrected.

(4) To improve survey comparability among the four core disciplines so that the essential pool of common core data could be expanded.

The workgroup has addressed each of these purposes: a common, basic data set was developed and published in *Mental Health, United States, 1998* (Manderscheid and Sonnenschein, 1998); chapters were developed on human resources for *Mental Health, United States, 1990, 1992, 1996, 1998,* and *2000* (Manderscheid and Sonnenschein, 1992, 1996, Manderschied and Henderson, 1998, 2001); and a plan was developed to fill data gaps and to improve data comparability for the professions that provide mental health services. In addition to the four original core disciplines, early in the 1990s, representatives of clinical mental health counseling, marriage and family therapy, and psychosocial rehabilitation were added to the workgroup. More recently, representatives of school psychology, sociology, and pastoral counseling have been added.

This chapter is designed to update information in similar chapters from the 1990, 1992, 1996, 1998, and 2000 *Mental Health, United States* volumes. It presents information on the size and characteristics for 8 of 10 disciplines (specific data are not available for sociology and only limited data for pastoral counseling). Results are restricted to those data elements that are comparable across the disciplines. Exceptions to this general approach are noted in the footnotes and in appendix C, and readers are encouraged to review this appendix for descriptions of the survey methodologies used to collect the data reported here. Clearly, a strong need exists in the mental health field for increased precision and comparability of human resources data. Because mental health is a very labor-intensive field, the preponderance of financial resources is spent in the area of human resources, so the policy and resource implications of human resource data are enormous. To plan adequately for future services, both the public and private sectors require access to such data. This chapter is another step along a path that is of potential benefit to the entire field.

At the outset, it is important to specify the scope and limitations of the data. The reader needs to be sensitive to data coverage within and across disciplines, as well as over time.

The chapter addresses two types of human resources:

(1) Clinically trained mental health personnel, who, because of recognized formal training or experience, could perform direct clinical mental health care, whether or not they are currently doing so.

(2) Clinically active mental health personnel who are currently engaged in the provision of direct clinical mental health care (a subset of total mental health personnel).

The numbers of clinically trained mental health personnel and clinically active mental health personnel are specified only for professionals from the eight mental health disciplines with specific data. The reader should note that clinical supervision of trainees is considered to be a direct clinical activity. When possible, coverage includes an entire discipline rather than the membership of a professional association. The analyses for each discipline specify the scope of coverage. Time frames for the statistical information vary somewhat from discipline to discipline. The reader should note the variability within and across disciplines (see Appendix C).

Psychiatry

This section describes the current work force in psychiatry. Demographic and training characteristics, as well as professional activities and settings, are characterized. Data sources for this section include the American Medical Association (AMA)

Physician Characteristics and Distribution in the United States (2002); the 2000 membership records of the APA; the 1990–91 through 1998–99 APA annual census of residents (1991, 1995, 1999); the AMA *Graduate Medical Education Database* (AMA GME, 2001); the 1988–89 APA Professional Activities Survey (PAS); and the 1998 APA National Survey of Psychiatric Practice (NSPP).

The AMA Physician Characteristics and Distribution in the United States (2002) contains information on all physicians practicing in the United States who are self-designated or self-identified as psychiatrists. As a result, the AMA database may include some physicians with no specialty psychiatric training. In comparison, the APA data, which supplement the AMA estimates by providing data not otherwise available, include only APA members who have completed psychiatric residency or have board certification. The APA membership database does not represent the universe of psychiatrists; however, it represents the majority of psychiatrists in the United States.

Demographic and Training Characteristics

According to the AMA (2002), the United States had 40,867 clinically active psychiatrists, including child and adolescent psychiatrists, in 2000, reflecting a 41 percent increase in the number of psychiatrists since 1982, a four percent increase since 1996, and a 0.3 percent increase since 1998 (see table 1). Table 2 provides data on the basic demographic characteristics of the clinically trained APA members residing in the United States. Approximately 73 percent of the APA members are male and 27 percent female, which is no change from 1999 (CMHS, 2000). In 2000, the median age of female and male APA member psychiatrists was 46 and 55, respectively. Female members who are age 39 or younger comprise 22 percent, compared with males 39 or younger, who comprise only 10 percent. Approximately 61 percent of female APA members are under the age of 50, compared with 35 percent of male APA members.

Psychiatrists who are White Non-Hispanic represent 75 percent of APA members, compared with 82 percent of all persons in the general population. Individuals of Asian origin represent nearly 11 percent of the APA membership and four percent of the general population. Hispanics, African-Americans, and American Indians are underrepresented in the APA membership compared with their proportion in the U.S. population. Persons of Hispanic descent account for four percent of the APA membership and 12 percent of the general population, African-Americans account for three percent of the APA membership and 13 percent of the general population, and American Indians account for 0.1 percent of the APA membership and 0.9 percent of the general population.

Table 3 reports the number of clinically active, non-Federal psychiatrists practicing in the United States and the rate per 100,000 in the population on the basis of data reported by the AMA (2002). There are approximately 14 clinically active psychiatrists per 100,000 individuals in the U.S. population. The distribution of clinically active psychiatrists, however, varies across geographic regions, ranging from 6 per 100,000 in Idaho and Mississippi to 28 per 100,000 in New York, 32 per 100,000 in Massachusetts, and 57 per 100,000 in the District of Columbia.

Data presented in table 4 show the aging of the psychiatric workforce, in which more than 60 percent of the clinically trained psychiatrists completed their highest professional degree more than 21 years ago; the APA's 2000 membership data was used for this analysis. Over the past decade, APA membership has declined, specifically for younger psychiatrists. For example, in 1990 psychiatrists under age 45 constituted 37 percent of the APA membership, but by 2000 that number had dropped to 24 percent. Other data also corroborate the aging of the psychiatric workforce. According to the AMA (2002), psychiatrists under age 45 constituted 46 percent of the psychiatric workforce in 1990 and only 32 percent in 2000. Training trends also suggest a gradual decline particularly in the number of full time and first year residents during the 1990s (see table 8).

During the 1980s, the number of medical students entering psychiatric residencies increased by almost 25 percent (Dial et al., 1990). However, data from the APA annual census of residents indicate that since the 1990s, the number of residents has remained relatively constant (see table 8). The 2000–2001 data in table 8 indicate a decrease of about six percent in the total number of residents since the 1990s; however, it is important to note that the 2000–2001 training data were derived from the AMA Graduate Medical Education survey (AMA GME, a collaborative effort of the AMA and the APA) rather than the APA's annual census of resident which was the source of data on residency training during the 1990s. The scope of the programs covered by the current survey conducted by

Table 1. Changes in supply of clinically trained mental health personnel by discipline and total number of hours worked for specified years

Hours Worked By Discipline	1982	1983	1984	1988	1989	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Psychiatry[1]																
35 hours or more																
Less than 35 hours (Excluding child psychiatry)	25,784	26,476				31,173	32,203			34,088	34,970	35,330				
TOTAL (Including child psychiatry)	29,018	29,853				35,249	36,482			39,197	40,352	40,731		40,867		
Psychology																
35 hours or more		39,955			48,785				57,948		56,224		59,641			
Less than 35 hours		4,725			7,745				11,869		16,794[2]		17,815[2]			
TOTAL		44,680			56,530				69,817		73,018[2]		77,456[2]			
Social Work																
35 hours or more					65,880											
Less than 35 hours					15,857											
TOTAL					81,737	86,378	88,889	90,303	93,245			96,407 (192,814)[3]		97,290 (194,580)[3]		
Psychiatric Nursing																
35 hours or more			7,703					4,248		11,294				12,920		
Less than 35 hours			2,331					1,362		4,036				3,686		
TOTAL			10,034	3,497[5]		5,033[5]		5,610[5]	6,800[5]	15,330[6]				16,606		
Counseling[7]																
35 hours or more														24,864		25,744
Less than 35 hours														83,240		86,187
TOTAL										61,100			96,263	108,104		111,931
Marriage and Family Therapy[8]																
35 hours or more									31,203		29,852			25,346		
Less than 35 hours									15,024		14,373			21,765		
TOTAL									46,227		44,225			47,111		
Psychosocial Rehabilitation																
35 hours or more								29,435		84,100						
Less than 35 hours								5,655		15,900						
TOTAL				20,909				35,000		100,000						
School Psychology[9]																
35 hours or more																
Less than 35 hours																
TOTAL						21,012	21,693	22,214	23,782	24,804	25,870		26,482	31,278		

[1] The American Medical Association *Physician Characteristics and Distribution in the United States* (2002) includes physicians who are self-identified as psychiatrists or child psychiatrists. Psychiatric residents and inactive psychiatrists have been excluded. Numbers are revised from those reported in *Mental Health, United States 1998.*

[2] These are clinically trained psychologists. Estimates based on trained psychologists reporting hours worked.

[3] The number in parentheses is the total clinically trained social workers from a conservative estimate that the 96,407 and 97,290 National Association of Social Workers (NASW) members in 1998 and 2000, respectively, are only 50 percent of the total social work work force.

[4] Estimates for 1984 and 1996 were based on employed nurses with graduate degrees in psychiatric nursing, not on the population of certified nurses. In 1988 it was estimated that there were 10,567 such employed nurses; in 1984 the estimate was 10,034.

[5] Excluding 1994, these figures represent all certified specialists in psychiatric-mental health nursing, not just those employed.

[6] A total of 17,318 were trained with 1,988 (11.5 percent) estimated to be nonemployed.

[7] Data from National Board for Certified Counselors 1998 State Counseling Board Survey; comparison with similar States; number of National Certified Counselors; with growth rate taken from National Certified Counselor Data. Full- and part-time ratios taken from table 5.

[8] Data for 2000 are based on a 2000 American Association for Marriage and Family Therapy Practice Research Network Project funded by Center for Substance Abuse Treatment (CSAT). Data were collected from a random sample of AAMFT Clinical members with an 82 percent response rate of eligible therapists. For years prior to 2000, the total was distributed into full- and part-time on data from a survey of marriage and family therapists in 15 States by Doherty and Simmons (1995).

[9] Source: Thomas (2000).

Table 2. Percentage of clinically trained mental health personnel, by discipline, sex, age, and race for specified years

Socio-demographic characteristics	Psychiatry[1] 2000	Psychology 2002[2]	Social Work 2000[3]	Psychiatric Nursing 2000	Counseling[4] 2000	Marriage and Family Therapy[6] 2000	Psychosocial Rehabilitation 1994	School Psychology[7] 2000	Pastoral Counseling (AAPC Members) 2001[8]
Total (*N*)	**(26,258)**	**(88,491)**	**(97,290)**	**(18,269)**	**(111,931)**	**(47,111)**	**(9,437)**	**(31,278)**	**(2,812)**
Male (*N*)	**(19,094)**	**(45,484)**	**(20,431)**	**(1,551)**	**(31,341)**	**(15,641)**	**(3,223)**	**(9,308)**	**(1,920)**
Under 35	2.7	2.7	8.5		11.1	1.0	38.4	11.0	0.9
35–39	7.7	5.9	5.5		4.1	4.6	20.1	7.5	2.0
40–44	11.2	9.0	9.5		8.3	9.1	17.7	18.0	4.9
45–49	13.1	16.6	18.3		9.5	21.2	10.7	20.0	12.0
50–54	13.9	22.7	28.1		14.1	28.1	5.5	20.0	15.7
55–59	12.5	16.4	14.9		21.3	16.4	3.6	20.0	20.4
60–64	10.1	8.6	11.9		18.2	9.5	2.3	2.9	16.1
65–69	7.7	5.4	2.7		9.0	5.8	1.2	2.0	11.4
Over 69	21.0	12.8	0.6		4.5	4.5	0.5	0.6	16.7
Unknown	0.1								
American Indian/ Alaska Native	0.1	0.3	0.0		0.5	1.3	0.4	0.2	0.2
Asian/Pacific Islander	8.4	1.3	1.5		0.7	1.6	2.0	0.6	1.5
Hispanic	4.5	2.1	4.3		1.9	1.8	6.4	1.6	0.4
Black (not Hispanic)	1.9	1.5	6.4		3.8	1.3	20.8	1.3	2.0
White (not Hispanic)	75.7	94.7	85.1		80.0	91.5	69.8	95.1	83.8
Not specified	9.4	0.0	2.7		13.1	0.8	0.6	1.2	12.1
Female (*N*)	**(7,125)**	**(43,007)**	**(76,859)**	**(16,718)**	**(80,590)**	**(31,470)**	**(6,114)**	**(21,970)**	**(892)**
Under 35	6.2	8.7	13.7	1.6	18.2	2.3	44.3	21.0	0.7
35–39	15.9	11.7	8.9	4.4	3.5	5.4	15.5	10.0	2.0
40–44	19.9	13.6	12.1	11.9	9.0	8.2	14.5	17.0	7.5
45–49	19.3	17.9	19.0	22.4	9.5	18.1	10.7	17.0	14.9
50–54	13.5	20.0	19.9	24.6	14.0	22.3	7.4	15.1	20.7
55–59	8.7	13.4	16.8	18.9	18.3	19.6	4.1	14.0	21.7
60–64	5.0	6.0	6.3	10.1	15.9	14.6	2.3	2.7	17.3
65–69	3.0	3.5	2.6	5.94[5]	8.2	5.8	0.8	2.7	0.1
Over 69	8.4	5.2	.7	N/A	3.4	3.5	0.4	0.5	7.3
Not specified	0.1								
American Indian/ Alaska Native	0.1	0.3	0.2	0.5	0.5	0.7	N/A	0.3	0.1
Asian/Pacific Islander	13.2	1.8	1.1	0.0	0.8	0.8	N/A	0.7	0.8
Hispanic	4.4	2.9	2.6	1.5	2.1	2.1	N/A	1.8	0.6
Black (not Hispanic)	4.0	2.6	4.2	4.7	4.2	0.2	N/A	2.1	2.0
White (not Hispanic)	73.6	92.3	89.3	90.2	82.6	93.8	N/A	94.3	83.8
Other						1.4			
Not specified	4.7	0.0	2.5	3.0	9.8	2.9	N/A	0.8	12.7

[1] American Psychiatric Association membership for 2000 residing in the United States, excluding medical students; psychiatric residents; corresponding members and fellows; inactive members, associates, fellows; and honorary and distinguished fellows. The "not specified" race category includes "Other." Gender is not reported for 39 psychiatrists.

[2] Source: 2000 American Psychological Association Directory Survey, 2002 Association of State and Provincial Psychology Boards (ASPPB) Directory, and 2002 Committee for the Advancement of Professional Practice (CAPP) grant application counts. Compiled by the American Psychological Association Research Office. Numeration for rate is from later 2001 to early 2002. Earlier numbers for students are derived from 1998 Graduate Study in Psychology.

[3] Based on National Association of Social Workers Practice Research Network (PRN) Survey (2000b) indicating 21 percent of NASW clinically trained members are male.

[4] Data are based on the National Board for Certified Counselors database of National Certified Counselors.

[5] Represents psychiatric nurses who are 65 and older.

[6] Data based on 2000 American Association for Marriage and Family Therapy PRN project funded by Center for Substance Abuse Treatment (CSAT). Data were collected from a random sample of AAMFT clinical members with an 82 percent response rate of eligible participants, as well as from the 2002 California Association for Marriage and Family Therapy (CAMFT) 2002 Member Practice and Demographic Survey, which was sent to a random sample of the 3,900 of the 14,500 Clinical Members of CAMFT and had a 27 percent response rate. The "Hispanic" category was treated as a separate question; accordingly, percentages do not sum to zero.

[7] Source: Thomas, A. (2000).

[8] Data are for the year 2001–2002 and the totals for race ethnicity are 1,939 and 903, respectively, for males and females.

Table 3. Estimated number of clinically active (CA) or clinically trained (CT) mental health personnel and rate per 100,000 civilian population, by discipline: United States and each region and State for specific year

Region and State	Psychiatry (2001)[1]		Psychology (2002)[2]		Social Work (2002)[3]		Psychiatric Nursing (2000)		Counseling (2002)[4]		Marriage and Family Therapy (2002)[5]		Psychosocial Rehabilitation (1996)		School Psychology (2003)[6]	
	# of CT Persons	Rate per 100,000	# of CT Persons	Rate per 100,000	# of CA Persons	Rate per 100,000	# of CT Persons	Rate per 100,000	# of CA Persons	Rate per 100,000	# of CA Persons	Rate per 100,000	# of CT Persons	Rate per 100,000	# of CT Persons	Rate per 100,000
United States	**38,436**	**13.7**	**88,491**	**31.1**	**99,341**	**35.3**	**18,269**	**6.5**	**111,931**	**49.4**	**47,111**	**16.7**	**100,000**	**37.7**	**31,278**	**11.4**
New England	**3,749**	**26.9**	**7,425**	**53.0**	**11,233**	**80.7**	**3,043**	**21.8**	**7,545**	**50.3**	**1,763**	**12.7**	**12,200**	**91.2**	**2,448**	**18.0**
Connecticut	940	27.6	1,317	38.5	2,471	72.6			1,285	39.2	642	19.9	3,000	91.7	789	24.0
Maine	224	17.6	448	34.8	947	74.3			1,342	107.1	82	6.4	1,000	80.5	249	19.8
Massachusetts	2,024	31.9	4,232	66.3	5,994	94.4			4,227	68.5	852	13.4	4,600	75.2	905	14.6
New Hampshire	197	15.9	527	41.9	621	50.3			267	22.2	65	5.2	1,900	162.1	252	20.6
Rhode Island	208	19.8	447	42.2	822	78.4			98	9.9	71	6.8	700	70.9	160	16.3
Vermont	156	25.6	454	74.1	378	62.1			325	54.8	31	5.1	1,000	169.8	93	15.1
Middle Atlantic	**8,759**	**22.1**	**19,770**	**49.7**	**24,327**	**61.3**	**3,632**	**9.1**	**39,405**	**39.5**	**2,104**	**5.3**	**22,400**	**58.6**	**5,887**	**15.3**
New Jersey	1,381	16.4	2,577	30.6	5,104	60.7			3,189	39.2	850	10.1	4,100	50.9	1,187	14.5
New York	5,358	28.2	12,068	63.5	14,962	78.9			15,801	86.8	608	3.2	7,700	42.5	3,450	19.0
Pennsylvania	2,020	16.4	5,125	41.7	4,261	34.7			10,415	70.9	646	5.2	10,600	8.2	1,250	10.2
East North Central	**4,842**	**10.7**	**14,727**	**32.5**	**16,793**	**37.2**	**3,150**	**6.9**	**20,886**	**45.0**	**3,356**	**7.4**	**10,700**	**24.4**	**5,398**	**12.2**
Illinois	1,496	12.0	5,298	42.4	5,005	40.3			1,546	12.7	446	3.6	3,100	26.1	1,821	15.1
Indiana	489	8.0	1,086	17.8	2,075	34.13			757	12.7	1,232	20.3	600	10.2	452	7.5
Michigan	1,119	11.3	4,010	40.1	5,297	53.3			6,163	62.5	968	9.7	3,000	30.7	850	8.9
Ohio	1,133	10.0	3,056	26.9	2,759	24.3			9,775	86.8	201	1.8	3,400	30.4	1,375	12.1
Wisconsin	605	11.3	1,277	23.6	1,657	30.89			2,645	50.4	509	14.9	600	11.6	900	16.9
West North Central	**1,833**	**9.5**	**6,879**	**35.6**	**4,924**	**25.6**	**930**	**4.8**	**5,590**	**44.5**	**1,627**	**8.4**	**10,000**	**53.8**	**2,343**	**15.8**
Iowa	192	6.6	671	23.0	757	25.8			374	13.0	213	7.2	1,700	59.6	450	33.4
Kansas	326	12.1	580	21.5	954	35.5			305	11.5	190	7.1	1,100	42.4	550	20.6
Minnesota	506	10.3	3,420	68.8	1,110	22.6			622	13.0	720	14.6	2,000	42.7	673	13.9
Missouri	538	9.6	1,600	28.4	1,511	27.0			1,527	27.9	294	5.3	3,400	62.9	240	8.5
Nebraska	155	9.1	309	18.4	331	19.3			1,817	109.1	80	4.7	500	30.2	280	16.4
North Dakota	66	10.3	159	25.1	113	17.6			388	61.2	15	2.3	500	78.0	58	8.8
South Dakota	50	6.6	140	18.6	148	19.6			558	76.1	115	15.2	800	108.4	92	11.8
South Atlantic	**6,690**	**12.9**	**12,878**	**24.4**	**15,348**	**29.6**	**3,310**	**6.3**	**15,404**	**39.5**	**4,469**	**8.6**	**18,800**	**39.0**	**4,819**	**9.6**
Delaware	94	12.0	303	38.1	271	34.6			630	8.4	20	2.6	200	27.3	102	13.3
District of Columbia	327	57.2	920	160.9	569	99.5			518	99.7	32	5.7	700	132.3	62	11.9
Florida	1,683	10.5	3,500	21.3	3,525	22.1			4,471	29.6	1,920	12.0	5,700	38.9	1,500	9.8
Georgia	825	10.1	1,660	19.8	1,521	18.6			1,764	22.7	574	7.0	1,000	13.4	660	8.4
Maryland	1,315	24.8	2,025	37.7	3,697	69.8			1,610	31.1	227	4.3	6,900	135.5	601	11.4
North Carolina	923	11.5	1,720	21.0	2,151	26.7			1,879	13.0	546	6.8	1,200	16.2	757	9.7
South Carolina	440	11.0	480	11.8	771	19.2			1,725	44.4	256	6.4	500	13.3	475	12.3
Virginia	942	13.3	1,759	24.4	2,476	35.0			1,975	28.7	872	12.3	2,500	37.1	532	7.6
West Virginia	141	7.8	511	28.4	367	20.3			1,400	77.5	22	1.2	100	5.5	130	7.1

Table 3. Estimated number of clinically active (CA) or clinically trained (CT) mental health personnel and rate per 100,000 civilian population, by discipline: United States and each region and State for specific year (Continued)

Region and State	Psychiatry (2001)[1]		Psychology (2002)[2]		Social Work (2002)[3]		Psychiatric Nursing (2000)		Counseling (2002)[4]		Marriage and Family Therapy (2002)[5]		Psychosocial Rehabilitation (1996)		School Psychology (2003)[6]	
	# of CT Persons	Rate per 100,000	# of CT Persons	Rate per 100,000	# of CA Persons	Rate per 100,000	# of CT Persons	Rate per 100,000	# of CA Persons	Rate per 100,000	# of CA Persons	Rate per 100,000	# of CT Persons	Rate per 100,000	# of CT Persons	Rate per 100,000
East South Central	**1,403**	**8.2**	**2,681**	**15.6**	**3,080**	**18.1**	**1,367**	**8.0**	**3,552**	**21.6**	**1,248**	**7.3**	**2,400**	**14.7**	**1,001**	**5.9**
Alabama	315	7.1	609	13.6	657	14.8			1,380	31.6	235	5.3	600	13.9	173	3.9
Kentucky	396	9.8	639	15.7	891	22.0			665	16.8	400	9.9	1,000	25.6	330	8.3
Mississippi	174	6.1	328	11.4	403	14.2			588	21.2	377	13.3	200	7.3	73	2.6
Tennessee	518	9.1	1,105	19.3	1,129	19.8			920	16.8	236	4.1	600	11.2	425	7.5
West South Central	**2,684**	**8.5**	**4,600**	**14.4**	**6,445**	**20.5**	**573**	**1.8**	**13,118**	**38.6**	**3,973**	**11.3**	**5,900**	**19.9**	**2,363**	**7.7**
Arkansas	184	6.9	377	14.0	479	17.9			664	26.0	120	4.5	800	31.7	135	5.1
Louisiana	497	11.1	485	10.9	1,684	37.7			1,495	34.2	116	2.3	1,200	27.6	354	8.0
Oklahoma	236	6.8	499	14.4	643	18.6			1,587	47.3	535	15.5	300	9.0	225	6.8
Texas	1,767	8.5	3,239	15.2	3,639	17.5			9,373	46.8	3,200	15.3	3,600	18.5	1,649	8.2
Mountain	**1,843**	**10.1**	**5,263**	**28.2**	**5,393**	**29.7**	**760**	**4.1**	**11,213**	**84.7**	**2,061**	**11.3**	**3,800**	**26.3**	**2,146**	**12.1**
Arizona	493	9.6	1,378	26.0	1,265	24.7			1,834	38.4	336	6.5	1,700	67.4	593	12.4
Colorado	620	14.4	1,964	44.5	1,558	36.2			2,121	52.3	480	11.2	300	7.7	560	13.4
Idaho	76	5.9	243	18.4	364	28.1			887	70.8	43	33.3	0	0.0	143	10.6
Montana	85	9.4	184	20.3	299	33.1			1,916	217.0	14	1.6	200	22.8	195	20.5
Nevada	130	6.5	250	11.9	402	20.1			1,158	64.0	626	31.3	200	11.9	180	9.6
New Mexico	233	12.8	472	25.8	595	32.7			2,875	165.2	64	4.6	900	52.0	195	10.5
Utah	173	7.7	625	27.5	760	34.0			215	5.4	431	19.3	200	9.7	178	8.1
Wyoming	33	6.7	147	29.7	150	30.4			307	64.0	67	13.6	300	62.5	102	19.4
Pacific	**6,633**	**14.7**	**14,268**	**31.1**	**11,798**	**26.2**	**1,503**	**3.3**	**5,217**	**31.6**	**26,512**	**58.9**	**13,800**	**32.2**	**4,873**	**11.5**
Alaska	60	9.6	198	31.2	311	49.6			397	64.0	50	7.9	0	0.0	150	22.9
California	5,235	15.5	11,280	32.7	7,779	23.0			753	2.3	25,212	74.4	11,300	35.0	3,658	11.2
Hawaii	209	17.2	455	37.2	739	61.0			89	7.5	98	8.1	500	42.1	70	5.6
Oregon	419	12.2	945	27.2	1,227	35.9			1,179	35.5	271	7.9	1,000	30.8	245	7.2
Washington	710	12.0	1,390	23.2	1,742	29.6			2,800	48.6	881	14.9	1,000	17.8	750	12.8

[1] For psychiatry, the numerator of the rate is based on clinically active psychiatrists in the private sector and does not include residents or fellows (see AMA, 2002), and the denominator is from the U.S. Bureau of the Census (2000).
[2] Source: 2000 American Psychological Association Directory Survey, 2002 ASPPB Directory, and 2002 CAPP grant application counts. Compiled by APA Research Office. Numeration for rate is from later 2001 to early 2002; denominator is residential population of the United States as of July 1, 2001. Source: Table ST-2001EST-01-Time Series of State Population Estimates: April 1, 2000, to July 1, 2001, Population Division, U.S. Bureau of the Census. Release Date: December 27, 2001 (see www.census.gov/estimationprogram)
[3] Based on National Association of Social Workers' membership data, Spring 2002 (MSW and DSW regular members).
[4] Data from National Board for Certified Counselors 1998 State Counseling Board Survey; Comparison with similar States; number of National Certified Counselors; with growth rate taken from National Certified Counselor data. Data for the denominator of the rate are from U.S. Census 2001 projections.
[5] Data for the numerator are based on 2000 American Association for Marriage and Family Therapy (AAMFT) Practice Research Network project funded by the Center for Substance Abuse Treatment. Data were collected from a random sample of AAMFT clinical members with an 82 percent response rate of eligible participants, as well as from the 2002 California Association for Marriage and Family Therapy (CAMFT) 2002 Member Practice and Demographic Survey, which was sent to a random sample of 3,900 of the 14,500 Clinical Members of CAMFT and had a 27 percent response rate; denominator is residential population of the United States as of April 1, 2000. Source: Table ST-2001EST-01-Time Series of State Population Estimates: April 1, 2000 to July 1, 2001, Population Division, U.S. Bureau of the Census. Release Date: December 27, 2001 (see www.census.gov/estimationprogram)
[6] Numerators for rates from Thomas (2000); denominator is based on the residential population of the United States projected to July 1, 2000 (Campbell, 1996).

Table 4. Percentage of clinically trained mental health personnel, by number of years since completion of highest professional degree, for specified years

Discipline	Number of Years Since Completion							
	(N)	0–2	3–5	6–10	11–15	16–20	21+	Not Specific
Psychiatry (2000)[1]	(26,258)	0.0	0.5	8.4	13.6	12.7	64.1	0.7
Psychology (2002)[2]	(85,128)	4.2	10.2	16.1	15.3	15.9	33.8	—
Social work (2000)[3]	(97,290)	1.8	8.6	17.4	16.9	17.2	38.2	—
Psychiatric nursing (2000)[4]	(18,269)	14.3	11.6	22.3	13.3	14.9	22.4	1.2
Counseling (2002)[5]	(111,931)	8.4	12.5	20.6	20.6	13.6	24.4	0.0
Marriage and family therapy (2000)[6]	(47,111)	0.7	3.4	23.9	19.9	27.1	25.0	—
Psychosocial rehabilitation (1994)	(9,437)	2.3	3.2	16.3	18.9	18.7	40.6	—
School psychology (2000)[7]	(31,278)	6.4	10.7	15.8	12.1	17.1	37.9	—

[1] 2000 American Psychiatric Association membership residing in the United States, excluding medical students; psychiatric residents; corresponding members and fellows; inactive members, associates, fellows; and honorary and distinguished fellows.
[2] Estimates are for the doctoral-level clinically trained psychologists in the United States in late 2001 and early 2002 reporting years. Missing data are excluded.
[3] Estimates are based on National Association of Social Workers (NASW) Practice Research Network (PRN) survey, 2000, which requested years of experience since completion of first professional degree. The numbers reported reflect slightly different year ranges from table 4. The NSAW PRN survey data represent the following ranges: less than 2; 2–4 years; 5–9 years; 10–14 years; 15–19 years; and 20+ years. Thus, data are not comparable to their disciplines.
[4] All subjects have masters or doctoral education in nursing. The data in this table reflect the years since completion of highest nursing degree; they do not include years since doctoral degrees in non-nursing areas. It should be noted that the highest degree might be a doctorate rather than master's degree.
[5] Estimates are based on the 2000 National Study of the Professional Counselor with growth rate taken from National Certified Counselor data.
[6] All data are based on 2000 American Association for Marriage and Family Therapy (AAMFT) PRN project funded by the Center for Substance Abuse Treatment. Data were collected from a random sample of AAMFT clinical members with an 82 percent response rate of eligible participants.
[7] Source: Thomas (2000).

AMA-GME (2001) is restricted to American Council for Graduate Medical Education (ACGME)-accredited programs, whereas APA's annual census of residents traditionally surveyed ACGME-accredited as well as non-ACGME-accredited fellowships, such as consultation-liaison, research, and other postresidency programs. Although the 2000–2001 data displayed in table 8 attempted to include data for the programs not covered by the AMA GME survey (such as data on consultation-liaison; methodological differences across data sources, as well as factors such as program mergers, closures, and downsizing in the late 1990s and nearly 10 percent decrease in the total number of applicants for residency training programs in general, which occurred between 1997 and 2001 (National Resident Matching Program 2003 Match Data) may account for some of the decline in 2000–2001 numbers in psychiatric residency training. Nonetheless, a steady increase in the proportion of female residents continues. In 1998–99, 53 percent of psychiatric residents were male and 47 percent were female, compared with 56 percent and 43 percent, respectively, in 1990–91 (one percent missing data). The 2000–2001 AMA GME data documented that 49 percent of psychiatric residents were male and 49 percent were female (two percent missing data).

Since 1990, there has been a 63 percent increase in the proportion of International Medical Graduates (IMGs) entering psychiatric residencies (see

APA, Census of Residents, 1990 to 1998). The greatest increase occurred during the early to mid 1990s, with the proportion of IMGs increasing 92 percent between 1990 and 1996. In recent years, from 1996 to 2001, this trend appears to have slowed and remained flat. Furthermore, in the past five years, the proportion of Hispanic and African-American residents decreased slightly, the proportion of American Indian residents remained relatively constant, and the proportion of Asian and White residents has increased slightly.

Professional Activities

Data from the 1998 APA NSPP indicate that the majority of psychiatrists (55 percent) continue to work in more than one setting during the course of a week, although, according to the 1988 APA PAS, fewer appear to be doing so than in 1988 (76 percent). Among psychiatrists working full time in the United States in 1998, 60 percent worked in two or more settings (table 5), whereas 35 percent of psychiatrists working part time practiced in two or more settings. By contrast, in 1988, 79 percent of psychiatrists working full time and 59 percent working part time did so in two or more settings. Consequently, the mean number of settings in which psychiatrists work per week decreased slightly between 1988 and 1998 (from 2.3 to 1.9). Overall, the mean number of hours psychiatrists work per week remained unchanged at 48, while the proportion of psychiatrists working full time has increased from 74 percent to 78 percent in the past 10 years.

Historically, individual or group private practice has been the primary work setting for the greatest number of psychiatrists, but substantial changes in the health care delivery system may have resulted in a decline in the proportion of psychiatrists primarily working in these settings. Between 1982 and 1988, the proportion of psychiatrists reporting private (individual or group) practice as their primary work activity decreased from 58 percent to 45 percent (Dorwart et al., 1992). By 1998, this figure had increased to 50 percent (table 6). However, in 1998, active psychiatrists reported spending less than half their patient care time in either an individual or group practice (1998 APA NSPP).

The shift away from individual/group private practice may be due in part to the diverse employment opportunities for psychiatrists created by the evolution of private psychiatric hospitals, general hospital psychiatric units, and organizations providing outpatient mental health care (Olfson, Pincus, and Dial, 1994). Of active psychiatrists responding to the 1998 APA NSPP, 21 percent reported working in a hospital as their primary work setting (10 percent general, six percent public psychiatric, and four percent private psychiatric)—which is down from 1988 (28 percent). However, the number of psychiatrists working in outpatient clinics increased in that period: 21 percent of psychiatrists in 1998 reported outpatient clinics as their primary work setting (see table 6), compared with 10 percent in 1988. Furthermore, in 1998, psychiatrists reported that nearly one-quarter (22 percent) of psychiatric patient care time was spent either in a general or psychiatric hospital and 21 percent of psychiatric patient care time was spent in outpatient facilities, including private, public, and HMO clinics.

In addition to working in more than one setting, psychiatrists usually are involved in more than one work activity (see table 7). As shown in table 7, in 1998, 96 percent of psychiatrists were involved in patient care, 90 percent in administration, and 20 percent in research. Psychiatrists spent a mean number of 28 hours per week in direct patient care in 1998, 4.9 fewer hours (a 15 percent reduction) than in 1988. In addition, psychiatrists appear to have spent more time in administrative activities in 1998 (11 hours per week) than in 1988 (5.8 hours per week). However, because the 1988 PAS did not distinguish between administrative activities related to patient care and those that were not, as was done with the 1998 NSPP, and because in 1998 most of the administrative activities hours were directly related to patient care (e.g., maintaining medical records), the differences observed may be in part an artifact of differences in survey instrumentation. Also, the decrease in direct patient care hours and increase in administrative hours during this period may be due to changes in the organization and financing of the Nation's health care system.

Conclusion

Over the past two decades, the number of clinically trained psychiatrists has increased; however, the rate of growth in clinically trained psychiatrists has decreased. The number of female psychiatrists entering the field has increased, and the median age of psychiatrists has remained unchanged since 1998 (CMHS, 2000; West et al. 2001). Furthermore, the number of psychiatric residents has remained relatively constant during the 1990s. There has,

Table 5. Percentage of clinically trained mental health personnel, by discipline, employment status, and number of employment settings for specified years

Employment Setting	Discipline and Year							
	Psychiatry[1] 1998	Psychology[2] 2002	Social Work[3] 2000	Psychiatric Nursing 2000	Counseling[4] 2002	Marriage/ Family Therapy[5] 1999	Psycho-Social Rehab. 1994	School Psychology 2000[6]
Full time (*N*)	**(740)**	**(50,308)**	**(49,618)**	**(12,920)**	**(25,744)**	**(25,346)**		**(26,611)**
One setting	40.0	49.8		64.6	80.0	70.3	77.5	94.0
Two or more settings	60.0	50.2		35.4	20.0	29.2	22.5	N/A
Part time (*N*)	**(160)**	**(16,062)**	**(23,350)**	**(3,686)**	**(86,187)**	**(21,765)**		**(4,667)**
One setting	65.3	66.3		76.2	65.0	81.8	54.8	38.1
Two or more settings	34.7	33.7		23.8	35.0	17.7	45.2	61.9

[1] Respondents to the 1998 American Psychiatric Association National Survey of Psychiatric Practice currently active in psychiatry (N = 976);76 psychiatrists had missing information on employment status. Full time is defined as 35 or more hours per week.
[2] Total is based on an estimate of the clinically active psychologists. Percentages are derived from proportions in the APA Directory Survey.
[3] Data based on National Association of Social Workers (NASW) PRN survey, 2000; 25 percent of regular members reported a combination of full-time and part-time employment, and data from these members are not included in this chart.
[4] Data based on National Board for Certified Counselors (NBCC) National Study of the Professional Counselors (2000). Full time is defined as 35 or more hours per week.
[5] Data based on 2000 American Association for Marriage and Family Therapy (AAMFT) PRN project funded by Center for Substance Abuse Treatment. Data were collected from a random sample of AAMFT clinical members with an 82 percent response rate of eligible participants. The total of 44,225 marriage and family therapists reporting settings was distributed into employment settings based on data from a survey of marriage and family therapists in 15 States by Doherty and Simmons (1995).
[6] Source: Thomas (2000).

however, been significant growth in the number of IMGs entering psychiatric residencies, although this trend may be subsiding.

One major change over the past decade has been the significant decrease in time psychiatrists are spending in direct patient care, with more of their time being devoted to administrative activities. This change is of particular concern, given its impact in decreasing the available psychiatric workforce for direct patient care, especially in light of the increased demand for psychiatric services. The average psychiatrist works in more than one setting. In the past 20 years, individual/group private practice and hospitals have declined as the primary work settings for psychiatrists. The number of psychiatrists working in organized care settings, on the other hand, has increased. Psychiatrists continue to be involved in many types of work activities, including direct patient care, research, administration, and teaching (Zarin, Pincus, et al., 1998).

Research has demonstrated that psychiatrists treat a more severe and complex patient population than other mental health providers (Olfson and Pincus, 1996; Pincus et al., 1999). Analyses of the National Medical Expenditure Survey data indicate that compared with psychologists, psychiatrists tend to see a larger proportion of persons who are socially disadvantaged, who report that their health interferes with their work, and who have higher utilization of nonhospital outpatient mental health care. In addition, psychiatrists provided significantly more visits than psychologists for schizophrenia, bipolar disorder, substance abuse, and depression, but fewer visits for anxiety disorders and isolated symptoms. Data on specific psychiatric patient populations have also highlighted key differences in the patients treated by psychiatrists compared with those treated by other mental health providers (Zarin, Suarez, et al., 1998).

As the U.S. health delivery system evolves and the demand for psychiatric services rises, it will be increasingly important to track and understand the characteristics of psychiatric workforce as well as the populations served.

Table 6. Percentage of clinically trained mental health personnel, by discipline and primary and secondary employment setting for specified years

Employment Setting	Discipline and Year							
	Psychiatry[1] 1998	Psychology[2] 2002	Social Work 2000[3]	Psychiatric Nursing 2000	Counseling[4] 2002	Marriage/ Family Therapy[5] 2000	Psycho-Social Rehab. 1994	School Psychology 2000
Primary employment setting (N)	**(931)**	**(66,370)**	**(86,831)**	**(16,606)**	**(111,931)**	**(47,111)**	**N/A**	**(31,278)**
Hospital	**21.0**	**9.0**	**7.9**	**32.7**	**3.7**	**7.2**		**0.0**
Mental health setting	10.0	3.0	3.9	9.9	3.3	6.9		
Other health setting	10.7	6.0	4.0	22.8	0.4	0.3		
Clinic	**20.9**	**6.0**	**23.0**	**18.1**	**22.5**	**23.9**		**2.1**
Mental health setting	N/A		17.6	11.7	18.7	22.0		2.1
Other health setting	N/A		5.3	6.4	3.8	1.9		0.0
Academic setting	**1.0**	**17.0**	**13.0**	**24.4**	**33.4**	**9.7**		**87.2**
University/ college	N/A	13.0	5.4	19.0	13.6	5.7		5.2
Elementary/ secondary schools	N/A	4.0	7.6	5.4	19.8	4.0		82.6
Individual practice	37.0	38.0	18.5	5.8	15.1	34.9		3.982.6
Group practice	13.1	12.0	6.7	4.8	5.0	11.0		3.9
Nursing home	1.3	1.0	2.3	0.08	0.4	1.3		
Social service agency	N/A		14.5		3.9	11.0		0.0
Other/not specified	5.9**	16.0	14.1	14.0	16.0	1.0		3.2
Secondary employment setting (*N*)	**(508)**	**(30,935)**	**(37,067)**	**N/A**	**(26,304)**	**(11,307)**	**N/A**	**N/A**
Hospital	**36.9**	**6.0**	**5.1**		**6.3**	**17.1**		
Mental health setting	15.1	1.0	1.5		5.0	14.3		
Other health setting	21.8	5.0	3.7		1.3	2.8		
Clinic	**20.3***	**4.0**	**20.7**		**16.9**	**17.1**		
Mental health setting	N/A	—	12.9		11.3	17.1		
Other health setting	N/A	—	7.3		5.6	0.0		
Academic setting	**1.3**	**23.0**	**9.4**		**25.0**	**8.6**		
University/ college	N/A	20.0	6.1		12.5	8.6		

Table 6. Percentage of clinically trained mental health personnel, by discipline and primary and secondary employment setting for specified years (Continued)

Employment Setting	Discipline and Year							
	Psychiatry[1] 1998	Psychology[2] 2002	Social Work 2000[3]	Psychiatric Nursing 2000	Counseling[4] 2002	Marriage/ Family Therapy[5] 2000	Psycho-Social Rehab. 1994	School Psychology 2000
Elementary/ secondary schools	N/A	3.0	3.3		12.5	0.0		
Individual practice	18.0	28.0	27.1		21.6	28.5		
Group practice	6.4	8.0	7.6		10.0	12.8		
Nursing home	6.3	2.0	2.8		0.6	1.4		
Social service agency	N/A	—	11.9		3.8	8.6		
Other/ not specified	10.8**	29.0	15.9		15.6	5.7		

Note: cell numbers may not equal total numbers and percentages may not equal 100 because of rounding.
* includes HMO clinics.
** includes correctional facilities.

[1] Respondents to the 1998 American Psychiatric Association (APA) NSPP who are currently active in psychiatry (N = 976); 45 psychiatrists had missing information on primary employment setting. The primary and secondary settings were identified on the basis of the proportion of patient care time spent in different settings.
[2] Total represents clinically active psychologists
[3] Source: National Association of Social Workers (NASW) Practice Research Network (PRN) survey (2000b). Response categories from the PRN survey were collapsed into the Center for Mental Health Services (CMHS) required categories; those response categories that did not fit the required CMHS categories were included under "other/not specified."
[4] Estimates are based on the 2000 National Study of the Professional Counselor with growth rate taken from National Certified Counselor data.
[5] Data are based on 2000 American Association for Marriage and Family Therapy PRN project funded by CSAT. Data were collected from a random sample of AAMFT clinical members with an 82 percent response rate of eligible participants.

Table 7. Percentage of clinically trained mental health personnel involved in each type of work activity, by discipline, for specified years[1]

Type of Work	Discipline and Year							
	Psychiatry 1998	Psychology[3] 2002	Social Work[4] 2000	Psychiatric Nursing 2000	Counseling[5] 2002	Marriage/ Family Therapy[6] 1999	Psycho-Social Rehab. 1994	School Psychology 2000[7]
(*N*)	(935)[2]	(38,228)	(97,290)	(16,606)	(111,931)	(44.225)	N/A	N/A
Patient care/ direct service	95.7	89.4	71.8	78.6[8]	73.4	88.4	96.1	82.5
Research	19.7	24.2	0.7	23.8	0.4	16.5	N/A	2.0
Teaching	N/A	38.9	4.6	42.1	10.8	46.7	N/A	5.2
Administration	90.0	34.4	17.3	54.9	7.9	56.0	10.1	4.3
Other activities	87.3	39.3	5.5	58.6[9]	7.5	34.1	N/A	6.0

[1] Percentages will not sum to 100 because clinically trained or clinically active mental health personnel can be involved in more than one type of work activity.
[2] Respondents to the 1998 American Psychiatric Association (APA) NSPP who are currently active in psychiatry is 976; however, 41 psychiatrists did not provide information on type of work activity.
[3] Source: 2000 American Psychological Association Directory Survey that was compiled by APA Research Office. Because 50,263 members did not specify work activities, percentages are based on the 38,228 members who responded.
[4] Source: National Association of Social Workers (NASW) PRN survey, 2000, which requested the principal role in the primary area of practice; thus, data are not comparable to other disciplines.
[5] Estimates are based on the 2000 National Study of the Professional Counselor with growth rate taken from National Certified Counselor data.
[6] The total represents active marriage and family therapists and was distributed into type of work activity on the basis of data from a survey of marriage and family therapists in 15 States by Doherty and Simmons (1995).
[7] Data are from Thomas (2000) and replace earlier data.
[8] Includes staff supervision.
[9] Mainly consultation as other activity.

Psychology

Prior to World War II, psychologists were primarily employed in traditional academic settings. A small proportion actively engaged in mental health service delivery worked outside universities. This picture began to change in the mid-1970s, with statutory recognition of the profession by State regulatory agencies (DeLeon et al., 1984). In 1975, the United States had an estimated 20,000 licensed psychologists. This number doubled to 46,000 by 1986, and to at least 88,500 by 2002 (see table 1).

Coupled with the dramatic growth in the number of practitioners was a significant increase in the role of psychologists as direct mental health service providers. Today psychologists are involved in every type of mental health setting, including those that are research or treatment oriented and general primary health care or specialty focused (e.g., sports and other injuries, elderly, seriously mentally ill). Given this more diversified workplace, the roles of psychologists also have diversified and become more complex. In addition to the assessment and treatment of individual clients, psychologists now are involved in prevention, intervention at the community level, assessment of service delivery systems (outcomes), and client advocacy.

Demographic and Training Characteristics

The past two decades have been ones of growth for doctoral-level psychologists who were trained in specialties that focused on the provision of mental health services. As noted above, in 1983, Stapp and colleagues (1985) estimated the number of doctoral-level psychologists at 44,600. By 2002 that number had almost doubled to approximately 88,500. This growth was fueled early on by a surge in degree production. The number of new doctorates awarded in the practice specialties in psychology rose from 1,571 in 1979 to nearly 2,400 in 1989 and was about 3,034 in 2000 (Hoffer et al., 2001; Pion, 1991; Syverson, 1980; Thurgood and Weinman, 1990). The training system also has expanded during the past

two decades with a doubling in the number of doctoral psychology programs in clinical, counseling, and school psychology accredited by the American Psychological Association. There were 134 such doctoral programs in 1979, 234 in 1989, and 353 in 2002. These counts do not include the programs that do not seek accreditation by the Association but do award doctoral-level degrees in psychology, which further expand the ranks of the clinically trained. The total number of graduate students enrolled in accredited doctoral programs has risen from 14,586 in 1984–85 to at least 18,200 in 2001–2002 (data tables compiled by American Psychological Association (APA) Research Office from 2003 information). However, numbers of enrollees have declined slightly in the past six years or so.

Despite this growth in the number of psychologists trained to provide direct services, these services continue to be relatively inaccessible in many areas of the country, and shortages of mental health personnel exist for certain target populations. These populations include seriously emotionally disturbed children and adolescents, adults with serious mental disorders, rural residents with mental health needs, and the elderly, to name a few.

Table 2 presents basic information on the demographic characteristics of psychologists who could provide mental health services (the clinically trained pool). In many ways this group reflects the changing demographic characteristics of psychologists as a whole. For example, women made up almost 49 percent of all clinically trained psychologists in 2002 (table 2)—up from 38 percent in 1989 (Dial et al., 1990). This growth is not surprising given that the participation of women in psychology as a whole has grown significantly over the past two decades (Pion et al., 1996). In 2000, almost 67 percent of all doctorates in psychology were awarded to women, compared with 49 percent in 1985 and 32 percent in 1975 (Henderson, 1996; NORC, 2002). The representation of women among new doctorates in clinical psychology was even higher than among new doctorates in psychology as a whole, at 73 percent, and in 2000, women accounted for 71 percent of all full-time graduate students in doctorate-granting departments of psychology (Coyle, 1986; Gilford, 1976; Hoffer et al., 2001).

Although psychology attracts a greater percentage of racial and ethnic minorities than many other disciplines, their representation remains relatively small at 6.6 percent. This figure is lower than their representation in the U.S. adult population (at least 25 percent in 2002). As reported by the National Science Foundation (NSF), the proportion of doctorates in science and engineering fields earned by racial and ethnic minorities was 19 percent in 2000 (Hoffer et al., 2001). As table 2 indicates, the population of clinically trained women is slightly more racially and ethnically diverse than that of men. The pool of clinically trained psychologists, like psychiatrists, continues to age. The median age in 2002 was 51.0, compared with 44.2 in 1989. Similarly, the median years since receiving the doctorate increased from 12 years in 1989 to 17 years in 2002 (analyses are drawn from the APA membership profiles as well as table 2 and table 4). Results reveal that women are slightly younger than men and have earned their doctorates more recently. In 2002, the median age for women was 49, whereas the figure for men was 53; the median number of years since receiving the doctorate was 13 years for women and 21 for men. These findings are to be expected, given the trends in degree production noted earlier.

Professional Activities

Table 1 indicates that most of the psychologists who are actively providing services are working full time (almost 76 percent), and table 6 shows that just over half are doing so by a combination of two or more positions. It is more common for those who are working part time to be occupying one position.

The primary and secondary employment settings of active health service providers in psychology are presented in table 6. Half of the health service providers indicated that their primary setting was independent practice, with most having a solo practice (38 percent) rather than working in a group or medical/psychological group setting. The next most frequent setting, a far second, was the academic setting, including university/college counseling centers (13 percent), followed by nonpsychiatric hospitals (six percent), clinics (four percent), elementary and secondary schools (four percent), and mental health hospitals (three percent). About 16 percent were employed in other settings, such as government or business.

Forty-six percent, or about 30,935, of all clinically active psychologists worked in more than one setting in 2002 (see table 6). Again, the most frequent setting was independent practice (individual and group) at 36 percent, followed by academic and other settings (23 and 29 percent, respectively). Much smaller percentages worked in other settings.

Table 7 reveals that almost 90 percent of those who are trained to provide direct services do, in fact,

report this as an activity in which they are involved. But the table also demonstrates the wide variety of activities reported by clinically trained psychologists. About one-fourth conduct research; almost 39 percent provide some type of education (usually in higher education); more than one-third reported managerial or administrative responsibilities; and about 39 percent mentioned other employment activities (such as publishing or writing) not captured by these categories.

Social Work

The primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty. A historic and defining feature of social work is the profession's focus on individual well-being in a social context and the well-being of society. Fundamental to social work is attention to the environmental forces that create, contribute to, and address problems in living (NASW, 2000c, p. 1).

Founded on these core principles, social work evolved as a profession in the midst of the rampant social poverty during the tide of industrialization, urbanization, and immigration in the late 19th century. Three movements formed the basis of the profession: the charitable organizations, the settlement houses, and the societies founded to address child welfare issues at that time. The charitable organization movement, however, is credited as the originator of the social work profession—with its ambitious and organized goals to provide assistance, as well as understanding and solutions, to widespread poverty and family disruption (Popple, 1995).

By the end of the 19th century, the complexity of the social problems clearly demanded professionals with more formal training grounded in science. In 1898, the first classes in social work were offered at Columbia University in New York City. Today, there are more than 200 accredited graduate social work programs (master of social work [MSW] or doctoral) as well as 430 accredited undergraduate social work programs (Lennon, 2001). Rigorous education standards at the bachelor's, master's, and doctoral levels ensure that social workers are prepared for professional practice through formal course work combined with fieldwork from an accredited social work degree program, professional supervision, adherence to the NASW professional Code of Ethics (2000a), and licensure or certification at the State level. In addition, the NASW offers professional practice credentials and standards as well as specialty certifications in case management; school social work; and counseling for alcohol, tobacco, and other drugs.

In the early 1900s, the profession gained increasing credibility and integration into the workplace. By 1905, Massachusetts General Hospital in Boston had established a hospital-based social services department, followed in 1906 by a division designated to serve patients struggling with mental illness. In that same year, school social workers were introduced into the public school system. Several years later, the U.S. Children's Bureau was created (1912), and by 1926, the U.S. Veteran's Bureau was hiring social workers in the hospitals (Popple, 1995). These early developments mirrored the continuing diversity of social work practice settings and skills.

In the decade following the Great Depression, the number of social work positions doubled from 40,000 to 80,000 as social services expanded in the pubic sector to address financial assistance, public health, and child welfare issues (Popple, 1995). Jane Addams, known for her leadership roles in the settlement house and peace movements, was awarded the Nobel Peace Prize in 1931 (Quam, 1995). Frances Perkins, a social worker and Secretary of Labor under President Franklin D. Roosevelt, was instrumental in the development of the New Deal Legislation in the 1940s. During her tenure as Secretary of Labor, she advocated for improved workers' conditions, including minimum wages, maximum hours, child labor legislation, and unemployment compensation (Quam, 1995). As the Depression drew to an end, social workers could be found providing services in both the public and private sectors. The 1960s brought a renewed commitment to public welfare as society again focused on issues of poverty. During that decade, the profession's historical commitment to social welfare issues continued and the scope of practice expanded to include not only casework and counseling, but also policy, planning, program administration, and research.

Today, social workers are employed in a wide range of settings, serving as therapists, administrators, advocates, case managers, consultants, researchers, policymakers, teachers, and supervisors. Social workers use their skills and knowledge to provide social services and counseling; increase the capacity and problem-solving skills of clients, family members, and communities; connect people to resources; and influence social policies (Barker, 1999).

Clinical social work is identified as one of the five core mental health professions by the National Institute of Mental Health (NIMH) and the Health Research and Services Administration (HRSA). In addition, all 50 States regulate the profession of social work through licensure, certification, or registration, as well as through the use of professional titles.

NASW is the largest professional association of social workers. Formed in 1957 through the merger of seven affiliated social work organizations, it now serves 150,000 members in the United States and abroad. NASW seeks to advance the profession of social work as well as to enhance the effective functioning and well-being of individuals, families, and communities through its work and its advocacy.

Demographic and Training Characteristics

The number of clinically trained social workers continues to grow as the largest professional group of mental health and therapy services providers. According to NASW membership data, there were 97,290 clinically trained social workers in 2000, a nearly 20 percent increase since 1989 (see table 1). Since 1989–90, there has been a steady increase in the number of MSW degrees awarded—nearly 50 percent. The number of doctoral degrees awarded since 1989–90 has fluctuated. The 1998–99 numbers reflect an eight percent increase in doctoral degrees awarded since 1989–90. Clinically trained social workers or those with master's degrees are qualified to provide a wide range of social work services—therapy, case management, advocacy, education, teaching—and are eligible for licensure or registration in every State. According to the recent NASW (2000b) Practice Research Network (PRN) survey, 93 percent of all regular NASW members (bachelor's, master's, or doctorate in social work) hold some form of State social work license, certification, or registration. Formal training in social work occurs primarily in accredited undergraduate programs that offer baccalaureate social work programs (BSW) or in accredited professional schools of social work offering MSW, DSW, Ph.D., or other doctoral programs (Barker, 1999). Training entails a combination of formal course work and direct supervised work with clients. For the purposes of this section, clinically trained social workers were defined as those holding a master's or doctoral degree from an accredited graduate-level social work program. The numbers in parentheses reflect a conservative estimate of the number of clinically trained social workers in the United States, because not all clinically trained social workers are members of NASW. We arrived at this estimate by doubling the original NASW figure to account for the 50 percent or more of social workers who are not NASW members. Tables 2 through 7 present data on clinically trained social workers who are members of NASW and may not fully represent the total number of social workers in the United States.

The data for this section and its tables were drawn from membership information and informed by the NASW PRN survey (2000b). Conducted in the spring of 2000, the NASW PRN survey captured demographic and practice data from a random sample of 2,000 regular members. On the basis of the sampling techniques and the high rate of response (81 percent), which minimized potential for selectivity and nonresponse bias, these results are highly representative of the membership.

The social work field continues to be predominantly White (88 percent) and female (79 percent; see table 2). The schools of social work report a similar gender distribution for MSW enrollees and degree recipients in 1997–98, averaging about 84 percent female and 16 percent male (Lennon, 2001). There has been a slight increase in the percentage of clinically trained social workers who are people of color, from eight percent in 1998 to 11 percent in 2000 (table 2). However, nearly one-fourth (24.2 percent) of students awarded MSW degrees in 1998–99 were people of color (Lennon, 2001). This figure is more consistent with the 2000 U.S. Census findings that people of color represent 25 percent of the U.S. population. Thus, the percentages in table 2 may underrepresent the ethnic/racial diversity among social workers. Both the schools of social work data and NASW data indicate that the majority of people of color among social workers (about five percent) are African-Americans. Given the ethnic and racial diversity of the U.S. population, culturally competent practice is a critical model/focus for social work practice (NASW, 2001), as is the recruitment and retention of people of color within the profession.

Table 3 shows both the geographic distribution of social workers and the concentration of social workers by region and State. Consistent with earlier findings, New York and California have the highest numbers of social workers, 14,962 and 7,779, respectively. In fact, New York has seen a 10 percent increase since 1998. On average, there are 35.3 social workers for every 100,000 people. Yet table 3 also shows the wide variance in the concentration across the United States, ranging from nearly 100

social workers per 100,000 citizens in the District of Columbia to just under 18 per 100,000 in Arkansas. In fact, 11 States have fewer than 20 social workers per 100,000 people—Georgia, South Carolina, North Dakota, Nebraska, South Dakota, Alabama, Mississippi, Tennessee, Arkansas, Oklahoma, and Texas—all States with significant rural populations. California averages 23 social workers per 100,000—a relatively low ratio. In the past year, the NASW *News* has reported on significant social worker shortages in States such as California, as well as in areas of practice such as gerontology and child welfare (NASW, 2001; O'Grady, 2002; O'Neill, 2001, 2002), and the shortage of social workers and other mental health professionals in rural areas has been widely noted. Conversely, Washington, DC, Massachusetts, New York, Rhode Island, Maine, and Connecticut all report high concentrations of social workers—ranging from 73 to 100 per 100,000 people.

Clinical social workers, as reflected by NASW membership, is highly experienced. Nearly three-quarters (72 percent) of social workers have 10 or more years of experience since completion of their first degree, with a significant number (38 percent) having 20 or more years of experience. Slightly more than 10 percent of members had 4 years or less of experience. Data for table 4 were drawn from the PRN survey (NASW 2000b), which captures different interval levels based on completion of the first professional degree, and thus are not comparable to other disciplines or earlier years. The Council on Social Work Education reports a steady influx of newly degreed professionals into the field, although after 10 years of increasing enrollments, the number of students enrolled in MSW degree programs was fairly constant between 1996–97 and 1998–99 (see table 8). Although it appears that newly degreed social workers are less likely to join NASW as regular members, given that less than two percent of members had less than two years of experience, some may take advantage of transitional membership categories for newly degreed social workers, which could influence that small number. The extent to which workforce retention/loss issues may influence this number is not clear.

Professional Activities

The majority of social workers are employed in either full time (51 percent) or in a combination of full-time and part-time employment (25 percent). Just under one-fourth of social workers report part-time employment only. Table 5 does not include data on the number of employment settings for social workers because the NASW PRN (2000b) survey did not capture those data.

The steady decline continued for social workers whose primary practice setting is in a hospital setting. In 2000, 7.9 percent reported a hospital setting as their primary place of employment (see table 6), compared with 11.3 percent in 1998 and nearly 20 percent in 1996. This comes as no surprise, given the changes in health care settings throughout the 1990s, with the advent of managed care, dissolution of hospital social work departments, and influx of other professionals providing case management and care coordination services. There was, however, a noticeable increase in the number of social workers employed in hospital settings as their secondary employment—from 2.9 percent in 1996 to five percent.

Outpatient mental health is the predominant employment setting for social workers, whether as independent practitioners or employees in outpatient mental health clinics. Slightly more than 18 percent of social workers identified independent practice as their primary employment setting, a nominal increase since 1998. Clinics continued to be the primary employment setting for social workers, with an overall rate (23 percent) only slightly higher than in 1998. However, the majority in this category worked specifically in mental health clinics (17.6 percent). Individual practice remains the predominant setting for secondary employment (28 percent), despite a significant decline from 1998 (22 percent). Nearly 21 percent held secondary employment in an outpatient clinic, again, primarily in mental health (12.9 percent).

The largest increases since 1998 for secondary employment were in social service agencies—from 4.7 percent to 11.9 percent. A large percentage (15.9) identified "other" settings for secondary employment. This category reflects not only those who checked "other" or did not specify but also those employed in employee assistance programs, government or military agencies, managed care settings, and criminal justice settings. The NASW PRN survey (2000b) indicates that nearly six percent were employed primarily by government or military agencies.

As table 7 shows, direct service is still the primary work activity for clinical social workers; nearly 72 percent identified patient care/direct service as their principal role in their primary area of practice. Administration was the second highest area at 17.3 percent. Teaching and research represent

Table 8. Number of trainees by discipline for selected academic years, United States, 1984–2002

Number of Trainees	1984–85	1989–90	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02
					Psychiatry[1]					
Total	**5,312**	**6,072**	**6,089**		**6,076**		**6,076**		**5,714**	
Full time	N/A	6,011	6,034		6,015		5,914		5,663	
Part time	N/A	61	55		61		135		43	
First year full time	843	1,178	1,277		1,214		1,033		1,305	
Residencies completed	1,295	1,371	1,442		1,296		N/A		N/A	
					Psychology[2,3,4,5]					
Total	**14,586**	**16,853**	**28,782**			**23,088**		**20,631**		
Full time	11,260	13,372	24,916			21,056		18,200		
Part time	3,326	3,481	3,866			2,032		2,431		
First year full time	N/A	2,335	7,365			4,466		4,249		
Doctorates awarded	1,968	2,358	2,671			3,771		3,121		
					Social Work[6]					
Juniors and seniors in B.A. program full time	14,581	17,688	24,536		27,015		24,475			
Master's degree students										
Total	**21,999**	**27,430**	**33,212**		**35,338**		**35,539**			
Full time	14,055	17,475	21,622		22,718		22,315			
Part time	7,944	9,955	11,590		12,620		13,219			
Doctoral students										
Total	**1,430**	**1,794**	**2,097**		**2,087**		**1,953**			
Full time	702	838	1,102		1,134		1,126			
Part time	728	956	995		953		827			
Degrees awarded										
BSW	6,347	7,250	10,511		12,356		12,798			
MSW	8,798	10,063	12,856		14,484		15,061			
DSW	181	247	294		258		267			
						Psychiatric Nursing				
Total	**1,934[7,8]**	**1,853**	**1,674**		**1,401**	**1,274**				**1,153[10]**
Full time	677		439		364	458				419
Part time	1,257		1,235		1,037	816				734
Degrees awarded/training completed	771	643	568		443[9]	426				439

Table 8. Number of trainees by discipline for selected academic years, United States, 1984–2002 (Continued)

Number of Trainees	1984–85	1989–90	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02
					Counseling[11]					
Total			**29,906**					**20,637**		
Master's degree students			28,270					19,576		
Doctoral students			1,636					1,061		
					Marriage and Family Therapy[12]					
Students in COA programs			1,277						1,582	
Students in non-COA MFT programs			5,499							
Student members									4,084	
Associate members									1,792	
Interns in California (CA)									8,377	
Students in CA (extrapolated from nine programs)									11,632	
Total			**6,776**			**9,277**			**27,467**	
Students in COAMFTE-accredited programs[9]										
Master's degree students			971			7,696				
Doctoral degree students			159			741				
Postgraduate students			147				840			
Students in other accredited programs										
Predegree students			3,369							
Postdegree supervision students			2,130							
Supervision students			N/A							
					School Psychology					
Total			**4,404**				**8,123**			
New practitioners in field (minimum specialist degree)			1,800				1,897			

Table 8. Number of trainees by discipline for selected academic years, United States, 1984–2002 (Continued)

Number of Trainees	1984–85	1989–90	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02
Pastoral Counseling (AAPC Training Centers)										
Total									**961**	**1,069**
Full time									133	157
Part time									299	305
First year full time									42	51
Residencies completed									5	4
Degrees awarded									78	63
Training completed									11	21
Masters degree students									303	331
Doctoral students									96	98
Postgraduate students									12	22
New practitioners in field									2	17

[1] The 1984 to 1998 data for psychiatry are based on American Psychiatric Association's (APA's) annual census of residents; for 1998 to 1999, data are based on a 95 percent response rate from training programs; and for 2000 to 2001, data were derived from the Graduate Medical Education Database (AMA, 2001). Status as a full- or part-time trainee in 2000–2001 was not known for eight trainees.
[2] Numbers for students are derived from the APA 2002 Graduate Study in Psychology.
[3] Counts represent accredited programs only and responses to surveys and therefore are an undercount of the actual students in doctoral programs in psychology in the health service provider subfields. First-year full-time is counted as new enrollments (no indication of full-time or part-time status) in 1997–1998 and in 1999–2000.
[4] For the 1997–1998 data, doctorates awarded include Ph.D.s reported by National Research Council as well as 800 Psy.D.s degrees estimated by APA's Research Office. Psy.D.s are undercounted in this instance. In 1999–2000, 3,121 Ph.D.s in the health service provider subfields, plus approximately 1,000 Psy.D.s, are likely undercounted.
[5] Different methods of generating these data render longitudinal comparisons somewhat meaningless. Readers are cautioned against treating these as a time series. They are cross sectional and, in many cases, imprecise because of undercounting and nonresponse.
[6] Source: Lennon (2001).
[7] 1984–85 enrollment figure is an estimate. The number of full-time students was 677 based on 35 percent of all master's students being full time. This number was estimated to reflect an expected 1,257 part-time students.
[8] 1984 and 1989 data contain students enrolled in both advanced clinical practice and teaching. The sum of enrollments in advanced clinical practice and teaching make up the universe of master's students in psychiatric nursing. According to P. Rosenfeld, Director of Research at the National League of Nursing (NLN), rarely will a psychiatric nursing student be classified within any of the other available classifications for graduate students.
[9] For the period 10/16/97 to 10/15/98, unofficial and unpublished data are from the NLN.
[10] These 2001–2002 enrollment and graduation figures are from a different data source from prior years. The 2001–2002 data are from the American Association of Colleges and Nursing (see Berlin, Stennett, & Bednash, 2002. Also see Berlin, Stennett, & Bednash, 2003). This report is based on an 81 percent response rate from baccalaureate and graduate programs in nursing. The actual numbers reported from these schools is adjusted for nonresponse, resulting in the numbers reported in this table. The numbers include clinical nurse specialists (CNSs) in adult and child psychiatric mental health nursing and adult and family psychiatric nurse practitioners (NPs).
[11] Based on Hollis (2000). Declines from 1994–1995 may be due in part to a more strict definition of counselor preparation programs in this edition.
[12] 1994–1995 data were estimated on the basis of several sources, including students enrolled in programs accredited by American Association for Marriage and Family Therapy (AAMFT) Commission of Accreditation for American Association for Marriage and Family Therapy (COAMFT); student members who are not in COAMFTE-accredited programs, but are in programs of regionally accredited institutions; and AAMFT associate members. The associate membership category is for those who have completed their educational requirements but have yet to complete the clinical supervision requirements of their training. Data for 1997–1998 are more reliable than those previously reported for 1994–1995; they are based on a survey of 216 MFT training programs by AAMFT, March 1998. Data for 2000 based on 2000 AAMFT Practice Research Network (PRN) project funded by CSAT. Data were collected from a random sample of AAMFT clinical members with an 82 percent response rate of eligible participants.

smaller percentages at 4.6 percent and 0.7 percent, respectively. Seeing such a high percentage in direct service is not surprising, because the social worker profession has a strong tradition in clinical and case work and comprises the majority of the mental health professional groups. The NASW PRN survey (2000b) gathered data only about the principal role in the social worker's primary practice setting and thus does not reflect the multiple work activities of social workers in their primary and secondary employment. Twenty-five percent of social workers have both full-time and part-time jobs. Interestingly, "more than two-thirds of NASW members are in clinical or direct practice, but more than three-fourths currently see clients. This suggests that many members carry out administrative or managerial roles and provide clinical or direct practice services either in their full-time employment in organizations or in part-time practices of their own" (NASW, 2000b). The social work data in table 7 are not comparable to the other disciplines.

Psychiatric Nursing

Educational preparation for the practice of psychiatric nursing begins at the prebaccalaureate level. Although there are registered nurses practicing in psychiatric settings who received their professional education through associate degree and hospital diploma programs, the nursing profession endorses the baccalaureate degree in nursing as the basic education required for beginning general practice in psychiatric nursing. Nurses prepared at the baccalaureate level are considered generalists and may be employed in psychiatric specialty settings or may work with clients with mental illness in other general health care settings. The American Nurses Association (ANA) provides a certification process and examination for generalist psychiatric nurses as well as a certification for advanced practice psychiatric nurses (see American Nurses Credentialing Center, 2000).

Advanced practice psychiatric nurses are educated in graduate programs and are required to complete at least a master's degree in psychiatric nursing. In the past several years, another psychiatric nursing educational and practice model has emerged—the psychiatric nurse practitioner. Psychiatric nurse practitioners complete a master's degree in psychiatric nursing, including graduate educational requirements for practicing as family or adult nurse practitioners, and they are certified as psychiatric-mental health nurse practitioners (PMH-NPs). In 1988, an estimated 13,045 nurses had graduate education in psychiatric mental health nursing. The ANA national certification program credentials psychiatric nurses as certified clinical specialists in adult or child and adolescent psychiatric mental health nursing. In 1995, 6,800 nurses were certified as specialists in psychiatric-mental health nursing (see table 1), with this number increasing to 8,519 in 2002. Also, 392 PMH-NPs were certified in 2002 (personal communications, ANA, June 7, 2002). In addition, some States have procedures for credentialing advanced practice psychiatric nurses.

The requirements for ANA certification as a psychiatric nurse clinical specialist include completion of a graduate degree in psychiatric mental health nursing, supervised clinical practice for a required number of hours in the degree program, and successful completion of a written examination. Until recently, certification could be granted to nurses who had obtained graduate degrees in related fields (e.g., social work or psychology). However, certification now requires graduate education specifically in psychiatric mental health nursing.

The data in the tables of this chapter reflect information only on nurses with graduate degrees in psychiatric mental health nursing. Because 11 percent are dually clinical nurse specialists (CNSs) and nurse practitioners (NPs), 78 percent are best classified as CNSs and 11 percent as NPs. The ANA also certifies a subset of these nurses (44 percent) as clinical specialists in psychiatric nursing.

Demographic and Training Characteristics

In 1988, an estimated 13,045 nurses had graduate degrees in psychiatric nursing. According to data from the National League for Nursing (NLN), 5,001 students graduated from psychiatric mental health programs between 1988 and 1996 (Merwin, 1998). This study estimates the number of such nurses as 18,269 in 2000, up from 17,318 in 1996 (Merwin, 1998). While the total number of graduate-trained psychiatric nurses has increased somewhat, work patterns have changed dramatically. In 1988, 19 percent of clinically trained nurses were not working, compared with 11.5 percent in 1996 and 9.1 percent in 2000. The percentage of part-time employed nurses declined from 27 to 22 percent during this 12-year period. As table 1 shows, there are an estimated 16,606 employed nurses, 78 percent of whom are employed full time. Ninety-six

percent of employed nurses are employed in nursing, which is a decrease from 99 percent in 1996 (West et al., 2001).

Table 2 shows that 91.5 percent of psychiatric nurses are female, and 90.2 percent of the females are White (however, this may be low due to three percent of respondents not reporting race). The percentage of men increased from 4.2 percent in 1988 and 6.9 percent in 1996 to 8.5 percent in 2000 (see table 2 and West et al., 2001). Less than two percent of female graduate-prepared nurses are under age 35; in 1988, 18 percent of such nurses were under age 35. This trend continues with the decline in percentages of nurses in the 35 to 39 and 40 to 44 age groups. The average age of female graduate-prepared psychiatric nurses was 51 years in 2000, increasing from 48 years in 1996. The small sample size for males does not allow for the development of estimates of counts by age and race/ethnicity.

Table 3 shows the number of nurses in each region of the United States. The greatest percentages of advanced practice nurses reside in the New England, Middle Atlantic, East South Central, and East North Central regions. Table 4 shows that more than 50 percent of the nurses received their highest degree in nursing more than 10 years ago. The percentage receiving their highest degrees in recent years may be influenced by master's-prepared psychiatric nurses returning for doctoral education.

Table 5 shows that 65 percent of the clinically trained, advanced practice full-time employed nurses hold one position in nursing. Seventy-six percent of part-time nurses do so. Table 6 reflects the primary work setting of advanced practice psychiatric nurses. Although hospitals continue to be the most common employment site, the number of nurses working in hospitals decreased by 10 percent and the number of nurses working in clinic settings increased by seven percent. Nearly 19 percent are employed in university settings, while just over five percent are working in elementary and secondary schools, reflecting no change since 1996. Less than one percent of nurses worked in nursing home settings in both 1996 and 2000.

Table 7 shows that 79 percent of employed clinically trained psychiatric nurses are involved in patient care and direct service. Forty-seven percent of these nurses report their dominant function as direct patient care, followed by administration (13 percent), teaching (nine percent), consultation (two percent), research (two percent), and supervision (one percent).

The number of nurses enrolled in graduate education in psychiatric nursing continues to decline. The number of graduates decreased from 781 in 1979–80 (which was an undercount) to 439 in 2001 (see table 8). About 42 percent of graduates are prepared as NPs, which includes those educated in combined NP/CNS roles, with 58 percent being prepared as CNSs. Psychiatric nursing leaders have documented the decline in graduates since the early 1980s (Chamberlain, 1983, 1987). There has also been a steady decrease in enrollees.

As of 2001, there were 1,153 enrollees in psychiatric mental health graduate programs, with only 36 percent (419) enrolled full time and 64 percent (734) enrolled part time (see table 8). In recent years, a decrease in the percentage of students enrolled full time has contributed to the decline in graduates in any one year; however, from 1996 to 1998, there was a 10 percent increase in the percentage of full-time students, and this percentage was maintained in 2001. Data are now available on the number of nurses receiving post-master's NP certificates. Fifty-nine received these certificates in 2001.

Professional Activities

Several trends are occurring in the education and practice of specialty psychiatric mental health nursing. The recent proliferation of NP educational programs in all clinical specialty areas, including psychiatric nursing, is producing a different nursing workforce than previously existed. In 1991, few nurse practitioner students (only 89, or two percent) specialized in psychiatric nursing (National League for Nursing [NLN], 1994, pp. 107–108). In 1994, there were 364 enrollees of such programs, with 70 graduates (NLN, 1995). In 1996, there were 483 enrollees of NP programs and 100 graduates (NLN, 1996).

Enrollees of graduate programs in psychiatric mental health nursing are enrolled in NP, advanced clinical practice, or teaching programs. In 1991–92, eight percent of graduates were from NP programs, 84 percent from advanced clinical practice programs, and eight percent from teaching programs (NLN, 1994, p. 111). In 1998, 35 percent of graduates were from NP programs, 60 percent from advanced clinical practice programs, and five percent from teaching programs**.** By 1994, enrollees' choice of program also shifted. Twenty-two percent of enrollees in graduate psychiatric mental health nursing were in NP programs, 74 percent in advanced

clinical practice programs, and four percent in teaching programs (NLN, 1996). In 1998, 35 percent were in NP programs, 60 percent in advanced clinical practice programs, and five percent in teaching programs paralleling graduation rates. In 1998, there were 444 enrollees of NP programs and 148 graduates (NLN, 2000).

In response to changes in the Nation's health care delivery system and the proliferation and acceptance of nurse practitioners in primary and specialty health care settings, many graduate programs in psychiatric nursing now offer specialty preparation that allows several different options for the advanced practice psychiatric nurse (Pasacreta et al., 1999). There are currently three major advanced practice specialty preparations: (1) clinical nurse specialist, (2) combined clinical specialist/nurse practitioner, and (3) psychiatric nurse practitioner. CNSs are prepared to have a high degree of proficiency in therapeutic and interpersonal skills to work with individuals and families. In some States, CNSs who are certified in psychiatric nursing have prescriptive authority. NPs have prescriptive authority in 49 States and the District of Columbia.

Advanced practice nurses who are dually certified as psychiatric CNSs and NPs are prepared to offer both primary mental and physical health care to children, adults, or families (depending on the specialty focuses). These nurses must complete the requirements for both the NP and CNS certification, necessitating a lengthy master's-level program. However, many nursing leaders believe that advanced practice psychiatric nursing is moving toward a single role that combines the therapeutic skills of the psychiatric CNS with the physical assessment skills of the NP (McCabe and Grover, 1999). The role of psychiatric NP has developed from the need for a combined advanced practice role for psychiatric nurses.

Psychiatric NPs are registered nurses with a graduate degree in nursing who are prepared to deliver primary mental health and psychiatric care to clients and families (American Nurses Credentialing Center, 2000). The American Nurses Credentialing Center (ANCC) developed a certification examination for psychiatric NPs that was administered for the first time in late 2000. The credential requires completion of a master's or post-master's degree program with course work that includes advanced health assessment, pathophysiology, pharmacology or psychopharmacology, and diagnosis and medication management of psychiatric illnesses, together with supervised clinical training.

Counseling

The American Counseling Association (ACA) defines professional counseling as the application of mental health, psychological, or human developmental principles through cognitive, affective, behavioral, or systemic intervention strategies that address wellness, personal growth, or career development, as well as pathology. Patterson and Welfel (1994) note that the primary purpose of counseling is to empower the client to deal adequately with life situations, reduce stress, experience personal growth, and make well-informed, rational decisions.

Counselors work in a wide array of settings, including community counseling centers, government agencies, hospitals, rehabilitation centers, schools and colleges, businesses, and private practice. In addition to the traditional roles of individual counseling and supervision, counselors perform a variety of other functions related to preventing problems and promoting healthy development, including consultation, outreach, education, and other forms of indirect service.

The beginnings of counseling can be traced back to six distinct origins: (1) laboratory psychology, with its roots in Europe; (2) psychoanalysis; (3) the mental hygiene movement; (4) the vocational guidance movement; (5) the mental testing movement; and (6) Carl Rogers and the humanistic psychology movement (Belkin, 1988). All these movements coalesced in the 20th century with the shift from an agrarian to an industrial society. This shift was accompanied by both bureaucratization of organizations and the specialization of the workforce. Thus, the first organized counseling activities came out of the Vocational Guidance movement, which resulted from a need to adapt to these major lifestyle changes. Over time, all the early antecedents to modern-day counseling have had an influence counseling has broadened its role.

Since the beginning of the 20th century, when Frank Parsons began what we think of as professional counseling, one of counseling's most salient characteristics has been how much it is dependent on its socioeconomic and political context. Commonly referred to as the father of guidance and counseling, Frank Parsons established the Vocational Bureau of Boston in 1908 (Gibson and Mitchell, 1995). Parsons was an advocate for youth, women, the poor, and the disadvantaged (O'Brien, 1999). His book, *Choosing a Vocation*, was published in 1909, shortly after his death. It outlined his model of career guidance, which provided a basis for the career counseling of the time. Although career guidance

initially took place in community agencies, it soon became popular in school settings as well.

As noted earlier, the mental testing movement has also been very important to counseling. Alfred Binet developed the first individual intelligence test in 1908 (Kimble and Wertheimer, 1998). Binet believed that guidance toward a career should be based on the measurement of abilities. Many others followed, developing testing into the major social force it is today. Another important force has been the development of an emphasis on conscious and unconscious thoughts, feelings, and emotions, which began with Freud. As more individuals have taken advantage of developments in psychotherapy to seek to improve their mental health, counselors have entered this arena in a major way. Thus counseling, which at first focused on vocational guidance, armed itself with an emphasis on assessment. Later, counseling expanded to include work with those with emotional distress.

National legislation influenced the evolution of the counseling profession. Following World War II, the Federal Government developed and funded a variety of mental health services. For example, the National Mental Health Act of 1946 established the National Institute of Mental Health, which marked the beginning of publicly funded mental health services. At this point, the Veterans Administration began to see the need to help returning veterans readjust to civilian life, both vocationally and personally, and employed professionals to assist them in this process.

Another piece of legislation that had a great impact on the counseling profession was the Community Mental Health Centers Act of 1963. This act resulted in a substantial increase in employment opportunities for counselors across the country. Community mental health centers have traditionally employed a significant number of professional counselors, and many who worked in this environment went on to establish independent private practices.

The passage of the National Defense Education Act (NDEA) in the late 1950s made it possible for graduate schools of education to establish funded programs to train guidance counselors. This decision became a landmark, linking personal needs and education with the Nation's well-being. The NDEA provided grants to States for stimulating the establishment and maintenance of local guidance programs and to institutions of higher education for training guidance counselors to staff local programs (Gibson and Mitchell, 1995). The intent of the school counseling addressed in the act was to establish a national cadre of counselors adept in helping students plan for post-high school education. Specifically, Congress wanted talented math and science students to be encouraged to further their education.

Thus, in an indirect but significant manner, the Soviet space and arms race gave rise to the establishment of counselor education programs across the Nation. Although school counselors began to serve a much broader role than envisioned by the NDEA, there is no question that the act provided a base from which counseling could grow. By the mid-1960s, notable contributions achieved by the act could be easily identified. These contributions included supporting 480 institutes designed to improve counseling capabilities and granting 8,500 graduate fellowships, which was a step toward meeting the needs of many college teachers. By the end of the 1960s, more than 300 academic units housed counselor education postgraduate training programs.

Much valuable information regarding counselor preparation is provided in the book *Counselor Preparation 1999–2001: Programs, Faculty, and Trends* (Hollis, 2000), which is the tenth edition in a longitudinal study of counselor training. According to Hollis, the United States has 542 entry-level counselor training programs, of which approximately 30 percent are accredited by the Council for Accreditation of Counseling and Related Education Programs (CACREP). As shown in table 8, there were 19,576 master's students in 1999. At the doctoral level, there are 54 programs, 39 of which are CACREP accredited. In 1999, 1,061 students were in these doctoral programs, for a total of 20,637 counselor trainees.

Early counseling activities tended to be directive and counselor-focused. This approach was challenged by Rogers (1942) with the publication of his landmark book *Counseling and Psychotherapy*, which had a profound impact on the way counseling was viewed. Counseling's focus consequently shifted from education to that of psychology and social work. Rogers' work implied that one person's solutions may not be suitable for another's morals, values, and goals and that being an effective helper entails being familiar with the client (Patterson and Welfel, 1994). Rogers emphasized a nondirective, client-centered approach to counseling. As Smith and Robinson (1995) noted, Rogers' client-centered theory also emphasized the client as a partner in the healing process, rather than as a patient to be healed by the therapist. Although other competing theories have emerged and gained acceptance, this

emphasis on the importance of the relationship continues to be a hallmark of much counseling theory and practice. With this foundation, counselors use an appropriate combination of other theories, techniques, and assessment instruments to help clients achieve co-constructed goals.

Although a considerable overlap exists among the helping professions, counseling can be distinguished by its developmental and preventative orientation as well as its focus on the individual within an environmental context. A focus of counseling is to help each individual define his or her goals while reaching his or her fullest potential. Counseling thus takes a broad view of mental health care, emphasizing its developmental, preventative, and educational aspects in addition to the traditional focus on the remedial treatment of illnesses. "Simply stated, mental health counseling believes that a person does not have to be sick to get better" (Smith and Robinson, 1995, p. 158). Counseling should result in unforced and accountable behavior and actions on the part of the client while also educating the client with the necessary skills to regulate his or her positive, as well as negative, thoughts, feelings, and emotions.

Formal recognition of counseling as a unique profession has been fostered by the establishment of a professional counseling organization, accreditation standards for counselor training programs, and certification and licensure for counselors. The National Vocational Guidance Association, founded in 1913, and the National Association of Deans of Women, established in 1914, were the first two organizations begun specifically for counselors (Hollis, 2000).

The ACA, established in 1952 as the American Personnel and Guidance Association, resulted from the merger of the National Vocational Guidance Association, the American College Personnel Association, and the National Association of Guidance Supervisors and Counselor Trainers. These four organizations then became the founding divisions of the umbrella association, ACA, which is considered the world's largest association for the profession of counseling. In addition to the original founding divisions, a number of counseling specialty areas have been added. ACA currently has 17 of these divisions. The divisions were formed with the idea of providing specific leadership, resources, and information for a particular specialty area. Two examples of specific divisions are the Association for Specialists in Group Work (ASGW) and the American School Counselor Association (ASCA). While not all professional counselors are ACA members, its membership represents the various specialty and interest areas in the field. The ACA currently has more than 55,000 members.

After many years of legislative activities, currently almost all the States (47) plus the District of Columbia and Guam have passed licensure or certification laws for master's-level practitioners. Legislative activities in the remaining three States should soon see results. The number of States with these laws indicates the increased acceptance of counseling as a unique and legitimate profession in the panoply of mental health service providers. Additional hallmarks of professional maturity are the development of accreditation and certification bodies for counseling.

In addition to licensure and certification, counseling has an accrediting body for its training programs. Accreditation is a method of strengthening the profession by upholding a set standard to which accredited programs must adhere. Accreditation standards are typically set by a professional organization. The ACA (then called the American Personnel and Guidance Association) established CACREP in 1981 to oversee the quality of various counselor training programs that were seeking accreditation.

CACREP established educational standards for master's- and doctoral-level counselor training programs. Becoming an accredited program is a voluntary process; however, virtually every counseling program in the country uses the curriculum and clinical training guidelines, even if the program has not sought formal accreditation. One reason for this is that the guidelines are widely used as standards for preparation by counseling licensure boards. Use of these guidelines is also a qualification for those who seek to become certified by the National Board for Certified Counselors (NBCC). Thus, the CACREP standards have helped to ensure uniformity in training across the field. The 2001 Standards are the most recent CACREP guidelines. Among other requirements, students in an accredited program must complete work in eight common core areas. Currently, there are 164 accredited institutions, each having one or more accredited programs, in the United States and the District of Columbia, and this number is growing yearly.

Another hallmark of the profession's maturity is the establishment and development of a national certification program as a complement to State licensure. NBCC, established in 1982, is the largest certification organization for the profession of counseling. It began credentialing National Certified Counselors (NCCs) in 1983. Along with CACREP, NBCC has had a significant impact on the field. It

provides a registry of those who have met its national certification standards. These individuals must fulfill three components to become National Certified Counselors: receive a graduate counseling degree from a regionally accredited school; receive a specific amount of supervised experience; and pass the National Counselor Examination (NCE). They are then entitled to use the designation NCC.

NBCC also has a Code of Ethics that details a minimal level of ethical standards to which NCCs are to adhere. In keeping with the advanced level of technology used in today's society, NBCC also outlines standards for the ethical practice of Webcounseling. In addition to serving as a national registry, the NCE is required by most States for licensure or certification. NBCC has more than 32,000 certified counselors in the United States, the District of Columbia, and Guam, as well as in more than 50 other nations.

Demographic Characteristics

For the purpose of collecting data for this chapter, we emphasized the number of clinically trained counselors. Clinical training was reflected by creating an unduplicated total of NCCs and licensed counselors by State where licensure numbers were unavailable. In States without counseling licensure, we determined totals by using the number of NCCs with an estimated number of licensable counselors using data from similar States. The total number of counselors reflected in table 1 is the sum of these State totals. The ratios and percentages in the remaining tables are based on NBCC database queries, ACA membership statistics, a 1999 National Job Analysis of the Professional Counselor, and Hollis (2000).

Table 2 illustrates that as a population, counselors are aging. In 2002, the largest proportion of clinical counselors is between the ages of 55 and 59 (21.3 percent). The number of counselors between the ages of 35 and 39 decreased significantly. However, a considerable number of students is entering the field each year. In 2000, more than 20,000 students were in training, a great majority in master's programs, which they complete in two years (see table 8). No new data were available for 2002; however, anecdotal numbers from training programs indicate that their enrollments are increasing. Thus, it appears that there will be ample replacements for those who leave the field.

Counselors are spread throughout the country geographically, with the largest numbers being in the Middle-Atlantic, the South Atlantic, and the East North Central States (see table 3). The overall numbers have risen since 2000. Correspondingly, the rate of counselors per 100,000 has increased in every region of the United States.

Looking Ahead

Today's counselors, along with other mental health professionals, are faced with a world of rapid change. Managed care has changed the health care system dramatically for counselors. The emphasis now is on the shortest and least expensive mode of treatment. On the positive side, this emphasis on cost containment has led to an increased demand for master's-level counselors. Currently, 68 percent of the members of ACA hold master's-level degrees, whereas only 17 percent hold doctoral degrees. Hence, the need for master's-level counselors resulting from the managed care system is likely to be met in the future.

Currently, a much larger female than male population makes up the counseling profession. Combined data show that 80,590 female counselors and 31,341 male counselors practice in the United States (table 2).

Multiculturalism is a very important issue facing today's counselors. The U.S. population continues to become more and more diverse. However, the counseling profession is not representative of the population. Approximately 80 percent of the counselors currently practicing are White, compared with the 3.8 percent African-American, 1.9 percent Hispanic/Latino, 0.7 percent Asian, and less than one percent Native American counselors. There is a need for an increasing number of counselors of various ethnic, racial, and religious backgrounds. Training programs are meeting the needs of diversity by including courses on multiculturalism and other modes of training to expose counselors and students of counseling to a wide array of cultures, customs, and traditions so as to maximize their empathy and appreciation for different cultures.

The field is making much more use of electronic communication in a number of different ways. For example, one of the early electronic developments was the use of listservs for communication among counseling professionals. A number of listservs are devoted to counseling issues. These listservs can be general in nature or for specialty areas, such as group counseling, both in the United States and abroad.

Another mechanism that has grown rapidly is the use of the World Wide Web. Almost all counseling departments have a departmental Web page. These Web pages typically describe the program and its requirements and provide access to course syllabuses as well as information about the faculty. In some cases, much of the application process to the program can be completed online. The ACA and several of its divisions and NBCC have informative Web sites. One of the features of a Web page is the ability to link to other information sources with the click of a computer mouse. The amount of information that can be conveyed quickly and easily is enhanced enormously, and this trend will continue into the future.

The use of electronic communication in counseling is a relatively recent phenomenon that has profound practical and ethical implications. Counseling organizations are attempting to come to terms with this fact in various ways. For example, both the ACA and NBCC have developed a code of ethics for Webcounseling. In addition, a variety of commissions and committees are studying these issues. Also, courses are being taught electronically, and entire degrees can be completed online. This fact raises the issues of accreditation, accountability, and quality. The use of real-time video for counseling sessions raises issues of confidentiality because the Internet still poses serious confidentiality questions.

Even more current is the Nation's awareness of the potential for national catastrophe and the emotional distress that results after disasters, whether manmade or natural. The events of September 11 have reinforced the need for professional counselors. Counselors, as well as numerous other individuals from various health care disciplines, were called upon to respond to the psychological needs of those directly or indirectly linked to the terrorist attacks. Crisis counseling and grief counseling was, and continues to be, an integral part of the healing process. Whereas counseling programs typically have offered training in crisis intervention and post-traumatic stress counseling, the need for further developing these courses has resulted in curriculum change. Looking ahead to the future, it is hard to predict the psychological impact these events had on people or how many incidences of post-traumatic stress disorder, along with other mental difficulties, may result. What is certain is that counselors were, and continue to be, available to help people acquire the behaviors, beliefs, decision-making skills, as well as the abilities to cope with the aftermath of crises and mental illness.

Marriage and Family Therapy

Marriage and family therapists (MFTs) are mental health professionals trained in psychotherapy and family systems and licensed to diagnose and treat mental and emotional disorders within the context of marriage, couples, and family systems.

Marriage and family therapy grew out of the public's demand for professional assistance with marital difficulties and from the development of a family systems therapy orientation by psychotherapy professionals and others (Nichols, 1992). From their beginnings in the 1930s and 1940s, MFTs have developed into uniquely qualified health care professionals who are federally recognized as a core mental health discipline, along with psychiatry, psychology, social work, and psychiatric nursing (42 CFR Part 5 Appendix C).

Federal law defines an MFT as "an individual normally with a master's or doctoral degree in marital and family therapy, and at least two years of supervised clinical experience who is practicing as a marital and family therapist and is licensed or certified to do so by the State of practice; or, if licensure or certification is not required by the State of practice is eligible for clinical membership in the American Association for Marriage and Family Therapy" (42 CFR Part 5 Appendix C). The Department of Labor defines MFT services as: "diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of professional services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders" (21-1013 Marriage and Family Therapists). Research has found the services provided by MFTs to be effective (often more than standard treatments) for many severe disorders and to result in improved outcomes in both the health and functioning of clients (Doherty and Simmons, 1996; Pinsof and Wynne, 1995).

The profession of marriage and family therapy has burgeoned since the 1970s, with the number of therapists increasing from an estimated 1,800 in 1966 to 7,000 in 1979 to almost 50,000 currently.

Demographic and Training Characteristics

An estimated 47,111 MFTs were clinically active in the United States in 2001 (see table 1). Females represent two-thirds of practicing MFTs (see table

2), and the median age is 53 (Northey, 2002; Riemersma, 2002).

Consistently, African-Americans and those of Hispanic descent are underrepresented among MFTs, compared with their proportions in the U.S. population. As table 2 shows, the ratios of MFTs of Asian origin and Native Americans are more in line with their representation in the total population. As in the other mental health disciplines, Whites are significantly overrepresented, making up 93 percent of MFTs, compared with 75.1 percent of the U.S. population. Gender differences exist, however. Slightly more minorities are found among male than female MFTs (8.5 versus 6.2 percent). Increased representation of minorities among MFTs appears promising. Almost 22 percent of the students enrolled in 2002 in training programs accredited by the Commissions on Accreditation for Marriage and Family Therapy Education (COAMFTE) are from minority population groups.

Table 3 reveals that the distribution of marriage and family therapists varies considerably across the United States. These variations can be explained by the existence (or lack thereof) of State regulation of the practice of marriage and family therapy or the presence of accredited university/college training programs. MFTs have strong representation in rural areas, with 31.2 percent of rural counties having at least one MFT.

In 2001, an estimated 27,467 individuals were in training to be MFTs (see table 8). This includes an estimated 17,298 students in 166 master's and doctoral degree programs and 10,169 who have graduated but are not yet practicing independently.

The primary agency recognized by the U.S. Department of Education for the accreditation of clinical training programs in marriage and family therapy at the master's, doctoral, and postgraduate levels is COAMFTE of the American Association for Marriage and Family Therapy (AAMFT). COAMFTE accreditation is required for programs to establish eligibility to participate in Federal programs. COAMFTE also is recognized by the Council for Higher Education Accreditation (CHEA, formerly CORPA), a nonprofit organization of colleges and universities that coordinates and provides oversight of accrediting bodies. As of 2002, COAMFTE had accredited or in candidacy status 55 master's degree, 18 doctoral degree, and 14 postgraduate degree programs in 36 States.

Over three-quarters of MFTs in clinical practice hold a master's degree (78 percent) with another 22 percent having doctoral degrees (Northey, 2002; Riemersma, 2002). Forty-five percent of MFTs received their degree in marriage and family therapy. Upwards of 90 percent of MFTs are licensed as marriage and family therapists in their States (Northey, 2002; Riemersma, 2002).

Almost three-quarters (72 percent) of the estimated 47,111 clinically active MFTs in 2000 completed their training more than 10 years ago (see table 4), making them highly experienced as a group.

Thirty-seven of the 45 States that regulate MFTs require some continuing education. The average number of hours required is 35 per two-year renewal cycle. The mean number of continuing education hours obtained by MFTs is approximately 27 per year (Northey and Harrington, 2001; Riemersma, 2002).

Professional Activities

In 2000, most MFTs (53.8 percent) worked full time (see table 1), usually in one setting (37.8 percent) (see table 5). Further, most MFTs work in a private individual or group clinical practice (86.7 percent) at least part time (see table 6). However, the number of MFTs who work exclusively in private practice settings (50 percent) seems to be dropping. There is a concomitant shift in the numbers of MFTs working in public sector jobs, with 52.1 percent of the MFTs employed full time working in hospitals, academic settings, clinics, or social service settings (see table 6).

Increasingly, as shown in table 7, MFTs are involved in roles other than direct treatment, such as administration of human service and agency settings (56.0 percent), teaching (46.7 percent), and research (16.5 percent), as well as other activities, such as prevention program development, public welfare (especially child welfare through family preservation services), public policy development, client advocacy, consultation to businesses, and, more recently, managed care case management (Doherty and Simmons, 1996). On average, MFTs work 32 hours per week, seeing 18 clients (Northey, 2002).

MFTs treat the full spectrum of the American society. More than half the clients seen are female (57 percent); 24 percent are racial and ethnic minorities (Northey, 2002); and 64 percent of MFTs say they feel competent from their training to treat racial and ethnic minorities (Doherty and Simmons, 1996). About half the adult clients of MFTs have a college or postgraduate degree, whereas the other half have a high school degree and some college. Cli-

ents range from infants to seniors with a median age of about 38 (Doherty and Simmons, 1996).

MFTs treat a wide range of individual, couple, and family problems. Depression, marital and couple difficulties, anxiety, parent-adolescent conflict, and child behavior problems are the five most commonly cited presenting problems (Northey, 2002).

The presenting problems treated by MFTs tend to be severe. Nearly half (49 percent) of the problems are rated as severe or catastrophic; another 45 percent moderately severe; and six percent mild. The severity of client problems is further supported by the fact that 29.3 percent had been hospitalized in the past year, and 6.1 percent were hospitalized while under treatment by the MFT (Doherty and Simmons, 1996).

Despite their focus on family systems, MFTs do not treat only couples and family units. Indeed, nearly half the cases seen by MFTs are individuals (42.5 percent), 22.7 percent are couples, and 16.5 percent are families (Northey, 2002). A significant proportion of the clients seen are children (28.3 percent).

Clients report being highly satisfied with the services of MFTs. In a national survey of clients, 98.1 percent rated the services as good or excellent; 97.1 percent said they got the kind of help they wanted; and 91.2 percent said they were satisfied with the amount of help they received. Furthermore, 94.3 percent said they would recommend their therapist to a friend (Doherty and Simmons, 1996).

Clients also reported overwhelmingly positive changes in functioning: 83 percent reported that their therapy goals had been mostly or completely achieved. Nearly 9 out of 10 (88.8 percent) reported improvement in their emotional health; 63.4 percent reported improvement in their overall physical health; and 54.8 percent reported improvement in their functioning at work (Doherty and Simmons, 1996).

Treatment by MFTs is naturally brief and cost-effective. The average length of treatment is 11.5 sessions for couples therapy, 9 sessions for family therapy, and 13 sessions for individual therapy. The average fee is $80 per hour, which makes the average cost per case $780 (Doherty and Simmons, 1996).

As of the end of 2003, 46 States and the District of Columbia regulated the practice of marriage and family therapy. The latest to pass a licensure bill was the District of Columbia, in November 2003. California was the first State to regulate the profession in 1963, followed by Michigan in 1966 and New Jersey in 1968. The most impressive growth in State regulation began in the 1980s, with the vast majority of State regulatory laws having been adopted since 1980.

All MFT licensure laws regulate the profession at the independent level of practice. The most common title for regulation is Licensed Marriage and Family Therapist, although a few States use Licensed Clinical Marriage and Family Therapist. Arizona was the last State to regulate the profession through certification rather than licensure, but that law was amended in 2003. Many States also provide an interim certification or license for post-graduates who are obtaining their two years of clinical experience for a license.

States' definitions of the practice of marriage and family therapy vary in the specific language used, but are consistent with AAMFT's Model Licensure Law, which states the following:

> "Marriage and family therapy" means the diagnosis and treatment of mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Marriage and family therapy involves the professional application of psychotherapeutic and family system theories and techniques in the delivery of services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders.

While the overwhelming majority (90 percent) of the 47,111 MFTs nationwide hold a State marriage and family therapy license, 24.2 percent hold additional professional licenses. This fact reflects the multidisciplinary nature of marriage and family therapy. The additional licenses include psychologist (2.7 percent), social worker (6.6 percent), professional counselor (12.1 percent), and nurse (2.9 percent) (Northey, 2002). Two-thirds (67.6 percent) of MFTs hold only a marriage and family therapy license. There has been a 41 percent increase since 1995 of licensees outside California. Regardless of their training, most MFTs (73.0 percent) describe their primary professional identity as marriage and family therapist (Northey, 2002).

Psychosocial Rehabilitation

Psychosocial rehabilitation (PSR) is a rapidly growing approach to working with individuals with severe mental illness in the community. Specifically, PSR programs usually provide any combination of

residential services, training in community living skills, socialization services, crisis services, residential treatment services, recreation services, vocational rehabilitation services, case management services, and educational services. In recent years, PSR has been identified as a necessary ingredient for maintaining persons with severe mental illness in the community. PSR services reduce hospitalization, increase employment, and increase the quality of life of persons served. Thus, PSR services are an important part of mental health care in the community, addressing practical, day-to-day needs, such as housing, income, work, friends, and coping skills.

The focus of PSR activities is in teaching individuals with severe mental illness the skills necessary to attain goals of their choice in the community and in developing innovative supports. In providing these services, PSR providers draw upon theories and practices of psychology, education, sociology, social work, and rehabilitation. In addition, PSR has been at the forefront of disability and rehabilitation movements, working toward the empowerment of individuals with severe mental illness through the delivery of services and the integration of the client and the services into the normal life of the community. PSR has been successfully used with individuals who have disabilities other than mental illness and those who have concurrent disabilities of substance abuse, mental retardation, and hopelessness as well as physical disabilities, such as deafness. Specialized programs have also been developed for individuals older than 65.

The importance and success of the field is evidenced by its rapid growth. In 1988, 965 facilities identified themselves as offering PSR services. In 1990, 2,200 facilities were identified as offering PSR services to persons with severe mental illness. By 1996, 7,000 facilities were identified. With an average agency staff size of 16, a conservative estimate of the PSR workforce is 100,000 (see table 1).

Demographic and Training Characteristics

Like other mental health workers, PSR workers, as shown in table 2, are predominantly female (65 percent) and White (70 percent); assuming that the distribution of female is similar to that of males, approximately 21 percent are African-American, six percent are Hispanic, two percent are Asian, and .04 percent are Native American. The average age of PSR workers is 38, and they have been in the field for an average of about 15 years (see table 4). Those with advanced degrees have been in the field for an average of eight years. As shown in table 5, PSR workers can be found in 48 of the 50 States, the District of Columbia, and the Virgin Islands.

Two percent of all PSR workers have a doctoral degree, 24 percent have a master's degree, 38 percent have a bachelor's degree, 13 percent have some college or an associate degree, and 22 percent have only a high school degree. Twenty-five percent of PSR workers with bachelor's degrees are currently working to attain a master's degree. Among PSR workers with master's or doctoral degrees, 24 percent have degrees in psychology, 36 percent in social work, four percent in psychiatry, three percent in counseling, and three percent in education. Sixteen percent have licenses or certificates in social work; eight percent are certified as counselors; six percent are certified as teachers; and three percent are certified as addiction counselors.

As the value of PSR has become recognized, academic programs have developed that specialize in PSR or include PSR as a specialized part of their curriculum. Currently, there are 13 Ph.D. programs, three combined M.D. and Ph.D. programs, 10 master's-level programs, one bachelor's program, and one associate program in PSR. The number of programs is expanding rapidly as the field grows.

Because PSR encompasses an approach, a philosophy, and patterns of interpersonal interactions as well as didactic material, many agencies hire interested, caring people and train them on the job, through supervision, inservice training, and experience. Inservice training, which imparts various combinations of knowledge, attitudes, and skills, is provided in 19 States, by seven county-level mental health authorities, 21 agencies, and 15 centers or institutes, eight of which are affiliated with universities. These workshops and training sessions, which may last from one to three days, typically cover principles and values of PSR, functional assessment, choosing a rehabilitation goal, employment, case management, supported housing, teaching skills, stigma/discrimination issues, cultural diversity, clinical interviewing skills, program evaluation/research, supported employment, and career development. A practitioner typically emphasizes one of these fields over another.

Professional Activities

Thirty-six percent of PSR workers are employed in residential programs; 32 percent in daytime facility-based programs; 15 percent in case manage-

ment; nine percent in vocational; and six percent in other areas. A majority are employed in a single setting (table 5).

PSR has taken a number of steps toward establishing itself as a distinct professional field, including developing a credentialing program called the Registry for Psychiatric Rehabilitation Practitioners. Many States are in the process of adopting the registry as a credential for this workforce. This program screens applicants for experience, education, training, and knowledge of psychosocial rehabilitation. Individuals who apply for the registry must meet certain educational requirements, have minimum levels of experience in the field, demonstrate written competence in the principles and practices of PSR, and provide evidence of ongoing training as well as references from three individuals familiar with their work.

Parallel to this process, competencies needed by PSR workers have been identified. These competencies have been derived from empirical literature that proves the efficacy of certain interventions and from experience in the field. They include knowledge and skills in the following areas: mental illness; specialized techniques of rehabilitation; establishing strong relationships with consumers; accessing community resources, such as families and self-help groups; cultural competency; and developing programs and relationships that promote recovery. The International Association of Psychosocial Rehabilitation Services (IAPSRS) has also developed standards for the implementation of psychiatric rehabilitation in the form of *Practice Guidelines for the Psychiatric Rehabilitation of Persons with Severe and Persistent Mental Illness*.

IAPSRS worked closely with the Commission on Accreditation of Rehabilitation Facilities (CARF), the Joint Commission for Accreditation of Health Care Organizations, the Council on Accreditation, and the Leadership Council in developing its guidelines. These guidelines were created by experts in the field on the basis of research and were validated by a field review by practitioners. These guidelines describe psychiatric rehabilitation approaches and interventions that are responsive to individual needs and desires and enhance recovery. Included are such areas as assessment, rehabilitation planning, skills teaching in all areas of functional limitations, facilitation of environmental supports, encouraging participation in community support and social activities, mental illness management, cognitive interventions, and methods of working with cooccurring disabilities. IAPSRS has also developed a code of ethics for its practitioners, with a process of adjudication for violations.

The body of research literature that supports the efficacy of PSR has been growing rapidly as its importance in the management of severe mental illness has become firmly established. Psychosocial interventions are reported in many different journals and books. IAPSRS has also taken the lead in developing a set of outcomes measures to be used by agencies in the field. These measures, which look at many domains of a person's life, have been incorporated into the data sets of other types of rehabilitation.

School Psychology

Applying psychological principles of mental health delivery and assessing/planning services for children with learning problems in educational settings is the primary responsibility of school psychologists. Professional school psychology has grown significantly over the past 30 years. In 2000, it is estimated that more than 31,000 school psychologists certified by State boards of education or licensed by State boards of psychological services are practicing in the Nation's schools (Thomas, 2000). Additionally, perhaps thousands more are primarily associated with the discipline as university instructors, as full- or part-time private practitioners, or in alternative settings (Fagan and Sachs-Wise, 1994). Most school psychologists are found serving in 15,000 local educational agencies and 85,000 schools in all States and territories, as well as Department of Defense schools nationally and internationally (Lund and Reschly, 1998; National Association of School Psychologists, 1998).

School psychologists are involved in delivering a broad array of services related to mental health in the schools. These services include consulting with teachers, parents, and school personnel about learning, social, emotional, and behavior problems; developing and implementing educational programs on classroom management strategies, parenting skills, substance abuse, anger management, teaching, and learning strategies; evaluating academic skills, social skills, self-help skills, personality, and emotional development; and intervening directly with students and families (including individual, group, and family psychological counseling), as well as helping solve conflicts related to learning and adjustment. School psychological services are one of the related services available to students with disabilities who need special education and related services as part

of the Individuals with Disabilities Education Act (IDEA). School psychological services, as part of the pupil services, are also designated services under Title I and other titles of the 1994 Improving America's Schools Act.

Demographic and Training Characteristics

The professional association representing school psychologists is the National Association of School Psychologists (NASP), which has 22,345 members (NASP, 2000). Demographic data on school psychologists reflected in tables 1 through 8 are based on data compiled yearly by the U.S. Department of Education (USDOE), Office of Special Education Programs, Data Analysis System (DANS) for its Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (USDOE, 1997, 1998, 1999), membership surveys by NASP (NASP, 1997a, 1998, 1999, 2000), and a focused NASP-initiated inquiry regarding the numbers of clinically active school psychologists providing services in the United States (Thomas, 2000). The base number of clinically active school psychologists in the tables (31,278) provides the most accurate data available on clinically trained school psychologists. Data on gender, ethnicity, years of experience, and other demographic information are also reflected in the tables.

School psychology is still a relatively young profession. Prior to 1975, about 5,000 school psychologists were reported as being employed in more progressive school systems in urban/suburban areas, primarily in California, New York, Pennsylvania, and Ohio (Fagan and Sachs-Wise, 1994). The recognition of the civil right to education of children with disabilities increased that number to its present level, with a distribution across all communities—urban, suburban, and rural—in all States. As the profession has grown, it has become increasingly female.A survey conducted in 1986 showed that approximately 59 percent of school psychologists were female. Table 2 shows that by 2000, approximately 70 percent of clinically trained school psychologists were female. Accompanying this increase in female representation has been a decrease in years of experience. Illustrating this trend, a survey of the 218 university training programs found that 80.5 percent of the 8,324 full- and part-time enrolled students were female (Thomas, 1998).

Ethnic information reported in survey data indicates few minorities in the profession, with approximately five percent identified (NASP, 1998). The ethnic distribution has remained relatively the same over the years, and current NASP membership data may underestimate the percentage of minorities in school psychology. A survey of all graduate education programs (Thomas, 1998) indicated that 17 percent of students in training were identified as minorities.

The data reported in table 3 show that school psychologists are not evenly distributed across the Nation (also see Fagan, 1994). Lund and Reschly (1998) reported significant State and regional variations, and most States do not meet the NASP standard of one school psychologist for every 1,000 students. Recent survey data (Curtis et al., 1998) find that 25.5 percent of full-time practicing school psychologists work in settings that are at or below the 1,000:1 ratio, and almost half (48.7 percent) work in settings with ratios of 1,500:1 or less. However, 32.5 percent of school psychologists work in settings with ratios of greater than 2,000:1. There is considerable State-by-State variation in the ratios (Thomas, 2000).

All professional school psychologists are required to be certified or licensed by the State in which services are provided. Most States use certification and authorize the State education agency to certify school psychologists. Although requirements vary from State to State, NASP offers a national certification (Nationally Certified School Psychologist, or NCSP) to all those eligible. Several States recognize the NCSP certification. The requirements are a master's degree or higher specialist degree in school psychology with a minimum of 60 graduate semester hours; a 1,200-hour internship, 600 hours of which must be in a school setting; a passing score (660) on the National School Psychology exam; and course content to ensure substantial preparation in school psychology. NCSP renewal occurs on a 3-year cycle; NCSPs must submit 75 hours of continuing professional development for renewal.

Most of the students represented in table 8 are studying for a 60-credit master's or specialist degree. Seventy-four percent of school psychologists have documented the requirements to be nationally certified (NCSP); 24 percent also hold a doctorate in school psychology, education, or related fields. Although the percentage of school psychologists with a doctorate remains constant, the percentage meeting the requirements for national certification continues to increase. School psychologists who are members of NASP or hold the NCSP are required to abide by the *Standards for the Provision of School*

Psychological Services and Principles of Professional Ethics adopted by NASP (1992).

Nationally, more than 151 school psychology training programs are accredited by NASP/National Council for Accreditation of Teacher Education (Thomas, 1998). At the end of the 1996–97 academic year, 1,897 school psychology students from 218 training institutions became initially certified/licensed to practice in the Nation's schools (Thomas, 1998). The USDOE reports that there are, on average, more than 600 unfilled, funded vacancies or additional certified personnel per year needed for the public schools (see U.S. Department of Education, 1997a, b, 1998, 1999). Currently, school psychologist shortages exist in most regions of the United States (Lund and Reschly, 1998). A shortage of school psychologists is predicted in the immediate future in light of the increase in retirement rates and the proliferating need for mental health services in the schools. On the basis of the NASP standard ratio of 1,000 students to 1 school psychologist, it is estimated that another 25,000 school psychologists are needed (Dwyer, 1995).

Professional Activities

Table 6 shows that school psychologists are typically employed in the following settings: public or private schools, universities, clinics, institutions, private practice, and community agencies. However, the majority (approximately 82.6 percent) practice in primary and secondary schools. Recent survey data (Curtis et al., 1998) report that the percentage of school psychologists working in schools varies by setting: 30.3 percent work in urban schools, 44.8 percent in suburban schools, and 24.9 percent in rural schools. Some school psychologists are employed by mental health agencies that provide psychological services to the schools. Survey data indicate that of those listed as employed in a school setting in table 6, only two percent practice in private schools.

There are no officially recognized subspecialties within the profession of school psychology. The 1998 membership directory of NASP did provide survey data on the percentage of time members spent in various professional activities. Less than half of the school psychologists' time was spent in the assessment of children. Consultation and behavioral and other therapeutic interventions accounted for 30 percent of professional time. The remainder was spent in service training provided and received, administration, and research. Reschly and Wilson (1992) reported 55 percent of time for assessment, 42 percent for consultation and interventions, and two percent for applied research and evaluation. Included in the process of assessment is presenting results to parents and school or other staff as well as using assessment information, primarily to plan interventions for students experiencing academic or behavioral difficulties.

Sociology

The revival of the sociological practice movement can be traced back to the late 1970s (Friedman, 1987), a turbulent era in higher education in which many academic institutions—particularly "small private liberal arts colleges, two-year private colleges, middle-level private urban universities, and a spate of remote State colleges and universities" (Bingham, 1987:5; see also Smith and Cavusgil, 1984) experienced three major changes: (1) declining enrollments among aging "baby boomers" and increasing enrollments among nontraditional adult and minority students (Strang, 1986); (2) closures, cooperative arrangements with other institutions, and mergers (Bingham, 1987); and (3) reduced government funding amid rising education costs, necessitating, relief from private funding sources, such as alumni, foundations, and corporations (Bryant, 1983). These changes, not typically shared by their larger, private academic counterparts, necessitated a conceptual shift in sociology away from theory and statistical testing, which characterized the discipline's post-World War I efforts to legitimize itself, and toward a return to its original mission of social reform based on application and intervention (Clark, 1990; Franklin, 1979; Huber, 1984, 1986; Kuklick, 1980; Parsons, 1959). New hands-on academic incentives—particularly workshops, supervised fieldwork, and internships—were designed to attract the changing student demographic and respond to the referenced economic constraints. They also integrated sociology departments into their respective communities and with their publics, balancing students' substantive disciplinary interests with more vocationally oriented courses (Ruggiero and Weston, 1986; see also Fleming and Francis, 1980; Olzak 1981).

In an era of managed care, sociologists' entry into the heavily regulated behavioral health care industry has led many to realize the value of acquiring supplemental association and State professional credentials, which serve as recognizable symbols of their competence to serve the public welfare, health, and safety and to contribute to the quality of social

life. Sociologists understand that without practice credentials, their opportunities to engage in work as unregulated behavioral health care researchers, interventionists, caseworkers, and administrators will continue to decline. As a result, they have begun to organize and revise their accreditation and credential programs. The Commission on Applied and Clinical Sociology (CACS) was established in February 1995 as a joint initiative of the Society for Applied Sociology (SAS) and the Sociological Practice Association (SPA). SAS and SPA were founded in 1978—SPA as the Clinical Sociology Association (CSA). In 1997, CACS completed program accreditation standards and peer review guidelines at the baccalaureate level for sociology departments interested in complementing their traditional academic emphases with clinical and applied education and training components. Comparable standards and guidelines at the master's level were published in 1999. Doctoral equivalents are under consideration. These measures, sensitive to evolving training and administration standards in behavioral health care, permit practicing sociologists to apply their unique perspectives, skills, assessments, and interventions to the complex set of interactions that characterize social relations between and among sundry behavioral health care populations, providers, networks, sponsors, and members and their institutional environments. These concerns and practices have all too often been overlooked or underused in the allied health care marketplace. Sociologists' treatments will add significantly to the mix of existing approaches.

Following the implementation of its pilot accreditation program in fall 1997, CACS reviewed its first application for accreditation and self-study from St. Cloud State University in St. Cloud, Minnesota, in February 1998. It conducted a site visit of St. Cloud's Applied Sociology Concentration in March 1998 and recommended full accreditation in August 1998. A second program, the Applied Sociology Program at Our Lady of the Lake University in San Antonio, Texas, was accredited in August 1999. Several additional inquiries have since been received by CACS from sociology departments interested in having their applied or clinical programs accredited at the baccalaureate or master's levels. CACS provided these programs with its published *Accreditation Standards and Policies and Procedures*. Three of these programs at Buffalo State College in upstate New York, Valdosta University in downstate Georgia, and Humboldt State University in Arcata, California—filed accreditation applications, presenting their self-study reports to separate Commission-sponsored Accreditation Review Committees (ARCs) in spring 2002. St. Cloud State University submitted its application and self-study for the *reaccreditation* of its applied program in winter 2002. Site visits for Valdosta, Humboldt, and St. Cloud were completed in spring 2003. Accreditation decisions by CACS are pending. Finally, an ARC was formed in summer 2003 to evaluate Valdosta University's master's-level program in applied sociology.

CACS's immediate plans are to replace its pilot accreditation program with an approved implementation, following its accreditation by the Association of Specialized and Professional Accreditors (ASPA). An application with ASPA is pending. Sociological practice programs accredited by CACS will be listed in its National Directory of Applied and Clinical Sociological Practice Programs; program graduates will be listed in its National Registry of Sociological Practitioners. Provisions will be made to grandfather qualified, nonprogram-accredited sociologists into the Registry as well.

The Registry will be used to support graduates' candidacy for practice certification and their eligibility to enter and engage in employment in interdisciplinary practice fields, including mental and behavioral health care. Later, it will be used to support their candidacy for State professional credentials through registration, certification, or licensure in compliance with State regulatory and jurisdictional requirements. Sociological practice legislation is currently under advisement by CACS. As in other professions, different classes of association and State professional credentials will be awarded on the basis of education and training accomplishments. Core data will be incorporated into upcoming editions of *Mental Health, United States*.

SPA currently offers qualified candidates at the master's and doctoral levels two credentials. A Certified Sociological Practitioner (CSP) possesses the requisite knowledge and skills to apply sociology in one or more recognized subfields, such as organizational development, social policy assessment, conflict resolution, forensic counseling, and community intervention. A Certified Clinical Sociologist (CCS) specializes in providing evaluative, therapeutic, educational, and administrative services in the mental and behavioral health care fields.

SPA officials report that approximately 20 candidates were certified in 1998, adding to the association's base of 48 credentialed sociologists. Six new applications for SPA certification were filed in 1999; some are still pending review by the recently reformed SPA Certification Committee. As of May 2002, the number of sociologists certified by SPA de-

clined to 61. Certification is current for 31 of these practitioners in 2002. Of the 61, 22, or 36 percent, have provided counseling and other mental and behavioral health care services to individuals, families, and small groups since their certification. This percentage increases to 45 percent, or 14 of 31, when the calculation is based on the subset of practitioners whose SPA certification is current. Subspecialties include emotional therapy, grief work, and sociotherapy. Client populations include widows and other women, children, law enforcement officers, and firefighters. In short, SPA has certified 22 sociologists with clinical training in mental and behavioral health care fields. Only 14, or 63.6 percent, are clinically active as of May 2002. Overall, male practitioners outnumber their female counterparts 12 to 10, or 54.5 percent to 45.5 percent, in mental and behavioral health care fields. This proportion evens to 50 percent, or seven males and females each, when the calculation is based on the subset of practitioners whose SPA certification is current.

Since 1983, the SPA certification program has served as a demonstration project to model and deploy a comprehensive national program, possibly in conjunction with the American Sociological Association. However, future plans in SPA include forming partnerships with other sociological, nonsociological, and professional associations, including SAS and the Society for the Scientific Study of Social Problems (SSSSP), to expand the pool of qualified candidates who are eligible to apply for SPA credentials.

Current data on applied and clinical sociologists, particularly those employed in mental and behavioral health care fields, other than those certified by SPA are limited to disparate studies of independent researchers. To date, no discipline-wide or association-sponsored sociology groups have generated exhaustive findings for the universe of postsecondary-educated, trained, and active practitioners, though such efforts are under the consideration of CACS.

Data from the Open System Practitioner Survey in 1998, a diagnostic administered by *Mental Health Update* coauthor Michael Fleischer, its principal investigator, canvassed a nonrepresentative sample of 217 sociologists, graduates at all degree levels of 10 of 37 postsecondary institutions in the tri-State, Chicago metropolitan area between 1977 and 1992. Of these sociology graduates, 69.5 percent reported current or previous employment in the academic and nonacademic workplace and professional marketplace. Fewer than one-third said they practiced sociology in academic settings, whereas more than two-thirds said they did so in nonacademic settings. Of these self-reported practicing sociologists, 21.8 percent work in mental health care and allied medical health care fields, domains comprising the second largest industry for applied and clinical sociologists behind law, social policy, and community service, in which 23.1 percent said they work.

Noteworthy is that 9.2 and 2.6 percent, respectively, of practicing sociologists reported single and multiple professional association credentials (all nonsociological), and 25.8 and 3.3 percent, respectively, reported single and multiple State professional credentials (all nonsociological by default). Generalizable only to the sample that confirmed residence and employment in the referenced region between August and November 1993, 42 percent of practicing sociologists, a plurality, obtained nonsociological professional association credentials in social service and mental health care fields, whereas 41 percent acquired State professional credentials as certified and licensed social workers or similarly credentialed clinical and school social workers. Others reported having State credentials in marriage and family therapy and professional counseling.

In a separate study of 12,211 Ph.D. sociologists polled in the 1995 Survey of Doctorate Recipients, sponsored by the National Science Foundation's (NSF's) Division of Science Resource Studies, independent researchers Koppel and Dotzler (1999) found that Ph.D. sociologists favor academic over nonacademic jobs by a margin greater than three to one. Their data, weighted on 36 "best principle job codes," indicate that 45.8 percent of all Ph.D. sociologists employed during the week of April 15, 1995, taught sociology at postsecondary institutions. In contrast, one percent of nonacademically employed Ph.D. sociologists coded their work as sociological, whereas 2.4 percent coded it as psychological and clinically psychological, and 1.8 percent as social work. An additional 1.9 percent classified their work as "other health occupations," as distinguished from medical science (nonpracticing); registered nursing, pharmacology, diet, and therapy; and health technology.

Pastoral Counseling

Identity and Practice

Pastoral counseling is a unique mental health discipline that integrates behavioral science with the spiritual dimension of life, as lived out through values, belief systems, and religious practices. Pastoral counselors, as mental health professionals, are persons who are recognized and endorsed, through ordination or by other means, by an identified religious faith group.

For the past 40 years, the American Association of Pastoral Counselors (AAPC), the credentialing and professional body for individual pastoral counselors, has certified pastoral counselors as well as pastoral counseling centers and training programs (see American Association of Pastoral Counselors, 1994, 2001).

A landmark development in the field of pastoral counseling occurred in 1937 when Smiley Blanton, M.D., a psychiatrist, teamed up with the Rev. Norman Vincent Peale to form the American Foundation for Religion and Psychiatry. This program continues as the Blanton-Peale Institute, an AAPC-accredited pastoral counseling service and training center that is now one of the largest providers of outpatient mental health care in New York City. The Blanton-Peale Institute is one of a large network of pastoral counseling centers and training programs around the country. Famed psychiatrist Karl Menninger was among the pioneers in the integration of psychological and theological disciplines, believing in the "inseparable nature of psychological and spiritual health" (American Association of Pastoral Counselors, 2001).

Pastoral counseling is a highly specialized discipline that requires extensive graduate education, clinical training, and continuing education/consultation. This discipline is dynamic in nature, as are the other major recognized medical and psychological disciplines applying specific modalities of treatment.

The United States has approximately 85 accredited Pastoral Counseling Centers, which provide a wide range of mental health services and work in close collaboration with other mental health professionals, including psychiatrists, clinical psychologists, clinical social workers, and other credentialed counselors. The Samaritan Institute, based in Denver, represents the largest network of Pastoral Counseling Centers operating throughout the country. In addition, there are many independent, nonprofit centers in almost all States. Pastoral counselors certified by AAPC are employed in these Pastoral Counseling Centers, in private practice, or in community mental health and religious institutions or agencies.

Certified Pastoral Counselors have become major providers of mental health services, offering individual, couple, family, child, adolescent, and group therapy. AAPC represents approximately 3,000 individual members and Pastoral Counseling Centers. Pastoral counselors represent more than 100 faith groups, including Protestant, Catholic, Jewish, and other faiths.

Traditionally, religious communities have been a principal gateway for those seeking relief from a wide variety of problems, including mental and emotional illness, family conflict, substance abuse, depression and suicide, child and spousal abuse, violence, and other societal problems. Spirituality and religious affiliation have demonstrated their value as a resource for promoting recovery from illness, not just prevention of morbidity.

AAPC is a nationally recognized mental health organization working cooperatively with other national groups, such as the Mental Health Liaison Group, the National Mental Health Association, the National Alliance for the Mentally Ill, the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services, and other national groups representing mental health providers and consumers. It also enjoys cooperative relationships with the other mental health professional organizations. Other health care providers increasingly recognize the therapeutic benefits of spiritual sensitivity in their practices. They are recognizing the effectiveness of using spirituality creatively in the healing process. However, a lack of training imposes limitations on the ability of other health care providers to apply the spiritual dimension to behavioral science. Clinically, the spiritual dimension translates into using the patient's inner and developed spirituality and value system to effect mental, emotional, and spiritual healing. Pastoral counselors, consistent with the AAPC Code of Ethics, do not use proselytizing or religious conversion methods in the psychotherapy.

There is increasing scientific evidence that spirituality and religion are also beneficial in preventing and healing physical disease. Many physical symptoms and diseases have their etiology in mental and emotional problems. The elderly have an affinity for the spiritual dimension because they be-

come more aware of their mortality and suffer more serious and chronic illness than other age groups. In a recent poll (American Association of Pastoral Counselors, 2001), the elderly represented higher levels of support for seeking the assistance of pastoral counselors over the assistance of family physicians and psychiatrists. Seventy-five percent of those polled from all groups stated that it would be important for elderly parents or relatives in need of treatment to receive assistance from a mental health professional who knew and understood their spiritual values and beliefs.

Pastoral counseling offers a modality of treatment that maintains the natural connection between the physical, mental, and spiritual realities of life and fosters a sound and lasting foundation for the prevention and treatment of mental and emotional illness. The wider use of pastoral counseling is consistent with the present administration's Faith-Based Initiative, which recognizes the merits of close collaboration with the Nation's faith groups in alleviating a variety of social and health-related problems.

Pastoral Counseling Training

Certified Pastoral Counselors are among the best-trained mental health professionals. Through graduate study in theology as well as psychology, pastoral counselors are trained in two disciplines instead of one, integrating them into an effective psychotherapeutic modality of treatment. They are the only mental health professionals, as a group, with the training, background, and experience to integrate the power of spiritual resources competently and effectively with proven and accepted therapeutic methodologies. Consistent with the increasing interest on the part of other health disciplines, more than two-thirds of all U.S. medical schools now include course work, clinical case studies, and lectures on the topic of religion and spirituality.

The standards set by AAPC require intensive studies in behavioral science and many hours of clinical training and supervision, in addition to a graduate curriculum in religious and theological studies. The clinical training for Fellow certification involves the completion of at least 1,625 hours of supervised clinical experience and 250 hours of direct approved supervision. The three primary levels of AAPC-certified membership are Certified Pastoral Counselor—the initial level; Certified Pastoral Counselor and Fellow—indicating advanced clinical competence; and Certified Pastoral Counselor and Diplomate—qualifying to work as a training supervisor. Fellow- and Diplomate-level Pastoral Counselors have been recognized as providers under TRICARE for military dependents, as well as in medically underserved States for the Federal Employees Health Benefits (FEHB) plans, with an Office of Personnel Management (OPM) recommendation for provider inclusion in all States. Additionally, Certified Pastoral Counselors serve as providers in several mental health managed care plans.

Typical education and training for the Fellow level consists of a bachelor's degree from a college or university, a professional degree from a seminary or similar graduate educational institution, and a specialized master's or doctoral degree in the field, such as an M.A., D.Min., or Ph.D. degree. Candidates seeking AAPC certification are thoroughly evaluated to ensure that AAPC certifies only those who have reached appropriate levels of competence and who reflect the highest moral and professional standards. In addition to setting standards for the certification of individual pastoral counselors, AAPC sets standards and offers accreditation for Pastoral Counseling Centers, which includes the approval of training programs in pastoral counseling. All accredited centers and approved training programs are reviewed periodically to ensure maintenance of the standards.

OPM, which administers the FEHB health insurance program for Federal employees, in its decision to include Certified Pastoral Counselors in its program, stated, "We received several documents that compare the training of AAPC certified Counselors at the Fellow and Diplomate level with mental health professionals such as licensed clinical social workers. We have concluded that AAPC Counselors meet the requirements for comparable providers" (Frank O. Titus, Assistant Director for Insurance Programs, Federal Office of Personnel Management) (American Association of Pastoral Counselors, 2001).

Training is a top priority in pastoral counseling because the discipline continually seeks to provide the highest possible quality of care. Because pastoral counselors must impart their knowledge of mental health to faith groups through community and clergy education, offering educational events in congregations and to clergy groups is prominent in their community activity.

Consumer Attitudes

Past and recent public opinion polls have indicated that significant numbers of people desire to have the spiritual dimension and their personal value system incorporated into the treatment of mental and emotional illness for themselves and their families. This finding is undergirded by the basic faith in God demonstrated by the American people. In 1994, 96 percent of the U.S. population believed in God or a higher power, according to the Princeton Religious Research Center. Consumer attitudes have consistently reflected the desire to choose from a range of qualified providers, as demonstrated in research surveys, and pastoral counselors show up prominently in the preferences.

An early Gallup poll (1991) (see American Association of Pastoral Counselors, 2001) measuring the demand for a pastoral-oriented therapy modality showed that 66 percent of respondents preferred a professional counselor who represented spiritual values and beliefs, and 81 percent preferred to have their own values and beliefs integrated into the counseling process. A poll conducted in late 2000 by Greenburg Quinlan Research, Inc., of Washington, DC, not only underscored the findings of the Gallup poll but also revealed much more extensive consumer sentiment regarding pastoral counseling (American Association of Pastoral Counselors, 2001). The firm concluded, "There appears to be a favorable environment for the type of role Pastoral Counselors can play, especially for the growing elderly population. Voters say it is important to them that mental health counselors be able to integrate spiritual health and mental health in the course of counseling. These data also show a widely held belief that emotional well-being is closely linked with spiritual faith. Finally, the results show that a fear exists on some level that mainstream counseling and therapy may not always take seriously the spiritual and emotional beliefs of clients. These findings put the AAPC in a distinct position to make the argument that their members can fill a void that currently exists in treating mental and emotional problems" (American Association of Pastoral Counselors, 2001, Appendix C, p. 47).

Some survey findings from the Greenburg Quinlan Research, Inc., poll (American Association of Pastoral Counselors, 2001, Appendix C, pp. 47–48) are as follows:

(1) Seventy-five percent of respondents say it would be important for an elderly parent or relative who was in need of treatment to get assistance from a mental health professional who knew and understood their spiritual beliefs and values.

(2) Among senior citizens, there were higher levels of support for seeking the assistance of pastoral counselors than for seeking the assistance of family physicians and psychiatrists.

(3) Eighty-three percent of respondents feel their spiritual faith and religious beliefs are closely tied to their state of mental and emotional health.

(4) Seventy-five percent of respondents say it is important to see a professional counselor who integrates their values and beliefs into the counseling process.

(5) Sixty-nine percent of respondents believe it would be important to see a professional counselor who represents their spiritual values and beliefs if they had a serious problem that required counseling.

(6) In all age groups, consumer preference for the services of pastoral counselors trained in psychotherapy and spirituality polled substantially ahead of the services of other trained and certified counselors and of family physicians, and merely two percentage points behind the services of psychiatrists.

Pastoral Counseling and Preventive Services

Pastoral counseling represents a paradigm for preventive mental health care. From the perspective of community prevention, early and easy access to Pastoral Counseling Centers through the family, place of worship, and other referral services provides intervention before the illness becomes chronic or more resistant to treatment. A place of worship is a natural community gateway through which millions of persons pass each week and through which a wide spectrum of mental health problems are presented, many of which are amenable to early detection, intervention, and treatment. Numerous programs around the country train clergy in the identification of mental and emotional illnesses and in forming relationships with treatment service networks offering a variety of spe-

cialized providers, effecting an early referral and avoiding long, costly treatments for chronic conditions.

The stigma of mental illness, a major obstacle to treatment, is in great part mitigated when the client presents to a religious setting and is referred to a Pastoral Counseling Center for treatment. Persons have already acquired a level of comfort with their place of worship and, therefore, are less resistant to entering a Pastoral Counseling Center. This setting, consequently, often provides a more acceptable, hospitable, and therapeutic atmosphere that helps to nurture the healing process. The spiritual dimension in mental health care also helps strengthen inner personal resources for the maintenance of health following early intervention and treatment.

Many Pastoral Counseling Centers perform mental health screening to prevent or mitigate the effects of mental and emotional illnesses. The AAPC has been a principal party in a national campaign to fight depression through the education and training of community clergy and congregations, representing a wide variety of faith groups and congregations. This project has given trainees the knowledge and skills to identify people with depressive illnesses and link them with appropriate resources. These pastoral care and counseling tools will continue to be used long after this project is completed. Many congregation members have been screened for depression through this program, often being referred for further evaluation and treatment. Close working relationships with religious groups and their leaders enable pastoral counselors to be in the forefront of many valuable programs of disease prevention and health maintenance, especially for the elderly and minority populations who are underserved in mental health services. Because Certified Pastoral Counselors bring a mature, holistic, and experienced presence to the public need for preventive services, their participation in these types of preventive activities helps to ease the enormous pressure and costs on the mental health delivery system.

Discussion

The information in this chapter is important in examining the current status of human resources and care delivery in mental health, particularly within the context of managed care. Unfortunately, these data do not address many critical issues. Given the increasing demand for cost-effective service, evaluations that focus on determining the cost-effectiveness of specific treatment and intervention outcomes are critical. This necessary shift of attention away from the process of delivery to outcome will demand analyses of economic and clinical substitutability of mental health professionals. Currently available data do not permit effective examination of these questions.

Other questions about how mental health professionals provide services cannot be answered. Additional information is needed on characteristics of the providers, clientele treated, actual services delivered, sources of referrals, and relationships with other health and social service professionals. This information deficit plagues all mental health professions. Given the severe consequences of psychiatric disability, it is essential that relevant policymakers work together to improve the quality of information available on human resources in mental health.

In conclusion, it should again be noted that the minimal core data elements required to identify the important characteristics of mental health and substance abuse providers can be found in *Mental Health, United States, 1998* (Manderscheid and Henderson, 1998). Such data are expected to significantly improve information about service providers in the health care system.

REFERENCES

American Association of Pastoral Counselors. (2001). *Certified pastoral counselors: Professional mental health providers. A white paper.* Fairfax, VA.

American Medical Association. (2001). *Graduate medical education database*. Chicago.

American Medical Association, Department of Physician Practice and Communication Information, Division of Survey and Data Resources. (2002). *Physician characteristics and distribution in the United States.* Chicago.

American Nurses Credentialing Center. (2000). Psychiatric-Mental Health Nurse Practitioner (PMH-NP) Certification Examination, update. Kansas City, MO.

American Psychiatric Association. (1991). [Census of Residents, 1990–1991 Academic Year]. Unpublished raw data.

American Psychiatric Association. (1995). [Census of Residents, 1994–1995 Academic Year]. Unpublished raw data.

American Psychiatric Association. (1999). [Census of Residents, 1998–1999 Academic Year]. Unpublished raw data.

American Psychiatric Association. (2001). [Census of Residents, 2000–2001 Academic Year]. Unpublished raw data.

American Psychological Association. (2002). *Graduate study in psychology.* Washington, DC.

American Psychological Association. (2003). *Graduate study in psychology* (rev. ed.). Washington, DC.

Barker, R. L. (1999). *The social work dictionary* (4th ed.). Washington, DC: NASW Press.

Belkin, G. S. (1988). *Introduction to counseling* (3rd ed.). Iowa: Brown Publishers.

Berlin, L. E., Stennett, J., & Bednash, G. D. (2002). *2001–2002 Enrollment and graduations in baccalaureate and graduate programs in nursing.* Washington, DC: American Association of Colleges of Nursing.

Berlin, L. E., Stennett, J., & Bednash, G. D. (2003). *2002–2003 Enrollment and graduations in baccalaureate and graduate programs in nursing.* Washington, DC: American Association of Colleges of Nursing.

Bingham, F. G., Jr. (1987). Research can help schools meet enrollment goals. *Marketing News, 2* (January): 5.

Bryant, B. E. (1983). Universities conduct marketing research to raise funds, recruit students, improve image. *Marketing News, 1* (August): 18.

Campbell, P. R. (1996). *Population projections for States by age, sex, race and Hispanic origin: 1995 to 2025.* Washington, DC: U.S. Bureau of the Census, Population Division, PPL-47.

Chamberlain, J. B. (1983). The role of the Federal Government in development of psychiatric nursing. *Journal of Psychiatric Nursing, 21* (4), 11–18.

Chamberlain, J. (1987). Update on psychiatric/mental health nursing education at the Federal level. *Archives in Psychiatric Nursing, 1* (2), 132–138.

Coyle, Susan L. (1986). *Doctorate recipients from United States universities. Summary report: 1985.* Washington, DC: National Academy Press.

Clark, E. J. (1990). Contemporary clinical sociology: Definitions and directions. *Clinical Sociology Review* 8:100–115.

Curtis, M. J., Hunley, S. A., Walker, K., & Baker, A. C. (1998). Demographic characteristics and professional practices in school psychology: 1994–95. Unpublished paper.

DeLeon, P., Vanden Bos, G., & Kraut, A. (1984). Federal legislation recognizing psychology. *American Psychologist, 39,* 933–946.

Designation of mental health professional(s) shortage areas, criteria for designation of areas having shortages of mental health professionals. *42 CFR Part 5 Appendix C.*

Dial, T. H., Tebutt, R., Pion, G. M., Kohout, J., VandenBos, G., Johnson, M., et al. (1990). Human resources in mental health. In R. W. Manderscheid & M. A. Sonnenschein (Eds.), *Mental Health, United States, 1990* (pp. 196–205). Washington, DC: U.S. Government Printing Office.

Doherty, W. J., & Simmons, D. S. (1995). Clinical practice patterns of marriage and family therapists: A national survey of therapists and clients. *Journal of Marital and Family Therapy, 21*, 9–25.

Doherty, W. J., & Simmons, D. S. (1996). Clinical practice patterns of marriage and family therapists: A national survey of therapists and their clients. *Journal of Marital and Family Therapy, 22,* 9–25.

Dorwart, R. A., Chartock, L. R., Dial, T. H., Fenton, W., Knesper, D., Koran, L. M., et al. (1992). A national study of psychiatrists' professional activities. *American Journal of Psychiatry, 149* (11), 1499–1505.

Dwyer, K. P. (1995). Government relations. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology—III* (pp. 91–100). Washington, DC: National Association of School Psychologists.

Fagan, T. K. (1994). A critical appraisal of the NASP's first 25 years. *School Psychology Review, 23,* 604–618.

Fagan, T., & Sachs-Wise, P. (1994). *School psychology: Past, present and future.* White Plains, NY: Longman.

Fleming, P. L., & Frances, R. G. (1980). Pleasing some of the people some of the time: Alumni perspectives. *Teaching Sociology, 7*, 453–461.

Franklin, B. (1979). Clinical sociology: The sociologist as practitioner. *Psychology, A Quarterly Journal of Human Behavior, 16*, 51–56.

Friedman, N. L. (1987). Expansively doing sociology: Thoughts on the limits and linkages of sociological practice. *Footnotes, 15* (9), 11.

Gibson, R. L., & Mitchell, M. H. (1995). *Introduction to counseling and guidance*. Englewood Cliffs, NJ: Prentice-Hall.

Gilford, D. (1976). *Doctorate recipients from United States universities. Summary report: 1975.* Washington, DC. National Academy of Sciences.

Henderson, P. H. (1996). *Prepublication tables, summary report 1995.* Washington, DC: National Research Council, Office of Scientific and Engineering Personnel.

Hoffer, T., Dugoni, B. Sanderson, A., Sederstrom, S., Ghadialy, R., & Rocque, P. (2001). *Doctorate recipients from United States universities. Summary report: 2000.* Chicago: National Opinion Research Center. http// www.norc.uchicago.edu/issues/docdata.htm.

Hollis, J. W. (2000). *Counselor preparation 1996–1998: Programs, faculty, trends.* Washington, DC: Taylor & Francis.

Huber, B. J. (1984). Overview of Ph.D. certification program. Unpublished paper.

Huber, B. J. (1986). Ph.D. certification program to begin. *ASA Footnotes, 15*, 1,8.

Kimble, G. A., & Wertheimer, M. (1998). *Portraits of pioneers in psychology* (Vol. 3). Mahwah, NJ: Erlbaum.

Koppel, R., & Dotzler, R. (1999). What sociologists do and where they do it—the NSF survey on sociologists' work activities and workplaces. *Sociological Practice, 1*(1) (March):17–83.

Kuklick, H. (1980). Boundary maintenance in American sociology: Limitations to academic professionalization. *Journal of the History of the Behavioral Sciences, 16*, 201–19.

Lennon, T. (2001). *Statistics on social work education in the United States: 1999*. Alexandria, VA: Council on Social Work Education.

Lund, A. R., & Reschly, D. J. (1998). School psychology personnel needs: Correlates of current patterns and historical trends. *School Psychology Review*, *27*, 816–830.

Manderscheid, R. W., & Sonnenschein, M. A. (Eds.) (1990). *Mental Health, United States, 1990.* (ADM 90-1708) Washington, DC: U.S. Government Printing Office.

Manderschied, R. W., & Sonnenschein, M. A. (Eds.) (1992). *Mental Health, United States, 1992.* (DHHS Pub. (SMA) 92–1942). Washington, DC: U.S. Government Printing Office.

Manderschied R. W., & Sonnenschein, M.A. (Eds.) (1996). *Mental Health, United States.* (DHHS Pub. (SMA) 96–

3098). Washington, DC: U.S. Government Printing Office.

Manderscheid, R. W., & Henderson, M. J. (Eds.) (1998). *Mental Health, United States.* (DHHS Pub. (SMA) 99–3285). Washington, DC: U.S. Government Printing Office.

Manderscheid, R. W., & Henderson, M. J. (Eds.) (2000). *Mental Health, United States* (DHHS Pub. (SMA) 01-3537). Washington, DC: U.S. Government Printing Office.

National Association of School Psychologists. (1997). [Membership database]. Unpublished raw data. Bethesda, MD.

National Association of School Psychologists. (1998). [Membership database]. Unpublished raw data. Bethesda, MD.

National Association of School Psychologists. (1999). [Membership database]. Unpublished raw data. Bethesda, MD.

National Association of School Psychologists. (2000). [Membership database]. Unpublished raw data. Bethesda, MD.

National Association of Social Workers. (2000a). *Code of ethics of the National Association of Social Workers.* Washington, DC.

National Association of Social Workers. (2000b). *Practice Research Network Project: Preliminary report.* Washington, DC.

National Association of Social Workers. (2000c). *Practice Research Network (PRN) survey.* Washington, DC.

National Association of Social Work. (2001). California explores increasing workforce. *NASW News* (October): 4.

National Board of Certified Counselors, Inc. (1998). *Counseling Licensor Board Survey* (Table 1). Greensboro, NC.

National Board for Certified Counselors, Inc. (2000). *National Study of the Professional Counselors*. Greensboro, NC.

National League for Nursing, Division of Research. (1994). *1994 nursing data review.* New York: National League for Nursing Press.

National League for Nursing, Center for Research in Nursing Education and Community Health. (1996). *1996 nursing data review.* New York: National League for Nursing Press.

National League for Nursing. (2000). [Unofficial, unpublished 1998 data].

National Science Foundation. (1999). *Survey of graduate students and postdoctorates in science and engineering.* Washington, DC.

National sample survey of registered nurses special county data file documentation. U.S. Department of Commerce, *National Technical Information Service*, *VI* (2), 71–82.

Nichols, W. C. (1992). *The AAMFT: Fifty years of marital and family therapy.* Washington, DC: American Association for Marriage and Family Therapy.

Northey, W. F., Jr. (2002). Characteristics and clinical practices of marriage and family therapists: A national survey. *Journal of Marital and Family Therapy, 28*, 487-494.

Northey, W. F., Jr., & Harrington, M. (2001). *The AAMFT practice research network final report to the center for substance abuse services*. Washington, DC: The American Association for Marriage and Family Therapy.

O'Brien, K. M. (1999). The legacy of Parsons: Vocational psychologists as agents of social change. Paper presented at a symposium of the American Psychological Association, Boston.

O'Grady, K. (2002). Clark: Obstacles thwart geriatric focus. *NASW News* (April), p. 8.

Olfson, M. O., Pincus, H. A., & Dial, T. H. (1994). Professional practice patterns of U.S. psychiatrists. *American Journal of Psychiatry, 151* (1), 89–95.

Olfson, M. O., & Pincus, H. A. (1996). Outpatient mental health care in nonhospital settings: Distribution of patients across provider groups. *American Journal of Psychiatry. 153*, 1353–1356.

Olzak, S. (1981). Bringing sociology back in—Conveying the sociological imagination in a changing undergraduate climate. *Teaching Sociology, 8*, 213–225.

O'Neill, J. (2001). Worker shortage spotlighted: Stage set for legislative action to alleviate problem. *NASW News* (April), pp. 1, 8.

O'Neill, J. (2002). California schools' expansion possible. *NASW News* (March), p.14.

Parsons, F. (1909). *Choosing a vocation*. Boston: Houghton-Mifflin.

Parsons, T. (1959). Some problems confronting sociology as a profession. *American Sociological Review, 24*, 547–559.

Pasacreta, J. V., Minarik, P. A., Cataldo, J., Muller, B., & Scahill, L. (1999). Role diversification in the education of advanced practice psychiatric nurses. *Archives of Psychiatric Nursing, 13* (5), 248–260.

Patterson, L. E., & Welfel, E. R. (1994). *The counseling process* (4th ed.). Pacific Grove, CA: Brooks/Cole.

Pincus H. A., Zarin D. A., Tanielian, T. L., Johnson J. L., West J. C., Pettit A. R., et al. (1999). Psychiatric patients and treatments in 1997: Findings from the American Psychiatric Practice Research Network. *Archives of General Psychiatry 56*, 441–449.

Pinsof, W. & Wynne, L. (1995). The effectiveness of marital and family therapy [Special issue]. *Journal of Marital and Family Therapy, 21*, 339–623.

Pion, G. M. (1991). Psychologists wanted: Employment trends over the last decade. In R. R. Kilburg (Ed.), *How to manage your career in psychology* (pp. 229–246). Washington, DC: American Psychological Association.

Pion, G. M., Mednick, M. T., Astin, H. S., Ljima Hall, C., Kenkel, M. B., Keeta, G. P., Kohout, J. L., & Kelleher, J. C. (1996). The shifting gender composition of psychology: Trends and implications for the discipline. *American Psychologist, 51,* 509–528.

Popple, P. R. (1995). Social work profession: History. In R. L. Edwards (Ed.-in-Chief), *Encyclopedia of social work* (19th ed., Vol. 3, pp. 2282–2292). Washington, DC: NASW Press.

Quam, J. K. (1995a). Addams, Jane (1860–1935). In R. L. Edwards (Ed.-in-Chief), *Encyclopedia of social work* (19th ed., Vol. 3, pp. 2571–2572). Washington, DC: NASW Press.

Quam, J. K. (1995b). Perkins, Frances (1882–1965). In R. L. Edwards (Ed.-in-Chief), *Encyclopedia of social work* (19th ed., Vol. 3, pp. 2603–2604). Washington, DC: NASW Press.

Reschly, D. J., & Wilson, M. S. (1992). School psychology faculty and practitioners: 1986 to 1991 trends in demographic characteristics, roles, satisfaction, and system reform. Manuscript presented to the NASP Delegate Assembly.

Riemersma, M. (2002). The typical California MFT: 2002 CAMFT member practice and demographic survey. *The California Therapist, 14* (4), 20–24.

Rogers, C. R. (1942). *Counseling and Psychotherapy.* Boston: Houghton-Mifflin.

Ruggiero, J. A., & Weston, L. C. (1986). Marketing the B.A. sociologist: Implications from research on graduates, employers, and sociology departments. *Teaching Sociology, 14*, 224–233.

Smith, H. B., & Robinson, G. P. (1995). Mental health counseling: Past, present and future. *Journal of Counseling and Development*, *74*, 158–162.

Smith, L. R., & Cavusgil, S. T. (1984). Marketing planning for colleges and universities. *Long range planning, 17* (6), 104–117.

Stapp, J., Tucker, A. M., & VandenBos, G. R. (1985). Census of psychological personnel: 1983. *American Psychologist, 40*, 1317–1351.

Strang, C. W. (1986). Research gives schools the competitive edge. *Marketing News, 12*, 30.

Syverson, Peter D. (1980). *Doctorate recipients from United States universities. Summary report: 1979.* Washington, DC. National Academy of Sciences.

Thomas, A. (1998). Directory of school psychology training programs. Bethesda, MD: National Association of School Psychologists.

Thomas, A. (2000). *Report to the National Association of School Psychologists' delegate assembly on the State demographic survey.* Bethesda, MD: National Association of School Psychologists.

Thurgood, D. H., & Weinman, J. M. (1990). *Doctorate recipients from United States universities. Summary report: 1989*. Washington, DC. National Academy Press.

U.S. Department of Education. (1997a). *Nineteenth annual report to Congress on the Individuals with Disabilities Education Act.* Washington, DC.

U.S. Department of Education. (1997b). *Digest of educational statistics*. Washington, DC.

U.S. Department of Education (1998). *Twentieth annual report to Congress on the Individuals with Disabilities Education Act.* Washington, DC.

U.S. Department of Education (1998). *Twentieth-first annual report to Congress on the Individuals with Disabilities Education Act.* Washington, DC.

U.S. Department of Labor, U.S. Bureau of Labor Statistics. (1999). Standard Occupational Classification, 21–1013 Marriage and Family Therapists Report 923.

West, J. C., Office of Research, Kohout, J., Pion, G. M., Wicherski, M. M., Vandivort-Warren, R. E., et al. (2001). Mental health practitioners and trainees. In R. W. Manderscheid & M. J. Henderson (Eds.), *Mental Health, United States* of (DHHS Pub. (SMA) 01-3537). Washington, DC: U.S. Government Printing Office.

Zarin, D. A., Pincus, H. A., Peterson, B. D., West, J. C., Suarez, A. P., Marcus, S. C., et al. (1998). Characterizing psychiatry with finding from the 1996 national survey of psychiatric practice. *American Journal of Psychiatry*, *155* (3), 397–404.

Zarin, D. A., Suarez, A. P., Pincus, H. A., Kupersanin, E., & Zito, J. M. (1998). Clinical and treatment characteristics of children with attention-deficit/hyperactivity disorder in psychiatric practice. *Journal of the American Academy of Child and Adolescent Psychiatry*, *37* (12), 1262–1270.