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PRACTICE PREFERENCES

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THE CLASSIFICATION, INTERCORRELATION, AND DYNAMIC NATURE OF MSW STUDENT PRACTICE PREFERENCES

ROBIN PERRY

Data was collected biannually (1992–98) from a complete population of students entering and exiting accredited graduate programs of social work in California (N=5,793). Findings suggest that practice interests and career aspirations of MSW students are more diverse and dynamic in nature than the debate in the literature on social work's mission would lead readers to believe. Although the proportion of all students most interested in each of the seven practice areas studied does not change throughout graduate studies, there is tremendous movement among individual students with respect to practice preferences during the course of their education.

AS SOCIAL WORK has increasingly diversified in methods endorsed and populations served over the past three decades, and as environments for social workers' services have increased in number, the debate regarding the profession's

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identity and mission has been renewed. The perceived rise of psychotherapeutic or clinical orientations as the preferred modes of intervention taught in many graduate schools has provoked criticism of the emphasis on individual adaptation as a means of addressing social problems over societal or institutional change. Criticism has also focused on the impact such an emphasis may have on professionals' desire to work with the poor within the public sector (Green, 1988; Jayaratne & Ivey, 1983; Morris, 1978; Reeser & Epstein, 1987; Specht & Courtney, 1994). These views have been challenged by studies that show social workers favor external/structural explanations of poverty over individualistic or fatalistic explanations (Roff, Adams, & Klemmack 1984; Schwartz & Robinson, 1991), but reinforced by others who suggest that

those entering social work desire to work with affluent and highly motivated clients (Falck, 1984; Katz, 1982; O'Connor, Dalglish, & Khan 1984; Rubin & Johnson, 1984).

Interestingly, the debate over the profession's identity and mission has coincided with the increased influence and impact of neo-conservative welfare policies on the "de-professionalization" and "de-skilling" of many public social service jobs, making—some argue—a large portion of social work positions engaged in "poor relief" or income redistribution unappealing to the professionally educated (Dressel, Waters, Sweat, Clayton, & Chandler-Clayton, 1988; Frabricant, 1985; Getzel, 1983; Groulx, 1983). Regardless of the position taken it appears much of the debate can be encompassed within three general areas of concern: a perception that social workers with advanced degrees are migrating away from the public sector to private practice with the middle and upper classes (Reisch & Wenocur, 1986; Rubin & Johnson, 1984); questions regarding the extent to which social work is truly altruistic (Getzel, 1983; Kurland, 1982); and accusations that practice and educational trends show social work to be abandoning its "traditional" practice base or "mission" (Specht & Courtney, 1994). Unfortunately the dualistic way in which these debates are framed distracts from the multidimensional influences that may shape practice trends.

As provocative as these debates may be in examining the preferred or defining features of the profession's knowledge and value base, they more importantly pose valuable questions worth testing as opposed to definitely answering any question regarding what social workers do. Examining market trends and exploring where social workers are employed, with what populations and methods they wish to work, and in what venues they want to work will lead to a more precise under-

standing of professional trends and the goals and aspirations of professional social workers. Barring the availability of comprehensive lists of social workers employed in a variety of venues across different geographic areas, and given that the majority of those with social work degrees may not necessarily become members of the National Association of Social Workers (NASW) (Gibelman & Schervish, 1993, 1997), the survey of students (particularly MSW) has been utilized as a means of attempting to survey a broader representative sample of professional social workers (or those aspiring to be so). Given that graduate students will soon shape professional practice trends, such initiatives have some merit.

Numerous attempts to measure or examine practice trends through surveys of motivations, aspirations, and preferences of social workers and social work students have been undertaken in the hope of developing a more comprehensive understanding of the influences directing professional/practice trends (Butler, 1990; Golden, Pins, & Jones, 1972; Rubin & Johnson, 1984; Rubin, Johnson, & DeWeaver, 1986). Rubin and Johnson (1984) and Rubin and colleagues (1986) made the first concerted effort to understand these influences with their longitudinal cohort study of graduate students prior to and upon completion of graduate studies. Their study attempted to determine the influence of "prior or anticipatory socialization on values and orientations of social work professionals" (Rubin & Johnson, 1984, p. 7). The first sample ($N=257$) included students from eight MSW programs in seven different states and Washington, DC. The programs were selected "because of the presence of colleagues who were able and willing to collect the data" (Rubin & Johnson, 1984, p. 7). Among these students, 86% wanted to enter private practice following the completion of studies and 82% expected to enter private prac-

tice within five years of graduation (Rubin & Johnson, 1984).

A total of 118 students from three (of the original eight) schools of social work participated in the second stage of their study (Rubin et al., 1986). Respondents were not matched. Thus, aggregate (cohort) comparisons were made between student responses to questions at the start and upon completion of their graduate studies. Following completion of their studies, 51% of MSW students expected they would enter private practice, with an additional 38% indicating they might do so. Those interested in private practice were likely to rank the methods of counseling, family and marital therapy, and psychotherapy higher than those not interested in private practice who ranked case advocacy, brokerage or case management, casework, and protective services significantly higher. Rubin and colleagues (1986) concluded that social work students "by and large... seek to become private practitioners, with little or no commitment to social work's mission either in regard to its dual focus of practice or to the weakest and most helpless groups it seeks and may be most qualified to serve" (Rubin & Johnson' 1984, p. 13). Unfortunately, the lack of a panel design and the sampling mechanism used call into question the internal and external validity of the study's findings (a fact acknowledged by the authors).

Butler (1990) surveyed two separate cohorts of MSW students in 1986 and 1987 ($N=265$) at the State University of New York at Buffalo. Although Butler (1990) attempted to replicate Rubin and Johnson's (1984) study and suggests that she refuted some of their findings, upon careful review of the data, outcomes appear similar. For example, the desirability ratings of working with specific populations or case situations were very similar to Rubin and Johnson's study (1984). Further, Butler found that a majority of students (63%) planned to enter

private practice. Other stated differences appear to be more the result of different interpretations of similar data.

Bogo and colleagues' research took a different approach (Bogo, Michalsk, Rahpael, & Roberts, 1995; Bogo, Rahpael, & Roberts, 1993). They surveyed MSW students at the University of Toronto before ($N=230$) and after ($N=180$) the completion of the 1991-92 academic year. Cohort analyses were conducted as study subjects were not matched for the purpose of creating a panel. In both studies, researchers were motivated by the debate regarding whether social work had abandoned its traditional mission. Nonetheless, their identification of distinct groups of social workers via cluster analyses considering a variety of influences (e.g., self-identified titles, employment interest, and field interest) represents a unique and comprehensive effort to design a method meant to resolve the debate with an objective, multi-dimensional examination of factors affecting practice preferences and career choices. Despite the soundness of the statistical analyses, the integrity of the study's findings are suspect due to what may be considered a flaw in conceptualizing self-identity titles and faulty assumptions about the inclusion criteria for identified clusters.

Specifically, for one measure the authors provided 13 occupational titles or choices from which the respondents were meant to choose the one that best represented how they identified themselves professionally. In the response set received, the 13 titles were collapsed by the researchers into six groups to be used in additional analyses. Of principle importance for their study was the utilization of ANOVA procedures to determine if groups of respondents who principally identified themselves as "social worker," "clinical social worker," or "therapist" differed with respect to attitudes or interests measured on other scales. There is a

basic flaw (given researcher assumptions) in the classification of self-identification titles. Of the original 13 titles given, 12 refer to specific roles or responsibilities that social workers may assume. In comparison, the title “social worker” as the 13th choice appears to be more general. The generality of “social worker” could have made it a preferred option should a respondent identify (or want to identify) with more than one of the other choices given. For example, given the option of choosing only one role, an entering MSW student identifying with both “child protection worker” and “clinical worker”—as Green’s (1988) research has shown is likely—may choose “social worker” as it can be seen as a category including both. It is no surprise that the majority of respondents picked the social worker title over all the other categories combined. It is erroneous for the researchers to use data generated from analysis of the self-identification measure to conclude that most respondents identified with “the traditional mission” (of “serving the disadvantaged”) if they identified themselves as a social worker. While the researchers qualify these conclusions somewhat, they nonetheless use these self-identification titles as classifications in cluster analyses and for group mean comparisons of scores generated from other instruments.

Findings in Bogo and colleagues (1995) and Bogo and colleagues (1993) were also constrained by researcher bias in the creation and interpretation of identity constructs thought to represent occupational fields within social work. An examination of occupational trends, practice preferences, and career choices may understandably be motivated by questions regarding whether social workers are interested in working with populations thought to be the traditional focus of the profession. However, the research to date has been less than convincing in its explanations of changing trends in occupational choices—and the motiva-

tions shaping the trends—among a representative group of social workers. Most studies have been cross-sectional in nature, employing unidimensional constructs to examine an issue and a profession that has become increasingly diversified in function, role, and goals. These issues need to be examined from a variety of points or perspectives to provide a comprehensive and contextual understanding of the various influences that affect career choice. What is lacking in the literature are longitudinal panel studies of graduate social work student (or employed social worker) attitudes and practices using reliable scales developed from a multidimensional understanding of professional identity constructs in terms of one’s desire and appeal to engage in specific practices with specific populations in specific venues.

This study attempts to build upon the efforts of Bogo and colleagues (1995) and Bogo and colleagues (1993) using factor analysis procedures with multiple items measuring the desire of MSW students to work with *specific* client groups or case situations within *specific* fields of practice. From a survey of all MSW students in California, this study attempts to (1) generate practice preference/professional identity constructs, (2) use standardized procedures to assign respondents to groups reflecting generated practice constructs, and (3) examine the relationship between various practice preferences for those assigned to distinct groups. The research presented in this article is the first part of a comprehensive longitudinal study of several cohorts and panels of MSW student attitudes, practice preferences, and career plans prior to and following the completion of graduate studies.

This study explores and classifies the interests of all graduate students in schools of social work in California and discusses the sampling plan and analysis methods used to develop subscales meant

to represent “practice preference constructs” of MSW students who were surveyed. In an attempt to develop a multidimensional understanding of students’ career goals, this study classifies respondents according to those interests with which they most identify and correlate these interests with other practice preferences.

Method

Study Design and Sampling Procedure

Data were collected using a survey instrument distributed to five parallel samples of all graduate students (full- and part-time) entering accredited MSW programs in California between 1992 and 1996 and exiting between 1994 and 1998 ($N=6,413$). These graduate social work programs were at California State Universities at San Diego, Fresno, Long Beach, San Jose, San Francisco, San Bernardino, Sacramento, and Stanislaus and at the University of Southern California, Loma Linda University, University of California at Los Angeles, and the University of California at Berkeley. The five parallel samples of students surveyed at these universities are aggregated for most analyses.

Participation was voluntary. In total, 90.3% of all MSW students ($n=5,793$) responded to either one or both of the survey instruments distributed. The pre-program (entrance) response rate was 73.0% ($n=4,679$). The response rate (using available population figures from the Council on Social Work Education) was 42.8% ($n=2,745$) among students surveyed at the end of their graduate studies. This response rate is yielded by adding the 1,631 students responding to both the Time 1 and Time 2 survey to the 1,114 students who only answered the Time 2 survey. Given that students who received the Time 2 survey in any particular year may have entered and completed the Time 1 survey in different years (this

information is ascertained in the Time 2 survey), a more definitive response rate (across cohort years) and panel attrition rate was determined when cases were sorted and matched. Table 1 details the distribution of survey responses according to year of entry into graduate school. Table 1 further denotes whether respondents completed both the Time 1 and Time 2 surveys (and therefore can be included in panel analyses), only the Time 1 survey, or only the Time 2 survey.

When figures detailed in Table 1 are considered, it appears the response rate to the study was high across individual cohort years (between 85.4% and 99.0%). Note that many part-time students who entered in 1996 are not included in this study because they completed their studies in 1999 or planned to do so later (after the analyses were completed). Therefore, there are a number of potential cases that may be added to the 1996 panel, making the sample more representative of the actual pool of students surveyed. Among those who participated in this study ($N=5,793$), a total of 1,631 (28.2%) MSW students completed the Time 1 and Time 2 survey instrument. A total of 3,048 (52.6%) cases completed the Time 1 survey but not the Time 2 survey. Further, an additional 1,114 (19.2%) cases completed the Time 2 survey but not the Time 1 survey.

The Survey Instrument

Drs. Bart Grossman and Tony Santangelo of the University of California at Berkeley developed the questionnaire used for this study (Santangelo, 1993). In 1991 it was pretested three times to thirty MSW students at the University of California who did not qualify for participation in this study (as they were not in any of the cohorts being examined). In the construction of the questionnaire an attempt was made to adapt items from prior studies so as to facilitate comparison with earlier find-

ings. Santangelo (1993) notes that questions meant to provide a demographic profile of students, as well as those meant to describe their attitudes toward the poor and the causes of poverty, were adapted from Golden, Pins, and Jones (1972) and Reeser and Epstein (1990). Questions meant to examine student motivations for pursuing social work were adapted from Abell and McDonell (1990). Questions related to career interests and appeal ratings for working with specific clients and case situations were adapted from Rubin and Johnson (1984), Rubin and colleagues (1986), and Butler (1990). This last set of questions was used for developing the practice preference constructs used in this study.

Findings

Development of Practice Preference Constructs

Scales were developed from a factor analysis of 31 individual items that attempt to examine respondent desire

(when considering future job roles and possibilities) to work in specific fields of practice and with specific client groups or case situations. Students were asked, while considering future employment opportunities, to rate the level of appeal of 21 client group types and 10 fields of practice on an ordinal Likert-type scale (1=low appeal, 7=high appeal).

The client groups were identified as abused and neglected children, abusive parents, the aged, people who are depressed, the physically disabled, the developmentally disabled, adult criminal offenders, juvenile status offenders, people with marital/family problems, alcohol/substance abusers, people wanting to adopt a child, hospital discharge/health care services, teens experiencing turbulent adolescence, people in poverty needing resources, the chronically mentally disabled, college students in crisis, homeless families, homeless adults, children with AIDS, adults with AIDS, and teen mothers with limited resources.

The fields of practice items included administration, casework, client advoca-

Table 1. Distribution of Survey Responses According to Year of Entry into Graduate School by Cohort Year

Students	Year of Entry					Total
	1992	1993	1994	1995	1996	
Included in Panel Analyses	266	292	331	364	378	1,631
With Time 1 Data Only	680	644	609	519	596	3,048
With Time 2 Data Only	181	204	277	260	192	1,114
Total	1,127	1,140	1,217	1,143	1,166	5,793
Total Population of Cases by Year of Entry*	1,260	1,231	1,229	1,339	1,354	6,413
% of Population in Study	89.4	92.6	99.0	85.4	86.1	90.0

* Sources for population statistics (estimates) are Lennon (1992, 1993, 1994, 1995, 1996, 1997). These figures are based on data collected on students upon entry into graduate studies. These figures do not reflect population attrition due to dropouts, transfers, etc. In addition, isolated schools in isolated years failed to provide information to the Council on Social Work Education (CSWE) regarding admissions. When admission figures from CSWE publications were not available, population estimates were obtained from the school in question or from an average of the available data related to the years of this study.

cacy, community organizing, counseling, family/marital therapy, group work, program/policy design, protective services, and psychotherapy. It is important to note that although Santangelo (1993) and Grossman attempted to provide a listing of client groups and fields of practice that was fairly comprehensive, groups or fields may be unintentionally omitted (e.g., school social work). Omitted from an examination of fields was an exploration of the type of venue (public, non-profit, or private) in which respondents would show a preference for working. Although some information regarding venue preference was solicited elsewhere in the questionnaire, no equivalent questions were integrated into scale items that were subjected to factor analysis procedures. Thus, any classification or development of practice preference or career constructs is limited by the categories on which analysis procedures were conducted.

A factor analysis was performed on the 31 individual items identified in Table 2, using an aggregate sample of five independent student cohorts of entering students from 1992 through 1996 (the cohorts of principal interest for this study). This procedure was perceived as more likely to limit researcher bias than one in which items were classified by the researcher or treated as unidimensional in any analysis. Here, ordinal-type items were treated as interval-level variables. Principal component extraction was used in developing the constructs. Although assumptions of multivariate normality were not met, the significance of these assumptions is minimized given the size and representative nature of the sample. In addition, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was high ($KMO=.81$), indicating that correlations between pairs of variables could be explained by linear combinations of other variables. An orthogonal rotation using the varimax method (which mini-

mizes the number of variables that have high loadings on a factor) and Kaiser normalization procedures were utilized for the generation of factors. Of the final factors selected, all were required a priori to have eigenvalues that exceeded 1.0 (eigenvalues represent the contributions/total variance explained by each factor).

Further, when each scale was applied to each individual sample year or cohort, a reliability analysis was required to yield a Cronbach's alpha coefficient of at least .70 before the scale was considered worthwhile for this study's purposes. Cronbach's alpha is a measure of internal consistency/average correlation of items within a test or—in this case—among items loaded into each factor and being considered for the development of scales measuring each latent construct. It was thought that the use of $\alpha=.70$ as selection criteria for subscales would allow for the inclusion of subscales with moderate to high internal consistency. These criteria do not follow any universal or recommended standard known by the author. For a more detailed explanation of Cronbach's alpha, see Nunnally (1978).

Prior to the development of specific scales, certain items were dropped when factor loadings for these items were noticeably low (below .55) for each practice preference construct. Excluding items when factor loadings were below .55 does not follow any universal or recommended standard known by the author. The exclusion of such items was thought to maximize the uniqueness of each subscale generated from factor analysis procedures. The factors were treated as separate scales, and respondent scores on each scale were summed and treated as interval-level data. Respondent scores on each of the scales were treated as separate dependent variables. Table 2 summarizes the results of the initial factor analysis, including the items that make up each scale and their respective factor loadings and eigenvalues.

Table 2. Results from Factor Analysis of Student Practice Preferences for 1992–96 Aggregate Sample of Entering MSW Students (N=4,278 of 4,679 Possible Students)

Factors by Loaded Items	Loadings	Eigenvalues	% of Variance Explained
Factor One (Clinical Practice)		5.68	18.3
Family/Marital Therapy	.84		
Counseling	.81		
Psychotherapy	.76		
People with Marital/Family Problems	.72		
Group Work	.70		
People who are Depressed	.50 ^a		
Factor Two (Aged/Varied Disabilities)		3.89	12.6
The Physically Disabled	.83		
The Developmentally Disabled	.79		
The Aged	.64		
The Chronically Mentally Disabled	.61		
Factor Three (Public Child Welfare)		3.00	9.7
Abused and Neglected Children	.86		
Abusive Parents	.73		
Protective Services	.63		
Teen Mothers with Limited Resources	.45 ^a		
Factor Four (Poverty)		1.67	5.4
Homeless Families	.88		
Homeless Adults	.86		
People in Poverty Needing Resources	.68		
Factor Five (Criminal Justice)		1.51	4.9
Adult Criminal Offenders	.84		
Juvenile Status Offenders	.76		
Alcohol/Substance Abusers	.49 ^a		
Teens Experiencing Turbulent Adolescence	.41 ^a		
Factor Six (Macro Practice)		1.42	4.6
Program/Policy Design	.84		
Administration	.73		
Community Organizing	.72		
Factor Seven (AIDS)		1.35	4.4
Children with AIDS	.87		
Adults with AIDS	.82		
Factor Eight ^b		1.16	3.8
People Wanting to Adopt a Child	.72		
Hospital Discharge/ Health Care Services	.60		
College Students in Crisis	.59		
Factor Nine ^b		1.04	3.4
Casework	.81		
Client Advocacy	.69		

^aIndividual item dropped from final scale due to low loading. ^bFactors not used given failure to meet a priori selection criteria.

Although nine factors were extracted from the 31 items, seven proved useful given the a priori selection criteria. Factors eight and nine (detailed in Table 2) were dropped from consideration. Both factors made a relatively small contribution to overall variance and had eigenvalues that approximated one. Conceptually, the items that loaded into factor eight did not make sense. When treated as scales, the Cronbach's alpha coefficient (for factor eight and nine) varied between $\alpha=.40$ and $\alpha=.56$ for each individual sample year or cohort. These findings suggested that factors eight and nine were unreliable constructs for analysis purposes. For those factors considered useful, scales were conceptualized to measure respondents' level of interest (while considering future job opportunities and career interests) in clinical practice, public child welfare, working with older people and those with varied disabilities, working with the poor, macro practice/administration, the crime justice field, and working with individuals living with AIDS.

A review of the individual items embodied within each of the seven factors reveals that most are either method or population specific. The macro practice construct is distinctly method or field concentrated. The clinical practice preference construct is also method concentrated. The desire to work with people with marital and family problems is the only population item among the final items in the clinical practice preference scale. Readers should note that the clinical practice preference scale does not provide any detail regarding the theoretical orientation of the clinical methods or other items that comprise the scale. Therefore, considerable variability in how respondents would define or practice family/marital therapy, counseling, psychotherapy, and group work is possible. The remaining practice preference constructs are principally population spe-

cific. The exception is the public child welfare practice preference construct. Here, the combination of an interest in protective services and a desire to work with abusive parents and abused and neglected children distinguished (for the purpose of this study) the construct as measuring an interest in public child welfare as opposed to child welfare in general. The remaining constructs and scales measure respondents' interest in careers working with older people and people with varied disabilities, the poor, criminal justice populations, and those living with AIDS.

The interest in working with older people, people with physical disabilities, people with developmental disabilities, and people with chronic mental disabilities was surprising because these populations appear fairly distinct. Although disabilities define three of the populations, they are disabilities in three different areas of client functioning. These types of disabilities can exist for individuals at various ages. Further, given that services to older people can encompass a variety of activities (with nondisabled individuals), its inclusion in this construct seems to suggest that MSW students associate aging with disabilities. Another interpretation is that students think the skills learned to work with one population have application with the other populations contained in this construct. Since students were asked to rate their desire to work with each population while considering future job possibilities, the associated interest may reflect market demands for service agencies (such as chronic care facilities) structured to serve these populations conjointly. The associated relationship between these items will be treated as a separate practice preference construct.

The extraction of constructs that are population specific suggests that there is interest in using a range of methods and in working with a variety of different

populations and problems. Likewise, the extraction of constructs that are method specific (clinical and macro practice) suggests an interest in using such methods with a variety of different populations. This was also the case for those individual items that failed to be included in any of the identified constructs that were treated as practice preference scales. These items (by deduction) are likely to demonstrate moderate or fairly equal correlations across a variety of practice constructs extracted using orthogonal rotations of the data matrices. Indeed, when a rank ordering of population groups is made according to the mean level of interest expressed by students at Time 1, four population groups excluded from any of the identified population constructs—teen mothers with limited resources, teens experiencing a turbulent adolescence, people who are depressed, and alcohol and substance abusers—typically rank from one year to the next among the top 10 (of 21) population groups with whom students are interested in working.

While extraction of constructs that are population and method specific suggests that most respondents' career interests are not tied to particular methods, populations, or problems, it is important to keep in mind those respondents who want to work with people with marital and family problems and those who want to work with abusive parents and abused and neglected children. Those interested in working with marital and family problems are most likely interested in clinical methods, and those interested in working with abusive parents and abused and neglected children are most likely interested in working in protective services.

If the extracted practice preference constructs represent areas of practice specialization, then specialization is less defined by the integration of specific methods for work with specific populations or problems than it is by the division of specific methods (macro and

clinical practice) from work with specific populations or problems. The suggestion is that one is either a specialist of method or a specialist at working with specific populations (where differential methods are applied), but not both.

Practice Preference Group Membership

In this section, attempts will be made to describe the distribution of MSW students in the sample according to their principal practice preferences over the course of their graduate education. As noted earlier, the practice preference scales were developed from a factor analysis of 31 individual items that attempted to measure respondent desire (when considering future job roles and possibilities) to work in specific fields of practice and with specific client groups or case situations. Respondent scores on each item of each scale were summed and treated as interval-level data. Respondent scores on each of the scales were treated as separate variables. Using listwise deletion procedures, a scale score was not computed for any case that failed to respond to any one item on the scale in question. Given that 8.6% ($n=401$) of all cases that responded to the Time 1 survey ($n=4,679$), and 5.9% ($n=162$) of all cases that responded to the Time 2 survey ($n=2,745$) failed to respond to at least one of the 31 items used in the initial factor analysis to create dependent variable constructs, estimations of missing values were made using procedures detailed by Maddala (1977). These procedures are described in the appendix.

The range of potential scores (an interval-level measurement) differs across the seven scales according to the number of items that comprise each scale. All scores were standardized and compared to assign each respondent to the practice preference category with which the person shows the greatest identification. Standardized values were generated us-

ing the aggregates of Time 1 and Time 2 cases separately. This was done because of potential differences between practice preference scores for Time 1 and Time 2 data. Table 3 details the proportionate distribution of entering MSW students across cohort years into specific practice preference groups according to the highest positive standardized value on each practice preference scale.

Findings listed in Table 3 suggest that upon entry into graduate school, student practice interests are fairly diverse. When row marginals are observed, a rank ordering of the proportion of all entering students (between 1992 and 1996) reveals the modal practice preference to be community/macro practice (with 16.7% of students assigned to this category). This practice preference is followed by work with older people and people with varied disabilities (16.5%), criminal jus-

tice (15.6%), and clinical practice (15.3%). The three practice preference categories with the fewest assigned students include public child welfare (13.0%), AIDS (11.8%), and poverty (11.0%).

Although a likelihood ratio chi-square test suggests that the practice preference group that students are assigned to and the year they entered graduate studies are mutually dependent ($\chi^2=50.46$, $df=24$, $p=.001$), Goodman and Kruskal's lambda indicates only a 1.6% reduction in error when the year students entered graduate studies is used to predict the practice preference group to which they are assigned ($\lambda=.016$, asymptotic standard error=.00921). This suggests that the overall admission practices at schools of social work have been relatively constant over the study period. Indeed, an examination of the proportion of students as-

Table 3. Distribution of Entering MSW Students According to Practice Preference Group Assignment Using Maximum Standardized Scale Scores across Cohort Years

Standardized Scale	Cases Per Year (% of Year's Cases)					PPG Case Total* (% of Total Cases)
	1992	1993	1994	1995	1996	
Clinical Practice	189 (20.0)	153 (16.5)	111 (11.9)	120 (13.7)	141 (14.5)	714 (15.3)
Public Child Welfare	96 (10.2)	145 (15.6)	136 (14.5)	112 (12.8)	115 (11.9)	604 (13.0)
Aged/Varied Disabilities	152 (16.1)	134 (14.4)	167 (17.8)	147 (16.8)	170 (17.5)	770 (16.5)
Poverty	98 (10.4)	96 (10.3)	108 (11.5)	95 (10.9)	116 (12.0)	513 (11.0)
Community/Macro Practice	164 (17.4)	153 (16.5)	153 (16.3)	160 (18.3)	146 (15.1)	776 (16.7)
Criminal Justice	136 (14.4)	134 (14.4)	149 (15.9)	147 (16.8)	162 (16.7)	728 (15.6)
AIDS	109 (11.5)	113 (12.2)	112 (12.0)	94 (10.7)	120 (12.4)	548 (11.8)
Year Totals	944 (100.00)	928 (100.00)	936 (100.00)	875 (100.00)	970 (100.00)	4,653 (100.00)

Note. Column percentage totals may not equal 100 due to rounding.

*PPG=Practice Preference Group.

signed to each practice preference group across individual years of entry suggests relative stability in the proportion of students interested in each practice or occupational field choice. However, significant differences are observed between the proportion of students interested in clinical practice in 1992 and in 1994 ($Z=4.865$, $p<.005$) and the proportion of students interested in child welfare in 1992 and in 1993 ($Z=-3.527$, $p<.005$). When a test of whether the cases are independent of each other (quasi-independence) is conducted on Table 3 excluding entries in cells (1,1), (1,3), (2,1) and (2,2) (the above-noted clinical and child welfare students), the hypothesis that the remaining cases are quasi-independent is not rejected (likelihood ratio $\chi^2=18.33$, $df=20$, $p=.566$). Thus, apart from significant differences in the proportion of students interested in clinical practice in 1992 and 1994 and the proportion of students interested in child welfare in 1992 and 1993, the distribution of entering students according to varied practice preferences has remained fairly stable from one year to the next.

Movement between Practice Preference Groups

While Table 3 provides a description of the distribution of study participant practice preferences upon entry into graduate studies, Table 4 displays a cross-classification of panel cases or those students who responded to both Time 1 and Time 2 surveys ($n=1,621$) according to the practice preference group to which students were assigned upon entry to and exit from graduate studies. The main diagonal of Table 4 represents those students whose maximized practice interest remained static over the course of their graduate education. The off-diagonal cells represent the number of students whose maximized practice interest changed over the course of their gradu-

ate education. For example, among the 265 students assigned to the clinical practice preference group at the start of their studies, 115 continued to demonstrate a maximum interest in clinical practice at the end of their studies. Among the remaining 150 (56.6%) students who were assigned to the clinical practice preference group at Time 1, 26 were more interested in working in child welfare, 15 in working with the poor, and 29 in working in macro practice fields at Time 2. Where 265 students were most interested in clinical practice at the start of their studies, 274 students were most interested in clinical practice at the end of their studies.

Table 4 indicates that the majority of students assigned to any particular practice preference group upon the start of graduate studies demonstrated a higher maximized level of interest in another field upon the completion of their studies. Indeed, a comparison of diagonal cell frequencies (those who remained in the same practice preference group before and after their studies) with their respective marginal row frequencies shows that the proportion of students who remained in the practice preference group they were assigned to at the start of their studies ranged from a low of 29.8% (for those interested in working with people living with AIDS) to a high of 45.9% (for those whose principal interest was working with older people and people with varied disabilities).

Findings presented in Table 4 suggest (among the panel cases) tremendous movement or change in the maximized practice preferences and occupational field choices of individual MSW students. Yet, upon first review of Table 4, it appears that the overall proportion of students assigned to each practice preference group does not change over time (i.e., there is marginal homogeneity). For example, the difference between the proportion of students assigned to

the clinical practice preference group at the start of graduate studies ($n=265$, 16.3%) and at the end of graduate studies ($n=274$, 16.9%) approximates (but does not equal) zero. Comparisons between marginal proportions of other practice preference groups yield similar results.

Although the above-noted calculations suggest an approximation of marginal homogeneity, there is no direct statistical test of marginal homogeneity. However, an indirect test of marginal homogeneity can be conducted using the results of a test of symmetry and quasi-symmetry in a manner consistent with that described by Goodman (1984) and Agresti (1990). This procedure involves

calculating the difference between the likelihood ratio chi-square test for the symmetry and quasi-symmetry models. The expected cell frequencies for the symmetry model are detailed in Table 4. The main diagonal represents students who remain in the same practice preference group over the course of their education.

The likelihood ratio chi-square test for the symmetry ($\chi^2=13.50$, $df=11$, $p=.20$) suggests that the null hypothesis of marginal homogeneity should not be rejected. In sum, these tests imply that there is no statistical difference in the proportion of all students interested in each field of practice before (row totals)

Table 4. Distribution of Panel Cases According to Practice Preference Group Before and After Graduate Education with Expected Frequencies of Quasi-independence (with Deletion of Main Diagonal) and Symmetry Models

	Clinical Practice	Child Welfare	Older Persons & Persons with Disabilities	Poverty	Macro Practice	Crime	AIDS	Totals
Clinical Practice	115	26	20	15	29	30	30	265
		26.63	22.62	21.17	30.97	26.55	22.05	
		32.00	24.50	18.00	25.50	29.50	25.00	
Child Welfare	38	107	12	19	25	27	16	244
	27.28		20.12	18.83	27.54	23.61	19.61	
	32.00		15.50	20.50	25.50	28.50	17.00	
Older Persons & Persons with Disabilities	29	19	112	23	21	19	21	244
	25.62	22.24		17.68	25.87	22.18	18.42	
	24.50	15.50		19.00	20.00	22.00	25.50	
Poverty	21	22	15	66	29	16	17	186
	23.08	20.04	17.02		23.30	19.98	16.59	
	18.00	20.50	19.00		25.00	18.50	16.50	
Macro Practice	22	26	19	21	112	29	16	245
	27.25	23.66	20.10	18.81		23.59	19.59	
	25.50	25.50	20.00	25.00		29.00	23.50	
Crime	29	30	25	21	29	97	18	249
	30.25	26.27	22.31	20.88	30.54		21.75	
	29.50	28.50	22.00	18.50	29.00		17.50	
AIDS	20	18	30	16	31	17	56	188
	25.52	22.16	18.83	17.62	25.77	22.09		
	25.00	17.00	25.50	16.50	23.50	17.50		
Totals	274	248	233	181	276	235	174	1,621

Note. Numbers in rows represent Time 1 results. Numbers in columns represent Time 2 results. The first sub-row under each observed cell count refers to the expected frequency with a quasi-independence model. The second sub-row refers to the expected frequency with a symmetry model. Both models give perfect fit on the main diagonal.

and after (column totals) the completion of their graduate studies.

In addition to a test of marginal homogeneity, a test of the hypothesis that off-diagonal students are independent of each other (quasi-independence) was conducted. The expected frequencies of the quasi-independence model are detailed in Table 4. This test (likelihood ratio $\chi^2=36.72$, $df=29$, $p=.154$) suggests that the null hypothesis that the proportion of students in any specific practice preference group at entry and exit from graduate social work studies remains the same should not be rejected. That is, there is no significant change in the proportion of students (as a whole) interested in one field over another at the start and completion of their graduate studies. This occurs despite change in interest among students, and their migration from one practice preference group to another. Further, no one practice preference assumes dominance. If schooling affects preference migrations, program size would only allow the number of migrations into each practice preference group to equal migrations out of each practice preference group. Although this is only a partial explanation for what is happening, it does help to demystify the homogeneity in marginal preference shifting.

Should these findings hold true for the broader population of MSW students, several questions are raised for social work education:

- Does the stability of the marginal totals (proportions) of students interested in different practice fields over the course of their education mean that service sector demands have remained stable over the 1990s or that admission practices in schools of social work have remained stable?
- To what extent are social work curricula effectively training students who are interested in working with a di-

verse set of populations and problems in a variety of settings?

- Can a generalist education truly provide the skills necessary for the majority of students whose practice interests change?
- Has a focus on generalist practice/education facilitated or encouraged movement or change in the practice preferences of students by giving (perhaps false) assurances that skills learned are applicable to a variety of problems across a variety of settings?
- Is there sufficient opportunity for lateral movement in graduate program specialization to mirror the lateral movement in practice interests among students over the course of their education?

Although this study cannot begin to answer many of these questions, it can address questions regarding whether observed movements between maximized practice preference groups (in Table 4) are a result of a distinct change in interest among students or whether such movements are the result of limitations associated with procedures used to assign cases to particular practice preference groups. Given that the maximum positive standardized value was used for group assignment, it is possible that some cases assigned to one group may have a highly correlated interest with other practice areas. If such is the case, movement from one practice preference group to another may or may not be a natural or expected occurrence given the correlation between these practice interests.

Intercorrelation of Practice Interests

Table 5 details the level of correlation between pairs of factor-based practice preference scores across each of the seven practice preference groups. Nonstandardized factor-based (nonweighted) scores as opposed to factor (weighted)

scores were used in the generation of correlation coefficients because the use of factor (weighted) scores minimizes the correlation between practice preference scores due to their generation via an orthogonal (varimax) rotation of data matrices to produce common factors. For reference purposes, only panel cases (used in Table 4) are detailed in Table 5. Here, cases assigned to each of the practice preference groups upon entry into graduate studies (at Time 1) are examined separately (each row represents an independent group of respondents). The principal practice preference score (assignment score) for each group is correlated with the remaining scores on the other practice preference scales. Findings in Table 5 suggest that at the start of their studies, students demonstrate generally low to moderate levels of interest in other fields among students in each of the practice preference groups. The Pearson's correlation coefficient between the assignment score and remaining scale scores typically ranges between $r=.20$ and $r=.40$. However, some exceptions to this situation exist.

Students in the public child welfare group had the least-correlated interest

with macro practice ($r=.146$, $p<.05$). Those assigned to the criminal justice group demonstrated the least-correlated interest in working with older people and people with varied disabilities ($r=.072$, $p<.05$). Those assigned to the clinical practice preference group were concurrently most interested in macro practice ($r=.405$, $p<.05$). This is puzzling as these two fields are methodological opposites (direct versus indirect practice). In comparison, those in the macro practice group were least interested in clinical practice ($r=-.023$, $p>.05$). The macro practice students and students interested in working with the aged and those with varied disabilities demonstrated the highest level of correlated interest toward working with the poor ($r=.423$, $p<.05$ and $r=.531$, $p<.05$ respectively). Yet Table 4 shows that the modal number of students who left the macro practice and aged/disabilities practice preference groups relocated in the criminal justice ($n=29$) and clinical ($n=29$) practice preference groups. Perhaps students' interest in working with the poor is tempered by the awareness of better paying jobs in the criminal justice sector and for those with advanced clinical skills.

Table 5. Correlation Coefficients between Principal Practice Preference Group Score and Other Factor-based Practice Preference Scores for Panel Cases Upon Entry into Graduate School ($N=1,621$)

Assigned Practice Preference Group	Counseling/ Therapy	Child Welfare	Aging/Persons with Disabilities	Poverty	Macro Practice	Crime	AIDS
Counseling/ Therapy	1.0	.35	.28	.23	.40	.26	.27
Child Welfare	.24	1.0	.23	.34	.15	.29	.23
Aging/Persons with Disabilities	.22	.36	1.0	.53	.36	.35	.39
Poverty	.21	.28	.24	1.0	.26	.20	.23
Macro Practice	-.02*	.25	.24	.42	1.0	.28	.32
Crime	.25	.40	.07*	.33	.29	1.0	.34
AIDS	.24	.22	.29	.30	.26	.20	1.0

*Pearson's correlation coefficient not significant at $p<.05$ (2-tailed significance test).

This finding suggests that the correlation between the practice preferences of graduate students over the course of their education is dynamic.

Despite these exceptions, the similar levels of correlated interest between maximized practice preference assignment scores and other practice preference scores (for each group of students) serves as a fidelity check regarding the distinctiveness of each practice preference construct.

The Representative Nature of Panel Cases

Findings detailed in Table 4 apply to panel cases only. These cases represent 28.2% of all study participants. In an attempt to gauge how accurately the panel cases represented the broader sample population, the proportion of cases assigned to each practice preference group (using maximized standardized scores) among those cases included in the aggregate panels were compared with those cases excluded from the aggregate panels. When only Time 1 cases are considered, a likelihood ratio chi-square test suggests that practice preference group and panel membership are not independent of one another ($\chi^2=17.43$, $df=6$, $p=.008$). Upon closer examination, the proportion of students interested in public child welfare was found to be significantly larger among those included in the panel ($Z=2.95$, $p<.05$). When a test of quasi-independence on these data was conducted with the exclusion of entries in cells pertaining to the distribution of cases most interested in public child welfare (whether included or excluded from the panel), the hypothesis that the remaining cases were independent of each other was not rejected (likelihood ratio $\chi^2=7.65$, $df=5$, $p=.18$). Thus, the proportion of students whose maximized interest is in public child welfare is overrepresented among panel cases denoted in Table 4. The proportion of stu-

dents (upon entry into graduate studies) assigned to other practice preference groups did not differ significantly between those cases included in and those excluded from panel analyses.

When only Time 2 cases are considered, a likelihood ratio chi-square test suggests that practice preference group and panel membership are independent of one another ($\chi^2=7.18$, $df=6$, $p=.305$). In this situation, the distribution of cases across different practice preference groups did not differ significantly between those included in and those excluded from the panel. These findings suggest that the panel cases are fairly representative of the broader sample of students who participated in this study in terms of the proportion of students assigned to each practice preference group.

Discussion

This study examined the distribution of MSW students according to their practice preferences and the extent to which these preferences changed over the course of their education. Findings presented in this study suggest that earlier research and writing related to the debate over whether social work has abandoned its traditional mission did not accurately represent the distribution and diversity of MSW student practice interests and the dynamic nature of student practice preferences. Many of these earlier studies relied upon samples of MSW students from isolated schools (Abell & McDonnell, 1990; Bogo et al., 1993, 1995; Butler, 1990; Rubin & Johnson, 1984; Rubin et al., 1986). Little regard was given to the extent to which study participants were enrolled in programs that represented various schools of social work or a diversity of curricula. Indeed, Rubin and Johnson (1984) acknowledged that their findings "may be invalidated if our

sample of participating MSW programs were skewed toward those that are psychotherapeutically oriented" (p. 13). Concerns regarding how representative past study samples have been of social work education as a whole call into question the generalizability of previously reported findings.

Ninety percent of all MSW students who entered graduate studies in 12 schools of social work (with varied curricula) throughout California between 1992 and 1996 participated in this study at least at one point in time (see Table 1). This high level of participation suggests that findings from this study provide a comprehensive and representative picture of the diversity of California MSW student career paths and the change in practice preferences over the course of their education. Limitations noted, some interesting findings were generated from this study.

Constructs extracted from factor analysis procedures suggest that student practice preferences are typically method, population, or problem focused. Despite the distinctiveness of the clinical practice preference construct, findings suggest that concerns over social work practice and education abandoning its traditional practice base, or mission of service to the poor, in favor of psychotherapy with the "worried well" are exaggerated (Specht & Courtney, 1994). A comparison of standardized practice preference scale scores shows that only 15.3% of all MSW students had a maximized interest in clinical practice upon entry into graduate studies. Although the proportion of students (upon program entry) most interested in working with the poor (11.0%) and in public child welfare (13.0%) is less than the proportion most interested in clinical practice (15.3%), student practice interests and career objectives are fairly diverse.

If the results from panel case analyses

(see Table 4) are reflective of trends with all study participants, it seems the proportion of all students most interested in each practice area does not change. However, there appears to be tremendous movement among individual students' practice preferences over the course of their education. Yet, despite the dynamic nature of individuals' interests, there is movement toward greater commonality of interest in varied practice preferences among groups of students across different schools of social work over the course of student education (see Perry, 1999). These findings do not necessarily contradict one another. Instead, they might suggest that a consistent demand exists for social workers across different practice fields. Market demand for social workers across a wide variety of fields—it can be conjectured—may encourage a certain level of uncertainty or flexibility in the practice preferences of individual students at the start of graduate studies. Change of interest among individual students might be minimized if students were highly specialized. Therefore, increased commonality of student interests across individual schools may reflect the generalization of skills—or preferences identified with such skills—among students regardless of the specialized education they received.

In this situation of increased commonality of student interests, uncertainty or flexibility regarding career goals is not a hindrance given the versatility of the MSW degree. Specialization may be perceived by MSW students as an obstacle toward lateral movement among fields of practice once they graduate. Given that the profession of social work has diversified in form and function over the years, it seems reasonable that a greater variety of employment options permits change in MSW practice preferences. Further, it would seem that those MSWs with flexible and interrelated interests would be

more likely to survive changes in the job market brought on by changes in public and social policy. Perhaps students take from their education the knowledge and skills that will permit movement within a diverse job market. Students may have learned that it is necessary (or at least financially advisable) to market oneself as a generalist practitioner (or a multispecialist) even if their educational background suggests a specialty focus.

Some student practice interests differ from how practice is defined in the literature or from what is offered in school curricula. This is suggested by the strong association between interest in working with older people and working people with disabilities (people with physical, developmental, and chronic mental disabilities). Each of these potential client groups is fairly distinct and treated as such in most curricula. Further, despite the noteworthy proportion of students interested in working with criminal justice populations (15.6%), few opportunities exist to specialize in this field in accredited MSW programs in California. None of the schools offer a criminal justice specialization for MSW students. Some schools (such as San Diego State University and the University of Southern California) offer joint degree programs with their law schools. Other schools of social work (San Jose State University, California State University at Long Beach, California State University at Stanislaus, and Sacramento State University) may offer courses in criminology or criminal behavior, or offer child, youth, and family concentrations in which corrections work is a focus. Given that most universities have criminology departments, perhaps schools of social work have divorced themselves from training professionals to work within corrections despite student interest in working with criminal justice populations. The study findings suggest that if MSWs interested

in working with criminal justice populations upon graduation are in fact entering criminal justice settings, schools of social work should evaluate the extent to which their programs are adequately preparing students to work within this field.

The profession should guard against analyzing practice trends and preferences from a review of the curricula of accredited schools. More importantly, the profession should concern itself with whether schools of social work are effectively educating and training their graduates to assume jobs in service areas where there is a high demand for social workers. These findings speak to the need for more detailed studies of the demand for social work services and the extent to which curricula are responsive to these trends. Although students were asked to identify their practice preferences while considering market demand (i.e., "job possibilities in social work"), it is uncertain whether students have an accurate understanding of the demand for professional social work services and whether perceptions of market demand (as opposed to other variables considered in this study) affected students' practice preferences. Finally, it is unclear if students' practice preferences are shaped by the realization of where they are most likely to work upon graduation or by their long term career objectives. A follow-up study to determine where MSWs first work upon graduation, the extent to which their first job reflects career objectives, where they plan to be in 5 or 10 years, and where they end up working would aid in answering these questions.

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Appendix. Procedure for Estimating Missing Values Assigned to the 31 Practice and Method Items Used in the Factor Analysis

Given that each practice preference score is the sum of the product of individual item values and a series of weights (factor loadings detailed in Table 2) assigned to these items, estimations for missing values assigned to each of the 31 practice and method items used in the factor analysis were required. To accomplish this, a modified version of a first-order regression model as detailed by Maddala (1977) was used. The 31 items were treated as independent variables; therefore this procedure involved running a series of regressions among the 31 items to estimate the missing values. Prior to this procedure, the data were modified to maximize the number of cases used in generating estimates. First, cases with missing data on a particular item had the individual item based on the n_1 observations for which there were data on the variable being treated as a dependent variable. This procedure was run separately on all Time 1 and Time 2 data. The resulting item and dummy variable coefficients served as weights in generating estimates on the n_1 observations for which there were no data for a particular practice or method item/variable. Once estimates for individual items

were calculated, each principal dependent variable (practice preference scale score) was computed as the sum of the product of individual item values and a series of weights (factor loadings detailed in Table 2) was assigned to these items.

In an effort to ensure that the final study sample included approximately 95.5% of all cases that responded to either the Time 1 or Time 2 survey (but excluded cases with an abundant number of missing items), cases with more than 10 missing values on the 31 items used for scale construction were excluded from the study sample. This amounts to a reduction of 26 cases in the study sample who completed the Time 1 survey and a reduction of 15 cases in the sample who responded to the Time 2 survey. Among these 41 (0.7% of $n=5,793$) excluded cases, 10 were panel cases. Among the 401 cases with missing values on Time 1 survey items, 324 cases (80.8% of $n=401$) were missing values on three items or less. Among the 162 cases with missing values on Time 2 survey items, 149 cases (92.0% of $n=162$) had missing values on three items or less.

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