



**WESTERN
MICHIGAN**
UNIVERSITY

The Journal of Sociology & Social Welfare

Volume 21
Issue 3 *September*

Article 8

September 1994

Survey of Social Work Educators: Qualifications and Compliance Criteria

Carol T. Tully
Tulane University

Follow this and additional works at: <https://scholarworks.wmich.edu/jssw>



Part of the Higher Education Commons, and the Social Work Commons

Recommended Citation

Tully, Carol T. (1994) "Survey of Social Work Educators: Qualifications and Compliance Criteria," *The Journal of Sociology & Social Welfare*: Vol. 21 : Iss. 3 , Article 8.

Available at: <https://scholarworks.wmich.edu/jssw/vol21/iss3/8>

This Article is brought to you by the Western Michigan University School of Social Work. For more information, please contact wmu-scholarworks@wmich.edu.



**WESTERN
MICHIGAN**
UNIVERSITY

Survey of Social Work Educators: Qualifications and Compliance Criteria

CAROL T. TULLY

Tulane University

In its Criteria for Accreditation (1987), the College Commission of the Southern Association of Colleges and Schools (SACS) implemented faculty qualifications standards that were strictly defined. Compliance with these standards in undergraduate and graduate schools of social work was the focus of this study. Data were gathered on 137 social work programs and include faculty qualifications information on 874 social work educators teaching in private and public institutions of higher education in the southern region. The findings indicate that baccalaureate programs in social work were more likely to be in compliance with SACS criteria than graduate schools. Strict compliance rates across all programs was low.

Introduction

An issue that is rarely overlooked when discussing accreditation standards is that of faculty qualifications or how much and what kind of professional and educational experiences are necessary to teach at the undergraduate and graduate levels (Berengarten, 1981; Brassie, 1979; Feltner & Savage, 1970; Evangelauf, 1989; Finklestein, 1984; Galbrath and Gilley, 1985; Millard, 1983; Rock, Centra, & Linn, 1970; Scales, 1969; Troutt, 1979; Tully & Walker, 1991; Young, Chambers, Kells & Associates, 1983). Every accreditation body has specific accreditation standards dealing with faculty qualifications; yet, while frequently mentioned in the literature as an important issue, few researchers have collected data on the actual faculty qualifications of those teaching in baccalaureate and graduate level programs (Feltner & Savage, 1970; Millard, 1983; Scales, 1969; Tully & Walker, 1991; Young, Chambers, Kells & Associates, 1983). In an attempt to examine the faculty qualifications of those teaching

in baccalaureate and graduate professional schools in relationship to the then recently revised 1987 faculty qualification standards of the College Commission of the Southern Association of Colleges and Schools (SACS), in 1987-88 every undergraduate and graduate program in accounting, business administration, computer science, library science, nursing, social work and visual and performing arts within the SACS geographic region was surveyed ($N=1941$). This paper presents the findings of the portion of the research that examined the credentials of those teaching in undergraduate and graduate social work programs.

Rational and Methodology

In 1993 the Council on Social Work Education (CSWE) issued its first draft of newly revised baccalaureate and graduate standards for accreditation (CSWE, 1993) that stipulate a program director for a master's program ". . . shall have demonstrated leadership ability through academic and other experience in the field of social work and shall provide educational and administrative direction to the program. Usually, the educational credentials of the chief executive officer include a master's degree from an accredited program in social work or a doctorate in social work" (p. 9). So it would seem that the educational requirements for the chief executive officer of a master's program in social work, as mandated by CSWE, do not have to include either a master's or doctoral degree in social work or anything else. In master's programs themselves, "the program shall have full-time faculty adequate in number, qualifications, competence and range in experience, based on educational background, teaching and educational administrative experience, and experience in professional practice, to achieve its specified goals" (p. 10). And, although there are no other specified degree requirements delineated in the standard, "faculty who teach required practice courses or direct the field practicum shall hold credentials that include a masters's degree in social work and shall have had two years or more post-social work master's degree experience in professional social work practice" (p. 11). At the baccalaureate level, there are no

specified credentials required for the program director but, the undergraduate program “. . . shall have a minimum of two full-time faculty members with master’s degrees in social work . . .” (p. 11).

The 1993 SACS faculty qualifications state “each full-time and part-time faculty member teaching credit courses leading toward the baccalaureate degree . . . must have completed at least 18 graduate semester hours in the teaching discipline and hold at least a master’s degree, or hold the minimum of a master’s degree with a major in the teaching discipline. In exceptional cases, outstanding professional experience and demonstrated contributions to the teaching discipline may be present in lieu of formal academic preparation. Such exceptions must be justified by the institution on an individual basis” (SACS, 1993, p. 37). Further, for institutions offering the master’s degree, “each faculty member teaching courses at the master’s degree level must hold the terminal degree, usually the earned doctorate, in the teaching discipline or a related discipline. In some instances, the master’s degree in the discipline may be considered the terminal degree, such as . . . the M.S.W. . . . in others, a master’s degree in the discipline coupled with a related doctorate, as the terminal degree for faculty members teaching in those disciplines” (p. 37).

However, at the time this study was conducted, both the SACS criteria and CSWE standards had language that provided stricter guidelines for faculty credentials. And while this study was originally conducted to provide data related to upgrading the terminal degree in social work to the doctoral degree, what has happened in the interim indicates a move toward more liberal application of guidelines related to faculty credentials at both CSWE and SACS.

An assumption made by the SACS criteria in 1987 (and also in 1993) was that an educator with a doctoral degree was better qualified than one without. As little empirical data refute or substantiate this, this study made the same assumption. It was conducted in an effort to gather data on the level of compliance with the 1987, revised SACS accreditation standards dealing with faculty qualifications in professional programs and to

determine if exceptions to SACS *Criteria . . .* (1987) would impact compliance levels. Further it sought to examine differences in faculty qualifications in programs accredited and not accredited by various professional accreditation organizations (in the case of social work—the Council on Social Work Education). An important outcome of the study, specifically related to social work, was the collection of data that could be used to encourage the Council on Social Work Education to reconceptualize its current standards regarding faculty qualifications (CSWE, 1993) and was used by SACS to lower its faculty qualification standards in the early 1990s.

In an attempt to define the academic credentials of social work educators employed by schools in the southern region, this cross-sectional study utilized a questionnaire that was mailed to undergraduate programs in social work. The sample consisted of all social work educators ($N=874$) who were teaching courses in undergraduate or graduate programs in the 11 state SACS region (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia) and included both CSWE accredited programs and those programs not accredited by CSWE. The schools selected for inclusion in the study were drawn from the official membership files of the SACS' Commission on Colleges. The data collection instrument was a modified version of the ones used, in similar studies, by Feltner & Savage (1970) and Scales (1969). The variables included the academic degrees earned, the field in which the degree was earned, the number of course credit hours taught for the most recent term (Spring 1987), and whether or not the program was accredited by CSWE. Other variables obtained included the level (II–IV where Level II schools offered the baccalaureate degree as the highest level; Level III schools the master's degree; and Level IV schools the doctoral degree) and type (public or private) of institution, the number of full time equivalent (FTE) students in the overall institution and the geographic location of the institution. Mailed during the fall of 1987, the questionnaire was designed to be easily completed, and was mailed with an explanatory cover letter to $n=180$ programs in social work ($n=153$ undergraduate programs; $n=27$ graduate programs).

Results

Baccalaureate Programs in Social Work

Of the institutions contracted, 119 (70%) returned the survey and were included in the data analysis. Eighty-two (69%) were accredited by CSWE at the time of the study. Individual data on faculty included in the analysis were from six, Level II public institution educators; 57 Level II private institution educators; 159, Level III, public institution educators; 20, Level IV, private institution educators and 232, Level IV, public institution educators or a total sample of 474 social work undergraduate educators.

SACS *Criteria* (1987) standards related to faculty qualifications specifically stated that, "In each discipline in which an undergraduate major is offered, at least 25% of the course credit hours taught must be taught by faculty members holding the terminal degree, usually an earned doctorate, in that discipline" (p. 22). Further, the minimum credential for teaching in a baccalaureate program is a master's degree and 18 graduate semester hours in the teaching field. Because of widespread difficulties in implementing this accreditation standard, SACS proposed a grid of exceptions. The following exceptions related to faculty qualifications in social work. To meet the SACS criteria for the 25% Requirement, 25% of the course credit hours taught had to be taught by faculty holding a doctorate in social work—Exception 1 expanded this to include those with a Master's of Social Work (MSW) degree and an earned doctorate in related field; Exception 2 further loosened the standards to include those with a master's degree in social work. To meet the minimum SACS credentials to teach in an undergraduate social work program, educators must have an MSW or a master's degree and 18 graduate semester hours in social work.

With these specific standards in mind, one third ($n=39$, 33%) of those institutions responding reported that indeed 25% of the course credit hours being taught were being taught by faculty who possess a doctoral degree in social work. Of the total number of social work educators on whom data were gathered ($N=474$), 2 (7.4%) Level II, private institution educators;

Table 1

Social Work Returns by Level and Type of Governance

<i>Program</i>	<i>Mailed</i>		<i>Returns</i>		<i>Useable</i>	
	<i>N</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	
Undergraduate						
Level II						
Private Institutions	40	29	73	27	68	
Public Institutions	2	2	100	2	100	
Level III						
Private Institutions	18	17	94	14	78	
Public Institutions	41	38	93	35	85	
Level IV						
Private Institutions	11	6	55	5	45	
Public Institutions	41	36	88	36	88	
Graduate						
Level III						
Private Institutions	2	1	50	1	50	
Public Institutions	3	2	67	2	67	
Level IV						
Private Institutions	4	2	50	1	25	
Public Institutions	18	16	89	14	78	
Totals	180	149	83	137	76	

35 (22%) Level III, public institution educators; 4 (20%), Level IV, private institution educators and 59 (25%), Level IV, public institution educators had an earned doctoral degree in social work. Thus, 100 (21%) of those teaching in social work undergraduate programs had an earned doctoral degree in the social work. These data mirror Spaulding's (1990) data that demonstrate 21% of those teaching in CSWE accredited programs had an earned doctorate in social work. When Exceptions 1 and 2 were included in the 25% Requirement, virtually all the insti-

tutions would have been in compliance with the SACS *Criteria* (1987). However, 28% ($n=33$) of the institutions responding to the survey reported having some faculty who were teaching in their baccalaureate social work programs without an earned master of social work degree. Of those, 1 (2%) were Level II, public institution educators; 7 (12%) were Level II, private institution educators; 24 (15%) were Level III, public institution educators, 1 (.05%) were Level IV, private institution educators and 11 (.04%) were Level IV, public institution educators. The total number of social work educators who were teaching without a master's degree in social work was 44 (9%). This total is somewhat higher than Spaulding's (1990) data that indicate only 5% of those teaching in CSWE accredited programs were teaching without the MSW degree.

No clear patterns emerged when examining compliance rate with the geographic distribution of institutions or when looking at FTE enrollment rates. As was expected, those institutions whose undergraduate social work programs were accredited by the Council of Social Work Education were more likely to be in compliance than those programs not so accredited.

Graduate Programs in Social Work

Of the surveys that were mailed, 62% ($n=18$) were returned and were included in the analysis. As with the baccalaureate data, virtually every state in the SACS eleven state area was represented in the analysis. Data included in the analysis were from 10, Level III, private institution educators; 46, Level III, public institution educators; 22, Level IV, private institution educators and 322, Level IV, public institution educators or a total of 400 social work graduate school educators. There was a significant difference in the return rate based on the type of governance where there was a 33% ($n=6$) return rate from private schools and a 76% ($n=21$) return rate from public institutions (see Table 1). Of the 18 graduate programs that are included in the analysis, 17 of them were accredited by CSWE at the time of the study.

SACS *Criteria* (1987) stated, "faculty teaching graduate-level courses must hold the highest earned degree in their disciplines,

although in some cases experience and/or scholarly or creative activity may substitute for the doctorate" (p. 26). So, in order to meet the strict interpretation of the SACS *Criteria* (1987), all faculty teaching at the graduate level must have a doctoral degree in the teaching field—in the case of social work a PhD in social work or a doctor of social work (DSW) degree. As with the undergraduate programs, compliance with this standard proved difficult. Thus, the SACS grid of "Proposed Exceptions and Clarifications to Faculty Qualifications and Preparation" included the exception that all graduate social work faculty must hold either a doctoral degree in social work or a master's degree in social work and a doctorate in a related field.

The results of this study are similar to Spaulding (1990) and show that while 162 (41%) of those educators teaching graduate level social work did hold an earned doctorate in the field, and 73 (18%) held the MSW and a doctorate in a related field; 132 (33%) of those teaching graduate level social work held only an MSW and 33 (8%) did not have an MSW. Thus, while 235 (59%) of all graduate social work educators in the sample held either a doctorate in social work or an MSW with a doctorate in a related field, not one institution surveyed reported meeting either the strict requirements of the *Criteria* (1987) or even meeting the requirements utilizing the exception.

Social Work and Other Professional Programs' Compliance

As noted in the introduction, this study included data from seven different undergraduate and graduate professional schools—accounting, business administration, computer science, library science, nursing, social work and visual and performing arts.

At the undergraduate level, virtually every program surveyed would have been in compliance with the SACS requirements if the exceptions were utilized. Further, 80% ($n=8$) of the programs in library science and 59% ($n=150$) of the programs individual and performing arts met the SACS criteria without utilizing exceptions. Interestingly, social work, with more doctoral degree programs than either library science or visual and

Table 2

Graduate Degree Programs

<i>Program</i>	<i>Returns</i>		<i>Met</i>		<i>Met Criteria With</i>		<i>Did Not Meet Criteria With</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Accounting	51	77.0	6	11.8	17	33.3	34	66.7
Business								
Administration	148	85.0	19	12.8	40	27.0	108	73.0
Computer								
Science	52	79.0	3	5.8	6	11.5	46	88.5
Library Science	20	69.0	0	0.0	3	15.0	17	85.0
Nursing	35	85.0	1	2.9	10	28.6	25	71.4
Social Work	18	67.0	0	0.0	0	0.0	18	100.0
Visual and								
Performing Arts	61	78.0	2	3.3	27	44.4	34	55.7
Totals	385	80.0	31	8.1	103	26.8	282	73.2

performing arts (Tully & Walker, 1991), had only a 33% ($n=39$) compliance rate without utilizing proposed exceptions.

Findings of graduate level programs show that all the programs in this study had difficulty meeting the strict SACS requirement that each and every faculty member teaching at the graduate level hold a doctorate in the teaching field (see Table 2). Business administration (13%, $n=19$) and accounting (12%, $n=6$) programs lead the compliance rate while library science and social work have no programs that met the strict interpretation of the SACS standard. Even when utilizing proposed exceptions, graduate level programs had difficulty being in compliance with the SACS requirements. However, with not one program being able to meet the standards even utilizing the proposed exception, social work was more out of compliance than other professional programs surveyed. Again, this is undoubtedly related to the accreditation mandates of CSWE;

however, do the CSWE requirements mirror the hiring practices in undergraduate and graduate programs of social work?

Discussion and Educational Implications

CSWE Standards v. SACS Criteria

Undergraduate Education

When the 1993 SACS baccalaureate faculty qualification accreditation criteria are compared to the criteria mandated by CSWE (1993), it becomes clear that there are only a few differences between the two accreditation organizations. This was also true in 1987 before the SACS criteria were revised.

CSWE requirements state that at the undergraduate level, the social work program shall have a director whose educational credentials include either a master's degree in social work or a baccalaureate degree in social work and a doctoral degree in social work (CSWE, 1988, pp. 4; 8; CSWE, 1993, pp. 2; 9). CSWE also requires that for faculty teaching social work practice and for those who coordinate the field instruction program an MSW and two years post-master's degree experience are the required credential (CSWE, 1988, 1993). Furthermore, CSWE (1988) stated that "there shall be . . . a core of full-time faculty who hold master's degrees in social work . . ." (p. 7), but by 1991 this was changed to "the [undergraduate] program shall have full-time faculty adequate in number and in range of expertise, based on educational background and experience in professional practice, to achieve its specified objectives" (CSWE, 1991, p. 10). No where is there a requirement that faculty teaching at the undergraduate level need a doctoral degree. The only doctoral degree in social work required by CSWE was for the undergraduate program administrator who holds a BSW but not an MSW (CSWE, 1988, p. 4; CSWE 1993, p. 2).

While the 1987 SACS standards required that 25% of those teaching at the undergraduate level hold an earned doctorate in social work or an MSW and a doctoral degree in a related field, data indicate that a third of those institutions surveyed did comply with the strict interpretation of the SACS mandates, and that only if the exceptions were utilized virtually every under-

graduate program in social work would have complied with the SACS criteria. The exceptions to the 1987 standards became the requirements for the 1993 standards meaning that every undergraduate program surveyed would be in compliance with SACS less rigid requirements.

Graduate Education

The 1987 SACS requirements and the exception for graduate faculty (an doctorate in social work or an MSW plus a doctoral degree in a related field) were significantly more stringent than the 1987 CSWE standards or 1993 standards. While the issue of the terminal degree in social work is not a new one (Crow & Kindelsperger, 1975; Wodarski, 1979), CSWE still does not recognize the doctoral degree in social work as the terminal degree (N. Randolph, 1992, 1 March 1993, personal communication). CSWE's 1988, 1991, and 1993 standards require that graduate programs must have a full time dean or director who has demonstrated leadership ability through academic and leadership experience in social work and, that usually, her/his educational credentials include a master's degree in social work or a doctorate in social work. Further, as with the undergraduate requirements, faculty who teach required practice courses or direct field practicum shall hold credentials that include a master's degree in social work and two years post-master's degree social work experience (CSWE, 1988, pp. 16-17; CSWE, 1991, pp. 64-65; CSWE, 1993, pp. 9-10). As is evident, the Council on Social Work Education does not require that those persons teaching in graduate schools of social work hold a doctoral degree in social work. This explains the 100% non-compliance rate with SACS 1987 standards. However, when the 1993 SACS accreditation standards are applied (accepting the MSW as the terminal degree), 92% of the schools would meet the requirements.

Is it time for CSWE's Commission on Accreditation to accept and require (as most professional schools do) the doctoral degree in social work as the terminal degree in the field for those wishing to teach at the graduate level? While it can be argued that in schools of social work it is important to have diversity, it can also be argued that infusion into schools of social work by those without MSWs and doctoral degrees in social work create

an ill defined base for the profession. Further, while doctorates in social work might have been few in number in the 1970s, that is no longer the case. Can we as a profession with an adequate number of appropriately trained doctoral level educators afford to continue to employ those with only related degrees? Does hiring those with related degrees dilute or enhance the profession? Should social work education continued to be classified as an exception to the SACS standards or should we as a profession change our out dated views on the MSW as the terminal degree? And although CSWE does not seem to value the doctoral degree, increasingly universities do.

Employment, Promotion and Tenure in Social Work Education

An analysis of the advertisements for social work faculty in *The Chronicle of Education* from 1987–93 reveals that in fact, both undergraduate and graduate programs in social work are recruiting faculty who have not only an MSW but, too, a doctoral degree in social work or a related field. While some smaller institutions may be willing to interview candidates who are ABD, recruitment of persons with only the MSW is not being done in either undergraduate or graduate programs of social work.

Equally vital is the issue of promotion and tenure in undergraduate and graduate programs of social work. The general standard for promotion and tenure in higher education institutions is the assurance that the candidate holds the highest possible degree in her/his field. Speaking of social work educators, Spaulding (1990) states, "At the graduate/joint level, doctorates are held by the majority of faculty in the top three ranks" and "full professors are more likely to have doctorates than master's degrees" (p. 11).

Because in schools of social work it is no longer the practice to hire, promote, or tenure faculty with just the master's degree, the accreditation standards of social work's professional accreditation body need to reflect the pragmatic reality in higher education. In social work, the highest degree or terminal degree is the PhD or the DSW. It seems to be the required credential for employment, promotion and tenure and should become CSWE's standard.

Although subsequently changed, partially because of the results of this study and the outcry from CSWE to SACS around the issue of non-compliance, the College Commission of the Southern Association of Colleges and Schools is to be commended for its willingness to identify the reality of higher education by requiring a strict interpretation of its *Criteria* (1987) section dealing with the credentials of undergraduate and graduate educators. With regard to faculty qualifications, the 1987 SACS standards seem to better reflect the reality of the marketplace, and the faculty qualification definitions as in the *Criteria* (1987) also tend to support the guidelines for promotion and tenure at major universities (Tulane University, 1986; University of Georgia, 1989; Virginia Commonwealth University, 1983; West Virginia University, 1986). Because doctoral programs in social work and persons with doctoral degrees in social work are no longer scarce (Spaulding, 1990) and because it is increasingly difficult to be hired into a social work baccalaureate or graduate program without a doctoral degree in social work or an MSW with a doctorate in a related field, it is now time for the Council on Social Work Education to join with the College Commission of the Southern Association of Colleges and Schools and upgrade the CSWE standards to accept the doctoral degree in social work as the terminal degree necessary for teaching in higher education. Toward this end, research is needed that substantiates or refutes the idea that having the doctoral degree, in fact, provides a better credential than not having one, and that having a doctoral degree in one's specific field versus a related field makes one a better educator in that field.

References

- Berengarten, S. (1981). Accreditation: its nature and objectives. *Social Work Education Reporter*, 29:3 (September): 10-14.
- Brassie, P. S. (1979). Accreditation: ensuring quality in postsecondary education. *Journal of Physical Education and Recreation*, 50:3 (March): 19-21.
- Council on Social Work Education (27 August 1993). First draft of standards for accreditation. Alexandria, VA: Author.
- Council on Social Work Education (March 1988). *Handbook of accreditation standards and procedures*. Alexandria, VA: Author.
- Council on Social Work Education (October 1991). *Handbook of accreditation standards and procedures*. Alexandria, VA: Author.

- Crow, R. T. and Kindelsperger, K. W. (1975). The PhD or DSW? *Journal of Education for Social Work*, 11:3 (Fall): 38-43.
- Evangelauf, J. (24 May 1989). Odd battle over accreditation of business programs divides colleges, spurs evaluation of standards. *The Chronicle of Higher Education*: A13.
- Feltner, B. D. and Savage, K. D. (1970). *Qualifications of those who teach professional education courses: A comparison between public and private colleges in Georgia, Louisiana, Mississippi, and Virginia*. Athens, GA: Institute of Higher Education: The University of Georgia.
- Finklestein, M. J. (1984). *The American academic profession*. Columbus, OH: Ohio State University Press.
- Galbrath, M. W. and Gilley, J. W. (1985). An examination of professional certification. *Lifelong Learning*, 9:2 (October): 12-15.
- Millard, R. J. (1983). The accreditation association: ensuring the quality of programs and institutions. *Change*, 15:4 (May/June): 32-36.
- Rock, D. A.; Centra, J. A. and Linn, R. L. (1970). Relationships between college characteristics and student achievement. *American Research Journal*, 7:1 (January): 109-121.
- Scales, E. E. (1969). *Academic and professional preparation of faculty in higher education institutions in the south*. Atlanta, GA: Commission on Colleges: Southern Association of Colleges and Schools.
- Southern Association of Colleges and Schools (1987). *Criteria for accreditation: Commission on colleges*. Atlanta: Author.
- Spaulding, E. C. (1990). *Statistics on social work education in the United States*. Alexandria: Council on Social Work Education.
- Thrash, P. A. (1979). Accreditation: a perspective. *Journal of Higher Education*, 50:2 (March/April): 115-120.
- Troutt, W. E. (1979). Regional accreditation evaluative criteria and quality assurance. *Journal of Higher Education*, 50:2 (March/April): 199-210.
- Tulane University (1986). *Faculty handbook*. New Orleans: Author.
- Tully, C. T. and Walker, E. J. (1991). Faculty qualifications and accreditation standards: the Southern Association of Colleges and Schools survey. *Instructional Psychology*, 18 (4): 13-27.
- Young, K. E.; Chambers, C. M.; Kells, H. R. and Associates (1993). *Understanding accreditation: Contemporary perspectives on issues and practices in evaluating educational quality*. San Francisco: Jossey-Bass.
- University of Georgia (1989). *Guidelines for appointment, promotion, and tenure*. Athens, GA: Author.
- Virginia Commonwealth University (1993). *Guidelines for promotion and tenure*. Richmond: Author.
- West Virginia University (1986). *Guidelines for promotion and tenure*. Morgantown, WV: Author.
- Wodarski, J. S. (1979). Critical issues in social work education. *Journal of Education for Social Work*, 15:2 (Spring): 5-13.