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CREDENTIAL INFLATION AND THE PROFESSIONAL DOCTORATE IN CALIFORNIA HIGHER EDUCATION¹

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ABSTRACT

The article argues that the time has come to change California's 1960 Master Plan for higher education by permitting the California State University (CSU) to award the doctorate in selected professional programs. The article also addresses the inadequacies of the joint doctorate as the means to remedy degree or credential creep; the CSU's focus on securing permission to grant the Ed.D. rather than other professional doctoral degrees; and the dominant role played in the State by the CSU relative to the UC in master's level education. Subsequently, the article considers why degree and credential creep occurs and explanations for the changes going on in physical therapy and audiology; and it explores other fields where degree changes are in flux.

The original 1960 Master Plan for higher education in California granted the University of California (UC) sole authority to offer the doctoral degree. In so doing, it did not differentiate between the Ph.D., the degree which drives the basic research culture of the UC and represents knowledge creation, and the professional or clinical doctorate, guided by the application of knowledge.^{2,3} This article argues that the time has come to change that Plan by permitting the California State University (CSU) to award the doctorate in selected professional programs. The fields of study should be those where the doctorate is replacing the master's degree as a requirement for professional practice and where accrediting agencies can continue to assure adequate quality of preparation. For example, both the physical therapy and audiology accrediting organizations have recently announced that the preferred degree for physical therapy, and the required (2007-2012) degree for audiology, will be the professional doctorate (the D.P.T. and Au.D., respectively). These are fields in which the CSU has built strength at the master's degree level, but in which the UC has shown little interest. Therefore the CSU

constitutes California's only public source for such professionals, and needs to continue to prepare such professionals despite the change in degree. Without being able to award the doctorate in these fields, and because the UC has shown little interest in such programs, California will further its dependence on private higher education and thereby erode a valuable public resource.

Degree inflation is not new - and keeping curricula current with the ever-increasing variety and levels of credentials, diplomas and certificates needed for professional practice is commonplace in higher education. Academics in universities know this process is required to maintain accreditation, to ensure the licensing of current or former students, and to link educational preparation with the job market. Given this need for institutions to maintain currency, it's not clear why there should be an impermeable ceiling placed by state government on the types of degrees and credentials offered. Instead, room needs to be made for exceptions when accredited programs and institutions have made a long-standing commitment to certain fields of study and when accrediting agencies governing those fields seek to increase entry level requirements. This need for flexibility in the State-imposed limit on offering the doctoral degree must not have been seen forty years ago as planners in California overlooked the certification spiral and did not anticipate the changing nature and capabilities of the CSU. The Plan also could not have anticipated that an emerging UC research culture would dominate its campuses such that master's level preparation would be of little interest and that some professional programs would receive relatively little attention.

The following pages address the inadequacies of the joint doctorate as the means to address this kind of degree or credential creep; the CSU's focus on securing permission to grant the Ed.D. rather than other professional doctoral degrees; and the dominant role played in the State by the CSU relative to the UC in master's level education. Subsequently, the article explores why degree and credential creep occurs; what explains the changes going on in physical therapy and audiology; and explores other fields where degree changes are in flux.

Keeping up with Credential Inflation and the Joint Doctorate

When the Master Plan was passed, many professional fields were already characterized by the need for the doctoral degree – these included dentistry, medicine (e.g., osteopathy, podiatry, veterinary, chiropractic, optometry), law, pharmacy, and theology. But there were other fields, like nursing, for which associate, bachelor's, and master's degrees were typical. Since that time, some of these fields have experienced the need for higher levels of preparation, among them social work (M.S.W.), business administration (M.B.A.), public administration (M.P.A.), and a number of specializations in nursing. All of these fields have also developed professional doctoral degrees, but none require the doctorate for professional practice. In other fields like physical therapy and audiology, governed strictly by accrediting organizations that sanction entry to practice, the clinical or professional doctorate is now or will be required for entry.

Over the years, the CSU has made attempts, on its own and through the threat of legislation, to offer the professional doctorate, specifically the Ed.D. degree in the field of education. This initiative has been received as a challenge by the UC to its hegemony and more fundamentally to the missions and responsibilities of the two university systems. Thus far, the best the CSU has been able to accomplish has been to offer the

degree jointly, through creating a partnership with another institution, initially only with the UC.

Referred to as the “joint doctorate,” the concept appeared in the Master Plan as a way to appease those representing the CSU. As the following quote from the California Post-Secondary Education Commission (CPEC) 1980 Report on Joint Doctoral Degree Programs shows, there was considerable discussion and compromise in the late 1950s behind the authorization of the joint doctorate:

As the Master Plan Survey Team was completing its work in December 1959, one issue threatened to thwart agreement on the Plan as a whole. The stumbling block was the question of whether, in the differentiation of segmental functions, the State Colleges should be authorized to award the doctorate...a compromise was required because of a concern within the State Colleges that without the authority to grant the doctorate, and with the research function already assigned to the University of California, the State Colleges would be reduced to second-class status as academic institutions. For its part, the University faculty had little incentive for sharing either of these functions, its agreement to the joint doctoral plan was a concession, of course, but a relatively innocuous one that did not require the University to relinquish control over doctoral level instruction in higher education. (p. 2)

Pressure from the CSU for the independent doctorate has occurred several times since the early 1960s. Once, in the late 1960s, the result was authorization to expand the joint doctorate concept beyond the UC, to enable private doctoral granting institutions to partner with the CSU. In 1985, the Trustees of the CSU adopted a resolution proposing to extend the system’s mission to include awarding an independent doctoral degree (Ed.D.) in educational administration. CPEC studied the proposition and found that there was no need for additional doctoral programs in educational administration and the resolution was never implemented (CPEC, 1992).

Even though the “joint doctorate” mechanism has been available for more than forty years to address CSU’s interest in doctoral level education, it has not been used very often, and when it has, primarily in the field of education. In the decade of the 1970s, for example, there were 58 joint doctoral degrees awarded in all fields, with 129 in the 1980s and 363 in the 1990s. To take one year, 1999-2000, there were 40 joint doctorates awarded, including 7 in biology from one CSU campus, 15 in education from three campuses, 2 in the health sciences from one campus, 12 in psychology from one campus, and 4 in the social sciences from one campus. During the same year, the UC reported an average enrollment of more than 19,000 doctoral students. The Berkeley campus alone awarded 753 doctoral degrees that year (statistics from UC Berkeley website, 2003). In recent years, the joint doctorate – whether oriented to the applied professional or to basic research – has only been used by the Fresno, San Diego, and San Francisco campuses of the CSU (statistics from UC Office of the President and CSU Office of the Chancellor websites, 2003).

Although the joint doctorate looks like a way for the CSU to be a much more active participant in doctoral level preparation, there are many constraints on its use. Among them are the lack of interest on the part of the potential doctoral granting partner; a lack

of motivation and trust across two campus faculties who do not normally work together; a lack of new funding accompanying the increased costs to the CSU and the partner for engaging in the partnership; the long and bureaucratic process of securing approval; the lack of appropriate facilities on one or the other campuses; the tendency for the doctoral granting institution to have final authority or control over issues like admissions, composition of doctoral committees, etc.; differences in priorities driven by institutional mission; physical distance between institutions thereby limiting contact; and major differences in faculty reward structures and workloads.

The CSU and its Focus on the Doctorate in Educational Administration

The most recent effort by the CSU to award the doctorate on its own occurred in 2000 as a response to a bill (Assembly Bill 1279) introduced into the California State Legislature in 1999. While the Bill called on CPEC for a study of the status of the joint doctorate in meeting the need for applied doctorates in the State of California, the lack of professional joint doctorates offered by the CSU forced the study to focus on the Ed.D. The study was published in December 2000 and looked at both supply and demand for the Ed.D. It did not support the CSU as it reported that there was and would continue to be an adequate number and percentage of public school administrators who hold the doctorate. The study pointed out that there was no requirement for principals or superintendents to hold the doctorate and that job descriptions for such positions did not mention the doctorate as a condition of employment. It also found no evidence that possession of the Ed.D. was linked to school administrator performance. The report did find that private universities were the principal source of the Ed.D., and that the cost to attend them limited access to some students; that there were other areas like educational psychology and tests and measurement in education where the Ed.D. was seldom offered and should be; and that according to CSU Deans of Schools of Education there might be a shortage of professional doctorates among faculty members in schools of education. Finally, the report noted that possession of the Ed.D. among community college administrators was scarce (CPEC, 2000).

The CSU was not content with the CPEC study and released a counter-statement, in the form of a report, in March 2001 (CSU, 2001). It argued that K-12 schools were becoming more complex, requiring leadership to have advanced training; that the CSU was precluded from filling this demand by the Master Plan; and that when community colleges and faculties of schools of education were added to the list, there clearly was a need for expanded supply. Furthermore, the CSU statement pointed to the dominance of the private sector in offering the Ed.D., the expense of which limited access, especially among minority groups.

Subsequent actions by the CSU made it clear that no matter what facts were produced by an independent inquiry by the CPEC, the CSU was going to continue to argue in favor of granting a stand-alone doctorate in education. It again failed to convince the UC, however, and in March 2001, UC President Atkinson wrote to the legislature restating the fact that the CPEC study found that there would be no shortage of Ed.D. degree-holders in educational administration and that no new programs were needed (Atkinson, 2001).

The CSU apparently did not convince others as well, for in November 2001, the CSU and UC agreed to continue to use the joint doctorate (CPEC, 2001). The agreement did,

however, make some changes to the program, designed primarily to increase production. For example, the agreement indicated that there would be a new joint doctoral board to expedite the approval process; that new funds for start-up and additional permanent tenure-track faculty positions would be available; and that there would be regional consortia to offer the joint degrees. The results, launched in 2003-2004, and to be implemented in 2004-2005, were two consortial initiatives, one in the north and one in the south, involving the UC and several campuses of the CSU. Not surprisingly, given the context of their birth and the arguments of the CSU for the Ed.D. in educational administration, the programs are aimed at preparing professionals for urban educational leadership positions, or in other words educational administration.

It is not clear why the CSU has pursued the Ed.D. exclusively and with such determination over the last forty years, thereby ignoring the emergence of the doctorate in fields where it has dominance. The clearest argument is that the CSU grants credentials, through State of California-approved programs, to a very large portion of the school practitioners in the state, from teachers to counselors and principals, and that the Ed.D. would build in this direction. But in higher education circles the Ed.D., and especially the Ed.D. in educational administration, has often been perceived as a degree with relatively little academic rigor, where theory and research do not form the knowledge base driving inquiry and practice.⁴ Maybe the CSU was driven to the Ed.D. by legislators or trustees, or maybe the CSU administration itself wanted it. But in reality, even with the CSU producing its own report citing a need based on the complexities of an unknown future, there was no constituency readily pushing for the CSU to deliver the Ed.D. School principals, superintendents, and community college presidents made no organized effort to support the initiative. There was no accreditation organization that was pushing for such degrees; and, in the absence of evidence to show that administrative behavior changed with the degree, parents, students, and the community at large had no vested interest in the proposition. The CSU faculty, including most College of Education faculty, were not enamored with the idea and, when asked, the CSU academic senate approved the initiative only on the condition that new resources be made available to implement programs. Campus leadership, especially the provosts and vice-presidents for academic affairs, debated the issue and most questioned why it should be a CSU priority.⁵

While the CSU central administration was fighting the battle with the UC over the Ed.D.,⁶ it showed no concern for the professions where the doctorate was being considered for entry into professional practice. For the CSU to pursue one of these doctorates – in physical therapy or audiology, for example – might have made more sense, as doing so would have met many of the above criticisms, including having the support of accreditation standards, professionals in practice, CSU faculty, and campus administrators. To do so would also have challenged the UC directly, since the system had decided years ago that the basic research mission of the UC did not fit with preparing such professional practitioners.

The Precursor to the Professional Doctorate: The Professional Master's

An important argument in favor of permitting the CSU to offer the professional doctorate is its long-standing, and dominant, public role in the awarding of the professional master's degree. For example, in the 1993-1994 academic year the CSU awarded 12,678 master's degrees, and in 1998-1999 it awarded 13,688, representing an 8%

increase. This increase came primarily in the field of education and in the other professions. Of the 13,688 master's degrees awarded by the CSU in 1998-1999, for example, 4,111 of the master's degrees were in education, with 4,046 in the remaining professions. By comparison, in the UC, master's degrees awarded in 1993-1994 totaled 6,645, and in 1998-1999, 6,279 – or about half the number of that of the CSU. This amounted to a 5.5% decrease in the number of master's degrees awarded by the UC over the 5-6 year period. Furthermore, only 421 of the UC master's degrees in 1998-1999 were in the field of education and only 1,894 were in the remaining professions.

These figures suggest that in keeping with its doctoral granting mission, the UC is overshadowed by the CSU in master's level production. Campus culture and mission in the two systems are the reason. While at the undergraduate level each system makes a powerful contribution to the needs of the State, at the graduate level the UC does so primarily through basic faculty research and the preparation of Ph.D.s, and the CSU does so primarily through applied and related scholarly activity and through the preparation at the master's level of many of the leaders in the business, government, education, and service sectors. On UC campuses, the master's degree is regarded as en-route to the doctorate or as a consolation prize for not being able to fulfill doctoral level requirements. The UC does not look at the master's degree in most fields as a goal; instead, it is a stepping-stone to the doctorate. On CSU campuses, however, in addition to preparation for pursuing the doctorate elsewhere, the master's degree is necessarily looked at as a terminal degree for many fields. The UC also does not look at some of the professional fields as worthwhile investments on its campuses. Several years ago, for example, UC San Francisco eliminated its audiology/speech and biomedical laboratory sciences programs and attempted to eliminate its physical therapy and nursing programs, calling them too "applied." Nursing was maintained because of pressure from the legislature and physical therapy was maintained as a joint program with San Francisco State (Hallum, 2003).

While the cultures of the CSU and the UC have evolved to the point where they support very different educational missions at the master's level, the real leader in master's level production in California has typically been the independent or private higher education sector, which experienced a 22.6% increase in awarding master's degrees during the 1993-1994 to 1998-1999 period. Almost 11,000 of their 18,152 degrees awarded in 1998-1999 were in education and the professions (UC Office of the President and CSU Office of the Chancellor websites, 2003). The independents also dominate doctoral level production (not including pre-professional doctorates) in the state with 3,030 doctoral degrees awarded by the independents and 2,765 granted by the public sector in 2000-01 (NCES, 2003).

The data show that degrees awarded in fields which have experienced or might experience some inflationary effects in the area of credentialing over the years (e.g., communicative disorders, nursing, physical therapy, public health, rehabilitation counseling, food administration, and social work) often have strong accrediting organizations or organizations of practicing professionals, have the potential for requiring the professional doctorate at some point in the future, and have a long history of being offered in the CSU. As with audiology and physical therapy, should this happen, the CSU will not be able to act independently, as it has in the past, in serving the State in the preparation of these same professionals.

Education and Workplace Participation: Preparing the Professional

I turn now to why degree and credential creep occurs, to some specific reasons for why it has occurred in physical therapy and audiology, and to a discussion of other fields where degree change is common. As indicated above, a common occurrence in educational preparation is the long-term inflationary spiral seen in credentials, diplomas, and certificates needed to enter the work force. This is apparent in the dramatic growth in enrollments in higher education over the last 50 years, the need for more specialized preparation to enter existing and newly created professions, and the treatment of formal education completion as a permit to work. In both two and four year institutions, yearly enrollment increases in higher education equaled 20% in the 1980s and 1990s and are projected to increase by 20% again by 2010. A similar trend can be seen in degrees awarded, with associate and bachelor's degrees granted increasing by 20% and master's and doctoral degrees increasing by 49% and 41%, respectively, from 1985 to 1998 (NC ES, 2000). This educational enrollment increase mirrors, and in some instances may cause, changes in the occupational entry requirements across a broad array of occupations.

The increase in educational preparation for similar jobs occurred throughout the last century and continues today. Collins (1976), for example, notes that in the 1920s a college education was just starting to be the preferred preparation for some executive positions, while it was also becoming more well-defined for the professions. Ultimately, specialized college degrees became the norm in the 1950s. At the lower end of educational attainment, compulsory school attendance was the norm in the 1920s, leading to the high school diploma being generally required for manual labor by the 1960s.

In the professions, the health sciences constitute one of the areas where advanced degree requirements, especially among those connected to clinical practice, have increased systematically. Fields like podiatry, pharmacy, veterinary medicine, and optometry, for example, have required the doctorate for professional practice for as many as fifty or sixty years. While these degrees differ from those proposed in audiology and physical therapy because they do not use the master's degree as an incremental step, their clinical and stand-alone nature set the stage for similar requirements in other applied fields. A third field, speech pathology, does not yet require the doctorate but may be moving in that direction. There will likely be others. For example, it is conceivable that fields like dietetics, certain sub-fields in nursing, and occupational rehabilitation might take such steps.

Because medicine was the leader in setting the professional preparation agenda at the beginning of the 20th century, many of the more subtle changes in curricula, as well as changes in degree requirements, are most apparent in the health-related professions. One might expect to see them in other areas – like social work or gerontology – but these fields do not appear to be following the professional doctorate model. The master's degree in social work (M.S.W.), for example, has been around since the 1930s and even then required two years of study beyond the bachelor's degree (Gartner, 1976). Today, the B.S.W. still represents generalist preparation while the M.S.W. focuses on advanced study and an area of concentration. There are few universities that offer the Doctor of Social Work (D.S.W.) degree, and the Council on Social Work Education (CSWE) is not discussing requiring the professional doctorate for entry into

practice. The closest the CSWE has come to requiring the doctorate is to require it for those faculty who carry leadership responsibilities for social work programs in universities.

Some might explain the relationship between education and occupational participation as a result of increasingly complex demands for greater skills and knowledge on the job. At the same time, however, others suggest that the upward pressure on credentials and diplomas is not related to the demand for higher-level skills, merit, and competence but instead is a means to stratify society by indicators of status and prestige. Brown (2001), for example, outlines alternative explanations for requiring ever-higher credentials as a means to control and restrict membership in higher socio-economic status occupational groups. Thus, the examples of increasing credentials in the health sciences might be viewed in both ways: a result of increasing skills and knowledge, as well as a conscious attempt at maintaining and increasing the status of the profession. Supporting the latter explanation are the actions of the profession itself – through accrediting agencies and licensing boards – who play a catalytic role in the inflation process by raising the requirements for job entry and security.

Historically, this stratification process is apparent. Gartner (1976), for example, describes the dependence on proprietary schools for both medical and legal education during the 19th and early 20th centuries where the emphasis was on learning by doing with a growing emphasis on the use of printed lectures. But as the number of practitioners increased, they themselves favored raising standards and reducing the number of practicing professionals. In legal education, for example, there was a concern with limiting immigrants and children of immigrants from becoming lawyers, as well as legitimizing preparation through a greater dependence on university-based preparation programs. The results included sharp reductions in ethnic minority lawyers and a further distancing of both professions from females (Gartner 1976). Wilensky (1964) describes the way in which such outcomes are produced:

In sum, there is a typical process by which the established professions have arrived: men begin doing the work full time and stake out a jurisdiction; the early masters of the technique or adherents of the movement become concerned about standards or training and practice and set up a training school, which, if not lodged in universities at the start, makes academic connections within two or three decades; the teachers and activists then achieve success in promoting more effective organization, first local, then national... Toward the end, legal protection appears; at the end, a formal code of ethics is adopted. (p. 145)

At the turn of the century, the university became a logical institution to provide protection for professional education, both distancing it from market conditions and raising standards. The merging of scientific knowledge, professional organization needs for academic training, and legitimacy came together and were mutually reinforcing. Between the 1940s and 1950s, there was an explosion in specializations. In medicine, for example, only 17% of physicians were specialists in 1931 whereas over two-thirds were by 1965 (Gartner, 1976). By the 1960s, the nature of professional education was challenged for its distance from practice and its closed, guild-like orientation. The ethnic revival and civil rights movements, also in the 1960s, led to changes in service delivery and access to preparation programs, as well as in the substance of training. One result

of these changes was a new look at linking theory and practice and in the design of internships, clinical experience, and practice strategies (Nyre and Reilly, 1979).

Other causes of credential inflation, at least in both physical therapy and audiology, are changes in the workplace. This comes as a result of the lack of technical and discipline-specific coursework (e.g., exercise physiology, pathokinesiology) received by physicians to carry out diagnostic and treatment functions related to these fields and, hence, the physician's need to rely on others. This lack of physician preparation creates a vacuum in the health delivery system needing to be filled by adding other members, in this case audiologists and physical therapists, to the medical team. While physicians are trained in the treatment of pathology they do not necessarily receive training in rehabilitation (Raggio, 2003).

Physical Therapy and Audiology

If the CSU and other higher education institutions are to maintain their accredited status and deliver to the state the requisite numbers of practicing professionals, they will have to transition their current physical therapy and audiology master's level preparation programs to doctoral programs. At present, five CSU campuses offer the master's degree in physical therapy, six in audiology, and ten in speech language pathology. In 1999-2000, the average number of masters degrees awarded by a CSU campus in physical therapy was 38 and in speech language pathology was 26. These programs would be phased out under the new accreditation guidelines and thus be lost to the State unless they were to offer the joint doctorate. Thus far, only San Diego State with UC San Diego in Audiology and San Francisco State with UC San Francisco in Physical Therapy have chosen to do so.

Physical Therapy. In the case of physical therapy, the entry-level degree in the 1960s was the baccalaureate. At that time the specific physical therapy part of the program was typically 12 months followed by 12 weeks of internship. Between the 1960s and the 1980s, the time increased to 18-24 months for the same bachelor of science degree. The current entry level to the profession requires a master's degree and is typically 27 months in length (Hallum, 2003).

The new professional (D.P.T.) and research (D.P.T.S.C.) oriented doctoral programs in physical therapy will move toward different career paths. In the clinical or professional case, the doctorate will require an additional year of study, experience as a member in a health care team, and considerable involvement in consultation, assessment, and rehabilitation of patients with movement dysfunction (Byl and Wanek, 2003).

Arguments from within the profession pushing for this new level of preparation include advances in basic and clinical science, medications, applied engineering, and technology. Mentioned are, among others, gene therapy, chemotherapy, pharmaceuticals, surgery, radiation, tissue implants, organ transplants, and joint replacements. Major breakthroughs in neuroscience in the last decade have also created the need for training and preparation in the application of new therapeutic regimes.

According to Byl and Wanek (2003), there were 199 accredited physical therapy programs in the country in 2001. Only eight of these offered a DPT degree. In 2002 the number grew to 49, with another 30 programs in the process of modifying their curricula.

None were in California. Potential students, seeing the changing entry requirements, have been gravitating to programs granting the clinical doctorate in recognition of the eventual professional entry-level requirements. The authors report that all of the private universities with a history of offering master's degree programs in physical therapy in California are undergoing substantive change and review by WASC in order to offer it.

Public higher education is lagging in its physical therapy doctoral level program development, while surveys of students in the state indicate that 75% of master's level students would pursue the doctorate. One reason public institutions are not proceeding is the cost of introducing a new degree program. While the private sector can more easily pass the costs directly on to students, public institutions have difficulty doing the same, and there is often little new money available from the state to underwrite the costs. Combining study and professional practice is one way being talked about to meet this challenge. Using this model, students are first required to pass the licensing exam along with completing the master's degree, permitting them to work while pursuing the doctorate. The hope is that this approach helps them pay a special tuition and fee rate which will make the program self-supporting but at the same time cheaper and thus competitive with private institutions.

Audiology. Proponents of the clinical doctorate in audiology (Au.D.), like those for physical therapy, employ the same basic arguments associated with advances in scientific knowledge and professional practice to support their cause. Audiology traditionally is associated with speech and language pathology programs or communicative science disorder programs in either the health sciences or in special education programs. The accrediting organizations – the American Speech-Language Hearing Association (ASLHA) and the American Academy of Audiology (AAA) – have established 2012 as the year in which new graduates in the profession must hold a clinical doctorate to be licensed to practice as an audiologist. Approved programs must be in place to prepare them by 2007 (Raggio, 2003).

Audiology developed from the fields of otology and speech pathology. The field emerged following the World War II, when military centers were established to evaluate returning veterans and dispense hearing aids. Audiology programs in universities were first offered in the 1950s. Since that time the clinical challenges for audiologists have grown, requiring that they be more knowledgeable in the diagnosis of, among other things, hearing loss, neurophysiological assessment, hearing aids, assistive listening devices, cochlear implants, and vestibular assessment. To reach a level of proficiency, the profession argues that master's level preparation currently is inadequate (Raggio, 2003).

Audiologists work in school districts, hospitals and clinics, industrial organizations, otolaryngology offices (ENT), rehabilitation facilities, and skilled nursing facilities, and are also found in private practice. Like optometrists, the audiologist wishes to be a stand-alone professional providing an independent diagnosis as part of a health delivery team. As with physical therapists, the audiologists argue that physicians are unable to provide diagnosis or treatment for the eighty-five percent of the individuals with a sensorineural hearing loss that is not treatable with surgery or medicine.

Currently, there are 119 ASHA-accredited master's degree programs in the United States. These programs are expected to be phased out over the next decade with some being replaced by programs offering the Au.D. degree. This means that some of the ten

campuses in the California State University system which currently offer master's degrees in the communicative disorders/speech/audiology fields will either drop audiology from their curricula or pursue a joint doctorate with a cooperating institution. There are also twenty Au.D. programs currently in existence in the country, including four technology-mediated distance education programs. None are currently in existence in California, although one is being proposed involving San Diego State University and the University of California, San Diego. A second, between San Francisco State University and the University of California, San Francisco, was proposed by SFSU but rejected by the UCSF as it has no counterpart faculty or programs due to having eliminated its audiology program several years ago (Raggio, 2003).

As the public sector scrambles to build curricula, hire faculty and find funds to keep up with these changes in physical therapy and audiology, some in the private higher education sector have taken to the internet to offer doctoral programs online to those already licensed at the master's level. Some of these programs are criticized for the poor quality of their faculty, their simplification of the basic sciences and research, their lack of on-site practice, their very high cost, and their inability to offer students the opportunity to work with technical equipment. Oftentimes these programs combine some on-site coursework but leave clinical practice to the students to arrange in their local communities. Critics say these efforts encourage students to concentrate more on securing the diploma as a work permit than on combining knowledge with practice under the guidance of a well-prepared faculty member. Such online education is reminiscent of the early development in the medical and legal professions as proprietary schools operated early and parallel to universities for training. As Haber (1974) notes, the for-profit schools were "...established by practitioners and supported by student fees... in which entry... became exceedingly easy and graduation a matter of course" (p. 251).

The Dynamics of Changing Professional Entry Requirements

Potentially, there are other fields that will likely challenge higher education to change in order to continue traditional service patterns. These are not the Ed.D. in educational administration, the D.P.A. in public administration, the D.M.A. in musical arts, the D.B.A. in business, the D.Eng. or D.E.S. in engineering degrees, or the D.L.S. in library science, some of which have been around for a long time and are not associated with requirements for entry into professional practice. Nursing specialties are more likely, but as with the others, nursing has had professional doctorates in place, the D.N.Sc., D.N.S., or D.S.N., but thus far none are required to practice. Instead, many of these fields, including Ph.D.s in business and engineering, are often only required for research or for joining the faculty of university-based programs to train others.

Nursing provides an example of the tensions among preparation programs and the job market and offers insights into the dynamics of how a profession might struggle to determine appropriate educational credentials for different roles and responsibilities. The high demand for nurses, especially in California, has exacerbated the internal pressures for change for more than fifty years. There is a tendency for the field to gravitate toward fewer requirements to meet the demand (Yorker, 2003). A complication is the fact that a majority – probably 70% – of the practicing nurses in the state hold an Associate in Arts Degree in Nursing (A.D.N.) degree, making them a powerful lobby for holding back credential and degree requirements. Because of cost implications, these latter nurses are supported by hospital associations and HMOs, which also champion expanded roles

for individuals who act as pharmacy assistants and physical therapy assistants. Some refer to this as the “dumbing down” of professional preparation for basic services (Zingale, n.d.).

Thus, one area of some controversy in nurse preparation concerns the associate level degree (A.D.N.) on one side, and the bachelor’s degree in nursing (B.S.N.), on the other. The accrediting organization, the Commission on Collegiate Nursing Education (CCNE) of the American Association of Colleges of Nursing (AACN), is charged with accrediting bachelor’s level programs. It is being accused by their principal accrediting organization, the National League for Nursing, of trying to close ADN programs and thus deny the RN license to associate degree graduates (Long and Bednash, 2002). At the center of the controversy is the issue of whether there are differences in the preparation of A.D.N.s and B.S.N.s, with the former arguing “no” and the latter arguing “yes.” Efforts are continuing to differentiate roles and responsibilities among the two groups of practitioners, as well as to support the articulation of the two degrees, thereby encouraging holders of the A.D.N. to complete bachelor’s level programs (American Association of Colleges of Nursing, 2002).

There is additional tension at the upper end of the credential spectrum in nursing, also driven by what the profession refers to as “differentiated practice” – or the structuring of nursing roles on the basis of education, experience, and competence. This means moving more bachelor’s level programs toward the master’s degree (M.S.N.), and moving still others toward the professional doctorate (D.N.Sc.). With the number of specialties in nursing – including administration, acute care, anesthesia, forensic nursing, gerontology, midwifery, neonatology, primary care, public health, and psychiatric care – the need for post-baccalaureate preparation surely will be increasing (American Association of Colleges of Nursing, 1995).

Because most nursing programs in the State are over-enrolled, there is also a need for higher level preparation – at the doctoral level – for individuals joining the faculty of schools and colleges of nursing so that practicing nurses can be prepared. Early on, nursing was dependent on the Ed.D. at the faculty level; subsequently it sought the Ph.D. in the social sciences. In the 1960s and 1970s more nursing faculty prepared in basic science were trained. Since the 1980s, either the Ph.D. or one of the professional doctoral degrees – D.N.Sc., D.S.N. or D.N.S. – in nursing became the common degree for faculty status. Of the 70 nursing doctoral programs in existence in 1999, 88% offered the Ph.D. and only 12% the D.N.S. or D.N.Sc. Despite the demand for nursing faculty, however, there has actually been a decline in graduation rates at the doctoral level. Only 50% of nurse faculty teaching in B.S. and graduate programs hold doctorates (Cummings Stegbauer, 2002; Crabtree, 2002).

California’s attention to producing nurses has been focused on the A.D.N. and the bachelor’s level, as the nursing shortage is projected to be as high as 77,000 by 2020. Currently there are 71 associate degree programs and 22 baccalaureate and master’s degree R.N. programs in California, of which 13 of the latter are at the CSU. The UC has no undergraduate programs and at least on one campus, UCSF, there has been a history of attempting to eliminate nursing at the graduate level. It is said that only intervention by the legislature saved it from being tossed out. Again, the observation holds that the CSU is a primary producer of practitioner degrees – in this case nursing –

and it is apparent that there is considerable fluidity in the level of degrees ultimately needed for different roles in the field (CPEC, 2003).

Nursing is not alone in demonstrating the dynamics of changing requirements. For example:

- The American Occupational Therapy Association (AOTA) will begin to require the master's degree for professional practice in January 2007 and, because of physical therapy's move to the doctorate, a similar path may lie in the future for occupational therapists;
- The field of dietetics has a lengthy 27 unit post-baccalaureate requirement addressing the explosion of information in the food sciences;
- Other fields like laboratory pathology and physician assistant programs are also experiencing certification creep at the graduate level;
- The National Athletic Training Association (NATA) has increased its requirements for undergraduate students to be eligible for the national exam. Whereas formerly individuals could sit for the exam without the bachelor's degree, they now must have graduated from a program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) to sit for the exam;
- Sports medicine programs build on a base of both athletic training and physical therapy, and like others mentioned above, require faculty heading programs in universities to have the doctorate. Although this is often an Ed.D. degree, recently the field is experiencing a demand for Ph.D.-prepared individuals in Sports Medicine (Laudner, n.d.).

Conclusion

During the more than forty years that have passed since the creation of the California Master Plan for higher education, which capped the CSU at the master's degree level, at least four major changes have occurred:

- first, the CSU has emerged as a system of considerable quality, with capable faculty, good facilities, and competitive students;
- second, the CSU has also emerged as the major public source of professional master's degrees for the State;
- third, as a result of a combination of scientific advances and actions by professional accrediting associations, former master's degree requirements for professional practice – specifically physical therapy and audiology – are being replaced by the doctoral degree; and,
- fourth, the UC has emerged as an institution devoted to basic research and doctoral level preparation and shows relatively little interest in master's degree preparation in most fields.

The increased requirements for professional practice that have limited the CSU's future as a source of practitioners have evolved over time. One might ask, therefore, what action, either in CPEC, in the legislature, or in the CSU, has occurred to respond to these changes? The answer is just one, the repeated efforts by the CSU to convince the legislature and others that it should be given permission to grant a stand-alone Ed.D. degree in educational administration – a field where demand is being met, the CSU has

little apparent strength, and where there is no constituency supporting the degree for entering practice.

Some will argue that the joint doctorate is in place and is the appropriate response to this kind of challenge. While it is true that the Master Plan gives the CSU authority to offer doctoral degrees jointly with another institution, the process is extremely cumbersome, and with the exception of recent efforts to offer the Ed.D., has seldom come with additional funding. The statistics on the limited use of the joint doctorate, and those few who have attempted to put one together, indicate how difficult it is to overcome institutional culture, find funding, and build trust and mutual respect across campuses. By relying on the joint doctorate and limiting the CSU, the State encourages the private sector to increase its foothold in offering programs. Such programs are often said to be of questionable quality and all are very expensive.

It may be argued that the professional fields most immediately affected by this kind of degree creep – audiology and physical therapy – do not account for sufficient numbers of graduates to be of concern to the CSU or to the State. But such an attitude throws away the many years of building strength through competitive faculty hires, libraries, and laboratories in the CSU. It also raises the question of how long the State of California will continue to respond to the long history of credential inflation by forcing institutional marriages, denying the CSU's academic strengths, and ignoring the UC's limitations.

When the Master Plan was being formulated in the 1950s, and the CSU was a mixed bag of teaching institutions, the case would have been difficult to make for offering the doctorate. But many of the CSU campuses are equivalent in every way to doctoral degree-granting institutions in this State and in other parts of the country, and thus it is time that the Master Plan be updated to recognize these strengths and thereby to enable the CSU to maintain its major public presence in these professional fields.

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Notes

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² Flexner defines “professional” as follows: “(1) Professional activities have a large intellectual component; the skill, craftsmanship, or practice of a profession rests on a body of knowledge. This knowledge is not only empirically derived but is also a product of research or scholarly activity. (2) The practice of a profession involves a craftsmanship, meaning knowledge is put to use; this craftsmanship is teachable and learnable, and is socially useful. (3) Society allocates to those who practice a profession a great measure of control of the education for it and the right to be self-policing. The quality of professional service, it is presumed, is to be judged only by other professionals in the same field. Hence a profession is governed by a code of ethical conduct to which its members are held, and the professional person is presumed to be basically motivated by altruism. (4) The professional practices his craftsmanship in terms of professional judgments of his peers” (Flexner, 1915, p. 3).

³ The National Center for Educational Statistics defines doctoral degrees in two ways: The first includes those with the title of Doctor, with the Ph.D., the Ed.D. (education), the D.M.A. (musical arts), D.B.A. (business administration), and D. Eng. or D.E.S. (engineering). NCES indicates that most of these fields require the master’s degree as a pre-requisite. This mixture of degrees is separated from others, referred to as First-professional degrees. These latter degrees require at least two academic years of work prior to entrance and a total of at least six academic years of work to complete. By this definition NCES includes D.D.S. or D.M.D. (dentistry), M.D. (medicine), O.D. (optometry), D.O. (osteopathic medicine), D.Pharm. (pharmacy), D.P.M. (podiatric medicine), D.V.M. (veterinary medicine), D.C. or D.C.M. (chiropractic), J.D. (law), and M.Div. or M.H.L. (theological professions).

⁴ Although many point to Harvard’s School of Education as an example of an institution which only grants the Ed.D. in the field of education, most agree that it is an exception rather than the rule.

⁵ The author was Provost and Vice President for Academic Affairs at San Francisco State University during this period and participated in these discussions.

⁶ Although Harvard was the first institution to offer the Ed.D., UC Berkeley offered the first advanced graduate program in education in 1917. This program was renamed as an Ed.D. in 1922 (Douglass, 2000).

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