For a period going back almost a decade, substantial monetary and personnel assistance has been made available to African legal education from sources in the United States. What has this American assistance accomplished, does it merit continuation, and if continued what form should it take? This article discusses these issues. There has been enough experience with American participation in African legal education to make a fair appraisal of it, and there has been so much growth and change in African law teaching institutions during the last decade that a reassessment of American assistance policies toward African legal education is now in order. To what extent, for instance, are qualified Africans now available to teach law so that expatriates are no longer essential for this purpose? As the need for expatriate law teachers declines in Africa, is a shift to other kinds of foreign assistance related to African legal education justified? Given the present availability of legal education in Africa, should African students be encouraged to attend law schools in the United States? And, if so, what kinds of students and for what purposes? Similar questions are also appropriate for other parts of the developing world where foreign aid to legal education is now being provided or is under consideration and to other donor nations providing or contemplating such aid. What the United States should do for African legal education may be something of a prototype for other peoples and places.

Higher educational facilities in Africa have expanded greatly during the past decade and legal education has shared in this expansion.1 There are now 43 African universities with faculties

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1 A fairly comprehensive bibliography on African legal education appears below.

of law, twelve of them in South Africa, nine in Arab countries bordering on the Mediterranean, and the remaining 22 in the great middle belt of the continent. Twelve of these 22 provide instruction


2 The term "faculty" is used here in the European-British sense, and institutions are included in this calculation only if classified as law faculties by the universities themselves. The universities so included are: Algeria, Universite d'Alger (founded 1879), French-speaking, Burundi, Universite Officielle de
predominately in English, eight in French, one in Italian, and one in Arabic. Five other universities in the middle belt area have the


The data on African legal educational institutions in this note and notes 3 and 6-8, infra, are drawn primarily from these sources: Ass’n of Commonwealth Universities, Commonwealth Universities Yearbook, 1970 (47th ed. 1970); Europa Publications, The World of Learning, 1970-71 (21st ed. 1971); Intl. Ass’n
equivalent or close equivalent of law faculties, four providing instruction in English and one in French. In addition, a miscellaneous group of 20 or so nonuniversity institutions in Africa provide professional legal education at or near the university level. These include institutes of administration, professional training schools in English-speaking Africa, institutes of juridical studies in French-speaking Africa, and centers for the study of Islamic law. Many of the African law faculties and other law training institutions have been established within the past decade, after independence in most of the new nations, and even many of the African universities are


3 Ivory Coast, Universite d'Abidjan (founded 1958, university status 1964), French-speaking, School of Law. Lesotho, The University of Botswana, Lesotho and Swaziland (founded 1945, university status 1964), English-speaking, Department of Law (years three and four in law taken at the University of Edinburgh, Scotland). Liberia, University of Liberia (founded 1862, university status 1951), English-speaking, Louis Arthur Grimes School of Law. Malawi, University of Malawi (founded 1964), English-speaking, School of Law in the Institute of Administration. Sierra Leone, University of Sierra Leone (founded 1827, university status 1967), English-speaking, School of Law in the Faculty of Economic and Social Studies, Fourah Bay College. The Department of Law in the Faculty of Social Studies in the University of Rhodesia (founded 1955, university status 1970), English-speaking, is also the substantial equivalent of a law faculty.

Only twelve African universities have no faculty, school, or department of law. These are in Angola, Estudos Gerais Universitarios de Angola; Congo (Kinshasa), Universite Libre du Congo; Ghana, University of Science and Technology; Mauritius, University of Mauritius; Morocco, Universite Ben Youssef de Marrakech; Mozambique, Universidade de Mocambique; Nigeria, University of Ibadan; Rwanda, Universite Nationale du Rwanda; South Africa, University of the North and University of the Western Cape; United Arab Republic, American University in Cairo and University of Assiut. It appears that for the near future in Africa the period of establishing new university units of instruction for law is about over. Except in a few countries, there is not likely even to be much demand soon for new departments, schools, or faculties of law.

4 These are primarily training centers for government civil servants. Examples are the Kenya Institute of Administration and The Institute of Public Administration in Uganda.

5 These include the Kenya School of Law, which has been offering a full program of academic training for prospective advocates, the Nigerian Law School, which provides a one-year post-university law course that must be successfully concluded before qualification as a legal practitioner, and the Uganda Law Development Centre, which will give a post-university training course for legal practitioners similar to that provided by the Nigerian Law School, plus training programs it now has under way for lay magistrates, the police, and military personnel.

6 For example, the School of Law at the Centre d'Enseignement Superieur de Brazzaville located in Congo (Brazzaville) and the Instituts d'Etudes Juridiques located in Constantine and Oran, Algeria, have such programs.

7 The College for Arabic and Islamic Studies, Omdurman (Sudan) is an example.

8 Law degree programs were started in the following institutions on the dates indicated: Haile Sellasse I University (Ethiopia), 1963; University of
In the middle belt area particularly, total law student enrollment has increased tremendously during the past decade, in large part because so many new law teaching institutions have recently been set up there.

Nairobi (Kenya), 1970; University of Botswana, Lesotho, and Swaziland (Lesotho), 1965; University of Ghana, 1962; University of Liberia, 1954; University of Malawi, 1968; Ahmadu Bello University (Nigeria), 1962; University of Ife (Nigeria), 1962; University of Lagos (Nigeria), 1963; University of Nigeria, 1961; Gordon Memorial College, predecessor of the University of Khartoum (Sudan), 1947 (University of London degrees awarded from 1947 to 1958); Université de Dakar (Senegal), 1947; University College, predecessor of the University of Dar es Salaam (Tanzania), 1961; Makerere University, Kampala (Uganda), 1970; University of Zambia, 1967. Subdegree programs in law or law as a subject of instruction in other faculties or departments preceded in some instances the law degree programs of the above institutions. For example, University College, predecessor of Haile Sellassie I University (Ethiopia), had a certificate program in law during the 1950's; the Faculty of Law in the Faculty of Commerce in University College, Nairobi, predecessor of the University of Nairobi (Kenya), beginning about 1964 offered law courses to bachelor's degree candidates in commerce, arts, and science; the Legal Department of the Institute of Administration, predecessor of Ahmadu Bello University (Nigeria), offered law courses commencing in 1959; Islamic law was taught at Gordon Memorial College shortly after it opened in 1902, and a School of Law gave other instruction in law commencing in 1936—both institutions eventually being absorbed into the University of Khartoum (Sudan).

The Kenya Law School and the Nigerian Law School have been offering law courses since 1963 and the Uganda Law Development Centre since 1968. The Uganda Centre, however, absorbed the Law School in Entebbe, which in 1961 started training customary courts judges and magistrates and in 1963 began offering courses to students reading for Part I of the English bar examination. The Kenya Institute of Administration was founded in 1961 and in 1966 commenced a training program for district magistrates.


Data on African law student enrollment is fragmentary, but International Legal Center reports show that recently there were 1,917 law students enrolled in the fourteen English-speaking universities listed below, 1,503 as degree candidates and 414 as certificate or diploma candidates. Note that ten years earlier most of these universities did not exist or did not offer instruction in law. The enrollment breakdown by universities is as follows: Ethiopia, Haile Sellassie I University, 1970-71, 252 LL.B. and 157 certificate students (five-year LL.B. program, including one year on national service); Ghana, University of Ghana, 1970-71, 162 LL.B. students (three-year program); Kenya, University of Nairobi, 1970-71, 56 LL.B. students in the first and second years (three-year program); Lesotho, the University of Botswana, Lesotho and Swaziland, 1970-71, 37 LL.B. students in first, second, and fifth years, plus twelve in the third and fourth years in Edinburgh (4½ year program); Liberia, University of Liberia, 1970-71, eighteen LL.B. students (three-year program); Malawi, University of Malawi, thirteen LL.B. and 40 certificate students (three-year LL.B. program); Nigeria, Ahmadu Bello University, 1967-68, 45 LL.B. and 84 diploma students (three-year LL.B. program), University of Ife, 1970-71, 152 LL.B. students (three- or four-year program), University of Lagos, 1969-70, 171 LL.B. and ten diploma students (LL.B. normally a three-year program); Sierra Leone, University of Sierra Leone, 1969-70, 108 students in the Faculty of Economics and Social Studies taking courses in the Law Department (four-year program for the B.Sc. (Econ.)); Sudan, University of Khartoum, 1968-69, 172
Despite the high priority that African nations give to education, they have been unable to expand higher education unaided and have required substantial assistance from developed countries. African nations have been short of resources, including trained personnel, and such resources as they could provide by themselves were necessarily stretched to cover a multitude of essential needs of which education has been but one. The former colonial powers, notably France and England, have provided most of the help to African higher educational institutions, but the United States and other countries have also made considerable assistance available to these institutions. And, most developed countries, including the United States, have long permitted Africans to attend their universities and other advanced educational institutions and have provided financial assistance to many of these students. Law training in England, for example, became so popular with Africans that for a time following World War II one-third or more of the candidates studying in England for qualification as barristers were African. But, as African countries have established higher educational training facilities in particular professions and disciplines, the student flow

LL.B. and fifteen diploma students (LL.B. a three or four-year program); Tanzania, University of Dar es Salaam, 1970-71, 162 LL.B., eleven graduate law degree, and 108 certificate students (LL.B. a three-year program); Uganda, Makerere University, 1970-71, 88 LL.B. students (three-year program); Zambia, University of Zambia, 1969-70, 51 LL.B. students (three-year program). Int'l Legal Center, reports, supra note 1.

UNESCO statistics on law students enrolled for degrees or diplomas in middle-belt French-speaking African institutions of higher learning show a total of 3,370 such students in the mid-1960's, the breakdown by country being as follows: Burundi, 1965, 20 students; Cameroon, 1965, 919 students; Congo (Brazzaville), 1965, 406 students; Congo (Kinshasa), 1965, 166 students; Dahomey, 1965, 0 students; Guinea, 1964, 3 students; Ivory Coast, 1965, 408 students; Madagascar Republic, 1965, 1,450 students; Mali, 1965, 138 students; Reunion, 1965, 32 students; Rwanda, 1965, 0 students; Senegal, 1965, 279 students; Togo, 1965, 0 students; Upper Volta, 1965, 0 students. UNESCO, Statistical Yearbook § 2.11 (1967). The relatively high enrollment figures in some instances are attributable to law and economics being combined programs. Also, some African countries are following the French pattern of law as a popular subject of general education rather than primarily occupational training for careers as lawyers or judges.

11 One indication of this is the number of students taken into the Inns of Court in London. During 1959, 438 came from Africa—371 from West Africa (Nigeria, Ghana, Sierra Leone and Gambia), 8 from Central Africa (Northern Rhodesia and Nyasaland) and 59 from East Africa (Kenya, Uganda, Tanganyika, and Zanzibar). Most of those from East and Central Africa were of European or Asian descent. Committee on Legal Education for Students from Africa, Report, Cmdn. No. 1255 at 5 (1961). At about the same time only 31 of approximately 650 qualified lawyers in Kenya, Tanganyika and Uganda were of African descent. Id. Lawyers of African descent were far more numerous at the time of independence in British West Africa. A substantial number of such lawyers were active in British West Africa even in the nineteenth century. Adewoye, Prelude to the Legal Profession in Lagos 1861-1880, 14 J. Afr. L. 98 (1970). On the training of African law students in the United Kingdom after World War II, see Gower, supra note 1, at 107-17.
abroad has fallen off markedly in those fields for which training is available at home. Law is no exception to this.\footnote{Decrease in numbers of African law students going to England for study apparently has been responsible in considerable part for the decline in numbers with overseas domicile being called to the English bar. This figure was at a high in a year’s span during 1962-63 when 594 from overseas were called, 75 percent of all those called. In the year 1968-69, this figure was down to 318, 46 percent of all those called. Gen. Council of the Bar, Annual Statement, 1969-70, at 71. Few overseas candidates have ever sought qualification in England as solicitors.} Rather surprisingly, however, the United Nations and other international organizations which have channeled considerable educational aid to African countries in some fields, have done little or nothing for African legal education.

Foreign assistance to developing countries, whether in legal education or anything else, should be based on clear-cut criteria of what that assistance is trying to accomplish. In both donor and recipient countries goals of foreign assistance tend to be so controversial, ambivalent, and covertly self-interested that frank and open discussion of them is infrequent. In foreign aid to higher education, however, three common, and at times inconsistent, donor objectives are apparent: to provide a developing country with educational resources that it wants and that the donor is competent to give; to benefit the donor nation politically either by providing a \textit{quid pro quo} for return favors from the recipient government or by fostering culturally compatible or sympathetic points of view toward the donor nation among students and others within the recipient nation; and to help develop a field of learning that is of interest to a community of scholars, usually an international group of scholars scattered over many parts of the world. The first two of these objectives have dominated most developed-country foreign aid to African higher education in the past and no doubt will continue to do so for some time to come. The third objective, however, gradually promises to assume increased prominence. Not only are scholarly efforts and interests expanding all over the world, but the acute pressures and problems of change in African societies, with their unsettling overtones for developed countries, will probably elicit growing scholarly attention in the African scene.

But, whatever the objective, foreign aid can be a delicate and difficult matter. By its very nature it involves a degree of intervention and disruption in the affairs of the recipient country and hence is likely to generate resentment in some quarters. Resentment is increased if the aid appears to foster the interests of the donor. Foreign aid from any country is vulnerable to charges of paternalism, cultural evangelism, or subversion, and, given its present status in world affairs, the United States is peculiarly subject to criticism.
for its foreign aid efforts, both public and private. Risks of negative response are heightened if, as is often the case, authorities in a developing country have not clearly identified their needs and priorities and donor experts try to help them do so. Foreign advice of this sort readily can be interpreted as officious intermeddling or worse.

**American Assistance in the Past Decade**

Over the past ten years assistance from the United States for African legal education has been mostly in the form of recruiting and subsidizing Americans to teach at African law schools or providing fellowships for Africans to attend American law schools, usually as graduate student candidates for advanced degrees. During this past decade about 140 Americans have taught in African law schools,\(^{13}\) mostly in recently established law faculties where the language of instruction is English and in countries with substantial common law influence. Law faculties in Ethiopia, Liberia, Tanzania, Ghana, and Nigeria have had the most American law teachers and in about that order;\(^{14}\) but, except in Ethiopia and Liberia, Americans have been a minority of the expatriate law teachers on staff, those from Great Britain and other British Commonwealth countries normally predominating. Due to language limitations, lack of familiarity with European civil law, and a plentiful supply of expatriate teachers from France and Belgium, only a very few Americans have taught at law schools in French-speaking Africa.\(^{15}\) The relative importance of Americans in Ethiopian and Liberian legal education is probably due in part to those countries not having been colonies of European powers, because in most African countries for some years after independence, the dominant expatriates in higher education and many other aspects of life have been from the former ruling nation.\(^{16}\)

Most Americans who have taught law in Africa have served for terms of two years or less, commonly two years, and a great many

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\(^{13}\) This is an estimate only. The author has a list of 132 Americans who have taught law in Africa for a semester or more during the past ten years (any teacher who has taught at more than one school being included only once). Undoubtedly this list is not fully complete.

\(^{14}\) Since 1961 Americans have also taught law in Congo (Kinshasa), Kenya, Lesotho, Malawi, Senegal, Sudan, Uganda, and Zambia.

\(^{15}\) Apparently only four Americans have taught law in French-speaking Africa during the past decade, three in Congo (Kinshasa) and one in Senegal. Several others have given short series of lectures.

\(^{16}\) Much of Ethiopia was occupied by the Italians from 1935 to 1941, but colonization efforts were limited. Eritrea, now a part of Ethiopia, was an Italian colony for over 50 years, however, and Asmara University and its law faculty were founded and are still largely administered by Italian clerics.
of them have had no prior law teaching experience. They usually have been funded by payment of a base salary from the African educational institution with which they have been affiliated, topped by payments from American sources to bring them up to approximately what their salary would be at an American law school. Travel plus housing and other supplemental allowances commonly have been added from either African or American sources. Some, however, have been funded solely from American sources, and a few solely from African ones. Payments from African institutions to American and other expatriate teachers generally have been the same or somewhat above what Africans of the same rank receive, but topping from American sources frequently has been as much or more than what the African institution pays. Currently, the total package cost to American and any African sources for a senior American law teacher with a family ranges from $25,000 to $50,000 per year and for juniors, other than Peace Corps volunteers, at least $15,000 per year. Due to foreign topping disparities, British and other expatriate teachers ordinarily receive less than do Americans.

Americans in African law schools have not been restricted to teaching comparative or international law specialties but have been assigned courses most anywhere in the curricular span. They have extensively used the case and Socratic teaching methods they are accustomed to, even in institutions where the lecture system is conventional. To the extent that they have done work of a research character, much of it has gone into preparation of casebooks to facilitate their teaching. Partly to provide added teaching resources and partly to serve the African legal profession or to contribute to general scholarly knowledge about African law, American law teachers with African experience have also written some books.

17 "Research" is used broadly enough in this article to include assembling, editing, and commenting on primary legal source materials. See note 32 infra and accompanying text.

not of a casebook character\textsuperscript{19} and have done a substantial amount of law review writing.

In addition to providing teachers, the other principal form of American assistance to African legal education has been training of African students in American law schools.\textsuperscript{20} Prior to the last decade few Africans came to the United States for law study, those going abroad mostly attending institutions in England or France. Soon after independence this situation changed. The number of African students going overseas for the initial degree in law or study for call to the bar declined as law schools were set up in African countries, but, since adequate graduate programs in law did not exist in African universities, African students with first degrees in law and interested in further study generally applied to European and American universities. Many have come to the United States, usually as LL.M. or J.S.D. candidates, and a high percentage have returned home to teach law upon completing their studies in the United States. About 50 Africans who have received graduate degrees from American law schools within the past ten years now hold law teaching posts in Africa, mostly in universities.\textsuperscript{21} Probably a somewhat larger number of Africans with advanced American law degrees are now working in Africa as judges, government civil servants, or in the private practice of law, although some taught law in Africa for a time after completing their graduate studies. Only a very few have remained indefinitely in the United States for political or professional reasons, unlike so many foreign students in some of the other academic disciplines. In most cases Africans studying law in the United States have been fully funded from American sources, and the availability of this funding has been a major reason for them coming here rather than to law


\textsuperscript{21} This figure has been determined largely from the unpublished reports of the International Legal Center, supra note 1. Nearly all the African law teachers holding American graduate degrees are teaching in English-speaking universities in middle-belt countries, with Kenya, Nigeria, Tanzania and Ghana most heavily represented. The great majority of the American law degrees held by Africans are from the Law Schools of Columbia, Harvard, and Yale.
schools in England or Commonwealth countries where scholarship assistance to foreigners has been more limited. The balance of American assistance to African legal education has been allocated to a variety of other uses, including books for law libraries, law library consulting services, law school physical plants, funding of conferences and workshops on African law and legal education, and research and publication.22

The cost of American assistance to African legal education has been borne primarily by private American foundations and the United States Government. The largest single source for this financial aid has been the Ford Foundation,23 which has channeled much of its assistance through the influential and effective International Legal Center and the Center’s predecessor, the SAILER organization.24 United States Government financial aid, allocated

22 Examples of financial awards by American funding bodies that have included provisions for research on African law are the Ford Foundation grant to the Law Faculty at Haile Sellassie I University, the International Legal Center grant to Northwestern University Law School for projects in Ethiopia involving both African and American law students, and the AID law and modernization grant to Yale Law School for work on developing country law, Africa included. On the AID grant, see Hoskins, United States Technical Assistance for Legal Modernization, 56 A.B.A.J. 1160 (1970).

23 From 1960 to 1970, the Ford Foundation made 23 African law-related grants (including renewals), most of them for development of legal educational or training institutions in Africa. These grants totaled $10.5 million, and the largest recipients were the National School of Administration in the Congo, for training programs in law and public administration; the International Legal Center, for training and research on law in Africa; the Institute of International Education, for funding the SAILER program; and Haile Sellassie I University in Ethiopia, for development of the Law Faculty. See Ford Foundation, Annual Reports. The Rockefeller Foundation has made more modest grants to aid African legal education. These have gone to American law schools for African student fellowships. Rockefeller Foundation, President’s Five-Year Review and Annual Report (1968).

24 SAILER stands for Staffing of African Institutions for Legal Education and Research, and the SAILER organization was in operation from 1962 to 1967 with the administrative assistance of the Institute of International Education. In 1967 SAILER was merged into a new corporation, the International Legal Center, an agency with greater financial resources and with interest in legal education and training in Latin America and Asia as well as Africa. Both SAILER and the International Legal Center have had their headquarters in New York City. Except for Peace Corps volunteers, SAILER and the International Legal Center have assisted in recruiting and financing the great majority of Americans who have taught law in Africa during the past decade, and a few of the Europeans as well. Regular visits to African law schools by representatives of SAILER and ILC have helped facilitate this placement process as well as the selection of Africans for advanced study in American law schools.

Relative to Africa, the International Legal Center has also helped finance African law teachers and students coming to the United States for advanced study, placed a number of American lawyer-fellows as legal advisers to African judicial and other governmental agencies, sponsored conferences and workshops here and in Africa on African law and legal education, helped finance African law seminars in several American law schools, and funded some re-
principally to American teachers and African students, has come through a number of different agencies and programs including the Peace Corps, Fulbright Program, and AID. The great majority of Americans who have taught law in Africa over the past decade have been funded in whole or in part by the International Legal Center, SAILER, or the Peace Corps—about 70 by one or the other of the first two agencies and at least 36 by the Peace Corps. In most instances these financing bodies recruited those it funded. In addition, most American law teachers who have worked in Africa more than eighteen months have also received favorable United States income tax exemptions, indirect forms of American monetary aid. Through scholarships, commonly including subsistence and sometimes travel from overseas, American universities have helped finance many of the African law students who have attended law schools in this country. Some of these scholarship awards have come through foundation or government grants expressly earmarked for the purpose, others have come from university general funds.

In summary, United States aid to African legal education during the past ten years has been considerable and creditable, although

search in Africa, the United States, and the United Kingdom on African legal problems. In some of its activities the International Legal Center has worked jointly with other agencies, both governmental and private. It has, for example, helped administer the Fulbright program for the United States State Department and supplemented the Fulbright program grants to some of the American law professors teaching in Africa. In addition, it has worked closely with the State Department and universities in Africa and the United States in recruiting and jointly funding African law students under the AFGRAD program (African Graduate Fellowships program). On occasion the Center has also worked with aid bodies in the United Kingdom, supplementing their teacher grants in some instances. On the International Legal Center, see Ass'n of Am. Law Schools, Roundtable Proceedings, 22 J. Legal Ed. 253 (1970); International Legal Center, A Report of Activities on Law and Development in Africa, June, 1967 to June, 1969 (1969); Int'l Legal Center, Newsletter No. 5 (1971). The SAILER Program is discussed in Bainbridge, African Legal Education and Research, 5 Foreign Exchange Bull., No. 1, at 12 (1963).

25 Only Americans who have taught law in Africa for a semester or more are included in these computations. A few are included in both the Peace Corps and SAILER-ILC figures, having continued in Africa with SAILER or ILC financing after completing their Peace Corps assignments.

Peace Corps law teachers have been concentrated heavily in a few countries, distribution of the 36 PCV law teachers being as follows: Liberia, sixteen; Nigeria, nine; Ethiopia, eight; and Tanzania, three. As of August 1971, a total of 127 volunteers with law degrees had completed their service in Africa, at least 74 of them having worked in jobs utilizing their legal backgrounds. In August 1971, 13 volunteers were still working as lawyers in Africa, assigned as follows: five to Ethiopia, five to Botswana, and three to Liberia. Only two of the thirteen were teaching law, both in Liberia. Data in this paragraph comes from a letter to the author by Philip H. Lilienthal of the General Counsel's Office of Action, the new federal agency now responsible for the Peace Corps program.

26 These exemptions are based on Int. Rev. Code of 1954, § 911.
restricted almost entirely to English-speaking law schools or graduates of such schools. In terms of dollars and the total number of American experts involved, it has, of course, been only a very small part of total American assistance to African nations, but it has been particularly important coming at such a crucial time when new law schools were being established and before African law teachers and scholars were available to staff those institutions. Not only have Americans helped fill out instructional needs during these formative years, but they have also given most English-speaking law schools some first-hand familiarity with American approaches to the study and analysis of legal phenomena. In teaching methods and intellectual orientation to law, Americans differ strikingly from most of their British colleagues who have tended to dominate in so many African law schools, but the presence of teachers from both pedagogical traditions has broadened student outlooks and posed to the schools more than one working educational model from which to choose and with which to experiment. Expansion in the number of African graduate students coming to the United States for law study has also helped accelerate the takeover by Africans of law teaching posts in their own countries. Further, it has helped provide advanced training over a range of subjects and at a level as yet unobtainable in African law schools. Eventually, well-developed and high quality graduate work in law will probably be available at a number of African universities, but that time is not yet.  

Despite the general effectiveness of American assistance to African legal education, problems have been encountered, and by hindsight a number of weaknesses are apparent, weaknesses often matched in African legal assistance experiences of other donor nations. Coordination among foreign agencies providing assistance to African legal education often has been unsatisfactory. Little or no effort has been made by government aid officials from comparatively compatible nations, such as the United States, England, France, Belgium, Sweden, Canada, and West Germany, to work together in developing common overall policies and programs for their aid to African law training. The result has been a more irrational and uneven allocation of help than is desirable. Lack of a more cooper-

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27 Some universities in the middle-belt of Africa now offer graduate programs leading to graduate degrees in law. Relatively little in the way of faculty time or other resources currently is going into these programs, and enrollments have been low. African universities offering graduate programs in law include the Faculty of Law, University of Nairobi (LL.M.), Faculty of Law, University of Lagos (LL.M. and Ph.D.), Faculty of Law, University of Khartoum (LL.M. and Ph.D.), and Faculty of Law, University of Dar es Salaam (LL.M. and Ph.D.). International Legal Center, reports, note 1 supra. The Faculty of Law, University of Ghana, also offers a non-degree post-graduate professional course. Id.
ative approach may partly be due to competition among countries and institutions for benefits that accrue from foreign aid. American aid efforts to African legal education have suffered from inadequate planning and administrative coordination among participating American institutions. Increasingly over the decade, however, SAILER and, more particularly, the International Legal Center have been helpful counteractants to this general lack of coordinated effort by American institutions. 28

Able senior American law teachers have been difficult to recruit for African service and also expensive, so young beginners have had to be relied on more extensively than would have been preferable. Probably a majority of Americans who taught law in Africa during the past decade were recent law school graduates without prior law teaching experience when they took up their African academic posts. From the vast pool of recent American law school graduates, bright but inexperienced beginning law teachers have been relatively easy to secure for African law teaching positions. As a group their teaching has been acceptable, their empathy with students often excellent, but able seniors would have performed more effectively.

American law teachers’ terms of service in Africa have usually been too short, in most instances two years or less in duration. This has meant that much of their stay is spent settling-in, getting oriented, and learning enough about their subjects and their students to get by. About the time that most of the Americans have acquired enough understanding of the African legal and social scene to make some thoughtful intellectual observations, their time has been up and they have gone home. Short-termers have also seemed more likely to take a tourist outlook toward African assignments. It is surprising how many short-term expatriate teachers with records at home of being diligent and hard-working have become so involved with their exotic African surroundings and seeing the sights that their academic work has become almost avocational. The short terms of service have also resulted in too heavy reliance on non-African legal source materials familiar to the teachers before they came to Africa.

Considering the number of Americans who have taught law in Africa during the past decade, their overall research and writing output on matters related to African law has been unimpressive in quantity and quality. To be sure, there has been some very good work done, including some of the casebooks turned out, but overall results are disappointing, even when work on African law completed

28 On activities of SAILER and the International Legal Center, see note 24 supra.
after return home is considered. Reasons for this undistinguished research and writing record are probably a combination of lack of interest and lack of ability, in many instances compounded by too short a stay in Africa.

Law teaching in Africa has been severely restricted by the lack of research on African law and legal institutions. This has been a major contributing factor causing law teachers in Africa, Americans included, to rely far more than would have been preferable on primary and secondary legal sources from developed countries. The problem has been most acute for those law teachers who would have liked to move from stressing black letter law to emphasizing how African law and legal institutions actually function, for research data on the latter is close to nonexistent for most African countries. Law teachers depend heavily on the accumulated research and writing of others for what they present to their students, and, if the research literature on an African law subject is sparse, the subject usually gets sparse coverage, for there are limits to how much a teacher can bring to his students solely from his own experience and his own research. The casebooks prepared mostly by American law teachers in Africa have helped, but there are relatively few such books and those that do exist suffer from the sketchy or non-existent prior literature on the fields and countries they are dealing with. The net effect of the research shortage is that African law students are learning less about their own legal systems than they should.

Some Americans have had trouble coming to terms with African political conditions they have encountered. African societies are subject to more political restrictions on inquiry and expression than what Americans are accustomed to at home, and there have been occasions when oppressive restraints have been operative even within certain African universities, usually rather open institutions. Most expatriate teachers have been able to stay aloof from all political entanglements while in Africa. Others have been drawn into taking stands out of sympathy for one side or another, feeling that their intellectual integrity was at stake or that they were administrators and as such obligated to make decisions with political overtones. A few serious political confrontations have taken place between American law teachers and African government or academic officials, and there have been additional incidents in which American law teachers have been deeply troubled as to how they should act in political crises involving what they considered invasions of responsible standards of academic freedom. Hard choices have had to be made, the rightness of which has not always been easy to judge even in retrospect.
There have been some difficulties in American law teachers adapting to the teaching methods and curricular structure of African law schools heavily influenced by British pedagogical traditions in law. Differences between American and British systems of legal education are so marked that no easy blend is possible, and Americans who have been unable or unwilling to conform to the British educational mode have created dissatisfaction or at least annoyance where students, fellow teachers, or local lawyers have been rigorous in their adherence to the British system. By and large, however, a healthy mutual accommodation has been the rule. Greater risk of dissension probably would have existed if Americans in any appreciable number had taught in African law schools functioning in the French tradition, which no doubt has been a factor in such schools showing no enthusiasm for American assistance.

Indeterminate and unreliable expressions by African educational institutions of their needs for expatriate teachers have led to some misallocations of foreign teachers and funding. African government and academic authorities usually have not set precise criteria or time schedules for phasing out expatriate law teachers and replacing them with local personnel. Difficulties in doing so are obvious, but failure to do so has handicapped staffing from expatriate sources. Another problem has been that requests for continued support of expatriate law teachers have been made from some educational institutions when there are local Africans competent to take over but who are not offered the jobs or not given sufficient financial or other inducements to take them. In some cases the qualified local people obviously have been doing work of greater national priority than law teaching, in other cases this has been doubtful. Some African educational institutions appear to have found it cheaper and easier to ask for foreign teachers funded from abroad than to up salaries a bit to get local ones or to fight to get local personnel away from powerful government agencies where they currently are employed.

In selection of African students for law study in the United States, American universities and funding agencies have tended to be unduly haphazard and uninformed. Recruitment effort—including circulation of information about available financial assistance—has been inadequate so that many of the better candidates who might be interested have never applied. The screening of applicants has involved too much guesswork, some students have come to the United States who were not psychologically or intellectually ready for foreign study, and qualified students were sometimes
channeled into institutions and programs of study poorly suited to their needs and abilities. The International Legal Center and the SAILER program have been helpful intermediaries in the process of African student recruitment and placement, but neither has had the resources nor authority to eliminate the serious deficiencies that have existed. Far too little thought has been given to what graduate work in American law schools can contribute to Africans with law degrees from African universities and can make the investment of time and money most worthwhile. The problem is easiest as to candidates in or headed for law teaching in African law schools. It is more difficult for those whose careers seem aimed in other directions.

American assistance has done little for Africans engaged in the teaching of law once they have passed the graduate student stage. And yet the future of African legal education depends on the continued intellectual development and productiveness of teachers who are Africans. Low pay, too many teaching hours, an oppressive mediocrity in the intellectual performance expected of teachers, and enticing opportunities to move up and out of teaching into university or government administrative posts or into lucrative private practice typify the pressures working against Africans becoming or remaining first-class law teachers. Unless effective counters to these forces can be found, the quality of African legal education and scholarship will deteriorate as expatriates are replaced and their impact fades.

American universities, neither in nor out of the law schools, have shown much interest in African law and are not important centers for the study of African legal problems. Teachers in a scattering of American academic institutions have offered courses and seminars on various aspects of African law and have done some

this problem was eased for many students by the OPAL program (Orientation Program for American Law), but unfortunately this program has been abandoned for lack of funds. OPAL was conducted under the auspices of the Association of American Law Schools and offered two months of intensive summer instruction to foreign graduate students entering American law schools the next fall. Students were given an introduction to American law, legal and political institutions, and teaching materials and methods. Remedial work in English was also provided. The program was open to foreign students who had not had formal training in the legal system of the United States or of a closely related common law system, such as that of England or Australia, and who had been accepted for graduate study by American law schools. Each summer 120 to 140 students participated, and over the six-year period 45 African students attended. Funding came mostly from a Ford Foundation grant, but this was supplemented by contributions from the U.S. Government, another private foundation, and the American universities that the students were to attend. On OPAL, see Farnsworth, A.A.L.S.'s Orientation Program in American Law, 54 A.B.A.J. 376 (1968); Farnsworth, The First Session of the AALS Orientation Program in American Law, 18 J. Legal Ed. 304 (1966); Ass'n of Am. Law Schools, Proceedings of Annual Meetings, 1964-70.
writing of scholarly value, but, with a very few exceptions, American universities have not been places looked to for concentrations of knowledge or major long-term achievements in the field of African legal studies or, for that matter, legal studies directed at other parts of the developing world. Many Americans who have taught in African law schools have remained in law teaching when they returned home. Relatively few, however, have retained more than a dabbler's interest in African law—an article or two, possibly a seminar for a few years. American law schools are primarily professional training centers for American lawyers, and African law is at best a very peripheral subject of concern.

As American assistance to African legal education has required heavy reliance on American government and foundation financing, it is not surprising that at times the latent antagonism between academics and funders has broken out into active hostility, usually centered on the making and renewal of grants. The academics claim that they know best how moneys for African teaching and research should be spent, and they have been particularly critical of the funders' frequent concern with high-visibility, short-run results and the tendency of some funders to provide seed money and then withdraw support before the seedlings have had a chance to mature or sometimes even to sprout. The funders assert their responsibility to the interests of those putting up the money and also tend to be suspicious of the knowledge-for-knowledge-sake motivation of many academics. One unfortunate result of these inherent differences is that academics often compromise their aims and standards almost beyond recognition so as to obtain needed funding. The academic community also has encountered considerable unjustified and wasteful delay in waiting on some funding organizations to decide whether or not to grant applications for financial support.

**AMERICAN ASSISTANCE DURING THE NEXT DECADE**

In the next decade American assistance to African legal education will probably be more modest than it was in the past decade. One reason for this is the rapidly declining need for expatriate teachers and administrators as African law teaching institutions increasingly are staffed by Africans. In French-speaking countries this expatriate replacement started later and will probably proceed

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30 Exceptions should be noted of Columbia University's African Law Center and particularly its publication of the African Law Digest under Professor Arthur Schiller's direction. Among other exceptions are the international tax law program at Harvard, the Land Tenure Center's work at Wisconsin, the law and development program at Wisconsin, and the law and modernization program at Yale.
more slowly, but this should have little or no effect on American aid patterns as American law teacher presence in these countries has been almost nil and there is no reason to think that it will increase materially. The other major reason for likely decline in American assistance to African legal education is that aid money from American sources will probably be tighter, at least during the next few years. The trend in overall United States Government foreign aid expenditures is down; compared with Latin America and the Far East, Africa is a low-priority area for United States Government assistance. American foundations also seem less interested in African law and legal education than formerly. In addition, American universities are in a lean financial period with cutbacks in law school fellowship funds for African students to be expected in the on-going curtailment of graduate student funding.

But, there will continue to be American assistance to African legal education, and it will no doubt last over the full decade. American involvement is sufficient to make abrupt termination unlikely, especially when a number of well-placed Africans and Americans have concluded that legal education is something that in general we do well. Furthermore, there are prospects for growing American scholarly concern with comparative law of developing countries and expansion of this concern is apt to be accomplished by efforts to secure funding of projects that will at least incidentally benefit African legal education. Assuming then a sustained American interest in assistance to African legal education, how should that assistance best be channeled?

Research

The top American priority in assistance to African legal education should be shifted from providing teachers and scholarship aid to providing research, a necessary and normal corollary of legal education. The research needed is on African law and legal institutions, and most of it should be conducted in Africa. This shift in priorities does not mean that nonresearch forms of aid should be abandoned, but rather that they should be subordinated in dollar and personnel allocations to research. Continentwide the changeover should be made now, although in some countries nonresearch priorities may be preferable for some time to come.

What justifications are there for giving research top priority in American assistance? As noted above, Africans are very properly taking over law teaching and administration in their educational institutions, and the need for expatriate help in these two spheres

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is declining as a result, despite the trouble some African law schools are having in holding onto their best teachers. African research needs in law, on the other hand, are so extensive and frequently so difficult that African lawyers and scholars by themselves are not likely to make much of a dent on them for a long time to come. Developing peoples seem able to fill university and professional school teaching needs long before those in research. This certainly is obvious in law. Research apparently is just harder to do and requires more skill and background than teaching. In African educational institutions it also receives even fewer rewards than teaching and there is less pressure on academics to be heavily involved in it than is true of top institutions in Europe and North America. The relatively small number of universities and research institutes in African countries further limits research output. Then, too, particularly in newly independent African nations, research by Africans has been subordinated to the more urgently conceived need of moving educated Africans into essential administrative and policy making posts in government ministries and parastatal organizations. Running their own societies has higher priority than inquiry into how those societies work or how they may be made to work better.

Research, however, is important, and lack of adequate research effort is a serious handicap to those concerned with African law and legal institutions. The term research is used here in a loose sense characteristic of the meaning it has in academic and professional legal circles. It includes such important functions as locating and assembling primary legal source materials, preparation of summaries and commentaries on these materials, assessment and evaluation of the impact that law and legal institutions do and can make on the societies in which they are operative, and preparation of proposals for change in legal doctrine and institutions. In varying ways and for different purposes, African governments, lawyers, and law schools can benefit from legal research. So can the scholars in and out of Africa who are interested in African legal phenomena. To function effectively, all these organizations and groups require extensive knowledge and understanding of law and legal institutions that research can provide. They all do some research on

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32 The special urgency and difficulty of locating and assembling primary legal source materials in Africa are discussed in Macneil, Research in East African Law, 3 E. Afr. L.J. 47, 50 (1967); Thompson, The Sources of Law in the New Nations of Africa: A Case Study from the Republic of the Sudan, 1966 Wis. L. Rev. 1146; Vanderlinden, Trends and Priorities in African Legal Research and Writing, in Faculty of Law, Haile Sellassie I University, Proceedings of the 1968 Conference on Legal Education in Africa 77, 85 (1968). There is even a danger that much historical legal material, some of it of current authoritative value, will irretrievably be lost or destroyed.
their own, but they also draw heavily on the research of others to the extent available. Without the requisite information, they inevitably must operate less rationally and, in the case of the law schools, less comprehensively—lack of adequate research, for example, makes it impossible for African law schools to offer some much-needed courses and segments of courses.

African legal research needs are so pervasive that some benefits are possible from anything likely to be done. But, because research resources are so limited, more attention should be given to developing agreement on priorities, or at least encouraging a sense of responsibility on this issue. Research efforts should not be wasted on trivia. Obviously, the matter of how and on what scholars spend their research time raises delicate questions of personal values, competence, and academic freedom. If one looks through the contemporary literature relating to African law, however, it is apparent that, with a little added thought and care, many of the writers could have found more significant subjects for study, even within their spheres of interest and ability.

When expatriates select subjects for research about Africa, the preferences of Africans usually should be considered in addition to those of the researchers themselves. Special attention should be given to the research concerns of Africans whose cooperation or approval is necessary for meaningful studies to be made and of those who are in a position to make use of research results. Africans have justifiable interests in research within their countries, and increasingly the coordination of expatriate and African research objectives is becoming obligatory. Other obvious factors that should be taken into account by expatriates and Africans alike in selecting research subjects are possible scholarly benefits from the research, chances of getting projects funded, prospects for securing desired data, and possibilities of research results being published and recommendations acted on. Some subjects will be so

33 Government or other official clearance is required to do research in some African countries, and in East Africa clearance has become increasingly restrictive. Reasons given by African authorities for research authorization procedures are to prevent government and university personnel from being inundated with foreign researchers, eliminating duplication of research effort, discouraging projects that seem to have no benefit to African countries, and national security. Local political tensions probably have also been a factor in some fields. On African research clearance and attitudes, see McKay, The Research Climate in Eastern Africa, 11 Afr. Studies Bull. 1 (1968); Kopytoff, The Research Climates in Francophone West Africa and Liberia, 11 Afr. Studies Bull. 67 (1968); Lystad, Research Opportunities in the Social Sciences and Humanities in Sudan, Ethiopia, South Africa, Lesotho, and Swaziland, 12 Afr. Studies Bull. 111 (1969); Rivlin, Research in North Africa, 12 Afr. Studies Bull. 343 (1969); Segal, Research by Expatriates in Africa: Can It Be Relevant, 13 Afr. Studies Rev. 35 (1970).
sensitive politically as to preclude success, and it is submitted that no project should be selected for scholarly study if local or foreign political pressure would require that it produce half-truths or slanted conclusions. The interests of all concerned are likely to be best served if in those projects chosen for study by scholars every effort is made to be as objective and intellectually honest as possible.

If African legal research is to receive increased emphasis in American aid efforts, on what kinds of projects should these efforts be concentrated when needs are so substantial and varied. Much valuable work can still be done in making primary legal sources more available and useful: reporting, digesting, and annotating cases; consolidating and indexing statutes and regulations; and collecting and cataloguing historical legal documents. Helpful books and articles can also be written that summarize and comment on primary sources and in preparation require little in the way of research materials not available in a good library on African law. But, it is urged that American aid to African legal research can make the greatest contribution if concentrated on projects of an empirical character that explore how African law and legal institutions actually operate and that bring to bear on legal issues the research methodology of modern social science. Well-chosen and properly conducted studies of this kind can enhance understanding of legal phenomena and take much of the guesswork out of both law reform and legal scholarship. The literature stemming from such studies also should be helpful in enabling African legal education to break loose from the sterile rule-dominated conceptualism to which it is now largely confined. Thus, the insights and the scope and accuracy of data that come from scientific inquiry are high priority needs in Africa as elsewhere. And, given adequate funding, American research personnel can be found willing and able to provide this kind of research and capable of training Africans as coparticipants. Field inquiry has become a common form of research in American law schools, and these schools now have a substantial body of scholars competent to do empirical work, although in structuring complex studies and quantitatively analyzing large accumulations of data, help from social scientists may be necessary. However, an increasing number of American social scientists with all the requisite methodological skills are becoming interested in law, some even teaching in law schools, and, with this group supplementing the qualified research scholars in the law schools, a large enough pool of experts exists to enable recruitment of top-

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34 Among the law teachers in this group, for example, are Richard Schwartz at the State University of New York at Buffalo, Hans Zeisel at Chicago, and Stanton Wheeler at Yale.
flight American research staffs for law-related empirical studies in Africa. For this kind of research there seems less hope of securing needed personnel from other expatriate sources, although there are British and European legal scholars who would be valuable colleagues in studies of the sort contemplated.

In terms of feasibility and potential benefit, one of the more promising directions that empirically oriented African legal research might move is in helping to solve development problems that African governments consider crucial. It is submitted that American aid is well-suited to research efforts of this kind and that such research should be one of the top priorities for future American aid in the field of African law. The purpose of the research would be to provide a service to African governments that they want and to do so by exploring key problems and recommending ways of solving or relieving these problems through changes in law or legal institutions. But, the research should go beyond mere consideration of legal doctrine and anchor its proposals in actual needs and possibilities for effectuating change as disclosed by field investigations made at appropriate points within the society under study. Especially on such important matters, recommendations about law should be based as much as possible on facts rather than hunch and intuition. Before selection of development problems for study, African government authorities should be consulted for their preferences and their willingness to make essential data available.

The concept of development as used here in relation to these problem projects means planned change on a large scale, or at least conscious efforts to achieve such change, either economic or noneconomic. African governments are essential to nearly all development within their boundaries, and law and legal institutions almost invariably have important functions in attempts to formulate, legitimate, and implement any government development program. African governments are most likely to be interested in those aspects of law-related development research that deal with development program design, structuring of development institutions, and law enforcement aimed at furthering development goals. These are all points at which law can be decisive to the success of

35 Government programs for achieving change usually have long and contentious histories that go through a series of stages something as follows: (1) problem recognition; (2) pressure for solution; (3) formulation of a program of solution with prepared drafts of proposed legal essentials of the program for presentation to law making bodies; (4) program consideration and adoption by a legislature or other law making body, with such revision as that body requires; (5) program implementation, including establishment of policies and an administrative structure for carrying out and enforcing the program; (6) program evaluation and revision in response to operational needs and changed conditions; (7) termination or merger with another program.
major government efforts at effectuating change. Illustrative problem projects with substantial field study inputs that African governments might favor being researched are evaluation of government land acquisition practices with proposals for strengthening government land acquisition programs, designing new arrangements for funding public improvements in transportation, health services, or schools, proposals of new institutions for pushing development that combine public and private ownership, and an analysis, with reform suggestions, of the enforcement side of development programs in such fields as public health, immigration control, and taxation. African governments also might favor across-the-board evaluations of ongoing development programs that have bogged down and about which there is uncertainty over what should be done, such programs perhaps as refugee resettlement, Africanizing retail trade, increasing output of specified export crops, and stamping out corruption in the civil service. The broad reach of law has made many legal scholars astute analysts and appraisers in wide-ranging investigations into public affairs. Some of the projects suggested are also amenable to interdisciplinary or team research in which legal scholars would work jointly with scholars from other fields in designing and carrying out inquiries. Such common ventures not only can provide added methodological skill but bring to bear a diversity of substantive backgrounds that can make project results both more imaginative and more conclusive.

In initial American aided problem-projects of the kind outlined, research staffs probably would have to consist mostly of American scholars. But, these should be supplemented to the extent feasible by Africans with strong indications of aptitude for the tasks at hand. One important objective of the research would be training Africans to make similar studies of their own. As soon as enough qualified Africans are able to conduct such problem research projects by themselves and are interested in doing so, American aid bodies should consider providing any financial assistance needed. Thus, American help might at a later stage be restricted to funding, with the hope that, when the value of this kind of research was clearly established, at least the more affluent African governments would take over the funding.

Another highly desirable focus for field-oriented African legal research is African legal institutions for what they may show about law as a form of social control, especially in developing societies. Concentrating on such institutions as African law schools, courts, tribal conflict resolution bodies, or culture traits of African lawyers can be an extremely useful means of learning more about
the functions and limitations of law and in building theories and validating generalizations about legal systems. This research should be shaped to answer questions that scholars have about law; solving problems of concern to others should be incidental to the way studies are structured or carried out. Expatriates have a legitimate continuing interest in this kind of research effort, and one hopes that purely scholarly inquiries of this kind will not be treated as being the monopoly concern of any scholarly group, expatriate or African.

Research aimed at contributing to scholarly knowledge merits high priority from American assistance efforts, because its short-term payoff prospects are too remote and chancy for developing countries to allocate much of their resources to it, even though in the long run its utilitarian value for these countries may turn out to be considerable. In addition, this form of research, with its stress on generalizations, may come up with data and insights useful to the understanding of legal systems in developed countries, ours included. There are Americans who have the expertise to design and implement studies of this sort, but, if American law school trained scholars are drawn into such studies, they probably will need help from social scientists on theoretical aspects of the work. Few academic lawyers in the United States are adept at the abstract theory building and relating of research design to theoretical constructs that work of this kind should include. American academic lawyers generally know how to spin and unravel complex theories of legal doctrine, and there are those who can do a sensitive job of field research in seeking answers to pressing social problems or problems troublesome to clients. Facility with scientific theory, however, is beyond most of them. This may be changing, for a growing group of academic lawyers in the United States is becoming interested in scientific theory as related to law, a group well-represented among law teachers active in the field of developing country law. Concern with scientific theories about law and its place in society may be the next big intellectual movement in American law schools, a logical progression from the present interests of so many American law teachers and students in social problem solving through law. These interests keep extending the American law school universe of inquiry and possibly may lead to an explosion of intellectual curiosity about uniformities and interdependencies in law-related phenomena that will transcend the

86 Among the academic lawyers in this group working on developing country law are Marc Galanter at the State University of New York at Buffalo, Jerome Cohen, Henry Steiner, and Roberto Unger at Harvard, Lawrence Friedman at Stanford, Robert Seidman and Thomas Heller at Wisconsin, and Richard Able, William Felstiner, and David Trubek at Yale.
usual preoccupations of professional lawyers and law reform activists. There are signs that within at least some American law schools, law may genuinely become one of the social sciences.

A word of caution is needed to this generally enthusiastic endorsement of research. From lack of interest or ability or both, most foreign law teachers in Africa, including Americans, have not been qualified to do major research projects of any kind and do them well. Perhaps the same can be said of most law teachers in the United States. First-rate research and the writing that normally goes with it require an inquisitiveness, tenacity, and articulateness not possessed by most classroom teachers. This means that, if American assistance to African legal education shifts its emphasis from teaching to research, there should be a corresponding shift in the kinds of persons recruited. Those selected for research work should be selected because of their likely competence in this kind of work and their interest in doing it. Senior scholars chosen for these projects should have well-proven research records giving every indication that they can and will do the kind of job for which they are being selected. Juniors clearly should be interested and bright enough to learn. There should be no assumption that a competent teacher will be a competent researcher.

Teaching in Africa

Even if the top American priority for aid to African legal education is switched to research, there still will be important contributions that Americans can make teaching law in Africa during the next decade. Some of the newer African law faculties must continue to rely on expatriate teachers until they can build up an adequate pool of qualified local African teachers. British, European, and, increasingly, African teachers from other countries will aid substantially in filling this need, but there will be a place for Americans as well. Also, for a long time to come, most African law faculties may find it desirable to have a few highly competent expatriate teachers on their staffs as standard setters and innovators. During at least the next decade most Africans teaching law will be relatively young and inexperienced. In their formative years as teachers it will be helpful for them to have as colleagues a sprinkling of able and dedicated seniors who are outstanding teachers with rich and varied pedagogical backgrounds. These seniors can provide highly visible examples of what constitutes good teaching and of the continued patterns of course preparation and concern over students that are essential to good teaching. Experienced seniors can also be invaluable to a faculty in suggesting ways of strengthening the institution educationally and administratively.
and in helping to carry out any reforms adopted. Ultimately, these role model and advisory functions can be provided by the more successful local African teachers as they mature in their jobs. But, in the meantime, senior expatriates will be needed for such purposes, and without them teaching standards may decline, young African teachers may be less likely to develop their full capabilities, and some faculties may lose their momentum and stagnate. If the expatriate teachers are well-connected at home, they can be of further benefit to African educational institutions by encouraging donor help from abroad and facilitating placement of African graduate students in appropriate foreign study programs.

American assistance to African law teaching institutions should not be allocated entirely to law faculties and their regular LL.B. or equivalent programs of instruction. In the past a modest share of such aid has gone to other institutions or programs, and in the future this share conceivably should be increased if African authorities so request and if training in law outside the law faculties is expanded. Experimental ventures in law training also merit aid consideration if they have strong African support and seem likely to achieve enough to be worth the cost. Domestic African sources of funding are so limited that rarely will African authorities risk them on educational experiments, but with foreign funding new institutions and programs can often secure the requisite official backing. In some instances only a small financial input may be necessary: a workable proposal, a few persons qualified and ready to push ahead, or convincing advocacy directed at the right people.

The range of possibilities is extensive for helpful American assistance in developing new approaches to African legal education and training other than through conventional programs of conventional African law faculties. Potential trainee groups include not only students preparing for careers as lawyers, but also a number of other occupational groups in and out of the legal profession who need expertise in law: lawyers already licensed, judges, the police and other security forces, legislators, lay employees who perform lawyer-like services for government, party, parastatal, and private bureaucracies, lay professionals and subprofessionals who compete with licensed lawyers in the private sector, and possibly some of the functionaries in traditional institutions that resolve conflicts through the application of customary law. Part-time evening instruction in law is likely to have an especially strong appeal to many in these groups, for conditions in Africa are conducive to vocational training after working hours, even for older people with established careers in white collar occupations.37 Education is

37 The Ethiopian national university's experience with part-time evening
widely respected in Africa as a means of upward mobility, and yet opportunities for instruction on professional subjects are very limited. Increasing these opportunities in a popular and prestigious field such as law is certain to attract many candidates hoping to better themselves through promotions or shifts to more rewarding occupations. Also, many Africans seem willing to devote their evening leisure time to classes and study, not only because they hope for better jobs, but because life in African communities after working hours, even in capital cities, tends to be dull and boring.

Some promising approaches to African law training are here suggested that could benefit from American financial or personnel assistance. There has been limited African experience with a few of them indicating that wider adoption would be worth pushing; others are untried in Africa. These suggested approaches are as follows:

**In-training programs conducted by government agencies for special categories of government personnel doing law-related work.**

A ministry of justice, for example, might put on short two-week training programs for employee groups under its control, such as prosecutors, lower court judges, or court administrators. Such a program might be required of successive groups brought to the capital city, or the instructors could be sent on tour to provincial towns where the program would be presented. Instructors might be full-time employees of the sponsoring agency or staff members of a university law faculty, institute of administration, or training facility such as the Uganda Law Development Centre or the Nigerian Law School. Except for magistrates in some countries, African governments have generally done little to provide special legal training to their personnel working with law.

**A set of short handbooks or monographs for private practitioners of law summarizing new developments in the law, and, if the practicing profession is poorly trained, essential doctrinal and procedural introductions to fields of law important to practitioners.**

These instructional materials could be written by teachers in law.
faculties as one of their institutional obligations or could be commissioned from particularly well-informed and articulate practicing lawyers. To encourage maximum distribution and use of the handbook series, each monograph should be translated into major indigenous languages if practitioners are not all fully fluent in one language, and to keep costs down they could be published in mimeographed or inexpensive offset form. A handbook series might even be useful as the instructional nucleus for correspondence courses offered to lawyers, with some kind of special recognition given to those with successful completion records.

Certificate or diploma-level evening courses offered by law schools, university extension services, or institutes of administration for important groups of legal paraprofessionals or subprofessionals. These programs might be fairly long-term, perhaps one to three years of attending classes several nights each week, and each program might be tailored to the special needs and interests of a particular occupational group. Successful completion of one of these programs might be made a prerequisite to entry into certain occupations, such as the lay magistracy, or be a means for securing promotions in others, for example, some branches of the police or the military.

Training programs in empirical research. If the research recommendations in the previous section are to be implemented, it obviously would be helpful if there were African legal scholars already trained in empirical research who could be drawn into the research endeavors at their inception. Given sufficient training, these scholars also might be encouraged to initiate similar research projects of their own with little or no supervision from expatriates. One training format that should prove successful in developing beginner competence is to hold intensive empirical research workshops in Africa to which small groups of interested African law teachers would be invited. Each workshop would last four to eight weeks, be held in the long vacation period, and provide a general introduction to the social scientific study of law, followed by exposure to various research methods used in the social sciences, perhaps with some practice in utilizing these methods. There are American scholars

38 On subdegree-level legal education in Congo (Kinshasa), Botswana, Ethiopia, and Cameroon, see Faculty of Law, Haile Sellassie I University, Proceedings of the 1968 Conference on Legal Education in Africa 111-36 (1968). On subdegree legal education in Ethiopia, see note 37 supra and annual reports of the Dean of the Law Faculty, Haile Sellassie I University, in the Journal of Ethiopian Law.

39 There has been recent experience with this kind of workshop. In the summer of 1970, Professors Richard Schwartz and Marc Galanter held an intensive workshop on empirical research for a group of nine legal scholars from India. Sessions lasted for six weeks and were held in Chicago. Since 1967, month-long
capable of conducting such workshops, and, if their services are called on, Africans should be associated with them as consultants and instructors when there are qualified Africans available.

Partial consolidation of professional education in the universities. African professional degree programs, at least in law, public administration, commerce, and social work, all lead to careers likely to involve a substantial amount of administration in large government or other bureaucracies. There is enough similarity in the administrative problems these occupations encounter, particularly in ever-burgeoning African government, to merit providing them with a common education in administrative operation and skills. Combining at least the introductory aspects of training in administration not only should result in substantial economies for financially hard-pressed African universities, but also should increase the capability of those professional groups participating to work together more effectively in later years. An adequate common program in administration should in Africa take perhaps as much as one-fourth of the professional school training time of the occupations involved.

Expanded intellectual opportunities for advanced African scholars teaching law. More needs to be done for those Africans in law teaching who already hold graduate law degrees or who are far enough along in their careers so that graduate training offers little benefit to them. These are the teachers who will largely determine the future of African legal education over the next generation or so, and, if they are allowed to atrophy on the job or if too many become dissatisfied and turn their attentions elsewhere, African legal education will indeed be in trouble. Those in this group with research abilities should be given the time and resources to do a fair amount of research, and some would be ideal prospects for involvement in training programs on research methods and then in the empirical studies that might follow. To free these teachers for research, different subsidy approaches are possible: grants to the teachers for their support during leave periods or during long vacations, purchase of their time from the universities employing them, and commissioning of research products with payment upon satisfactory completion. Each of these approaches has a place in the African academic world of today. In addition to expanding research opportunities, another way of intellectually encouraging the more advanced African law teachers is to arrange visiting teacher ap-

summer institutes on social science research have been held in Denver by SSMILE (Social Science Methods in Legal Education) for American law teachers. Enrollment has been limited to eighteen participants. On SSMILE, see committee reports, Ass'n of Amer. Law Schools, 1969 Proceedings, pt. I, § 1, at 127-32, and syllabi for the annual SSMILE institutes.
pointments for them in law schools of other countries, both in Africa and elsewhere. Teaching in foreign law schools tests, stretches, and challenges any law teacher who takes on such an assignment. There are now a number of Africans who would be excellent visitor additions to American law schools, and more will be coming along soon. These teachers have the background and flexibility to teach most of the standard American private law courses and some of the public ones as well, and they can also offer seminars on African law if desired. Given time to get deeply enough into the materials, African teachers should have fresh and original insights on such stale American subjects as divorce, secured transactions, and evidence law, to say nothing of the law of civil rights, consumer protection, and environmental control. American teachers in Africa think they have brought some added enlightenment to African law, and no doubt they have. Reciprocal contributions by Africans should be equally possible.

A university graduate program in law and public affairs offered on a part-time basis to middle-level policy makers. Universities are among the most intellectually open centers in African countries and are permitted extensive freedom to probe and discuss problems faced by African societies. Even in countries with fairly tight censorship laws and more than usual restraints on political organization and activity, universities tend to be havens of relatively unrestricted inquiry. It should be of benefit to African countries if their universities drew back into this kind of stimulating educational orbit some of those from the experienced cadre of middle-level decision makers that within the next generation will be providing top national leadership. These would include the professionals, government officials, and private business and parastatal agency executives who completed their university training ten to twenty years earlier, have had successful careers so far, and seem headed up the ladder. They could benefit immensely from the critical interchange of ideas that re-exposure to the university would supply, and the experience should help too in generating legal and other solutions to serious national problems. Members of this important elite cadre now have much less opportunity than their counterparts in most developed societies to build the informational and analytical foundations required for rational policy making, and the program suggested would help materially in correcting this deficiency. Such a program should not seek to draw large numbers of students, but should be small and highly selective. A possible format, and one that could be operated at modest expense, would be for the university to offer a series of seminars, a different one every semester, each seminar dealing with an important national problem that law or legal institutions conceivably could help solve.
Examples of problems that might fit into such a program are reform proposals for the civil service, potential new sources of government revenue, manpower planning, strengthening local government, and means for reducing tribal and ethnic tensions. Some of the development problem research proposals suggested earlier also might be good seminar topics. A student who successfully participated in five or six such seminars and in addition produced some original writing of high standard, would qualify for a master's degree, perhaps an M.A. in law and public affairs. Others sufficiently qualified but not wishing to invest so much time could take one or more seminars without being obligated to seek a degree. Presumably, many of those drawn into such a program would have degrees in law, but results would be better if qualified persons with other academic backgrounds were also included. The program could be administered and at least partly staffed by the law faculty, but preferably the law faculty should be able to co-opt teachers from elsewhere in the university and, as adjunct seminar leaders, outstanding specialists from government or international agencies when available. To prevent the program from becoming an undue burden on a student group holding responsible full-time jobs, seminar meetings could be restricted to one or two evenings each week and students expected to take only one seminar at a time.

A graduate law faculty in Africa to provide advanced study in law for students from many African countries. Today African students who wish to do LL.M. or other advanced degree work in law usually go to the United Kingdom, Europe, or North America, as insufficient opportunity for advanced study exists in African countries. Although foreign study in law is a very valuable experience for some Africans, the lack of adequate African graduate law programs is a serious handicap to many others: cost and high admission standards for study abroad unduly restrict the number of Africans who probably should be doing graduate work in law; programs of advanced legal study in developed country universities frequently are less suited to the needs of African students than could be designed; and cultural and environmental transition to non-African societies is more than some African students effectively can adjust to. What is needed is at least one and probably several high-quality African graduate faculties in law to serve much of the African demand that merits being filled. Although the cost per student at such institutions should be considerably less than what is now required to educate an African graduate student overseas, establishing and sustaining a graduate law faculty of real excellence in Africa would still be an expensive undertaking.

40 See note 35 supra and accompanying text.
41 On African law faculty graduate degree programs, see note 27 supra.
is particularly true if, as would be highly desirable, such a faculty drew its students from many countries and attempted to approach African law on a broad comparative basis with emphasis on common solutions to common problems. There should possibly be one graduate faculty serving African countries in the common law tradition and another serving those in the European code tradition, but much could be gained from a faculty that attempted to bridge these two traditions, interpreting each to the other. Africans should know more about one another's legal systems, for law is an important element in structuring relations between peoples and nations, and Africans must strengthen these relations if they are to overcome their continental handicap of extreme political and cultural fragmentation. One or more graduate law faculties in Africa oriented toward comparative African law would be of immense value in furthering the kind of multicountry knowledge about African law that is so essential. Comparative African law centers of this kind also should make it much easier for African nations to follow legal developments elsewhere on the continent and learn from the successes and failures of others.42

More teaching emphasis on comparative African law. Whether or not graduate law faculties are established in Africa serving groups of countries, university-level legal education in Africa would benefit from much more of a comparative African approach than is given at present. It would be relatively easy for African students to understand the legal systems of similar African countries with fairly comparable legal traditions; regular exposure to the laws of those countries would increase student comprehension of the rich and varied potential of law for the solution of human problems. It is submitted that students in common law parts of the continent, for example, would become better lawyers and judges if most of their courses were directed at common law Africa generally and stressed less the law of the country where the teaching was being done. Individually, most African countries are too small and legally undeveloped to exhibit the range of legal alternatives that students should encounter. And, filling in with English, French, or other developed country legal source materials often is of little value, because the underlying problems and means for

42 The University of London's School of Oriental and African Studies now performs some of the functions here proposed for an African graduate law faculty. It is submitted, however, that, if adequate resources were provided, from the point of view of Africans it would be preferable to have graduate African law faculties of real quality in Africa, administered by Africans, and as soon as possible largely staffed by Africans. There still would be a place for centers such as SOAS in developed country universities, but most African graduate students in law would remain in Africa for their advanced work rather than going to universities in England, the United States, France, or elsewhere.
dealing with them in developed parts of the world can differ so drastically from what prevails in Africa. The kind of instruction suggested should have available to it casebooks, texts, and other teaching materials of a comparative character, and it might even be easier to prepare and distribute such materials for groups of countries than separate materials for each country.  

Advanced Training of Africans in the United States

Until adequate programs for advanced study in law are available in Africa, universities in the United Kingdom, Europe, and North America will continue to be relied on by Africans for most advanced academic work in law. There is every indication that law schools in the United States with established foreign graduate student programs will retain their attraction for many Africans interested in advanced legal studies. But, funding is crucial, and, if foundation and American government assistance to foreign students is cut back substantially, and there is a threat of this, in any one year only a few Africans may be able to study law in the United States. 

Given the state of African legal education at present and assuming enough financial support to enable African students to continue coming to the United States in appreciable numbers, what kinds of African students should be encouraged to enroll in American law schools and what should they study? African first degree programs in law are now good enough and available enough so that no need exists for African students to be brought to this country as J.D. candidates. There should, however, be a place for Africans in American graduate degree programs in law, but those accepted should have clearly shown that they can do the work expected of them here, and, generally, this means that acceptances should go only to those with outstanding scholarly records at African law faculties or who have shown comparable abilities at a British or European

43 Until the breakup of the University of East Africa, course materials used at the Faculty of Law, University College, Dar es Salaam, normally covered Kenya, Tanzania, and Uganda. But, what is proposed here for common law Africa is an even broader approach that would illustrate basic principles and problem solutions by means of primary legal source materials, articles, or other data of interest from any African country with a common law background. The analogy to American casebooks, with their wide-ranging and multi-jurisdictional selection of materials, is obvious. If the most astute and creative law teachers in common law Africa will prepare teaching materials of the kind suggested, the influence of these teachers can be spread over the entire African common law world, a valuable extension of a skilled resource in short supply. Teachers wishing to increase the emphasis on the law of any particular jurisdiction could prepare one-country supplements to the broader sets of materials. For teachers who are more venturesome and for countries such as Ethiopia that have drawn heavily on more than one received law tradition, materials could be prepared that cover diverse traditions.
lax school. Career intentions and prospects pose an added problem. It is a waste of resources to accept Africans for advanced degree work unless they are fairly certain to make important contributions related to law when they return home and contributions they probably could not make without the foreign study contemplated. Africans who will be entering or returning to law teaching when they go back normally qualify under this test because of the benefits that graduate study has for teaching and the important multiplier effect of the teaching role. Other candidates are usually more dubious possibilities even though they have the requisite intellectual abilities. Many are so young and inexperienced that it is unclear what even their early career lines will be and hence they normally should be rejected, at least until their future is more certain. If candidates seem destined for private law practice or conventional judicial or civil service lawyer slots, foreign graduate study is unlikely to be worth the time or expense. If they have a long-term government or practice commitment to some legal specialty of high significance in their own country and if there are graduate programs in the United States capable of giving them valuable background for this work not available at home, acceptance seems indicated. Conceivable specialties of this kind are taxation, international trade, labor relations, natural resource development, and postconviction treatment of criminal offenders. Very occasionally a candidate appears who merits acceptance because he is so uniquely intelligent and highly motivated that he almost inevitably will make a major mark in his own society, although it is too early to say where. But, such preeminently promising applicants are rare in law or any other discipline.

Masters programs for African graduate students at American law schools are fairly flexible, generally permitting each student considerable leeway in courses, seminars, and research but usually encouraging him to explore at least several different subject matter areas and not to work exclusively in one. This tailoring of academic programs to each student's interests while still trying to expose him to a variety of intellectual experiences is probably wise. American law schools have much to offer that is new and can be valuable to any African student, and most African masters' candidates should look at their American study as largely a period of extending and rethinking their perspectives about law. Massive concentration on one problem or one segment of a subject should be left to doctoral dissertation work, except perhaps for masters' candidates being trained to fill very particularized slots in the government or private sector. For those Africans with such narrowly delineated commitments, other forms of training might be found better suited to their needs than a law school graduate degree program. Special
student status with limited faculty supervision or special group instruction works well for some.\textsuperscript{44} Training possibilities unrelated to universities should be experimented with more extensively to include, for example, African lawyers as interns in government agencies or private law firms in the United States that concentrate on matters of special concern to the Africans, or African lawyers and judges spending several months in New York or Washington visiting and discussing with officials in a range of law-related institutions within their special sphere of concern. The V.I.P. grand tours that the United States State Department has arranged for some high level African legal figures usually require too much traveling to too many places and tend to be superficial and physically exhausting.

To earn a doctorate from an American law school ordinarily takes a foreign student two years or more of full-time work, preceded by a year or so as a masters' candidate if, as is commonly the case, a masters' degree is first obtained. Most or all of the doctoral work normally is put in on a book-length dissertation that is the main requirement for the degree. Except for those who want and are assured of careers in teaching, it seldom is advisable that foreign students seek doctoral degrees from American law schools or that the schools admit foreign applicants to doctoral candidacy. The time and money investment is too great, the added skill and information attained by the student rarely will be put to sufficient use, and it is the unusual dissertation in law that may make a scholarly contribution of sufficient significance to justify departing from this teachers-only policy. Certainly for Africans, the J.S.D. even more than the LL.M. or M.C.L. currently makes sense primarily as a teacher training degree. It might even be desirable for American law schools to upgrade their doctoral programs for foreigners, restricting admission only to those who have taught for three years or more and expect to remain in teaching and generously raising stipends to help attract experienced academics. With careful selection of candidates, performance would thereby be increased and teaching and publication benefits from the doctoral experience more fully maximized. Added sources of funding would be necessary for such a step, as even with fewer candidates the cost of doctoral programs would probably go up under such a plan.

Doctoral dissertations in law by Africans would also be of

\textsuperscript{44} The International Legal Center sponsored program on legal education for Chilean law teachers held at Stanford Law School in the summers of 1967 to 1969, which combined both special group instruction and individual exploration of teaching and research interests, may be a good prototype for nondegree training of law teachers from other countries. On this program see, comments of Professor Ehrlich in \textit{Roundtable on International Legal Center and Comparative Law}, 22 J. Legal Ed. 253, 288-91 (1970).
greater merit if they generally dealt with African problems and if candidates assembled most of their data in Africa. Especially if they have had some empirical research training and adequate supervision, these candidates should usually be able to do a better and more useful job when their information comes mostly from interviewing, observing, and document searching in their own countries than just from combing American law libraries. By working both on and in their own cultures they should be able to capitalize on what are frequently their major scholarly assets: familiarity with and acceptance in those cultures. For an African to split his dissertation time, however, between an American law school and the field creates added but probably not insurmountable difficulties. Costs normally go up, as the student preferably should come to the United States for preliminary training and project planning, next go into the field for a protracted period to obtain his data, then return to the United States where under guidance he would write and polish his manuscript, and finally go back home to teach. Supervision while in the field also creates problems, but correspondence supplemented by advice from any qualified senior scholars nearby who might be co-opted to help usually must suffice.

The whole process by which American law schools select foreign graduate students, including Africans, needs improvement. The schools with established programs for foreigners now do little to generate interest among possible applicants, but rely on their reputations as established centers of graduate study to produce applications, and then admit largely on the basis of paper records submitted, including letters of recommendation from persons whom they usually know little about. Far more applications are received than places available and the whole selection procedure has something of a grab bag aspect to it. Risks of making poor choices might be reduced and the number of highly qualified candidates enhanced if search and screening were intensified and coordinated. What seems most needed is to locate and interest more good candidates. So far as Africa is concerned this is not beyond reach. If every year or two a representative of American law schools interested in taking African graduate students were to make the rounds in Africa armed with complete information on graduate positions and scholarships available, talk with African law school deans and other key referral sources, identify good graduate prospects and carefully interview them and some of their local sponsors, the selection process could be greatly strengthened. Not only should this increase the number of exceptionally qualified applicants, but it should insure added reliable information about candidates and which American law schools are best suited to the individual candidate’s interests and abilities. The law schools’ field man might also be responsible for some of the scholarship grant liaison between
the schools and American foundation and government personnel in Africa and the United States. The law schools might also work out a consolidated and centralized application system for African graduate students in which information about all student openings and financial aid would be made available to applicants who would then express an order of preference on where they wished to go, a preference that would be determinative among schools interested in that candidate.

Such cooperative ventures among law schools run counter to their prevailing competitive and independent approach to graduate student selection, but there are precedents for the arrangements suggested. For example, the International Legal Center through its field representatives has effectively assisted American law schools in selection of African graduate students that the Center has helped fund. And, the four American law schools participating in the Ford Urban Law Fellowship program have successfully administered a collective application system for selection of domestic graduate students included in that program.

CONCLUSION

The major contention of this article is that American financial and personnel assistance to African legal education should continue but the emphasis should be changed from teaching and student scholarship aid to research. New African law schools increasingly staffed by Africans make foreign teaching and scholarship aid less needed than formerly. But, research, that essential underpinning to legal education and a rationally operated legal order, is seriously neglected in African countries and will continue to be for a long time to come unless substantial help is forthcoming from outside. An American capability exists for making valuable contributions to African law-related research, and with adequate funding and careful screening of staff that capability can be constructively mobilized. During the next decade some need will remain for American and other expatriate teachers in African law schools and for a selective flow of Africans to graduate law programs in American universities. Subsidiary forms of expatriate help to African legal education also will be important, but, the principal unmet need without foreign assistance will be research, and it is on this that American aid should be concentrated. American sources of assistance responded well to African needs in legal education over the past decade. Hopefully, they are astute and flexible enough to respond equally well to the altered but still acute needs of the next decade.
Production of hydrocarbons in the fields of southern Louisiana is a matter of increasing interest, both locally and nationally. The oil and gas industry is the most important single economic factor in the State of Louisiana.

The fact is that more than $1 million in taxes and fees is generated for [this] State every day of the year—and this represents more than half of all the income which Louisiana realizes from any State source. Furthermore, $2 million per day is invested in the cost of drilling and equipping oil and gas wells or drilling dry holes—the largest capital investment in Louisiana.¹

Louisiana's production of natural gas is particularly important to the entire nation. Southern Louisiana, including the offshore areas, is the leading natural gas source in the United States, accounting for about 33 percent of production and 30 percent of proved reserves.² This article will focus on the producing segment of the natural gas industry in southern Louisiana and the area price regulations applicable to that segment.

Since 1954, when wellhead rates of "jurisdictional" sales of natural gas were first subjected to regulation,³ the Federal Power Commission has generally held the line on price increases by the producers. This hard-line approach, utilizing traditional cost-of-service analysis while largely ignoring supply and demand, alternative investment opportunities, and prices of alternative fuels, has been a prime factor in the decline of exploration and developmental drilling and the resultant decline in the nation's inventory of gas reserves. Thus, the actual implementation of area price regulation

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¹ The views expressed in this article are those of the author and not those of the Federal Trade Commission or any other governmental agency or commission.


² American Gas Ass'n, Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the U.S. and Canada (1970) (the statistics exclude Alaska).

³ The Supreme Court held that jurisdictional sales of natural gas were subject to government rate regulation in Phillips Pet. Co. v. Wisconsin, 347 U.S. 672 (1954). Throughout this article the term "jurisdictional" sales will refer to sales of natural gas either in the interstate market or from federal lands. The term is a shorthand notation for the gas that has been subjected to FPC regulation.
has obtained a bargain fuel for the public. We are now paying the price for this short sighted policy—the inability of pipelines to obtain sufficient supplies to meet consumer demands.

The debate over producer deregulation has been, and continues to be, a controversial issue. What are the consequences of an absence of producer rate regulation? This case study of the southern Louisiana area indicates that the lack of competition among producers could have adverse results. The Louisiana seller market is concentrated, with a high degree of accompanying bargaining power going to the large producers, the major oil companies. Entry barriers appear to be increasing, particularly barriers caused by rising exploration and development costs. Too many structural imperfections exist in the southern Louisiana natural gas producing industry to expect effective producer competition. Even assuming there was no regulation, antitrust laws could not, or would not, be enforced to remove these market imperfections. Thus, regulation of wellhead rates is necessary; however, a method more satisfactory than the early approaches to area pricing must be found and implemented. General knowledge of the economic and legal background of natural gas rate regulation is a prerequisite to understanding the problems faced in the recent Federal Power Commission proceedings to set producers' rates for southern Louisiana.

**BACKGROUND**

The natural gas industry may be divided into three distinct segments: production, transmission, and distribution. Transmission companies (pipelines) pipe gas from sources of supply to retail service areas where gas is wholesaled to local distributing utilities for resale to consumers. Since this article analyzes the production segments and the relations between producers and pipelines, that portion of the industry concerned with distribution will not be considered.

Domestically produced natural gas is supplied by about 4700 independent producers. There are 4630 small producers, those with annual jurisdictional sales of ten million Mcf (thousand cubic feet) or less. Small producers accounted for about ten percent of the total 1968 United States jurisdictional sales of natural gas. Some 263 domestic producers and four foreign suppliers provided 92 percent of the interstate pipelines' requirements in 1968. Twenty-four

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5 FPC, Sales by Producers of Natural Gas to Interstate Pipeline Companies, at 2 (1968).
domestic producers supplied almost 70 percent of the gas purchased by interstate pipeline companies in the same year. Thus, the term "independent producer" is more a word of art than a functionally descriptive term.

The major producers of natural gas are the oil companies. Since gas is often discovered or developed along with oil, and by similar technology, the role of the oil companies in natural gas production could reasonably have been anticipated. Of the 287.3 trillion cubic feet of total proved natural gas reserves at the end of 1968, eighteen major integrated petroleum companies controlled about 65 percent. Approximately 37 percent of these reserves was controlled by four companies—Standard Oil of New Jersey, Standard Oil of Indiana, Gulf Oil Corporation, and Texaco.

The transmission and distribution segments of the gas industry are themselves major industries. The natural gas pipeline and distributing industry ranked sixth in total gross investment in 1969. Many of the transmission companies are integrated to varying degrees, some backward into producing (e.g., Pennzoil United, Tenneco), some forward into distribution (e.g., Columbia Gas System, Inc), and almost all own some wells and reserves. The transmission segment of the natural gas industry is composed of large, heavily-capitalized firms. A successful gas system must be large; the system must provide dependable and adequate pipeline service, obtain preconstruction contracts to insure markets, own or control tremendous reserves, and so forth. "The technological integration of a natural gas system produces enormous pressures for economic integration; to make sure of success at any one level of operation it is advantageous to have some measure of control over the other two." In describing the state of the industry in 1935, one commentator noted that the "producer had shared in the building of pipelines. The pipeline interests had leased acreage and bought utilities. Utilities had joined pipeline ventures and had entered production." Thus, it might prove advantageous for a producer to have some control over a pipeline, thereby assuring a captive cus-

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6 Id.
7 Standard & Poor's Industry Surveys 57 (Dec. 11, 1969) (Oil).
8 Id. In addition to oil and gas, the major oil companies currently control twenty percent of the United States coal production, probably a greater share of coal reserves, and an estimated 80 percent of uranium reserves. Business Week, Nov. 7, 1970, at 54; Oil & Gas J., Mar. 1, 1971, at 19.
9 Standard & Poor's Industry Surveys 56 (July 30, 1970) (Utilities—Gas). The total gross investment was about $38 billion at the end of 1969.
11 Id. at 57.
tomer for its natural gas, and accruing some cost benefits. During periods of peak demand, these forces for integration would be even greater.

Many economists and lawyers have debated the rationale behind government regulation of the natural gas producer. A concise statement of some major factors supporting regulation of producer rates has been presented by former Senator Paul H. Douglas. He argued that competition cannot effectively regulate the industry. The consumer, as a result of his investment in appliances and equipment, is a captive of the pipeline, and the pipeline a captive of the producer; the only true competition is between the pipeline companies. Senator Douglas noted that in reality there is no effective competition among the 8,000 producers; in fact, the "pipeline companies are tied to the giant producers in what amounts to a

12 The following integrated firms are seeking the advantages of control of other segments of the industry in southern Louisiana.

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<td>Columbia Gulf Transmission</td>
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<td><strong>Producers:</strong></td>
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monopoly situation."¹⁴ In 1954, 197 producers (3.5 percent of the 8,000) sold almost 90 percent of the natural gas retailed in interstate commerce.¹⁵ "Also of major importance is the fact that 30 nontransporting producers and 16 utility companies own 61 percent of the nation's estimated proven gas reserves."¹⁶ Therefore, he concluded that the industry's structure and behavior require governmental regulation.¹⁷ Other economists have asserted that the production of natural gas is a competitive industry, characterized by low concentration.¹⁸ They have recognized the possibility of market control by the producers; however, they persistently claim the industry is structurally competitive. Envisioning alternate sources of supply and alternative buyers, this school has discounted the anticompetitive impact of long-term reserve contracts, immobility of pipelines, and long time-lag between investment and production.¹⁹

Having assumed jurisdiction over the producers' rates in jurisdictional sales of natural gas, the Federal Power Commission embarked upon an area-wide price setting approach. In the 1960 Phillips Petroleum Co. decision, the Commission abandoned the traditional individual company cost-of-service approach for producers.²⁰ Also, in 1960 the Commission instituted its first proceeding to determine just and reasonable rates under section 5(a) of the Natural Gas Act²¹ for producers in the Permian Basin area of New Mexico and the Texas panhandle, and in 1961 began a similar proceeding for the southern Louisiana area, but did not issue its first area rate decision until 1965. In this ruling, the landmark Permian Basin Area Rate Proceeding,²² the Commission decided that the area approach "offers a regulatory method which is best adapted to the discharge of our responsibilities for protecting natural gas

¹⁴ Douglas, supra note 13, at 577.
¹⁵ Id. at 584.
¹⁶ Id. at 586.
¹⁷ Id. at 605-06. The distribution segment is monopolistic, while the transmission segment approaches a monopoly. Id. at 576-78. The production segment is the least concentrated, an oligopoly with a small competitive fringe. Id. at 578-81.
consumers while providing the greatest incentive to producers to continue their search for needed additions to our gas supply.”

Although the Supreme Court affirmed the Commission’s reliance on costs to determine producer area rates in *Permian*, a large measure of latitude was left to the Commission. For instance, the Supreme Court did not prohibit consideration of field prices in future area rate proceedings, and it recognized that cost calculations were imprecise and acknowledged that noncost factors could be utilized in prescribing producer rates. Generally, the Supreme Court indicated that the Commission could utilize a variety of regulatory methods, in addition to the one affirmed by the Court.

The area ratemaking approach has been much criticized and an attempt to discuss all the criticism is not warranted. However, the analysis of one commentator is relevant. According to Edmund Kitch, the decision to impose price control on the field market was based upon two assumptions: (1) the supply of natural gas is unresponsive to price, and (2) price is an undesirable device to use in allocating available gas between competing users. In appraising the two-price system in area ratemaking, one price for new gas and one price for old and associated gas, Kitch concluded that part of the supply is responsive to price. Of course, the supply of associated gas is an inevitable by-product of oil production and will not be very responsive in the short run to gas prices. Likewise, the market for old gas is not really responsive to price because the producer is legally obligated to supply it. However, the market for new gas is very much responsive to price. “The regulation creates a market in which the amount of gas demanded is in excess of the amount that would be demanded if purchasers were faced with prices based

23 34 F.P.C. at 180. The rationale and policy for the area rate approach had been outlined earlier in *Phillips Pet. Co. v. Wisconsin*, 373 U.S. 294 (1963). The Commission had stated that the “individual company cost-of-service method, based on theories of original cost and prudent investment, was not a workable or desirable method for determining the rates of independent producers and that the ‘ultimate solution’ lay in what has come to be known as the area rate approach . . . .” *Id.* at 298-99. The cost-of-service method was determined to be inadequate, since “unlike the business of a typical public utility, the business of producing natural gas involved no fixed, determinable relationship between investment and service to the public.” *Id.* at 299. For the same rationale see *Permian Basin Area Rate Cases*, 390 U.S. 747, 756-57 (1968). Further, the Commission felt the area approach would avoid cost-allocation problems and be less of an administrative burden. 373 U.S. at 300.


25 *Id.* at 761, 791, 804.

26 *Id.* at 815 n.98.

27 *Id.* at 767, 772 n.37, 800.


on the actual marginal cost of producing the gas."30 Thus, the two­
price system, coupled with the actual rates established, may have
created an artificially exaggerated demand for gas. Hence, it is im­
portant that area prices accurately reflect long run costs of pro­
duction.

In establishing the dual prices for a particular pricing area, the
FPC considers current nationwide costs in determining the price
for new gas and actual historical area production costs in deter­
mining the price for old gas. Current nationwide costs include
(1) exploration and development costs, including dry holes, produc­
tion operating expense, net liquid credit, adjustment for explora­
tion in excess of production, and other exploration costs, (2)
depletion, depreciation, and amortization of production investment
costs, (3) return on production investment, (4) return on working
capital, (5) regulatory expense, (6) royalties, and (7) area gather­
ing expense.31 These nationwide costs are determined from a
number of sources, including trade associations, producer question­
naires, the Chase Manhattan Bank's annual financial analysis of
petroleum companies, and the United States Census Bureau. The
price for old, flowing gas is determined from historical data on
costs in the particular FPC production area. Such area costs would
include (1) production costs (cash expense, depreciation, depletion,
and a return allowance), (2) exploration and development expenses
and return, (3) regulatory expenses, and (4) area gathering expen­
ses.32 The use of averages has been assailed since they do not
consider the individual producer costs. For instance, costs vary
from producer to producer depending upon gas pressure, absence of
gas impurities, depth of the producing horizon, BTU content, and
so forth.33 In a competitive situation, each producer's gas reserves
would command a price equal to its value to a pipeline; this is not
the case where one price is set for both high and low value reserves.
The Commission has determined that there is no need to offer a
higher price for the old gas and the associated gas because the old

30 Kitch, supra note 28, at 279.
31 See, e.g., Southern Louisiana Area Rate Proceeding, 40 F.P.C. 530, 589
(1968), aff'd sub nom., Southern Louisiana Area Rate Cases v. FPC, 428 F.2d
407 (5th Cir.), cert. denied sub nom., Municipal Distributors Group v. FPC, 400
32 40 F.P.C. at 603.
33 MacAvoy, supra note 19, at 24.
gas is already committed to contract and the associated gas is relatively unresponsive to price;\textsuperscript{34} however, a higher price is attached to new, non-associated gas because it is more responsive to prices. "[T]he two-price rate structure will both provide a useful incentive to exploration and prevent excessive producer profits."\textsuperscript{35}

Further costs involved in regulating the industry are the costs occasioned by the very fact of regulation, costs that must be absorbed by the regulated industry. Costs of regulating the natural gas producer include administrative costs, delay on the contract price, and contingency costs. These costs have been estimated as seven percent of the base price, or a 1.164 cents per Mcf burden to the producers.\textsuperscript{36} The overall cost of regulating gas field prices has been estimated as $33.1 million.\textsuperscript{37}

Although there are costs, direct or indirect, in regulation, the absence of regulation may also impose costs. In 1969, 6,789 billion cubic feet of natural gas were produced in southern Louisiana.\textsuperscript{38}


\textsuperscript{35} Permian Basin Area Rate Cases, 390 U.S. 747, 798 (1968).

\textsuperscript{36} The 1.164 cents per Mcf in costs may be further broken down to .039 cents for administration, .809 cents for delay, and .316 cents for contingencies. Gerwig, Natural Gas Production: A Study of Costs of Regulation, 5 J. Law & Econ. 69, 85 (1962), cited in Permian Basin Area Rate Cases, 390 U.S. 747, 786-87 n.56 (1968). The cost from contract date to commencement of delivery is most important.

\textsuperscript{37} The $33.1 million total is composed of $3.1 million cost to the FPC and $30.0 million cost to the producers. MacAvoy, The Effectiveness of the Federal Power Commission, 1 Bell J. Econ. & Management Science 271, 300 (1970). The $30 million cost to the producers represents direct expenses of certification and litigation and indirect expenses of delays in production. If prices are reduced, a supply shortage results and the consumer losses in output are estimated at $12 million and income distribution gains at $63 million. The net benefit in income redistribution would be $51 million.

\textsuperscript{38} The natural gas production for southern Louisiana for the period 1964-70, expressed in billion cubic feet units, was as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Natural Gas Production</th>
<th>Interstate Pipeline Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>7,326</td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>6,789</td>
<td>5,287</td>
</tr>
<tr>
<td>1968</td>
<td>6,003</td>
<td>4,649</td>
</tr>
<tr>
<td>1967</td>
<td>5,296</td>
<td>4,194</td>
</tr>
<tr>
<td>1966</td>
<td>4,624</td>
<td>3,623</td>
</tr>
<tr>
<td>1965</td>
<td>4,012</td>
<td>3,198</td>
</tr>
<tr>
<td>1964</td>
<td>3,506</td>
<td>2,949</td>
</tr>
</tbody>
</table>
During 1968, revenues to southern Louisiana producers were 19.84 cents per Mcf of jurisdictional sales.\textsuperscript{39} Applying the 1968 revenue rates per Mcf to the 1969 production results in an approximate total revenue of $1.35 billion. Assuming prices would increase if field regulation were withdrawn from a noncompetitive market, revenues of $1.93 billion would accrue from a price of 20.84 cents per Mcf. Thus a $70 million increase in revenues to producers would be expected from a five percent hike in the average revenues per Mcf.\textsuperscript{40} This higher price could be passed on throughout the system to the consumer or the revenues could be retained by the producer for future exploration and development. Such a revenue increase would be expected if the regulated price were artificially held below the true market price and the oligopoly pricing behavior of producers were exercised.

Whether the production segment of the natural gas industry should be regulated and whether area ratemaking is the best regulatory procedure are largely moot questions. The Supreme Court has acquiesced in both instances.\textsuperscript{41} However, one should note that the regulation of natural gas producers is different than the regulation of other industries. The usual public utility dedicates a certain amount of property to public service, incurs costs in rendering its service, cannot cease to render service or abandon service without

The proved reserves and dedicated reserves for the same approximate period, expressed in billion cubic feet units, were:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Proved Reserves</th>
<th>Dedicated Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>79,093</td>
<td>--</td>
</tr>
<tr>
<td>1969</td>
<td>80,769</td>
<td>73,289</td>
</tr>
<tr>
<td>1968</td>
<td>83,693</td>
<td>72,162</td>
</tr>
<tr>
<td>1967</td>
<td>81,424</td>
<td>72,729</td>
</tr>
<tr>
<td>1966</td>
<td>78,613</td>
<td>69,820</td>
</tr>
<tr>
<td>1965</td>
<td>77,670</td>
<td>68,916</td>
</tr>
</tbody>
</table>

\textsuperscript{24} American Gas Ass’n, Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the U.S. and Canada (1970); FPC, The Gas Supplies of Interstate Natural Gas Pipeline Companies (1969).

The resulting reserve/production ratios are of interest, particularly when compared with the ratios for the nation in the same years.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Louisiana</td>
<td>21.0</td>
<td>19.4</td>
<td>17.2</td>
<td>15.2</td>
<td>13.9</td>
<td>11.9</td>
<td>10.8</td>
</tr>
<tr>
<td>United States</td>
<td>18.2</td>
<td>17.5</td>
<td>16.4</td>
<td>15.8</td>
<td>14.6</td>
<td>12.9</td>
<td>11.7</td>
</tr>
</tbody>
</table>

\textsuperscript{24} American Gas Ass’n, Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the U.S. and Canada (1970); FPC, A Staff Report on National Gas Supply and Demand (Sept. 1969).

\textsuperscript{39} FPC, supra note 5.

\textsuperscript{40} The illustration assumes an inelastic demand for natural gas. (6,789 billion cubic feet X 19.84 cents per Mcf = $1.35 billion; 6,789 billion cubic feet X 20.84 cents per Mcf = $1.42 billion.)

the approval of the regulatory body, and is allowed a fair return on
the rate base and a return of the costs incurred. The natural gas
producer, on the other hand, incurs exploration and development
costs, may curtail or cease his exploration and development activity
at any time without FPC approval, and is not compelled to make
further investments, to seek further supplies, or to dedicate addi­
tional supplies to interstate commerce. 42 The gas producer needs no
certification of public convenience and necessity for either drilling
and other field operations or for sales, unless the sales are jurisdic­
tional. 43 Thus, the production and gathering of natural gas is quite
different from the traditional public utility concept. However, that
difference has not deterred price regulation.

A CASE STUDY IN AREA PRICE REGULATION

With the preceding background information, this article will
examine price regulation in a particular geographic area in the
natural gas producing industry. Although the relevant geographic
market is nationwide via the intricate maze of pipelines, a par­
ticular area is significant for the production segment of the
industry.

FPC Production Area No. 5 is that portion of southern Loui­
siana lying south of the 31st parallel. The area covers about 54,000
square miles, almost equally divided between land and offshore
waters of the Gulf of Mexico. “From a national standpoint,
Southern Louisiana is both the most important and most productive
natural gas area in the entire nation.” 44 The area accounted for
about 40 percent of the gas sold in the interstate market in 1969 45
and for almost 30 percent of the total reserve additions from 1956­
66, 46 and has contributed 63 percent of the national net increase in
natural gas production since 1964. 47 Estimated total revenues to
producers in the area in 1968 were $1.2 billion. 48 The southern
Louisiana area is a significant, yet uniquely separate, part of the
industry.

Field price regulation and the role of the natural gas producer
should be viewed within the parameters of the industry itself.

42 Southern Louisiana Area Rate Proceeding, 40 F.P.C. 530, 616-18 (1968).
Of course, once gas is dedicated to interstate commerce, it may not be abandoned
43 Johnson, Producer Rate Regulation in Natural Gas Certification Pro­
44 40 F.P.C. at 546.
45 FPC, supra note 5.
46 40 F.P.C. at 637 n.74.
47 23 American Gas Ass'n, Reserves of Crude Oil, Natural Gas Liquids and
Natural Gas in the U.S. and Canada (1969).
48 FPC, supra note 5 (rough estimates by author). See notes 33-35 supra.
Kaysen and Turner define market structure as "those stable features of the environment of a business firm which determine or condition the firm's [decisions]."\textsuperscript{49} A structural concept of market power is defined as when "a firm can behave persistently in a manner different from the behavior that a competitive market would force on a firm, facing otherwise similar cost and demand conditions."\textsuperscript{50} Richard Caves outlines, in decreasing order of importance, the main elements of market structure: concentration, product differentiation, barriers to entry, growth rate of market demand, price elasticity of market demand, and the ratio of fixed to variable costs in the short run.\textsuperscript{51} This article deals primarily with concentration, while covering the other elements of market structure more generally.


text

\textbf{Concentration}

Approximately six trillion cubic feet of natural gas were produced in southern Louisiana in 1968. In excess of 20 percent of this production went to the intrastate market.\textsuperscript{52} The remaining 4.7 trillion cubic feet were jurisdictional, either going into the interstate market or coming from federal lands.\textsuperscript{53} Data on the intrastate market is not readily accessible; therefore, most of the information

\begin{table}[h]
\begin{tabular}{llll}
\hline
Total Production & Louisiana Gas Sold Intrastate & Natural Gas Used in Louisiana \\
\hline
 & Percentage & Volume & \\
1968 & 6,003 & 22.7 & 1,363 & 1,366 \\
1967 & 5,296 & 21.9 & 1,160 & 1,208 \\
1966 & 4,624 & 20.7 & 957 & 1,068 \\
1965 & 4,012 & 20.2 & 810 & 904 \\
1964 & 3,506 & 16.1 & 564 & 870 \\
\hline
\end{tabular}
\caption{Data on Intrastate Market}
\end{table}

\textsuperscript{50} \textit{Id. at 75.}
\textsuperscript{52} The intrastate market in natural gas for southern Louisiana during the period 1964-68 is set out below. The volume figures are expressed in billion cubic feet units.

\textsuperscript{53} All sales from the offshore areas are by definition jurisdictional. The Natural Gas Act defines interstate commerce as "commerce between any point in a State and any point outside thereof, or between points within the same State but through any place outside thereof . . . ." 15 U.S.C. § 717(a) (7) (1964). For the continuing controversy concerning state-federal jurisdiction over the submerged offshore areas, see United States v. Louisiana, 394 U.S. 11 (1969); United States v. Louisiana, 382 U.S. 288 (1965); United States v. Louisiana, 364 U.S. 502 (1960); United States v. Louisiana, 363 U.S. 1 (1960).
gathered is prepared from submissions by producers and pipelines to the Federal Power Commission.

Seller concentration is greater in the southern Louisiana area than in the United States as a whole. The top four producers in the United States accounted for 24.3 percent of the total national sales to interstate pipelines in 1968; the top eight accounted for 38.9 percent.\textsuperscript{54} In southern Louisiana, the top four accounted for 34.5 percent; the top eight, 53.3 percent.\textsuperscript{55} These concentration figures relate only to sales by producers. Paul MacAvoy obtained information on the concentration of "Gulf of Reserves" dedicated by the producers in southern Louisiana for the periods 1950-53 and 1951-54. During the 1950-53 period there were 49 sellers who dedicated new reserves under 83 contracts. The four largest producers dedicated about 46 percent of the reserves; the top ten almost 80 percent.\textsuperscript{56} The concentration figures for the 1951-54 period are basically the same, although there were 54 sellers and 93 contracts. Seller concentration data in the intrastate market is not readily available. The 182 billion cubic feet of intrastate gas sold to interstate pipelines in southern Louisiana represent about thirteen percent of the

\textsuperscript{54} FPC, \textit{supra} note 5.

\textsuperscript{55} The sales by southern Louisiana producers to interstate pipelines in 1968 were:

<table>
<thead>
<tr>
<th>Producer</th>
<th>Volume (million cubic feet units)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humble Oil &amp; Refining Co.</td>
<td>485,938</td>
<td>10.4</td>
</tr>
<tr>
<td>Gulf Oil Corp.</td>
<td>485,580</td>
<td>10.4</td>
</tr>
<tr>
<td>Union Oil Co. of California</td>
<td>350,650</td>
<td>7.5</td>
</tr>
<tr>
<td>Shell Oil Co.</td>
<td>291,205</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Total, top four</strong></td>
<td><strong>1,613,373</strong></td>
<td><strong>34.5</strong></td>
</tr>
<tr>
<td>Texaco, Inc.</td>
<td>276,822</td>
<td>5.9</td>
</tr>
<tr>
<td>Continental Oil Co.</td>
<td>239,445</td>
<td>5.1</td>
</tr>
<tr>
<td>Superior Oil Co.</td>
<td>202,171</td>
<td>4.3</td>
</tr>
<tr>
<td>Mobil Oil Corp.</td>
<td>161,929</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Total, top eight</strong></td>
<td><strong>2,493,740</strong></td>
<td><strong>53.3</strong></td>
</tr>
<tr>
<td><strong>Total Area Sales</strong></td>
<td><strong>4,675,935</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

FPC, \textit{Sales by Producers of Natural Gas to Interstate Pipeline Companies} (1968). The percentage of sales controlled by the top producers did not change much between 1967 and 1968. Compare with the above the figures for 1967: The total area sales amounted to 4,162,846 million cubic feet. The top four producers in sales were Humble Oil & Refining Co., Gulf Oil Co., Union Oil Co. of California, and Texaco, Inc., combining for a sales volume of 1,437,295 million cubic feet or 34.5 percent of the total for that year. Shell Oil Co., Superior Oil Co., Continental Oil Co., and Mobil Oil Corp. completed the top eight for 1967. The top eight accounted for 2,220,881 million cubic feet or 53.4 percent of the total.

FPC, \textit{Sales by Producers of Natural Gas to Interstate Pipeline Companies} (1967).

\textsuperscript{56} MacAvoy, \textit{supra} note 19, at 174, Table 6:6.
area's estimated intrastate volume.\textsuperscript{57} Almost three-fourths of the 182 billion cubic feet was sold by four producers, three of whom are among the top eight in the jurisdictional segment. Moreover, all the intrastate sales of the major producers to interstate pipelines were directed toward one purchaser, United Gas Pipeline, which in turn is controlled by Pennzoil United.

\textit{Buyer concentration} is significantly greater than seller concentration in southern Louisiana. Approximately 61 percent of the interstate production of natural gas is accounted for by four pipe-

\textsuperscript{57} The following figures represent the 1968 intrastate sales by major producers to interstate pipelines in southern Louisiana. A major producer is one with annual sales of 2 million Mcf or more.

<table>
<thead>
<tr>
<th>Producer</th>
<th>Volume (million cubic feet units)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texaco, Inc.</td>
<td>45,239</td>
<td>24.8</td>
</tr>
<tr>
<td>Humble Oil &amp; Refining Co.</td>
<td>35,240</td>
<td>19.3</td>
</tr>
<tr>
<td>Gulf Oil Corp.</td>
<td>34,224</td>
<td>18.8</td>
</tr>
<tr>
<td>Union Producing Co.</td>
<td>18,485</td>
<td>10.2</td>
</tr>
<tr>
<td><strong>Total, top four</strong></td>
<td><strong>133,188</strong></td>
<td><strong>73.1</strong></td>
</tr>
<tr>
<td>Getty Oil Co.</td>
<td>8,432</td>
<td>4.6</td>
</tr>
<tr>
<td>California Co.</td>
<td>7,041</td>
<td>3.9</td>
</tr>
<tr>
<td>Forest Oil Corp.</td>
<td>6,194</td>
<td>3.4</td>
</tr>
<tr>
<td>Pan American Petroleum Corp.</td>
<td>4,777</td>
<td>2.6</td>
</tr>
<tr>
<td>(Amoco Production Co.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total, top eight</strong></td>
<td><strong>159,632</strong></td>
<td><strong>87.6</strong></td>
</tr>
<tr>
<td><strong>Total Intrastate</strong></td>
<td><strong>182,133</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

FPC, Sales by Producers of Natural Gas to Interstate Pipeline Companies, Table 4 (1968).

Compare the figures for 1967, noting that although the producers comprising the top eight change relative positions from 1967 to 1968, the total percentage for the two years remained 87.6 percent.

<table>
<thead>
<tr>
<th>Producer</th>
<th>Volume (million cubic feet units)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gulf Oil Corp.</td>
<td>35,952</td>
<td>21.2</td>
</tr>
<tr>
<td>Humble Oil &amp; Refining Co.</td>
<td>33,901</td>
<td>20.0</td>
</tr>
<tr>
<td>Texaco, Inc.</td>
<td>28,757</td>
<td>16.9</td>
</tr>
<tr>
<td>Union Producing Co.</td>
<td>19,405</td>
<td>11.4</td>
</tr>
<tr>
<td><strong>Total, top four</strong></td>
<td><strong>118,015</strong></td>
<td><strong>69.5</strong></td>
</tr>
<tr>
<td>Pan American Petroleum Corp.</td>
<td>12,737</td>
<td>8.1</td>
</tr>
<tr>
<td>(Amoco Production Co.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Oil Corp.</td>
<td>6,636</td>
<td>3.9</td>
</tr>
<tr>
<td>Getty Oil Co.</td>
<td>5,431</td>
<td>3.2</td>
</tr>
<tr>
<td>Louis J. Roussel</td>
<td>4,966</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Total, top eight</strong></td>
<td><strong>148,785</strong></td>
<td><strong>87.6</strong></td>
</tr>
<tr>
<td><strong>Total Intrastate</strong></td>
<td><strong>169,828</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

FPC, Sales by Producers of Natural Gas to Interstate Pipeline Companies, Table 4 (1967).
lines, while the top eight represent almost 90 percent of production.\(^{58}\) Of the 83 trillion cubic feet of proved reserves in 1968, 72 trillion cubic feet, or about 87 percent, were dedicated to interstate pipeline companies.\(^{59}\) Within these dedicated reserves, four pipelines own about 57 percent and eight own about 89 percent.\(^{60}\) MacAvoy's study indicated that in 1950-52 the four largest buyers purchased about 92 percent of the reserves.\(^{61}\)

As was mentioned earlier, there is some evidence to indicate that industry costs require a successful firm to be large.\(^{62}\) Although one can still envision a need and a place for the small entrepreneur in the exploration for natural gas (wildcatting), to a large extent the need is a myth rather than a reality. There has been a rising attrition rate among small producers. Industry association mea-

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\(^{58}\) Compare the interstate buyer concentration figures for 1967 and 1968 for southern Louisiana:

<table>
<thead>
<tr>
<th>Pipeline</th>
<th>Production (million cubic feet units)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Gas Pipeline</td>
<td>864,034</td>
<td>959,313</td>
</tr>
<tr>
<td>Tennessee Pipeline</td>
<td>761,040</td>
<td>840,832</td>
</tr>
<tr>
<td>Transcontinental Gas Pipeline</td>
<td>500,547</td>
<td>568,185</td>
</tr>
<tr>
<td>United Fuel Gas</td>
<td>433,550</td>
<td>448,407</td>
</tr>
<tr>
<td><strong>Total, top four</strong></td>
<td>2,559,171</td>
<td>2,816,737</td>
</tr>
<tr>
<td>Southern Natural Gas</td>
<td>368,765</td>
<td>367,459</td>
</tr>
<tr>
<td>Texas Gas Transmission</td>
<td>329,219</td>
<td>365,386</td>
</tr>
<tr>
<td>Michigan-Wisconsin Pipeline</td>
<td>273,464</td>
<td>291,452</td>
</tr>
<tr>
<td>Texas Eastern Transmission</td>
<td>238,175</td>
<td>325,548</td>
</tr>
<tr>
<td><strong>Total, top eight</strong></td>
<td>3,768,794</td>
<td>4,166,582</td>
</tr>
<tr>
<td><strong>Total Area Interstate</strong></td>
<td>4,193,544</td>
<td>4,648,768</td>
</tr>
</tbody>
</table>


\(^{59}\) For the volume of dedicated reserves and the reserve/production ratios for the period 1964-70, see note 38 supra.

\(^{60}\) The top four pipelines based on ownership of dedicated gas reserves in 1967 and 1968 were Tennessee Pipeline, United Gas Pipeline, United Fuel Gas, and Transcontinental Gas Pipeline. Completing the top eight were Texas Eastern Transmission, Southern Natural Gas, Texas Gas Transmission, and Michigan-Wisconsin Pipeline. The percentage figures stated in the text did not change significantly from 1967 to 1968. FPC, The Gas Supplies of Interstate Natural Gas Pipeline Companies (1968); FPC, The Gas Supplies of Interstate Natural Gas Pipeline Companies (1967).

\(^{61}\) MacAvoy, supra note 19, at 170, Table 6:5.

\(^{62}\) Huitt, supra note 10.
sures indicate that more than 25 percent of the small producers have disappeared from the market over the last ten years.\textsuperscript{63} Even though the small producers may still outnumber the large producers,\textsuperscript{64} there is a marked disparity in their influence since eight large, integrated petroleum companies control over half the supply of natural gas in southern Louisiana.

The term "structural oligopoly" describes a market "in which the few largest sellers in the market have a share of the market sufficient to make it likely that they will recognize the interaction of their own behavior and their rival's response in determining the values of the market's variables."\textsuperscript{65} Many indices are considered in determining whether a particular market structure is an oligopoly. Kaysen and Turner begin testing for an oligopoly by requiring that the eight largest firms share one-third of the market. They then delineate two types of structural oligopoly. Type I occurs when the top eight firms have 50 percent of the market and the top twenty firms have 75 percent. Type II occurs when the top eight control one-third of the market and the remaining two-thirds is highly fragmented. In southern Louisiana, the top eight firms have over 50 percent of the market and the top twenty control about 71 percent of the interstate sales. Applying the Kaysen and Turner classification, the southern Louisiana market would be denominated a Type I loose oligopoly, since no one firm has more than a fifteen percent share and there is a fringe of small firms that may act as a competitive restraint.\textsuperscript{66}

Buyer concentration, however, is much higher than seller concentration. In fact, in southern Louisiana the top eight pipelines control about 90 percent of the production in the interstate market and about 89 percent of the reserves dedicated to interstate pipelines. By comparison, the twenty largest pipelines control 90 percent of the national interstate pipeline production. Therefore, buyer concentration in southern Louisiana can be characterized as a tight oligopoly.\textsuperscript{67}

In summary, buyer and seller concentration figures are higher in southern Louisiana than they are on a national level. Both the

\begin{footnotes}
\item[64] See note 4 supra and accompanying text.
\item[65] Kaysen & Turner, supra note 49, ch. II.
\item[66] Id. ch. III.
\item[67] Id.
\end{footnotes}
production and pipeline segments of the industry in southern Louisiana can be classified as structural oligopolies.

Other Factors

In examining the market structure of a particular industry, there are several other factors that merit attention. Product differentiation is, for all practical purposes, not germane to the natural gas industry. Although there may be minor quality differentials, natural gas is basically a homogeneous commodity. Barriers to entry are probably lower in the producing segment of the natural gas industry than in most manufacturing industries.\(^6\) Capital requirements are relatively modest by comparison, although drilling equipment and outlays in the offshore areas are becoming increasingly expensive.\(^6\) There are no apparent economies of scale in discovering and producing natural gas.\(^7\) However, there probably is an advantage to the larger concern that can afford to spread the risks by drilling many wells. Indeed, from the risk standpoint, there may be definite economies of scale if it is recognized that risk, though not an obstacle to entry, may be inversely related to size.

Thus, product differentiation is inapplicable to the natural gas producing industry. Most of the gas produced in southern Louisiana is high pressure, sweet gas, which is delivered to the pipelines at or beyond a central point in the field; in essence, the gas is a commodity fuel. Barriers to entry are probably lower in this industry than in most manufacturing industries. Although these other factors should not be ignored, market concentration is the most influential feature of the southern Louisiana market.

Pricing of Natural Gas

The purpose of measuring concentration is to predict the extent that price will depart from the competitive price level.\(^7\) The price ceiling for jurisdictional gas is established by the Federal Power Commission; prices for gas in the intrastate market are unregulated and are only controlled by the market mechanisms.

For a variety of reasons, the intrastate market has remained

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\(^7\) *Clark*, *supra* note 68.
more attractive than the interstate market. Generally, as long as there are adequate supplies for both markets, the intrastate purchaser can obtain a price concession reflecting the benefits to the producer from an unregulated sale. For instance, the producer faces a degree of rate uncertainty in making a regulated sale. This is particularly important in southern Louisiana where close to 80 percent of the production is jurisdictional. Jurisdictional sales of gas have commanded premium prices since 1954. However, intrastate prices on new contracts in 1970 exceeded the interstate prices for the first time. The higher intrastate prices might indicate a new desire on the part of the producers to sell in the intrastate market, outside governmental price regulation. On the other hand, higher intrastate prices may reflect a short term, though perhaps persistent, scarcity in uncommitted gas available for intrastate sales.

Average wellhead revenue per Mcf increased nationally by about seventeen percent in the period 1960-68, compared to an eleven percent increase in southern Louisiana for the same period. During

<table>
<thead>
<tr>
<th>Year</th>
<th>Intrastate Annual Volume (Mcf)</th>
<th>Jurisdictional Annual Volume (Mcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>72,028,165</td>
<td>11,345,634</td>
</tr>
<tr>
<td>1969</td>
<td>10,438,812</td>
<td>83,175,000</td>
</tr>
<tr>
<td>1968</td>
<td>59,594,990</td>
<td>58,753,289</td>
</tr>
<tr>
<td>1967</td>
<td>21,178,236</td>
<td>139,882,464</td>
</tr>
<tr>
<td>1966</td>
<td>55,343,591</td>
<td>136,196,976</td>
</tr>
</tbody>
</table>

State Taxing Jurisdiction:

<table>
<thead>
<tr>
<th>Year</th>
<th>Intrastate Weighted Avg. Contract Rate ($/Mcf)</th>
<th>Jurisdictional Weighted Avg. Contract Rate ($/Mcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>22.98</td>
<td>21.75</td>
</tr>
<tr>
<td>1969</td>
<td>19.34</td>
<td>21.26</td>
</tr>
<tr>
<td>1968</td>
<td>20.21</td>
<td>20.88</td>
</tr>
<tr>
<td>1967</td>
<td>19.49</td>
<td>21.05</td>
</tr>
<tr>
<td>1966</td>
<td>19.38</td>
<td>20.07</td>
</tr>
</tbody>
</table>

Federal Domain:

<table>
<thead>
<tr>
<th>Year</th>
<th>Intrastate Weighted Avg. Contract Rate ($/Mcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>22,827,818</td>
</tr>
<tr>
<td>1968</td>
<td>194,064,600</td>
</tr>
<tr>
<td>1967</td>
<td>115,819,308</td>
</tr>
<tr>
<td>1966</td>
<td>163,233,115</td>
</tr>
<tr>
<td>1965</td>
<td>94,120,567</td>
</tr>
</tbody>
</table>


Southern Louisiana Area Rates, 40 F.P.C. 703, 781 (1966). Although State of Louisiana prices are used, southern Louisiana accounts for over four-fifths
the 1960-68 period, the Wholesale Price Index increased about eight percent, and the Consumer Price Index was up eighteen percent. However, during the 1964-68 period, average wellhead revenues exhibited a modest decline in Louisiana but increased about six and one-half percent nationwide. The Wholesale Price Index was up about eight percent during 1964-68; the Consumer Price Index increased about twelve percent. Generally, wellhead prices for natural gas have followed the rise in consumer prices, except in the last few years. Louisiana field prices, on the other hand, have largely been stabilized since 1961. The leveling of wellhead prices in Louisiana might be the result of several factors, including FPC price control.76

The area prices set for southern Louisiana by the FPC were recently affirmed by the Fifth Circuit:77

<table>
<thead>
<tr>
<th>Onshore</th>
<th>Offshore</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.0¢/Mcf</td>
<td>18.5¢/Mcf</td>
</tr>
</tbody>
</table>

Contracts after 10-1-68

Contracts dated 1-1-61 to 10-1-68

Contracts before 1961 and casinghead gas

However, these rates were stayed by Commission and court orders of the state's gas output. In terms of jurisdictional sales, southern Louisiana accounts for about 94 percent of the state's gas sales. FPC, supra note 4.

The following figures show the relative increases in the value of wellhead gas in Louisiana and the United States, the Wholesale Price Index, and the Consumer Price Index for the period 1950-68.

<table>
<thead>
<tr>
<th>Average Value of Natural Gas at Wellhead (¢/Mcf)</th>
<th>Price Indices (base years, 1957-59)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>Wholesale (all commodities)</td>
</tr>
<tr>
<td>1968</td>
<td>18.9</td>
</tr>
<tr>
<td>1967</td>
<td>18.5</td>
</tr>
<tr>
<td>1966</td>
<td>18.3</td>
</tr>
<tr>
<td>1965</td>
<td>18.2</td>
</tr>
<tr>
<td>1964</td>
<td>19.1</td>
</tr>
<tr>
<td>1963</td>
<td>19.3</td>
</tr>
<tr>
<td>1962</td>
<td>19.7</td>
</tr>
<tr>
<td>1961</td>
<td>18.7</td>
</tr>
<tr>
<td>1960</td>
<td>17.1</td>
</tr>
<tr>
<td>1959</td>
<td>15.4</td>
</tr>
<tr>
<td>1958</td>
<td>12.9</td>
</tr>
<tr>
<td>1957</td>
<td>11.2</td>
</tr>
<tr>
<td>1956</td>
<td>11.4</td>
</tr>
<tr>
<td>1955</td>
<td>11.3</td>
</tr>
<tr>
<td>1950</td>
<td>5.3</td>
</tr>
</tbody>
</table>


76 Kitch, supra note 28, at 265-70.

77 Southern Louisiana Area Rate Cases v. FPC, 428 F.2d 407 (5th Cir. 1970).
and were never implemented. The Fifth Circuit, although affirming the Commission's rates, indicated that the Commission was free to make retrospective as well as prospective changes. On July 16, 1971, the Commission, in accepting a settlement proposal, determined new area rates of 26 cents per Mcf for contracts dated on or after October 1, 1968, and 22.375 cents per Mcf for contracts prior to that date.

Prior to FPC regulation, gas prices in southern Louisiana were far from stable. Through 1950, the unregulated price of gas did not exceed nine cents per Mcf. Prices increased substantially thereafter, and in 1958 the price spiral peaked when Trunkline contracted for gas at 24.05 cents per Mcf. Average wellhead revenue per Mcf increased 158.3 percent for the United States in the period 1947-62; over the same period the increase was 447.2 percent in southern Louisiana. Until 1950, there was only one major pipeline purchaser in the area, United Gas Pipeline. Through the pipeline's exercise of monopsony power, one should expect a wellhead price below competitive levels and an artificially high transmission price. The entrance of additional pipelines in the 1950's broke down this monopsony. By 1955 there were seven transmission companies with overlapping supply areas. The new transporters had disrupting effects upon the previously noncompetitive buying practices, with a resulting increase in wellhead prices. In addition, extensive demand for gas also contributed to the price increase. Moreover, although the price spiral was a result of the change in buyer structure and the strong demand for gas, producer contracts accentuated the increased prices. With the entry of alternative pipelines, a few sellers were supplying a few buyers in southern Louisiana. Under such a bilateral oligopoly, price and output are normally determined by bargaining because there is an absence of impersonal market forces. In a bilateral oligopoly, there may be either balanced power, buyer dominance, or seller dominance. "The scales are fairly

78 FPC Order of Dec. 24, 1970, In re Southern Louisiana Area Rate Cases, 444 F.2d 125 (5th Cir. 1971); FPC Order of July 2, 1970, In re Southern Louisiana Area Rate Cases, 444 F.2d 125 (5th Cir. 1971); FPC Order of May 29, 1969, Southern Louisiana Area Rate Cases v. FPC, 428 F.2d 407 (5th Cir. 1970); Court Order of May 13, 1969, Southern Louisiana Area Rate Cases v. FPC, 428 F.2d 407 (5th Cir. 1970).
80 40 F.P.C. at 553.
81 Southern Louisiana Area Rates, 40 F.P.C. 703, 753 (1966).
82 MacAvoy, supra note 19, at 206.
strongly tipped in favor of the buyers . . . since each of them can act independently to drive a hard bargain as he seeks supply, whereas to resist this pressure the sellers must have effective collusion over price and maintain it under duress."\textsuperscript{85} Whether the producers can exert such power must be viewed in light of the pipelines' bargaining position and the demand for natural gas.

The producers presented evidence in \textit{Southern Louisiana Area Rate Proceeding}\textsuperscript{86} to prove the producing industry competitive. The major producer group relied on the testimony of Dr. James W. McKie.\textsuperscript{87} Dr. McKie used three criteria to analyze the industry. He found that the top four producers accounted for 29 percent of the total interstate deliveries of gas in 1960-61; the top eight, about 50 percent. He compared concentration ratios with those published by the Bureau of Census. Well over half of 1,000 product classes had higher concentration ratios.\textsuperscript{88} McKie next observed the turnover of leading firms, noting that with respect to the top ten suppliers in 1961 under contracts signed from 1957-1960, no supplier appeared among the top four in all four contract years.\textsuperscript{89} Finally, he ascertained that there were low barriers to entry. New entrants accounted for seven percent of the volume of natural gas delivered in 1961, under contracts signed between 1957 and 1959.\textsuperscript{90} "[E]ven though each individual new entrant may account for a small percentage of available supplies, the fact that firms enter the market in considerable numbers is an additional indicator of effective competition."\textsuperscript{91} McKie's conclusions were an absence of concentration in producer control over supply and reasonably effective competition on the supply side.

The Hearing Examiner considered McKie's testimony; however, he reached an opposite conclusion based largely upon the Commission's reasoning in \textit{Permian Basin Area Rate Proceeding}.\textsuperscript{92} The Commission indicated in this first area rate proceeding that

\begin{itemize}
  \item [t]here are admittedly many producers selling gas to the interstate pipelines . . . but nothing in this record suggests that any competition among them in making sales to the pipelines is in any way adequate to assure that the public
\end{itemize}

\begin{itemize}
  \item \textsuperscript{85} Bain, \textit{supra} note 84, at 395. See also \textit{id.} at 332-39. Where there is a lack of product differentiation, as in natural gas, all rival prices tend to be identical. Likewise, since the product is not differentiated, there is a lack of advertising and sales promotion. Rivalry revolves around price and agreements to eliminate price cutting tend to become important.
  \item \textsuperscript{86} 40 F.P.C. 703 (1965).
  \item \textsuperscript{87} Visiting Professor of Economics, University of California, Berkeley.
  \item \textsuperscript{88} 40 F.P.C. at 710-11.
  \item \textsuperscript{89} \textit{Id.} at 711.
  \item \textsuperscript{90} \textit{Id.} at 711-12.
  \item \textsuperscript{91} \textit{Id.}
  \item \textsuperscript{92} 34 F.P.C. 159 (1965).
\end{itemize}
will secure gas at just and reasonable prices in the absence of regulation.93

The Commission must look behind the price negotiated by the producers with the pipelines. The "supply of gas controlled by the producers was so restricted in relation to demand that they have economic power to bargain for prices that will be injurious to the public."94 Furthermore, individual states influence the available supply of gas. The Louisiana Department of Conservation can prohibit the production of gas which exceeds the market demands.95 The Commissioner of Conservation can likewise determine the allowable production of gas among fields.96 Generally, these state regulations seek to prohibit misuse of a wasting resource, particularly when supply exceeds demand, a situation not encountered in the last several years.97

In making his determination, the Examiner recognized the transmission companies' weak bargaining position in relation to the producers. The pipelines have to contract for large blocks of uncommitted reserves at increasing prices. Only a few producers have the large volumes required by the pipelines. The pipeline is willing to pay these higher prices since it can pass the increase on through its regulated cost-based resale rates. In addition, many pipelines are themselves producers with an interest in generally higher producer prices.98

The Examiner felt the key to determining the strength of effective competition was the amount of uncommitted reserves controlled by the large producers. "Here, as in Permian, the producers' principal witness on the issue of effective competition presented no data on the concentration in ownership of uncommitted gas reserves, although the producers themselves have exclusive possession of these facts."99 The Examiner inferred such control by a limited number of producers from several facts, including: (1) Eight producers accounted for over 50 percent of the sales and fourteen for over 71 percent. (2) There were 1,198 non-producing gas wells or potential gas wells in southern Louisiana as of June 1962; five

93 Id. at 181.
97 Many states control the quantity of production (proration) by regulating allowables (level of production) and the division of production (ratability). See A. Leeston, J. Crichton, & J. Jacobs, The Dynamic Natural Gas Industry 26-45 (1963).
98 40 F.P.C. at 717-18.
99 Id. at 716.
producers controlled 52.5 percent, and ten producers controlled 70.4 percent. (3) "[T]hree packages of gas dedicated by Humble and Gulf in South Louisiana in 1963, totalling 12 trillion cubic feet, were larger than the total volume of commitments by all producers to all interstate pipelines in South Louisiana in any two years combined during the 1951-1961 period."100 From this inference, plus the producers' failure to rebut the same, the Examiner implied control of uncommitted reserves in the hands of a few large producers.

In addition to finding concentration in control of uncommitted reserves, the Examiner outlined the pattern of producer contracts. In Permian, the Commission found that favored-nation and spiral escalation clauses were "calculated to assure that all producers would be treated alike and receive the highest going price both at the time of the contract and in the future."101 The Examiner made a comparable finding in southern Louisiana.102 He further found that the terms of the contracts created an artificial demand for gas.

[T]he 20 year sales contract in this industry has the obvious effect of concentrating the demand for a 20 year supply of gas at the time of purchase. This concentration is compounded when, as was the case in South Louisiana, more than one pipeline is seeking supply for major expansions. The result of such concentration of requirements is an abnormal ballooning of demand.103

The Examiner found a lack of competition in southern Louisiana, based upon the pattern of producer contracts and the concentration of reserves. Dr. McKie's statistics were largely discounted. "The presentation by producer witness McKie in the instant case does not meet or answer the practical facts of life with respect to the past history of the production industry during the non-regulatory period."104 The Commission upheld the Examiner's findings:

Based upon this analysis we must conclude that there are serious market imperfections which preclude us from relying upon the free operation of the market, as evidenced by arms' length bargaining, to protect the ultimate consumer from unreasonable purchased gas rates.105

The Fifth Circuit supported the Commission's conclusion of an absence of effective competition. However, although concurring in the findings of oligopolistic behavior in the contracting practices of producers and of the relative weak bargaining position of the

100 Id. at 716-17.
102 40 F.P.C. at 716.
103 Id. at 717.
104 Id. at 718.
105 40 F.P.C. at 554.
pipelines, the court still felt the market was at least structurally competitive.\textsuperscript{106} However, the court was much more concerned about potential supply problems than about competition among producers. "The most serious problem is that of possible supply deficiencies, together with correlative failure of the Commission to consider supply and demand."\textsuperscript{107} Further, Judge Thornberry's opinion was critical of the Commission's reasoning behind "noncost elements" in the rate ceilings. Although deferring to the Commission's expertise in the area, the Fifth Circuit would require the Commission to assess the consequences of its order, particularly how the order might affect industry structure, the availability of capital to the industry, and "most importantly, the industry's probable conduct and performance as a result of the order."\textsuperscript{108} The court outlined three steps the Commission should follow in evaluating rates:

1. estimate the demand for gas,
2. fix the level of desired service,
3. determine how the rate will affect the industry's tendency to meet that level of service.\textsuperscript{109} Some twenty-five years ago, the Supreme Court expressed similar ideals for gas rate regulation.

Far-sighted gas-rate regulation will concern itself with the present and future, rather than the past, as the rate-base formula does. It will take account of conditions and trends at the source of supply being regulated. It will use price as a tool to bring goods to market—to obtain for the public service the needed amount of gas. Once a price is reached that will do that, there is no legal or economic reason to go higher; and any rate above one that will perform this function is unwarranted.\textsuperscript{110}

Such a goal in rate regulation is still adhered to by the Commission. The Fifth Circuit, referring to \textit{Permian}, noted that price should be used to elicit an appropriate level of future exploration and development.\textsuperscript{111} However, establishing a price which "brings the gas to market" may not be a sufficient standard in and of itself. The source of supply is controlled by integrated corporations. To the extent there are more attractive investment opportunities, either in other geographic areas or other industries, a management decision would be based upon anticipated financial rewards. Thus, if price is to be a regulatory tool, it must be considered within the context of the regulated supplier's alternatives for investment in other industries.

The Commission recently approved a 30 percent rate increase,

\textsuperscript{106} Southern Louisiana Area Rate Cases v. FPC, 428 F.2d 407, 416 n.10 (5th Cir. 1970).
\textsuperscript{107} Id. at 441.
\textsuperscript{108} Id.
\textsuperscript{109} Id. at 444.
\textsuperscript{110} Colorado Interstate Gas Co. v. FPC, 324 U.S. 581, 612 (1945) (Jackson, J., concurring).
\textsuperscript{111} 428 F.2d at 419.
from 20 cents to 26 cents per Mcf, in order to provide incentive for increasing gas exploration. The FPC staff's econometric model in the Offshore Louisiana Area Rate Proceeding concluded that "assuming discoveries equal to 30% of reserve additions a rate increase in the neighborhood of 6¢ Mcf will achieve the target for needed reserve additions calculated by the Commission's Bureau of Natural Gas for 1975." An econometric model was also prepared in Southern Louisiana; however, this demand model was rejected by both the Commission and the Fifth Circuit. The model's underlying assumption—the rate of exploratory drilling is more dependent on the rate of production and consumption than on prevailing field prices—was successfully countered by the producers' witness.

The Commission's recent Southern Louisiana decision represents a marked departure from prior area rate determinations. Rather than quantifying with precision the several rate components, a zone of reasonableness concept has been adopted. Instead of adhering to a dogmatic cost-of-service principle, the Commission has approved a total rate design package, including rates, incentives, automatic and contingent escalations, and refunds. The Commission has considered a multitude of economic factors in addition to costs, including alternative fuel costs and investment opportunities, the producer's capital requirements, supply and demand, and the intrastate market. Applying economic considerations, in addition to cost factors, represents a novel and, hopefully, successful attempt at producer regulation. In the 1971 Southern Louisiana decision, the Commission stated that, as a result of its rate orders, there should be no increase in market concentration in the southern Louisiana area and that new producers should be attracted to the area. However, the Commission was more concerned with remedy-

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113 Id., exhibit 46.
114 40 F.P.C. at 625-26.
115 428 F.2d at 436.
116 40 F.P.C. at 857.
118 Indications of this concept as applied to producer area rates were seen in Commissioner Carver's dissent in Southern Louisiana Area Rate Proceeding, 41 F.P.C. 301, 367 (1969).
120 Id. at 44-45. It could be argued that two factors, (1) discharge of refunds worth one cent per Mcf and (2) contingent escalations only for pre-October 1, 1968, gas, would discourage new entrants, since only producers presently in the area receive such incentives.
ing a gas shortage, and the prior evidence of noncompetition in southern Louisiana was not discussed.

CONCLUSION

Maintenance of a healthy industry is an important FPC responsibility. . . . The Commission must assess how circumstances other than structure and capital will affect the orderly development of the industry.121

Responsibility for regulation of producer wellhead prices was thrust upon the FPC by the Supreme Court in the Phillips decision.122 Many authorities subsequently criticized this decision and many have advocated deregulation of the producers. The area rate method of regulating producer prices has done little to help the producer. Until very recently, the FPC has generally held a lid on prices with the result of affording consumers a bargain fuel but artificially increasing the demand for gas in relation to other fossil fuels.

This author contends that producers of natural gas are properly subject to price regulation.123 However, a rate-setting procedure other than the area approach is necessary. A procedure that is less time consuming and that considers the realities of the marketplace to a greater extent is certainly preferable. Kitch recently reviewed some alternative theories for setting field prices of natural gas: (1) surrogate market, seeking to balance supply and demand by setting a market price adjusted for market imperfections; (2) price-result, setting a price to elicit the supply of gas needed; (3) traditional cost method; (4) price control, based on historical price data; and, (5) industry protection, setting prices high enough to restrict entry, thereby insuring that the firms in the industry would operate profitably.124 The traditional cost method is the approach used in setting pipeline rates and is essentially the one utilized in Permian in setting producer area rates, with the addition of certain noncost elements. A price control alternative would be comparable to in-line pricing resulting from Cateco.125 An industry protection

121 Southern Louisiana Area Rate Cases v. FPC, 428 F.2d 407, 442 (5th Cir. 1970).
123 Senator Tower introduced a bill to amend the Natural Gas Act, 15 U.S.C. § 717 (a) (1964), to exempt producers from “natural gas companies.” S. 2442, 92d Cong., 1st Sess. (1971). Another bill, the so-called “sanctity of contract” bill was introduced in 1971. The bill would prohibit the Commission from using its traditional cost-of-service analysis in reviewing the rates in new producer contracts. H.R. 2513 (S. 2505), 92d Cong., 1st Sess. (1971). This bill would require the Commission to consider the supply and demand for gas and the price levels necessary to bring the gas to the interstate market.
124 Kitch, supra note 13, at 191-97.
approach would be more feasible in a single product industry; there would be serious drawbacks in attempting to regulate one facet of an international, multiproduct, integrated petroleum corporation. The surrogate market would afford the advantage of realizing a market-oriented pricing system. At the same time, however, this latter method would initiate a great deal of controversy when market imperfections need to be quantified in cents per Mcf. The price-result approach appears to be coming to the forefront with the FPC.

On June 17, 1970, the Commission issued notice of its proposed rulemaking for new gas sales. This notice was subsequently expanded on July 17, 1970. Recognizing the energy crisis and the 1968-69 declines in proved reserves, the FPC sought to issue nationwide rules fixing the terms for permanent certificates for new gas under contracts dated after June 17, 1970. These rates, established under a rulemaking procedure as opposed to an adjudicatory framework, would be firm rates not subject to refund obligation, but could be modified by any subsequent area rate proceeding. The FPC staff and all interested parties were requested to submit (1) estimates of current, nationwide costs of finding and producing nonassociated gas, (2) information relating to rates of return, (3) recommendations concerning the weight to be afforded contract prices in considering producer rates, and (4) analysis of the extent to which the market mechanism will adequately protect consumers. Subsequent to the notice of rulemaking, hearings were held throughout the country. The vast majority of testimony at the New Orleans hearing on August 10, 1970, indicated an immediate interest in raising wellhead prices. For instance, C. C. Aycock, the former lieutenant governor of Louisiana, testified that restrictions on the wellhead price had reduced the potential return on investment, and J. M. Menefee, Louisiana Conservation Commissioner, stated that the Southern Louisiana Rate Cases had set rates not conducive to the production of natural gas. The Commission has recently taken

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127 18 C.F.R. 2.56 (a) (1971).
128 Briefly, the contention is that ratemaking is rulemaking under the Administrative Procedure Act, 5 U.S.C. § 551(4) (Supp. V, 1967). Thus, notice and opportunity for interested parties to submit their views are required, but a full adjudicatory hearing is not. Id. § 553(6). See generally Hunt Oil Co. v. FPC, 424 F.2d 882, 885 (5th Cir. 1970); Long Island R.R. v. United States, 318 F. Supp. 490, 498-99 (E.D.N.Y. 1970).
130 Id. at 21-22. See also id. at 29 (testimony of Neal Powers, Jr.); id. at 36 (testimony of Wilbur R. Lilly).
concrete steps in setting rates through the rulemaking process for the Appalachian and Illinois Basin Areas and the Rocky Mountain Area.\textsuperscript{131} However, producer price ceilings should continue to reflect costs. To formulate rates based upon national market forces, contract prices, or prices of alternative fuels could conceivably amount to de facto deregulation. On the other hand, price ceilings, once established, could be made more stable over a longer period of time, with allowances for automatic adjustments. The latter would remove some of the uncertainty associated with regulated rates. Finally, since 70 producers account for about 90 percent of the jurisdictional sales,\textsuperscript{132} all producers with annual sales of ten million Mcf or less should be exempted from federal rate proceedings.\textsuperscript{133} Thus, by concentrating on 70 producers, the Federal Power Commission would in fact regulate 90 percent of the market, and the regulated would represent less of an administrative burden.\textsuperscript{134}

There is no reason to expect that perfect competition, absent regulation, would operate in this industry, at least in the southern Louisiana area. Seller concentration, both in terms of interstate sales and control of gas reserves, represents a classic structural oligopoly. Buyer concentration is even greater; however, in light of the current demand for gas, the contracting practices of the producers, and the pipelines' supply requirements, buyers lack the corresponding market power which would normally be associated with tight oligopoly. The producers are in a much stronger bargaining position currently, through alternative investment opportunities and other sources of revenue. Even more importantly, barriers to entry, although still comparatively low, appear to be increasing. A larger company can afford to drill more unsuccessful wells than a smaller firm. The Supreme Court recognized this situation in \textit{Permian}:

\textit{[A]lthough the resources of the small producers are ordinarily more limited, their activities are characteristically financially more hazardous. It appears that they drill a disproportionately larger number of exploratory wells, and that these are frequently in areas in which little exploration has


\textsuperscript{132} See note 4 supra.

\textsuperscript{133} The Commission recently announced a policy of blanket certification of small producer sales. Order No. 428B (FPC, July 15, 1971), \textit{appeal docketed sub nom.}, Tennessee Gas Pipeline Co. v. FPC, No. 71-1558 (D.C. Cir., filed July 15, 1971); Order No. 428 (FPC, Mar. 18, 1971).

\textsuperscript{134} The Supreme Court has implied that such exemption might be reasonable. \textit{Permian Basin Area Rate Cases}, 390 U.S. 747, 785-87 (1968); \textit{cf.} Guss v. Utah Labor Relations Bd., 355 U.S. 1, 3-4 (1957).
previously occurred. Their contribution to the search for new gas reserves is therefore significant, but it is made at correspondingly greater financial risks and at higher unit costs.\textsuperscript{135} Moreover, the costs and procedures utilized in bidding for offshore leases is becoming more and more something only the large producer can accommodate. For instance, the federal offshore lease sale of December 15, 1970, resulted in high bids of $850 million for 127 blocks in Offshore Southwest Louisiana. However, the eight largest interstate sellers of gas,\textsuperscript{136} either alone or in concert, had high bids of about $225 million on 40 blocks.\textsuperscript{137} The risk factor could very well heighten entry barriers in the industry, particularly in the offshore areas.\textsuperscript{138}

When an industry is noncompetitive because of its market conduct, the offending conduct should be remedied through injunctive action. However, where effective competition is absent because of an industry's market structure, dissolution or divestiture are desirable tools.\textsuperscript{139} These policy considerations, although superficially elementary, should underlie the current thrust of antitrust enforcement in the natural gas producing industry. There have been many actions in the petroleum industry to deter inappropriate marketing practices, ranging from reciprocity and price-fixing to false and misleading advertising. However, when the problem arises from market structure, such actions necessarily miss the mark. From the period 1956-68, twenty petroleum companies made 226 acquisitions, 29 horizontal, 169 vertical, and 28 conglomerate.\textsuperscript{140} Although many of the firms acquired may have been insubstantial in terms of assets or sales, these acquisitions have largely escaped prosecution by either the Federal Trade Commission or the Justice Department.

\textit{Competition is likely to be greatest when there are many sellers,}

\begin{itemize}
\item\textsuperscript{135} 390 U.S. at 784-85.
\item\textsuperscript{136} See note 55 \textit{supra}.
\item\textsuperscript{137} World Oil, Jan. 1971, at 74-75. There are many indications that the bidding procedures adopted by the Secretary of the Interior are themselves barriers to entry. For instance, by using a cash bonus (determined by bidding) plus a royalty at 16\% percent, the smaller companies can be forced out of the bidding. However, by utilizing a fixed bonus plus a royalty determined by bidding, smaller companies could afford to participate to a greater degree. \textit{See generally} Krueger, \textit{Study of the Outer Continental Shelf Lands of the U.S.}, 1 Pub. Land L. Rev. Comm'n 207-208 (1968).
\item\textsuperscript{138} Hawkins, \textit{supra} note 68. The risk case is still unclear since it may be an inducement to venture capital that would be in the high marginal tax bracket. High risk may not be a deterrent to entry, as witnessed by the number of mutual funds selling pieces of drilling ventures.
\item\textsuperscript{139} Kaysen & Turner, \textit{supra} note 49, ch. III.
\item\textsuperscript{140} U.S. Oil Week, Mar. 2, 1970, No. 259. \textit{See In re} Kennecott Copper Corp., Doc. No. 8765 (FPC, May 5, 1971) (opinion of FPC invalidating acquisition of Peabody Coal Co. by Kennecott Copper Corp.).
\end{itemize}
none having any significant market share. Where the number of sellers is limited, competition gives way to parallel policies of mutual advantage. The term “independent producer” is erroneous, since the large, integrated petroleum companies are the producers. Not only do they control the supply and production of oil and gas, they have significant interests in coal and uranium. It is questionable whether the public interest is best served by a few firms controlling the energy supplies of this nation. There has always been an air of cooperativeness in the oil industry, as evidenced by its powerful lobby for tight oil import quotas and its relationships with oil-producing states to eliminate excess output. Uniform pricing is clearly the rule for oil, where nonprice-competitive advertising is so prevalent and concentration is even less significant. Even though the producer is outside the normal public utility rationale for regulation, public policy requires regulation, if not for the noncompetitive structure of the industry, then on the theory of scarce resource allocation or wasting resource preservation. Such regulation must be creative yet cognizant of the structure of the regulated industry, or it must necessarily fail.

143 Twenty-seven petroleum companies produce about 70 percent of the domestic crude and account for about 87 percent of the refinery runs. The Chase Manhattan Bank, Annual Financial Analysis of a Group of Petroleum Companies (1969). At the retail level, four companies control 31 percent of the gasoline sales, whereas in Louisiana (the twentieth largest gasoline consuming state), the top four companies account for 51 percent. Bachman & Wilson, Major Slices of Gasoline Pie Still Slipping in the United States, Oil & Gas J., Sept. 13, 1971, at 45-47.