

BOARD OF EXAMINERS OF STATE LICENSED LAND SURVEYORS

Staff Report
to the
Sunset Advisory Commission
February 20, 1978

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INTRODUCTION

This report is submitted pursuant to Section 1.06, Subsection (3) of the Texas Sunset Act and contains a review of operations of the Board of Examiners of State Licensed Land Surveyors. Termination of the Board of Examiners of State Licensed Land Surveyors has been scheduled for September 1, 1979, unless it is continued by law.

The material contained in the report is divided into three major sections: Background, Review of Operations, and Conclusions. The Background section contains a history of legislative intent and a discussion of original need for the Board of Examiners of State Licensed Land Surveyors. The Review of Operations section supplements the information developed by the agency in its self-evaluation report. Additional data were obtained through interviews, review of agency files, and other data sources. The Conclusions section summarizes the import of material developed in the individual criteria from the standpoint of whether Sunset criteria are being met and develops approaches relative to these findings. The review of the Board of Examiners of State Licensed Land Surveyors was restricted to five criteria of the Act that focus on the following topics: 1) efficiency of agency operations (Criterion 1), 2) needs addressed and objectives accomplished by the agency (Criterion 2); 3) an assessment of less restrictive or alternative methods (Criterion 3); 4) consolidation of agency operations with the programs of other state agencies (Criterion 4), and 5) statutory changes to benefit the public (Criterion 5). The omitted criteria were not relevant in that the Board operates as a body without its own separate staff and has been active on an intermittent basis. This report is designed to provide an objective view of agency operations based on the evaluation techniques utilized to date. Together with pertinent information obtained from public hearings, a factual base for the final recommendations to the Legislature will be provided.

BACKGROUND

A board of examiners to license land surveyors was initially created in 1919 by the Twenty-third Legislature. The Board was established to provide the citizens of Texas with an increased number of surveyors who could, on a statewide basis, perform the duties of county surveyors. The function of a licensed state land surveyor has shifted since 1919 and, along with it, the Board's focus. The documentation of this redirected purpose is presented in the enumeration of statutory changes effected in 1941 and 1977. First, however, information associated with the historical development of the Board is presented. It is anticipated that this information will provide a framework which will aid in an evaluation of Board objectives and subsequent operations during the last 60 years.

Historical Developments
Surrounding the Creation of the Board of State
Licensed Land Surveyors

Period Prior to Establishment of the Board

In the earliest days of settlement of the area that now constitutes the State of Texas, land was given to settlers to encourage occupation of the area. By the time Texas had become a Republic, a large amount of land had already been granted to individuals. The need to encourage people to populate unsettled areas and to provide railroads remained a significant concern during the period of the Republic and the early days of statehood. This need resulted in land certificates being granted without regard for consistency or systemization. In addition, there was a lack of statutory law concerning the location of these lands and title to them. The result of these deficiencies was land grants of varying shapes and sizes. The owner and the surveyor were only required to believe that they were locating a particular grant on heretofore unsurveyed public domain. As settlement

progressed, land values began to appreciate, and upon closer examination many conflicts and separations were discovered between surveys.

In an effort to define and record the legal title to land holdings in Texas, a land system was established that required all land grants to be patented and filed in the General Land Office in Austin. In order to preserve and define boundaries surveyors were required to mark the corners and boundaries of each grant and file a description of those markers in the field notes filed in the Land Office.

The state originally was divided into land districts with a district surveyor designated for each. As counties were organized within original land districts, district surveyors were replaced by county surveyors duly elected or appointed. By 1880, all counties were established but it soon became apparent that at certain times counties might be without the services of a county surveyor. It became necessary for the Land Commissioner, when requested, to provide officially designated state surveyors to perform the functions of a county surveyor. This arrangement continued until the creation of the Board of Examiners of State Land Surveyors in 1919.

Period Subsequent to Board Creation

The Act of 1919 provided for a Board of Examiners to examine the qualifications of surveyors and to issue licenses authorizing surveyors to perform the duties of a county surveyor on a statewide basis. This Act appears to have been the culmination of the efforts by individual surveyors seeking to require all surveyors to be licensed. The published comments of a surveyor associated with the passage of this act suggest the impetus for licensing was the result of a desire to establish requirements rigid enough to accord the occupation of surveying proper recognition and dignity as well as to protect the public from those unqualified

individuals posing as surveyors. The General Land Office stood to benefit from this Act by the elimination of the need for state surveyors to be employed by the Land Commissioner. At the same time, the Act provided citizens with an increased number of individuals who could survey statewide and perform the functions of a county surveyor. Article 5280 V.C.T.S. lists the following responsibilities of county surveyors:

- 1) Authorization to file and record field notes and plats of all surveys made in this county as well as any other documents the law requires to be recorded.
- 2) Issue Certificates of Fact and certify the correctness of copies of any document or record or entry shown by the records of a county surveyor.

A shift in the definition of the duties of licensed land surveyors occurred in 1941. Legislation enacted at that time redesignated the Board of Examiners as the Board of Examiners of State Land Surveyors. Surveyors licensed under this law still were authorized to conduct the same surveys County Surveyors were authorized to do, but now their responsibility was extended to include filing field notes on surveys of public lands rather than areas of unpatented land. This evolution in authority reflects the history of public lands in the state. The Congress of 1839 awarded each county three leagues of land for school purposes with additional land set aside for counties not yet organized. The Constitution of 1836 provided for one-half of the unappropriated public domain be set apart to support public education. In 1900, the Legislature granted the remainder of any unappropriated public domain to the permanent school fund. In 1939, the Legislature also deeded to the permanent school fund the mineral estate in riverbeds, channels and all areas within the Tidewater limits. House Bill No. 9, also passed by the Legislature in 1939 allowed a

patentee or his heirs to purchase excess acreage in a patented survey with the proceeds paid to the permanent school fund. Such excess acreage could only be documented through a resurvey of the land granted under the original patent.

A review of legislative changes proposed in 1951 would have more radically redefined the duties and responsibilities of licensed land surveyors by extending the scope of regulated surveying activities to include surveys of subdivision of land tracts, the relocation of establishment of any property lines, boundaries, rights of way, easements or elevations. The regulation of these types of surveying came under the jurisdiction of the Board of Registration of Public Surveyors in 1955. With the advent of the regulation of lot and deed surveying in 1955, state licensed land surveyors moved from being the only surveyors publicly identified and regulated by the state to become practitioners of a specialized form of surveying. This transition was confirmed by the changes enacted in H.B. 901 by the Sixty-fifth Legislature requiring all licensed state land surveyors to be registered public surveyors prior to licensing.

A review of the evolution of the Board of Examiners of State Licensed Land Surveyors extends over a period of 60 years. The Act which created the Board remained unchanged until 1941 when the greatest number of changes in the law, both in terms of number of amendments and significance, occurred. No other changes were made until the Sixty-fifth Legislature enacted H.B. 901 36 years later. Even after a considerable period of statutory inactivity, the definition of a state licensed land surveyor remained essentially unchanged from the Act passed in 1941 which substantially redefined the role and scope of the licensed surveyors authority. Since 1977 the Board's responsibilities have been extended to include more traditional regulatory functions such as publication of the roster and the collection of annual renewal fees which are used to defray the expenses of the Board.

Evolution of the Board of
Examiners of State Licensed Land Surveyors

BOARD ADMINISTRATION

Board Membership and Duties. Senate Bill No. 157, passed on July 28, 1919, created a Board of Examiners of Land Surveyors composed of the Commissioner of the General Land Office and two reputable land surveyors with at least 15 years of practical experience as land surveyors who were appointed by the Governor. In 1941 the law was amended to require consent of the Senate for the appointments and to establish four-year overlapping terms for board members. At the same time, specific responsibilities, which included the maintenance of records concerning board activities and expenditures as well as records on licensees, were designated. The pattern of membership and responsibilities established in 1941 remains essentially unchanged today. The only other changes occurred in 1977 when board members' terms were extended from four to six years, prerequisite professional experience for board members was reduced from 15 to 10 years, and the annual publication of a roster of licensees was authorized.

Staffing Patterns. The Board has never been directed to maintain a separate, permanent staff. The 1941 statute provides the Commissioner of the General Land Office with the authority to designate an employee of his office as an assistant Secretary-Treasurer to provide necessary clerical support. No additional staff has been subsequently authorized.

Method of Financing Board Activities. Although the original law specified \$8.00 of the \$10.00 examination fee to be paid to the Board, the expenditure of any such revenues was not specifically authorized. The statutory changes enacted in 1941 specifically allowed the Board to defray expenses associated with the

execution and administration of this law with revenues received. At the same time, the Act was amended to provide that remaining balances at the end of each fiscal year go to the General Revenue Fund.

LICENSING

Qualifications. In the original Act there were no prerequisite qualifications for licensing by examination. There was a grandfather clause which allowed reputable surveyors with 15 years of experience to be licensed without examination. This option to be licensed by substituting specified experience was eliminated in 1941. Additional amendments passed at the same time prohibited individuals residing outside the state to be licensed. The Licensed State Land Surveyors Act of 1977 added the following requirements: 1) to be of good character and reputation and 2) to be a registered public surveyor.

Examination. The Board was originally authorized to prepare a written examination covering the theory of surveying, practical surveying, the theory and use of surveyors' instruments, calculation of areas, closing of field notes, the law of land boundaries and any other essential subjects. The initial cost of the exam was set at \$10.00. A portion of that fee, \$2.00, was retained by the custodian of questions for teachers' certificates in each county who administered the exam, with the remaining \$8.00 returned to the Board. The Board was assigned the responsibility of grading the exam and the authority to issue or deny a license based on the results of the exam. As mentioned earlier, the Forty-seventh Legislature made licensure by examination mandatory, though all surveyors licensed prior to that date were exempted. The test procedure was also amended in 1941 to designate the County School Superintendent as the individual responsible for administering the exam. These individuals were relieved of that responsibility by

changes in the statute enacted by the Sixty-fifth Legislature in 1977. The exam, now consisting of both written and oral parts, is administered by the Board.

Renewals. Until 1977 no renewal process was provided and licenses were issued for life. In 1977 an annual renewal process was instituted.

Fees. The examination fee of \$10.00 was the only source of Board revenue until 1977 when the Sixty-fifth Legislature authorized an examination fee of \$35.00 and a renewal fee not to exceed \$20.00

Bonding Requirements. Licensed land surveyors have, been required since 1919 to post a \$1,000 bond payable to the Governor. A record of such a bond was to be filed in the county of their residence and in the General Land Office. In 1941 the laws governing this bonding requirement were changed to prevent practice under the act unless a bond was posted.

Official Seal. The Act that created the Board of Examiners of State Land Surveyors directed all licensed surveyors to use an official seal to authenticate all certificates and official acts covered by the statute. No document without the seal had any legal effect. After 1941 the law specified that no act, paper, or map of a licensed surveyor could be filed in the county records or the General Land Office without an official seal.

AREAS OF DESIGNATED AUTHORITY

State Land Surveyors were originally subject to the direction of the Governor, the General Land Commissioner and the Attorney General as well as the courts of the state. Since 1941 licensed land surveyors have been subject only to the authority of the Land Commissioner when engaging in authorized duties. The licensed surveyor's original jurisdiction was declared to be coextensive with the state boundaries and they were given unlimited access to county surveyor's records.

In addition to assuming the duties of a county surveyor, all licensed land surveyors were mandated to forward field notes of all surveys affecting the lines of boundaries and areas of unpatented lands as well as any information regarding the discovery of an undisclosed tract of public land.

In 1941 the Legislature redefined the duties of licensed surveyors. Licensed land surveyors were still authorized to perform the duties of county surveyors, but the statute now specified that the field notes of every survey of public land which affected the lines and boundaries of such land, rather than the field notes of all surveys affecting boundaries and areas of unpatented land, be forwarded to the General Land Office. Original provisions that permitted licensed surveyors, in the absence of a county surveyor, to certify information shown in the county surveyor's records, to make copies of such facts, documents, or records and to receive a fee for such services were repealed in 1941. After this time, while licensed land surveyors still had access to the records of the county surveyor, they were no longer authorized to certify such records or to receive revenues resulting from such acts. Instead, in instances where there was no county surveyor, the county clerk was declared the legal custodian of all records and authorized to perform such services and receive all monies paid.

After this marked change in emphasis the authority of the state licensed land surveyors has remained constant. The only additional change was implemented in 1977. It allowed the licensed land surveyor a qualified right to cross private land when surveying under the provisions of this Act.

ENFORCEMENT

Administration of Enforcement Provisions. Before hearing any charge the original statute directed the Board to advise the licensee of such actions at least 30

days prior to the date fixed for the hearing. Should the charge be sustained, the license was to be revoked and the information made available at the hearing was to be documented in writing. Any surveyor subject to such action had recourse to the district court of any county. Except for limiting the right of appeal to 60 days after revocation and requiring that any appeals be filed in the Travis County District Court, the statutory provisions for such procedures have remained the same.

Provisions for Resignation. After 1941 licensed state land surveyors could avail themselves of the opportunity to file a resignation with the Commissioner of the General Land Office. This provision was necessary since the license was issued for life. Resignation did not, however, relieve the licensed surveyor of his liability for the results of official surveys occurring prior to his resignation.

Penalties. The legislation enacted in 1919 provided for revocation of license, fines and penalties. The provisions for criminal penalties were deleted in the Act passed in 1941, but reinstated in the State Licensed Land Surveyors Act of 1977. The most recent changes are directed primarily at unlicensed individuals who impersonate a licensed state land surveyor by signing his name or using the seal in an unauthorized manner. Penalties for conviction of this offense are fines not to exceed \$500 and confinement of up to six months in the county jail.

COMPENSATION

The Twenty-third Legislature found it appropriate to levy certain restrictions on the compensation a state licensed land surveyor could receive in return for the performance of his duties. Fees for a licensed surveyor's services were not to exceed \$10.00 a day plus other incident expenses agreed upon between the surveyor and his client. Originally, in the case of a county without a county surveyor, a

licensed surveyor was also allowed to charge a fee of \$1.00 for any certified copy of any book, document, record or entry maintained in the county surveyor's records. After 1941, when licensed land surveyors were no longer authorized to perform this function, such fees reverted to the county surveyor or the county clerk. The issue of compensation for official surveys was addressed in the statutes subsequent to 1941 by permitting licensed land surveyors to be compensated by whatever sum was mutually agreed upon between the surveyor and his client.

COMPARATIVE ANALYSIS

To determine the pattern of regulation of surveying similar to that regulated by the Board of Examiners of State Licensed Land Surveyors, a survey of the 50 states was conducted to determine how this activity has been addressed in other states. Despite the fact that 18 other states retained a certain uniqueness by the retention of their public lands upon entry into the Union, regulation of surveys on public lands or surveys which affect original boundaries, regulated as a specialized form of surveying, has not been discovered in any other state in the United States.

REVIEW OF OPERATIONS

Criterion 1

The efficiency with which the agency or advisory committee operates.

The review under this criterion centered on financial data and other records of the agency. This information was analyzed to determine if funds available to the agency had been utilized in a reasonable manner to achieve the purposes for which the agency was created and to determine if areas existed in which greater efficiency of operations could be achieved.

In order to make such a determination, information was gathered through interviews with agency personnel and through a review of appropriate files and records of Board minutes.

Administrative Support Procedures. Although the location of the Board's administrative functions within the General Land Office have resulted in a merging of Land Office and Board responsibilities, certain tasks performed by the two Land Office employees in support of the Board's activities can be clearly identified. The Director of Surveying in the General Land Office serves as assistant Secretary-Treasurer of the Board. This individual and his secretary are responsible for the following functions associated with the Board:

1. Handling all correspondence.
2. Responding to all requests for information.
3. Notifying and scheduling applicants for examination and any other duties associated with administration of the examination.
4. Attending all board meetings to record the minutes.
5. Purchasing of supplies.
6. Performing all clerical support functions associated with the issuance of licenses.

7. Maintaining all financial records and licensee files.
8. Providing clerical support associated with the publication of the roster and annual renewals.

Costs Associated with Staff Support. The self-evaluation report indicates that direct costs associated with the regulation of state licensed land surveyors is estimated at \$200 per year and the data reviewed supported this assertion. However, this figure does not take into account certain indirect costs borne by the General Land Office. It is estimated that the indirect costs associated with an actively functioning board would approach \$3000 annually. This figure reflects personnel and supply costs absorbed by the Land Office.

Board Activities. Information concerning the activities of the Board was documented in a review of Board minutes for the years 1955-1978. The Board met 21 times during this period, usually on an annual basis. The only exceptions to this frequency occurred from 1955-1957 when the Board met more than once during the year and the periods of 1967-1968 and 1969-1974 when the Board did not meet. The Board was also inactive from June 10, 1975, to January 18, 1978. This most recent cessation in activity during 1975-77 was due to the death of one board member and the incapacity, for reasons of health, of another member.

Costs Associated with Board Activities. The minutes for the years 1957-1978 indicate that the total amount of money authorized for board members' expenses, based on claims submitted, totaled \$419.57. The fact that the minutes show that this sum was paid to only two different board members substantiates the agency's statements that not all board member expenses were reimbursed during this period.

Bank balances, held outside the Treasury, reflecting revenues received by the Board were noted in the minutes or in the self-evaluation report as follows:

March 18, 1957	\$302.47
April 22, 1960	293.27
May 1, 1962	223.67
July 1, 1963	223.67
May 1, 1964	239.67
July 1, 1965	174.47
August 31, 1975	229.27
August 31, 1976	150.27
August 31, 1977	128.00

When, as shown below, the bank balances indicated are combined with board expenditures and estimated income from individuals licensed for the years 1957-1977, the remaining balance closely approximates the balance reported on hand August 31, 1977. This result appears to indicate that board expenses were the sole charge against revenues received by the Board.

Estimated Revenues and Expenditures, 1957-1977

Beginning Balance	\$302.47
Estimated Revenues	256.00
Funds Available	<u>558.47</u>
Expenses Noted	419.57
Estimated Balance	<u>\$138.90</u>

Estimated revenues were also calculated for the period 1941-1956 with the following results.

Estimated Revenues and Expenditures, 1941-1956

Estimated Revenues	\$2,360.00
Ending Balance	302.47
Estimated Expenses	<u>\$2,057.53</u>

Although approximately 623 surveyors were licensed between 1919 and 1941, it cannot be ascertained how many were licensed through examination and how many were licensed through the grandfather clause prior to mandatory examination. An estimate of revenues realized by the Board in this period is placed at \$1250.

The net result of these calculations suggests that, since 1919, the Board of Examiners of State Licensed Land Surveyors has collected revenues of approximately \$3,866 and incurred expenses of \$3,727.10 in the licensing and regulation of

licensed land surveyors. One statutory change with fiscal implications was implemented in 1941 requiring that any remaining balances would revert to the General Revenue Fund each year. The review identified no documentation to indicate that this fund transfer had ever occurred prior to January 18, 1978.

Licensing Activities of the Board. Using files which document when the bonds required by the statute were issued and canceled, a record of licensing activities of the Board was reconstructed in Table 1.

TABLE 1

State Licensed Land Surveyors, 1919-1977

	Number Registered	Reported Attrition	Number of Active Licensees
1919-1925	137	2	135
1926-1930	104	5	245
1931-1935	139	16	354
1936-1940	222	77	502
1941-1945	65	37	530
1946-1950	200	61	669
1951-1955	36	86	619
1956-1960	15	79	555
1961-1965	10	61	504
1966-1970	4	40	468
1971-1975	7	29	446
1976		6	440
1977		8	432
Surveyors for whom the date of death or retirement is not known			(101)
Active Licensed Land Surveyors, 1977			<u>331</u>

The total number of surveyors licensed since the creation of the Board appears to be approximately 939. Further analysis of these files reveals that, except for the years during World War II, the number of state licensed land surveyors increased. This growth ceased after 1950 and since that time the number of surveyors licensed, as well as the number of active surveyors, has declined steadily. The most precipitate drop in surveyors licensed appears to correlate with the creation of the Board of Registration of Public Surveyors in 1955.

Summary

The analysis of revenues and expenditures of the Board of Examiners of State Licensed Land Surveyors indicates that although large sums of money have not been collected, a greater measure of accountability and compliance with statutory financial requirements could be achieved if Board funds were held within the State Treasury. The agency's assertion that the Board in its present organizational form is cost effective is supported by the evaluation conducted. Statements to this effect are supportable even when indirect costs are accounted for.

There is no evidence available to indicate that the resumption of examinations will slow the decline in the number of active licensed land surveyors. But the fiscal consequences of such a decline may not be as apparent due to the additional revenues generated by the renewal process just instituted and the subsidization of indirect operating costs by the Land Office.

Criterion 2

An identification of the objectives intended for the agency or advisory committee and the problem or need which the agency or advisory committee was intended to address, the extent to which the objectives have been achieved and any activities of the agency in addition to those granted by statute and the authority for these activities.

The review under this criterion centered on an identification of the agency's statutory objectives as they related to the perceived need and the extent to which agency methods used can reasonably be expected to achieve those objectives. Statutes were reviewed to determine if objectives described in the self-evaluation report presented an accurate reflection of statutory duties. Agency viewpoints were sought to provide additional clarification; and appropriate files associated with bonds issued, rosters published, Board minutes, and the published comments of various Texas surveyors were reviewed to collect and verify selected data presented under this criterion.

The evaluation of agency objectives is structured around the major functional activities of a regulatory agency; licensing and enforcement.

The Licensing Function. The review of the statutory history showed the written examination to be the primary selection instrument to ensure the quality of land surveyors licensed. The examination was to be designed to accurately test a land surveyor's knowledge and skills in areas the Board considered reasonable and necessary.

The first requirement tests applicants on their understanding of the duties and responsibilities set out in the statutes. Second, every licensed land surveyor should be acquainted with the history, functions, organization and procedures of the

General Land Office. This requirement is considered essential since licensed land surveyors are required to conduct a thorough investigation of all records related to the area being surveyed. The third skill required is a thorough grounding in the practical and theoretical aspects of surveying. This knowledge should include the ability to file valid, legal field notes as well as being able to report in a clear concise manner all pertinent information. The fourth major area of expertise requires wide familiarity with all aspects of boundary laws and any pertinent judicial precedents.

An analysis of the population of currently licensed state land surveyors was made to assess the impact of the Board's examination policies. Review of the statutes revealed that the licensure by examination had not been made mandatory until 1941. The 20 year delay in requiring examinations for licensing appears to have severely limited the effectiveness of the exam in terms of numbers of surveyors who were eventually tested with it. To verify this conclusion bond files and rosters were checked to establish how many licensed land surveyors were selected on the basis of examination. The result of this analysis is characterized in Table 2.

Analysis of the data presented in Table 2 indicates that **only 60 percent of the** currently active licensed land surveyors have been licensed since testing was mandatory. Presently, only nine percent of the population of active state land surveyors meets the current requirement involving testing both as a registered public surveyor and as a state licensed land surveyor. Past statutes have relied on the examination process to ensure that qualified individuals were licensed. The present statute attempts to ensure the quality of licensed state land surveyors by relying on prior certification of competence through registration as a **registered public surveyor**. In both cases this reliance may not warrant such **confidence**.

TABLE 2

AN ANALYSIS OF CURRENTLY ACTIVE STATE LAND SURVEYORS SUBJECT TO LICENSURE THROUGH EXAMINATION

130 (39%)	This group of surveyors was licensed prior to 1941. Most members of this group were probably licensed under experience provisions (Grandfather clause)
172 (52%)	This group of surveyors was licensed between 1941 and 1955. They would have been licensed through the examination which was mandatory.
29 (9%)	This group of surveyors was licensed between 1955 and 1975 and may have been subject to examination both as state land surveyors and as a registered public surveyor.
<hr/>	
331	total number of active state licensed land surveyors shown in the bond files.

There are clear indications of overlap as high as 90 percent between individuals licensed under the Board of Examiners of Licensed State Land Surveyors and those registered with the Board of Registration of Public Surveyors. This situation suggests that the effects of two grandfather provisions affecting the same occupational group intensifies the effect of such a clause. Since as many as 50 percent of all state land surveyors and public surveyors still practicing may have been licensed under grandfather provisions, projections indicate that it will take at least another 25 years before almost all practicing surveyors will have been selected on the basis of an examination which was an objective addressed by the law in 1919.

Prior to changes made by the Sixty-fifth Legislature, the law specified that the examination for licensing as a land surveyor would be a written one.

Presumably a written format was required because, at that time, the examination function was carried out through the custodians of questions for teachers certificates in each county and later by County School Superintendents.

In 1977, the law was changed to permit the exam, consisting of both oral and written parts, to be administered by the Board at the General Land Office. A review of the minutes indicated that the Board had implemented the oral exam as early as 1957, nearly 20 years before it was authorized. The procedure was preliminary to application for the written test. Applicants brought a working sketch to their oral interview with the Board. The Board apparently used this procedure to determine the extent of an applicant's knowledge and experience prior to their application to take the written exam. The minutes show that during the 21 Board meetings held between July 18, 1955 and June 10, 1975, 96 oral interviews were conducted. In half of the instances (48) the applicants were approved to apply for the written examination and in half of the instances (48) applicants were asked to return to the Board after further study. Of the 48 individuals with Board approval to take the examination, the minutes show only 20 surveyors actually licensed. The minutes indicate that four applicants taking the written examination failed. The net result of all the selection taking place in this process is that of the applicants initially seeking licensure, 25 percent actually achieved that goal. Based on a comparison of failure rates, the oral exam rather than the written examination proved to be the primary selection instrument. Half of the applicants did not pass this portion of the examination while 84 percent of the applicants taking the written examination passed. While figures such as these can be used to support the predictor value to the oral examination, the implementation of this procedure prior to appropriate statutory changes is subject to question.

Enforcement Function. A review of available records revealed that only one instance of a license revocation has occurred since the Board was created. Of the minutes reviewed, only four instances of complaints, all occurring in 1956 and 1957, were noted. Two of these complaints were dismissed when the Board judged the surveyors not to be at fault. One complaint was withdrawn and settled by the individuals involved and the last complaint received was not acted upon when the Board determined the surveying practice in question did not fall within the jurisdiction of the Board.

Since its creation, the Board has been provided with enforcement sanctions intended to ensure maintenance of minimum standards of competency of the licensees. A shortcoming of all such sanctions is that compliance with the law is only addressed when a complaint is directed to the Board. This method of enforcement is heavily dependent upon factors outside the Board's control, namely voluntary compliance. When the resources of a regulatory agency do not permit active inspection or enforcement efforts, it is difficult to assess the implications of a total absence of complaints received or acted upon by this Board in the last 20 years. The Land Resources Division of the General Land Office is responsible for checking field notes filed by licensed state land surveyors and county surveyors for accuracy and their authority to file such documents. Such procedures are seen as the most effective control on the quality of surveying in effect, and although this same individual serves as assistant Secretary-Treasurer of the Board of Examiners, this control procedure is primarily the result of actions on the part of the General Land Office rather than by any action on the part of the Board.

Summary

Some of the apparent weaknesses addressed in this evaluation may stem from problems common to much of the occupational legislation in effect. Nevertheless

the legislature has delegated to the Board an array of powers which effect the number and quality of individuals who may enter an occupation. The evaluation conducted under this criterion was designed to document the results of the Board's achievement of their objectives.

The results of this review of a licensing agency's objectives suggests that the time lag in reaching desired licensing objectives imposed by grandfather clauses may be of a much longer duration than ever anticipated. If the inclusion of the grandfather clause was a concession to insure the enactment of a law requiring licensing through examination, it must be assumed that no one projected a time span of up to 75 years to overcome the effects of such a provision and to achieve the objectives originally intended. If, after 60 years and the combined efforts of two separate boards, as many as 50 percent of the total population of regulated surveyors still practicing entered under a grandfather clause, the efforts to meet the objective of selecting qualified applicants on the basis of an examination cannot be judged successful.

The evaluation of the examination procedures employed since 1957 also raises questions as to the Board's interpretation of the statutory provisions for such examinations and the appropriateness of the implementation of procedural changes concerning a critical phase of the licensing process without prior legislative approval. Actions such as this seem to point to a lack of sensitivity on the Board's part to the economic and legal implications of such decisions. The review of the licensing function points out the problems in approaching enforcement of occupational standards through increasingly strict penalty provisions dependent on the voluntary compliance of the regulated individuals. The record of minimal complaints and disciplinary actions which could be documented suggests that the

option to relocate such powers to achieve more efficient and effective use of the state's resources may be appropriate.

Criterion 3

An assessment of less restrictive or other alternative methods of performing any regulation that the agency performs which could adequately protect the public.

The review under this criterion centered on analyses of the agency's regulatory functions in terms of 1) changes over time in the restrictive nature of agency functions, as seen in the agency's statutory history; 2) significant effects of this regulation on the public and the industry; and 3) alternative methods of performing the agency's regulatory tasks. These analyses were obtained through the agency's self-evaluation report, literature concerning occupational licensing, and surveys of similar licensing functions in other states.

Evolution of Agency Functions. In order to assist in a determination of the net effect of statutory changes associated with the Board of Examiners of Licensed State Land Surveyors, **Table 3 was constructed.**

The rank ordering of the incidence of statutory changes listed below provides an indication of the emphasis and direction resulting from proposals enacted.

Licensing	10
Board Administration	8
Enforcement	5
Areas of Designated Authority	4
Compensation	2

The net result of these amendments has been to effect the following changes: 1) to broaden the authority and responsibilities of the Board, 2) to stiffen entrance requirements and centralize licensing procedures, 3) to set more specific constraints on the enforcement procedures and reassert a reliance on criminal penalties, 4) to redefine the scope of authority of licensed land surveyors and 5) to remove any enforceable constraints on compensation received by licensed land surveyors.

Table 3
SUMMARY OF STATUTORY CHANGES

Area of Concern	1941	1977
Board Administration	<ol style="list-style-type: none"> 1) Senate confirmation of Board members required 2) Four-year overlapping terms established 3) Board directed to assume responsibility for maintenance of Board records 4) Land Commissioner authorized to appoint land office employee to provide clerical support 5) Board authorized to use revenues to defray expenses, with remaining balance transferred to General Revenue Fund annually 	<ol style="list-style-type: none"> 1) Six-year overlapping terms established 2) Board member experience requirement lowered from 15 years to 10 years 3) Board directed to publish roster annually
Licensing	<ol style="list-style-type: none"> 1) Licensing by examination made mandatory 2) Individuals residing outside the state prohibited from becoming licensed 3) County school superintendent to administer the written examination 4) Licensed surveyors specifically prohibited from practice without current bond 5) No act, paper, or map or a licensed surveyor could be filed in Land Office or County Courthouse without seal 	<ol style="list-style-type: none"> 1) Licensees required to be of good character and reputation 2) Licensees required to be registered public surveyor 3) Examination to include oral section 4) Examination to be administered at General Land Office by Board members 5) License renewals instituted and fee ceilings set at \$20.00

Area of Concern	1941	1977
Areas of Designated Authority	<ol style="list-style-type: none"> 1) Land surveyors no longer subject to Governor, Attorney General and courts 2) Surveyors were directed to file field notes on public lands rather than unpatented lands 3) Surveyors no longer allowed to certify county surveyors records and receive fee 	<ol style="list-style-type: none"> 1) Surveyor allowed qualified right to cross private land when surveying under provisions of this Act.
Enforcement	<ol style="list-style-type: none"> 1) Right of appeal of license revocation limited to 60 days 2) Any appeal must be filed in Travis County District Court 3) Surveyors allowed to resign license 4) Criminal penalties deleted 	<ol style="list-style-type: none"> 1) Criminal penalties reinstated, with penalty directed at unlicensed individuals impersonating licensed surveyor
Compensation	<ol style="list-style-type: none"> 1) Fees no longer specifically limited 2) Income from fees collected for certifying county surveyor's records prohibited 	

When statutory changes are compared in terms of the date these changes occurred, it can be concluded that the most significant changes in the law occurred in 1941 and subsequent changes made in 1977 reinforce these earlier changes but do not substantially alter the direction or scope of the Board's activities.

Significant Effects of Regulation. Material presented in the discussion of Criteria 1 and 2 document a pattern of regulation that has placed a consistent emphasis on standards related to entry into the occupation; in contrast to relatively less effort expended to maintain and enforce standards and practice within the occupation. What economic dislocations result from such an emphasis cannot be readily ascertained.

Alternative Methods of Regulation. There is no indication that any of the 50 states which license land surveying, license state land surveyors or boundary surveyors as an occupational specialty separate from other types of surveying practice.

Summary

The Board of Examiners of Licensed State Land Surveyors has, since its creation, possessed the traditional array of discretionary powers associated with occupational regulation. The uniqueness of the regulation of surveying in Texas is not reflected in the degree or character of that regulation, but rather by the fact that boundary surveying is considered a separate and discrete subspecialty of surveying that requires regulation through an independent agency.

Criterion 4

The extent to which the jurisdiction of the agency and the programs administered by the agency overlap or duplicate those of other agencies and the extent to which the programs administered by the agency can be consolidated with the programs of other state agencies.

The review of this criterion was directed at evaluating the agency's definition of its target population. The existence of other similar populations was explored and the extent of any overlap and duplication of services offered was analyzed. When applicable, the review also dealt with any efforts to establish coordinative relationships between agencies serving similar target groups and to minimize any duplication of services. This information was collected through discussions with agency personnel, review of statutes and rules, and the identification of other agencies with the potential ability to offer these same services.

Regulatory Jurisdiction. The Board of Examiners of State Licensed Land Surveyors regulates all surveyors authorized to perform the functions of a county surveyor and to file field notes on surveys of public lands which affect the original lines and boundaries. The Board's target population includes not only all licensed state land surveyors, but also all registered public surveyors who could potentially qualify for licensing by this Board.

Overlapping Functions. All regulatory agencies share a striking degree of similarity in powers exercised and as a result there is also a corresponding similarity in functional activities. Thus, the Board of Examiners of Licensed State Land Surveyors could be compared with the Board of Registration for Public

Comparative Regulatory Functions

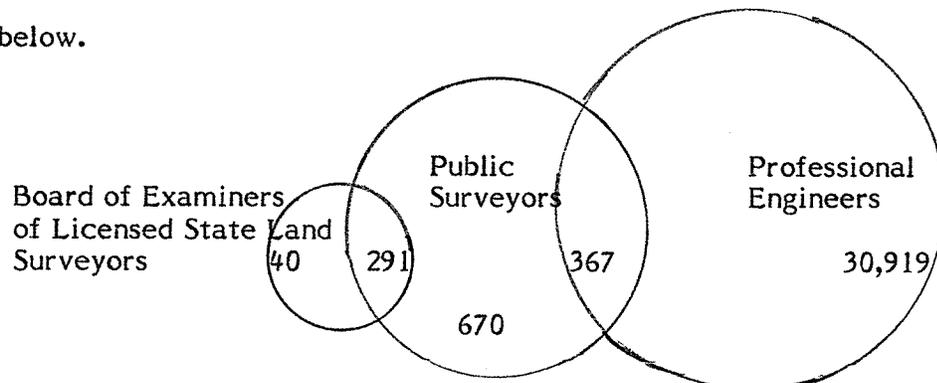
					Agency Functions
X			X		establish qualification standards independently
	X			X	qualification standards suggested by national organization
X		X	X		develop written examinations
	X	X		X	utilize national exams
X	X	X	X	X	process exam applications
X	X	X	X	X	evaluate qualifications for examination
				X	prepare and send candidate ID cards
X	X	X	X	X	collect and process exam fees
					administer exams annually
	X		X	X	administer exams semi-annually
		X			administer exams on multiple occasions
	X	X		X	administer multiple exams
	X	X		X	national exam grading procedure
X		X	X	X	agency exam grading procedure
X	X	X	X	X	record and report grades
X	X	X	X	X	prepare and distribute certificates of registration
X	X	X	X	X	process annual license renewal
X	X	X	X	X	collect renewal fees
X	X	X	X	X	mail notification of delinquency
	X	X	X		reciprocal registration processed independently
	X			X	reciprocal registration processed thru national org.
	X	X	X	X	collect reciprocal registration fees
X	X	X	X	X	receive and investigate complaints
	X				field investigation capability
	X	X	X	X	issue warnings
X	X	X	X	X	consult legal counsel reference violations
	X		X	X	invoke injunctive powers
X	X	X	X	X	arrange agendas for Board meetings
X	X	X	X	X	administer Board meetings
X	X		X	X	prepare roster
X			X	X	distribute roster
	X			X	coordinate activities with educational institutions

Surveyors, the Board of Landscape Architects, the Board for Professional Engineers and the Board of Architectural Examiners not only on the basis of shared functional activities, but also in terms of common professional orientation.

Despite the fact that these agencies vary widely in terms of staffing and number of registrants, organization and regulatory activities are quite similar. Each Board is composed of practicing professional members, paralleled by a corresponding professional society which provides input into the regulatory system. With the exception of both boards regulating surveyors, the operations of these agencies are characterized by licensing responsibilities which are linked in some way with national regulatory associations influencing qualification standards, examination procedures and reciprocal licensing arrangements. The scope of enforcement capabilities differs considerably between agencies.

Though the Board of Examiners of Licensed State Land Surveyors and the Board of Registration for Public Surveyors regulate aspects of the same profession, there are no apparent formal or informal mechanisms for cooperation or coordination. The two Boards appear to justify their separate existence on the premise that their jurisdictions, in practice, are as separate and as distinct as are the operations of their Boards.

Further investigation, as well as a comparison of published rosters, revealed a significant overlap in surveyors regulated by the Board of Examiners of Licensed State Land Surveyors, the Board of Registration for Public Surveyors, and the Board for Professional Engineers. A diagram showing this duplication of regulation is presented below.



Consolidation Potential. Consolidation of administrative functions of the agency with the Public Surveyors is not considered necessary by the agency due to the minimal direct costs associated with the Board's present operations. Merging of the occupational specialties of grant boundary surveying with other boundary surveying, subject to the regulation of one board is not considered feasible by the agency. The agency feels the quality of boundary surveying will suffer if all public surveyors were permitted to engage in the forms of surveying currently under the jurisdiction of the Board of Examiners of Licensed State Land Surveyors.

Required Professional Expertise. One aspect of consolidation potential is the identification of agency activities where Board expertise is essential for efficient and effective functioning of the agency. On this point, the agency stresses the relationship that exists between the General Land Office and the Board in terms of **location, activities regulated and board membership.**

Summary

The Board of Examiners of Licensed State Land Surveyors' responses contained in the self-evaluation report indicate limited recognition of the fact that the target population directly impacted by the agency is a virtual subset of a larger group of registered public surveyors. However, recent statutory changes proposed by the surveyors' professional organization recognize this relationship explicitly by requiring all licensed state land surveyors to be registered public surveyors prior to licensing as a state land surveyor.

The crux of the issue revolves around the question of whether boundary surveying and lot and deed surveying are mutually exclusive subspecialties of one occupation. In light of the absence of corresponding regulation in other states, the similarity of functions, the considerable overlap in memberships, and the absence of any occupational differentiation in the corollary professional association, the distinction appears to be an artificial one. The division in regulation that has

evolved appears to have resulted from historical circumstance rather than from any generally understood or widely held and practiced principle. The agency's responses to this criterion suggest that they are unable or unwilling to see beyond occupational orientations to address the similarities of organization, management problems, and functional activities experienced by all regulatory agencies.

Criterion 5

Whether the agency has recommended to the legislature statutory changes calculated to be of benefit to the public rather than to an occupation, business, or institution the agency regulates.

The review under this criterion centered on statutory changes which affect the operations of the agency. The review focused on both proposed and adopted changes which occurred in 1941 and amendments adopted in 1977. In analyzing these changes, the approach was taken that a statutory modification must be of clear benefit to the state's citizens to be considered as in the "public interest."

Using the chart tracing the statutory evolution presented in Criterion 3, the discussion of the effects of these legislative changes centers around the amendments adopted by the Forty-seventh Legislature. These were the only instances of statutory changes affecting the operation of the agency. Proposed changes not adopted by the Forty-seventh Legislature will also be discussed, since in this case, the proposed legislation provides additional insight into the statutory evolution of this agency and the current role and impact of this Board on the practice of surveying in this state.

ANALYSIS OF RECOMMENDATIONS

Board Administration. Changes having significant impact on the Board's operations were adopted in 1941 and dealt with increased responsibilities in terms of record keeping on licensees as well as on board activities and expenditures. The Board was also afforded clerical support when the Land Commissioner was authorized to designate an employee of his office to carry out such duties. Proposals not adopted at this time gave the Board responsibility for publication of a

roster. This proposal was adopted in changes enacted in 1977 by the Sixty-fifth Legislature. Another change implemented in 1941 specifically authorized the Board to defray its expenses from revenues received and to revert the remainder to the General Revenue Fund annually. This change, as well as additional record keeping responsibilities, were timely since from 1941 to 1950 the Board received proportionately greater revenues from the mandatory testing requirement enacted in the same year.

Licensing. The licensing function of the Board has been subject to more changes than any other area. When these changes are viewed together, the effect is more stringent entrance requirements into the occupation as well as a centralization of the testing function associated with the licensing of surveyors. While application requirements were stiffened in 1941 by mandatory testing and the prohibition of licensing of nonresidents and in 1977 by the addition of a character clause and the requirement of prior registration as a public surveyor, several requirements which were proposed but not adopted were far more restrictive. These would have required an applicant to be a U.S. citizen, be at least 25 years of age, possess a minimum of five years experience and be a graduate of a four-year course in civil or mining engineering. Several other changes sought in 1941 were not enacted until 1971. These included centralization of examination procedures in the General Land Office, administration of the examination by the Board and an annual renewal process.

Areas of Designated Authority. This area includes major restructuring of the focus of responsibilities. The changes incorporated in legislation adopted in 1941 redefined the state land surveyor's role in the following ways: 1) state land

surveyors were subject only to the Land Commissioner, 2) surveyor's activities were redirected from surveys of unpatented lands to surveys of public lands and 3) surveyors were no longer allowed to certify county surveyor's records and to receive the fees from such activities.

Enforcement. In 1941, except for minor procedural matters, the focus of legislative action in this area centered on statutory penalties. Efforts to expand offenses under the statute include: 1) surveying without a license, 2) using another individual's license, 3) fraud in obtaining a license, 4) impersonation of a licensed surveyor, and 5) any surveying conducted by a non U.S. citizen were defeated and criminal penalties deleted. These were restored in a limited way in 1977 in cases involving impersonation of a licensed land surveyor. The proposed changes concerning criminal penalties appear to be directed primarily at the non-licensed individual.

Compensation. In 1941, the Act was changed to delete any specific references to fees. Any compensation is now based on mutually agreed upon sums.

In summary, in no case noted did the changes proposed or enacted result in statutory modifications to the clear benefit of the state's citizens. A comparison of the changes enacted in 1941 and those that were not, provides a new perspective on the relationship between boundary surveying and lot and deed surveying. Contrary to the current view of the agency, in 1941, these occupational activities were considered sufficiently similar to propose that all surveying activities be licensed by the Board of Licensed State Land Surveyors.

CONCLUSIONS

From its early history, the state has recognized the importance of the practice of surveying. Early attempts to provide a minimum number of individuals to perform this function, through elective office, did not produce a consistent result in terms of numbers or quality. The realization that boundary lines drawn for public land surveys would establish the basis for the boundaries of private land holdings for generations to come, focused the need for more consistent and accurate standards than that supplied by the county surveyor. In addition, there were numerous counties in the state which, at various times, were without the services of county surveyors. Since the responsibilities of county surveyors included authorization to file and record field notes and other documents required by law and to certify copies of any document recorded in the county's land records, an authorized alternative to the county surveyor became necessary. The creation of the Board of Licensed Land Surveyors provided this alternative. Through the basic tools of licensing and enforcement, the Board was to provide the citizens of the state with an increased number of licensed individuals qualified to survey statewide and perform the functions of a county surveyor as well as filing field notes on unpatented and later, public lands.

The review contained in this report has centered on the areas of licensing and enforcement to assess the result of the exercise of these powers on the objectives which were originally conceived under the statute. The evaluation of the Board of Examiners of Licensed Land Surveyors raises serious doubts as to whether the licensing objective originally defined by the Legislature in 1919 has been achieved.

The response to the creation of the Board was immediate in terms of number licensed: 192 in the first decade of the Board's existence; 335 licensed between 1929 and 1939 and 271 licensed between 1939 and 1949. However, the degree of their qualification is open to serious question. Information made available

concerning the early years of the Board's operation suggest that the licensing examination was most probably never functional before 1941, resulting in 56 percent of all the individuals licensed under this Act never being certified by an examination process. The far-reaching consequences of the option to license under the grandfather clause is emphasized by figures which indicate that 39 percent of the currently practicing licensed state land surveyors are still practicing with a license obtained through the grandfather provision. For a licensing test to be an objective standard that assesses the competency of an individual, it must not only be a valid instrument, but it must also be utilized.

Other events that occurred since the Board's creation have also had an effect on the status of surveying in Texas. The most significant effect upon the occupation has been the creation of two additional regulatory agencies having jurisdiction over regulation of various aspects of surveying. In 1937, the Board of Registration for Professional Engineers was created to license and regulate engineers. Individuals licensed by this agency are permitted, by law, to engage in surveying in their practice as a Registered Professional Engineer. In 1955, the Board of Registration of Public Surveyors was created to regulate surveying activities that did not already fall under the Board of Examiners of Licensed State Land Surveyors or the Board of Registration for Professional Engineers. The almost total overlap in the target populations of the two board's regulating surveyors may provide at least a partial answer to the precipitous decline in the number of land surveyors seeking to become licensed land surveyors after 1950. The number of surveyors licensed between 1939 and 1949 totals 271 despite a drop in activity during World War II. Between 1949 and 1959, the number drops to 96 surveyors licensed with only 21 surveyors licensed by the Board since 1959. Not

only were there almost no new surveyors licensed between 1957 and 1977, but the Board, at various times, was totally inactive for half of this period. Since published estimates placed 75 percent of all surveying activities beyond the jurisdictions of the Boards of Licensed Land Surveyors and Registered Engineers, the creation of the Board of Registration of Public Surveyors would give strong indications that the presence of a Board regulating a significantly greater percentage of surveying activities may now play the predominant role in the regulation of all surveying within the state. As indicated earlier, the review of the Board of Examiners of Licensed State Land Surveyors raises doubt that the licensing objective originally defined by the Legislature in 1919, has or will be achieved soon given the current operation of the agency.

However, should the legislature decide to continue the regulation of land surveyors, several steps could be taken to strengthen the achievement of stated objectives:

THE LEGISLATURE SHOULD CONSIDER MERGING THE FUNCTIONS
OF THE LICENSED STATE LAND SURVEYORS WITH THAT OF
OTHER SIMILAR LICENSING AGENCIES.

By merging the regulation of licensed state land surveyors with the regulation of the mainstream of surveying activities, certain results would occur which could improve the effectiveness of the licensing and regulation of licensed state land surveyors. Such a reorganization could result in a more efficient allocation of the state's resources by eliminating the almost total duplication of administrative processes associated with the present licensing of surveyors. Consolidation of these two groups would also contribute to minimizing the fiscal and management problems associated with small regulatory agencies. The correspondence of the areas of knowledge required for the two examinations presently used suggest that an examination incorporating elements of both could be achieved with little difficulty if consolidation were to occur. Since in actual practice, grant and boundary surveying and other boundary surveying activities do not appear to be mutually exclusive occupational specialties, a consolidation of these boards would result in greater consistency of regulation and contribute to the elimination of artificial distinctions between activities within the same profession. The

combination of resources effected by consolidation of regulation would also result in proportionately greater resources becoming available to address the problems associated with the achievement of enforcement objectives. It is anticipated that the bonding requirement would continue to be a condition for all registered surveyors acting as an agent of the State of Texas.

Additionally, other steps should be considered regardless of the organizational form through which the function is carried out:

THE LEGISLATURE SHOULD CONSIDER A CONDITIONAL LICENSE AND EXAMINATION FOR STATE LAND SURVEYORS LICENSED PRIOR TO 1941.

The implementation of this recommendation would redress the past ineffectiveness associated with licensing by examination and provide greater assurance to the public of the qualifications of Licensed State Land Surveyors.

STRATEGIES FOR ENFORCEMENT, OTHER THAN VOLUNTARY COMPLIANCE OR INCREASED PENALTIES SHOULD BE DEVELOPED.

Based on the past record of minimal enforcement activities by the Board, the previous reliance on penalty provisions and voluntary compliance are ineffective means of meeting this objective.

ADMINISTRATIVE PROCEDURES SHOULD BE STRENGTHENED TO IMPROVE INFORMATION USED FOR DECISION-MAKING AND THE REVIEW OF REGULATORY ACTIVITIES.

Due to the lack of information available, there was difficulty in documenting the activities of the Board prior to 1957. Information is also not assembled in a manner that will aid in timely decision-making.

THE FUNDS RELATED TO THE REGULATORY FUNCTION SHOULD BE DEPOSITED IN THE STATE TREASURY.

The transfer of funds from the local account to the Treasury would result in improved controls over funds received and would provide an easier mechanism for automatic reversion to the general revenue fund.