

54 lines P. 1

71- P. 2 + 3 P. 4

64-

AIDS FOR THE TEXAS LEGISLATOR

Total 368 lines
Final Draft

23 lines
titles

COMPLEXITIES OF LAWMAKING. The task of today's legislator is not an easy one. Every day he must make decisions on a vast number of complex problems, many in fields other than his own. He is, or must become, a "generalist". In addition to his role as a maker of public policy, he must attempt to evaluate the worth of a multitude of economic and social projects and, acting as a sort of economic umpire, apportion public funds among many competing forces. In doing so, our "generalist" legislator finds that he must deal with the problems of specialists--doctors in public health legislation, teachers in education, and economists in taxation, for example. Each professional group feels that its views on proposals dealing with its specialty are better than the legislator's views. In the final analysis, the lawmaker must rely largely on common sense in choosing between alternatives. Even so, he must have certain facts before he can make a choice. Where can he get them? Time is lacking for extensive personal research. To whom can he turn for information to aid him in making his decisions?

SERVICES AVAILABLE. To help meet the ever-increasing need for information and to assist with the work load, various clerical, technical, and research services are available to the Texas legislator. It is the aim of this publication to examine a number of these services, to compare them with services available in other states, and to discuss suggestions for improvement.

OFFICE SPACE. Texas now provides office space for all its legislators. Only a few other states do so, although the trend is to provide improved office and related facilities. North Carolina and New Mexico have just completed new buildings; New York and Hawaii have them under construction; and Connecticut, Indiana, Washington, Ohio, and others, are considering the provision of office space for their legislators.

Some states, notably Illinois, are even thinking of providing each legislator with funds to establish and run an office in his home district, as well. In contrast, thirty-six states furnish office space only to legislative leaders and a few committee chairmen.

Although Texas senators have had private offices in the capitol for years, representatives, except for the leaders, such as the speaker and later the committee chairmen, until 1961 had only their desks on the floor. Their secretaries worked shoulder to shoulder in a corridor behind the House chamber. At present, most offices are shared with other members. By 1969, however, when an extensive building program to provide new quarters for executive departments and the judiciary in other buildings is completed, members are to have either private or semi-private offices in the capitol.

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CLERICAL HELP. Texas provides the equivalent of three-and-a-half to four full-time secretaries for each senator during the session, and each representative has one full-time and one half-time secretary. In addition, a House member may draw from \$600 to \$800 per session and approximately \$500 between sessions, for contingencies, such as stamps, office supplies, and telephone service. A senator may draw up to \$3,000 each biennium for the same purposes.

Although critics say that additional clerical assistance could be used, particularly by representatives with large constituencies, Texas is one of the few states providing any substantial amount of clerical help for its legislators. Individually assigned secretaries are provided in five other states (California, Florida, Iowa, Missouri, and Oregon). In Pennsylvania \$2,400 per biennium is allowed each legislator for clerical assistance. An additional twelve states maintain stenographic pools, but in roughly two-thirds of the states little or no secretarial or clerical service is furnished.

PROFESSIONAL STAFF. Full-time administrative or professional staff is provided legislative leaders in five states; Texas is not among these. Thirty states furnish some professional staff assistance to standing committees. Texas does so, particularly in the field of appropriations and taxation. It is one of only four states having committees served by more than one staff assistant, in this respect ranking with California, Hawaii, and Massachusetts.

TEXAS LEGISLATIVE COUNCIL. A number of research and information services are available both to the legislature as a whole and to the individual legislator. To provide information on subjects of interest to the legislature ~~as a whole~~, the Texas Legislative Council was created in 1949. That such councils serve a very useful purpose is shown by the fact that forty-four states now have either a legislative council or a council-type agency which performs substantially the same service. Of the states which do not have them, California and New York rely on a system of staffed interim committees.

The Texas Legislative Council is composed of ten representatives appointed by the speaker of the House, who serves ex-officio as vice-chairman, and five senators appointed by the lieutenant governor, who serves as the chairman. The council is the official research arm of the legislature. It is required by law to meet quarterly; it employs a full-time executive director and research staff. Its work is financed by legislative appropriation (\$538,000 for 1966-67). It has the power to subpoena witnesses and evidence during its investigations, but it does not ordinarily do so.

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The council's research usually is undertaken at the request of the legislature, but any individual legislator or private citizen may submit a topic for consideration. Its reports, which are factual, often ntly drafts of legislation are accompanied by recommendations; frequen

are included. Many of these have been enacted into law. Members of the League of Women Voters will recall the report of the council on revision of the Texas constitution. Other reports, to name but a few, have dealt with taxation, local government, wildlife management, lobby regulation, juvenile delinquency, redistricting, and revision of the criminal code. Such studies have usually been made between sessions of the legislature.

During the session the council assists individual legislators and committee chairmen by preparing drafts and analyses of bills and resolutions. Such technical service to the individual legislator is limited by the size staff which the council's budget permits. There are always more requests than can be filled. It is estimated, however, that the council is responsible for drafting approximately fifty to seventy-five per cent of the bills which actually are enacted into law. Only five states (Nevada, Ohio, Alaska, Michigan, and Florida) provide larger appropriations for their legislative councils than does Texas.

The Texas Legislative Council has prepared and published a legislative manual, which contains the text of the constitution and the House, Senate, and joint rules. This has proved extremely helpful, especially to new legislators. It is kept up to date by issuing supplements.

ELECTRONIC AID. A magnetic tape typewriter was used by the staff of the Legislative Council to record the voter registration bill passed by the February 1966 special session of the legislature. Robert Johnson, council director, estimates that conventional typing of the bill would have taken four times as many man-hours. With this machine, amendments to a bill can simply be included on the magnetic tape, without having to retype the whole bill as has previously been done. Mr. Johnson points out that this would be an invaluable aid to both speed and accuracy in handling the extremely long general appropriations bill, where dozens of pages are untouched by amendments but have to be retyped several times each session.

Council of State Governments. Each state has a commission on interstate cooperation, and the central agency of these commissions is the Council of State Governments. All branches of state government--executive, legislative, and judicial--receive the council's services, which are concerned mainly with research. The council and its eight affiliates (which include the National Governors' Conference and the National Legislative Conference) provide specific information in answer to inquiries, make studies of state and interstate problems and publish their findings, and sponsor regional and national conferences on a great many important public questions. Their services are available to legislators and to other state officials. Every legislator receives the council's monthly bulletin, State Government News, and is offered a free subscription to its quarterly magazine, State Government.

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Interstate Compacts. Further sources of information to legislators are the commissions established by the interstate compacts of which Texas is a member. (Compacts have long been fostered by the Council of State Governments as an important means of cooperation between states.) The Interstate Oil Compact Commission and the Southern Regional Education Board are outstanding study-advisory-recommendatory bodies.

Orientation. Approximately thirty-one states hold orientation conferences regularly or occasionally; sixteen hold them between the time of the general election and the beginning of the session. Designed particularly for new legislators, the subjects discussed include parliamentary procedure, the committee system, and aids for legislators. In some states administrative programs and revenue and spending procedures are also reviewed. Kentucky's conference, which has been held before each regular session of the legislature (except two) since 1949, seems

to be particularly helpful to the legislators, and also to the few members of the executive branch who are invited to attend.

In Texas, Speaker of the House Ben Barnes held a two-day orientation meeting for new representatives a month before the 1967 legislative session began. This was the first time a special orientation session had been held. Previous orientation had been done by the House parliamentarian in several two-hour meetings during the busy first few days of the session.

Bill Drafting. Some states have special bill drafting agencies, but in Texas no one agency has this responsibility. The legislator who is also a lawyer may be well able to draft bills; the legislator who is not a lawyer will be at a great disadvantage in this respect. As has been noted above, the Legislative Council furnishes assistance, within the limitations of time and personnel available. However, the legislator is not entirely dependent upon the Legislative Council for such help.

First, he may refer to the Manual for the Assistance of Members of the Texas Legislature, prepared by the attorney general's office, which contains valuable information on the drafting of various types of bills and resolutions. The attorney general's office will give advice on the legality of bills and resolutions submitted to it by a legislative committee. But since several weeks are required for the necessary research, the service is of limited usefulness. Because of this time factor a bill may be killed by a committee's decision to request advice.

State Library. The legislator can also find assistance in the records kept by the Legislative Reference Division of the State Library. There he may procure copies of previous bills and resolutions, and from the legislative history maintained by the division, he can find out

what happened to them after introduction. The division also has information on what legislative action has been taken in other states on any particular topic.

Originally the Reference Division was intended to serve also as an agency for more specialized research than that provided by the Legislative Council, and to make this service available to the individual legislator concerned with problems not of interest to the legislature as a whole. In practice, however, this function has had to be subordinated to keeping current the very important legislative historical records; there remains little time during a session to do research for individual legislators. Between session^s, when time might be available, the staff is much reduced.

It has been suggested that the Reference Division be expanded. An alternative suggestion is to permit the State Library to continue keeping the historical records, but to move the research service to another agency (possibly one directed by the Legislative Council) which maintains a full-time, year-round director.

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Computers. Much routine research work can be done by computers, which can be programmed, for example, to provide a rapid search of all statutes affected by new legislation. (In New York a computer-aided search for all laws affecting banking produced the astonishing total of 1,604.) The Texas legislature in 1965 made a special appropriation of \$100,000 to the Legislative Council for computer programming to assemble and print out a preliminary record of existing statutes and set up a statute information retrieval program. *when this project is completed* With this electronic aid *with completion of this project* passage of laws in conflict with present statutes can be avoided. The University of Pittsburgh is working with several states to incorporate their entire statute law on rapid retrieval computer equipment. The

Council of State Governments has led in bringing to the attention of the states the challenge, potentialities, and problems of computer use.

Chief among the problems are the recruitment of (well-trained data processing personnel and the efficient use of) equipment (for example, for most economical use computers should run twenty-four hours a day, seven days a week). Plans for management of automatic data processing equipment to be used by state agencies are being formulated by a division in the state auditor's office. A computer-based tax administration and accounting system already has been installed by the comptroller's department; one use of the equipment is to assemble data needed for preparation of budget estimates and revenue forecasts. An additional problem, beginning to be recognized as the use of computers increases, is in the field of public policy--who, for example, should have access to data being accumulated about individuals?

Two Budgets. In fiscal matters Texas is unusual among the states, in that both legislative and executive budgets are prepared and submitted to the legislature. This practice is deplored by some as a duplication of effort, and, therefore, wasteful. However, the legislature has been reluctant to abandon the preparation of its own budget report.

Legislative Budget Board. This board, created in 1949, is composed of four senators and four representatives, plus the lieutenant governor and the speaker of the House; these leaders appoint the members from their respective Houses. By statute, the chairmen of the committees handling revenue and appropriations must be among those who are appointed. The board employs professional staff members and a full-time director of the budget (not to be confused with the director of the budget in the executive office of the governor). It makes a continuous study of state (revenues and expenditures,) and it reviews and

analyzes the budget. It must submit a budget of estimated appropriations to the legislature and the governor within five days after the session begins. It also drafts the appropriations bills necessary for implementing the budget.

Budget Review and Control by Legislatures. There is some provision for legislative budget review in twenty-five of the states. The legislative council provides this service in fourteen states, with some employing a special fiscal analyst. In eleven states budgetary review is a function of special or standing committees of the legislature. In three states these committees have special staff to assist in this work.

Missouri, New Jersey, Oklahoma, and Wisconsin require that each bill which will cost the taxpayers money carry a "fiscal note" estimating its impact on the state budget. This system has proved disappointing in some cases, as preparation of accurate estimates often requires more time than is available, and inaccurate estimates can be deceptive.

In Texas, the state comptroller, who is in charge of collecting taxes, must submit to the governor and to the legislature upon its convening a financial statement which includes the condition of the state treasury at the end of the last fiscal year, its probable condition at the end of the current fiscal year, and an itemized estimate of anticipated revenue for the next biennium based on the laws currently in effect. This estimate is subject to review by the Committee on State Revenue Estimates, composed of the governor or his representative, the director of the Legislative Budget Board, and the state auditor. Except by a four-fifths vote of each House, no appropriation bill may become law unless the comptroller certifies that the appropriation is within

the amount estimated to be available in the fund from which the expenditure will be made; if not, the legislature must either find revenue sufficient to provide the money or reduce the appropriation, so that the budget remains in balance.

Twenty states, including Texas, have some form of post-audit of the state's financial transactions after their completion, in order to provide the legislature with "follow-up" information on revenues and expenditures. In this way the legislature can determine whether revenues have been collected in compliance with the laws and whether funds have been expended in accordance with legislative intent.

In Texas post-audits are performed by the Legislative Audit Committee, which is composed of the lieutenant governor, the speaker of the House, the chairmen of two Senate committees (Finance, and State Affairs) and the chairmen of two House committees (Appropriations, and Revenue and Taxation). This committee appoints the state auditor, who must have had five years of experience as a certified public accountant before appointment. He may not serve ex-officio on any board or commission. He is required to audit the financial records of all state agencies at least once every two years, and of certain ones annually or more often. Approximately eighty people assist in this work.

The Lobby. Aids available to the Texas legislator include services performed by members of the lobby, who have furnished some of the most expert bill drafting and legal counseling obtainable by legislators. While it must be presupposed that no lobbyist would advise a legislator contrary to the interests of his client, at the same time, the blanket accusation that all legislation drafted by the lobby is biased, is not valid. An example is the bill prepared by the League of Women Voters of Texas providing for a permanent voter registration

system.

Texas Research League. This organization occupies an important place among those groups which furnish information to the legislature. Its publications state that it is "a privately supported, non-profit, non-political, educational corporation engaged in objective research into the operations, programs and problems of Texas government." It is further stated that "The League does no lobbying. It undertakes studies only upon official request. No charge is made for these studies. They are financed entirely by annual contributions paid by public-spirited individuals, firms and corporations as a public service to the government and the people of Texas."

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P. 3
Despite its policy of not lobbying, since the Texas Research League is financed by the business community (top executives of a wide range of corporations form its board of directors) critics feel that it is a "tool" of the lobby and that its findings tend to favor businessmen at the expense of other segments of the population. Various state agencies, however, as well as the legislature use the services of the TRL.

Texas Legislative Service. House and Senate Journals. Use for a Computer. Another private agency which provides service to the legislature without charge is the Texas Legislative Service. It prepares daily summaries of legislative action and an index showing the status of each pending proposal at the time. The agency sells this service to the lobby primarily, although anyone may subscribe to it, and the League of Women Voters^{of Texas}/does so.

Such an index and summary service is classed as essential in the 1963 report of the Committee on Organization of Legislative Services, of the National Legislative Conference. The committee, however, feels

that an agency of the legislature, rather than a private organization, should prepare these reports, so that better control can be maintained over their accuracy and content.

The committee also recommends publication of daily journals containing an official report of legislative actions. Texas publishes, on a daily basis, House and Senate journals, which contain rulings of the chair and all votes. Unlike the Congressional Record, they do not include a verbatim record of the proceedings. However, between the daily journals and the reports of the Texas Legislative Service, Texas lawmakers seem to be better informed than most. In many states an index of the status of legislation is published only once or twice during the session, although daily reports are available in at least three states other than Texas.

This is an area in which automatic data processing could be used to great advantage, according to Vernon McGee, former director of the budget for the Legislative Budget Board. Such equipment could provide every member daily information on the status of all pending legislation.

Staff Recruitment and the Budget. While budgetary problems admittedly are a factor in restricting the information and assistance which can be made available to the legislature, more money alone will not solve the problem. Staff recruitment, for example, depends only partly upon better salaries.

Legislative Interns. To help meet the need for additional staff, a program of "Legislative Interns" was initiated several years ago in California, financed partly by a grant from the Ford Foundation. Texas and eleven other states and Puerto Rico now participate in this program, which is designed to interest college-trained young people in careers as legislative professional staff. Chosen from graduate students in history, political science, law, and journalism, they are assigned to

various committees of the legislature and, in Texas, also to the secretary of the Senate, the speaker's office, and the governor's office. Those assigned to committees have done considerable work in the analysis of bills.

California legislators are enthusiastic over the results obtained so far. In 1965 the legislature assumed full financial support of the program. In Indiana the feeling is that the program has demonstrated the desirability of a genuine legislative research organization. In Texas, which is participating in the program for the second time, the work of the interns is highly regarded.

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State Civil Service System. In recruiting staff, the reluctance of many qualified persons to accept positions which depend on political considerations must be taken into account. For this reason, some people advocate a state civil service system based upon merit for selecting and promoting employees. Opponents claim that in such a system advancement often depends more on seniority than on merit, and, therefore, the best qualified talent would not find the positions attractive unless the salary scale was higher than in industry. Whether or not this is true is a matter for debate. At present only a very few departments of the state government operate under the merit system.

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Summary. Texas legislators have many more services and far better facilities available to them than do legislators in many other states. To what extent would additional facilities and increased services assist legislators in fulfilling their responsibilities as lawmakers? It is a complex problem. Which aids would be useful? Who shall provide them? And in what manner or form? There are no easy answers.

End.

April 29, 1967

Dear Helen:

I'm enclosing two copies of Aids for the Texas Legislator which embody the changes I'd suggest in Eloise's manuscript, including most of those in your 6-page memo on changes suggested up to 4/22/67. I'm also enclosing a copy of this letter.

Length:

My manuscript is 352 lines which average slightly shorter than Eloise's. Not included in the 352 are whatever is to be added near the end of page 12, re legislative interns, from Janice's memo of 4/18/67. Eloise's manuscript is 344 lines.

Headings:

On page 1 I used "thumbprint" type headings like some in BLUEPRINT FOR PLANNING to see how they'd look. On the other pages I used headings like Facts & Issues generally have. I don't think there's room for the first kind of headings, and they are tricky to arrange especially when the heading is long. I recommend the second kind of heading done in bold face type and all capitals to stand out well. I doubt that there is space to have also chapter headings, such as INTRODUCTION, PHYSICAL SURROUNDINGS, etc. It seems to me that the other headings are all that is needed, both for looks and for easy reference.

Changes Made in Eloise's Manuscript:

Almost all of the changes were in capitalizing of titles, agencies, etc. (which was done to conform with the system used in various textbooks on Texas government); shortening statements, often by putting them in active rather than passive form; making two shorter paragraphs out of one long one; and substituting another word to avoid duplication of the same word too close together. A few statements I rearranged for, I hope, greater clarity.

In a very few instances I used a different word from Eloise's. For example: on page 1, second paragraph, last line, I used "discuss" instead of "list" because she does discuss the suggestions for improvement. On page 7, line 10, I used "alternative" instead of "alternate", on the advice of the dictionary! On page 11, line 2, I changed "Despite its 'no lobbying' policy" to "Despite its policy of not lobbying" because the use of quotation marks around "no lobbying" gives an implication of tongue in cheek which we can't do when we make the statement, although when we quote the critics, as we do in the last half of the sentence, it's all right to say they figure the TRL is a "tool" of the lobby. On page 12, line 2 of the second paragraph under Legislative Interns I changed Eloise's "State Assembly" to "legislature" because the Assembly in California is just the lower House (same as our House of Representatives) and the two bodies, the Senate and the Assembly, are called the legislature. On page 8, line 1 of the paragraph on Two Budgets, I substituted "unusual" for Eloise's "unique" so as

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to be on the safe side--"unusual" is the word used in the Dallas Times Herald editorials and news articles that mention the two budgets.

In three of Eloise's paragraphs I included more information than she had given. The additions, it seems to me, increase our understanding of the topics. On page 8, in the paragraph on the Legislative Budget Board, the additional material comes from pages 170-71 of Wilbourn E. Benton's TEXAS: ITS GOVERNMENT AND POLITICS, 1961 edition....On page 9, second paragraph, my reworking of Eloise's material is based on Benton, pages 314-15.... At the bottom of page 12 and the top of page 13 (paragraph on State Civil Service System) it seemed to me that the merit system should be mentioned as it is the characteristic of a civil service system which is pertinent to the discussion in the paragraph. The last sentence of the paragraph is based upon Benton, page 311.

In the Summary, page 13, I feel that whether new aids would help legislators to make decisions quickly and easily is less important than their total performance as legislators (quick and easy decisions may not be good ones) and that's the thought I tried to express in my summary.

New Material:

The paragraph about the Magnetic Tape Selectric Typewriter (on page 4, last 4 lines, and page 5, first 7 lines) is based on an article in the Dallas Times Herald, July 4, 1966, by Ernest Stromberger of the Austin Bureau of the paper. Robert Johnson also said in the article that he hoped to have 8 of the MTSTs in use for the 1967 legislature. Wonder if that happened?

The material about Kentucky's orientation conference (page 5, lines 3-7 of the second paragraph under Orientation) is based on the article on "Pre-Session Conferences", by Arthur Y. Lloyd, in the January 1967 State Legislatures Progress Reporter.

I put in the new material because it seems to me that specific illustrations of what we're talking about add interest to the publication and will help unit group discussion of it. In my opinion, the more the publication can inspire questions and open the door to further thinking for its readers, the better it will be.

And that leads me to thinking about the excellent manuscript Eloise sent us. It shows a great deal of study and a careful sorting out of the most relevant information from the great store of knowledge she has. And her presentation is clear, logical, and well balanced between what Texas is doing and what other states are doing. And lastly, it is a great joy to receive a manuscript so carefully done, so beautifully typed, so completely competent in workmanship.

Yours,

Elizabeth

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P. S. I've discussed various changes made in Eloise's manuscript, but not all, and if you've questions about any of the others I'll be glad to explain why they were made. E.

April 30, 1967

Dear Helen:

Re: Explanation, continued, of changes in manuscript suggested in letter of 4/29/67; additional changes suggested; discussion and consensus questions.

Further thoughts, as summarized above, have occurred to me since sending yesterday's letter and the manuscript to you. I hope they will be helpful.

Changes in manuscript, and explanation of previous changes.

Page 1, line 2 and 3. Change "is confronted with the necessity of rendering" to "must render".

Page 2, next to last line of paragraph beginning "Although Texas senators". Change "the plan is for all members to have" to "all members are to have". In addition to being shorter this fits better with the beginning "By 1969, however,".

Page 3, last line, and page 4, first line. Eloise had "Its factual reports often are accompanied by recommendations". Using "factual" in this position implies that not all of its reports are factual. I doubt that Eloise meant this, and, anyway, we can't say it unless we support it by evidence. Therefore, I made the change to "Its reports, which are factual, often are accompanied" etc. Actually their reports are factual, I'd say.

Page 4, line 5. The "local government" on this line is my addition and was not in Eloise's manuscript. I've seen this particular report--an excellent one--and think that mentioning it is a further illustration of the breadth of subjects covered by the council's reports.

Page 4, line 10 of paragraph beginning "During the session". The parentheses at the end of the line are for the name of that state which I, too, think should be put in.

Page 12, first line. The parentheses at the end are for the names of the two states.

Miscellaneous Information re Manuscript.

Underlined titles of books and magazines, etc. (pages 6, 7 and 11) should be italicized when printed.

Suggested Division of Certain Paragraphs in Manuscript and General Considerations Re Length of Paragraphs.

Page 7. The paragraph beginning "Eventually much of the routine work" is too long, for in print such as used in Facts & Issues it would be about 25 lines in a column on a two-column page. (On both Eloise's and my typewriters one full line of our manuscripts translates into 1-1/4 to 1-1/3 lines of a single column in an F & I, so

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total the number of lines in one of our paragraphs and add a quarter or a third to arrive at an approximate number of lines in that paragraph when it is printed in column.) Eighteen or nineteen column lines seems to be the limit in such F & I's as National's "Home Rule for the District of Columbia" and "Development for Distressed Areas" and our own "The Texas Water Pollution Control Board". Therefore, I suggest that a new paragraph begin with "The University of Pittsburgh has been working". I think this would make no change in Eloise's meaning and that it would be good to break up the paragraph into two for the sake of appearance and readability.

Page 9, bottom of page. Another paragraph that I think should be made into two, with a small alteration and no change in meaning, is the one at the bottom of page 9 beginning "Twenty states, including Texas". I would start a new paragraph with "In", the last word on the last line of page 9. And on page 10, first line, I would change "this function is" to "post-audits are". A special reason for making this paragraph into two is that the preceding paragraph is also long and both of them are likely to come in the same column in the printed F & I.

Aside from the two paragraphs which I have suggested splitting there remain two paragraphs which are about at the desirable maximum--the paragraph beginning "In Texas" on page 9 and the very first paragraph of the F & I. I don't suggest dividing either of these, for a few unusually long paragraphs in a publication are desirable if they are not too close together, for they add an appreciated variety in appearance and do their bit to increase the physical attractiveness of a publication. I do wish, however, that the first paragraph of the F & I were not a long one, for it could give an impression of "heaviness" which might deter some who would otherwise start reading the F & I. But I believe that the paragraph should stay as it is, for I see no way to divide it without hurting its effectiveness and it seems to me to be excellent in content, well stated, interesting, and a very good introduction to the F & I. And, after all, those are qualities which are of prime importance--appearance is secondary.

Discussion and Consensus Questions.

made I think that there should be no discussion questions printed on this Facts & Issues, but I favor a separate sheet (mimeographed) of consensus questions to go along with it to the Leagues. The point is well taken that consensus which is not taken when a topic is discussed is likely to be unsatisfactory, both to League members and to the state Board. As to what the consensus questions should be, Helen, I'm sorry but I can't think about that until after I've finished the Minutes. A short Leader's Guide could accompany the consensus questions, for the matters to be discussed pro and con in the unit meetings would, in most instances, be related to the questions, and a Leader's Guide could help keep the discussion from doing too much straying from the points being considered....I think, too, that further material should be available for resource committees. For example, in the many places where Eloise says that Texas is one of a

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certain number of states ~~that~~ do thus-and-so, I think we'll need the names of the states and also information as to which ones are comparable to Texas in population, for example, wealth, number of legislators, etc., etc. I think too that we should give references in various state government text books so that resource committees can further investigate topics such as the two-budget system and its importance to the whole of state government. And for Leagues in towns with little or no library facilities perhaps we should summarize some of this material.

Yours,

Elizabeth

End!

4/26/67

AIDS FOR THE TEXAS LEGISLATOR

COMPLEXITIES OF LAWMAKING

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To help meet the ever-increasing need for information and to assist with the work load, ^{various} ~~a wide variety of~~ ^{are} clerical, technical, and research services ~~is~~ available to the Texas legislator. It is the aim of this publication to examine a number of these services, to compare them with services available in other states, and to discuss suggestions for improvement.

OFFICE SPACE

Texas now provides office space for all its legislators. It ~~is one of only a few~~ ^{other} states ~~which~~ ^{do} does so, although the trend is to provide improved office and related facilities. North Carolina and New Mexico have just completed new buildings; New York and Hawaii have them under construction; and Connecticut, Indiana, Washington, Ohio, and others, are considering the provision of office

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AIDS FOR THE TEXAS LEGISLATOR

COMPLEXITIES OF LAWMAKING

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space for their legislators. Some states, notably Illinois, are even thinking of providing each legislator with funds to establish and run an office in his home district, as well. In contrast, thirty-six states furnish office space only to legislative leaders and a few committee chairmen.

Although Texas senators have^{had} private offices in the capitol for years, representatives, except for the leaders, such as the speaker and later the committee chairmen, until 1961 had only their desks on the floor. Their secretaries worked shoulder to shoulder in a corridor ^{behind} ~~between~~ the House chamber. At present, most offices are shared with other members. By 1969, however, when an extensive building program to provide new quarters for executive departments and the judiciary in other buildings is completed, ~~the plan is for all members~~ ^{argue} ~~to~~ have either private or semi-private offices in the capitol.

Clerical Help. Texas provides the equivalent of three-and-a-half to four full-time secretaries for each senator during the session, and each representative has one full-time and one half-time secretary. In addition, a House member may draw from \$600 to \$800 per session and approximately \$500 between sessions, for contingencies ^{such as} stamps, office supplies, ^{either} telephone service, ~~etc.~~ A senator may draw up to \$3,000 each biennium for the same purposes. ^{leave in} ~~Although~~ Critics say that addi-

^{new paragraph} tional clerical assistance could be used, particularly by representatives with large constituencies. Texas is one of the few states ^{providing} ~~which~~ ^{help} provides any substantial amount of clerical assistance for its legislators. Individually assigned secretaries are provided in five other states (California, Florida, Iowa, Missouri, and Oregon), ~~and in~~ Pennsylvania \$2,400 per biennium is allowed each legislator for clerical assistance. An additional twelve states maintain stenographic pools, but in roughly two-thirds of the states little or no secretarial or

clerical service is furnished.

Professional Staff. Full-time administrative or professional staff is provided legislative leaders in five states; Texas is not among these. Thirty states furnish some professional staff assistance to standing committees. Texas does so, particularly in the field of appropriations and taxation. It is one of only four states having committees served by more than one staff assistant, in this respect ranking with California, Hawaii, and Massachusetts.

Texas Legislative Council. A number of research and information services are available both to the legislature as a whole and to the individual legislator. To provide information on subjects of interest to the legislature as a whole, the Texas Legislative Council was created in 1949. That such councils serve a very useful purpose is shown by the fact that forty-four states now have either a legislative council or a council-type agency which performs substantially the same service. Of the states which do not have them, California and New York rely on a system of staffed interim committees.

The Texas Legislative Council is composed of ten representatives appointed by the speaker of the House, who serves ex-officio as vice-chairman, and five senators appointed by the lieutenant governor, who serves as the chairman. The council is the official research arm of the legislature. It is required by law to meet quarterly; it employs a full-time executive director and research staff. Its work is financed by legislative appropriation (\$538,000 for 1966-67). It has the power to subpoena witnesses and evidence during its investigations, but it does not ordinarily do so.

The council's research usually is undertaken at the request of the legislature, but any individual legislator or private citizen may submit a topic for consideration. Its reports, which are factual, often

are accompanied by recommendations; frequently drafts of legislation are included. Many of these have been enacted into law. Members of the League of Women Voters will recall the report of the council on revision of the Texas constitution. Other reports ^{to name but a few,} have dealt with taxation, local government, wildlife management, lobby regulation, juvenile delinquency, redistricting, and revision of the criminal code. Such studies have usually been made between sessions of the legislature.

During the session the council assists individual legislators and committee chairmen ~~(by furnishing information on pending legislation,)~~ ^{by} preparing drafts and analyses of bills and resolutions, ~~etc.~~ Such technical service to the individual legislator is limited by the size staff which the council's budget permits; [?] there are always more requests than can be filled. It is estimated, however, that the council is responsible for drafting approximately fifty to seventy-five per cent of the bills which actually are enacted into law. Only five states (Nevada, Ohio, Alaska, Michigan, and Florida) provide larger appropriations for their legislative councils than does Texas, ^{Washington} ~~one state~~ [?] ~~has rendered its council virtually inoperative by refusing to appropriate any funds for its use.~~

The Texas Legislative Council has prepared and published a legislative manual, which contains the text of the constitution and the House, Senate, and joint rules. This has proved extremely helpful, especially to new legislators. It is kept up to date by issuing supplements.

^{Electronic and automatic} ~~An electronic aid, the Magnetic Tape Selectric Typewriter,~~ [?] was used by the staff of the Legislative Council to record the voter registration bill passed by the February 1966 special session of the legislature. Robert Johnson, council director, estimates that conventional

typing of the bill would have taken four times as many man-hours. With this machine, amendments to a bill can simply be ~~spliced in to~~ ^{added included} on the magnetic tape, without having to retype the whole bill as has previously been done. Mr. Johnson points out that this would be an invaluable aid to both speed and accuracy in handling the extremely long general appropriations bill, where dozens of pages are untouched by amendments but have to be retyped several times each session. ✓

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Orientation. Some have suggested that the Legislative Council expand the orientation conferences which are now held by the House parliamentarian. These are designed primarily to acquaint new legislators with parliamentary procedures, the committee system, etc., and have proved quite helpful. In the three or four two-hour meetings usually allotted to these conferences during the busy first few days of the session, it is possible only to skim the surface. If more time were available, such conferences could also include a review of existing and contemplated legislation and administrative programs, finance history, and other background information especially needed by new legislators.

Approximately thirty-one states hold orientation conferences regularly or occasionally; sixteen hold them between the time of the general election and the beginning of the session. Kentucky's conference, which has been held before each regular session of the legislature (except two) since 1949, seems to be particularly helpful to the legislators, and also to the few members of the executive branch who are invited to attend. In Texas, Speaker of the House Ben Barnes held a two-day orientation meeting for new representatives a month before the 1967 legislative session began. Perhaps this will develop into the holding of regular pre-session conferences such as Kentucky's.

Bill Drafting. Some states have special bill drafting agencies, but in Texas no one agency has this responsibility. The legislator

who is also a lawyer may be well able to draft bills; the legislator who is not a lawyer will be at a great disadvantage in this respect. As has been noted above, the Legislative Council furnishes assistance, within the limitations of time and personnel available. However, the legislator is not entirely dependent upon the Legislative Council for such help.

First, he may refer to the Manual for the Assistance of Members of the Texas Legislature, prepared by the attorney general's office, which contains valuable information on the drafting of various types of bills and resolutions. *The attorney General's office will give advice on the legality of a bill submitted by a legislative committee. But since it takes several weeks, this service of has limited usefulness.* In addition, an assistant attorney general is available to interpret various proposals; actually this office provides more bill analysis than bill drafting, although some assistance in the latter field is supplied to insure that proposals are submitted in legal form and are not contrary to the provisions of the state constitution. How much this assistant is able to work with individual legislators on their projects is not known. Much of his time, however, is consumed in advising committees and the legislative leadership.

The legislator can also turn to the Legislative Reference Division of the State Library. *According to Statutes in this 66-67?* From The Book of the States, Volume 16, we learn that Texas *Rhode Island is the only state which maintains a legislative reference service through their St libraries.* is one of two states which maintains a legislative reference bureau, Rhode Island being the other. *the other* In the remaining states, legislatures seem to prefer to obtain research and other services closely related to lawmaking from agencies answerable directly to the legislature. The Reference Division serves the Texas legislature well. It keeps a record of all bills and resolutions introduced in the legislature, and can supply, on any particular topic, information on past legislative action in Texas, as well as in other states. *add Clous's? p. 4*

Originally the Reference Division was intended to serve also as *4-27 ment*

an agency for more specialized research than that provided by the Legislative Council, and to make this service available to the individual legislator concerned with problems not of interest to the legislature as a whole. In practice, however, this function has had to be subordinated to keeping current the very important legislative historical records; there remains little time during a session to do research for individual legislators. Between sessions, when time might be available, the staff is much reduced.

It has been suggested that the Reference Division be expanded. An alternative suggestion is to permit the State Library to continue keeping the historical records, but to move the research service to another agency (possibly one directed by the Legislative Council) which maintains a full-time, year-round director.

Eventually much of the routine work of research might be done by a computer. It can be programmed to provide a rapid search of all statutes affected by new legislation and to do other research tasks. New York State Senator Early W. Brydges, in the July 1965 issue of the National Civic Review, describes how a search for all laws affecting banking produced, with the aid of a computer, a surprising total of 1,604. With this electronic aid passage of laws in conflict with existing statutes could be avoided. Iowa is now working on such a project. The University of Pittsburgh has been working with several states to incorporate their entire statute law on rapid retrieval computer equipment. We have no information that Texas is participating in this program. However, in 1965 the legislature set up in the state auditor's office an automatic data processing division, charged with formulating plans for management of automatic data processing equipment to be used by state agencies. Thus, it is possible that the legislature may make

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increasing use of such equipment in the future. A computer-based tax administration and accounting system has been installed by the comptroller's department; first-hand information as to the speed and effectiveness of such equipment will, therefore, be available.

Two Budgets. In fiscal matters Texas is unusual among the states, in that both legislative and executive budgets are prepared and submitted to the legislature. This practice is deplored by some as a duplication of effort, and, therefore, wasteful. However, the legislature has been reluctant to abandon the preparation of its own budget report.

Legislative Budget Board. This board, created in 1949, is composed of four senators and four representatives, plus the lieutenant governor and the speaker of the House; these leaders appoint the members from their respective Houses. By statute, the chairmen of the committees handling revenue and appropriations must be among those who are appointed. The board employs professional staff members and a full-time director of the budget (not to be confused with the director of the budget in the executive office of the governor). It makes a continuous study of state revenues and expenditures, and ^{it} reviews and analyzes the budget. It must submit a budget of estimated appropriations to the legislature and the governor within five days after the session begins. It also drafts the appropriations bills necessary for implementing the budget.

Budget Review and Control by Legislatures. There is some provision for legislative budget review in twenty-five of the states. The legislative council provides this service in fourteen states, with some employing a special fiscal analyst. In eleven states budgetary review is a function of special or standing committees of the legislature. In three states these committees have special staff to assist in this work.

Four states (Missouri, New Jersey, Oklahoma, and Wisconsin) use a system of "fiscal notes", which requires that all money bills carry with them an estimate of the funds required and the impact on the state budget. Other states are considering adopting similar measures. This system has proved disappointing in some cases, as preparation of accurate estimates often requires more time than is available, and inaccurate estimates can be deceptive.

In Texas, the state comptroller, who is in charge of collecting taxes, must submit to the governor and to the legislature upon its convening a financial statement which includes the condition of the state treasury at the end of the last fiscal year, its probable condition at the end of the current fiscal year, and an itemized estimate of anticipated revenue for the next biennium based on the laws currently in effect. This estimate is subject to review by the Committee on State Revenue Estimates, composed of the governor or his representative, the director of the Legislative Budget Board, and the state auditor. Except by a four-fifths vote of each House, no appropriation bill may become law unless the comptroller certifies that the appropriation is within the amount estimated to be available in the fund from which the expenditure will be made; if not, the legislature must either find revenue sufficient to provide the money or reduce the appropriation, so that the budget remains in balance.

Twenty states, including Texas, have some form of post-audit of the state's financial transactions after their completion, in order to provide the legislature with "follow-up" information on revenues and expenditures. In this way the legislature can determine whether revenues have been collected in compliance with the laws and whether funds have been expended in accordance with legislative intent. In

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Texas ~~this function~~ is performed by the Legislative Audit Committee, which is composed of the lieutenant governor, the speaker of the House, the chairmen of two Senate committees (Finance, and State Affairs), and the chairmen of two House committees (Appropriations, and Revenue and Taxation). This committee appoints the state auditor, who must have had ^{of} five years/experience as a certified public accountant before appointment. He may not serve ex-officio on any board or commission. He is required to audit the financial records of all state agencies at least once every two years, and of certain ones annually or more often. Approximately eighty people assist in this work.

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League of Women Voters of Texas providing for a permanent voter registration system.
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The Lobby. Aids available to the Texas legislator include services performed by members of the lobby, who ~~in the past~~ have furnished some of the most expert bill drafting and legal counseling obtainable by legislators. While it must be presupposed that no lobbyist would advise a legislator contrary to the interests of his client, at the same time, ~~the~~ ^{no} blanket accusation ^{can be sustained} that ^{all} legislation drafted by the lobby ^{is biased}, ^{is not valid}. An example ^{is} the bill prepared by the League of Women Voters of Texas providing for a permanent voter registration system.

Privately Financed Agencies; Use of Computers. Certain privately financed agencies also furnish information to the legislature. These include the Texas Research League and the Texas Legislative Service. According to one of its publications, the Texas Research League is "a privately supported, non-profit, non-political, educational corporation engaged in objective research into operations, programs and problems of Texas government." The booklet states further, "The League does no lobbying. It undertakes studies only upon official request. No charge is made for these studies. They are financed entirely by annual contributions paid by public-spirited individuals, firms, and corporations

as a public service to the government and the people of Texas."

Despite its policy of not lobbying, since the Texas Research League is financed by the business community (directors of banks, insurance companies, ^{for example,} members of the Texas Manufacturers' Association, etc. form its board of directors), critics feel that it is a "tool" of the lobby and that its findings tend to favor businessmen at the expense of other segments of the population. ~~The legislature, however, and various state agencies continue to use the services of the TRL.~~ ^{as well as the legislature, however,}

Another privately financed agency which provides service to the legislature without charge is the Texas Legislative Service. This agency prepares daily summaries of legislative action and an index showing the status of each pending proposal at the time. It sells this service to the lobby primarily, although anyone may subscribe to it, and the League of Women Voters of Texas does so.

Such an index and summary service is classed as essential in the 1963 report of the Committee on Organization of Legislative Services, of the National Legislative Conference. The committee, however, feels that an agency of the legislature, rather than a private organization, should prepare these reports, so that better control can be maintained over their accuracy and content.

The committee also recommends publication of daily journals containing an official report of legislative actions. Texas publishes, on a daily basis, House and Senate journals, which contain rulings of the chair and all votes. Unlike the ^{statutes} Congressional Record, these do not include a verbatim record of the proceedings. ^W However, between the daily journals and the reports of the Texas Legislative Service, Texas lawmakers seem to be better informed than most. In many states an index of the status of legislation is published only once or twice during the session, although daily reports are available in at least

three states other than Texas. In two of these three (and) the legislative councils prepare the reports.

This is an area in which automatic data processing could be used to great advantage, according to Vernon McGee, former director of the budget for the Legislative Budget Board. Such equipment could provide every member daily information on the status of all pending legislation.

Staff Recruitment and the Budget. While budgetary problems admittedly are a factor in restricting the information and assistance which can be made available to the legislature, more money alone will not solve the problem. Staff recruitment, for example, depends only partly upon better salaries.

Legislative Interns. To help meet the need for additional staff, a program of "Legislative Interns" was initiated several years ago in California, financed partly by a grant from the Ford Foundation. Texas and eleven other states and Puerto Rico now participate in this program, which is designed to interest college-trained young people in careers as legislative professional staff. They are chosen from graduate students in ~~the fields of~~ political science, law, and journalism. ^{history (may)} Many are assigned to the various committees, where they assist with research, arranging hearings, liaison with other committees, etc. Others work under direction of the Legislative Council.

California legislators are enthusiastic over the results obtained so far. In 1965 the legislature assumed full financial support of the program. In Indiana the feeling is that the program has demonstrated the desirability of a genuine legislative research organization. (Note: put in here paragraph 2 of May's memo of 4/18/67, which I don't have.)

State Civil Service System. ^{when considering staff recruitment problems} (In recruiting staff,) the reluctance of many qualified persons to accept positions which depend on political considerations must be taken into account. For this reason, some people

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advocate a state civil service system based upon merit for selecting and promoting employees. Opponents claim that in such a system advancement often depends more on seniority than on merit, and, therefore, the best qualified talent would not find the positions attractive unless the salary scale was higher than in industry. Whether or not this is true is a matter for debate. At present only a very few departments of the state government operate under the merit system.

Summary. Texas legislators have many more services and far better facilities available to them than do legislators in many other states. To what extent would additional facilities and increased services assist legislators in fulfilling their responsibilities as lawmakers? It is a complex problem. Which aids would be useful? Who shall provide them? And in what manner or form? There are no easy answers.

End

The
Aspen System
For
Modern State Governments

by



Aspen Systems Corporation

The Webster Hall

Pittsburgh, Pennsylvania 15213

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INTRODUCTION

"State governments are unquestionably on trial today. If we are not willing to pay the price, if we cannot change where change is required, then we have only one recourse. And that is to prepare for an orderly transfer of our remaining responsibilities to the federal government."

Governor Daniel J. Evans
of Washington

These are strong words.

But when you consider the voluminous legal texts with which state legislatures must work, the view point is understandable. Statutes, rules and regulations, attorneys general opinions, judicial decisions—each of these bodies of material gets larger each year. And, each year, the information contained in them becomes more complex and harder to organize and research.

If not now, then soon, the time-honored techniques for filing, recording and researching legal matter will be as useful as the kerosene lamp is today.

This problem is of concern to all thoughtful legislators, state officials, legal librarians, practicing attorneys, department heads and government staff personnel who work with state statutes.

The Aspen system was created to help solve this problem. It provides a computerized method for storing, retrieving and researching legal information—or, indeed, any textual material. The system has been in existence since 1959 and has been extensively tested. It works, and it can be adapted to fit an astonishing variety of specific needs and requirements.

Today, the benefits of the Aspen system are being enjoyed by many states. It's a story which we think will interest you. So we're including a few case histories to show how states are using the Aspen system. The case histories suggest the revolution in legal-information management that's already going on in a number of forward-looking states.

WHAT THE ASPEN SYSTEM IS

All of us have been hearing how the computer is going to change our ways of living and working.

Well, for those in state government who work with statutes and other text information, the time of the computer is *now*. The existence of the Aspen system makes it so.

The Aspen system provides a method of using the computer as a new kind of "library" for vital information. The system is more efficient, more flexible and less costly than any library you've ever seen. By its nature, the system is easier to use than any technique based on the storage of published volumes or manuals. The complete text of any information is simply put into a form that the computer can read. Then, when there is a need to locate something, the information can readily be retrieved from the computer—by using key words and phrases.

Think of what this means. If there is a need to locate references to a particular subject—say "Justice of the Peace"—the Aspen system can find all the references in a matter of minutes.

It doesn't matter if the subject has been indexed under another heading. The Aspen system doesn't search indexes—it searches everything stored in the computer.

What's more, the application doesn't stop with research. Many state clients codify, index and publish their statutes with the assistance of the computer. And the Aspen system saves them time and money in each operation. After all, indexing and codifying merely involve variations of routine computer searches. As for printing and publishing, a computer can be programmed to print out copy you can use for offset reproduction—thus eliminating the costs and delays of typesetting and proofreading. Tapes generated by the computer can also be used by "typesetting" and printing by means of photo-composition.

In fact, there are as many uses for the Aspen system in state government as there are research, compiling and printing problems. Judicial decisions, opinions, rules, regulations, committee hearings, memoranda—all can be stored in a computer. Then, through the Aspen system, the required information can be located and printed out in a variety of formats.

HOW THE ASPEN SYSTEM WORKS

Words are controlled by numbers in the Aspen system.

First, an entire body of text is carefully converted to machine readable form. A computer then assigns a number to each word.

The number has five parts. These indicate: (1) the document in which the word appears; (2) the paragraph number; (3) the number of the sentence in the document in which the word is located; (4) the position of the word in the sentence which contains it; and (5) the nature of the line in which the word occurs (citation, scope note, title).

The computer then sorts all the words of the text alphabetically. A user starts a search by deciding which words or phrases he feels are relevant to the problem confronting him. When these key words or phrases are put into the computer, the responsive material is automatically printed out—no matter where it may be located in the text. The limitations of time and human error are eliminated.

The Aspen system currently has in its files hundreds of thousands of documents. Through the Aspen system, any of these documents can be searched to find the information required by the searcher.

A vital element in using the system successfully is the experience of the Aspen Systems staff. The key people at Aspen Systems are the lawyers who created and developed the Aspen system and who provide the necessary guidance in framing a request of the computer.

The Aspen system is far more than a means of storing and retrieving information. The product of fifty man-years of programming and half a million dollars of investment, it can change the character of many thankless activities states have historically performed to organize and research their laws.

THE ASPEN SYSTEM REVOLUTIONIZES THE PROBLEM OF INDEXING

Anyone who has had personal experience with indexing legal material tends to shudder. The task is troublesome and time consuming. Moreover, because people *are* human, some important references

are generally overlooked—creating problems when the index is used as the reference tool it was intended to be. So the job of indexing is frequently thankless, as well.

This is why experts predict that the Aspen system will revolutionize the indexing and codifying of state statutes. It ends forever the laborious, eye-straining drudgery of locating key dates, words and phrases. And it permits standards of thoroughness and accuracy that were never before possible. With the Aspen system, all that's necessary is to create a list of the words and phrases which are to be indexed—then turn the job over to the computer.

That is what the state of Hawaii is now doing to simplify its indexing of state statutes. State personnel develop the key words and phrases which are to be indexed, then the Aspen system does the indexing for them.

HOW THE ASPEN SYSTEM BRINGS NEW EFFICIENCY TO PRINTING AND PUBLISHING

Publishing state statutes, rules and regulations, judicial opinions and other legal material is never easy.

First, the process involves continual revisions.

Second, errors cannot be permitted. When type is being set, it's virtually impossible to prevent transposed or lost words, misplaced commas and other typographical errors. But even a misplaced comma may change the meaning of a phrase. Hence, all textual matter must be meticulously proofread before it's published.

Third, indexing is a tedious process that takes many months of clerical work. But it's essential to make any legal publication a useful reference tool.

And, fourth, legal material is often most useful in a variety of formats. Yet, the practical economics of publishing dictate selecting a single format.

By its nature, the computerized Aspen system solves many of these vexing problems. It brings both flexibility and economy to the publishing of any legal material. The computer tape that is used for searching is the basis for printing. This tape can be used in a procedure of computer typesetting and photocomposition that produces the highest quality copy—and no proofreading on future revisions.

THE ASPEN SYSTEM IN ACTION

These case histories show how states are now using the Aspen system to save time and money—and achieve greater accuracy—in storing and retrieving state statutes and other legal material.

Aspen system ends 8-year Ohio law search in minutes

When Ohio abolished its Justice of the Peace courts in 1957, experts began a tedious search to locate and remove all references to these courts from the state's code. Eight years after the search began, Ohio's code was put on the Aspen system. The computer was asked to list all sections that contained the words, "Justice of the Peace." In just a few minutes it located 17 pertinent sections—all of which had eluded eight years of manual search.

Pennsylvania streamlines fiscal administration with help of the Aspen system

All Pennsylvania state agencies ended their fiscal year on June 30—except the school districts. Fiscal control agencies and the legislature wanted to end this nuisance. But no index existed to reveal where *all* references to fiscal-year-end dates appeared. Physical search of the statutes would have taken too much time and would have cost too much. The Aspen system found all the date citations within an hour.

Computer helps draftsmen update language in statutes

To legislators, the Aspen system is a boon in helping to draft and revise bills. Every section of a state's statutes containing a particular phrase can be printed out by computer. For example, suppose you wanted to substitute the phrase "exceptional child" for "handicapped child." Once the computer has printed all sections in which "handicapped child" appears, the draftsman of a new bill can make changes rapidly. And with all the sections before him, he can better determine whether the change will create provisions that are ambiguous or complicated.

Aspen system reveals need for full-scale revision of a Pennsylvania statute

A state legislator used the Aspen system to locate all sections in the statutes dealing with real estate condemnation. A computer search keyed to all pertinent words—such as “condemn,” “condemnation,” “board of viewers”—turned up hundreds of sections giving the power to condemn to various cities, authorities, counties, parks, etc.—so many, in fact, that the need for a complete revision of the law was immediately evident.

Aspen system finds 1,600 “lost” banking laws in New York

A New York lawmaker wanted to see all the laws affecting banking that did not appear in the banking title of statutes, but he didn't have the manpower to accomplish such a search. The Aspen search system found over 1,600 such sections in a matter of hours.

Hawaii publishes its statutes from computer-generated copy

Hawaii's state statutes have been put onto computer tape. This tape is used not only for searching but is also used to drive a photo-composition machine. The result is page-by-page copy suitable for offset reproduction. The technique not only permits Hawaii to publish its revised statutes shortly after they are enacted but also saves the state money and effort. When revision of a particular volume is necessary it will be done faster, less expensively and without the necessity of proofreading the unchanged portions.

ADDITIONAL SERVICES OF SPECIAL INTEREST TO PEOPLE IN STATE GOVERNMENTS

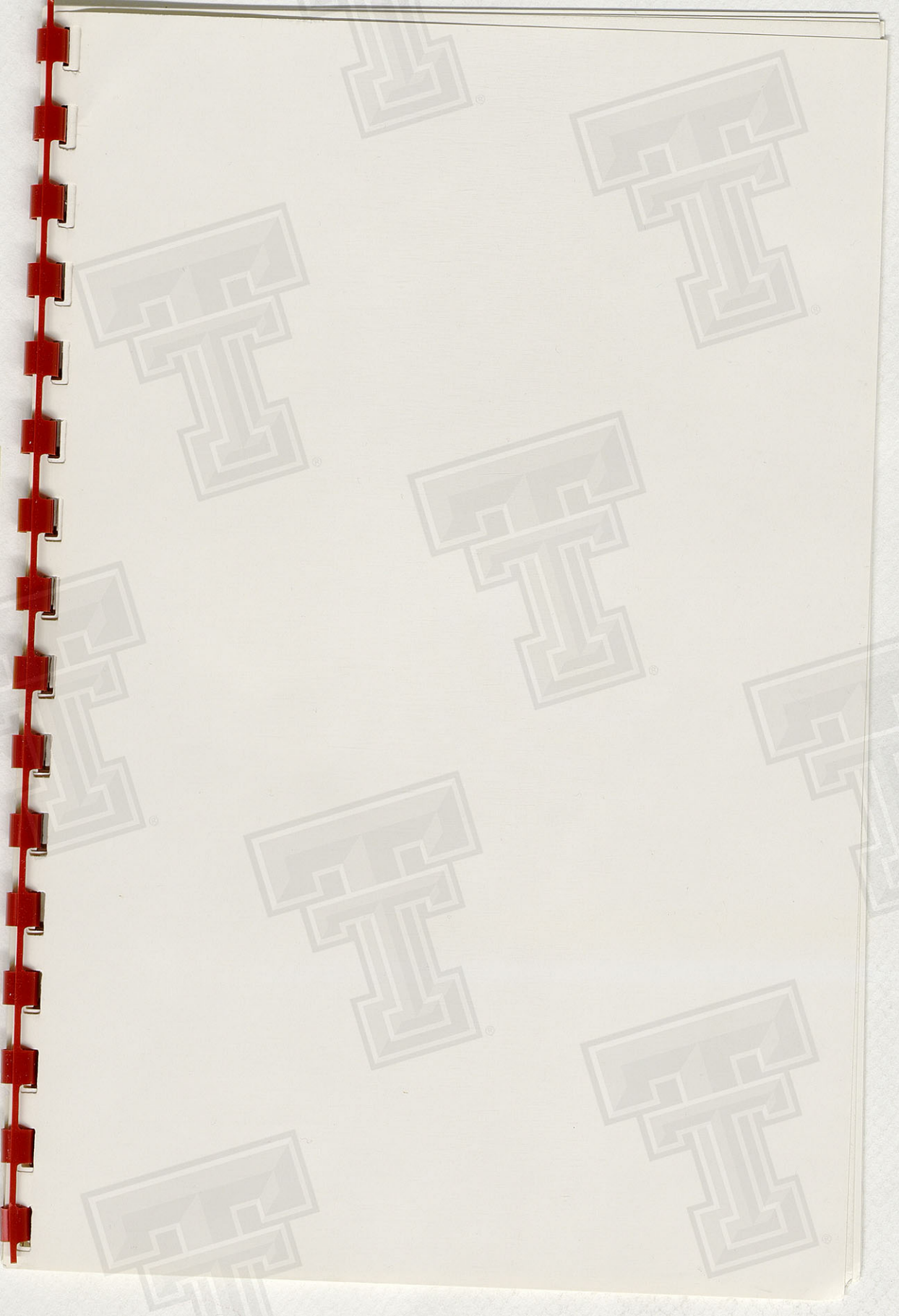
Throughout the U.S., many legislators, lawyers, law librarians and government staff personnel and officials look to Aspen Systems Corporation for quick, accurate information about legal developments

in their special areas of interest. To provide this information the following three special services have been developed:

Automated Statutory Reporter. A useful "rapid index" which enables legislators, lawyers, law librarians and others to keep up-to-date on recently enacted statutes in all 50 states and the federal government. The publication provides a machine-generated index of key words, in context, which are descriptive of statutes—plus a full bibliography of each statutory description. Published quarterly in even years; bi-weekly in odd years.

Statutes in Point. A custom-tailored information service for attorneys, legislators and others whose interests focus on specific legal areas. As a subscriber, you can select specific subjects in which you are interested. Then, your subjects will be run against the descriptive key words in *Automated Statutory Reporter*—and only the descriptions fitting your needs will be printed out and sent to you. Subscribers then have the privilege of requesting the full text of any laws they want to examine.

Government Research Reports. A computer file of significant state research reports providing legislators, bill drafters and researchers with summaries of completed research studies. Using the Aspen search system, the computer retrieves research summaries on any desired topic. New research report summaries are added regularly to ensure broad coverage. Searches may be initiated by telephone, mail or TWX.



LONG-TERM PROPOSALS

Senate Passes Three School Bills

Advocate News Service

AUSTIN — They aren't the big ones for which Texas teachers have been waiting, but three bills that will affect public school education for years to come have been passed unanimously by the Senate.

Bills, which now go to Gov. John B. Connally for signature into law, are those creating a Compact for Education, allowing a retired public school teacher to return to the classroom to teach part-time, and establishing a program to facilitate entry into public school

President Dr. James B. Conant, that would serve as a research arm for states and as a central clearinghouse for educational information.

Such a compact makes it easier for each state to obtain information about the educational programs and experiments of other states. Thirty-eight other states have joined the compact.

Cory said the participation in the compact will cost the state \$19,000 a year. Funds for the program were requested in appropriation recommendations by the Legislative Budget Board, and by Gov. Connally. Sen. H. J. Blanchard of Lubbock handled the bill in Senate.

David Crews of Conroe

introduced the bill that would allow a retired public school teacher to go back and teach part-time without losing retirement benefits from the state. Sen. William T. Moore of Bryan handled the bill in the Senate.

The final education-related

bill passed by the Senate is one introduced by Rep. Alonzo Jamison of Denton. Jamison's bill, presented in the Senate by Sen. Ralph Hall of Rockwall, directs the Texas Education Agency to develop and publicize a program to encourage and facilitate the entry of qualified individuals into the teaching profession.

The agency would develop a program to train such individuals, and to evaluate their education and experience with regard to their suitability to teach. Each college and university in the state would appoint a three-member team to screen applicants. Minimum standards will be set by the Texas Education Agency.

THE VICTORIA ADVOCATE, Friday, May 19, 1967

Harvey B. Feinman



Aspen Systems Corporation

February 6, 1969

Mrs. F. L. Duckworth, Chairman
Study of the Texas Legislature
League of Women Voters of Texas
1841 Bingle Road
Houston, Texas 77055

Dear Mrs. Duckworth:

In reply to your letter of February 3, 1969, I am sending under separate cover 60 copies of our publication Voter News.

As you may be aware, Texas is one of the many states with which we are working. I am enclosing a copy of a paper written by the Honorable Ben Barnes in the 1968 "Yearbook of the National Conference of Legislative Leaders" in the hope that it might be of some interest to you.

As you requested, I am also enclosing some other literature describing our services.

Thank you for your interest. If I can be of any further service, please feel free to call upon me.

Very truly yours,

Harvey B. Feinman

Harvey B. Feinman
Director of State Marketing

HBf/bl

*sent to each
local League
& St. Board
members*

LEGISLATIVE COMPUTERS ARE NECESSARY

BEN BARNES
Speaker, Texas House of Representatives

Computers are playing an increasing role in the legislative process and are proving invaluable in reducing the time and cost of statutory research.

As States find it necessary to modernize their record systems, more and more new uses are being found for computers, which can reduce hundreds of man-hours to minutes.

Texas, for example, has had a computer system for statutory retrieval for only a few months, but it is already realizing that it not only does the job quicker and at a lower cost, but that it is more thorough and concise than previous methods.

The entry of the Texas Legislature into the computer field came almost of necessity. The functions of government include processes and a vocabulary that weren't known even a decade ago. Many State statutes, and even the Constitution, are not only outmoded to the point of demanding changes, but are so overwhelming in content that research and proper modification is virtually impossible without the use of computers.

Although several types of statutory searching systems are possible, the process used by Texas utilizes the actual text of the statutes, rather than an index of the categories in which they might be classified. The Texas system was programmed by the University of Pittsburgh under a contract signed two years ago. On January 1 of this year all of the Texas statutes and the Constitution had been reduced to computer tape.

The Texas statutory retrieval system is based on two premises:

1. The actual words of statutory sections can be organized for computer searching without human indexing.
2. A properly framed request will cause the computer to print the desired statutory sections.

The Texas system includes an alphabetical list of every word in the state statutes, with the exception of certain very common words such as "a," "and," "the," etc. It identifies the exact location of each occurrence of each "non-common" word.

In a computer search, the entire body of all statutes is scanned. Based on knowledge and experience, the searcher would list all words and phrases, which if found in any section, would cause him to read it more carefully.

(continued next page)



HON. BEN BARNES
Speaker of the Texas House of Representatives
Member of Executive Committee

COMPUTERS *(continued from preceding page)*

For example, in a search for all Texas statutes dealing with the rights of illegitimate children, one group of words might include "baby," "child," "orphan," "foundling," etc.

These words would be programmed for the computer so that it would locate any section of the statutes which contained one of the programmed words.

However, it is likely that if only these were used, the search would produce many statutes unrelated to illegitimate children. Therefore, a second group of words such as "parent," "unwed," "unmarried," etc., would be added to the computer program.

Still a third group could be created, including such words as "parentage," "illegitimate," etc., to further narrow the search.

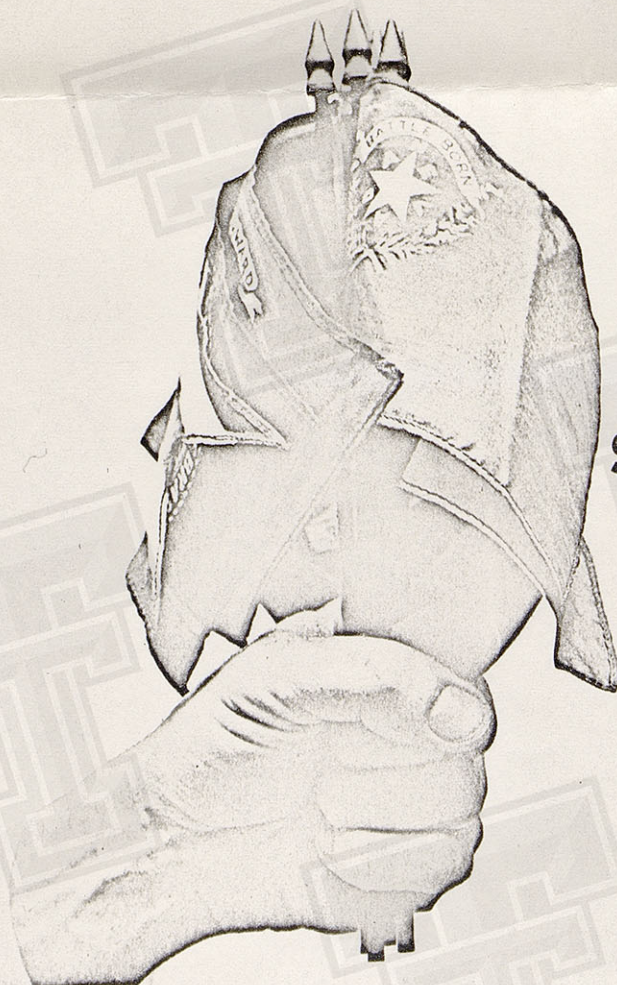
The computer can thus be programmed so that in its search of the statutes, a section would be considered relevant and worthy of print-out for further study only if it had at least one word from two groups.

Many uses of Texas statutory retrieval system are envisioned to overcome the voluminous workload involved in modern legislative procedures.

For example, the Texas Legislative Council is presently engaged in a recodification of all State statutes. The computer will be asked for a print-out of all statutes pertaining to a given subject, such as insurance. When this information is provided, the chore of recodification obviously becomes much simpler for the humans involved.

Another possibility being considered by the Texas Legislature is the computer's ability to chart the progress of bills. It can trace the introduction of a bill, its assignment to committee, committee hearing, any committee action, floor action, its passage or defeat, and any action in the other house.

This system would act as an inventory of all legislation and make the information on any given bill instantaneously available to a member of the Legislature or his staff. ■



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MUTUAL ASSURANCE COMPANY OF AMERICA - CITIZENS
MUTUAL INSURANCE COMPANY - AMERICAN VARIABLE ANNUITY
LIFE ASSURANCE COMPANY - BEACON MUTUAL INDEMNITY
COMPANY - AMERICAN SELECT RISK INSURANCE COMPANY

COMPUTERS MODERNIZE LEGISLATIVE RESEARCH

**Aspen Systems Corporation's pioneering
in government information handling is freeing state
legislators from tedious and time-consuming routine**

SOME TIME AGO, a New York state legislator decided to tackle the job of reviewing all the laws that affected banking in his state.

Such a project, as any lawmaker knows only too well, can be tedious, exhausting and time-consuming. Literally hundreds of references to any given subject may lie concealed in the most unlikely portions of the statutes—references that might change the meaning of existing laws and weaken or invalidate new ones as soon as they are passed. The New Yorker, however, was in luck.

He was able to use a system developed by Aspen Systems Corporation of Pittsburgh, Pa., a firm that specializes in just this kind of problem. Within a few hours, using a computer, he found more than 1600 "hidden" references to banking scattered throughout the state's body of laws.

The sophisticated, full-text storage and retrieval techniques developed by Aspen Systems are serving lawmakers in 11 states, and benefiting state administrative agencies, courts and attorneys as well. Among the assignments the Aspen system can help to handle are:

- Legislative research for drafting of new bills;
- Examination and revision of old statutes;
- Indexing and codification of statutes;
- Searching of state attorney general's opinions and court decisions;

- Comparative searches of the laws of two or more states;
- Printing and publishing of statutes, session laws, rules and regulations and administrative agency decisions.

All these tasks, performed without the aid of a computer, are enough to overtax the most knowledgeable and conscientious lawmaker or researcher. Sometimes the sheer magnitude of a legislative search, which may require the scanning of thousands of documents containing millions of words, is simply too much for human capabilities. And the problem is becoming more acute with every passing year.

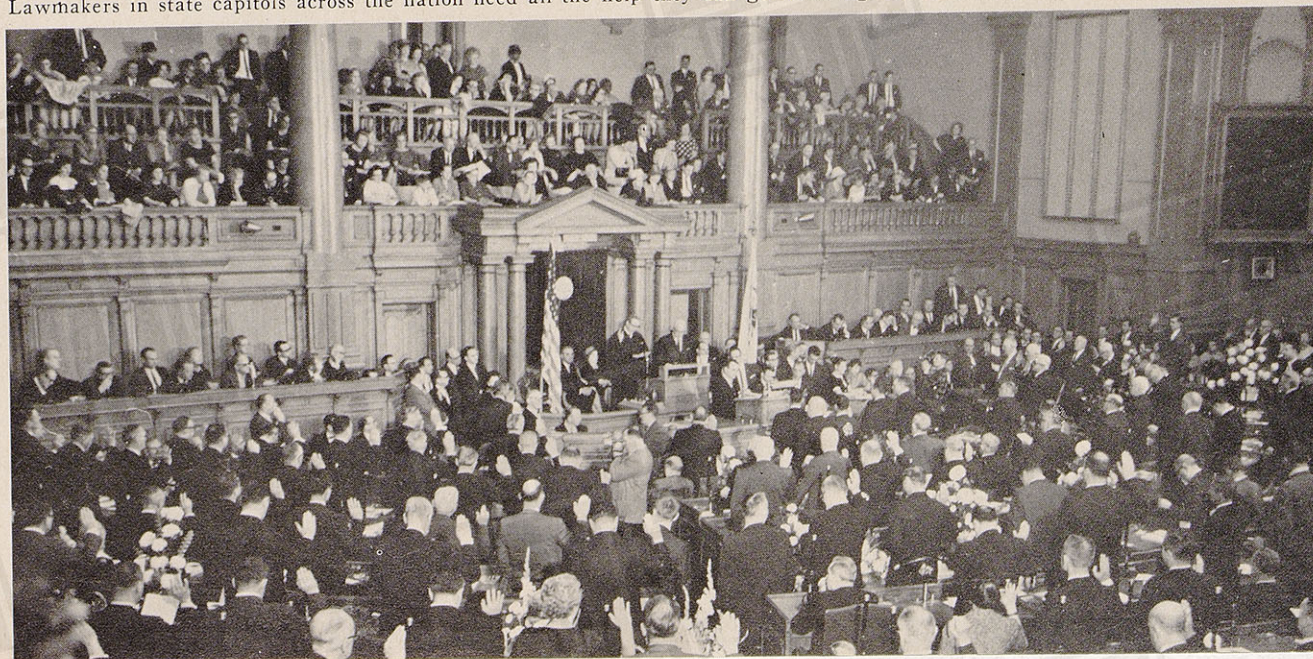
As John F. Horty, the lawyer and information management specialist who heads Aspen Systems, puts it:

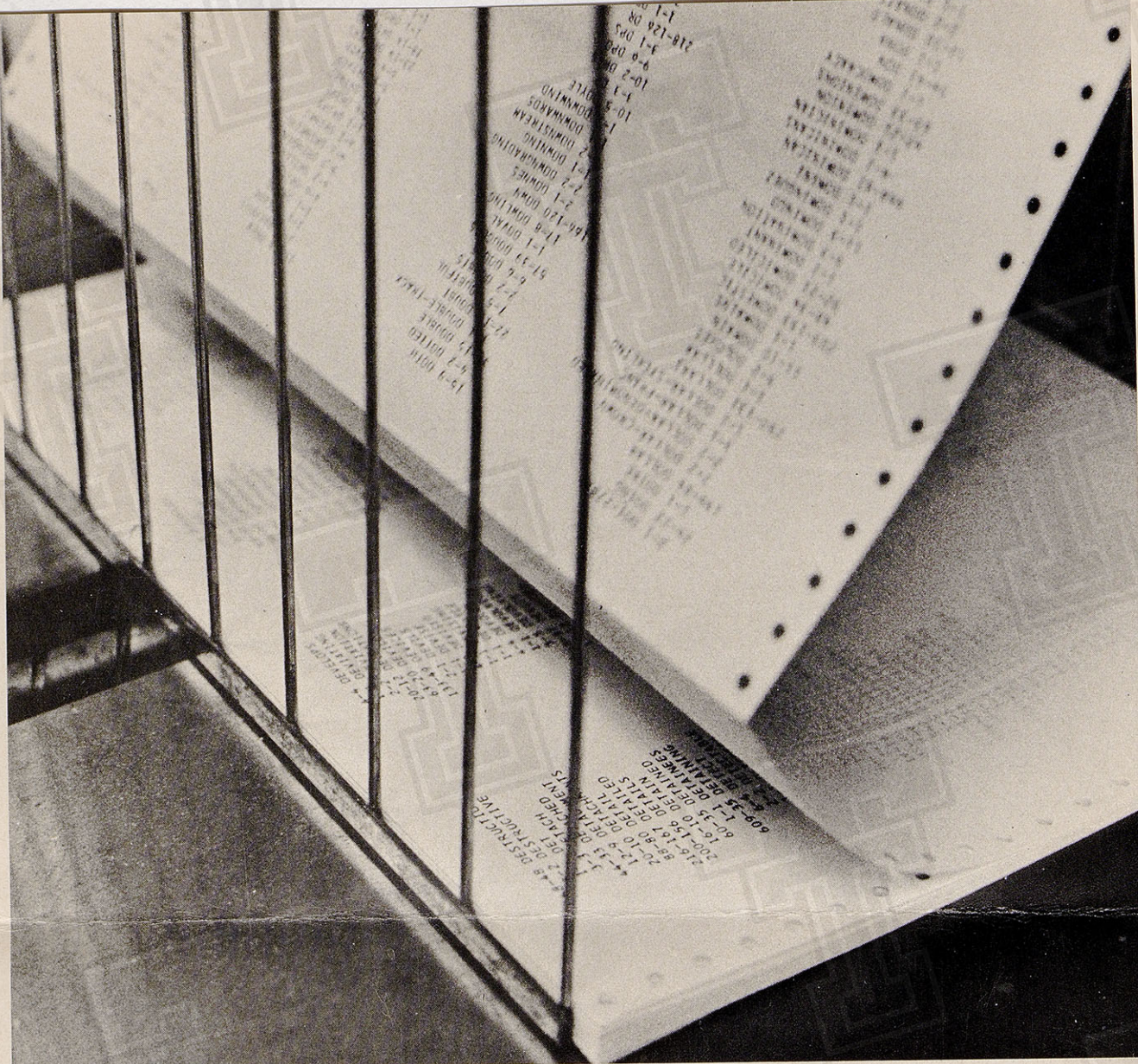
"The quantity and diversity of our laws are growing at such a rate that time-honored techniques for filing, recording and researching legal matter will soon be about as useful as the kerosene lamp is today."

In the Aspen system, a state's entire body of laws—or any other textual material—can be recorded on computer discs. When a researcher needs information on a given subject, he gives the computer key words identifying that subject, and the computer proceeds to print out the relevant material.

Created and operated by lawyers, the Aspen system represents an investment of 50 man-years of programming experience and more than half a million dollars. Since 1959, the Aspen Systems staff has programmed more than

Lawmakers in state capitols across the nation need all the help they can get with legislative research chores.





Aspen Systems' word lists permit quick and accurate searches through bulky legal texts.

Computers are a necessity for the management of today's legal information explosion

500,000 documents containing over 150 million words. And the result is a unique capability that can handle in minutes the kind of research jobs that frustrate human researchers for years.

Back in 1957, the state of Ohio decided to abandon the Justice of the Peace courts that had been part of its judicial system since the early 1800's. Obviously, this meant that all references to Justice of the Peace courts had to be removed from all portions of the state's legal code. Between 1957 and 1965, legal researchers manually searched the statutes to find all such sections. Then, in 1966, the job was turned over to the Aspen system. A computer search quickly turned

up 17 relevant sections that had eluded the Ohio experts for eight years.

Actually, this job was an easy one for the system, because the key words—"Justice of the Peace"—were so simple. The clues that must be provided are often far more complex.

Suppose, for instance, that a state legislature should want to revise its laws on the status of illegitimate children. It would then be necessary to examine all sections of the state's existing body of laws containing such words as "illegitimate," "child," "parent," "mother," "father," "bastard," "out of wedlock," "unwed," "unmarried," "putative," and any number of others. At the same time, the computer

would have to be restrained from printing out a flood of non-relevant material containing the key words—all the state's laws on child labor, for example.

The Aspen Systems lawyers handle this kind of problem by arranging the keywords in groups. They can then instruct the computer to select those sections of the legal code that contain, let's say, *any* word from Group 1 (the most likely to be relevant) and/or at least one word *each* from Groups 2 and 3 (those that might be relevant in the proper context).

The computer does not necessarily have to print out the full texts of relevant laws. It can be told, instead, to supply brief citations of sections where the key words are found, or to print out just three lines of text surrounding each key word.

The Aspen Systems offers a unique blend of thoroughness, versatility and speed

The assignments Aspen Systems has completed for its client states have dealt with a wide range of legislative and judicial problems. Here are a few examples:

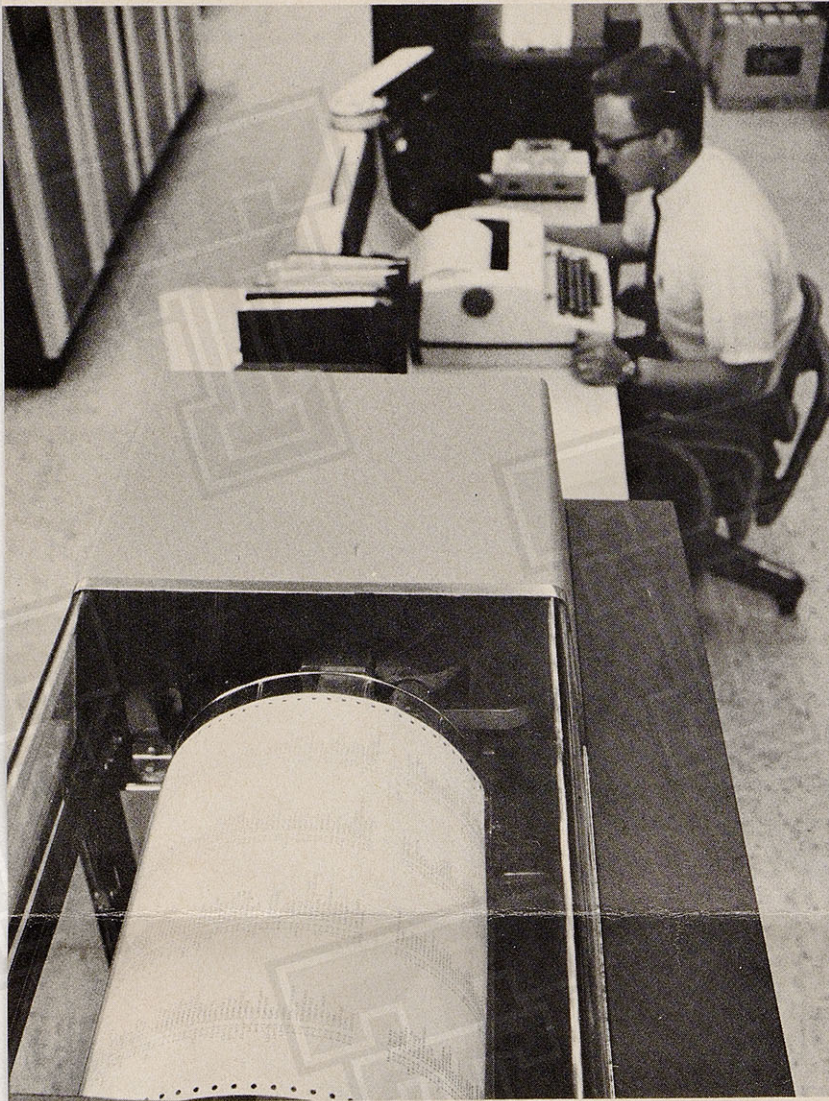
- When Pennsylvania wanted to standardize the fiscal year ending dates of all its state agencies, the people at Aspen Systems turned up all statutory references to those dates in less than an hour.
- Another search was ordered by the Pennsylvania legislature when the lawmakers decided to review their state's statutes on real estate condemnation. So many sections were found, giving power to condemn to so many local authorities, that the need for a full-scale revision of the law was obvious.
- For Texas, Aspen Systems has provided a computer-prepared record of all legislative enactments since the 1925 revision of the state's laws; and the new system has made possible the rearrangement of the statutes for greater logic and clarity. The state attorney general's opinions have been entered into the system for search and retrieval along with the statutes.
- In Hawaii, the Aspen system is speeding the printing and publishing of the recently enacted Hawaii revised statutes. The same computer disc on which the statutes are recorded for searching produces a special tape to drive a photocomposition machine for offset reproduction. The method reduces typesetting and proofreading costs, offers greater accuracy, and simplifies the updating of legal texts. Revisions and cumulative indexing are a routine assignment for the computer.

What all this adds up to is that the Aspen system is helping streamline and modernize state government, making it possible for overworked, understaffed state legislators and agency officials to do a better job. The use of computer search facilities frees lawmakers and their staffs from hours of routine research chores, and gives them more time to devote to the creative solution of legislative problems. In addition, the system's talent for turning up the ambiguities



More than 500,000 documents are stored on discs and reels of magnetic tape at Aspen Systems' Pittsburgh headquarters.





Lawyers who feed data to Aspen Systems computers can draw upon company's 50 man-years of programming experience.

Aspen offers lawmakers and lawyers a wide range of special services

and obscurities that lie hidden in bodies of law built up over many decades increases the efficiency of state legal machinery.

The Aspen system was conceived nine years ago, when lawyers at the Health Law Center of the University of Pittsburgh published the **Hospital Law Manual**, a complete compendium of laws affecting hospitals in all 50 states. This was the first book printed by a computer. The job had taken two years of exhaustive research; the lawyers real-

ized that if future legal searches of this magnitude were to be carried out—and there was an increasing need for them—they would have to harness the capabilities of the computer.

Pioneering data storage and retrieval techniques, especially adapted to the requirements of legal research, were developed. The computers were put to work, and the system expanded rapidly. (New Jersey, in 1962, was the first state to become a client.) In February, 1968, the enterprise was incorporated as Aspen Systems Corporation.

Today, the Aspen system serves the legal and health professions and the Federal government as well as state authorities, and its potential is virtually unlimited.

The United States Code and the Internal Revenue Code have been stored on the company's tapes, along with the Health statutes of all 50 states, the decisions of the Second and Third United States Circuit Courts of Appeals, and 40 volumes of United States Supreme Court decisions.

Aspen Systems' specialized services help keep law offices and hospitals up to date

Aspen Systems also offers several specialized services:

- **Automated Statutory Reporter** is a computerized index of key words which enables legislators, lawyers, law librarians and others to keep up to date on all recently enacted state and Federal statutes;
- **Statutes in Point** is a custom-tailored information service which permits the subscriber to select the specific subject areas of current legislation in which he is interested;
- **Litigation Files** provides data for trial preparation and appellate proceedings;
- **Hospital Law Manual**, the original product of the Health Law Center, is constantly being expanded, with quarterly changes and a newsletter for subscribers, giving a state-by-state analysis of statutes, regulations and cases affecting hospital operation. **Problems in Hospital Law** is a simplified version of the **Manual**, aimed at hospital staff members.

In addition, Aspen Systems offers computer-searchable indexes of legislative research reports.

But the company's biggest and most challenging job is still the processing of state legislative and judicial records—to say nothing of those of the Federal government and the nation's municipalities. The work has just begun, and the more data the system absorbs, the more valuable to lawmakers and lawyers it will become.

Aspen Systems also expects to be of service to an increasing number of clients outside government—law offices, insurance companies and other business firms, social, civic and non-profit institutions. Just about anybody who has to cope with bulky and complex records is a potential customer for the Aspen data storage and retrieval system.

Aspen Systems Corporation

The Webster Hall Pittsburgh, Pennsylvania 15213

LAW AND COMPUTERS IN THE MID-SIXTIES

March 27, 1965 Session

Paul A. Wolkin, Esquire, Chairman

USE OF COMPUTER TECHNIQUES IN ACHIEVING EQUAL AND NON-PARTISAN DISTRICTING

MR. WOLKIN: We had scheduled for 9:30 this morning a summary and review of the past two days. However, about a week ago when we were reviewing the program, we concluded that our faculty would be so thorough, as they were, and that the students would be so attentive, as you all were, that there would be no point to a summary and review and that we should forge ahead in the educational experience with something new. In line with that philosophy we have scheduled for this time a presentation on the Use of Computers and Computer Techniques in Districting and Apportionment under recent Supreme Court decisions.

Our speaker this morning is not a lawyer--he is not even in the field of computers as an engineer or involved in their technology or design. He is a chemical engineer, a graduate of M.I.T. with Bachelor of Science and Master's degrees. He is presently with Atlas Chemical Industries, Inc., of Wilmington, where he serves as Director, Development Appraisal Department. Now lest it be thought that this subject would not generate any interest among the group, I can report that we already have our first question from a member of the audience, even before Mr. Weaver has spoken. And this question, which I am addressing to Mr. Weaver, reads as follows: Can redistricting be accomplished to comply with the Supreme Court decision without merging North and South Dakota into one state? What is the answer, Mr. Weaver?

MR. WEAVER: I'll tackle that one later, if at all. Thank you, Paul. Greetings to the assemblage here. I speak with no law degree; I come before you with some humility, therefore.

I titled this paper, "Quagmire in the Courtroom"; for those of you that haven't been following the redistricting rulings from the Supreme Court I'd like to point out that that term comes from the mathematical quagmire in which Felix Frankfurter said the courts would be placed if they undertook to deal with redistricting. Another title we might have used is "Killing a Gerry-mander in a Quagmire."

Or else we could use another of Felix Frankfurter's phrases, "the political thicket," in which he also was afraid the courts would get involved. We could then call this "The Political Thicket Mowed Down by the Computer."

Of the three parts to my talk, I'm going to run through the first rather quickly, since it's fairly complete in the notes that you received, and since I've been told I'll be cut off in exactly 45 minutes. The first part is a nonlegal review of the present legal and court status of reapportionment and redistricting. The second part will discuss the nonpartisan computer districting we have done, and the third is a statement of some of the problems of presentation of a complex case like this in the courtroom.

As Mr. Wolkin has already pointed out, we are not lawyers. We are more or less technicians dealing with a computer. I got into this through work with a nonprofit, nonpartisan civic group in Delaware known as the Committee of 39. We gathered maps and statistics concerning reapportionment, and it suddenly occurred to us that the computer (which we use in our everyday work for Atlas Chemical Industries, Inc.) might be a good way to get away from the partisan political motives that always seem to be the controlling force at the final districting stage.

The majority of congressmen are lawyers, and many lawyers do get into politics. However, I am addressing you lawyers as students of the courtroom and not as politicians. I assume you are not partisan; I am likewise speaking to you in as neutral a fashion as possible about problems faced in the courtroom.

I'm sure you all know the Supreme Court has accepted a population basis for both Houses. Barring the proposed Constitutional amendment, population will be the basis in both houses of all state legislatures.

Standards of population equality are not yet set. The phrase "one man -- one vote" has been used, but we do not know what deviation from population equality will be permissible.

As to gerrymandering, the Supreme Court and federal courts have not yet acted. I define gerrymandering as political adjustment of district boundaries to perpetuate control by one party. It's not necessarily related to shape, although the famous Massachusetts gerrymander, the origin of the term, was a very misshapen district.

A good job of gerrymandering, perpetuating control by one political party, can result in districts with fairly equal populations which look fairly compact.

Both parties have accepted gerrymandering as a way of life. In New York, the Republicans have done a good job of gerrymandering. In California the Democrats have done likewise. I just picked the two largest states to show that gerrymandering is a bipartisan activity. Some state constitutions, of course, can be interpreted to prevent gerrymandering. A recent New York State Supreme Court decision indicates that their constitution's requirement of compactness will limit gerrymandering. But the federal courts have not acted.

About 10 days ago a new law was passed by the federal House of Representatives to control congressional districting; it hasn't reached the Senate. It specifies a maximum of plus-or-minus 15 per cent deviation in population, which makes possible a ratio from the largest district to the smallest district of 1.3 to 1. The bill requires contiguity, which means one can walk from any part of a legislative district to any other part without jumping over another district on the way. And it also uses the phrase "as compact as practicable" to require non-gerrymandered districts.

STATUS OF STATE LEGISLATIVE APPORTIONMENT

A summary of legislative reapportionment as it appeared in the New York Times on December 28, 1964 (Exhibit 1), indicated only six states without litigation either underway or in prospect. Thirty-four states do not yet have legislation seeking to comply; some were under duress of litigation. Eighteen such legislatures meeting this year are under court order to reapportion.

Since the Supreme Court decision, sixteen states have new legislation that seeks to comply with this decision. Four passed laws without a lawsuit; the rest were passed after some litigation, but three are still questioned by continuing litigation. That's the case in my home state, Delaware.

TYPES OF POSSIBLE LITIGATION

Almost every legislative body in the country is faced with redistricting. Not only the Congress, and the state legislatures, but counties, townships, city councils, etc. Litigation can start under various authorities. The federal Constitution and state

EXHIBIT I

STATE LEGISLATIVE REAPPORTIONMENT STATUS

(N. Y. TIMES, DEC. 28, 1964)

6 States -- No sign of litigation

- 4 - legislation without suits
- 2 - expected to do the same

32 States -- Suits but no legislation yet

- 8 - litigation possible
- 2 - litigation threatened
- 4 - litigation filed
- 18 - under court order for 1965 legislature

12 States -- Suits achieved legislation

- 6 - voluntary after litigation; accepted
- 3 - compliance questioned by more litigation
- 3 - redistricting carried out by court

constitutions have already been mentioned. There can be conflict between the two, of course, which has to be ironed out over the years. Litigation may also arise because new or existing law does not seem to comply with previous state or federal laws. Litigation can come about from lack of legislation or else a law about districting that does not seem fair, or that does not comply with one of these authorities.

The legislation may not comply in terms of apportionment. Apportionment is the allocation of Congressmen or legislators to given areas. In the federal Congress, every state has separate congressmen, and an apportionment formula has to be used to allocate a certain number of legislators to each of these political areas. Apportionment to political areas within the states such as this to counties may force inequity in population, which is unconstitutional. Just because of an allocation of a certain number of legislators to -- let's say -- each county in a state, population deviation may result which will defy the Supreme Court's edicts on the subject.

The apportionment could be the subject of the litigation. Also, districting could be the subject of the litigation. And gerrymandering could be the subject of the litigation, even if the districts are equal in population.

One question on all these measurements of population is where the burden of proof about equality of population falls. Once passed, can districts be assumed equal in population, if legislators say they are equal? Or must the legislators who pass the laws be able to substantiate the population equality? It's quite difficult actually to prove populations within districts to be sure that districting has been done as well as claimed.

Census data could be avoided, for instance, by putting together legislative districts, none of whose boundaries coincide with the previous census district. The population in that area cannot be measured with precision. And that problem is one of those we face in Delaware. Is it legal to do this? It's not clear yet.

All this litigation can recur every ten years. Under the Supreme Court ruling, a redistricting will probably be required after every federal census because population moves. The Supreme Court has said that within the ten years between censuses it's not worth changing district lines; we do have at least that limitation.

That concludes my brief summary of the status of the districting problem throughout the country. I'm sure you all know the control of the state legislatures has been largely in the hands of the rural minority. Restoration of power to the majority is going to be crucial and will come about gradually over the next few years.

NONPARTISAN DISTRICTING BY COMPUTER

The major use of the computer in industry is to combine just this sort of data, in very simple, tedious, repetitive processes. There are only additions involved in population totals, units of area, and units of population. The only problem is to combine those units of population in a way to get districts, hundreds of districts, of equal population and it's a very arduous process. I read an article in the New York Times about the preparation of districts in New York. They were working on four different plans at the same time, which made it more complicated, but the people who were drawing these maps were walking around the room in stocking feet, drawing lines on maps under their feet, because the mapping problem became so huge. With good population data, equal-population districts are easy to draw. Too easy -- many different such sets can be prepared.

The computer suggests itself for this use because population and map coordinates of population units can be inserted in the computer and the addition and subtraction, even the mapping, can be done automatically to prepare various sets of districts. The computer is the ideal tool to handle such masses of data.

However, this is not "turning the problem over to the computer." This is merely using the computer to carry out the arduous phase. The principles that are used in districting have to be chosen by men, in advance, just as they have always been. But politicians have not generally made clear what principles they use in drawing the district boundaries.

These decisions must be made in advance:

1. The number of houses in the state legislature must be chosen.
2. The number of seats in each house has to be specified.

3. The apportionment of seats to existing units such as counties or cities must also be decided in advance. The computer can work either within the counties or cities or on the state as a whole, with some additional processing problems, of course, as the area grows. But the decision has to be made by man. As I said before, any allocation of legislators to a city or a county does limit the population equality that can then be achieved.

4. The choice of the population unit is an important one. The census tracts are the best known population units used by the Bureau of the Census, but the population unit could also be the enumeration district, a smaller census unit, which can provide better population equality. Where there are many counties or towns and a limited number of legislators, the unit might be some larger unit such as towns.

5. Somehow a measure must be put into the computer that will count the compactness of the district. Compactness in general refers to a shape that has a minimum perimeter for a given area, a more or less round or square district. Some rules have to be put into the computer to achieve that.

6. And also there has to be a means for being sure the districts are contiguous, that no district intervenes to make a sort of Pakistan out of any one district.

These principles, put into the computer by man, can then be carried out automatically by the computer. This turns over to the computer only the arduous phases of districting.

The rather complex mathematical measures that can be handled easily in a computer could not be solved with pencil and paper. We had a particular suggestion in a paper that we published in the Yale Law Journal in December, 1963, as to a definition of compactness that seemed to be blind to politics and seemed to have the advantage of setting up districts that were compact in shape. Our principle was to center the districts in general on the center of population. We wrapped the districts around the cities rather than setting them up so that part of a city could go to two districts. The actual measure used to do this minimizes the distance that each individual is from the center of his final legislative district. This tends to make compact geographic units, but it's really calculated on a population measure.

And it happens that this mathematically corresponds to a

program already available to computers for locating warehouses or stores close to centers of demand. This enabled us to put in an objective other than population equality, which further specified what we wanted in districts and was blind to the political factor.

With the computer it is easy to check totals to be sure that you haven't lost one of the small population units, which often happens in hand calculations. Mechanical means can be used to show the political results of a given districting method. The voting data from the same area can also be put into a computer, or a simple IBM tabulating machine, to simplify analyzing districts to see the political result. Politics is outside the province of our nonpartisan study, but careful analysis of politics, on the various possible districts, is necessary. Everybody else analyzes political results. If the parties make the study, they tend to introduce bias. We do feel it's almost necessary to look at the voting results, after we've created districts, even if the computer is blind to the political results. They can then be compared with the politics of the county or state as a whole.

If the main purpose of the computer is to avoid gerrymandering, it should develop districts and legislatures that represent the area. We seek a legislature that represents the people in the district, no matter what those politics are. We've found such districts usually reflect the politics of the area very closely -- but they don't always. In the few areas we've studied in Delaware, which are fairly closely balanced politically, the legislatures from computer-drawn nonpartisan districts seemed to show a close balance politically, in most cases.

The computer could be useful for compromise when two parties disagree in a legislature. It provides an objective proposal that both sides should be equally willing to accept, if, for instance, a different party is in control in the two legislative houses. (It could also be equally unsatisfactory to both, I suppose.) The computer can also be the basis for court threats to the legislature, to force them to act, or for court action if the legislature refuses to act.

The instruction to use such a nonpartisan, unbiased technique could be inserted in the laws of the state, or the country, or in the constitutions, to insure regular and fair districting by a technique known in advance to be blind to politics. It could be put in the law as a primary means of districting to be done every ten years, when there's a new census, or it could alternatively be in the law as a last resort if the legislature fails to act within a certain time. Usually, if anything is in the laws to force

reapportionment or districting, it calls for an election at large. There are many obviously unfair aspects to an election at large, but no other alternative has been available.

EXPERIENCE WITH ACTUAL PROPOSALS

Our work is definitely still in a development stage. I'll summarize our first experience with actual proposals. Delaware is a state that is fairly equally balanced politically. We have only three counties. The nonpartisan group that I mentioned, the Committee of 39, has entered the current districting suit as amicus curiae, as friend of the court. It's probably lucky that we're in this smallest state of the Union, because the computer data processing problems, even in a small state, were quite difficult. A project like this might have looked completely impossible if we had lived in Texas or New York. But it did look manageable in Delaware, and we now think it can be expanded for larger states.

Our first work was within the largest county in the state. The staff for a bipartisan committee set up by the Governor asked us to prepare districts that would be neutral and that therefore this bipartisan committee might accept. So we prepared districts; I'll show slides just to show the general shape of the districts. The committee set down the kind of rules I mentioned: various numbers of legislators they wanted to look at, whether or not to keep separate the major city in the area, Wilmington, etc. We ran the data on a computer using census tracts, and proposed sets of districts; they chose one.*

We also prepared a computer plan when the City Charter of Wilmington was being revised last year. It did not receive much consideration from the city council.

We then prepared a plan for the entire state after the Supreme Court decision last summer. Our state moved very rapidly to pass a law in the legislature. There had been considerable publicity about our computer plan, and we at least like to think that the threat of such a computer plan helped to prod the state to pass rather quickly a law that was much better than the previous laws, and that took some great strides toward achieving the goal. Apportionment was almost correct but districts seemed to favor the party in power. The Court accepted the statute for last fall's election, but has not yet ruled on constitutionality.

*Since this presentation, county reorganization was passed, but the partisan legislature did not use the computer-based districts.

We nevertheless presented our plan. The plaintiffs in the suit feel that the legislature's plan has some malapportionment in part of the state and some bad population estimates in the rest of the state as well as gerrymandering. They have recommended that the court use the computer plan. It's still before the courts.

The politicians have not taken kindly to computer districts. The politicians have moved rapidly to do something else to avoid any kind of computer redistricting. As I say, the computer may have been some help as a threat in getting a fairly good law passed. We had hoped that this bipartisan committee dealing with county government, since its recommendations incorporated these districts, might result in the first use of computer districting. It looks in recent weeks as if the politicians had again taken over. Our new Governor -- not the one who had set up the committee but the subsequent governor of the same party -- has given his support to another plan which, if the basic law of the state is gerrymandered, is also gerrymandered.*

The use of computers in Connecticut is the only other one with which I am familiar. We have some representatives from that group here who will be talking in the workshop session, if you'd like to join us later. I'll just summarize very quickly that the court applied the pressure in that area. There was a special legislative session held in 1964 that, I understand, cost about \$60,000, whose sole purpose was redistricting. They did not accomplish anything. The election in November for their state legislature was therefore not held. The court appointed as a Master the head of the Yale Computer Center, and said that he would redistrict the state if the legislature did not redistrict and set up a constitutional convention. That seemed to be a sufficient spur to the legislature and the computer plan never had to be run off. In January, about 10 days before the final deadline, the legislature did pass a plan that seems pretty good.

The Master is still being held on, but there are no immediate plans to district the state by computer. I believe he's being held on until after the constitutional convention, which has been set up for later this year, if I recall correctly.

DESCRIPTION OF COMPUTER TECHNIQUE

I'd like to describe the technique, using a couple of slides. I will try to make this from a layman's point of view, which

*Since this presentation, county reorganization was passed, but the partisan legislature did not use the computer-based districts.

shouldn't be hard for me because I don't know much about computers either. I happen to deal with them in my work, but I'm not a computer man; I'm a chemical engineer.

The only criteria we've inserted in this model are population equality, compactness, and contiguity. The first slide (Exhibit 2) shows a number of possible criteria. The first three -- population equality, contiguity and compactness -- we have inserted in our model. There are some other possibly valid criteria that in later development we might like to put in this model, such things as accessibility. In states where there is a mountain range, we might want to put in a limit that the district couldn't cross certain lines like that of a major river.

I can see many advantages in only crossing political lines, such as a city boundary, once. Very frequently it is necessary to cross the boundary once to get good population equality, but if the city is not a separate unit in the program, districts are liable to cross the city boundary three or four times and, therefore, give three or four legislators that must try to represent both a city and a county point of view. More important, it is confusing to the people who have enough trouble remembering their legislators. We might consider putting in such a single-crossing rule at a later date.

Homogeneity of people in a district, we think, is very hard to put in, unless somebody tells us which of various factors takes priority. That is, do you consider common income levels, or do you consider race, or do you consider political party, which would almost make it gerrymandering? Do you seek urban versus rural homogeneity, the best-known distinction in present legislatures? All these have certain appeal to some people as a basis for legislatures, but we can't have seven or eight houses, one of which would represent each of these factors. So we haven't tried to put that in the model as yet. Planned heterogeneity poses the same sort of problem.

According to the literature we've read, other criteria often used but not publicized are political gain for one party or the protection of an incumbent. Often the two parties will compromise to insure the re-election of a Republican from one area and a Democrat from another area. This reduces the susceptibility of this fellow to replacement, no matter what he does, and to me decreases his incentive to be representative of his area.

The program we've written is in a language called Fortran IV.

CRITERIA FOR DISTRICTING

USED IN PROGRAM -

POPULATION EQUALITY

CONTIGUITY

COMPACTNESS

POSSIBLY VALID -

ACCESSIBILITY

MINIMUM CROSSING POLITICAL LINES

HOMOGENEITY

HETEROGENEITY

OTHERS OFTEN USED -

POLITICAL GAIN

PROTECT INCUMBENT

We use it on the IBM 7040 computer and the Connecticut people developed it to go on the IBM 7090. We have a somewhat creaky program, I would say, at the moment. And we haven't anything we can pass on as a complete set of instructions. This model is slow because it incorporates this warehousing-type program. But we think we can speed it up. The program size is, at present, limited to, at most, about 300 population units and 35 districts. The Connecticut people may have expanded it a little, but you can see that larger programs are needed.

The critical input data is the population and its location in terms of a state grid. Exhibit 3 is a map of Delaware with a grid in 5-mile units. Our state is only 100 miles long and not even 40 miles wide at its widest. We insert the grid coordinates into the computer to show the detailed location of each population unit.

Exhibit 4 is a flow sheet of the program sequence; the first step is insertion of this population data. Next, we guess some initial district centers as indicated there. We can use as guesses the centers of present districts, or any other starting points. We generally use population centers. The computer calculates the distance between the center of each population unit and the guessed center of each proposed district. This is the scope of calculation that would be impossible by hand, and that indicates the advantages of a computer for this purpose. Even in our small program, this is 10,000 tedious calculations.

This data is used to solve the "transportation problem." In grouping the population units, the program achieves population equality by dividing population units; at this point we recombine the split units. Then we calculate the moment of inertia of our solution, the measure of centering the district around the population. We check for the contiguity of the solution; if this solution was not the same as a prior solution, the entire process is repeated using calculated centers instead of the guesses. We get a step-wise improvement, in general, of the moment of inertia, and all our solutions are relatively equal in population. When two consecutive solutions are the same, we look and see if more guesses for initial centers are available. If so, we go through the whole procedure again.

We must choose the best from all these various solutions, which have slightly different population equality and slightly different compactness. They can be looked at for their voting characteristics or other characteristics such as shape. Alternatively, you can set in advance exactly what criteria you want to meet and find by a

Exhibit 3

DELAWARE WITH MILEAGE COORDINATES

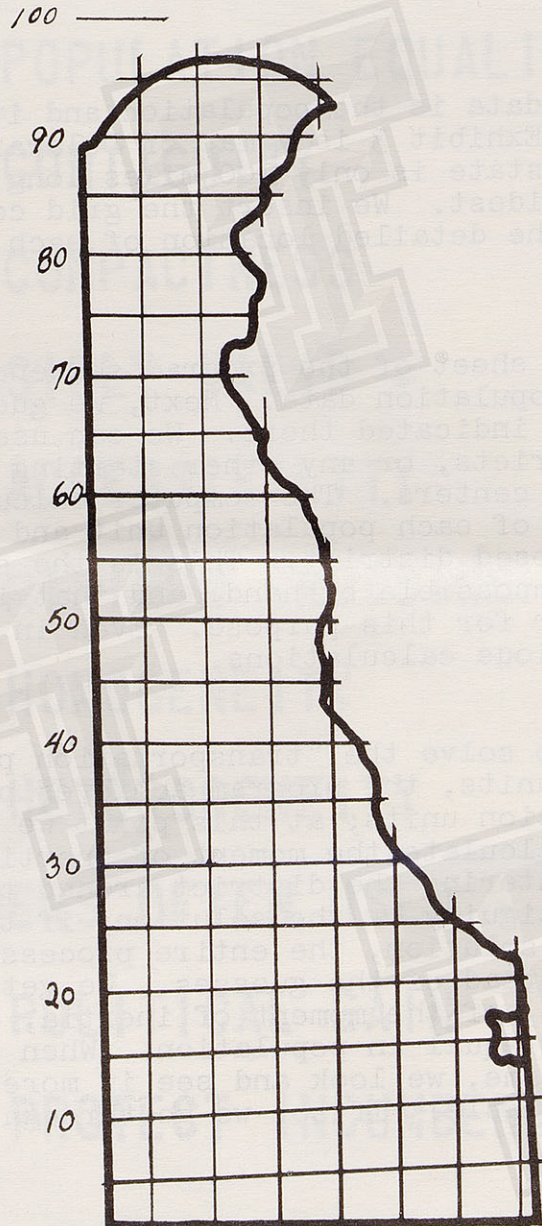
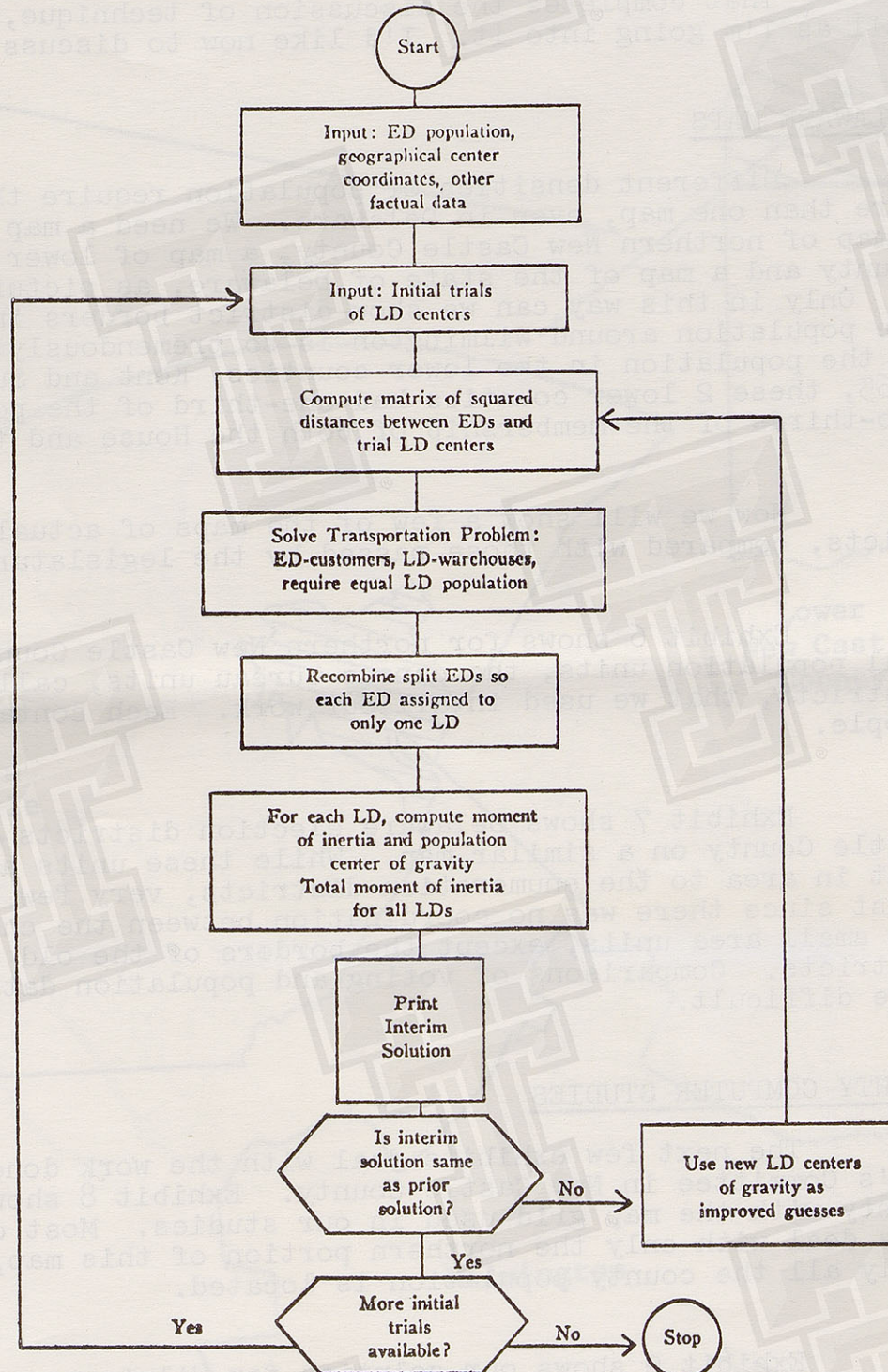


Exhibit 4

Flowsheet of Computer Program



number of such runs the best solution on that basis.

That completes the discussion of technique, in as much detail as I'm going into it. I'd like now to discuss certain maps.

DELAWARE MAPS

Different densities of population require that we deal with more than one map, even in Delaware. We need a map of Wilmington, a map of northern New Castle County, a map of lower New Castle County and a map of the state of Delaware, as pictured on Exhibit 5. Only in this way can we show district borders in detail, since the population around Wilmington is so tremendously dense compared to the population in the lower counties, Kent and Sussex. Up to 1965, these 2 lower counties had one-third of the population and two-thirds of the membership of both the House and the Senate.

Now we will show a few of the maps of actual computer districts, compared with those passed by the legislature.

Exhibit 6 shows for northern New Castle County the individual population units, the census bureau units, called enumeration districts, that we used in all our work. Each contains about 800 people.

Exhibit 7 shows Delaware election districts in northern New Castle County on a similar map. While these units are about equivalent in area to the enumeration districts, very few common lines exist since there was no coordination between the choice of the two small area units, except the borders of the old representative districts. Comparisons of voting and population data were therefore difficult.

COUNTY COMPUTER STUDIES

The next few exhibits deal with the work done for the Governor's Committee in New Castle County. Exhibit 8 shows the entire county with the map grid used in our studies. Most of the following maps deal with only the northern portion of this map, where practically all the county population is located.

Exhibit 9 shows our solution for Wilmington, for two councilmanic districts. This solution was tested quite extensively, and

EXHIBIT 5

Four maps were Needed to Cover Various
Population Densities in Delaware

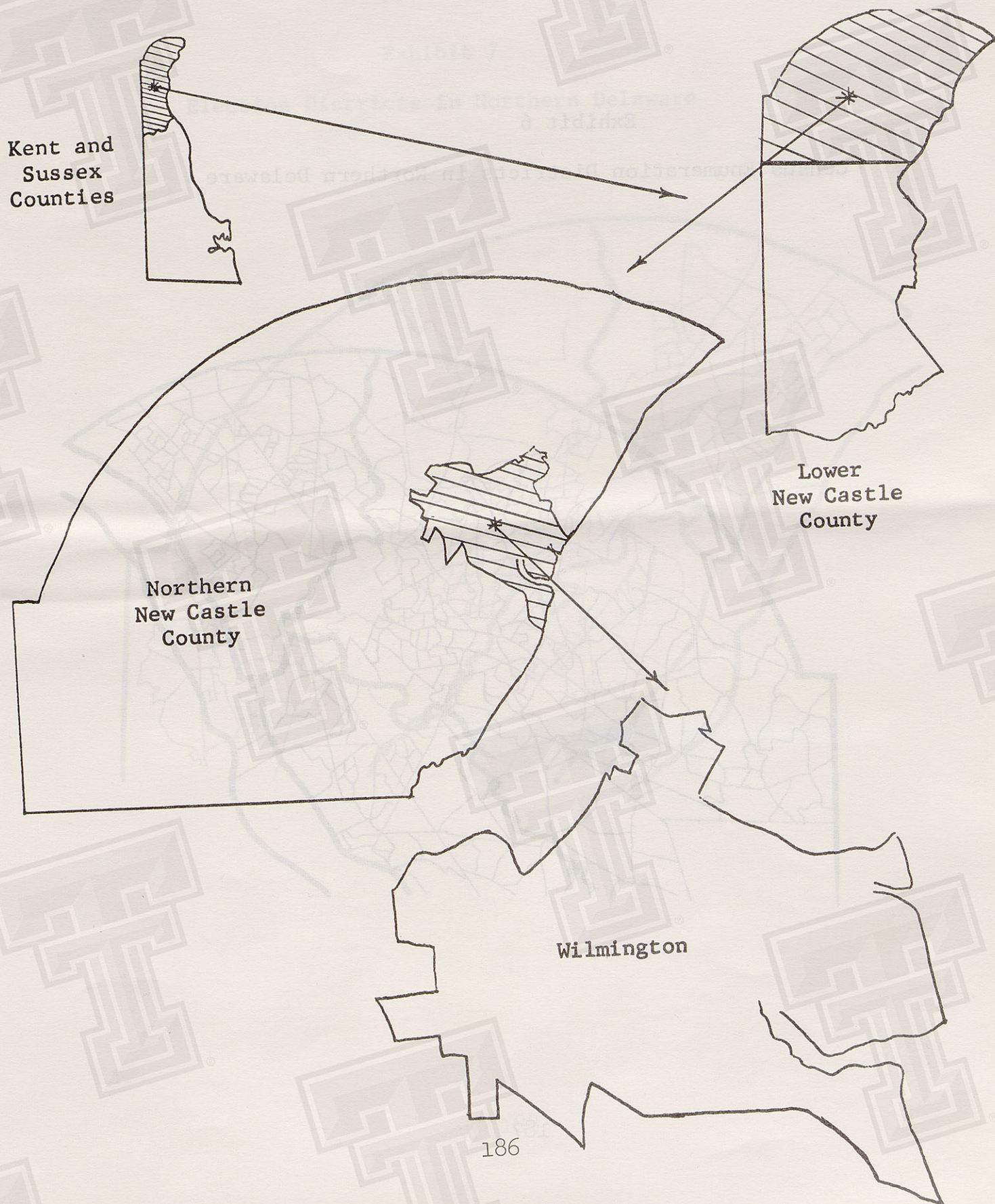


Exhibit 6

Census Enumeration Districts in Northern Delaware



Exhibit 7

Election Districts in Northern Delaware



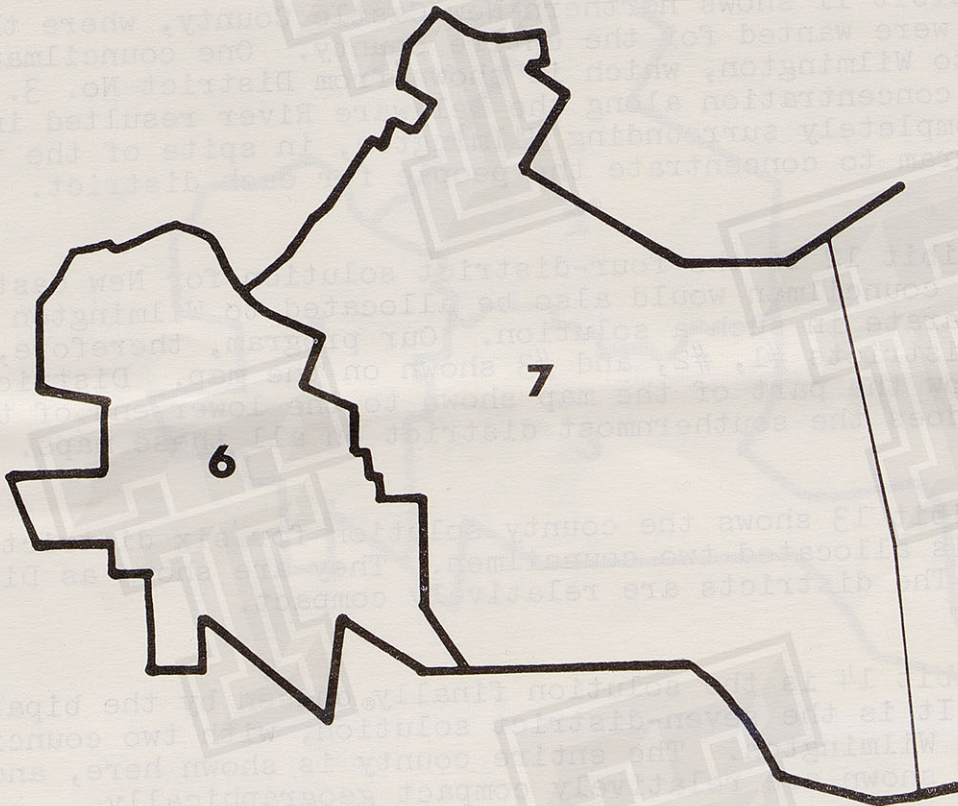
Exhibit 8

New Castle County with Computer Grid



Exhibit 9

Wilmington; Two-District Computer Solution



this same solution was achieved no matter what starting points were used for the program. This, of course, is not true with more complex districts to be shown later. Wilmington was kept separate in most of the county studies; this also gave us an opportunity to work with smaller area units, and a few studies we will show later did omit the Wilmington boundaries.

Exhibit 10 shows a solution for Wilmington where three councilmen were to come from Wilmington. Note the shape of Wilmington, since it will appear in smaller size on the following maps of northern New Castle County.

Exhibit 11 shows northern New Castle County, where those councilmen were wanted for the entire county. One councilman was allocated to Wilmington, which is shown from District No. 3. The population concentration along the Delaware River resulted in District #1 completely surrounding Wilmington, in spite of the tendency of the program to concentrate the people for each district.

Exhibit 12 is the four-district solution for New Castle County; one councilman would also be allocated to Wilmington if it is kept separate in such a solution. Our program, therefore, dealt only with Districts #1, #2, and #3 shown on the map. District #3 extends below the part of the map shown to the lower end of the county, as does the southernmost district on all these maps.

Exhibit 13 shows the county solution for six districts. Here Wilmington is allocated two councilmen. They are shown as Districts #5 and #6. The districts are relatively compact.

Exhibit 14 is the solution finally chosen by the bipartisan committee. It is the seven-district solution, with two councilmen allocated to Wilmington. The entire county is shown here, and the districts as shown are relatively compact geographically.

Exhibit 15 shows the largest number of districts studied for the bipartisan committee. Three of the nine districts are allocated to Wilmington. (You saw the two- and three-district solutions for Wilmington in the earlier exhibits.) All these studies were made on census tracts, rather than enumeration districts, because of limitations of the program size then available to us, and this accounts for some lack of compactness at the borders of some districts, particularly #4.

Exhibit 10

Wilmington; Three-District Computer
Solution

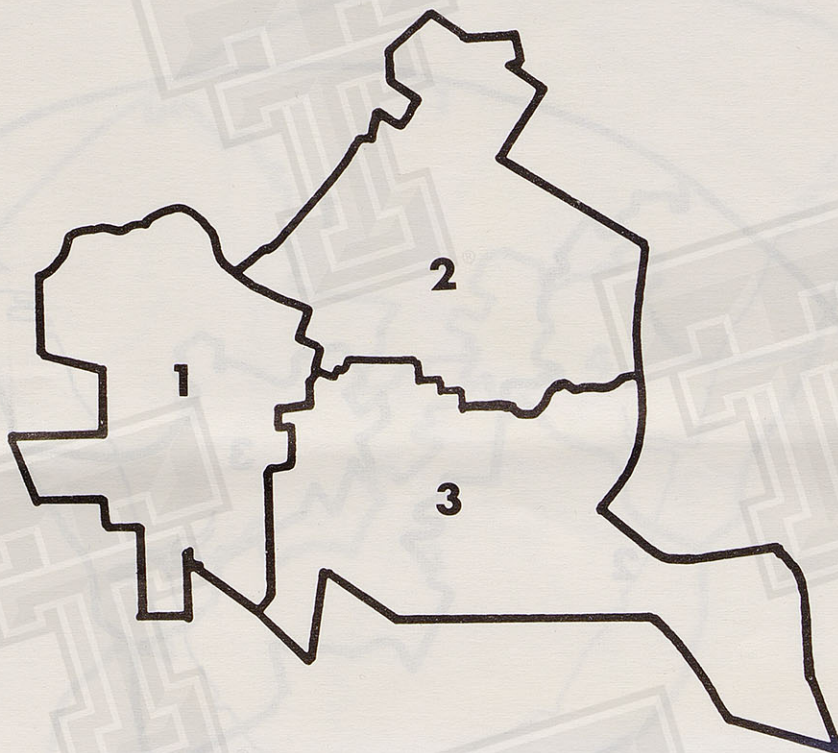


Exhibit 11

Northern New Castle County;
Three-District Computer Solution
(Wilmington Separate)

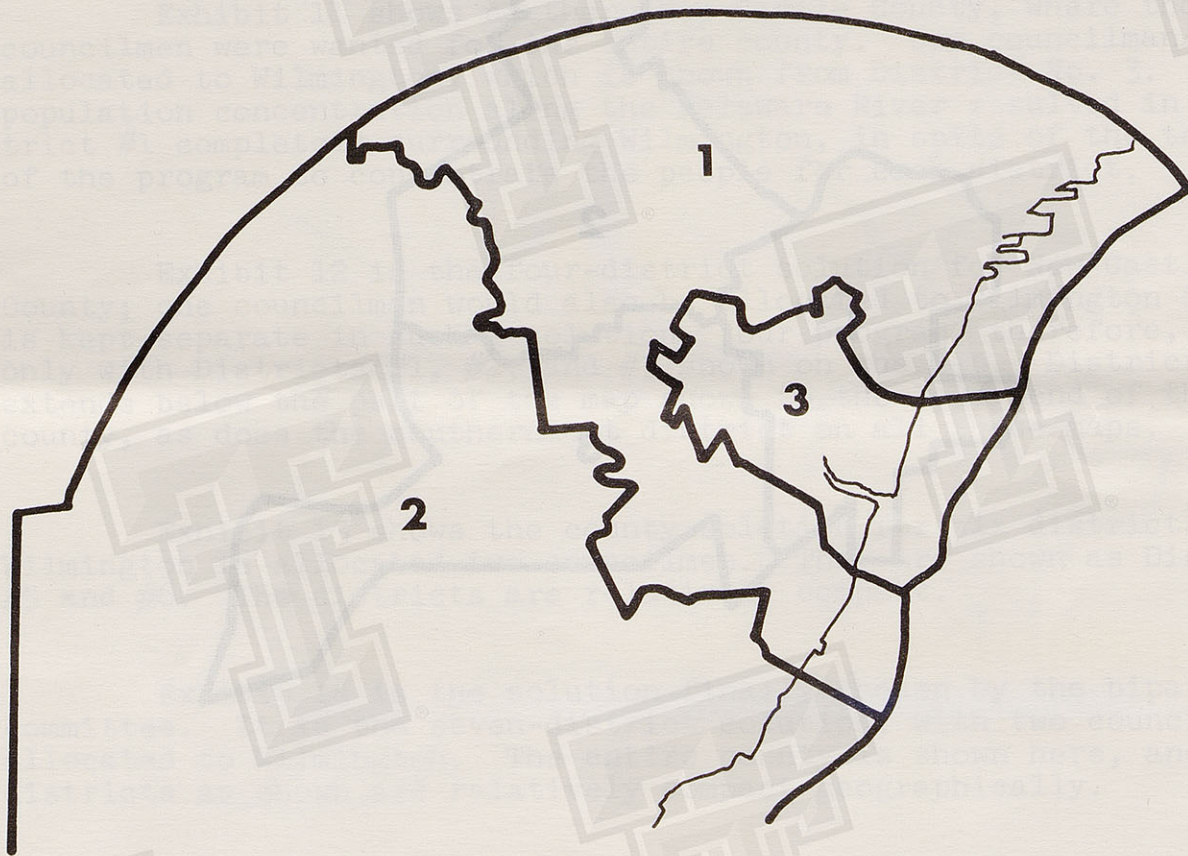


Exhibit 12

Northern New Castle County
4-District Computer Solution
(Wilmington Separate)



Exhibit 13

Northern New Castle County
6-District Computer Solution
(Wilmington Separate, 2 districts)



Exhibit 14
New Castle County
7-District Computer Solution
(Wilmington Separate, 2 districts)

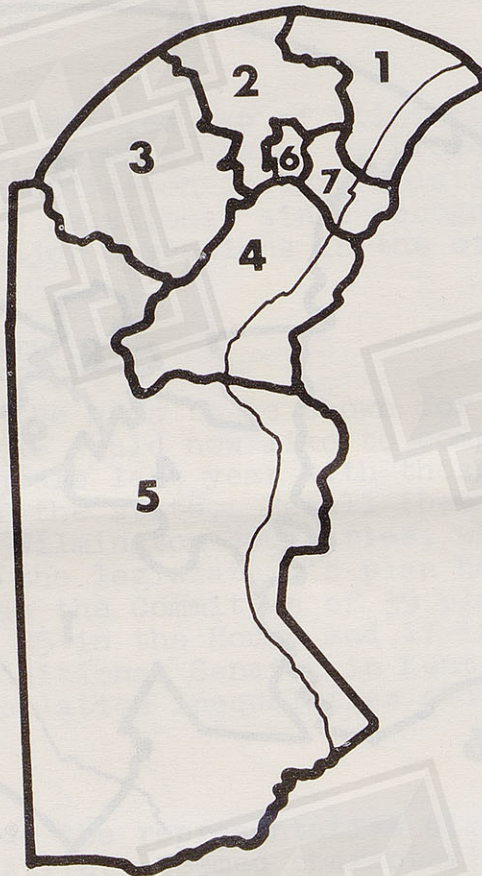


Exhibit 15
Northern New Castle County
9 District Computer Solution
(Wilmington Separate; 3 districts)



One effect of our program is that the city of Newark is maintained in a single district because of the population concentration at the lower left of the map. All plans passed by the legislature divide Newark two or three ways.

Exhibit 16 shows a seven-district solution that was not accepted by the bipartisan committee, but that is of interest since Wilmington boundaries were not maintained in this solution. Note that the population pattern has resulted in Wilmington being broken into three separate parts. All the districts look relatively compact geographically, except #6.

Exhibit 17 is a detailed map of Wilmington in the same seven-district solution, showing how it is broken into three different parts. Population deviation in this solution was lower than the other seven-district solutions, since recognizing Wilmington boundaries caused the major deviations in the other solutions.

COMPARISON OF STATE DISTRICTS

That concludes the maps to be shown for the work on the Governor's Committee. We would now like to compare the districts approved by the legislature last year with those resulting from the computer districting of the state. Recall that the legislature did recognize counties and Wilmington boundaries, where the computer did not. Furthermore, the legislature's plan had 35 representatives and 18 senators, whereas the Committee of 39 plan maintained the traditional numbers of 35 in the House and 17 in the Senate. The legislature added an additional Senator in Kent County in order to reduce somewhat the population inequalities caused by the county boundaries.

Exhibit 18 shows the representative districts in the 1964 statute. Long, thin districts seemed characteristic of this plan, i. e., Nos. 9, 10, 11, 15, 16, 20 and 22.

Exhibit 19 compares these with the representative districts resulting from the computer plan. Note that almost every district on the computer-based map is relatively compact geographically, as well as by our population definition. I would also like to point out that the city of Newark in the lower left is maintained as a single district in this plan merely because of the population concentration. The legislative statute divided Newark into three parts, since other considerations outweighed the population concentration.

Exhibit 20 compares the representative districts within

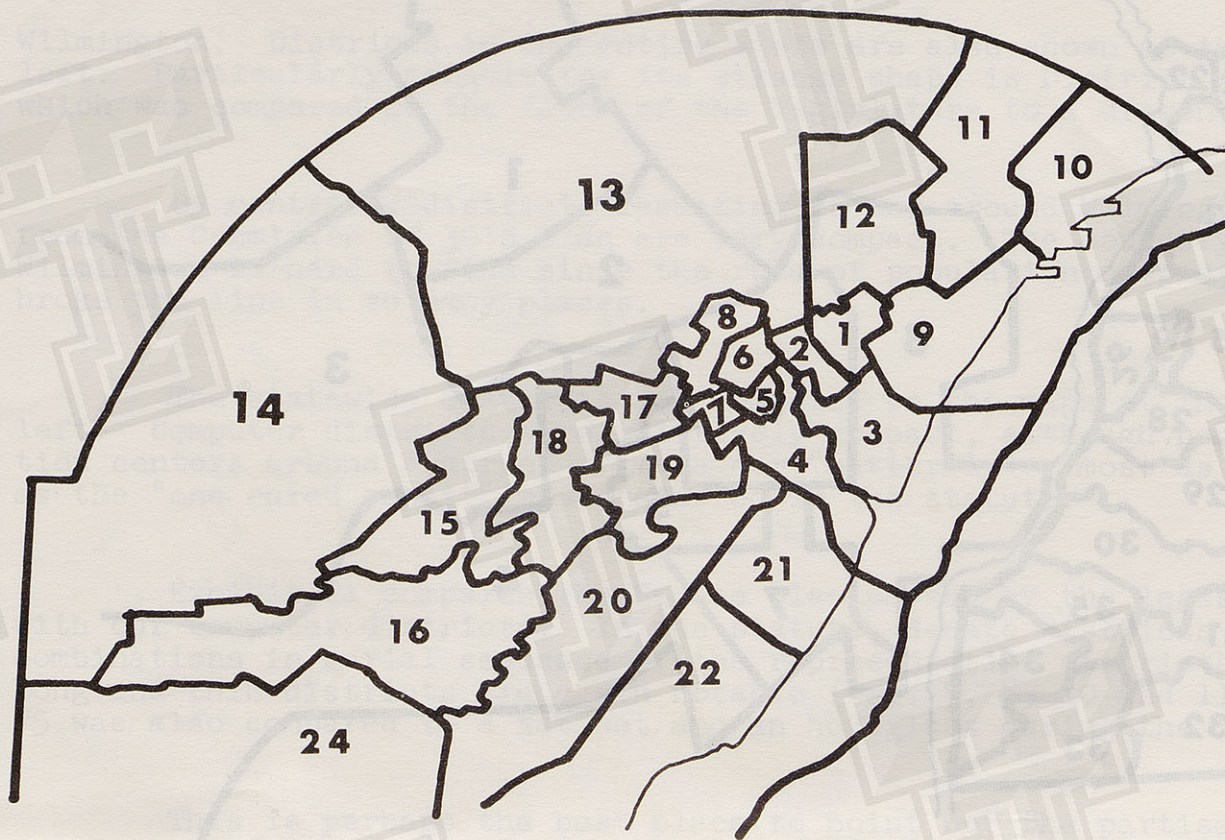
Exhibit 16
Northern New Castle County
7-District Computer Solution
(Wilmington not Separate)



Exhibit 17
Wilmington-area Districts in
9-District Computer Solution
(Wilmington not Separate)



Exhibit 19
Comparison of Representative Districts, Northern New Castle County
1964 Statute



Computer Plan

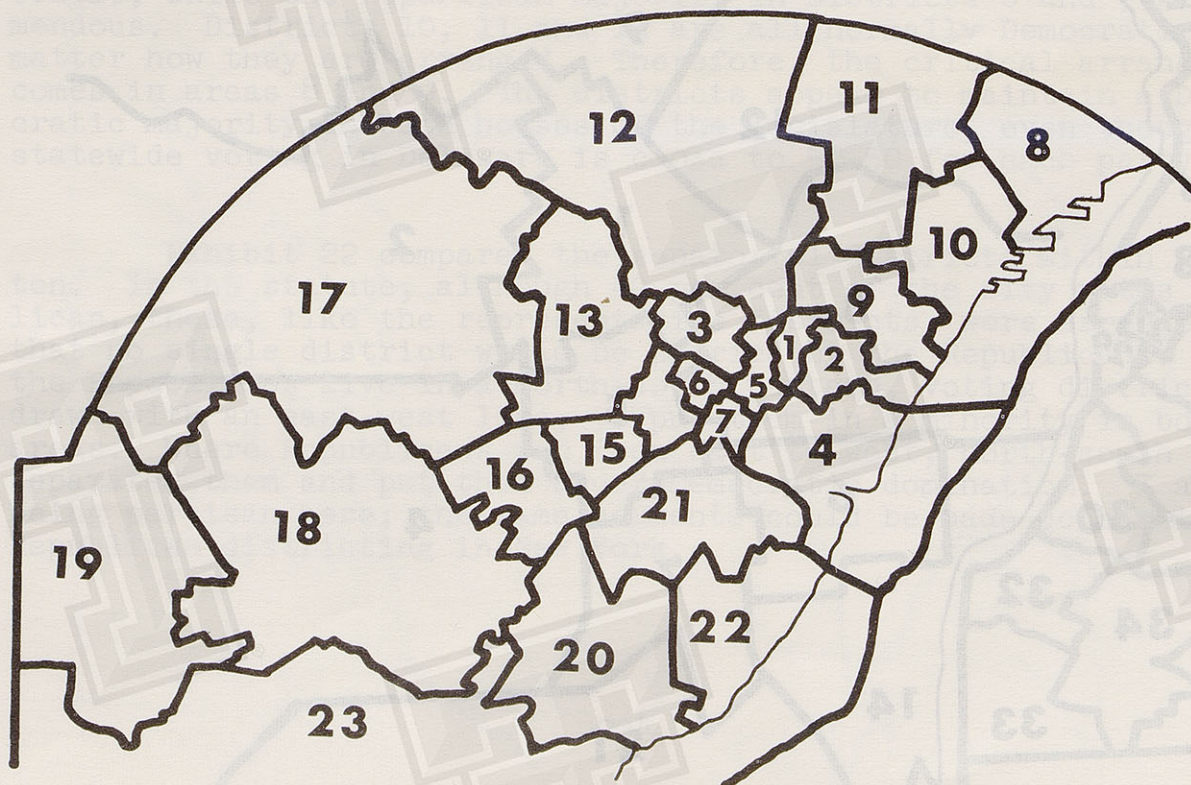
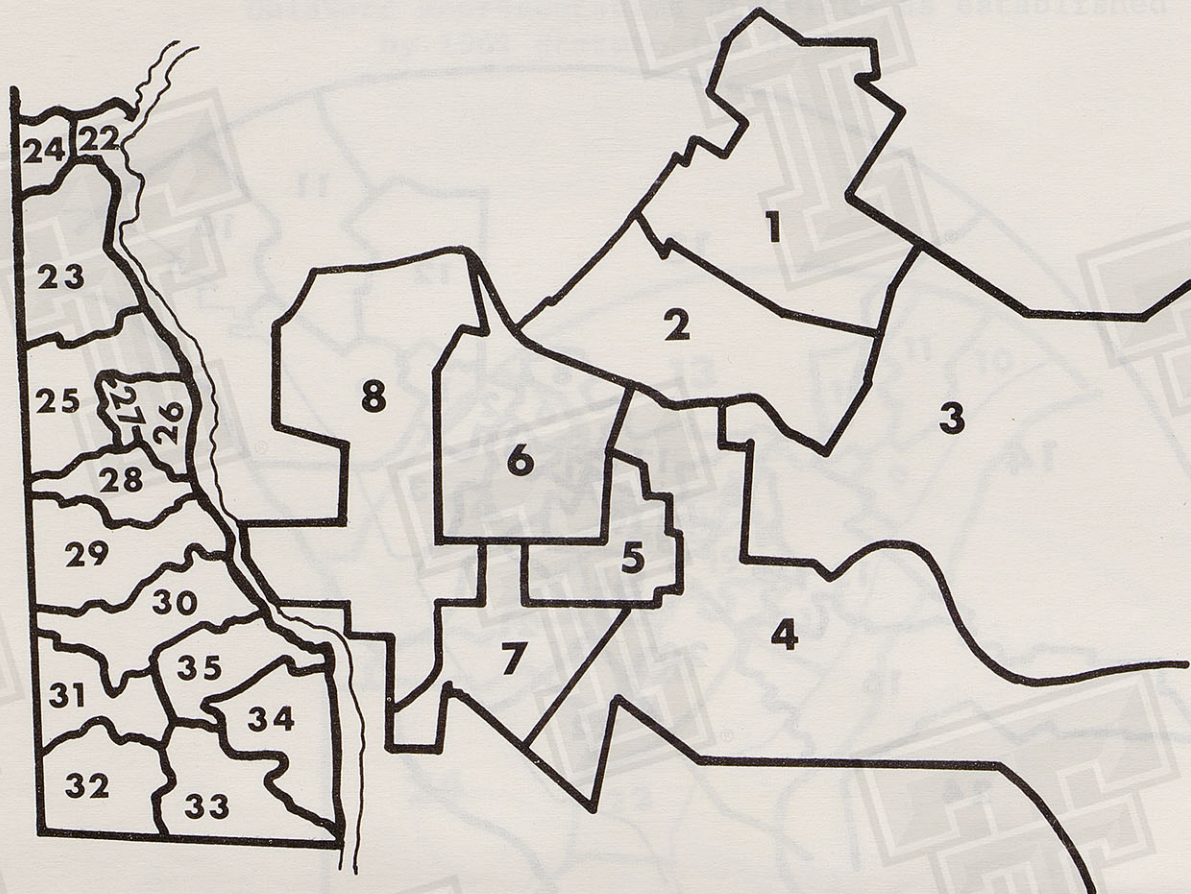
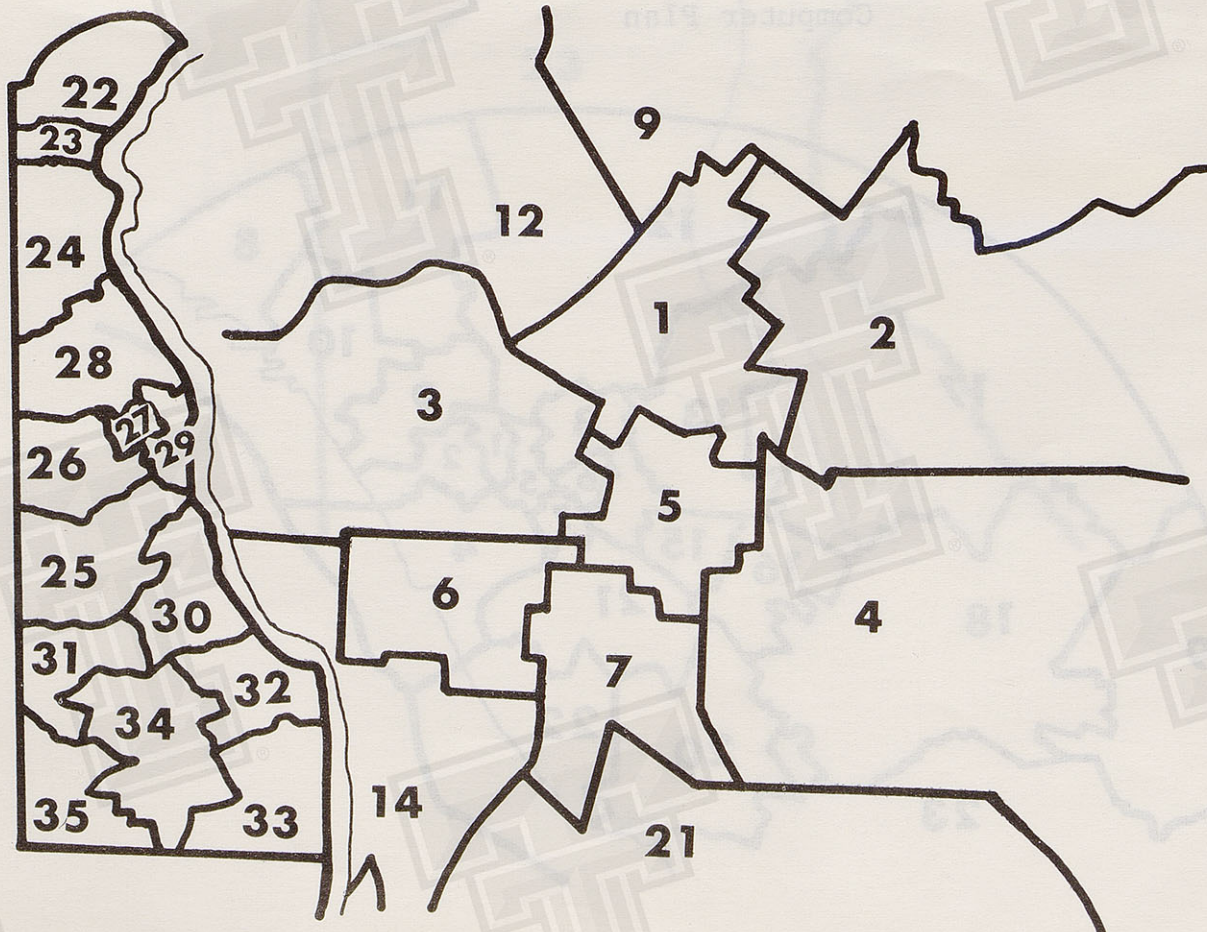


Exhibit 20
Comparison of Representative Districts, Wilmington
1964 Statute



Computer Plan



Wilmington. Districts in the entire state are also shown at the left. Particularly notable for its strange shape is District #4, which was compared on the floor of the legislature to a dragon.

By contrast, districts resulting in and around Wilmington from the Committee of 39's Plan are very compact. The boundary of Wilmington is hard to find since the rule of population compactness broke the line in so many places.

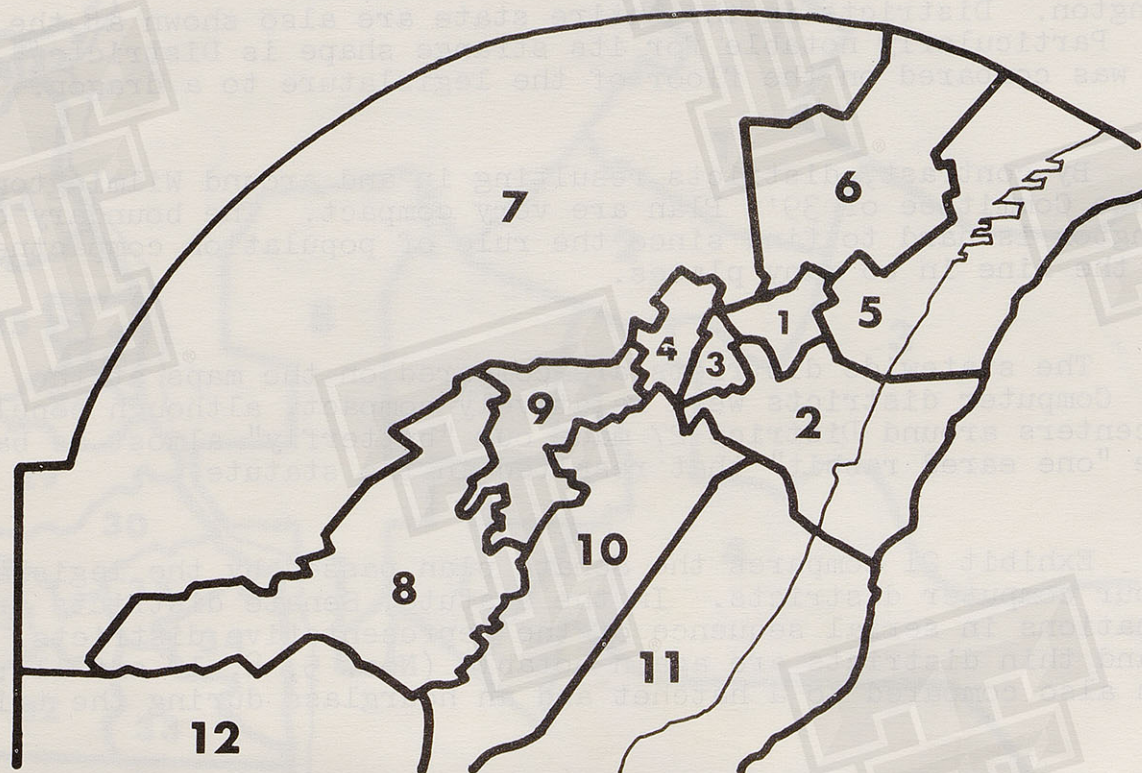
The statewide districts are compared on the maps at the left. Computer districts were relatively compact, although population centers around District 27 made our "butterfly" almost as bad as the "one eared rabbit" that resulted in the statute.

Exhibit 21 compares the Senate plan passed by the legislature with our computer districts. In the statute, Senate districts are combinations in serial sequence of the representative districts. Long and thin districts are again notable (Nos. 5, 8, 10 and 11); #5 was also compared to a hatchet and an hourglass during the trial.

This is perhaps the best place to point out the partisan complexions of these legislative plans. Republicans are concentrated in the area numbered here as 7; Democrats are increasing toward 50 per cent of the voting population along the river, and District 5 was the area developed to create a Democratic district as soon as possible. Districts 8 and 9 were divided to go barely Democratic, while the Republican majority in Districts 6 and 7 were tremendous. Districts 10, 11 and 12 are all normally Democratic, no matter how they are arranged. Therefore, the critical arrangement comes in areas 8 and 9. The districts appear to maintain a Democratic majority in both houses of the legislature, even though statewide voting in Delaware is close to 50-50 for each party.

Exhibit 22 compares the senatorial districts within Wilmington. In the statute, although 40 per cent of the city votes Republican, these, like the representative districts, were arranged so that no single district would be carried by the Republicans. Where the Republicans live in a north-south pattern, voting districts were drawn with an east-west line, to put them in a minority in both areas. Where Republicans ran from east to west, north-south lines separated them and put them under Democratic domination. I am not being partisan here; the same comments could be made concerning the Republican districting in New York.

Exhibit 21
Comparison of Senatorial Districts, Northern New Castle County
1964 Statute



Computer Plan

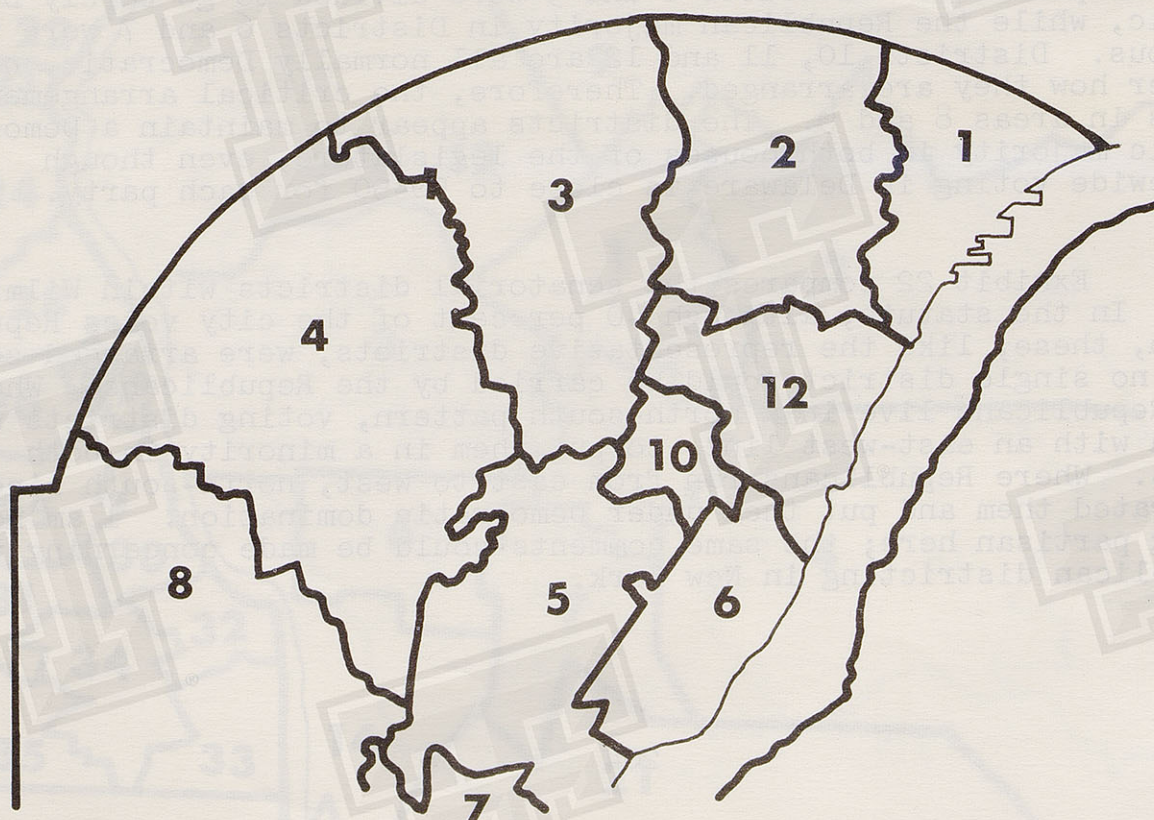
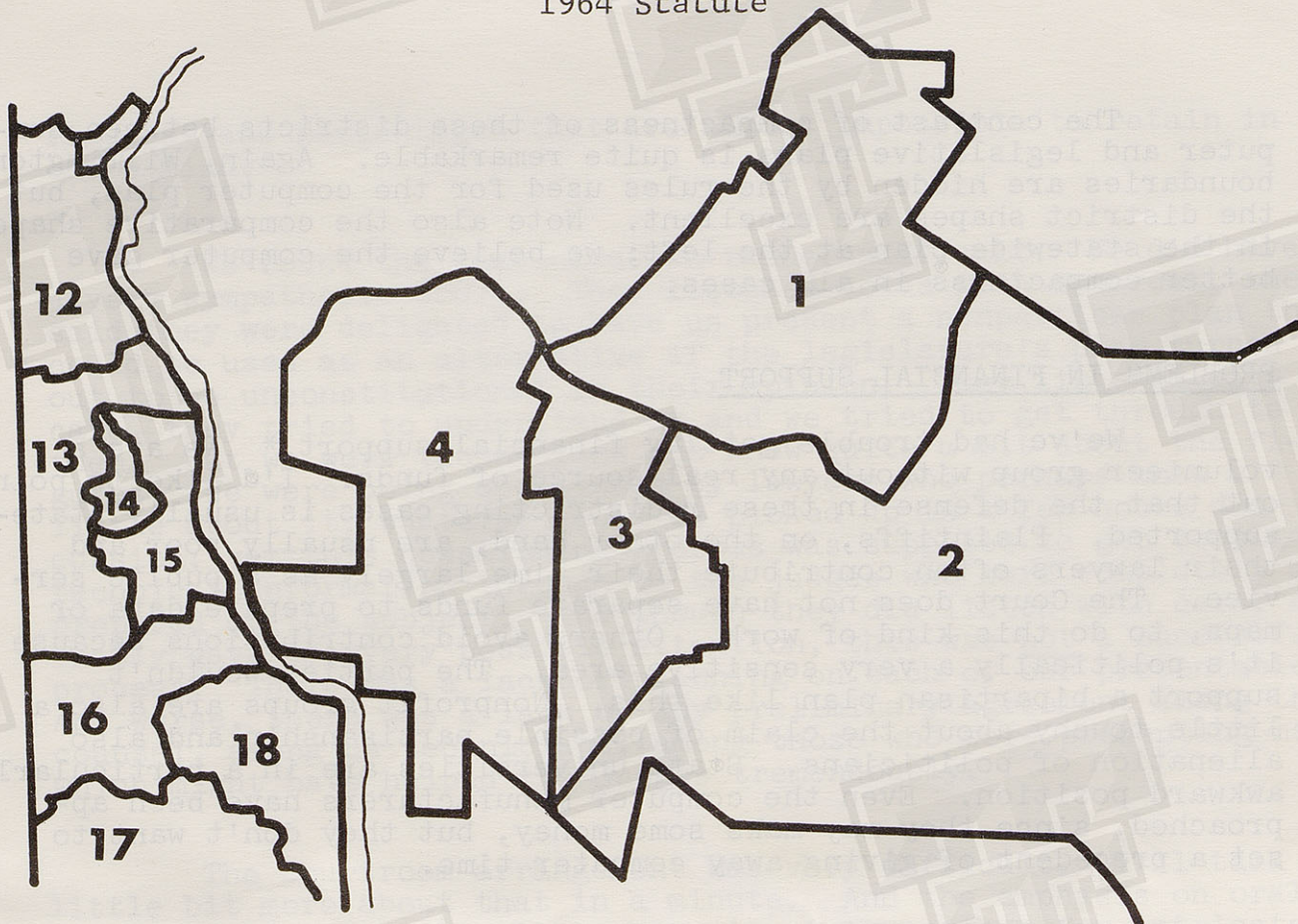
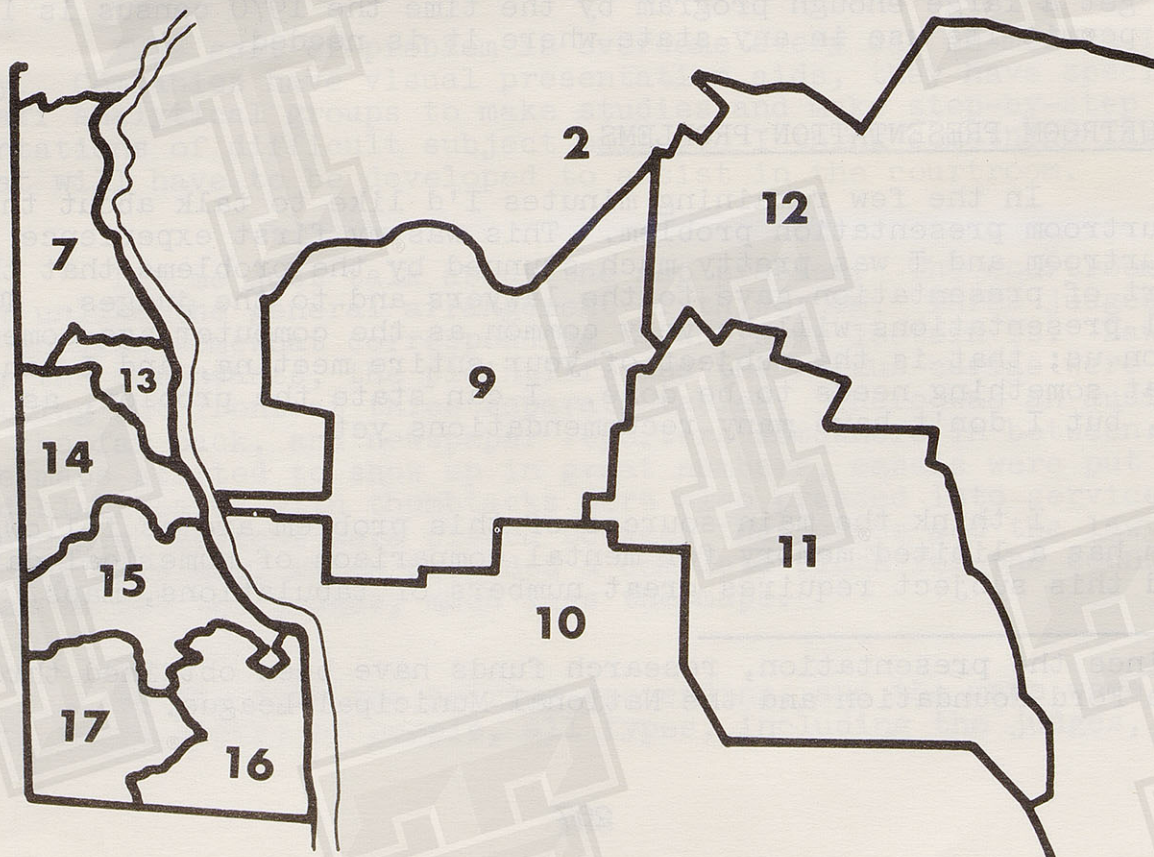


Exhibit 22
Comparison of Senatorial Districts - Wilmington
1964 Statute



Computer Plan



The contrast of compactness of these districts between computer and legislative plans is quite remarkable. Again, Wilmington boundaries are hidden by the rules used for the computer plan, but the district shapes are excellent. Note also the comparative shapes in the statewide plan at the left; we believe the computer gave better compactness in all cases.

PROBLEMS IN FINANCIAL SUPPORT

We've had trouble getting financial support.* We are a volunteer group without any real source of funds. I'd like to point out that the defense in these redistricting cases is usually state-supported. Plaintiffs, on the other hand, are usually poor and their lawyers often contribute their time largely as a public service. The Court does not have separate funds to prepare data or maps, to do this kind of work. Others avoid contributions because it's politically a very sensitive area. The parties wouldn't support a bipartisan plan like this. Nonprofit groups are also a little touchy about the claim of possible partisanship and also alienation of politicians. State universities are in a particularly awkward position. Even the computer manufacturers have been approached, since they may make some money, but they don't want to set a precedent of giving away computer time.

The fact seems to be that everyone gains by delay in this situation except the people. Our goal within our small group is to get a large enough program by the time the 1970 census is issued to permit its use in any state where it is needed.

COURTROOM PRESENTATION PROBLEMS

In the few remaining minutes I'd like to talk about the courtroom presentation problem. This was my first experience in a courtroom and I was pretty much stunned by the problems that this sort of presentation gave to the lawyers and to the judges. Technical presentations will be very common as the computer age comes upon us; that is the subject of your entire meeting, and I can see that something needs to be done. I can state the problem, as I see it, but I don't have many recommendations yet.

I think the main sources of this problem are as follows: Man has a limited memory for mental comparison of numerical data, and this subject requires great numbers of tabulations, maps,

*Since the presentation, research funds have been obtained through the Ford Foundation and the National Municipal League.

figures, and percentages that are almost impossible to retain in one's mind.

We found the communication rather difficult. We did have a very sympathetic court. They listened to us with interest, they said they were delighted to have us present a nonpartisan plan that could be used as an alternative if the legislature's plan turned out to be unconstitutional in their opinion. They listened with care, they tried to understand us and we tried to get through to them. But we were technicians who knew quite a bit about the figures. We were being questioned by lawyers who perhaps knew a little about it, whatever could be picked up in a few hours discussion; yet this questioning process was supposed to get complicated technical information through to the judges who were completely unprepared on the subject. And though they did listen with care, and really gave us every possible attention, this was not a successful process. There was a lack of planning on each of our presentations. And worse, there was a lack of any preliminary agreement among the counsel, among us technicians, among those who were presenting maps, which might have helped the judges tremendously.

The courtroom arrangement was very difficult. I'll talk a little bit more about that in a minute. And the emphasis on oral question-and-answer testimony was almost impossible for intricate technical subjects.

This sort of problem is overcome every day in modern industry. Companies have visual presentation aids, they have special staff analytical groups to make studies and make step-by-step presentations of difficult subject matter. I think something like that will have to be developed to assist in the courtroom.

Let me just talk about the map problem. The courtroom was not unlike the general arrangement of this room. Three judges sat in an area somewhat corresponding to where my lectern is. Lawyers for the defendants, the plaintiffs and the amicus curiae were sitting out front at three separate tables. There was an audience in the far back, and newspaper reporters somewhere in between. As the maps started to show up in great numbers, easels were put up, and blackboards with thumbtacks were also pressed into service. These high screens were placed between the judges and the lawyers, facing this way, which provided a complete block for the counsel even to see the judges, much less the maps.

By the time the hearing was ending, and the maps were all out, whole groups of people, all types, including the judges, had

to move from one side of the room to another even to see what was being talked about. The court stenographer, taking down merely the words that were said, often had no way to relate the testimony to the exhibits being discussed.

As I said, the population density range even in Delaware is wide enough to create a big map problem. We had two houses, so we had to have six or eight maps for every set of districts. And we had five sets of districts that were being discussed:

- original districts under 1897 constitution,
- 1963 amendment voided by Supreme Court,
- 1964 statute passed by legislature,
- computer plan statewide,
- alternate plan within counties, mostly by computer.

Therefore, we had to have 30 to 40 maps even as a minimum. But each party to the suit had different sizes of maps showing this same data. And other maps were put up to show

- election districts,
- census population units,
- transparent overlays to compare these,
- the political effect of particular plans in the districts.

So there was no means for close inspection or comparison.

We thought we had a pretty good system for use in the courtroom. Some of the slides you saw were maps that the Committee of 39 prepared in painstaking color, on a volunteer basis. But we made only one of each in these nice colors you saw -- and the Court kept all of them! So we came out of the trial with nothing!

We're now working with maps of one color that can be duplicated, that show the population directly on them, and show the border boundaries a little more clearly than these. We think we'll get there, but this is the sort of problem we never faced before.

To move away from the map problem, the Court also was unfamiliar with IBM tabulations. I don't know how many of you are, but it's really very difficult to look at a summary in an IBM format for the first time and make head or tail of it. Some of the terminology that we used just didn't get across. I don't need to go into detail on many of these, but we used the term "split

districts," for instance. We had intended it for a very special meaning we thought was clear. Unfortunately, we had used it for so long that way that I guess we were used to it. It was an unfortunate term, because it was misinterpreted. It confused the counsel and it confused the judges.

A third problem resulted since everything, of course, was done in a rush after the Supreme Court decision June 15. This resulted in a few errors in the tabulations, which caused more confusion.

Confusion also resulted because the population and the voting statistics are gathered on a different area basis (see Exhibits 6 & 7). The smallest population unit may be counted in an egg-shaped district stretching north and south whereas the votes are counted in an egg-shaped district lying east and west. So you can't really easily compare population and voting statistics.

Normal courtroom procedure calls for primary sources of information, but the primary sources of these data were just not available in court. The Court would ask many questions about whether this was the primary source or what it came from, and follow the questions back to unpublished census data in Washington. A stipulation of counsel was the only way out. In some cases the stipulation was in error -- but still it was the only way out. And it was so painful to go by that route, when we could have planned in advance official sources that would have been acceptable.

Voting data has a slightly different problem, because people don't vote down the line for one ticket. There's enough variation by office and by election from the same area that the questions always arise:

- How many elections do you use as being typical?
- Which offices do you choose as an average?

We reached no agreement on this in advance; no matter which office was put forward, another was suggested. At one point we were suddenly faced with a task that one of the plaintiffs had estimated would take three hours. The Court asked us for more statistics -- but they added two or three statements like "go back to 1956 and 1958 and 1960 as well as 1962" and "get the vote for senator" as well as representative and "tabulate all this in the new format." It turned out that many man-weeks of work went into what we thought was a simple estimate. And the results did not differ significantly from our first tabulations.

There's a real question whether much of this information was admissible. The defense lawyers claimed it was all hearsay evidence, because it came from secondary sources, and in some states we understand it's been treated that way. Much of the testimony was accepted by our judges subject to a motion to strike, which the judges would rule on later. It still all appears in the written testimony (so does some of the material which was definitely "stricken") so I don't know just what purpose it serves to strike the testimony.

My recommendation here is that some advance stipulations could have helped a great deal. I think I've hinted several points as I've gone along:

- We could have agreed on sources of census data, or sources of estimates, where necessary, to make it easy for the court to use the census statistics.
- We could have agreed on the sorts of measurements to be used to compare legislative districts.
- We could have agreed on the terminology and presentation form for this data so it wouldn't have had to come out in this painful way to confuse the court.
- We could have agreed and all known the formats of summaries and tabulations.
- We could have all used the same size map, which would itself have helped a great deal. And transparent, plastic maps with a backlighted panel of some sort would have made it possible to lay one over the other and compare district lines directly.
- We could have been sure we prepared enough copies so that the counsel and judges would all have copies.

One handy thing we should do next time, I would say, is get some means of reducing the size of these maps so that something can go into the transcript with the same number, to remind the reader what was being talked about. Reading the transcript is now a maze in itself. Even the exhibit numbering was not consistent from one day to the next, and it's very difficult to trace your way through.

CONCLUSION

I saw in yesterday's New York Times a picture of astronauts

Grissom and Young, holding up a model of the capsule they flew in orbit, describing just what they did to change its course. For some reason, that picture reminded me of a column last week in our local paper, saying that the cause of reapportionment lacked some catchword to grasp the imagination. What can we hold up and show the court, as simple as that capsule model, to describe the complex districting process? We need something more to achieve "one man -- one vote."

Nothing is more essential, I feel, in a democracy, than a legislature representative of the area's population. Yet nothing is more abiding than the tenacious perpetuation of political power possible when districting is controlled by one party. For the first time, computers make possible the complex calculations that can prepare districts that are blind to politics. We think we've got something here. We're trying to help -- and we'd be glad to get some help.

Thank you.

MR. WOLKIN: Thank you very much, Mr. Weaver. I suppose you didn't answer the question about merging North and South Dakota because you want to hold that answer until your workshop meets after this session.

Before we adjourn to the various seminar groups, I want to take a minute to thank, on behalf of the Joint Committee, this very responsive and attentive audience, and to thank on your behalf, and on behalf of the Joint Committee, the tremendous effort that went into organizing this program on the part of our Planning Chairman, Mr. Roy Freed. I think he deserves a vote of thanks.

Crissom and Young, holding the model of the cigarette they blow in
orifice, describing just what they did to change the cigarette for
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local paper, saying that the cause of transportation I had some
reasoned to grasp the situation. What can we hold up to the
other court, as simple as the capsule model, to describe the
distorting process? We need something more descriptive
than that.

Nothing is more essential, I feel, in a democracy than a
feeling of responsibility to the great majority. I am
more adding than the census, a report of political power
possible when distorting is controlled by one party. Now the first
time, computers make possible the complex calculations that can
prepare districts that are blind to reality. We think we've got
something here. We're trying to help, but we're glad to get
some help. It's a good idea.

ad of it, Mr. Roy, I think you are very much right. I suppose
you didn't have the question about meeting North and South Dakota
because you didn't want to know what workshop meets also
this session.

Mr. Roy, I think I should like to adjourn to the various sessions. I want to
take a minute to thank, on behalf of the Joint Committee, this very
responsive and attentive audience, and to thank the staff and
other people of the Joint Committee, the tremendous effort that went
into organizing this program on the part of the Planning Chairman,
Mr. Roy Freed. I think he deserves a vote of thanks.

Bobby Graham

MAJOR STUDIES MADE BY THE TEXAS RESEARCH LEAGUE

(From 1953 through 1966)

The major study projects undertaken by the League since its inception are here listed in their chronological order. The listing shows who made the requests and the year each study was completed. Brief mention is also made of the chief results brought about by the studies.

STATE HOSPITALS AND SPECIAL SCHOOLS, administration and programs; requested by the Board for Texas State Hospitals and Special Schools. Completed in 1954. Results: Extensive reorganization; laws modernized; new Mental Health Code enacted; some operating savings effected.

MINIMUM FOUNDATION SCHOOL PROGRAM, an evaluation of the workings of the State school aid program; requested by the State Board of Education. Completed in 1954. Results: Recommendations adopted by State Board; some needed changes made by Legislature, others still pending.

THE UNIVERSITY OF TEXAS SYSTEM, top-level administrative offices and functions, also administration of Medical Branch in Galveston; requested by the University's Board of Regents. Completed in 1955. Results: Reorganization of administrative structure; management of Medical Branch operations overhauled; substantial operating economies achieved.

STATE LIBRARY SERVICES and their administration; requested by the State Library Board. Completed in 1955. Results: Some improvements in operating efficiency and in personnel; some League recommendations still await implementation.

STATE PURCHASING SYSTEM, administration and laws; requested by the State Board of Control. Completed in 1956. Results: Purchasing system and practices completely reorganized; purchasing laws re-written; savings achieved estimated at \$3 million annually.

STATE HIGHWAY FINANCING, survey of needs and resources; requested by the Texas Highway Commission. Completed in 1956. Results: Legislature enacted a measure shifting half the cost of right-of-way from local governments to the State, saving local property-owners substantial tax sums; Legislature later amended the farm-to-market road financing procedures in accord with League recommendation so as to make more highway user funds available for primary highway system where the funds are most needed.

TEXAS DEPARTMENT OF PUBLIC SAFETY, administration and service structure; requested by the Director of the Department. Completed in 1956. Results: The Department was completely reorganized in line with League proposals, and a regional pattern for administering its services was adopted.

STATE EMPLOYEE RETIREMENT SYSTEM, benefit structure and financing; requested by the System's Board of Trustees and the Texas Public Employees Association. Completed in 1957. Results: Virtually all League proposals for upgrading the system were adopted by Legislative action, producing a better balanced schedule of retirement, disability and death benefits, and broadening the System's powers to increase earnings on its investments; State employee turnover has been reduced, and pressures for preferential benefits to special employee groups have been largely forestalled.

STATE BOARD OF INSURANCE, administration; requested by the State Board. Completed in 1958. Results: Considerable reorganization of the agency and improvement of some of its functions; but only a small portion of the statutory and budgetary changes recommended by the League were adopted by the Legislature.

STATE REVENUE ADMINISTRATION, functions of the State Comptroller, State Treasurer and Secretary of State; requested by the Legislature with the three agencies concurring. Completed in 1959. Results: The League's proposals for reorganizing and modernizing the revenue functions of these agencies were adopted almost in toto by Legislative and administrative action.

SERIES OF STATE TAX STUDIES, requested by the State Tax Study Commission (1957-59), the Commission on State and Local Tax Policy (1959-63) and the Committee on State and Local Tax Policy (1963-66). In each case these nine-member study groups, created by the Legislature, called upon the League for research assistance in formulating reports and proposals for Legislative action.

Results: In 1959, considerable revision and modernization of State tax laws to improve administration and compliance; in 1961, the enactment of a two per cent limited retail sales tax to bring needed stability into the State's revenue system; in 1963, amendment of the sales tax law to make it more workable and equitable in certain situations; in 1965, revision of the State inheritance tax law to improve enforcement. The Legislature has not yet acted upon a series of proposals made by the Tax Policy Commission (based on League research) in 1963 to modernize the State's property tax laws and their administration.

ORANGE COUNTY SCHOOLS, organization of County school district structure, requested by the Orange County School Committee. Completed in 1960. Results: The League's report contained no recommendations, since it was designed to provide a factual base for any future realignment of the nine districts. The study provided a model for other local districts in the State in analyzing their own similar problems.

GAME AND FISH CONSERVATION, administration and programs, requested by the State Game and Fish Commission. Completed in 1961. Results: The agency's organizational structure was overhauled to provide improved services to the public through decentralized regional offices. An annual saving of \$100,000 in motor travel costs was made possible. (The League study of this agency and the State Parks Board did not recommend the consolidation of the two agencies which subsequently took place.)

STATE PARKS, administration and programs, requested by the State Parks Board. Completed in 1961. Results: Adoption of a long-range plan of parks development drafted by Texas Technological College experts in line with League recommendations. League-proposed administrative changes were adopted only partially.

STATE WELFARE SERVICES AND PROGRAMS, requested by the Texas Department of Public Welfare. A three-year series of studies completed in 1962. Results: Improvements in administration of the Aid-to-Dependent Children Program, resulting in a 20% reduction in the caseload; streamlining of the Department's case records at a substantial saving of paperwork, filing space and costs; improved relationships between the federal and state agencies in administering the various programs; the adoption of a State program of medical aid to persons on the old-age assistance rolls under a contract with a private insurance agency (as opposed to a "socialized medicine" approach).

TEXAS INDUSTRIAL COMMISSION, administration and program, requested by the Commission. Completed in 1962. Results: The Commission was completely reorganized, its staff strengthened, and its program reoriented to emphasize cooperation with private industrial development efforts. The improvement in effectiveness of this agency's work since 1962 has been dramatic.

TEXAS RAILROAD COMMISSION, administration and programs, requested by the Commission. Completed in 1963. Results: A comprehensive reorganization of administration and services was achieved with Legislative budgetary sanction, and a first-year budget saving of \$300,000 was realized; the old "tender system" of accounting was abolished, resulting in substantial cuts in compliance costs for industry.

SERVICES FOR THE BLIND, administration and programs, requested by the State Commission for the Blind. Completed in 1963. Results: Due to changes in Commission personnel, implementation of League proposals has been slow.

VOCATIONAL REHABILITATION SERVICES, administration and programs, requested by the State Board of Education. Completed in 1963. Results: League recommendations for improvements were adopted in large part by the Board and the Texas Education Agency.

STATE BUILDING ADMINISTRATION, analysis of procedures and financing for state building construction programs; requested by the House of Representatives and the Governor. Completed in 1964. Results: Adoption by the Legislature of most of the League's proposed reorganization program, aimed at getting better and more suitable buildings for the funds expended.

STATE WATER ADMINISTRATION, requested by the Texas Water Commission, Texas Water Development Board and Water Pollution Control Board. Completed in 1964. Results: The League's proposals for strengthening State handling of water development activities and problems were enacted almost in their entirety by the Legislature after being included by Governor Connally in his legislative program; a long-range statewide water development plan is now being developed; and a State Planning Agency Council has been formed to promote cooperation among the principal state agencies in resource planning.

WATER RIGHTS ADMINISTRATION study requested by the Texas Water Commission. Completed in 1965, the report proposed organizational and procedural changes for the Water Commission (now called the Water Rights Commission) to achieve more effective administrative adjudication of water rights disputes. Results: Some of the suggested changes were adopted by the 59th Legislature. The rest are incorporated in a bill now before the 60th Legislature. The bill was drafted by the Texas Bar Association and is supported by the Water Rights Commission.

WATER QUALITY MANAGEMENT study requested by the Texas Water Pollution Control Board. Report submitted early 1966. Results: Most of its recommendations are contained in a bill now before the 60th Legislature, and sponsored by a Legislative Study Committee (the Krueger Committee) and also by the Water Pollution Control Board.

JUNIOR COLLEGE CRITERIA, evaluation of, requested by the State Board of Education. Completed in 1964. Results: League recommendations for more realistic and resultful set of criteria to be used in authorizing the location of junior colleges were approved by the Board of Education and have been incorporated into the program of the Higher Education Coordinating Board.

TEXAS EMPLOYMENT COMMISSION: studies of (1) unemployment compensation financing and (2) re-training programs. First study completed in 1965. Results: Three League suggestions for firming up the Unemployment Compensation Trust Fund have been incorporated into a bill sponsored by the Commission and now before the 60th Legislature. Second study - re-training programs - to be completed in early 1967.

LEAGUE'S 1967 RESEARCH PROGRAM

ADDITIONAL TAX STUDIES for the Texas Committee on State and Local Tax Policy were completed in early 1967: A report on suggested "reforms" in existing tax statutes to remove some of the obstacles to efficient administration, and a report dealing with problems of ad valorem tax administration have been submitted to the Legislature by the Tax Policy Committee. Results: All proposals in the two reports are before the 60th Legislature in bill form.

STUDY OF LOCAL GOVERNMENT STRUCTURES IN THE 22 TEXAS METROPOLITAN AREAS, requested by Governor Connally in April 1965 (see accompanying letter of request), and endorsed by the Texas Municipal League and the Texas Association of County Judges and Commissioners.

Governor Connally estimated it would take at least three years to complete the whole study, but asked that it be undertaken in several steps, and a progress report be submitted on completion of each step.

The objective of the first "leg" of the study project was to define the State Government's role in helping its local subdivisions meet and solve problems stemming from rapid population growth and economic expansion. This phase was completed in late 1966 and a report containing seven recommendations, each entailing legislation, was submitted to the Governor and Legislature in January.

Result: The seven recommendations were incorporated into the Governor's 1967 legislative program, and bills to implement each recommendation have been introduced in the Legislature

Succeeding steps in the three-year study will deal with different types of "trouble spots" in metropolitan area government. These could include an evaluation of local services presently performed by State agencies, local public health services and their financing, local welfare services, state-local relationships in highway planning, urban renewal problems, low income housing projects, multi-county service problems (e.g., air pollution control), and constitutional provisions affecting local government operations and financing.

OTHER STUDIES: It is expected that other official study requests will come to the League in the months to come, from both State and local sources. But League acceptance of any such requests will depend on the workload occupying the staff's time on subjects listed in the above paragraph.

Sept. 4, 1967

THE TEXAS RESEARCH LEAGUE
403 East Fifteenth Street
Austin, Texas - 78701

In 1952, a group of civic-minded, influential, informed Texans, who didn't like the way the politicians were running the state government, formed the Texas Research League as a non-political, non-profit educational corporation. It is not an agency or department of the state government. Its only function is to provide research into operations and problems of government and offer recommendations. Studies are made only at the request of governmental official bodies. Results of these studies are furnished the government without charge. League by-laws prohibit lobbying. The League is supported entirely by donations from Texas business men and firms - some 700 of them. Operating expenses for 1966 approximated \$274,670. The budget for 1967 is \$280,000.

Research is done by a staff of about twelve experts, among whom are men nationally known for excellence in their fields. Outside consultants are called in when necessary. The staff is headed by Alvin Burger, executive director, who has been with the League since its beginning.

S. J. Hay, of Dallas, is the 1967 chairman of the board of directors. In private life, Mr. Hay is chairman of the board of Great National Life Insurance Company. The board consists of about 100 men - 29 from Houston, 17 from Dallas, 7 from Fort Worth and the rest representing about 30 other Texas cities. One director, R. A. Goodson, President of the Southwest Bell Telephone Co., is located in St. Louis, Missouri.

A casual breakdown of the occupations of the 100 board members shows 21 in the oil and gas fields, 12 in banking, 11 in utilities, 4 in life insurance, two newspapers (Avalanche-Journal Publishing Co. of Lubbock and the Caller-Times Publishing Co. of Corpus Christi), two department stores (Nieman-Marcus and Leonard's) and about 22 presidents or heads of assorted other state-wide firms or corporations, as well as various more localized interests.

There has been some speculation that the Texas Research League may represent only the interests of big business. In studying the record of the League since it has been in operation, its list of accomplishments is impressive and its recommendations have seemed always to be based on researched facts, free of politics and pressure.

In the 13 years of its existence, the League has made more than thirty studies. Among the more important of these are studies of tax laws, state water development, water pollution control, financing of public education, highways, state hospitals, public welfare programs, the railroad commission, insurance regulation, state parks and game and fish regulations. Recommendations to the legislature, based on these studies, have met with varying fates in the state legislature but some of them have been enacted into law, increasing the efficiency of the government and saving money for the tax payers.

In 1967 the League is continuing its three-and-a-half year study of the problems of 22 fast growing metropolitan areas of Texas - the most ambitious study in its history. Seventy percent of Texas' nearly 12 million people live in these areas, where the control is split among the state, 36 counties and more than 1,000 municipalities, school districts and special districts. Another five metropolitan areas may soon be added: the Longview-Marshall area, Bell County, Sherman-Danison area, Victoria and Big Spring. Seven League recommendations dealing with metropolitan areas were considered during the 60th session of the legislature. Due to extensive lobbying by about 200 county commissioners, all were defeated except one, which dealt with county land use.

I. F. Betts, 1966 president of the board of the Research League, says, "For a long time we've heard the complaint that our state legislature, particularly, has been apathetic to the needs and problems of local government. There is ample evidence that this attitude has begun to change. It's high time it did . . . It's in our cities, our counties and our school districts that the impact of population growth is most directly felt. If the state is not to abdicate its responsible role with respect to these local units it has created, then it's time to rid our statute books and our constitution of provisions which hamstring local governments . . ."

* * * * *

Dallas members of the board of directors of the Texas Research League:

Normal W. Bramley, Senior Vice Pres.-Treas., Heiman-Marcus
Alfred I. Davies, Vice Pres., Sears, Roebuck & Co.
H. E. English, Chairman of Board, Red Ball Motor Freight, Inc.
J. D. Francis, Chairman of Board, Mercantile National Bank
Jake L. Hamon, Independent Oil Operator
S. J. Hay, Chairman of Board, Great National Life Insurance Co.
W. W. Lynch, President, Texas Power & Light Co.
W. W. Overton, Jr., Chairman of Board, Texas Bank & Trust Co.
L. T. Potter, President, Lone Star Gas Co.
Clyde E. Skeen, President, Ling-Temco-Vought, Inc.
E. C. Smith, Vice President, Southwest Bell Telephone Co.
W. Dawson Sterling, President, Southwest Life Insurance Co.
Robert H. Stewart 111, Chairman of Board, First National Bank
Charles B. Wallace, Mobile Oil Corp.
Ben H. Wooten, Chairman of Board, Dallas Federal Savings & Loan Assn.
George A. Wilson, Chairman of Board & President, Lone Star Steel Co.
Eugene C. Zorn, Jr., Senior Vice Pres. & Economist, Republic National Bank

Bobby:

If you want to shorten this report, several paragraphs can be lifted out, without damage to the continuity of the rest.

February 3, 1969

Mr. Harvey Feinman
Director of Marketing
State Services
Aspen Systems Corporation
Pittsburgh, Pennsylvania 15213

Dear Mr. Feinman:

The Voter News and your memo concerning it arrived last October only to be neglected in our rush of re-election activities. The Texas League has been studying our Legislature for the past four years and we are now working for changes to make it responsive to the modern needs of Texas. In connection with this study it would be valuable for each of our Leagues to have a copy of the Voter News. If this publication is still available, we would greatly appreciate having 60 copies to distribute to our State Board members and to our local Leagues.

We would also be interested in receiving further information about how computers are serving state governments as one of our support positions is for improved facilities for research, information, and bill drafting including use of electronic aids.

Thank you for your consideration of these two requests.

Sincerely yours,

Mrs. F. L. Duckworth
Chairman
Study of the Texas Legislature

c.c. State Office
Mrs. H. C. Martin, First Vice President

*Willie does this have
any value for us
Rg.*



OCT 18 1968

Aspen Systems Corporation

Dear Sir:

As a public service and to support your efforts for more effective state government, Aspen Systems Corporation is making this roundup of background information available to all U.S. newspapers and broadcast media in advance of the election.

Aspen Systems, specializing in computerized information handling systems for state governments, is in the vanguard of organizations working for more efficient and effective state government.

You may want to send copies of this issue of Voter News to your constituents or special groups. If so, copies are available without charge.

If you would like information about how computers are serving state governments in such endeavors as research for the drafting of new bills, examination and revision of old statutes, indexing and codification of statutes, searching of attorney general's opinions and court decisions, comparative searches of laws of two or more states, as well as the printing and publishing of statutes, session laws, rules and regulations and administrative agency decisions--please let me know.

Yours sincerely,

Harvey Feinman
Director of Marketing,
State Services

To help interpret the
State Legislature
and its functions



Aspen Systems

OCT 18 1968

VOTER NEWS

To help the voter
make the most
of his vote

PUBLISHED BY ASPEN SYSTEMS CORPORATION - PITTSBURGH, PA.

State Government: \$61-Billion-a-Year Business

State Government Grows Larger As Local Problems Rise

New frontiers are being carved out of the ashes and rubble of our slums and ghettos, and state legislatures are modernizing to meet and solve the problems that every part of the nation is encountering today.

State legislatures have been handicapped by inadequate facilities, poor organization, inefficient procedures, minimal operating funds, inadequate tools, and a public that has not understood the mounting problems of expanding population, urbanization, transport, crime, riot, air and water pollution, slum degradation and other problems.

The time is here for the state legislatures to make the important changes that will help them cope with the greatest challenge America has faced this century.

State government is a \$61-billion-a-year industry — with state budgets ranging in size from \$170 million for the smallest to \$7.7 billion yearly for the largest state (California).

State Bills Almost Triple

To give some idea of how the business of the states has proliferated in recent years, and made their systems outdated and inadequate, is shown in the figures of one state which introduced 1,700 bills in 1920 and over 4,600 for 1967 — almost tripling the number of bills introduced. But this hardly provides a picture of the tremendous load this and other states have been forced to shoulder. The senate of this same state mails its constituents over 2 million pieces of mail yearly, prints a summary of its proceedings that is 3,000 pages long, and has a calendar that often calls for some 100-200 publicly made decisions each day.

The increase in bills, which each state legislature is forced to draft, consider, discuss, re-frame and pass calls for important changes in procedures, methods and people to meet mounting legislative challenge.

Citizens Conferences Indicate Changes

Many citizen conferences have been held in various parts of the country in recent years and some of the major alterations and changes they have discussed are:

— To help make state legislatures function more effectively, it will be necessary to attract larger numbers of qualified men and women to become candidates and serve as legislators. As an inducement to these better qualified people, salaries of legislators should be increased to levels where citizens can serve without incurring severe financial loss.

— Recruitment of new candidates for the state legislature, and for staffing positions, should be a continuing function of state government. Some states have already begun effective recruit-

ment programs among college graduates.

In one large state, a training program is being financed by the state senate. The trainees serve as junior staff men — writing speeches, answering mail, contacting state agencies and working under the direct supervision of the secretary of the senate.

— Comfortable offices, adequate secretarial and research staffs, computerized storage and retrieval systems and analytical aids should be provided. Legislatures should have competent research staffs, budget review

(Continued on page 4)



Candid Photo taken at session of state legislature gives some idea of the intense pressures and work load of legislative activity.

Need to Modernize Laws Is Growing State Trend

A growing demand for the modernization of state law is coming from informed legislators from many states, political scientists, the press and many good government groups composed of private citizens.

The first obstacle to the modernization of state legislation is frequently the archaic framework of long, detailed state constitutions adopted in the 18th and 19th centuries. Despite nationally publicized needs for modern, simplified state constitutions, only seven states since 1945 — including recently admitted Alaska and Hawaii — have adopted them.

The trend may be changing, however, since eighteen states are now actively considering major revisions to their constitutions. One goal is to unclutter these constitutions by deleting large sections of primarily statutory subject matter. This would free the state legislators to modernize and codify these statutes.

Even without a new constitution, New York — as an example — was able to pull together all its state laws relating to education that were scattered through its statutes; examine

them for self-contradictory laws; make them uniform throughout the state, where possible; and put them together into an Education Code, with a simplified index. This has obvious advantages to school boards, school attorneys, teacher organizations and all concerned with education in New York. Instead of a manual search and hand-typing of these statutes, New York used a computer search and printout, based on the Aspen system.

What's This All About?

This paper is being mailed to editors of daily and weekly newspapers, newscasters of radio and TV stations, legislators and administrators on every level of government, and other important thought-leader groups with the hope that it will help provide a better understanding of key state and local issues and point to ways and means of solving them.

Taxation is another area where states are finding a growing need to modernize their statutes. In recent years, six of the states have made major reforms and modernization in their tax laws.

Many states are engaged in studies to codify and modernize their laws, either to make them conform to recent decisions of the U.S. Supreme Court or because of continuing social and economic changes. For example, suppose a state legislator wants to learn what are the rights of minors granted by the laws of his state. The first thing he learns is that such laws are so widely scattered throughout the body of law that he faces a Herculean task to uncover them. To find them, the legislator may have to examine statutes on such far-ranging subjects as the Criminal or Penal Code, Domestic Relations, Divorce, Welfare, Education, Inheritance, Health, Judicial Proceedings, Handicapped, Orphanages, Illegitimacy, Truancy and many other subjects.

When the body of state law is already stored in computer discs, the legislator's task is far

(Continued on page 4)

State Legislators Lead Hectic Lives

The work of a state legislator can be more complicated than that of an astro-physicist, riskier than that of a high-wire juggler without a net, and more hectic than that of the servantless housewife with five children under age seven.

Part of the legislator's life is his home district when the legislature is not in session. There, he faces the usual task of earning a living; for his salary as a legislator rarely is sufficient to support his family. But this does not mean his legislative duties cease. He continues to work as a state legislator by getting ready for the next session. He samples public opinion about the coming issues, holds formal and informal meetings, plans legislation, confers with organizations, and often must go to dedications, testimonial dinners, lodge meetings, chamber of commerce affairs and so on. He may even have to travel throughout the state or serve on interim legislative committees. As a public official, he must be available to the public day and night, week day and weekend. In addition, he may also be campaigning for re-election with insufficient funds and only a few volunteer helpers.

Leaves Family & Friends

When the session draws near he leaves the comfort of his home, his wife and children, and neglects his other job. At the capital, he is surrounded by forces — some hostile, some friendly — that include newsmen, lobbyists, other legislators, administrative officials, majority leaders, the Governor and assorted bureaucrats. He knows that many of them will try to make a pawn of him.

Once he assumes his legislative duties he is confronted by conflicting interests coming from labor, industry, farmers, the urban poor, teachers, a host of other special-interest groups and the interests of his home district. He must act as the referee, or the inventor (initiating new bills), or the trustee (independent view of what's best for the state), or the elected delegate (representing his own constituents), or as the politician who must play all roles at differing times.

Faced With Thousands of Bills

During the session, he is faced with thousands of bills introduced. He may have to make a decision on 1,000 of them, with a "yes" or "no" vote. Many of

(Continued on page 2)

Hectic Life...

(Continued from page 1)

the bills raise highly complex questions about controversial social and economic objectives that will directly affect millions of people, even future generations.

The Burden of Decision-Making

The legislator is caught between opposing forces in his state and he must make decision after decision affecting them. He cannot make these decisions rashly. Alone, he ponders the pros and cons of each bill. Usually, he lacks the help afforded the average business executive — office space, a secretary and a staff to help him dig up relevant facts or similar bills passed by other states. Often, he must proofread a bill longer than a magazine article to make sure no error or loophole exists in it. He may have to debate his colleagues on many bills, while he knows the eye of the press is on him constantly.

After months of painstaking research, the legislator decides to introduce a worthwhile bill. Imagine his despair when the bill he proudly sponsors is beaten by opposition he never knew existed.

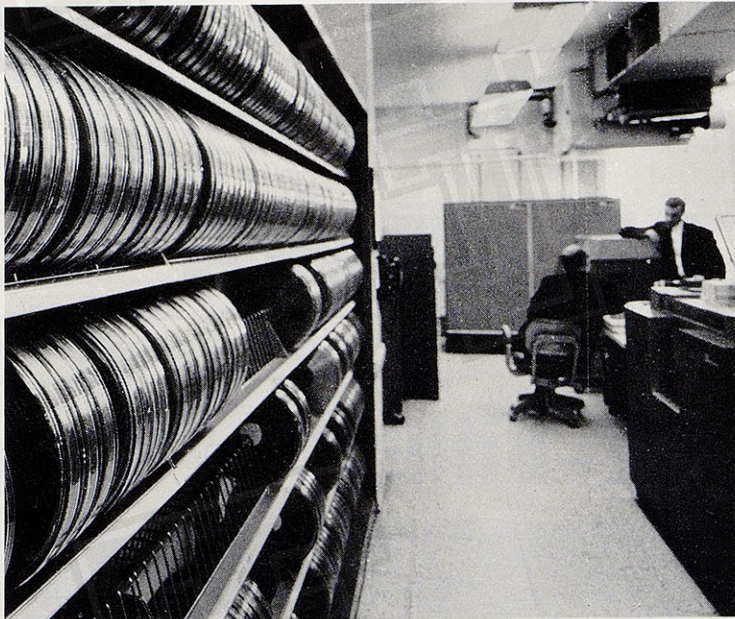
The decision-making role strongly contributes to what politicians call the "frayed nerves of legislative fatigue."

How Legislators Represent

Each legislator gets much crank mail and calls. Often, he receives letters requesting his "staff" to handle a special favor for the constituent. Little does the constituent know that the legislator has no staff, nor does he have enough time to devote to important questions of legislative policy. The busy legislator wants to represent his constituents fairly. But he cannot unless he knows what they want, after they know the issues and the facts. His goal is to reach his constituents, directly, and stimulate them to contact him directly. He wants to know what his people want, not just what the special interest groups want.

The constituent needs only to buy a 6¢ stamp, and mail his views to the legislator, because a letter to a legislator gets read. Usually, however, legislators don't get volume mail from constituents unless there's a major controversy such as proposed new or higher taxes.

Thus, the legislator has the added burden of educating and finding out what his constituents want. He does this by seeking a continuing dialogue with them.



Quick and Accurate Searches through bulky legal texts are achieved through Aspen Systems' unique and time-saving computerized methods.

His efforts may include: 1) mailing out newsletters; 2) writing weekly columns for local papers; 3) polling voters; 4) being a guest on TV and radio shows; 5) holding hearings in various towns and villages; and 6) trying other clever devices to get more rapport with voters.

Overworked, underpaid, understaffed, under intense pressure and facing highly complex issues that must be resolved, the typical legislator leads a life that is frustrating.

Help for Legislators

Few people realize the need to modernize legislative systems so that the individual legislator can devote the maximum of his time to policy-making decisions and keeping in touch with his constituents. He should be freed from tedious research, routine paper work, proofreading and manual searches of the law.

New York State, for example, is putting the most modern management tools into the hands of its legislature. Here's how Senate Majority Leader Senator Earl W. Brydges describes it:

"1. A computerized legal retrieval center has been set up. Here all our state laws are on magnetic tapes easily available for research, codification, and drafting purposes. This enables us to wipe out obsolete laws quickly, rearrange laws logically, obtain instant searches on such problems as 'find me all laws affecting banks that are not in banking law.' It should save thousands of laborious man-hours searching and rearranging laws.

(Continued on page 4)

New Tools and Techniques for Legislatures

State legislatures, faced with information storage and retrieval problems as great as those of our largest industries, need new, available technology and systems to improve their legislative decision making. This, in turn, can make individual state governments a more powerful force in governing and protect their powers from further erosion by the federal government.

These managerial aids are in two general categories — one, technological "hardware" that needs highly sophisticated systems, called "software", and two, improved operations that do not require such "hardware."

The technological "hardware," accompanied by sophisticated "software" systems, and recommended by various authorities on state government include:

- 1) The storage and fast retrieval, by the aid of a computer, of state statutes and other information needed by legislators to modernize and codify legislation. The Aspen system, designed to do this legislative chore, was pioneered by a group of lawyers eight years ago. Since then, it has been fully perfected and put in use by a number of states to save countless man-hours of manual search and to improve the quality of the legislative process;
- 2) An electronic roll call machine;
- 3) Microfilm equipment;
- 4) Microphone systems for desks of legislators;
- 5) Computer prepared legislative committee reports and weekly work sheets;
- 6) Video terminals that instantly show the status of any pending bill;
- 7) Computer-based systems for filing legislative information;
- 8) Conversion of total record-keeping to a computer system.

In the area of improvements in management, authorities on state government have made such recommendations as:

- 1) Graduate training centers for the training of legislative staff members;
- 2) Legislative committees to work on a year-round basis;
- 3) Systems analysis by staff to evaluate the efficiency of state

How to Evaluate the Candidate for State Office

While all the speeches, parades, television and radio broadcasts and newspaper interviews are holding the citizen's attention on the national level in the weeks leading up to the November election, the voter should not forget *another* important duty on November 5th — to elect his *state* legislators.

The state legislature is a vitally important, integral part of our government and voters should study carefully the candidates running for election, for their importance is increasing. The actions of the state legislature can only be as effective as the calibre of the legislators charged with the expenditure of billions of dollars a year.

What should one look for in a prospective legislator? Here are eight questions which may help you make your decision:

1. Does the candidate's background qualify him for the job?
2. Is the prospective legislator public-spirited?
3. Is the candidate honest?
4. Has he the ability to learn quickly?
5. Does the would-be legislator have an outgoing personality?
6. Is he mature?
7. Is he a "team-worker"?

8. Does the candidate for the legislature know your local problems?

While all these attributes are necessary for all public officials, they are a particular 'must' for the state legislators. The legislature usually has such a brief time in session that the legislator must have many of these qualities to be able to achieve the benefits his constituents need and want.

Make sure you evaluate the candidates for the state legislature carefully. Remember that the legislator plays an important role in local government, is responsible for the spending of large sums of money, and can make your state a model for others to imitate or an example for them to avoid.

agencies;

4) Staff program auditors to evaluate how these agencies are carrying out legislative mandates;

5) Staff program developers to adapt new program ideas to the state's logical progress, based on state needs and resources;

6) Fiscal analyzers to make sure the taxpayers get their money's worth in short and long-range budgeting;

7) Special auditors to check on how monies allocated by the federal government go to municipalities directly or to them via the state;

8) Special calendars of pending, but noncontroversial, bills so that their passage may be more rapid;

9) Fiscal notes on pending bills that give authoritative estimates of short and longrange costs of the bills;

10) Synchronized printing of identical bills introduced both in the House and Senate, each carrying a separate identification, so that when one Chamber passes a bill, the other knows its own version is identical, without time-consuming proofreading;

11) Legislative use of a centralized purchasing system that uses the state's massive purchasing power to reduce costs;

12) Legislative use of consulting firms on specialized problems or the use of highly qualified, unpaid advisors who are authorities in their respective fields, or both.

In commenting on these recommendations, John Harty, Pres-

ident of Aspen Systems Corporation, who has studied state legislative processes for many years, says:

"Each state has its individual legislative challenges and opportunities; thus, no single set of recommendations is applicable to every state. There is, however, no question that most state legislators need new technological aids if they are to carry out intelligently their vitally important function of decision making in our growingly complex society."

Who is Your State Legislator?

The Committee for Economic Development has been examining the make-up of state legislatures and, in 1967, conducted a survey in 17 states to find out just what the professions, or occupations, of legislators were. This chart gives you the breakdown, ranging from lawyers to housewives:

	House	Senate
Lawyers	29%	42%
Farmers	13	10
Insurance	7	5
Teachers	4	3
Real Estate	4	2
Laborers	4	1
Merchants	3	3
Retired	3	2
Housewives	3	1
Doctors and Engineers	2	3
Bank and Trusts	2	1
All Others	26	27

Are Lobbies Necessary?

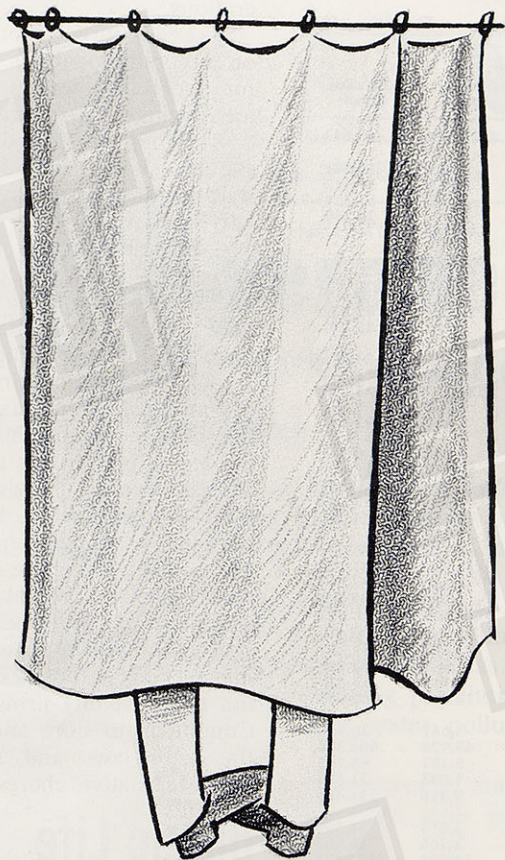
Your state legislator has an unquenchable appetite for information needed to help him decide on a "yes" or "no" vote on bills pending before the legislature.

The pressure of his work leaves little time for tediously slow, original research. He must depend on information already compiled by others — be it for a little decision to extend the trout season in certain streams or for a major decision to modernize the state's laws on education.

Often, there's a lobbyist (paid by profit organizations or paid and/or unpaid ones for non-profit groups) ready with helpful information. The lobbyist represents a special-interest group and tries to make sure that new legislation either helps them or does not harm them. The legislator knows who the lobbyist represents. The lobbyist, in turn, is fully aware of what the legislator knows about him. He also knows that if he misleads the legislator or withholds available information requested by the legislator, his lobbying days are numbered. In this framework, the lobbyist's services can be of great value to the capable legislator.

THE LONELIEST MOMENT

Remember, the moment of truth is when you enter the voting machine. Your mind should have been made up, your thinking clear.



HOW TO USE A VOTING MACHINE

1. Pull the large handle to close the curtain. Do not move it again until you have finished voting.
2. Move lever marked Yes or No when voting on issues.
3. Move lever over or next to the name of each candidate for whom you wish to vote.
4. If you change your mind, you may change the position of the levers.
5. There is a place to write in on the voting machine BUT once you open the write-in slot you cannot change your mind and vote for a listed candidate for that position.
6. When your decisions are final, leave the levers down.
7. Pull large handle to open curtains. This records your vote and snaps the levers back to their original positions. YOUR VOTE IS SECRET.

Uniform State Laws on Divorce, Taxation, Adoption

The increasing mobility of the American people, the shift of economic centers and the movement of people to urban centers are leading us more and more toward uniform state laws. Ten states now have uniform divorce recognition laws. All 50 states and Puerto Rico have written uniform laws which guarantee child support in the event of parental separation or divorce.

Fifty states boast uniform legislation governing simultaneous deaths and rules of inheritance. A uniform commercial code has also been written into the laws of fifty states. This refers to sales, commercial paper, bank deposits and collections, bulk transfers, warehouse receipts and secured transactions — virtually the whole field of sales contracts and commercial and personal credit.

Mobility of People

In addition to the mobility of people, there are a number of other factors impelling uniformity in state laws. According to Professor Phillip Monypenny of the University of Illinois, writing in the "Annals of the American Academy of Political and Social Science," the "extent of business which is conducted on a national scale results in a very large number of persons having an interest in the certainty and clarity of legal norms which is the principal objective of the uniform laws movement. The extent to which the ordinary conduct of individual and corporate business, management of one's personal property, management of family expenditures, and the legal rights and obligations of family life are affected by the hazards of divergent rules of law provides a sufficient motive for attempting to increase uniformity."

The task of working towards

uniformity in law is not an easy one for the states, according to the National Conference of Commissioners on Uniform State Laws. Once the Commissioners have recommended a Model Act or reform in certain laws, the work of the individual state legislature begins in earnest. Much research is necessary before a decision to change a particular law is made. State legislators find it helpful to study the laws of other states, to compare what others are doing, before adopting reforms.

A most dramatic new law search system emerged in 1959 to help government agencies and state legislatures in their vast research tasks. Aspen Systems Corporation, the world's largest and first developer of full text computer storage, processing and retrieval techniques applicable to law, created the new search service.

Instant Retrieval Aids Law-Drafting

Aspen Systems stores the text of statutes, ordinances and case law and retrieves instantly the material by word, phrase or full text. This makes it possible to see at a glance the various existing laws a new uniform law will affect. With the law of other states at hand, legislators can quickly address themselves to the problem of amending old laws or drafting new ones, utilizing language and experience of

existing statutes in other states.

Experience shows that it is possible to have large and comprehensive pieces of legislation adopted by many states. This has lent impetus to the Conference to draft a Uniform Consumer Credit Code and a Uniform Probate Code and to its inquiry into the possibility of drafting a Uniform Family Code.

Long List of Uniform Legislation

The Conference committees are currently considering the possibility of drafting uniform legislation such as the following:

Uniform Anti-Trust Act
Uniform Act on Student Loans
Uniform Consumer Protection Act
Uniform Abortion Code
Uniform Landlord and Tenant Relationship Act
Uniform Automobile Accident Claims Act
Uniform Gift of Human Tissues Act
Uniform Ombudsman Act
Uniform Release on Bail Act
Uniform Divorce and Marriage Laws
Uniform Child Custody Jurisdiction Act
Uniform Juvenile Court Act
Uniform Arrest Act
Uniform Regulation of Detection Devices Act

During the 1966 and 1967 sessions of the state legislatures there were approximately one hundred actions on uniform laws based on suggestions made by the Conference. The Conference is working on ways to enhance the already excellent record of adoptions.

Vital Statistics About Your State

STATE	Years in which sessions are held	Limitations on length of regular sessions ^b	Length of term		Annual Compensation
			Senate	House	
Alabama	odd	36L	4	4	5,500
Alaska	annual	none	4	2	8,748
Arizona	annual	63Cc	2	2	2,718
Arkansas	odd	60C	4	2	1,800
California	annual	none	4	2	16,000
Colorado	annual	160Cc	4	2	3,200
Connecticut	odd	150C	2	2	2,000
Delaware	annual	90L	4	2	4,500
Florida	odd	60Cd	4	2	1,950
Georgia	annual	45C	2	2	5,388
Hawaii	annual	60Cd	4	2	4,385
Idaho	odd	60Cc	2	2	1,050
Illinois	odd	none	4	2	9,000
Indiana	odd	61C	4	2	2,400
Iowa	odd	none	4	2	2,500
Kansas	annual	60Cde	4	2	3,625
Kentucky	even	60L	4	2	1,800
Louisiana	annual	60C	4	4	4,875
Maine	odd	none	2	2	1,522
Maryland	annual	70C	4	4	4,150
Massachusetts	annual	none	2	2	8,400
Michigan	annual	none	4	2	15,000
Minnesota	odd	120L	4	2	5,871
Mississippi	even	none	4	4	3,013
Missouri	odd	195c	4	2	5,750
Montana	odd	60C	4	2	1,050

STATE	Years in which sessions are held	Limitations on length of regular sessions ^b	Length of term		Annual Compensation
			Senate	House	
Montana	odd	60C	4	2	1,050
Nebraska	odd	none	4	—	2,400
Nevada	odd	60Cc	4	2	1,950
New Hampshire	odd	July 1c	2	2	100
New Jersey	annual	none	4	2	7,500
New Mexico	annual	60C	4	2	900
New York	annual	none	2	2	18,000
North Carolina	odd	120Cc	2	2	2,100
North Dakota	odd	60L	4	2	1,150
Ohio	odd	none	4	2	8,000
Oklahoma	annual	75Lc	4	2	3,250
Oregon	odd	none	4	2	4,200
Pennsylvania	annual	none	4	2	12,000
Rhode Island	annual	60Lc	2	2	300
South Carolina	annual	none	4	2	2,400
South Dakota	annual	45L	2	2	1,500
Tennessee	odd	15Cf & 90Ld	4	2	1,800
Texas	odd	140C	4	2	5,520
Utah	odd	60C	4	2	650
Vermont	odd	none	2	2	1,500
Virginia	even	60Cc	4	2	1,650
Washington	odd	60C	4	2	4,350
West Virginia	annual	60Cd	4	2	1,500
Wisconsin	odd	none	4	2	8,625 to 9,975
Wyoming	odd	40C	4	2	640

L—Legislative Days; C—Calendar Days

a. Budget session held every other year.

b. Budget sessions generally more limited

c. Per diem pay stops but session may continue.

d. Length of session may be extended.

e. Applies only to even-year sessions.

f. Organizational session.

Source: Modernizing State Government, Committee for Economic Development, July, 1967.

Every year, the workload and responsibilities of state legislators increase.

Growing crises in water and air pollution, civil rights, crime and education — to mention

just a few — demand more and more attention. Longer, more regular sessions, improved legislative methods and techniques plus better-compensated legislators and legislative staffs are

necessary if state government is to survive.

Gov. Daniel J. Evans, Washington, has said, "State governments are unquestionably on trial today. If we are not willing

to pay the price, if we cannot change where change is required, then we have only one recourse. And that is to prepare for an orderly transfer of our remaining responsibilities to the

federal government."

A look at the above chart suggests areas where change may help state legislators immeasurably in discharging their responsibilities more effectively.

Where The States Spend Tax Money

IN MILLIONS OF DOLLARS

State	Total general expenditure	Education	Highways	Public welfare	Hospitals	Health	Natural resources	Correc- tion	Police	Employment security adminis- tration	Finan- cial ad- minis- tration	General control	Miscella- neous
All States.....	\$51,043,284	\$17,749,028	\$10,349,080	\$6,019,553	\$2,646,970	\$593,600	\$1,567,337	\$691,021	\$389,942	\$500,082	\$659,572	\$377,463	\$4,466,643
Alabama.....	933,996	388,185	203,912	126,165	34,061	7,848	20,145	6,338	5,208	6,848	8,085	5,049	48,342
Alaska.....	203,150	52,329	69,026	7,358	4,133	2,889	7,754	2,883	1,984	2,318	2,583	5,055	37,312
Arizona.....	510,923	206,828	115,569	35,519	7,799	4,529	14,891	4,976	6,105	7,337	8,622	3,442	57,321
Arkansas.....	459,716	167,246	124,398	69,779	19,210	5,000	16,367	2,489	3,086	4,925	6,172	2,389	20,250
California.....	6,820,752	1,863,492	1,098,462	992,349	208,330	79,722	445,621	110,224	53,986	73,325	100,731	36,099	774,127(a)
Colorado.....	589,421	223,189	120,070	92,951	38,820	4,899	18,900	8,044	5,957	5,077	9,483	3,980	28,502
Connecticut.....	720,258	181,517	181,822	92,309	52,594	10,978	17,209	12,552	7,056	8,499	12,287	15,234	77,486
Delaware.....	208,508	86,336	43,141	13,222	10,344	3,487	5,352	2,442	2,069	1,173	2,351	2,765	30,602
Florida.....	1,206,977	491,804	264,303	114,896	56,041	31,634	58,901	15,178	11,517	9,791	16,093	12,117	72,352
Georgia.....	964,417	443,154	284,662	123,175	45,578	13,127	38,809	9,646	6,135	6,826	10,863	5,956	45,166
Hawaii.....	324,664	133,391	26,934	19,921	15,467	7,492	13,486	3,384	37	2,245	4,284	7,213	73,605(b)
Idaho.....	211,325	64,484	61,195	17,429	6,753	3,219	14,149	2,292	1,650	3,166	2,435	1,555	12,444
Illinois.....	2,031,443	716,430	416,616	309,153	168,803	24,183	43,869	32,117	13,270	22,647	21,566	20,826	87,205
Indiana.....	1,107,996	515,173	260,068	52,271	57,362	8,445	23,581	14,712	8,953	8,457	13,589	5,560	88,693
Iowa.....	716,912	233,331	204,116	73,376	38,027	3,178	17,867	8,602	8,839	5,322	7,108	3,360	52,941
Kansas.....	541,407	217,448	132,579	56,392	36,760	3,431	18,534	7,396	3,787	4,221	6,945	3,758	30,965
Kentucky.....	790,423	288,906	206,810	103,537	31,943	11,904	27,609	6,925	7,137	4,689	11,608	10,858	48,493
Louisiana.....	1,180,615	426,581	226,249	207,780	65,595	9,398	30,576	8,472	7,529	7,065	9,772	7,836	134,428
Maine.....	235,069	64,490	65,065	29,607	12,062	2,756	13,136	4,408	2,861	2,322	3,101	2,411	13,742
Maryland.....	886,550	283,148	175,717	74,667	75,284	22,997	18,658	27,639	9,062	7,748	15,652	9,626	124,026
Massachusetts.....	1,302,098	202,971	196,567	240,859	119,135	17,126	13,792	23,097	6,860	16,801	21,015	16,708	281,222
Michigan.....	2,413,348	1,030,627	390,412	212,731	128,872	29,122	40,966	29,628	15,760	19,857	20,122	14,825	187,475
Minnesota.....	983,557	409,253	229,601	96,790	63,204	5,825	31,895	12,066	5,560	7,386	10,292	4,530	63,967
Mississippi.....	524,481	203,593	134,947	71,840	20,638	4,985	19,127	3,048	6,376	5,269	4,344	2,966	34,696
Missouri.....	926,748	330,891	234,284	163,019	51,674	8,172	24,712	8,787	7,801	10,289	10,080	8,627	26,919
Montana.....	234,850	68,420	79,068	15,423	6,782	1,313	10,264	2,979	1,851	2,438	3,161	1,285	9,472
Nebraska.....	273,357	76,202	92,792	32,546	19,012	1,833	16,586	3,699	2,713	2,616	1,806	2,369	11,302
Nevada.....	177,263	50,496	56,775	7,680	2,307	3,290	6,118	3,468	798	2,841	3,849	2,068	14,844
New Hampshire.....	174,713	32,074	46,620	13,152	9,248	3,338	7,107	1,688	1,919	2,092	2,251	1,714	13,629
New Jersey.....	1,152,792	296,956	219,292	110,964	70,519	21,810	32,545	16,304	17,086	20,284	18,313	11,342	96,902
New Mexico.....	412,221	195,980	99,905	36,552	7,817	3,886	11,924	4,658	3,054	2,779	7,488	3,641	20,104
New York.....	5,453,780	1,984,049	600,751	723,183	384,553	90,278	82,182	85,016	28,086	64,199	87,439	48,929	684,386
North Carolina.....	1,127,292	558,867	201,422	95,966	62,804	9,612	30,377	24,909	10,278	8,853	13,956	5,187	65,795
North Dakota.....	200,907	62,739	50,272	17,634	7,599	1,839	7,279	1,954	900	2,078	2,548	1,008	31,833
Ohio.....	2,295,147	589,379	600,386	236,052	92,526	13,675	41,206	29,371	12,255	22,390	22,360	9,316	131,486
Oklahoma.....	743,569	267,243	161,183	171,065	30,501	4,205	20,729	6,596	4,814	7,639	7,009	3,613	34,395
Oregon.....	689,632	221,835	163,515	59,510	25,036	6,628	32,789	9,219	5,029	6,188	15,808	3,766	46,967
Pennsylvania.....	2,818,872	913,681	554,196	299,920	176,094	32,368	53,373	29,250	26,726	30,366	33,449	16,963	176,374
Rhode Island.....	264,818	68,072	47,234	43,068	17,529	3,216	5,028	3,170	1,787	4,226	4,224	4,728	30,674
South Carolina.....	528,253	220,265	113,537	37,921	27,849	6,966	14,078	5,438	5,220	4,882	7,152	2,811	62,415
South Dakota.....	180,808	58,062	66,232	17,664	5,581	1,247	9,705	1,834	1,603	1,515	1,722	1,307	12,008
Tennessee.....	841,020	318,139	257,643	84,914	36,118	11,465	21,290	10,747	6,678	6,636	8,524	5,120	46,276
Texas.....	2,056,259	972,355	471,442	252,228	92,357	10,962	33,663	22,494	15,867	20,926	14,484	11,468	48,733
Utah.....	374,130	174,914	87,170	29,218	9,898	2,352	10,653	3,809	1,673	3,886	3,746	2,659	11,079
Vermont.....	156,629	42,415	49,446	12,974	5,581	2,506	6,192	1,916	1,725	1,540	1,948	2,500	7,601
Virginia.....	1,037,238	306,724	334,103	42,743	66,953	16,073	26,385	12,012	16,153	5,951	16,680	7,562	59,685
Washington.....	1,102,422	415,560	202,480	120,683	34,849	5,160	35,194	17,704	6,295	8,601	13,802	3,039	65,592
West Virginia.....	555,582	176,428	161,456	62,969	18,236	5,715	14,913	3,494	3,298	4,510	9,102	3,074	23,693
Wisconsin.....	1,206,579	401,288	196,650	90,369	64,040	6,453	33,582	20,286	4,536	7,539	17,220	8,434	301,264
Wyoming.....	170,397	52,088	68,985	5,970	4,692	1,064	8,269	1,661	1,013	1,504	2,348	815	7,847

*Source: Bureau of the Census, State Government Finances in 1966.

(a) Includes \$238,313,000 operation expenditures by the University of California for

atomic research contracts, classified under education prior to 1965.

(b) Includes \$12,445,000 for National Guard and civil defense.

\$61-Billion

(Continued from page 1)

staffs, audit staffs, bill drafting services and administrative assistance to conduct efficient operations.

— Legislatures should meet on a continuing basis, allowing for necessary recesses, committee hearings and reports.

— Strong conflict of interest statutes should be adopted by state legislatures to govern legislative behavior.

— State legislatures should review their standing committees and functions, and see to it that they are properly staffed and have adequate operating budgets.

One large state introduced a five-pronged program to bring the best minds in the state to the legislature. It sets up: 1) Informal system of advisory committees composed of college presidents, businessmen, intellectual leaders who serve on a non-paid basis; 2) Formal Advisory Councils; 3) The use of \$1-a-year men, drawn from the top management of business; 4) The use of consulting firms; and 5) Computers to store and retrieve the state laws and speed up other legislative chores.

Hectic Life

(Continued from page 1)

"2. An electronic voting machine now enables roll calls to be tabulated instantly and produces copies of voting record quickly.

"3. An IBM punch card print-out of bills in each committee, provides chairmen with a weekly work program when they arrive in Albany each Monday.

"4. A computerized indexing system for our 3,000-page journal."

"As one who has had the opportunity to watch at close range many state legislatures at work," observes John Harty, president, Aspen Systems Corporation, "I believe that legislators must be relieved of the routine detail of searching out laws and other information they need to inform them. A legislator is productive only when he's at his major business of decision-making."

Mr. Harty's company, Aspen Systems, works with state governments to store and retrieve information with the aid of the computer. "All states with which we work, or in which we've installed the Aspen system, report that this information and retrieval system has improved the efficiency and quality of the state legislative process."

Modern management systems, with the aid of a computer, may soon help make the life of a state legislator less hectic.

Need...

(Continued from page 1)

easier. The computer rapidly searches and prints out for him the full text of all statutes relating to youth or minors on these various subjects.

This illustration points up an obvious need: to bring together all statutes that relate to a particular subject, make sure they are consistent with one another, modernize them, and then codify them with an easily understood index. Ideally, state statutes should be readily understood by lawyer and layman alike, especially since many legislators have had no legal training.

Where Does Your Money Go?

Ever wonder where all that money goes that you pay out in state taxes and other charges?

According to latest government figures, your money goes for four major state functions. Moreover, if you are a parent, you'll be glad to know that *education* gets the lion's share. Much of the rest goes for highways, public welfare, hospitals plus general government functions.

Last year, all the states combined spent a total of more than \$58 billion of the \$61 billion collected, showing a surplus of \$3 billion. Some states showed deficits while others showed substantial surpluses to make up the \$3 billion total. Of the \$58 billion total expenditure, almost \$21.2 billion went for education.

\$11 Billion for Highways

The states spent slightly more than \$11 billion for highways, \$7.2 billion on public welfare, almost \$3 billion for hospitals, and the balance on various administrative operations and functions.

For those who want to take a closer look into just how money is spent for this administrative category, it breaks down as follows: \$686 million for health; \$1 billion on natural resources such as agriculture, fish and game, forestry and parks and other; \$778 million for correction; \$446 million, police protection; \$545 million, employment security administration; \$740 million, financial administration; \$450 million, general administration; and \$4 billion, miscellaneous. Together, these categories total almost \$11 billion. In addition to general expenditures, the states spent a combined \$4.3 billion to cover

unemployment and retirement benefits for state personnel and another \$1.2 billion on liquor stores operated by 17 state governments.

The cost for all these items — as for everything else — is going rapidly up. For example, these 1967 figures increased over the preceding year roughly by the following percentages: education 20%, highways 9%, public welfare 19%, hospitals 12% and general government functions 14%.

See How Your State Compares

If you'd like to see just how your state compares — as a spender — with its 49 peers, then take a look at the above chart. (Note: Latest available figures, 1966)

One thing is certain. It takes a lot of money to run a state; and as the amount increases, computer systems will play a larger and larger role in keeping track of where those dollars go.

In fact, new services are coming on the horizon to rescue state legislators and a host of other administrators, executives and professional men from mountains of background information.

Among these are the services of Aspen Systems Corporation,

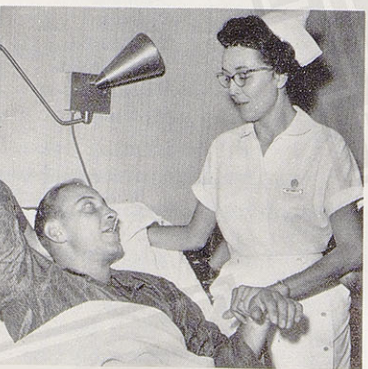
Pittsburgh, Pa. The world's first and largest information retrieval system, the Aspen system, can store documents by computer without pre-indexing or pre-arranging material, then quickly retrieve and arrange them according to the needs of the searcher. Some describe it as computerized retrieval.

Memory Bank of 150 Million Words — and Still Growing

Already its memory bank has stored some 150 million words to record the complete statutes of 11 states, the health statutes of all states, the Internal Revenue Code and Regulations, the City of Pittsburgh ordinances



SCHOOLS — 35%



HOSPITALS & HEALTH — 6%

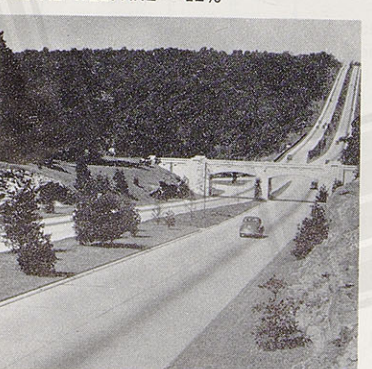
and the decisions of Superior Court and Supreme Court of Pennsylvania, U.S. Circuit Court of Appeals and the U.S. Supreme Court.

But Aspen Systems will not stop there. It plans eventually to store the statutes of the remaining states and to expand into all areas of law, government and business that require the storage and retrieval of vast amounts of information.

So the day probably isn't far off when information concerning all state and federal government expenditures and revenues, as well as legal information, will be stored by computer systems for immediate retrieval.



SOCIAL WELFARE — 12%



HIGHWAYS — 20%