

MINUTES OF THE SENATE COMMITTEE ON WAYS AND MEANSThe meeting was called to order by Senator Paul Hess at \_\_\_\_\_  
Chairperson2:30 a.m./p.m. on February 21, 1983, 19\_\_ in room 123-S of the Capitol.

All members were present except:

## Committee staff present:

Research Department: Marlin Rein, Sherry Brown, Mary Galligan, Chris Stanfield, Ray Hauke  
Revisor's Office: Norman Furse  
Committee: Mark Skinner, Doris Fager

## Conferees appearing before the committee:

Bill Kauffman, Legal Counsel, State Board of Regents  
Don Lowe, Attorney, Kansas Corporation Commission  
Dave Gallimore, American Bell, St. Louis  
Don Davenport, Regional Vice-President for Centel, Tulsa, Oklahoma  
Ed Whittacre, Southwestern Bell  
Pat Hurley, Secretary of Administration

Mr. Kauffman appeared to request the committee to introduce two bills recommended by the Board of Regents.

Motion was made by Senator Talkington and seconded by Senator Werts to introduce a bill authorizing Wichita State University to sell two parcels of land. The motion carried by voice vote.

Because the committee had considered a bill similar to the second bill requested by the Board of Regents (changing residency requirements from 12 months to 6 months for students at Regents' Institutions) it was the concensus of the committee that the Regents' bill not be introduced. The members decided SB 19 could be used as a vehicle to accomplish the same thing. The Chairman stated he would allow the Board of Regents to return and testify or offer amendments to SB 19.

STATE TELECOMMUNICATIONS PLAN

Mr. Lowe distributed Attachments A and B. He then gave a brief statement regarding changes in telecommunications as a result of divestiture and diversification. He stressed that the Federal Communications has made a decision concerning this matter, but the order has not been released. He added that it could be changed, and it might be challenged in the courts.

Senator Hess asked Mr. Lowe if the State of Kansas should make a decision at this point or wait a year. He answered that the KCC has mixed interests in the problem since they are concerned about the impact on other rate payers if the state buys its own system and caused a decrease in revenues to Southwestern Bell. He added that he does not see any harm in designing the system, but in terms of actually committing to its own system, he would have reservations about that until it is certain what is going to happen as the result of divestiture and deregulation.

There were questions from members of the committee concerning Mr. Lowe's remarks. He concluded by stating that if the State of Kansas buys its own telecommunications system other rate-payers costs will be increased.

Mr. Gallimore read from prepared remarks. (See Attachment C) Following his presentation, there were questions from committee members. In answer to those questions, Mr. Gallimore said that, whether or not the state appropriates funds to design the proposed telecommunications system, American Bell will pursue the State of Kansas as it would any other customer. He added that it is not in keeping with American Bell's approach to pursue a piece-meal system.

There were questions about competitive companies, and Mr. Gallimore said that any distributor of customer premises equipment would be American Bell's competition.

State Telecommunications Plan - Continued

Senator Hess asked if that included Southwestern Bell, and Mr. Gallemore answered that it does to the extent SWB will be able to provide the same equipment as American Bell. Senator Hess then asked if Mr. Gallemore saw any advantage to waiting for one year before proceeding with the state plan. Mr. Gallemore stated that he has not had an opportunity to evaluate the state's plan, but that he feels the state should proceed immediately if the plan is good. He added that he sees nothing inherent in divestiture that would preclude either the good or bad in the state's plan.

Senator Talkington suggested that it would not be to American Bell's advantage if the state waited one year to proceed with the telecommunications plan. Mr. Gallemore answered that it is never to his advantage when a customer waits.

Mr. Davenport distributed material in connection with his presentation. (See Attachment D) He noted that the inter-connect system was brought into existence in 1968, and that is when competition became a reality. He suggested that this is healthy for the telecommunications industry. Mr. Davenport said that many industries are now buying their own equipment; and that the Federal Government is his company's largest customer. He said he had studied the state plan and his company's response is in his attachment. He suggested that it is important for the state to pursue the telecommunications network all at one time. He said it is his opinion that if the telecommunications network is considered in a complete package, the state will have one of the best systems available.

Senator Gaines asked about the Federal Government's investment in telecommunications. Mr. Davenport said that the VA Hospitals and the Federal Center in Denver have their own equipment. He added that he thought the VA Hospital in Wichita also had purchased equipment. This interconnects with Washington, but the lines are leased from utilities.

Senator Hess asked Mr. Davenport if he saw any advantage to waiting to proceed with the state telecommunications plan. He answered that he did not, since changes must take place at some time. He suggested that half the cost involved in the project is equipment and that will save the state \$10 million to \$15 million over a ten year period. When Senator Hess asked why someone would suggest waiting, Mr. Davenport said one of the reasons is that the longer the state waits, the longer Southwestern Bell will receive the revenue on the equipment it now leases to the State of Kansas.

Senator Hein asked if the state would need to inter-connect with Southwestern Bell in order to call someone outside the state system. Mr. Davenport answered that this would always be true. Senator Hein then questioned Mr. Davenport about potential changes in the system, should the state buy equipment from Centel. He answered that changes would be made if Centel feels the state needs some new piece of equipment. He explained that the Telecommunications Department specs dealt with digital equipment, and that only software needs to be changed in that equipment.

Senator Werts noted that Centel's particular interest in the state proposal is sale of hardware and software. He asked if this interest would be the same if he were Southwestern Bell. Mr. Davenport answered that it would not, because he would want to retain the business that now exists.

Senator Warren asked if it is possible that there would be a need to replace the telecommunications system after a period of years. Mr. Davenport said it is very possible, and that is his reason for suggesting that the entire system be installed at one time.

In answer to questions from Senator Bogina, Mr. Davenport said that all state agencies would be on the same system under the state's plan, and that there would be four-or-five digit numbers to dial within the system. Senator Bogina then asked how the state could be assured that a company from which it bought equipment would remain in the area to service it. Mr. Davenport suggested that the company being dealt with needs to be thoroughly checked.

State Telecommunications Plan, Continued

Mr. Whittacre distributed Attachments E, F and G. (Attachment G is in a separate booklet filed with these minutes). He then gave his presentation, using charts to clarify his position to the committee members.

Senator Hess asked if it were fair to state that Southwestern Bell would have every reason in the world to delay the decision concerning state telecommunications, since equipment and service is presently being purchased from that company. Mr. Whittacre acknowledged that this is true, since SWB does not have the PBX terminal equipment. He stated, however, that the other companies would be interested in speeding up the process because SWB would not be competitive. He said SWB would have no reason to want a delay in the decision on telecommunications if it were competitive with other companies. He added that the Centrex system, as it now exists, has capabilities to provide the needs of the state.

Senator Hess asked Mr. Whittacre if SWB could provide the needs of the state telecommunications system at a cheaper rate than other companies. Mr. Whittacre replied that he could not answer that, because he does not know what the rates will be, and will not know until the Federal Government comes down with their plan. He added that SWB could have given the state a good deal on leasing equipment except that it is a regulated company.

Following several questions from other committee members, Mr. Whittacre completed his presentation.

Mr. Hurley distributed copies of his presentation (See Attachment H). Following his presentation, there was a question concerning when the specs would go out for bid. Mr. Kunkel said it probably would be the end of FY 1984 or the first part of FY 1985 when this would happen. Mr. Hurley assured the committee that his department is not trying to preclude Southwestern Bell from the bidding; but that he would be happy to cooperate with them to the best of his ability.

There was discussion following questions by Senator Hein concerning the Kansas Corporation Commission decision on rates a couple of years ago when commercial rates, including the state system, were doubled. Senator Hein suggested that Southwestern Bell would be in a better position today if that had not been decreed. He then noted that if all large businesses in Kansas leave the Southwestern Bell system and buy their own equipment, there would be large rate increases for individuals. He added that his constituency also includes those individuals, and he needs to consider them.

There was a lengthy discussion and questions from several committee members concerning different aspects of the telecommunications plan. Following this discussion, the meeting was adjourned by the Chairman.

The Telecommunications Industry  
in Transition

Presentation to the House Energy and  
Natural Resources Committee of the  
Kansas Legislature

February 9, 1982

AA A 2-21-83

## I. Introduction

The recent settlement of the anti-trust case brought against AT&T by the U.S. Department of Justice has focused national attention on a problem which has been evolving over the last several years. The magnitude and severity of the problem are not even now fully understood. Structural and procedural changes to the telecommunications industry are being proposed by a number of parties. These changes present a serious threat to what has been, in the past, the national goal of universal communication service.

To give you as much understanding of the problems as we have been able to develop at this time, I would like to do four things--

1. Give you a brief historical picture of how we have gotten to this point in what will certainly be considered a major revolution (or revolt) in the telecommunications industry;
2. Outline the major issues being faced by every telephone ratepayer, particularly the impact on the residential ratepayer;
3. Briefly discuss the impact of the AT&T anti-trust settlement; and,
4. Explain what the Kansas Corporation Commission is doing to deal with the problem, including some recommendations for possible action by the Legislature.

In the past, telephone companies have operated as a monopoly with all forms of telephone service in a particular geographic territory. In Kansas, pursuant to Chapter 66 of the Statutes, telephone service within the state is regulated by the Corporation Commission to ensure that telephone utilities provide "reasonably efficient and sufficient service" at just and

reasonable rates. In order to carry out its legislative mandate the Commission determines the boundaries of service territories, investigates service problems and determines the need for rate increases. In order to set proper rates, the utility's rate base, (the capital assets on which the utility has an opportunity to earn) a rate of return-and allowable expenses are determined by the KCC. The Federal Communications Commission (FCC) has jurisdiction over interstate telecommunications service and makes the parallel determinations for the interstate services provided by the same telephone companies.

The primary goal of telephone utility regulation at both the state and federal level, is to protect monopoly ratepayers from monopolistic practices in lieu of a free market. These practices, in general, aim at earning profits from ratepayers who have no alternative source of supply for the monopoly product or service.

In recent years there has been an accelerating movement toward competition in telephone services; to date the competition is primarily manifested in long distance service between major metropolitan areas. Small beginnings have been made in the provision of customer premises equipment (CPE)-telephones, key systems, PBXs, computer terminals, etc. The basic argument for competition is that it results in the availability of products that meet the needs of consumers. Competitive forces ensure that prices settle at the level at which only the most efficient, innovative suppliers survive to produce the particular good and receive a reasonable return on investment. Thus, competition was

welcomed as a regulatory tool which could help supply essential telecommunications services at the lowest cost, while fostering innovation and technological advance.

Many different issues have been dealt with by the FCC over the last few years in order to promote competition.

1. In 1974, MCI Telecommunications Corporation, a specialized common carrier, filed a tariff application with the FCC for a service known as Execunet. The FCC rejected the application because it found Execunet similar to the long distance service offered as a monopoly by AT&T. MCI appealed this decision to the U.S. Court of Appeals for the District of Columbia. The court in its decision stated that although the FCC statutorily could authorize competition with restrictions, it was required to make an affirmative determination that the public interest required such restrictions. The court left it up to the FCC to determine whether competition in long-distance service was in the public interest.

2. In response to this decision the FCC opened the MTS-WATS Market Structure Inquiry (Docket 78-72). (MTS-Message telephone service is long distance telephone service, WATS-Wide area telephone service is bulk rate long distance service.) The two basic issues considered by the FCC are to determine whether it is in the public interest to have competition in long distance telephone service and how to structure the compensation (known as access charges) to be paid to the telephone companies for the use of their local distribution plant by other common carriers. The main focus has been the access charge which would provide a system

by which all long distance carriers can obtain access to the local telephone network and pay compensation. Currently, the telephone companies use a procedure called Separations and Settlements and Division of Revenue to provide such compensation.

3. Traditionally, telephone companies prohibited customers from connecting any device not supplied by the company to the network. In the Carterfone decision [13 FCC 2d 420 (1968)], the FCC ruled that devices which improved the utility of the telephone system and which had no harmful effect on it could not be prohibited. The main rationale behind this decision was to let consumers choose the equipment they desired as long as the system was not harmed.

4. The next step on the road to competition in the area of telephone equipment was the Second Computer Inquiry (Docket 20828). It primarily distinguished between basic (offering of transmission capacity for movement of information) and enhanced (any offering over the telecommunications network which is more than the basic service) services and determined that only basic services would be regulated. As a further clarification "basic" service is what you have when you pick up your telephone and call someone. An "enhanced" service is anything beyond that, for example automatically making the information coding changes to allow two different computers to communicate. It also provided that as of January 1, 1983, new CPE (telephones, etc.) would be supplied on a non-regulated basis by all carriers. This means that telephone companies could no longer provide equipment to the customers and charge the cost on the monthly



bill. AT&T was required to provide the equipment through a fully separated subsidiary. All "embedded" equipment (telephones already in use or in the companies' inventory) would continue to be provided in the present manner, until further decision.

It appears likely that inside wiring will also be deregulated in the near future. Docket 79-105 provided the first step in that direction by changing the accounting treatment of inside wiring; it had been capitalized (included in the rate base so that the company earned a return on it). It is now to be treated as an expense, which means that the cost will be recovered in one year.

4. Docket 80-286 was instituted in order to reassess the rules governing the allocation of telephone property costs, revenues, expenses, taxes and reserves between intrastate and interstate jurisdictions. In telephones, this is referred to as the separations process. A Joint Board (joint-because it is composed of federal and state commissioners) was appointed to assess the need for change in light of decisions to deregulate CPE and the many other changes resulting from the movement toward competition. If the recent AT&T-Justice Department anti-trust settlement is approved, it would appear that this Joint Board would have to focus on developing an access charge plan.

In other proceedings, the FCC is considering even further changes, but their impact is not of the same magnitude as the ones mentioned.

On Friday, January 8, 1982, AT&T and the Department of Justice announced the settlement of the seven year anti-trust case

which sought to break AT&T into separate entities. The effect of the decree is to spin off the twenty-two Bell Operating Companies (BOCs) from AT&T. AT&T will keep Western Electric-its manufacturing arm, and Bell Labs-its research arm.

The changes taking place in the telecommunications field also involve Congress, which is in the process of revising the 1934 Communications Act. The Senate has passed its version, S. 898. The House has recently started hearings on H.R. 5158. S. 898 establishes as national policy the promotion of marketplace competition, deregulation and reliance on the private sector to provide telecommunications services. H.R. 5158's purpose is similar.

## II. Major Issues and Their Impact

The group of ratepayers most endangered by the proposed changes is the residential class. This class of customers has a real need for communication service which is reliable and affordable. This need extends not only to local service but also some limited long distance service. Many rural customers have social and business activities which extend beyond their local telephone exchange and should be able to make these necessary calls and have access to emergency services at a price they can afford.

There are five major issues which are being dealt with at the federal level which will most severely impact on the residential ratepayers. They are--

- A. Deregulation of customer premise equipment;
- B. Changing the way the total costs of providing service are distributed between the local tele-

phone exchange and the toll (long-distance) operation;

- C. Removing the "Yellow Pages" advertising revenues from the local exchange operation;
- D. Shifting the jurisdiction for intrastate long distance service from the states to the FCC;
- E. Determining the value of, and distributing the assets between AT&T and the Bell operating companies.

As Schedules 1 and 2 show, these issues can potentially result in a 200%, or more, increase in the rates residential customers will pay. It is also important, to point out that the ultimate resolution of these issues is not within the hands of the Kansas Corporation Commission, or any state commission. These issues will be decided by the United States Congress, the Federal Communications Commission, the U.S. Department of Justice, and AT&T. This State Commission, along with several others, is trying to affect the policy decisions being made before final action is taken.

It must also be pointed out that the players involved are not in agreement as to what is being done, or should be done, much less the consequences of their actions. Let me briefly discuss the five issues I have mentioned and their impact on the residential customer.

#### A. Deregulation of CPE

As mentioned earlier, the dramatic advances in electronic and computer technology have led to a determination at the federal level that competition among suppliers of telephone equipment is good for the ratepayer. What appears on the surface to be a

reasonable, even admirable, goal will have the impact on local ratepayers of substantially increasing their rates.

The local monthly charge will increase for the following reason, if no offsetting action is taken. Toll (long distance) rates are designed to recover the costs incurred by those parts of the local exchange which provide for both toll and local calling. Expenses relating to CPE are one such cost. If CPE is deregulated, toll rates should decrease since they would now cover one less cost. The revenues received by local telephone exchanges from toll contribution to common operating costs would decrease correspondingly. All other things being equal, the local exchange has lost 100% of revenues associated with CPE (both toll contribution, and the local portion which is incorporated in the monthly bill), but only 20 to 50% of the costs. Thus, local rates would need to go up to cover the net amount of contribution lost if the company is to earn the same rate of return as it did prior to CPE deregulation. The 20 to 50% figure above is the approximate range, in Kansas, of CPE costs which are allocated to the local exchange. The percentage differs between companies.

There are at least three other problems associated with deregulation of CPE. One, what is to be done with equipment that the telephone company currently owns and provides under regulation? Whether it is to be transferred out of the telephone company to another organization, or sold in place to the customer, a proper price must be set (proper meaning one which unduly harms neither the ratepayer nor telephone company shareholder). The amount of "embedded equipment" investment which must be priced is

substantial; Southwestern Bell had \$128,353,537 as of December 31, 1980.

Two, are there enough suppliers of CPE for competition to work? For competition to work, there must be many buyers and many sellers of CPE. Nationally, there are many buyers, but it is a matter of dispute whether there is presently the potential for meaningful competition among producers or suppliers. Since the Bell System owns the vast majority of CPE, and (through Western Electric) is the major supplier of CPE, the current lack of many suppliers potentially allows the Bell System to gain monopoly profits from its control of the CPE supply.

Three, will the ratepayer be able to obtain CPE repair service at reasonable price, on reasonable terms and without undue delay? Currently the Bell System has the only sizeable body of skilled CPE repairmen. Granted, CPE repair can be learned by any skilled electrician or technician. The important questions revolve around how long it will take for these people to acquire a new skill, and what repair prices and terms will be during the transition period. Competition for maintenance service is as important as competition for CPE sales to protect the ratepayer from undue harm after CPE is deregulated. Thus, the KCC must strive to ensure reasonable pricing and provision of maintenance services for CPE.

#### B. Changing the Way Costs are Distributed Between Local and Toll Operations

As just mentioned, some costs are incurred by the local exchange which provide the means for both toll and local calling.

The largest group of such costs arise from investment in Non-Traffic Sensitive Plant (NTS)--that plant which must be present regardless of how much telephone usage there is. Currently, NTS plant consists of CPE, wiring inside the customer's premises, a drop wire from the distribution line, poles, and a pair of wires to the central office switch. See Schedule 3 for a diagram of the telephone system.

Since NTS plant is used for toll calls and it is impossible to measure the usage, a formula called Subscriber Plant Factor (SPF) is used to determine the contribution paid to the local exchange. AT&T claims it cannot meet competition for long distance business unless it incorporates a smaller contribution in its toll rate schedules than that resulting from the application of the SPF factor to NTS plant. The problem with changing this formula is that since costs remain the same, if the contribution from toll rates decreases, local exchange rates would have to increase, all other things being equal. The costs would be borne by local residential ratepayers and, if costs double or triple, by only those ratepayers who could afford to stay on the system.

#### C. Removal of Yellow Pages Advertising Revenues from the Local Exchange Operation

The contribution of Yellow Pages revenues to local exchange operations is substantial. For example, SWB of Kansas in 1980 earned \$20,500,000 net income from this activity. Its profitability stems from the fact that a telephone directory is provided to every monopoly ratepayer and thus, is an excellent advertising medium.

AT&T seeks to transfer this highly profitable operation from local ratemaking jurisdiction, where the revenue offsets local exchange costs, to its as yet unformed competitive subsidiary. This provides "captive" financing to facilitate the development of competitive products and services. Such an arrangement would add a new dimension to the meaning of the word "competition".

D. Shifting Jurisdiction over Intrastate Long Distance to the FCC

Congressional action, unless altered, will shift state jurisdiction over intrastate long distance rates to the FCC. This will probably mean that intrastate toll rates will be made uniform with interstate toll rates which are already set by the FCC.

Since Kansas toll rates are lower than comparable FCC toll rates, increasing the intrastate rates would greatly harm Kansans, especially those who are dependent on short-haul toll calls for business and social interaction. Schedule 4 shows comparative rates between interstate and intrastate rates.

E. Determining the Value of, and Distributing Bell Assets

Basic to each of the current proposals to restructure the telecommunications industry, is the separation of some parts from the Bell System as a whole. One critical question is the transfer price or value attached to the assets which are separated from the Bell System. Another important question is which organization in the restructured Bell System will have which assets and personnel. After restructure, each entity should have sufficient resources to

continue services without a diminished quality of service, or a drastically increased price.

If the Bell Operating Companies (BOCs) are not properly compensated by AT&T for transferred assets and personnel, local ratepayers of those BOCs could face huge rate increases as they pick up the tab for that inadequate compensation. The structure of the Bell System under various scenarios is shown in Schedules 5 a-c.

### III. AT&T Anti-Trust Settlement

The anti-trust suit settlement dramatically alters the framework of communications deregulation envisioned by the FCC, and by the two pieces of federal legislation--S. 898 and H.R. 5158. It restructures the Bell System differently, and compresses the timetable for various actions.

The apparent rationale behind the settlement is to separate the local exchange monopoly base from AT&T's competitive services. Thus, the Bell Operating Companies would provide only local exchange services, while AT&T would provide all toll service (both inter and intrastate), CPE, Yellow Pages, and enhanced services.

The separation of the Bell System by splitting local exchange services from all other services lends tremendous importance and urgency to the formulation and implementation of access charges. The current separations and settlements procedure does not have a mechanism which sets a price for access to the local exchange by long distance companies. Many access charge questions are unanswered, indeed unasked. Primary questions include what telecommunications equipment will be covered by



access charges, will access charges vary according to the size of the exchange, will access charges include a contribution to maintain local rates at current levels, and most importantly, who will set access charges (states, FCC or some combination thereof). Access charges must be equal for all long distance companies (such as AT&T, MCI, Southern Pacific) in order to provide for fair competition.

H.R. 5158 establishes a National Telecommunications Fund designed "to ensure that the costs for the distribution of interexchange service and exchange service ... which... exceed 110% of the national average of such costs will not be borne directly by exchange ratepayers or by access fees". Although it is desirable that customers in high cost areas not be penalized, this 110% level merely guarantees that if local rates go up, they go up for everybody.

It is important to note that whatever method is used to determine access charges, total costs of service do not change. In order not to harm the local ratepayer, the same contribution which the toll network currently makes to common costs of service must be incorporated into any future access charge system.

An especially disturbing aspect of the AT&T anti-trust suit settlement is the apparent absence of representation of the interests of the soon-to-be divested BOCS, which now conflict with the interests of AT&T. The BOCs should have a separate voice in the determination of their futures with regard to transfer of assets and personnel, exchange access fees and future regulation.

The timetable for deregulation has been altered. The spin-off of the BOCs is to be accomplished within eighteen months of

the effective date of the settlement. The plan whereby a company with over one million employees, and annual revenues larger than the Gross National Product of many countries, is to be split up, must be filed within six months of the effective date of the settlement. This means that events will proceed much faster than would be the case if the pace of the FCC governed.

The settlement injects further confusion into telecommunications deregulation. The dates for implementation are different between the settlement, legislation, and the FCC. The tasks which must be accomplished by those dates are large. It is a difficult situation for state regulators, especially since the various deregulation alternatives do not necessarily address the same issue the same way. For example, the Yellow Pages transfer from local ratemaking is handled differently, and intrastate toll jurisdiction is retained by the states under the Consent Decree and FCC plan, but not under either legislative bill. Schedule 6 shows a comparison of the proposals.

On balance, the KCC believes that the provisions of H.R. 5158 are vastly preferable to S. 898, and should be enacted with the improvements suggested in the statement I made before the House Subcommittee on Telecommunications last Tuesday. H.R. 5158 designates a methodology for pricing the sale of Yellow Pages which is the least detrimental to the ratepayer. Its provisions in regard to CPE give state commissions flexibility which is needed to protect ratepayers.

#### IV. Kansas Intervention at Federal Level

The introduction of competition as a tool for communications regulation raises many questions which are affected with the public interest. In defining the nature and scope of telecommunications regulation, no group of ratepayers should bear the costs of a change in policy which primarily benefits another group. If one group of ratepayers is paying some part of the cost of service for another group, this is called cross-subsidization. It is the duty of any regulatory body to evaluate the impact that regulatory policy changes have on the costs borne, and benefits received, by each of its constituent groups. The KCC is very concerned that the various federal actions altering the methods of telecommunications regulation do not fully consider these impacts.

The KCC last March formed a Telephone Task Force operating out of the Special Projects Division to begin dealing with these issues. Two hearings have been held, one dealing with expensing of station connections, the other with changes in depreciation accounting--two preliminary issues. Comments have been filed in Docket 80-286 on four separate occasions to express concerns over the impact on Kansas ratepayers of the proposed changes in allocation of costs of long distance service and to also provide the Commission's recommendations. Comments are being prepared to be filed with the U.S. District Court in Washington, D.C. which has jurisdiction over the anti-trust settlement. I met in December of 1981 with Congressman Wirth, the chairman of the House Subcommittee on Telecommunications, Consumer Protection and Finance along with a few other state commissioners to discuss the need for legislative changes. On February 2, 1982, I testified before the

House Committee. (A copy of this statement has been distributed to you.) The Task Force has worked with several other states in assessing the impact which the proposed changes would have on local ratepayers. In the near future, the Commission hopes to participate with other states in developing methods for dealing with the changes we are all facing.

It is not sufficient to sit back and wait to see what happens, however, but to take initiatives when appropriate. In order to do so, the KCC will continue its policy of intervention before appropriate bodies-- the FCC, Congress and the federal district court having jurisdiction over the anti-trust consent decree.

As legislators you are very visible in your communities. You can have an impact by staying as current as possible with the development of these issues at the federal level and by sharing your concerns with your constituents and encouraging them to write their congressional representatives and senators expressing their concerns. This legislature might also wish to consider a resolution urging the state congressional delegation to carefully consider the impact these changes are likely to have on Kansans and to work for resolution of these problems at the Congressional level.

Schedule 1

COMPANY	Current Residential Rates and Local Exchange Revenues (12/31/80)		Impact of Detariffing Customer Premises Equipment Increase In:		Impact of Changing NTS Plant Allocation Factor from SPF to SLO Increase In:		Impact of Removal of Yellow Pages Operations from Local Ratemaking Increase In:		Prospective Residential Rates and Local Exchange Revenue Requirement		TOTAL PERCENT INCREASE
	Local Exchange Revenues	Monthly Rate	Local Revenue Requirement	Monthly Rate	Local Revenue Requirement	Monthly Rate	Local Revenue Requirement	Monthly Rate	Local Revenue Requirement	Monthly Rate	
Southwestern Bell of Kansas	\$82,535,000	\$8.45	51,648,000	5.29	31,627,000	3.24	20,500,000	2.10	\$186,310,000	\$19.08	126%
United Telephone Company of Kansas	\$ 3,225,685	\$5.30	2,563,023	4.21	4,028,000	6.62	565,578	.93	\$10,382,286	\$17.06	222%
Continental Telephone Company of Kansas	\$ 3,875,000	\$8.50	1,943,000	4.26	4,647,000	10.19	336,795	.74	\$10,801,795	\$23.69	179%
Southern Kansas Telephone Company	\$ 219,658	\$5.25	156,155	3.73	292,000	6.98	14,710	.35	\$ 682,523	\$16.31	211%

IMPACT OF PROPOSED CHANGES  
ON SEVEN KANSAS TELEPHONE COMPANIES

COMPANY	CURRENT RESIDENTIAL RATE	IMPACT OF CPE DETARIFFING	SPF TO SLU, AND INSIDE WIRE DEREGULATION	POTENTIAL RATE
Haviland	\$5.00	\$5.95	\$ 9.66	\$20.61
Jetmore	\$7.25	\$8.54	\$10.45	\$26.24
Sunflower	\$6.00	\$7.68	\$12.57	\$26.25
Totah	\$8.00	\$2.07	\$ 9.07	\$19.14
Twin Valley	\$6.75	\$3.54	\$10.54	\$20.83
Wamego	\$7.50	\$2.71	\$ 6.78	\$16.99
Wilson	\$7.25	\$4.65	\$10.79	\$22.69

-----  
Assumptions

1. Separations modified as proposed to Joint Board by AT&T.
  - a) Flash cut removal of terminal equipment from jurisdictional separations process.
  - b) Reduce SPF to SLU (as modified below) over a five year period.
  - c) Interstate SLU factor includes all interstate minutes of use associated with interstate FX, CCSA, private line, ENFIA, MTS, and WATS services.
  - d) Use of seven day holding time studies.
2. Inside wire contribution is lost due to deregulation.
3. Impact is distributed in proportion to main stations rather than local revenues.
4. Impact of Yellow Pages removal not calculated.
5. Current Residential Rate is a "bundled" rate.

SOURCE: Ernst & Whinney, Tacoma, Washington

# EXCHANGE—TOLL ACCESS

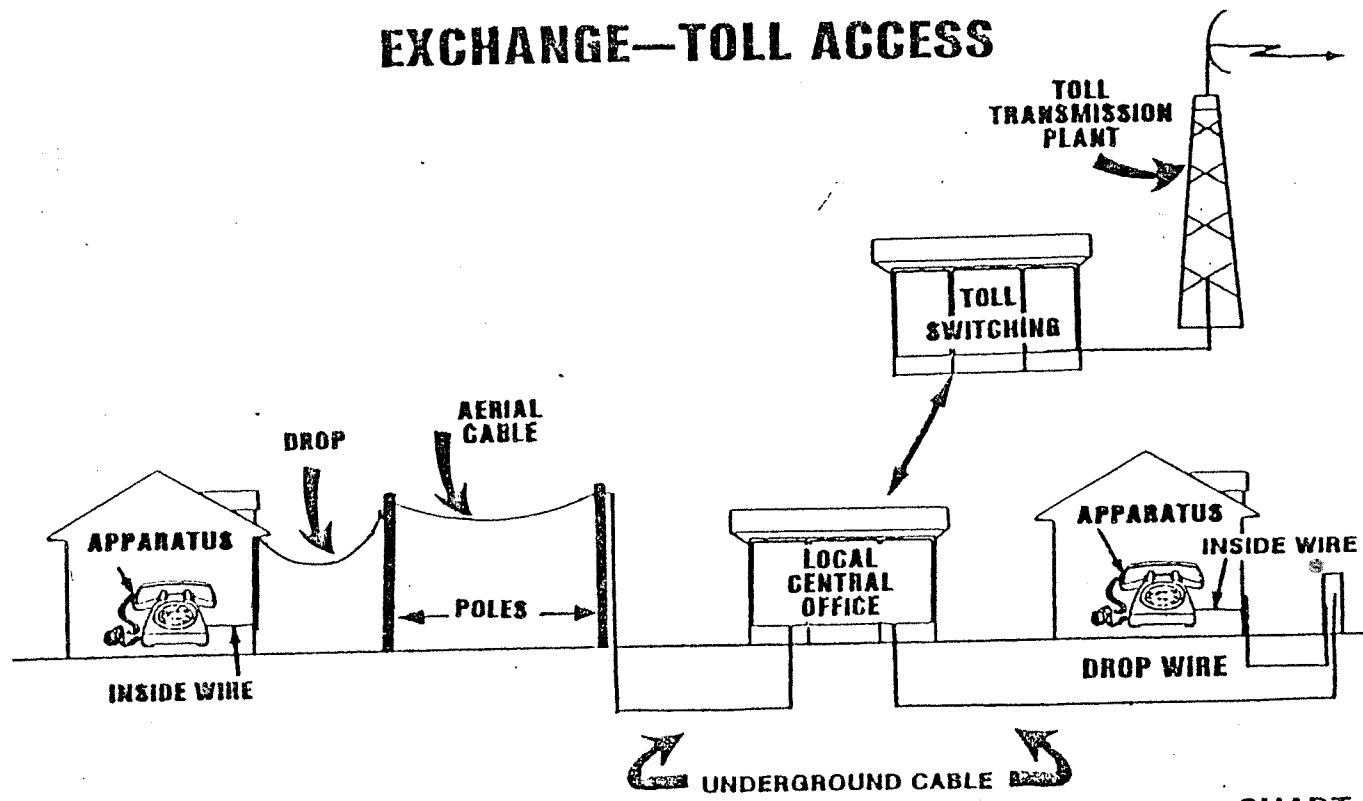


CHART 12

Southwestern Bell Telephone Company  
 State of Kansas - Docket No. 128,811-U  
 Long Distance Message Telecommunications Service  
 Comparison of Rates

<u>Southwestern Bell-Kansas</u>			<u>AT&amp;T Interstate</u>	
<u>Rate</u>	<u>Present</u>	<u>Proposed</u>	<u>Present</u>	<u>Rate</u>
<u>Mileage</u>	<u>Rate</u>	<u>Rate</u>	<u>Rate</u>	<u>Mileage</u>
<u>Direct Dial - Day Rate - Initial 1 Minute</u>				
1-12	\$ .12	\$ .18	\$ .23	1-10
13-16	.15	.22	.28	11-16
17-20	.18	.27	.32	17-22
21-25	.21	.33	.38	23-30
26-30	.25	.37		
31-40	.29	.41	.43	31-40
41-55	.33	.44	.48	41-55
56-70	.36	.47	.50	56-70
71-85	.39	.49	.52	71-124
86-105	.43	.51		
106-170	.45	.53	.53	125-196
171 & Over	.46	.56		
			.56	197-292(1)

<u>Each Additional Minute</u>				
1-12	\$ .06	\$ .08	\$ .10	1-10
13-16	.09	.12	.15	11-16
17-20	.12	.15	.17	17-22
21-25	.15	.20	.22	23-30
26-30	.19	.22		
31-40	.23	.26	.26	31-40
41-55	.26	.29	.30	41-55
56-70	.28	.31	.32	56-70
71-85	.30	.33	.35	71-124
86-105	.31	.35		
106-170	.32	.37	.37	125-196
171 & Over	.33	.39		
			.39	197-292(1)

Service Charges

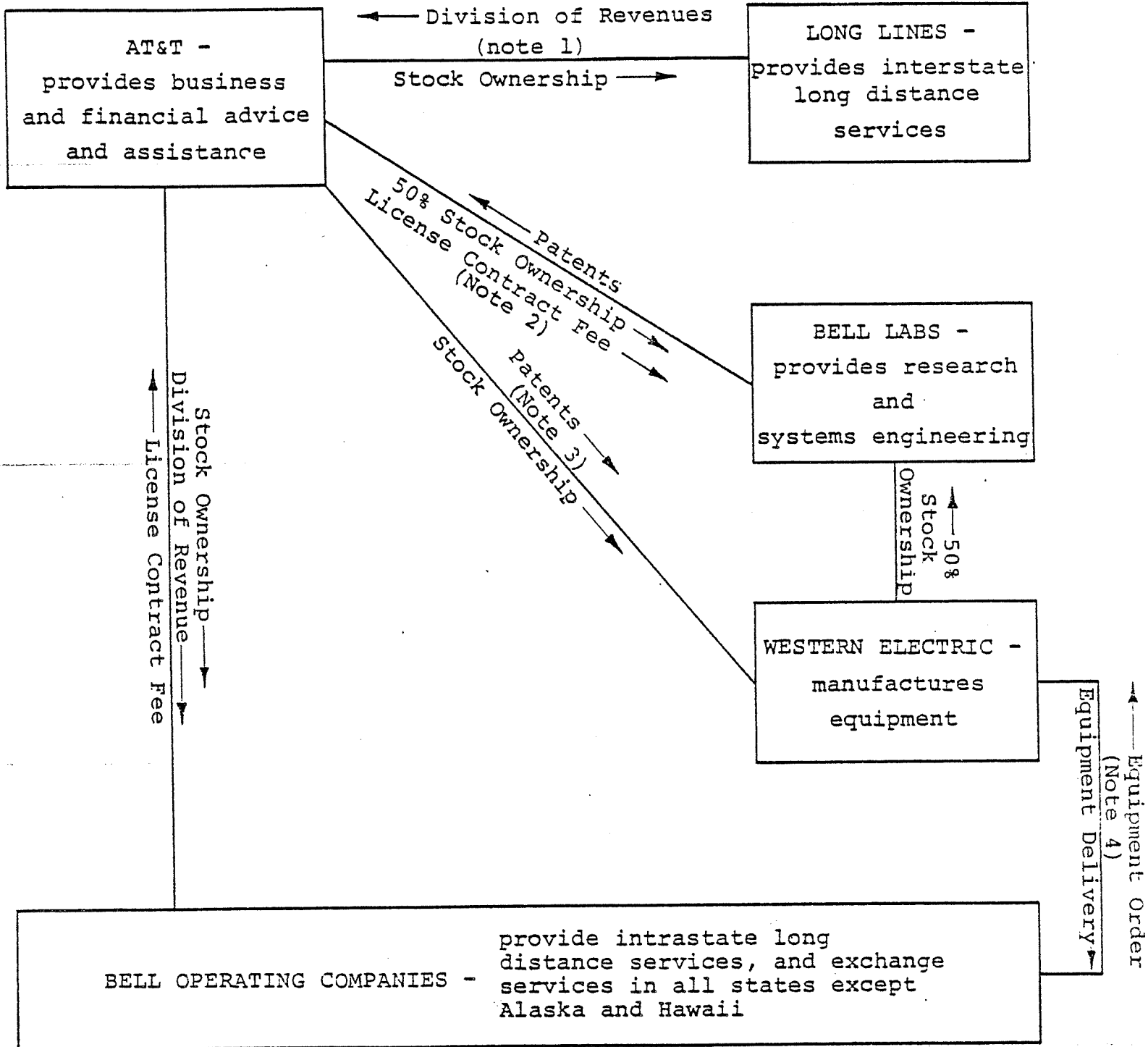
Operator Station-				
to-Station	\$0.60	\$1.05	\$0.60-1.85(2)	
Person-to-Person	1.70	2.40	3.00 (2)	
Dial Credit Card			0.50 (2)	
Station-to-Station	-	0.35		

Notes: (1) Mileages greater than 292 are charged higher rates.  
 (2) Service Charges proposed for interstate operator handled calls.



# Current Bell System Organization

Schedule 5C

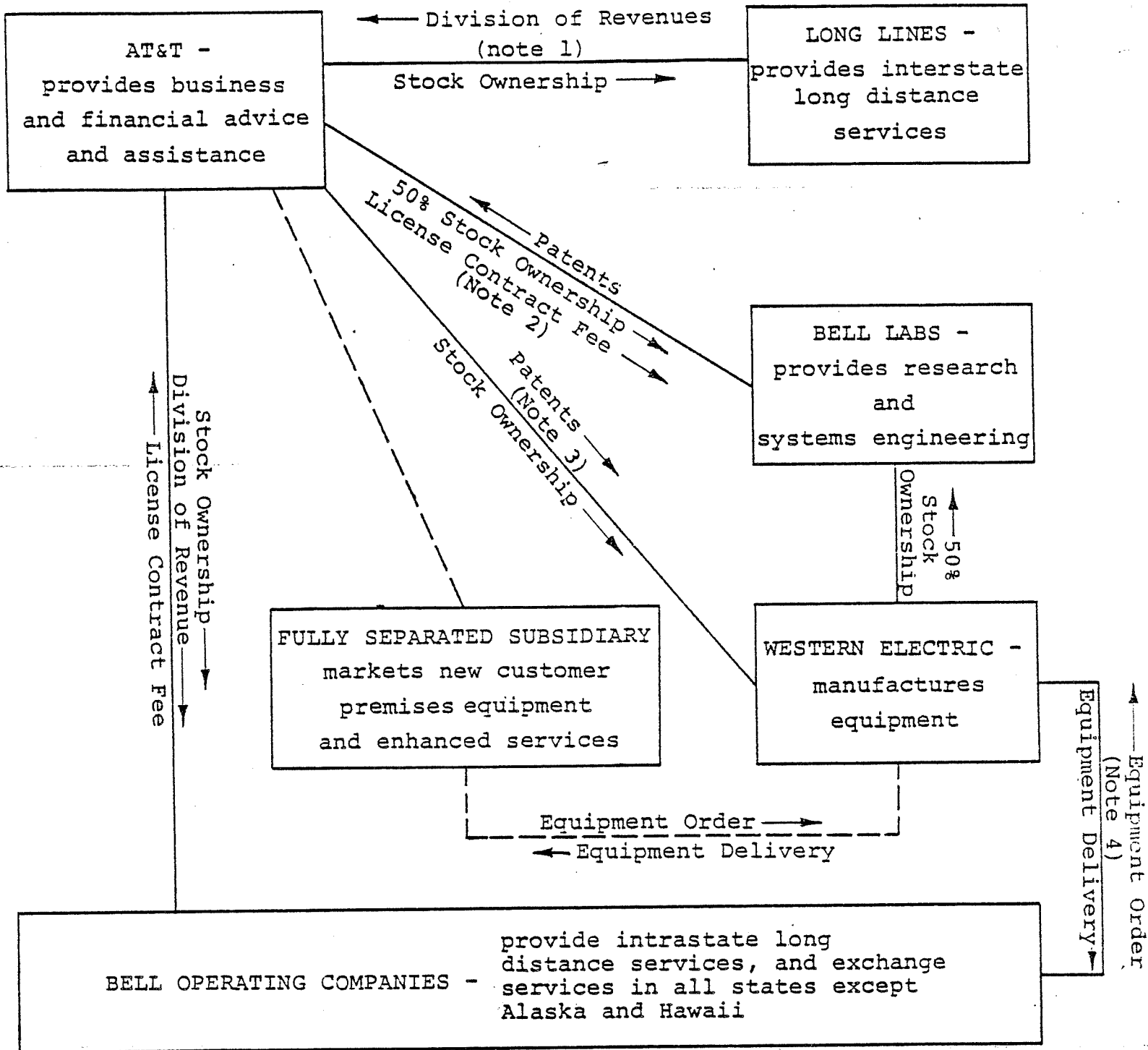


A Southwestern Bell ratepayer's bill is split into two parts:

- 1) Customer premises equipment rental and maintenance
- 2) Access line
  - a. access to network
  - b. directory assistance

# Bell System As Envisioned By The FCC

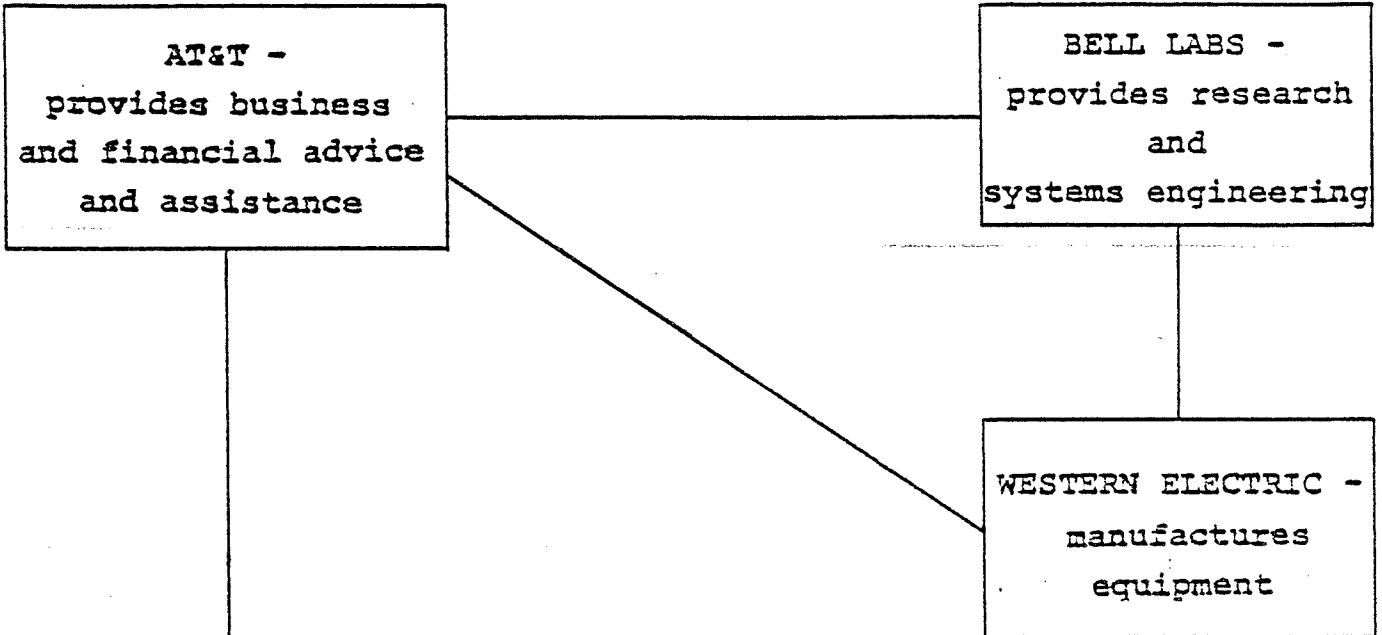
Schedule 5b



If a Southwestern Bell ratepayer buys his own equipment from any source, his bill will be for access to the network (the previous charge for equipment rental and maintenance will be dropped).

# Potential Bell Organization Under Anti-Trust Settlement

Schedule 5c



Long Lines- Inter and Intrastate Long Distance Services	Yellow Pages	Enhanced Services	CPE
---	--------------	-------------------	-----

Bell Operating Companies- provide only exchange services and exchange access for long distance carriers

Notes

1. Division of Revenue- the process which divides aggregate toll revenues between AT & T Long Lines and the BOCs, thus contributing to jointly used local exchange investment costs.
2. License Contract Fees- an arrangement by which AT & T general headquarters provides business and financial advice and assistance, and the right to use patents held by AT & T.
3. Patents- on equipment and processes; are derived from work done by Bell Labs, held by AT & T, and used to allow manufacture of patented products by Western Electric.
4. Equipment- that which composes the physical structure of the communications network, i.e., customer premises equipment, wire, cable, switching equipment.

Issue	FCC	S. 898	H.R. 5158	Consent Judgment
1. Deregulation of CPE				
a. "embedded equipment"	treatment is to be determined by an "Implementation Proceeding"--little action has been taken	transferred at a price which is "fully compensatory."	offered under tariff until depreciated or sold	not addressed at this time
b. sufficient competition?	has found that sufficient competition exists	found that competition varies depending on the size of the community	found that a market in used equipment does not exist today	appears to recognize the potential for growth in competition
c. maintenance availability?	is considering the options in the "Implementation Proceeding"	will be provided by new fully separated affiliate	fully separated affiliate shall make parts available at reasonable charges, for 6 years	not addressed
2. Access Charges	has issued several reports and a proposed rulemaking yet specifics remain unclear	specifies no method, but allows an access surcharge to maintain local rates within 110% of national average	specifies no method, but establishes a fund to maintain local rates within 110% of national average	not addressed
3. Yellow Pages Revenues	Transfer not proposed	directs that after four years, state commissions could no longer consider Yellow Pages revenues in local ratemaking	states that Yellow Pages would be transferred at fair market value	transfer terms unclear at this time
4. Jurisdiction over Intra-state toll rates	left with States	given to FCC	given to FCC	left with States
5. Distribution of Assets	to be determined in the "Implementation Proceeding"	to be determined by an "Assets Evaluation Board"	to be transferred at fair market value or net book value as determined by a Joint Board	transfer terms not yet specified

PRESENTATION

TO

THE HOUSE COMMITTEE ON  
COMMUNICATIONS, COMPUTERS AND TECHNOLOGY  
OF THE KANSAS LEGISLATURE

BY

THE KANSAS CORPORATION COMMISSION

"CONTINUING CHANGES IN TELECOMMUNICATIONS"

FEBRUARY 8, 1983

AHB 2-21-83

## INTRODUCTION

CHAIRMAN LOUX REPORTED LAST YEAR TO THE HOUSE ENERGY COMMITTEE ON THE MANY CHANGES OCCURRING IN THE TELEPHONE INDUSTRY. THREATS TO THE PRIMARY GOAL OF TELEPHONE REGULATION--UNIVERSAL SERVICE--WERE APPARENT AT THAT TIME. SOME OF THE CONCERNS FROM LAST YEAR HAVE NOW BEEN ALLEVIATED. HOWEVER, OTHERS REMAIN AND NEW ONES HAVE ARISEN.

WE ARE PROVIDING COPIES OF LAST YEAR'S PRESENTATION SINCE IT PROVIDES SOME BASIC INFORMATION. TODAY I WILL TRY TO UPDATE YOU ON INTERVENING EVENTS AND EXPECTED FUTURE PROBLEMS.

LAST YEAR WE EXPRESSED CONCERNED ABOUT FIVE AREAS: THE AT&T DIVESTITURE; DEREGULATION OF CPE; CHANGES IN SEPARATIONS AND INITIATION OF ACCESS CHARGES; LOSS OF STATE JURISDICTION OVER INTRASTATE LONG DISTANCE SERVICE; AND LOSS OF YELLOW PAGE DIRECTORY ADVERTISING REVENUES.

IN AUGUST, AFTER RECEIVING EXTENSIVE COMMENTS AND BRIEFS, THE COURT APPROVED OF THE PROPOSED ANTITRUST CONSENT DECREE, WITH SOME MODIFICATIONS. TWO OF THE IMPORTANT MODIFICATIONS, WHICH THE KANSAS COMMISSION AND OTHER PARTIES URGED ON THE COURT, WERE RETENTION OF YELLOW PAGE ADVERTISING AND ABILITY TO PROVIDE CPE BY THE BELL OPERATING COMPANIES (BOCs). THE FIRST MODIFICATION WILL HELP KEEP MONTHLY RATES FROM INCREASING EVEN MORE THAN THEY WILL WHILE THE SECOND MAY HELP INSURE THE FINANCIAL VIABILITY OF THE BOCs AND PROMOTE COMPETITION IN THE CPE MARKET.

PURSUANT TO THE COURT'S ORDERS, AT&T HAS NOW SUBMITTED ITS PROPOSED CONFIGURATIONS FOR LATAs (WHICH I WILL DISCUSS SHORTLY) AND ALSO ITS PLAN FOR REORGANIZATION. ATTACHMENT "A" IS A MAP SHOWING THOSE LATAs FOR KANSAS. THE CORPORATION COMMISSION SUBMITTED COMMENTS ON THE PROPOSED KANSAS LATAs IN WHICH WE SUPPORTED THE CONFIGURATIONS BUT EXPRESSED CONCERNS ABOUT THE IMPLICATIONS FOR INDEPENDENT TELEPHONE COMPANIES.

IN THE MIDDLE OF DECEMBER, 1982, AT&T SUBMITTED ITS PLAN FOR REORGANIZATION OF THE BELL SYSTEM. THIS PLAN WAS REQUIRED BY THE COURT, AND IS OPEN TO COMMENT BY PARTIES TO THE SETTLEMENT. THE DUE DATE FOR THESE COMMENTS IS FEBRUARY 15TH, AND THE KCC INTENDS TO FILE COMMENTS. THE CONCERNS EXPRESSED WILL LIKELY BE IN TWO AREAS. FIRST, THE KCC WANTS TO MAKE SURE THAT SWB AND/OR ITS RATEPAYERS ARE FULLY COMPENSATED FOR ANY RESOURCES AND ASSETS TRANSFERRED TO AT&T AND ITS COMPETITIVE OPERATIONS. SECOND, THE KCC WILL EMPHASIZE THE IMPORTANCE OF SWB BEING LEFT WITH ASSETS AND RESOURCES SUFFICIENT TO PROVIDE EXCHANGE SERVICE EFFICIENTLY AT A REASONABLE PRICE.

IN REGARD TO CPE, THE COURT OF APPEALS HAS WHOLLY AFFIRMED THE FCC'S "COMPUTER II" DECISION. THAT DECISION STATES THAT CPE WILL BE DEREGULATED ACCORDING TO A TWO-STAGE OR "BIFURCATED" APPROACH. AS OF JANUARY 1, 1983, TELEPHONE COMPANIES MAY NO LONGER PROVIDE NEW CPE UNDER REGULATION. THE



DECISION ALSO REQUIRED FORMATION OF A NEW AT&T SUBSIDIARY CALLED AMERICAN BELL, INC. (ABI).

DIVESTITURE COMPLICATED THE PICTURE. AFTER DIVESTITURE, THE BOCs MAY ALSO PROVIDE NEW CPE BUT IT IS UNCLEAR WHETHER THEY WILL BE REQUIRED TO DO SO THROUGH A SEPARATE SUBSIDIARY. THE BOCs CONTINUE TO PROVIDE EMBEDDED CPE UNDER TARIFF BUT CANNOT DO SO AFTER DIVESTITURE. THUS, UNLESS THE EMBEDDED CPE IS DEREGULATED BEFORE THEN, THE KCC WILL BE REGULATING THE EMBEDDED CPE WHICH IS TRANSFERRED TO AT&T.

AS FOR CHANGES IN SEPARATIONS AND INITIATION OF ACCESS CHARGES, AT THIS POINT I SHOULD JUST STATE THAT THERE HAS BEEN A GREAT DEAL OF ACTIVITY IN WHICH THE CORPORATION COMMISSION HAS PARTICIPATED. THE FCC HAS NOW ACTED ON ACCESS CHARGES AND JOINT BOARD ACTION ON CHANGES IN SEPARATIONS WILL OCCUR SOMETIME THIS SPRING.

MANY OF THESE DECISIONS COULD BE MODIFIED BY CONGRESSIONAL ACTION. LAST YEAR, ALTHOUGH WE GENERALLY SUPPORTED ONE OF THE PENDING BILLS, WE WERE CONCERNED THAT JURISDICTION OVER INTRASTATE INTEREXCHANGE SERVICES WOULD BE TRANSFERRED BY CONGRESS FROM THE STATES TO THE FCC. THE CONGRESSIONAL LEGISLATION DIED LAST YEAR AFTER INTENSIVE LOBBYING BY THE INDUSTRY, ESPECIALLY AT&T. THIS YEAR, THERE DOES NOT APPEAR TO BE SENTIMENT FOR A COMPREHENSIVE REWRITE OF THE FEDERAL COMMUNICATIONS LAW. HOWEVER, THERE IS A POSSIBILITY OF "SHORT FORM" LEGISLATION WHICH COULD INCLUDE RESTRICTION OF STATE COMMISSION AUTHORITY.

## FUTURE INDUSTRY STRUCTURE

THE CURRENT OUTLOOK FOR THE FUTURE STRUCTURE OF TELECOMMUNICATIONS SERVICES IS RELATIVELY CLEAR IN ITS BROAD OUTLINES BUT MANY DETAILS ARE NOT YET DETERMINED.

ONE OF PRIMARY REASONS FOR THE CONSENT DECREE IS TO PROMOTE COMPETITION IN THE PROVISION OF LONG DISTANCE SERVICE. THE JUSTICE DEPARTMENT ALLEGED DURING TRIAL THAT AT&T WAS USING ITS CONTROL OF THE LOCAL EXCHANGE NETWORK AS A BOTTLENECK TO KEEP OUT COMPETITION BY OTHER COMMON CARRIERS (OCCS) SUCH AS MCI. THE CONSENT DECREE REMEDIES ARE TO DIVEST AT&T OF THE BELL OPERATING COMPANIES (BOCs) WHICH PROVIDE EXCHANGE SERVICE AND REQUIRE THE BOCs TO PROVIDE EQUAL ACCESS TO ALL LONG DISTANCE INTEREXCHANGE CARRIERS, INCLUDING AT&T, UNDER EQUAL CONDITIONS.

ALTHOUGH SOUTHWESTERN BELL AND OTHER BOCs ARE LIMITED TO PROVIDING ONLY "EXCHANGE" SERVICES THE CONCEPT OF THOSE EXCHANGES IS NOT THE SAME AS CURRENT USAGE OF THE TERM. WE NOW THINK OF "EXCHANGES" AS CONSISTING PRIMARILY OF A SINGLE CITY OR TOWN AND SURROUNDING AREAS. THE "EXCHANGES" ENVISIONED BY DOJ AND AT&T, NOW KNOWN AS LOCAL ACCESS AND TRANSPORT AREAS (LATAs) ARE, HOWEVER, MUCH LARGER. IN KANSAS THERE ARE THREE PROPOSED LATAs. THE KANSAS CITY AREA WOULD BE PART OF THE KANSAS CITY, MISSOURI LATA, THE REST OF THE STATE WOULD BE DIVIDED INTO TWO LATAs WITH A DIVIDING LINE THAT CORRESPONDS WITH THE 316/913 AREA CODE DIVIDING LINE. SOUTHWESTERN BELL WOULD BE RESTRICTED TO PROVIDING SERVICE WITHIN EACH LATA, WHILE AT&T MAY PROVIDE SERVICE ONLY BETWEEN LATAs.

ONE OF THE MOST SIGNIFICANT ISSUES RELATING TO LONG DISTANCE SERVICE IS HOW THE INTEREXCHANGE CARRIERS WILL COMPENSATE SOUTHWESTERN BELL FOR USE OF SOUTHWESTERN BELL'S EXCHANGE FACILITIES IN ORIGINATING AND TERMINATING INTER-LATA CALLS. AT THE PRESENT TIME AT&T COMPENSATES THE BOCs THROUGH A PROCESS KNOWN AS DIVISION OF REVENUES. THE CONSENT DECREE, HOWEVER, REQUIRES THAT THAT PROCEDURE BE TERMINATED AS OF 1-1-84, TO BE REPLACED BY A SYSTEM OF ACCESS CHARGES. EVEN PRIOR TO THE CONSENT DECREE, THE FCC WAS CONSIDERING HOW EXCHANGE COMPANIES SHOULD RECOVER COSTS OF EXCHANGE PLANT USED TO PROVIDE INTERSTATE SERVICE. THE FCC HAS NOW MADE A DECISION WHICH ESTABLISHES A STRUCTURE FOR RECOVERY OF THOSE COSTS. RATHER THAN BEING COMPENSATED BY THE LONG DISTANCE SERVICE PROVIDERS, THE DECISION WOULD ULTIMATELY REQUIRE DIRECT RECOVERY OF MOST OF THE FIXED COSTS FROM EACH CUSTOMER THROUGH A FLAT MONTHLY CHARGE. INITIALLY (JANUARY 1, 1984,) THE FLAT-MONTHLY CHARGE WILL BE A MINIMUM OF \$2 FOR RESIDENTIAL CUSTOMERS AND \$4 FOR BUSINESS CUSTOMERS PER ACCESS LINE. THE REMAINDER WOULD INITIALLY BE RECOVERED THROUGH USAGE CHARGES, BUT THERE WOULD BE A MAXIMUM MONTHLY USAGE CHARGE.

AT THE END OF A SEVEN-YEAR TRANSITION PERIOD, THE FLAT MONTHLY CHARGE WOULD RECOVER ALL OF THE AVERAGE INTERSTATE COSTS OF NON TRAFFIC SENSITIVE PLANT EXCEPT SWITCHES. THIS IS EXPECTED TO BE APPROXIMATELY \$5, AS ADJUSTED FOR INFLATION. CERTAIN COSTS INCLUDED IN A SEPARATIONS "HIGH COST FACTOR" WOULD BE RECOVERED INDEFINITELY FROM THE INTEREXCHANGE CARRIERS. AS A RESULT OF THIS DECISION HIGH VOLUME USERS OF INTERSTATE SERVICES

WILL HAVE SUBSTANTIALLY REDUCED TOTAL BILLS WHILE LOW VOLUME USERS WILL HAVE A FIXED MONTHLY INCREASE.

THE PRIMARY CONSIDERATION FOR THIS DECISION WAS THE FEAR THAT HEAVY LONG DISTANCE USERS WOULD BEGIN BUILDING THEIR OWN TELECOMMUNICATIONS SYSTEMS WITH SATELLITE, MICROWAVE OR FIBER OPTIC TRANSMISSION AND THEREFORE "BY PASS" THE LOCAL EXCHANGE NETWORK. IT IS FEARED THAT THIS WOULD RESULT IN LOSS OF REVENUES FROM LARGE CUSTOMERS SO THAT THE FIXED COSTS WOULD HAVE TO BE PICKED UP BY THE REMAINING CUSTOMERS.

THIS DECISION, BY THE FCC, AT THIS TIME ONLY APPLIES TO THE COSTS' OF NTS PLANT ALLOCATED TO INTERSTATE SERVICES. WITHIN A FEW MONTHS A FEDERAL-STATE JOINT BOARD WILL BE RECOMMENDING WHETHER THE ALLOCATION OF COSTS BETWEEN STATE AND INTERSTATE JURISDICTIONS SHOULD BE CHANGED. A YEAR AGO IT WAS FEARED BY MANY THAT THE ALLOCATION FACTOR WOULD BE CHANGED (FROM SPF TO SLU) SO THAT A GREATER PORTION OF COSTS WOULD BE ASSIGNED TO INTRASTATE, REQUIRING A SIGNIFICANT INCREASE IN LOCAL RATES. IT IS NOW UNKNOWN WHAT THE JOINT BOARD WILL DECIDE. SEVERAL PARTIES, INCLUDING SOUTHWESTERN BELL AND THE KANSAS COMMISSION HAVE ARGUED FOR CONTINUED USE OF SPF (WITH SOME MODIFICATIONS) FOR A TEMPORARY PERIOD UNTIL THE RESULTS OF DIVESTITURE AND THE SYSTEM OF ACCESS CHARGES ARE EVALUATED. OTHER PARTIES, HOWEVER, HAVE ARGUED THAT ALL NTS COSTS--NOT JUST INTERSTATE COSTS--SHOULD BE DIRECTLY RECOVERED FROM THE END USER.

UNLESS THAT LATTER SUGGESTION IS ADOPTED, WHICH IS HOPEFULLY UNLIKELY, STATE COMMISSIONS WILL NEED TO DETERMINE THEIR OWN SYSTEM OF ACCESS CHARGES FOR COMPANIES WHICH PROVIDE

INTER-LATA INTRASTATE SERVICES. THE CONSENT DECREE DOES NOT AFFECT REGULATORY JURISDICTION SO THAT THE KANSAS COMMISSION WILL CONTINUE TO REGULATE INTRASTATE SERVICES, INCLUDING ACCESS CHARGES FOR THOSE LATAs. ONE QUALIFICATION TO THIS, HOWEVER, IS THAT LEGISLATION COULD BE INTRODUCED IN CONGRESS WHICH WOULD TAKE AWAY INTER-LATA JURISDICTION FROM THE STATES AND GIVE IT TO THE FCC.

IT MUST BE NOTED THAT THE CONSENT DECREE ONLY APPLIES TO AT&T AND THE BOCs. IT DOES NOT EXPLICITLY AFFECT INDEPENDENT TELEPHONE COMPANIES. THERE ARE, HOWEVER, MANY CONSEQUENCES FOR THE INDEPENDENT COMPANIES WHICH FOLLOW FROM THE CONSENT DECREE AND FCC ACTIONS.

THE LATAs WHICH ARE ESTABLISHED IN ACCORDANCE WITH THE DECREE ONLY INCLUDE THE EXCHANGES SERVED BY THE BOCs AND NOT THE AREAS SERVED BY INDEPENDENTS. UNDER THE DECREE THE INDEPENDENTS SEEM TO HAVE THREE CHOICES WITH REGARD TO ARRANGEMENTS FOR PROVIDING INTEREXCHANGE SERVICE. THEY CAN JOIN THE BOC LATA AND SHARE IN THE ACCESS CHARGES; THEY CAN BE CONSIDERED SEPARATE LATAs AND ESTABLISH THEIR OWN ACCESS CHARGE ARRANGEMENTS WITH THE INTER-LATA CARRIERS; OR THEY COULD TREAT THE BOC AS AN INTEREXCHANGE CARRIER. IT IS UNCLEAR AT THIS POINT HOW THE FCC ORDER ON ACCESS CHARGES RESOLVES THESE PROBLEMS ALTHOUGH ITS DECISION APPLIES TO ALL EXCHANGE COMPANIES AND NOT JUST THE BOCs. WHAT IS CLEAR IS THAT THE CURRENT ARRANGEMENT, KNOWN AS SETTLEMENTS, BY WHICH THE INDEPENDENTS AND THE BOCs DIVIDE UP TOLL REVENUES WILL BE CHANGED.

THESE CHANGES IN SETTLEMENTS AND TO ACCESS CHARGES MAY RESULT IN THE DEAVERAGING OF TOLL RATES, WHICH ARE NOW UNIFORM FOR INTRASTATE SERVICE THROUGHOUT KANSAS AND FOR INTERSTATE SERVICE THROUGHOUT THE COUNTRY. THE COMMISSION IS CONCERNED THAT THIS RESULT, CAUSED BY THE INTRODUCTION OF COMPETITION INTO LONG DISTANCE SERVICES, WILL ADVERSELY AFFECT THE RURAL SMALLER COMMUNITIES AND AREAS IN KANSAS, JUST AS COMPETITION IN THE AIRLINE INDUSTRY HAS ADVERSELY AFFECTED LESS TRAVELED ROUTES.

IN ADDITION, THERE IS A FEAR THAT THE BASIC TELEPHONE RATES IN RURAL, LESS DENSELY POPULATED AREAS MAY RISE SIGNIFICANTLY BECAUSE OF THEIR RELATIVELY HIGHER COSTS PER SUBSCRIBER LINE. ALTHOUGH THE JOINT BOARD IS CONSIDERING A HIGH COST FACTOR WHICH WOULD ADDRESS THIS PROBLEM, AND THE FCC ACCESS CHARGE SYSTEM REPORTEDLY PROVIDES FOR SUCH A FACTOR, IT IS UNKNOWN AT THIS POINT WHETHER THE PROBLEM WILL BE SATISFACTORILY RESOLVED.

THE CORPORATION COMMISSION HAS INITIATED PHASE IV OF ITS GENERAL INVESTIGATION TO ADDRESS THE ISSUES I HAVE MENTIONED. IN THE PAST, MANY OF THE ARRANGEMENTS BETWEEN THE INDEPENDENTS AND THE BELL SYSTEM HAVE BEEN ACQUIESCED IN BY THE REGULATORY AUTHORITIES, SIMPLY BECAUSE THEY APPEARED TO WORK SATISFACTORILY. WE NO LONGER HAVE THAT LUXURY BUT MUST ACTIVELY HELP SHAPE THE FUTURE STRUCTURE OF TELECOMMUNICATIONS SERVICES IN KANSAS, TO THE EXTENT THAT THAT AUTHORITY IS OURS.

ATTACHMENT "B" IS A COPY OF THE ORDER ON PHASE IV. IN ADDITION TO ADDRESSING LATAs, ACCESS CHARGES AND SETTLEMENTS,

THE COMMISSION WILL NEED TO MAKE DECISIONS WITH REGARD TO PROVISION OF EXTENDED AREA SERVICE, REGULATION OF OCCs AND RESALE AND SHARING OF TELECOMMUNICATIONS SERVICES. WE HAVE JUST RECEIVED COMMENTS ON SOME OF THOSE ISSUES AND WILL RECEIVE ANOTHER SET, AFTER THE FCC ACCESS CHARGE ORDER IS RELEASED.

CPE

AS MENTIONED PREVIOUSLY, THE TWO STAGE APPROACH FOR DEREGULATION OF CPE BEGAN AS OF THE FIRST OF THIS YEAR. "NEW" CPE IS NO LONGER PROVIDED UNDER TARIFF WHILE "EMBEDDED" CPE IN TELEPHONE COMPANY INVENTORIES IS EXPECTED TO LAST FROM THREE TO SIX MONTHS. THE COMMISSION IS CONCERNED THAT AFTER THE INVENTORY IS DEPLETED, CUSTOMERS IN SOME AREAS OF THE STATE MAY HAVE DIFFICULTY IN READILY ACQUIRING CPE. THIS IS ESPECIALLY TRUE OF PARTY LINE CPE IN AREAS WHERE A TELEPHONE COMPANY MAY DECIDE NOT TO PROVIDE SUCH EQUIPMENT ON A DEREGULATED BASIS, BECAUSE THE SPECIAL TELEPHONES NECESSARY FOR PARTY LINE SERVICE ARE NOT BEING SOLD BY OTHER FIRMS SUCH AS RADIO SHACK.

THE FCC HAS NOT YET DETERMINED WHAT TO DO ABOUT THE EMBEDDED CPE IN INVENTORY AND CUSTOMERS OFFICES AND HOMES. IT HAS, HOWEVER, INDICATED SUPPORT FOR THE SALE OF THAT CPE TO CUSTOMERS WHO WISH TO PURCHASE IT. THE CORPORATION COMMISSION, AFTER HEARINGS ON THE MATTER, HAS DECIDED THAT COMPANIES, AT THEIR OPTION, SHOULD OFFER TO SELL THE EMBEDDED CPE TO CUSTOMERS. THIS WILL HOPEFULLY GIVE CUSTOMERS A DESIRABLE OPTION IN COPING WITH THE CHANGES THAT ARE OCCURRING.

ALTHOUGH THE EMBEDDED CPE IS STILL REGULATED, THERE ARE IMMEDIATE CONSEQUENCES FOR LOCAL RATES. BEGINNING JANUARY 1, 1983, THE COSTS ASSOCIATED WITH THE EMBEDDED CPE WHICH ARE ALLOCATED TO INTERSTATE BEGAN TO DECLINE AT THE RATE OF 1/60TH PER MONTH. THUS, UNLESS THE EMBEDDED CPE IS ACTUALLY REMOVED FROM REGULATED RATE BASES AT THE SAME OR FASTER RATE, THOSE COSTS WHICH ARE PHASED OUT OF THE INTERSTATE JURISDICTION COULD HAVE TO BE RECOVERED IN INTRASTATE JURISDICTIONS. THIS IS AN ADDITIONAL REASON TO ENCOURAGE SALE OF EMBEDDED CPE.

THE OTHER MAJOR PROBLEM ARISING FROM THE FCC'S DECISION IN COMPUTER II IS THE NEED FOR TELEPHONE UTILITIES TO KEEP THE COSTS OF REGULATED OPERATIONS SEPARATE FROM UNREGULATED OPERATIONS, IF THE COMPANY DECIDES TO PROVIDE "NEW" CPE. ALSO, BECAUSE SOUTHWESTERN BELL IS TEMPORARILY PROVIDING INSTALLATION AND MAINTENANCE SERVICES FOR THE AT&T SEPARATE SUBSIDIARY, AMERICAN BELL, INC., (ABI), THE COMMISSION MUST INSURE THAT SOUTHWESTERN BELL IS FULLY RECOVERING ITS COSTS.

#### FUTURE REGULATION

AS EVIDENT, STATE AND FEDERAL REGULATORY BODIES HAVE BEEN AND WILL CONTINUE TO BE VERY BUSY. THE CORPORATION COMMISSION BELIEVES THERE WILL BE INCREASING PRESSURE IN THE FUTURE FOR INCREASES IN KANSAS CUSTOMERS' FIXED MONTHLY RATES. IN ADDITION TO THE POTENTIAL INCREASES IN INTRASTATE ALLOCATED COSTS, INCLUDING THE EFFECTS OF THE CPE PHASE-OUT, AND THE INITIATION OF INTERSTATE FLAT MONTHLY ACCESS CHARGES, THE FCC HAS TAKEN ANOTHER ACTION WHICH MAY MEAN INCREASED RATES. THE FEDERAL



AGENCY HAS PURPORTED TO PREEMPT STATE COMMISSIONS IN ALLOWING THE USE OF TWO DEPRECIATION METHODS WHICH WILL CAUSE GREATLY INCREASED DEPRECIATION EXPENSES. ALTHOUGH WE EXPECT THAT DECISION TO BE APPEALED, IT IS DIFFICULT TO PREDICT THE OUTCOME.

IN ADDITION TO THE ABOVE FACTORS, THE SMALL INDEPENDENT TELEPHONE COMPANIES MAY FACE OTHER CIRCUMSTANCES WHICH RESULT IN RATE CASES FILINGS. DUE TO THE CURRENT SYSTEM OF SEPARATIONS AND SETTLEMENTS, FEW INDEPENDENTS HAVE HAD TO FILE RATE CASES IN THE LAST TEN YEARS. CHANGES IN SEPARATIONS OR SETTLEMENTS MAY CHANGE THAT.

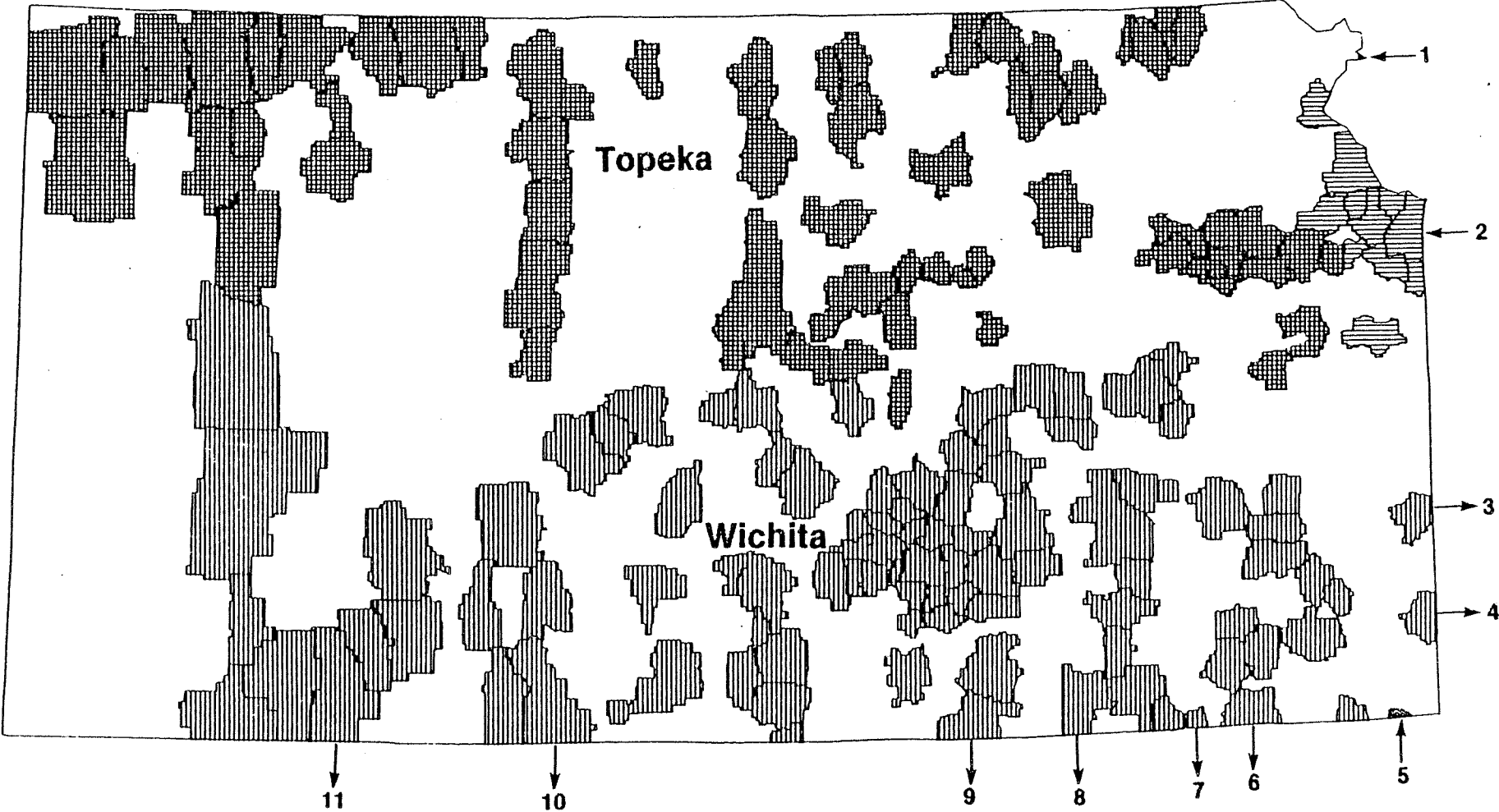
THE COMMISSION IS ALSO ANTICIPATING THE NEED TO REGULATE INTRASTATE SERVICE PROVIDED BY AT&T AND POSSIBLY OTHER COMMON CARRIERS. THESE COMPANIES MAY PRESENT SOME PROBLEMS NOT CURRENTLY FACED IN RATE CASES, PRIMARILY BECAUSE THE PLANT AND OTHER COSTS ASSOCIATED WITH KANSAS INTRASTATE SERVICE MAY NOT BE DISCRETE AND EASILY IDENTIFIABLE SO THAT DIFFICULT ALLOCATIONS WILL BE REQUIRED.

IT SHOULD ALSO BE NOTED THAT WE EXPECT SOUTHWESTERN BELL TO BE FILING A RATE CASE LATER THIS SPRING. THIS RATE CASE WILL PRESENT UNIQUE DIFFICULTIES BECAUSE IT WILL NEED TO BE BASED ON THE COMPANY'S CIRCUMSTANCES AFTER DIVESTITURE IN 1984. IN ADDITION TO NEEDING TO PROJECT THE EFFECTS OF A NEW ACCESS CHARGING SYSTEM, WHICH THIS COMMISSION WILL DETERMINE, AND CHANGES IN SEPARATIONS AND SETTLEMENTS, THE COMMISSION WILL NEED TO DETERMINE WHETHER IT HAS THE SAME CONCERNS ABOUT THE BOCs

ARRANGEMENTS WITH THEIR CENTRALIZED STAFF ORGANIZATION AS IT DID WITH REGARD TO THE LICENSE CONTRACT ARRANGEMENT WITH AT&T. ALSO, THIS RATE CASE IS SUPPOSED TO INCLUDE REIMBURSEMENT BY AT&T OF PRE-OPERATIONAL COSTS OF ABI. THIS WILL NEED TO BE EXAMINED.

FINALLY, THE COMMISSION STAFF IS ATTEMPTING TO DEVELOPE MEANS OF ADDRESSING SOME GENERAL CONCERNS ARISING FROM THE CHANGES IN TELECOMMUNICATIONS. IN ADDITION TO INSURING REASONABLE RATES FOR TELEPHONE SERVICE, THE COMMISSION IS CHARGED WITH INSURING REASONABLY EFFICIENT AND SUFFICIENT SERVICES. WE HOPE TO DEVELOPE MORE SYSTEMATIC WAYS OF MONITORING THE QUALITY OF SERVICE PROVIDED SO THAT IT DOES NOT DETERIORATE. AT THE SAME TIME WE WANT TO INSURE THAT ADDITIONAL INVESTMENT IN FACILITIES IS REALLY REQUIRED TO PROVIDE ADEQUATE SERVICE.

# KANSAS



The LATA Boundaries on this map make no assumptions regarding the participation (or non-participation) of any Independents for purposes of complying with the proposed 1982 Consent Decree.

"A"

7  
+

BOC: Southwestern  
STATE: Kansas

ALPHABETICAL LIST OF  
 BELL EXCHANGES AND LOCALITIES  
 AND ASSOCIATED LATAs

<u>Exchange</u>	<u>LATA</u>	<u>Exchange</u>	<u>LATA</u>
Abilene	Topeka	Erie	Wichita
Almena	Topeka	Eudora	Topeka
Andale	Wichita	Eureka	Wichita
Anthony	Wichita	Florence	Wichita
Arkansas City	Wichita	Fort Scott	Wichita
Atchison	Kansas City, Mo.	Fowler	Wichita
Attica	Wichita	Frankfort	Topeka
Atwood	Topeka	Garden City	Wichita
Baileyville	Topeka	Garden Plain	Wichita
Basehor	Kansas City, Mo.	Goodland	Topeka
Belleville	Topeka	Great Bend	Wichita
Beloit	Topeka	Greensburg	Wichita
Bird City	Topeka	Gypsum	Topeka
Blue Rapids	Topeka	Halstead	Wichita
Bucklin	Wichita	Hamilton	Wichita
Burns	Wichita	Hanover-Hollenberg	Topeka
Caney	Wichita	Harper	Wichita
Canton	Wichita	Hartford	Wichita
Cedar Vale	Wichita	Hays	Topeka
Chanute	Wichita	Herington	Topeka
Chapman	Topeka	Herndon	Topeka
Chase	Wichita	Howard	Wichita
Cheney	Wichita	Hoxie	Topeka
Cherryvale	Wichita	Humboldt	Wichita
Chetopa	Wichita	Hutchinson	Wichita
Clay Center	Topeka	Independence	Wichita
Clinton	Topeka	Iola	Wichita
Coffeyville	Wichita	Jewell	Topeka
Colby	Topeka	Kansas City	Kansas City, Mo.
Coldwater	Wichita	Kingman	Wichita
Concordia	Topeka	Kinsley	Wichita
Cottwood Falls	Wichita	La Crosse	Topeka
De Soto	Kansas City, Mo.	Larned	Wichita
Dodge City	Wichita	Lawrence	Topeka
Douglass	Wichita	Leavenworth	Kansas City, Mo.
El Dorado	Wichita	Leon	Wichita
Ellsworth	Topeka	Liberal	Wichita
Elwood	Kansas City, Mo.	Lincoln	Topeka
Emporia	Wichita	Lindsborg	Topeka
Enterprise	Topeka	Lyons	Wichita

BOC: Southwestern  
STATE: Kansas

ALPHABETICAL LIST OF  
BELL EXCHANGES AND LOCALITIES  
AND ASSOCIATED LATAs

<u>Exchange</u>	<u>LATA</u>	<u>Exchange</u>	<u>LATA</u>
Manhattan	Topeka	Seneca	Topeka
Mankato	Topeka	Severy	Wichita
Marion	Wichita	Smith Center	Topeka
Marquette	Topeka	Solomon	Topeka
Marysville	Topeka	Spivey	Wichita
McDonald	Topeka	Stafford	Wichita
McPherson	Wichita	Stockton	Topeka
Meade	Wichita	Sublette	Wichita
Medicine Lodge	Wichita	Tonganoxie	Kansas City, Mo.
Minneapolis	Topeka	Topeka	Topeka
Minneola	Wichita	Towanda	Wichita
Moline	Wichita	Treece	Tulsa, Ok.
Mount Hope	Wichita	Washington	Topeka
Neddesha	Wichita	Waterville	Topeka
Newton	Wichita	Wellington	Wichita
Nickerson	Wichita	Wichita	Wichita
Norcatour	Topeka	Williamsburg	Topeka
Norton	Topeka	Winfield	Wichita
Oakley	Topeka	Yates Center	Wichita
Oberlin	Topeka		
Ottawa	Topeka		
Paola	Kansas City, Mo.		
Parsons	Wichita		
Pawnee Rock	Wichita		
Peabody	Wichita		
Penalosa	Wichita		
Phillipsburg	Topeka		
Pittsburg	Wichita		
Plains	Wichita		
Plainville	Topeka		
Pratt	Wichita		
Protection	Wichita		
Reading	Wichita		
Sabetha	Topeka		
Saint Francis	Topeka		
Saint Paul	Wichita		
Salina	Topeka		
Scandia	Topeka		
Scott City	Wichita		
Sedan	Wichita		

THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS

BEFORE COMMISSIONERS: RICHARD C. (PETE) LOUX, CHAIRMAN  
JANE T. ROY  
PHILLIP R. DICK

IN THE MATTER OF A GENERAL )  
INVESTIGATION INTO THE RATES, )  
TARIFFS, POLICIES AND PRACTICES ) DOCKET No. 127,140-U  
OF PUBLIC TELEPHONE UTILITIES ) (PHASE IV)  
RELATING TO CUSTOMER PREMISES )  
EQUIPMENT. )

ORDER

THE ABOVE-CAPTIONED MATTER COMES BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS ON ITS OWN MOTION. HAVING REVIEWED ITS FILES AND RECORDS AND BEING DULY ADVISED IN THE PREMISES, THE COMMISSION FINDS AND CONCLUDES AS FOLLOWS:

1. THIS DOCKET WAS INITIATED IN MARCH OF 1981 BY THE COMMISSION AS A VEHICLE FOR ADDRESSING MANY OF THE CHANGES OCCURRING IN THE REGULATION OF TELECOMMUNICATIONS. THE IMMEDIATE IMPETUS WAS THE DECISION OF THE FCC IN ITS SECOND COMPUTER INQUIRY (COMPUTER II) TO DEREGULATE CUSTOMER PREMISES EQUIPMENT (CPE), BUT WE HAVE IN THIS DOCKET ADDRESSED SEVERAL OTHER MATTERS.

WE HAVE HAD HEARINGS SO FAR ON EXPENSING OF STATION CONNECTIONS, ELG AND REMAINING LIFE DEPRECIATION, AND DISPOSITION OF EMBEDDED CPE. AN ORDER ON THE FIRST MATTER HAS BEEN ISSUED AND ORDERS ON THE LATTER TWO WILL BE ENTERED SOON.

2. IT IS EVIDENT, HOWEVER, THAT MANY OTHER MATTERS REQUIRE THIS COMMISSION'S ATTENTION. THE ENTRY OF A MODIFIED FINAL JUDGMENT (MFJ) IN THE DEPARTMENT OF JUSTICE'S ANTITRUST SUIT AGAINST AT&T, THE DEVELOPMENT OF AN INTERSTATE ACCESS CHARGE SYSTEM BY THE FCC, AND GROWING COMPETITION IN THE PROVISION OF INTEREXCHANGE SERVICE IN KANSAS WILL HAVE CONSEQUENCES WHICH CANNOT BE IGNORED. WE THEREFORE INTEND IN THIS FOURTH PHASE OF THIS GENERAL INVESTIGATION TO ADDRESS THE ISSUES DISCUSSED BELOW AND ISSUE THIS ORDER TO SOLICIT COMMENTS FROM INTERESTED PARTIES ON THE APPROPRIATE ACTIONS TO BE TAKEN AND THE PROPER PROCEDURES FOR RESOLVING THESE MATTERS.

3. AT&T AND THE BELL OPERATING COMPANIES (BOCs), INCLUDING SOUTHWESTERN BELL TELEPHONE COMPANY (SWB), HAVE FILED WITH THE COURT PROPOSED CONFIGURATIONS FOR LOCAL ACCESS AND TRANSPORT AREAS (LATAs). THIS COMMISSION HAS FILED COMMENTS GENERALLY SUPPORTING THE PROPOSED LATAs FOR SWB KANSAS EXCHANGES. WE HAVE, HOWEVER, EXPRESSED RESERVATIONS ABOUT THE IMPLICATIONS OF LATAs WITH REGARD TO INCLUSION OR EXCLUSION OF INDEPENDENT TELEPHONE COMPANIES (INDEPENDENTS).

FIRST, WE ARE CONCERNED THAT REQUIREMENTS IMPOSED BY THE MFJ WITH REGARD TO EQUAL ACCESS TO INTEREXCHANGE (INTER LATA) CARRIERS COULD DISRUPT EXISTING TELEPHONE NETWORK FACILITIES OR OTHERWISE CAUSE INEFFICIENCIES IN PROVISION OF TELEPHONE SERVICE. FOR EXAMPLE, SOME SWB EXCHANGES CURRENTLY HOME ON INDEPENDENT CLASS 4 SWITCHES WHICH MIGHT HAVE TO BE DUPLICATED BY SWB IF THOSE INDEPENDENTS' SWITCHES CANNOT BE USED FOR ACCESS TO SWB LATAs.

SECOND, THE INDEPENDENTS AND SWB CURRENTLY PROVIDE INTRASTATE (AND INTERSTATE) MTS AND OTHER INTEREXCHANGE SERVICES AS A JOINT SERVICE THROUGH VARIOUS AGREEMENTS WHICH ARE BASED ON A PROCEDURE KNOWN AS SEPARATIONS AND SETTLEMENTS. IT WOULD SEEM THAT SETTLEMENTS AS CURRENTLY IN EXISTENCE WILL NOT SURVIVE THE CHANGES REQUIRED BY THE ANTITRUST JUDGMENT. THE FINANCIAL CONSEQUENCES FOR INDEPENDENTS ARE THEREFORE UNCERTAIN, BUT WOULD SEEM TO DEPEND ON THE MANNER IN WHICH INTEREXCHANGE CARRIERS ARE REQUIRED TO COMPENSATE EXCHANGE COMPANIES AND THE MANNER IN WHICH DIFFERENT EXCHANGE COMPANIES DIVIDE UP SUCH ACCESS CHARGE REVENUES.

THIS COMMISSION CLEARLY HAS JURISDICTION TO DETERMINE THE MANNER IN WHICH INTRASTATE INTEREXCHANGE SERVICES ARE PROVIDED. K.S.A. 66-107. FURTHER, IT WOULD SEEM THAT WE HAVE AUTHORITY TO DETERMINE ARRANGEMENTS BETWEEN AND AMONG DIFFERENT JURISDICTIONAL UTILITIES IN THE PROVISION OF JOINT SERVICES. ALTHOUGH WE HAVE HISTORICALLY EXERCISED ONLY LIMITED AUTHORITY OVER SUCH ARRANGEMENTS, SEE E.G. DOCKET NOS. 130,268-U (CHANGE FROM AVERAGE TO COST BASED SETTLEMENTS) 112,783-U (PROVISION OF

OPERATOR OFFICE SERVICES) WE BELIEVE IT MAY BE NECESSARY TO FULLY EXERT OUR AUTHORITY TO INSURE EFFICIENT PROVISION OF INTER-EXCHANGE SERVICE AND INSURE EQUITABLE ARRANGEMENTS BETWEEN JURISDICTIONAL UTILITIES.

INTERESTED PARTIES ARE THEREFORE INVITED TO SUBMIT PRELIMINARY COMMENTS ON THE FOLLOWING ISSUES. WE RECOGNIZE THAT THEY ARE INTERRELATED AND THAT A GREAT DEAL OF UNCERTAINTY EXISTS. HOWEVER, WE BELIEVE THAT THE COMMISSION MUST BEGIN TO ADDRESS THESE ISSUES.

A. THIS COMMISSION WILL NEED TO ESTABLISH INTRASTATE ACCESS CHARGE TARIFFS FOR SWB PURSUANT TO THE MFJ. IT WOULD SEEM THAT WHATEVER SYSTEM AND METHODOLOGY IS DEVELOPED AND APPROVED FOR SWB SHOULD BE EQUALLY APPLICABLE TO INDEPENDENTS UNLESS THERE ARE DIFFERENT CONSIDERATIONS INVOLVED. WE THEREFORE REQUEST COMMENTS ON WHETHER SUCH DIFFERENT CONSIDERATIONS DO EXIST. FURTHER, WE REQUEST COMMENTS ON WHETHER, IN THE INTEREST OF CONSISTENCY, THIS COMMISSION SHOULD ADOPT WHATEVER SYSTEM IS ADOPTED BY THE FCC IN ITS DECISION. IF NOT, WHAT SYSTEM AND METHODOLOGY IS MOST APPROPRIATE FOR KANSAS INTRASTATE ACCESS CHARGES? WITH REGARD TO THIS QUESTION, WE ALSO REQUEST COMMENTS CONCERNING THE PROSPECTS OF THE DEVELOPMENT OF THE PHENOMENON KNOWN AS "BY-PASS" IN KANSAS.

B. IT MAY BE DESIRABLE FOR INDEPENDENTS TO BE INCLUDED IN SWB LATAs TO PROMOTE NETWORK EFFICIENCY AND FINANCIAL VIABILITY OF INDEPENDENTS. WE REQUEST COMMENTS ON THIS QUESTION AND, IF IT IS DESIRABLE, WHETHER THIS COMMISSION HAS AUTHORITY TO REQUIRE SUCH ARRANGEMENTS. EVEN IF SUCH ARRANGEMENTS CANNOT BE REQUIRED, WE ANTICIPATE THAT SOME WILL OCCUR VOLUNTARILY. WE REQUEST COMMENTS ON WHAT ARRANGEMENTS SHOULD BE REQUIRED FOR DIVISION OF ACCESS CHARGE REVENUES BETWEEN COMPANIES WITHIN THE SAME LATA, IF ANY, AND THE PROCEDURES FOR ADMINISTRATION AND MONITORING OF SUCH ARRANGEMENTS.

C. BECAUSE OF THE UNCERTAINTY REGARDING THE IMPLICATIONS OF LATAs AND ACCESS CHARGES FOR INTEREXCHANGE SERVICES, THE



COMMISSION HAS PLACED A MORATORIUM ON THE ESTABLISHMENT OF EXTENDED AREA SERVICE (EAS) ARRANGEMENTS. WE REQUEST COMMENTS ON WHETHER SUCH ARRANGEMENTS WILL BE DESIRABLE IN THE FUTURE AND, IF SO, WHETHER THE PROCEDURES ADOPTED IN DOCKET NO. 115,653-U CAN CONTINUE TO BE APPLIED AT THE CURRENT TIME OR WHETHER MODIFICATIONS ARE NECESSARY NOW OR IN THE FUTURE.

IN PARTICULAR, WE WISH COMMENTS ON HOW EAS AFFECTS ACCESS CHARGES AND ANY SHARING OF ACCESS REVENUES.

D. IN DOCKET NO. 82U181, THIS COMMISSION APPROVED OF AN EXPERIMENTAL OFFERING OF OPTIONAL LOCAL MEASURED SERVICE. UNRESOLVED IN THAT DECISION WAS THE QUESTION OF WHETHER LOCAL MEASURED CHARGES SHOULD APPLY TO CALLS TERMINATING AT THE CONNECTING SWITCH OF AN OTHER COMMON CARRIER. WE REQUEST COMMENTS ON THAT ISSUE AND MORE BROADLY, THE QUESTION OF THE RELATIONSHIP OF LOCAL MEASURED SERVICE TO ACCESS CHARGES.

4. THIS COMMISSION HAS THUS FAR NOT EXERCISED JURISDICTION OVER INTEREXCHANGE CARRIERS KNOWN AS OTHER COMMON CARRIERS (OCCs). WE ARE AWARE, OF COURSE, THAT COMPANIES SUCH AS MCI ARE OFFERING AND PROVIDING COMMUNICATIONS SERVICES BETWEEN EXCHANGES WHOLLY WITHIN KANSAS. IT IS UNCLEAR WHETHER SUCH TRAFFIC IS SWITCHED OUTSIDE OF KANSAS. ALTHOUGH WE HAVE RECEIVED FEW COMPLAINTS ABOUT OCC SERVICES, WE BELIEVE THERE ARE NUMEROUS QUESTIONS WHICH SHOULD BE ADDRESSED.

A. WHAT IS THE PROPER DETERMINING FACTOR AS TO WHETHER INTEREXCHANGE SERVICE IS INTRASTATE SERVICE SUBJECT TO OUR JURISDICTION?

B. IF SOME OR ALL OF THE OCC SERVICES ARE SUBJECT TO OUR JURISDICTION, IS IT LEGALLY NECESSARY FOR THE COMMISSION TO EXERCISE JURISDICTION?

C. IF THE COMMISSION IS NOT REQUIRED TO EXERCISE JURISDICTION, IS IT NONETHELESS DESIRABLE TO DO SO?

D. WHAT FORM OF REGULATION OF OCCs IS NECESSARY OR DESIRABLE--FULL RATE REGULATION, SIMPLE REPORTING REQUIREMENTS OR SOME OTHER FORM OF REGULATION.

5. SOMEWHAT RELATED TO THE QUESTION OF REGULATION OF OCCs IS THE MATTER OF RESALE AND SHARING OF INTEREXCHANGE SERVICES, INCLUDING MTS, WATS AND PRIVATE LINE SERVICES. THE FCC IN ONE OF ITS DECISIONS HAS DETERMINED THAT ALL RESTRICTIONS ON RESALE AND SHARING OF MTS AND WATS SERVICES SHOULD BE REMOVED AND THAT IT SHOULD NOT BE REGULATED. WE THEREFORE REQUEST COMMENTS ON WHETHER SIMILAR RESTRICTIONS ON INTRASTATE SERVICES SHOULD BE REMOVED, THE REVENUE IMPACT OF SUCH ACTION, AND WHETHER THE COMMISSION SHOULD REGULATE, DIRECTLY OR INDIRECTLY, THE RATES FOR SUCH RESALE AND SHARING. FURTHER, WE NOTE THAT THE FCC IS INVESTIGATING THE ECONOMIC AND COST BASIS FOR WATS SO THAT THERE MAY BE SOME QUESTION WHETHER RESALE AND SHARING OF WATS WILL BE VIABLE IN THE FUTURE. WE REQUEST COMMENTS ON THIS ASPECT OF THE RESALE AND SHARING ISSUE.

6. FINALLY, WE REQUEST SUGGESTIONS ON THE PROPER PROCEDURES AND DESIRABLE TIMETABLES FOR ADDRESSING THESE ISSUES. ALTHOUGH WE HAVE INCLUDED THREE SETS OF ISSUES FOR COMMENT IN THIS ORDER, WE BELIEVE THAT THEY CAN AND SHOULD BE ADDRESSED SEPARATELY. FOR INSTANCE, THE ISSUES RELATING TO RESALE AND SHARING ARE RELATIVELY SIMPLE AND CAN PROBABLY BE RESOLVED FAIRLY EXPEDITIOUSLY. WE THEREFORE WILL REQUIRE COMMENTS ON EACH SET OF ISSUES SEPARATELY.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

1. INTERESTED PERSONS MAY COMMENT ON THE ISSUES AND QUESTIONS SET FORTH ABOVE CONCERNING RESALE AND SHARING OF INTEREXCHANGE SERVICES (PARAGRAPH 5) ON OR BEFORE JANUARY 21, 1983.

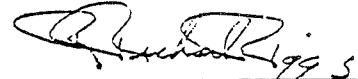
2. INTERESTED PERSONS MAY COMMENT ON THE ISSUES AND QUESTIONS SET FORTH ABOVE CONCERNING REGULATION OF SERVICES PROVIDED BY OTHER COMMON CARRIERS (PARAGRAPH 4) ON OR BEFORE JANUARY 21, 1983.

3. INTERESTED PERSONS MAY COMMENT ON THE ISSUES AND QUESTIONS SET FORTH ABOVE CONCERNING LATAs AND ACCESS CHARGES (PARAGRAPH 3) ON OR BEFORE JANUARY 31, 1983.

PURSUANT TO A PREVIOUS ORDER IN THIS DOCKET, AN ORIGINAL AND NINE COPIES OF ANY COMMENTS SUBMITTED SHOULD BE FILED WITH THE EXECUTIVE SECRETARY OF THE COMMISSION.

DATED: December 28, 1982

Loux, CHMN.; Roy, Com.; Dick, Com.



ACTING EXECUTIVE SECRETARY

DAL:TW

PRESENTATION TO THE SENATE WAYS AND MEANS  
COMMITTEE OF THE KANSAS LEGISLATURE

DAVID GALLEMORE  
AMERICAN BELL, INC.  
DIVISION MANAGER

FEBRUARY 21, 1983

*ATC 2-21-83*

INTRODUCTION--

MR. CHAIRMAN, COMMITTEE MEMBERS, I WANT TO THANK YOU FOR THE OPPORTUNITY TO SPEAK TO YOU ON SUCH AN IMPORTANT SUBJECT/MATTER--COMMUNICATIONS. IT'S A PLEASURE TO BE HERE TODAY.

THE MAJOR POINTS I WOULD LIKE TO COVER THIS AFTERNOON ARE FIRST--AN INTRODUCTION OF AMERICAN BELL. AND SECOND--AN EXPLANATION OF AMERICAN BELL'S ROLE IN THE MARKETPLACE AS WE SEE IT TODAY. AND FINALLY, I WILL DISCUSS THE ROLE AND RESOURCE AMERICAN BELL CAN BE IN TERMS OF THE STATE OF KANSAS TELECOMMUNICATION PLAN.

VIRTUALLY OVERNIGHT, AN ORGANIZATION THAT EXISTED MAINLY ON PAPER FOR MOST OF 1982 WAS LAUNCHED AND INSTANTLY BECAME A FORTUNE 500 COMPANY--A NATIONWIDE COMPANY WITH 28,000 EMPLOYEES AND BILLIONS OF DOLLARS IN CAPITAL AND ASSETS.

IT WAS LAUNCHED WITH A SINGULAR MISSION IN MIND: TO BE A LEADER IN THE MARKETS FOR COMMUNICATIONS AND INFORMATION MANAGEMENT SYSTEMS FOR BUSINESS (GOVERNMENT) AND RESIDENTIAL CUSTOMERS. IN DOING SO, WE WILL PLAY A MAJOR ROLE IN BRINGING THE LONG-HERALDED INFORMATION AGE TO FRUITION FOR AMERICA AND ITS PEOPLE.

AMERICAN BELL WAS CREATED TO MEET THE FEDERAL COMMUNICATION COMMISSION'S REQUIREMENT FOR AN AT&T SUBSIDIARY TO PROVIDE NEW TELECOMMUNICATIONS PRODUCTS AND ENHANCED SERVICES ON A DETARIFFED BASIS. BY DETARIFFED, I MEAN THAT NO LONGER WILL OUR NEW PRODUCTS AND SERVICES BE GOVERNED BY TRADITIONAL REGULATION. RATHER, CUSTOMER NEEDS, COMPETITION AND MARKETPLACE FORCES WILL GOVERN WHAT WE OFFER, WHEN WE OFFER IT AND HOW MUCH WE'LL CHARGE FOR IT.

OUR NEW COMPANY IS ORGANIZED INTO TWO MAIN MARKETING ORGANIZATIONS. ONE IS CALLED CONSUMER PRODUCTS. IT SERVES HOME CUSTOMERS AND SOME SMALL BUSINESSES.

THE OTHER ORGANIZATION IS ADVANCED INFORMATION SYSTEMS. AIS IS THE ORGANIZATION I WORK FOR. WE SERVE ALL OTHER BUSINESSES.

BEHIND THESE TWO ORGANIZATIONS ARE ENGINEERING, DESIGN AND DEVELOPMENT PEOPLE TO PROVIDE US WITH THE TECHNICAL, RESEARCH AND DEVELOPMENT SUPPORT WE NEED TO BRING OUR LEADING-EDGE TECHNOLOGY TO MARKET.

IN PUTTING TOGETHER AMERICAN BELL, WE BELIEVE WE HAD THE BEST TALENT POOL IN THE WORLD TO DRAW FROM. AND WE MADE THE MOST OF THAT OPPORTUNITY. OUR 28,000 PEOPLE HAVE COME FROM BELL OPERATING COMPANIES ACROSS THE COUNTRY, AT&T, WESTERN ELECTRIC, BELL LABORATORIES--AND FROM OUTSIDE INDUSTRY, TOO.

ALL OF US IN AMERICAN BELL HAVE A SINGLE PURPOSE: TO SERVE OUR CUSTOMERS BY PROVIDING THEM WITH INFORMATION AGE TECHNOLOGY--NEW INFORMATION MANAGEMENT AND MOVEMENT PRODUCTS, SERVICES AND SYSTEMS. AND WE INTEND TO PROVIDE IT WHEN OUR CUSTOMERS WANT IT, IN THE WAY THEY WANT IT, AND AT A REASONABLE PRICE.

FOR BUSINESSES AND GOVERNMENT--THE PROMISE OF NEW TECHNOLOGY HAS NEVER BEEN BRIGHTER.

THE U.S. BUSINESS COMMUNITY TODAY SPENDS BETWEEN \$600 BILLION AND \$700 BILLION ANNUALLY ON COMMUNICATIONS--EVERYTHING FROM VOICE AND DATA TELECOMMUNICATIONS TO BUSINESS MEETINGS AND ASSOCIATED TRAVEL. ONLY A SMALL FRACTION TODAY IS SPENT ON ELECTRONICALLY AIDED COMMUNICATIONS. BUT THIS IS WHERE ENORMOUS LEVERAGE CAN BE APPLIED TO IMPROVE WHITE-COLLAR PRODUCTIVITY BY AUTOMATING COMMUNICATIONS, DISPLACING TRAVEL, AND FREEING HUMAN RESOURCES FOR MORE IMPORTANT WORK.

AND NO LESS PROMISING IS THAT BUSINESS CUSTOMERS --AGAIN, BOTH LARGE AND SMALL--INCREASINGLY WILL BE ABLE TO TAILOR NEW INFORMATION AGE TECHNOLOGY TO THEIR OWN NEEDS AND, THUS, WILL BE ABLE TO GROW AT A PACE THEY DETERMINE FOR THEMSELVES.

THE STATE TELECOMMUNICATIONS PLAN YOU HAVE BEEN ASKED TO FUND WILL PROVIDE THE INFRASTRUCTURE TO BRING THE NEW INFORMATION AGE TECHNOLOGY TO THE STATE OF KANSAS.

ROLE--

THAT SAID, I WOULD NOW LIKE TO OUTLINE FOR YOU WHAT ROLE WE IN AMERICAN BELL'S AIS DIVISION INTEND TO PLAY IN THE COMING MONTHS--AND BEYOND--AND WHAT YOU AS A CUSTOMER CAN EXPECT.

WE ARE PREPARED TO MEET LOCAL, STATE, AND NATIONAL INFORMATION/ COMMUNICATION NEEDS OF THE STATE OF KANSAS. AND WE INTEND TO DO IT WITH THE NEEDS OF YOU, THE CUSTOMER, TOTALLY IN MIND. YOUR EXPECTATIONS WILL DICTATE OUR TECHNOLOGY, OUR MARKETING, OUR PRICING. INDEED, THE NEEDS AND EXPECTATIONS OF OUR CUSTOMERS WILL DICTATE OUR "STYLE."

--WE AIM TO BE EASY TO DO BUSINESS WITH.

--WE AIM TO PROVIDE THE HIGHEST QUALITY OF SERVICE, AND THAT QUALITY IS TO BE MEASURED BY HOW WELL IT ANTICIPATES AND MEETS THE NEEDS OF EACH AND EVERY CUSTOMER. INDIVIDUALLY, ONE BY ONE.

--WE AIM TO OFFER PRODUCTS, SERVICES, AND SYSTEMS THAT ARE NOT ONLY EASY TO USE, BUT THAT ALSO INCREASE A CUSTOMER'S PRODUCTIVITY AND PROFITABILITY.



WE HAVE ALREADY BEGUN. WE ANNOUNCED A NUMBER OF PRODUCT ENHANCEMENTS AND INTRODUCTIONS LAST YEAR.

FOR 1983, WE WILL CONTINUE TO INTRODUCE PRODUCTS THAT ARE NOT ONLY ON THE LEADING EDGE OF INFORMATION MANAGEMENT TECHNOLOGY, BUT THAT ALSO ARE MARKETED WITH NATIONWIDE PRICING--AND THAT CARRY NO SUDDEN OR UNEXPECTED PRICE ADJUSTMENTS.

EARLIER THIS MONTH AMERICAN BELL INTRODUCED OUR LATEST PRODUCT OFFERING (SYSTEM 85) TO THE STATE OF KANSAS. IT WILL PLAY AN INTEGRAL PART IN AMERICAN BELL'S RESPONSE TO YOUR STATE PLAN. THE SYSTEM 85, LIKE THE STATE PLAN, EMPLOYS THE LATEST AND MOST FUTURE-ORIENTED TECHNOLOGY.

THIS ISN'T THE TIME OR THE PLACE TO DISCUSS THE MANY BENEFITS THIS TECHNOLOGY WILL BRING TO THE STATE OF KANSAS' RESIDENCES AND EMPLOYEES.

THE POINT TO NOTE TODAY, HOWEVER, IS THAT THIS TECHNOLOGY WILL PROVIDE THE MANY BENEFITS AT AN OVERALL LOWER COST.

IN THE COMING MONTHS, WE EXPECT TO MAKE A SERIES OF ANNOUNCEMENTS THAT LIKELY WILL LEAD TO SOME FUNDAMENTAL DIFFERENCES IN THE EMERGING WORLD OF INFORMATION MANAGEMENT.

AND I BELIEVE THAT INFORMATION MANAGEMENT IS RIGHTFULLY TAKING ITS PLACE ALONGSIDE OTHER BUSINESS DISCIPLINES--SUCH AS FINANCE AND DISTRIBUTION--AS A CRUCIAL PART OF THE OVERALL MANAGEMENT EQUATION. IT IS BECOMING INCREASINGLY APPARENT THAT THE NATURE, THE TIMELINESS AND THE QUALITY OF A STATE GOVERNMENT INFORMATION SYSTEM WILL DETERMINE ITS ABILITY TO SERVE THE PUBLIC NEEDS.

LET ME WRAP UP MY REMARKS BY POINTING OUT THAT THIS COUNTRY IS SPENDING A TRILLION DOLLARS A YEAR ON OFFICE-BASED, WHITE-COLLAR WORKERS. A TRILLION DOLLARS! BUT IMPROVEMENT IN OFFICE PRODUCTIVITY IN RECENT YEARS HAS BEEN AT A STANDSTILL. THERE IS, OF COURSE, INCREASING RECOGNITION AND UNDERSTANDING OF THIS PARADOX: MUCH IS BEING WRITTEN ABOUT IT AND WE SEE SOME ENCOURAGING TRENDS.

WHEN THIS DECADE BEGAN, FOR EXAMPLE, THERE WAS ONE COMPUTER TERMINAL OR WORD-PROCESSOR FOR EVERY SEVEN WHITE-COLLAR WORKERS. BY THE MIDDLE OF THIS DECADE, THERE WILL BE ONE PRODUCTIVITY-ENHANCING TERMINAL FOR EVERY THREE SUCH WORKERS.

ALSO, IT IS ESTIMATED THAT TODAY LESS THAN ONE-HALF OF ONE PERCENT OF TOP MANAGEMENT IN THE FORTUNE 1,000 USE MANAGEMENT-INFORMATION TERMINALS. WE EXPECT THAT FIGURE TO BE MORE LIKE 50 PERCENT BY THE END OF THE DECADE.

BUT THE INCREASING POPULARITY OF TERMINALS--WHILE IMPORTANT--  
IS NOT ENOUGH.

IF ENHANCED PRODUCTIVITY IS, INDEED, A CRITICAL ELEMENT IN  
CREATING STRONG AND REAL ECONOMIC GROWTH IN THIS COUNTRY, THEN  
IT IS ESSENTIAL THAT WE HAVE A HIGHLY INNOVATIVE, HIGHLY EFFICIENT,  
AND WIDELY DISPERSED INFORMATION INFRASTRUCTURE. IN MANY RESPECTS,  
WE ALREADY HAVE SUCH AN INFRASTRUCTURE: AT&T HAS A NATIONWIDE  
COMMUNICATIONS AND INFORMATION-MOVEMENT NETWORK OF EXCEPTIONAL  
CAPABILITY. THIS NETWORK IS BECOMING ALL ELECTRONIC AND INCREASINGLY  
DIGITAL. THIS IS LEADING TO A NETWORK THAT WILL MOVE AND DELIVER  
INFORMATION WHERE PEOPLE WANT IT, WHEN THEY WANT IT, AND IN THE  
FORM THEY WANT IT.

SAID ANOTHER WAY, THIS COUNTRY HAS JUST BEGUN TO SEE THE  
DAWN OF THE INFORMATION AGE.

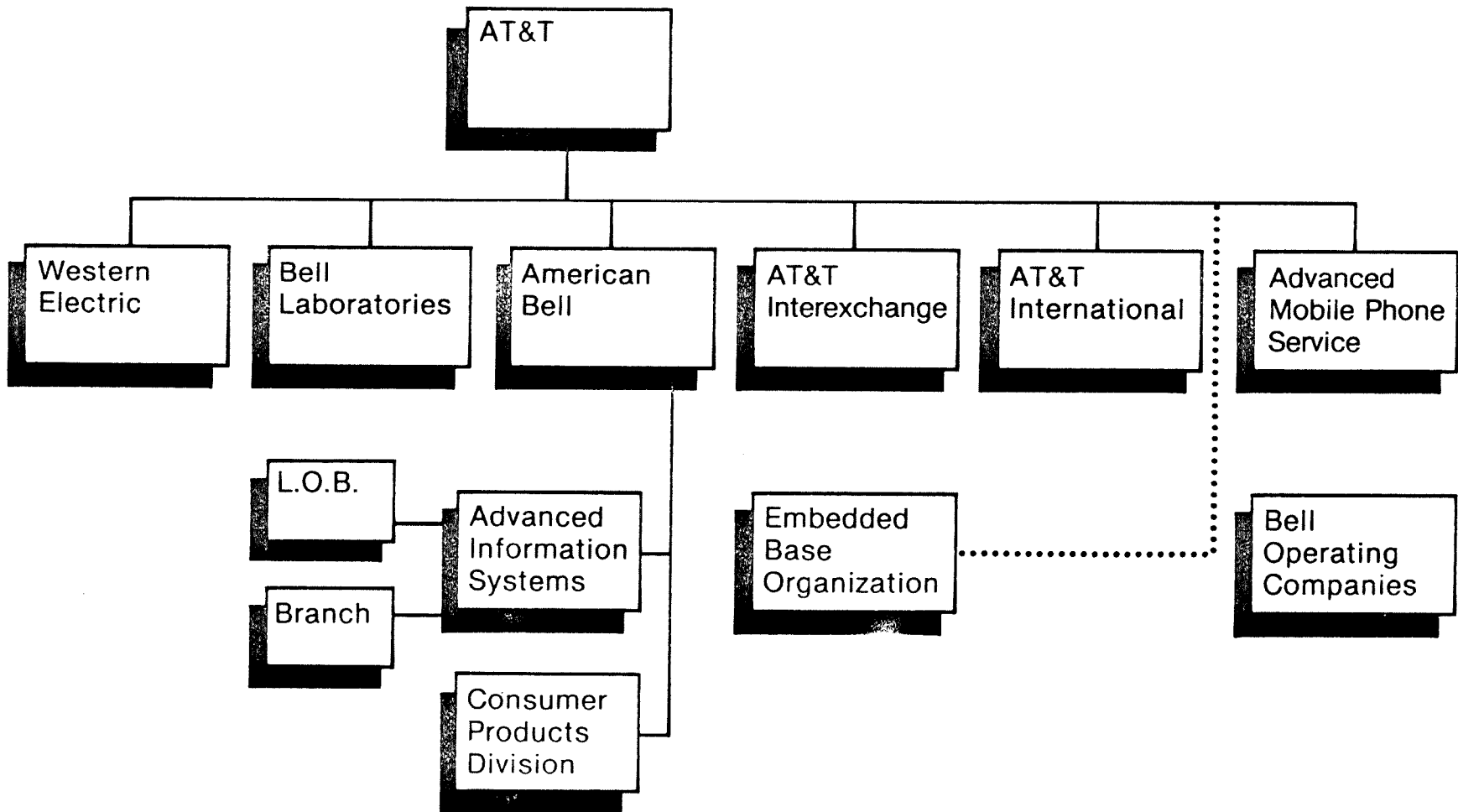
THE STATE OF KANSAS , THROUGH THE TELECOMMUNICATIONS OFFICE,  
HAS A VISION OF THE FUTURE. THEY HAVE TAKEN THE NEXT LOGICAL STEP  
AND PLANNED FOR THE FUTURE.

IF THIS PLAN BECOMES A REALITY IT WOULD REQUIRE THE EFFORTS  
OF MANY--AT&T, AMERICAN BELL, THE OPERATING COMPANIES, THE STATE  
OF KANSAS, AND MANY OTHERS.

I'M HERE TO TELL YOU THAT AMERICAN BELL STANDS READY  
TO OFFER THE PRODUCTS, SERVICES, AND SUPPORT TO GET IT DONE.  
THE UNIVERSAL AVAILABILITY OF INFORMATION SERVICES IS OUR GOAL.  
AND THE STATE OF KANSAS IS THE CUSTOMER WE AIM TO PLEASE.

# AT&T Organization 1983

---



**SENATE WAYS  
AND MEANS  
COMMITTEE  
STATE OF KANSAS**

AHD 2-21-83



A Centel Company  
535 S. Emporia, Suite 20  
Wichita, KS 67202  
Telephone 316 263 6917

February 21, 1983

Senator Paul Hess  
Chairman, Senate Ways Means Committee

Senator:

I wish to thank you for allowing Centel to testify before this committee and discuss the alternatives available in telecommunications. The information enclosed will hopefully be helpful in your consideration.

Centel had very short notice and would like the opportunity to provide additional information on our industry and the benefits to the State. Centel is available to meet at anytime with the committee, or with any member of the committee for additional information.

We believe in the free enterprise system and that the state would benefit from competitive bidding.

Again, may I thank you for this invitation. If there are any questions, please contact me.

Sincerely,

A handwritten signature in blue ink that reads "W. D. Davenport". The signature is written in a cursive style.

W.D. Davenport  
Vice President

**A Centel Company**  
**5426 S. 94th E. Avenue**  
**Tulsa, OK 74145**  
**Telephone 918 663-7680**

**CENTEL**

July 8, 1982

Mr. Laurence J. Kunkel  
Director Telecommunications, Room 240  
503 Kansas Avenue  
Topeka, Kansas 66603

Dear Mr. Kunkel:

On behalf of Centel Communications Company, I have reviewed the State of Kansas Telecommunications System Implementation Plan. Centel Communications Company has the capability to engineer, install and service the total system proposed by your Plan. I have included two copies of the Centel Annual Report, Centel Business Systems Brochure and Bell-Northern Research booklet on fiber optics. The first two are to provide general information about our company, its financial resources, and technical capabilities. The third booklet confirms some of the fiber optics information included in the plan.

Centel's primary business is the design, implementation and operation of telephone systems. We do not manufacture any switching equipment, but do have agreements with several major manufacturers and numerous vendors. This enables us to select the best equipment for the particular requirement.

I found the State of Kansas Telecommunications Systems Implementation Plan to be one of the most comprehensive Telecommunications Plans I have ever seen. The "State of the Art" systems and hardware discussed are realistic for the time frame envisioned. Growth potential provided in the back-bone network should provide for any advancements in data automation, thus making it a viable system through 1995.

The following comments concerning the Systems Requirements are offered for your consideration and in support of the Plan:

1. A Systems Numbering Plan should be addressed either by the State or be one of the requirements for a System Proposal. A numbering plan and the dialing requirements in a network have a lot to do with the "User Friendliness" of the System.
2. The DID numbers needed in each area, should be considered in advance to be sure that they will be available. The maximum use of direct station dialing should be provided to reduce operator service requirements.
3. I don't recall a reference to a Directory Information System. These systems are normally an outboard computer storage and retrieval system. They are very helpful in reducing operator time, maintaining current information, and printing new directories. This may even be combined with a system for station equipment records.





4. There was no mention of Automatic Call Distribution (ACD) Systems. These would be required for agencies with a large volume of calls from the public. ACD systems can be supplied as part of the telephone switch or as a separate system.
5. There weren't many details on what is to be expected of Call Detail Recording, both for network calls and long distance calls off net. It is my understanding that the intentions would be to charge back cost to the using agency. How the Call Detail Recording is set up and information processed would have a big impact on your ability to bill back to the user.
6. Issuing a Bond for the total cost in advance would enable the State to make progress payments to a System Contractor. On major projects such as this, Centel must figure money cost in pricing. Progress payments could reduce or eliminate this cost.
7. It is noteworthy that the Plan did not over-emphasize system or station features. Features are available in the modern electronic switch which can help improve office and system efficiency, but in so many solicitations and proposals they are over-emphasized.
8. The automatic diagnostics of switch systems, which can be remotely accessed, and remote monitoring of transmission systems are essential for viable technical control functions.
9. The integral traffic information gathering capability of the major switches will be an important consideration for network management.

I hope that you will find at least one or two of my suggestions helpful. Centel would like to have the opportunity to offer a good cost effective proposal for the State of Kansas Telecommunications System.

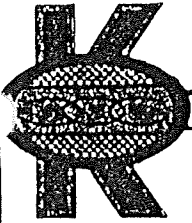
Once again I compliment you on your comprehensive plan and appreciate the opportunity to review it.

Sincerely,

  
James J. Dunlap  
Director Systems Marketing

JJD:men

Enclosures



# KANSAS DEPARTMENT OF CORRECTIONS

JOHN CARLIN — GOVERNOR

PATRICK McMANUS — SECRETARY

KANSAS STATE PENITENTIARY  
P.O. BOX 2 • LANSING, KANSAS • 66043  
• 913-727-3235 •

GARY RAYL - DIRECTOR

January 14, 1983

Mr. David Eis, CENTEL  
535 S. Emporia, Suite 20  
Wichita, Kansas 67202

Dear Mr. Eis

I would like to take this opportunity to express my appreciation for the superb performance you exhibited while being responsible for the installation of the new telephone system at the Kansas State Penitentiary. The task required the installation of the system in an Institution encompassing several acres.

The switch from the antiquated Telephone to the new system installed by your company was accomplished smoothly and the installation itself was expertly done. This task was accomplished by your cooperation, attitude and expertise. You liaised with each and every supervisor and employee, you constantly advised the Director on the progress of the job, and you represented your company in a thoroughly competent and professional manner.

Please accept my sincerest appreciation for a demanding job extremely "WELL DONE."

Sincerely,



Gary Rayl  
Director

Copy to: Mr. Gary Tefft  
CENTEL



INSURANCE  
MANAGEMENT  
ASSOCIATES, INC.

600 IMA PLAZA  
250 NORTH WATER  
WICHITA, KANSAS 67202

316-267-9221  
TWX 910-741-6997

February 14, 1983

Centel Business Systems  
A Centel Company  
535 South Emporia, Suite 20  
Wichita, KS 67202

Attn: Mark O. Bartlett

Dear Mark:

Just a note to let you know how pleased we are with our new telephone installation. As you know, there have been some minor problems, but our installation crew consisting of Leonard Kryston, Doug Nixon and Dan Pogue were easy to work with and most helpful.

Consequently, we have given very favorable references to potential new customer inquiries, and hope this will generate new business for a great team.

Again, thanks for all your help.

Sincerely,

Kay Barrett

KB:ml-1/U2



*The* COLEMAN COMPANY, INC.

*General Offices* · WICHITA, KANSAS 67201  
AREA CODE 316-261-3211

SHELDON COLEMAN  
CHAIRMAN  
GENERAL MANAGER

January 16, 1981

Mr. Walter Hinkle  
Fisk Telephone Systems, Inc.  
535 So. Emporia  
Wichita, KS 67201

Dear Walter:

Congratulations to you and your local organization on the successful installation of the Coleman Company's SLI telephone system. I know that everyone joins me in recognizing all of you for a job well done.

The decision to compete with "Ma Bell" is a tough one that carries a lot of responsibility, challenge, and opportunity. The "track record", so far, gives me every confidence that you and your group will move mountains to ensure that all Coleman Company systems are maintained with excellence and skill from this date forward.

Sincerely,

A handwritten signature in cursive script that reads "Sheldon Coleman".

Sheldon Coleman



*The* COLEMAN COMPANY, INC.

*General Offices*

P.O. BOX 1762  
WICHITA, KANSAS 67201  
AREA CODE 316 261-3211

December 29, 1982

Mr. Leonard Kryston  
Centel Inc.  
535 So. Emporia, Suite 20  
Wichita, Ks 67202

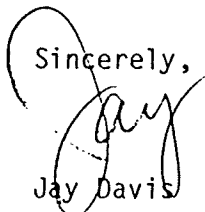
Dear Leonard:

As you know, we will complete the second year of operation on the SL1 system early in January. It has certainly been a quick two years with very satisfactory performance from the telephone system. You and the other service techs have played a key role in that performance.

Sheldon Coleman wrote Walter in January, 1981. In that letter he mentioned the dedication required to successfully compete with "that other company". You and your service associates have responded to our needs with that high degree of dedication - more than just doing a job. We appreciate your efforts in doing a good job for us and doing a good job for your company.

Best wishes for a 1983 that has trouble-free circuit packs, rectifiers, and touch-tone pads.

Sincerely,

  
Jay Davis

 Cessna<sup>®</sup> AIRCRAFT COMPANY

Wichita, Kansas 67201

PAWNEE DIVISION

June 22, 1981

Mr. Walter Hinkle  
Fisk Telephone Systems, Inc.  
535 South Emporia, Suite 20  
Wichita, KS 67202

Dear Walter:

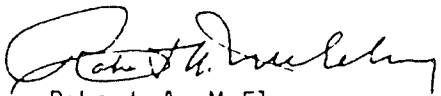
Thank you for your very prompt response to our needs while our telephone technician was vacationing. I was particularly impressed by 9:30 p.m. Friday call-out. Your people were located and had called me within thirty minutes. They came out and repaired the switch and were on their way one and one-half hours later. That timing would be good for week-day/daylight hours!

We also want to thank you for expediting the four card packs we needed last week. We feel a little more comfortable knowing repairs can be obtained that quickly.

Bruce will be vacationing another week beginning July 20. We will call you if we have problems. We will also be ordering SL-1 parts through you from now on.

Thanks again.

Sincerely yours,



Robert A. McElroy  
Manager, Personnel Services

csb

WICHITA FAMILY HEALTH CARE ASSOCIATES

7111 EAST 21st ST  
WICHITA, KANSAS 67206

(316) 684-2851

FAMILY PRACTICE

PAUL H. DAVIS, M.D.  
THOMAS H. HAYS, M.D.  
JED D. HOLMES, M.D.

GENERAL SURGERY  
ROBERT W. BINGAMAN, M.D.  
ALLEN D. GERBER, M.D.

ADMINISTRATOR  
J. RANDALL LINAMAN

November 10, 1981

Mr. Mark Bartlett  
Fisk Telephone Systems  
535 S. Emporia  
Suite #20  
Wichita, Kansas 67202

Dear Mark:

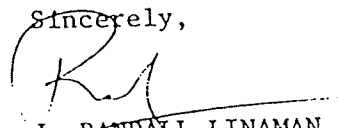
It is my desire to let you know how I feel regarding the telephone system which you sold to Wichita Health Care Associates, in June, 1981.

To date, we have been very satisfied with the performance of the equipment and its many features which have provided us with the ability to handle some of our unusual needs in a medical office. The system has been relatively trouble-free and as we have brought new people in to the group, the training which we have had to provide for new employees has been minimal, which makes the system much more workable for us.

I also must compliment your service department on their ability to take care of our needs when a minor problem arises with the system. Fortunately, there have been very few times when service has been required, but when it is required, your people have normally been able to get out that day to take care of our needs.

I think you have a good product Mark, and I wish you the best of luck and continued success in marketing the Fisk System.

Sincerely,

  
J. RANDALL LINAMAN,  
ADMINISTRATOR

JRL/bw

1

# PRATT & LAMBERT

Paints / Chemical Coatings / Adhesives  
16106 E. 13TH ST. WICHITA, KS. 67210

April 15, 1982

Mr. Gene Schecher  
Fisk Telephone Systems, Inc.  
535 S. Emporia - Suite 20  
Wichita, Kansas 67202

Dear Mr. Schecher:

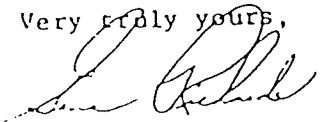
After having used our Fisk Ultracom phone system for the past five months, I thought it was time I wrote and thanked you for "delivering" as promised! We are very pleased with the Ultracom system and with the service provided by Fisk.

As you know, our installation was a rather difficult one in that we have thirty-four extension phones scattered throughout our three buildings. This necessitated running underground lines between the buildings as well as installing a paging system that could be heard and understood in our manufacturing plant. I want to compliment Leonard and Roger for the efficient and timely manner in which they accomplished this installation.

We have found the Ultracom system to be very trouble free and easy to operate. On the few occasions where we have needed service, your response has been exceptional.

Based on our experience to date, we look forward to a long and mutually beneficial relationship with Fisk.

Very truly yours,



Gene Richards,  
Controller

GR:er



EYE CLINIC OF WICHITA

DR. J. A. HARRIS  
DR. J. A. HARRIS  
DR. J. A. HARRIS  
DR. J. A. HARRIS

LARRY G. KNACKSTEDT  
ADMINISTRATOR

DR. J. A. HARRIS  
DR. J. A. HARRIS  
DR. J. A. HARRIS

April 13, 1982

Mr. Mark Bartlett  
FISK TELEPHONE SYSTEMS, INC.  
535 S. Emporia, Suite 20  
Wichita, KS 67202

Dear Mark,

The Doctors and I wish to thank you for your excellent Telephone Systems Proposal made to us for the purpose of comparing two interconnect companies for our final decision on our telephone system at the Eye Clinic of Wichita.

Your proposal was excellent and I am happy to advise you that the Doctors will accept your proposal and we will have a Fisk Telephone System in our new building.

Again thank you for your interest and I will look forward to meeting with you next Wednesday, April 21, 1982, and finalizing the agreement.

Sincerely yours,



Larry G. Knackstedt,  
Administrator

jcm



### CENTEL'S OVERVIEW

For a prudent businessman to make a decision on the purchase of a telecommunications system, he must feel confident in three areas:

1. **THE COMPANY** involved must have developed a track record, be financially stable and have a pattern of growth and success worthy of his confidence.
2. **THE SERVICE** of the company must be efficient and thorough. The staff of the service organization must be competent and veterans of the industry.
3. **THE EQUIPMENT** must be dependable and capable of performing all the necessary functions. It must be easily maintained and service parts readily available.



**OUR BUSINESS:**

Centel (Central Telephone & Utilities Corporation) headquartered in Chicago provides, through its telephone operating companies, service to 1,153,000 customer lines in 10 states. Together, these operations comprise the fifth largest telephone system in the United States. Its subsidiary, Centel Communications Company, is comprised of three groups: Business Systems, Communications Products and Video Services.

**The Business Systems group is the largest independent marketer of telephone systems in the United States.** Communications Products handles selected proprietary products, acoustical enclosures for telephone, data communications testing equipment, and the distribution of telecommunications equipment and materials.

In addition, the company is a national wholesale distributor of communications equipment and supplies through its supply division. Video Services, through its cable television companies, serves over 115,000 households in six states. Through Centel Videopath the company will provide a network to interconnect cable-TV systems. Centel also has electric companies in Colorado and Kansas.

RESEARCH COMMENT: 3019  
 DECEMBER 10, 1982  
 ROSEMARY M. AVELLIS

CENDEL CORPORATION (CNT-NYSE)  
 UPDATE

INTERMEDIATE OPINION: OK TO BUY (2)  
 LONG TERM OPINION: OK TO BUY (2)

RECENT PRICE: 35 1/4

52 WEEK RANGE. 37 3/8 - 27 3/8

EARNINGS PER SHARE		
1981	1982E	1983E
\$3.87	\$4.00	\$4.60-\$4.65

P/E RATIO		IND.	ANNUAL
1982E	1983E	DIV.	YIELD
8.8X	7.6X	\$2.26	6.4PC

SHARES OUTSTANDING: 26.94 MIL.  
 MARKET VALUE: \$969.8  
 BOOK VALUE/SHARE: \$ 23.83

LT DEBT PC OF CAPITAL: 54.8PC  
 RETURN ON AUG 82 EQUITY: 16.5PC  
 EST. 5 YR. EPS GROWTH: 12.0PC

SUITABILITY: GOOD QUALITY  
 INDUSTRY CLASS: UTILITIES/  
 COMMUNICATIONS

INVEST. CHARACTER: DEFENSIVE GROWTH  
 OPTIONS: NONE

SUMMARY:

CENDEL CORPORATION'S EARNINGS PER SHARE HAVE BEEN GROWING AT A 9.8PC ANNUAL COMPOUNDED RATE FOR THE PAST THREE YEARS COMPARED WITH THE INDUSTRY AVERAGE OF 2PC. THE COMPANY HAS BEEN ACTIVE IN SEEKING OPPORTUNITIES IN NON-REGULATED AREAS. IN 1981, REVENUES FROM THE NON-REGULATED SUBSIDIARIES ACCOUNTED FOR 24PC COMPARED WITH 15PC IN 1977. WE ESTIMATE THAT REVENUES FROM NON-REGULATED OPERATIONS WILL ACCOUNT FOR 28PC OF TOTAL REVENUES IN 1982 AND 33PC IN 1983. ALTHOUGH COMMUNICATIONS PRODUCTS SALES TO REGULATED AFFILIATES ARE EXPECTED TO LAG, SALES TO NON-REGULATED CUSTOMERS SHOULD SHOW A 40PC GAIN. CENDEL BUSINESS SYSTEMS, ONE OF THE NATION'S LARGEST MARKETER AND DISTRIBUTOR OF BUSINESS COMMUNICATION SYSTEMS SHOULD SHOW CONTINUED GROWTH OF 30PC TO 35PC IN REVENUES OVER THE LONGER TERM. AT THE END OF THE THIRD QUARTER OF 1982 THE BUSINESS SYSTEM'S BACKLOG WAS \$65 MILLION. IN ADDITION, THE COMPANY HAS BEEN ACTIVELY EXPANDING ITS CABLE TELEVISION OPERATIONS. EARLIER THIS YEAR, CENDEL VIDEOPATH BEGAN OPERATING IN THE CHICAGO AREA. THE TWO-WAY SYSTEM, WHICH INTERCONNECTS CABLE TELEVISION COMPANIES (THEREBY ENABLING THEM TO EXCHANGE PROGRAMS) AND ALSO OFFERS REGIONAL ADVERTISING VIDEO CONFERENCING AND DATA TRANSMISSION IS EXPECTED TO BE EXPANDED TO OTHER METROPOLITAN AREAS OF THE UNITED STATES. THE COMPANY'S CABLE TELEVISION CUSTOMERS HAVE GROWN FROM 12,000 IN 1978 TO 148,425 IN THE THIRD QUARTER OF THIS YEAR. CENDEL FORMED A JOINT VENTURE WITH HONEYWELL AND FIELD ENTERPRISES, KEYCOM ELECTRONIC PUBLISHING, WHICH PROVIDES VIDEOTEX AND TELETXT SERVICES TO CONSUMER MARKETS. IN NOVEMBER, KEYCOM ELECTRONIC PUBLISHING ALONG WITH SATELLITE SYNDICATED SYSTEMS INC. BEGAN PROVIDING THE FIRST NATIONAL TELETXT MAGAZINE VIA THE VERTICAL BLANKING INTERVAL OF ATLANTA TELEVISION STATION WTBS'S SATELLITE SERVICE. THE SERVICE IS AVAILABLE TO CABLE AND SATELLITE MASTER ANTENNA TELEVISION SYSTEMS UNDER THE NAME KEYFAX. IN OUR OPINION, EARNINGS FROM NON-REGULATED OPERATIONS WILL PLAY A MAJOR ROLE IN CENDEL'S PROFITABILITY.

(MORE)

1ST ADD-RSCH. COMMENT-- CENTEL CORPORATION

THE REGULATORY CLIMATE IS CONSIDERED TO BE ABOUT AVERAGE IN THE STATES IN WHICH CENTEL HAS ITS MAJOR TELEPHONE AND ELECTRIC PROPERTIES. THE COMPANY WAS GRANTED RATE INCREASES TOTALING \$30.4 MILLION IN 1981. RATE FILINGS OF \$34.8 MILLION ARE PENDING TO DATE WHILE A TOTAL OF \$21.9 MILLION RATE INCREASES HAVE BEEN GRANTED THUS FAR IN 1982.

THE ESTIMATED \$250 MILLION CAPITAL EXPENDITURES SHOULD BE FINANCED THROUGH INTERNAL FUNDING IN 1982.

CENTEL CORPORATION PROVIDES PROSPECTS FOR ABOVE AVERAGE EARNINGS PER SHARE GROWTH COUPLED WITH MODERATE GROWTH IN DIVIDENDS PER SHARE. EARNINGS PER SHARE SHOULD RISE BY ONLY 3PC IN 1982 AS A RESULT OF A SLUGGISH ECONOMY AND 15PC IN 1983. OVERALL, WE BELIEVE THE COMPANY CAN SUSTAIN LONG TERM GROWTH OF EARNINGS PER SHARE AT A RATE OF 12PC ANNUALLY OVER THE NEXT FIVE YEARS.

REASONS FOR RECOMMENDATION:

1. EXPECT EPS TO RISE 15PC IN 1983.
2. COMPANY SHOULD GENERATE ALL OF ITS CAPITAL NEEDS INTERNALLY IN 1982 AND 1983.
3. COMPANY HAS BEEN AND SHOULD CONTINUE TO BE A LEADER IN THE COMMUNICATIONS FIELD.

COMPANY DESCRIPTION:

CENTEL CORPORATION IS A DIVERSIFIED TELECOMMUNICATIONS COMPANY OPERATING THE FIFTH LARGEST TELEPHONE SYSTEM THROUGH ITS TELEPHONE OPERATING COMPANIES. ON SEPTEMBER 30, 1982, THE COMPANY SERVED 1.2 MILLION CUSTOMER LINES IN 10 STATES. CENTEL HAS A 7PC MINORITY PARTNERSHIP IN MOBILE TELEPHONE WITH AT&T IN CHICAGO, AND A 10.5PC MINORITY PARTNERSHIP WITH GTE IN HOUSTON. THE COMPANY HAS FILED IN THE SECOND 3 OS MARKETS AND PLANS TO FILE IN THE THIRD 3 OS MARKETS. CENTEL COMMUNICATIONS COMPANY, A SUBSIDIARY, IS COMPRISED OF THREE GROUPS. THE BUSINESS SYSTEMS GROUP IS THE LARGEST INDEPENDENT MARKETER OF TELEPHONE SYSTEMS IN THE UNITED STATES. THE COMMUNICATIONS PRODUCTS GROUP, THROUGH ITS SUPPLY DIVISION, IS A NATIONAL DISTRIBUTOR OF TELECOMMUNICATION EQUIPMENT AND SUPPLIER TO THE TELEPHONE AND CABLE TELEVISION INDUSTRIES. IN ADDITION, THE GROUP MARKETS TELEPHONE ENCLOSURES AND DATA COMMUNICATIONS TESTING EQUIPMENT. THE VIDEO SERVICES GROUP, THROUGH ITS CABLE TELEVISION COMPANIES, SERVES OVER 150,000 HOUSEHOLDS IN SEVEN STATES. THROUGH CENTEL VIDEOPATH THE COMPANY WILL PROVIDE A REGIONAL NETWORK TO INTERCONNECT CABLE-TV SYSTEMS. CENTEL ALSO PROVIDES ELECTRICITY TO 132,377 CUSTOMERS IN COLORADO AND KANSAS AND WATER TO MORE THAN 8,000 CUSTOMERS IN KANSAS.

BUSINESS TRENDS:

THE SOURCES OF INCOME FROM OPERATIONS ARE:

	1981	EST. 1982	EST. 1983
TELEPHONE	82PC	83PC	80PC
COMMUNICATIONS	9	8	11
ELECTRIC	9	9	9
	100PC	100CP	100PC

(MORE)

2ND ADD-RSCH. COMMENT— CENTEL CORPORATION

CURRENT OUTLOOK:

EARNINGS PER SHARE ROSE BY 12PC IN 1981 AS A RESULT OF RATE INCREASES GRANTED THE TELEPHONE AND ELECTRIC OPERATIONS AND RECORD SALES IN THE COMMUNICATIONS SECTOR. WE EXPECT 1982 EARNINGS PER SHARE OF \$4.00, A 3PC RISE OVER THE \$3.89 REPORTED IN 1981. THE SLOWER RATE OF GAIN IS DUE TO LOWER GROWTH IN CUSTOMER LINES SERVED, ADVERSE WEATHER CONDITIONS AND A WEAK ECONOMIC ENVIRONMENT. AN UPTURN IN THE ECONOMY EXPECTED IN 1983, CONTINUED RECORD SALES IN THE COMMUNICATIONS GROUP AND RATE RELIEF SHOULD BOOST EARNINGS PER SHARE BY 15PC TO THE \$4.60-4.65 LEVEL.

DIVIDENDS:

CENTEL'S DIVIDEND PAYOUT RATIO HAS BEEN IN THE 55-TO-60PC RANGE IN RECENT YEARS. WE BELIEVE THE COMPANY WILL CONTINUE TO INCREASE ITS DIVIDEND IN LINE WITH EARNINGS GROWTH, CENTEL'S DIVIDEND HAS BEEN GROWING AT A COMPOUNDED RATE OF 7.3PC FOR THE PAST THREE YEARS. THE DIVIDEND WAS RAISED TO \$2.26 PER SHARE IN DECEMBER 1982. WE EXPECT THE DIVIDEND TO BE INCREASED TO \$2.32 A SHARE BY YEAR-END 1983. THE COMPANY HAS A DIVIDEND REINVESTMENT PLAN WHEREBY EXISTING SHAREHOLDERS MAY REINVEST THEIR COMMON STOCK DIVIDENDS AUTOMATICALLY AND MAY MAKE OPTIONAL CASH PURCHASES OF SHARES IN AMOUNTS OF UP TO \$5,000 A QUARTER.

TECHNICAL COMMENT:

STOCK:	CNT		
NEAR TERM TREND:	UP	SEVEN WEEK RANK:	24
MEDIUM TERM TREND:	UP	FIFTEEN WEEK RANK:	44
LONG TERM TREND:	UP	THIRTY WEEK RANK:	40
INITIAL SUPPORT:	33-34		
SECOND SUPPORT:	31 AREA		
INITIAL RESISTANCE:	37-39		
SECOND RESISTANCE:	41-43		

SUMMARY: CENTEL IS TRADING WITHIN A PRIMARY UPTREND. ALTHOUGH NEW UPLEGS CAN DEVELOP SOME IMPROVEMENT IN RELATIVE STRENGTH WOULD BE NEEDED BEFORE A NEW SUSTAINED UPTREND CAN DEVELOP.

GEORGE CONSTANTINE

MERRILL LYNCH, PIERCE, FENNER AND SMITH, INCORPORATED (MLPF&S) TRADES FOR ITS OWN ACCOUNT AS AN ODD-LOT DEALER, MARKET MAKER, BLOCK POSITIONER AND/OR ARBITRAGEUR, AND IT MAY HAVE EITHER A LONG OR A SHORT POSITION IN THIS SECURITY WHICH MAY BE PARTIALLY OR COMPLETELY HEDGED.

SEC. RSCH.

\*\*\*\*\*

THIS RESEARCH COMMENT WILL BE REPRODUCED AS HARD COPY AND MAILED TO THE

THE APPROPRIATE ARMS LIST. 733 / 730 / 002 / 001 /

\*\*\*\*\*



ENCLOSED is the following CUSTOMER LIST from CENTEL:

1. State and Local Government
2. Financial Institutions
3. Revised "Big Name" Customers

STATE AND LOCAL GOVERNMENT



<u>Customer</u>	<u>Seller</u>	<u>City/State</u>	<u>System</u>	<u>Size</u>
Albermarle County	CV	Virginia	Digital	25/st
Alsip Park District	M	Alsip, IL	TIE 1236	6/10
Austin Police Dept.	F	Austin, TX	SL-1	345 st
Avon City Govt.	CO	Lorain, OH	TIE 1236	8/16
City of Des Plaines	M	Des Plaines, IL	SL-IVLE	40/200
City of Charlottesville	CV	Charlottesville, VA	SL-ILE	25/260
City of Austin	F	Austin, TX	SL-IA	12/40
City of Owasso	F	Owasso, TX	TIE, II	24 st
City of Park Ridge	M	Park Ridge, IL	Digital	11/87
City of St. Louis (Water)	M	St. Louis, MO	TIE 2260	12/38
City of Galesburg	M	Galesburg, IL	ROLM	32/167
City of West Plains	CM	West Plains, MO	TIE 2260	8/12
City of West Plains	CM	West Plains, MO	TIE 820	5/10
City of LeMars	CM	LeMars, IA	TIE 300	10/11
City of Lakeville	CM	Lakeville, MN	SD-192	7/21
Hickory City Hall	CNC	Hickory, NC	SG-1	
Hickory Fire Dept.	CNC	Hickory, NC	Entel	6/20
Hickory, Cty. Pub. Works	CNC	Hickory, NC	TIE 1236	26 st
Hickory Police Dept.	CNC	Hickory, NC	TIE 2260	16/46
Jefferson Cty. Cthouse	F	Littlerock, AK	ROLM	100 st
Mt. Airy City Hall	CNC	Mt. Airy, MN	TIE 300	16/46
Nobles County Cthouse	CM	Minnesota	GTD-120	12/52
Orange County	CNC	Hillsborough, NC	ROLM	24/288
Person County Cthouse	CNC	Roxboro, NC	SD-192	12/64
Patrick County, Soc Serv.	CV	Virginia	TIE 300	4/18
Randolph City Office	CNC	Asheboro, NC	ROLM	52/176
Randolph City Office	CNC	Asheboro, NC	ROLM	24/80
Rockbridge Soc. Serv.	CV	Lexington, VA	TIE 300	5/23
Texas Dept. Human Res.	F	Houston, TX	SL-1(6)	180st ea
Vermillion City Govt.	CO	Lorain, OH	Digital	8/28

Sellers Key:

F: Fisk  
M: Midwest  
CSE: Southeast  
CV: Centel-Virginia  
CNC: Centel-North Carolina

CT: Centel-Texas  
CO: Centel-Ohio  
CM: Centel-Minnesota/IA  
W: Western

## Commercial Banks/Savings and Loans

1. Only those banks who purchased a system from Centel Business Systems in excess of 70 stations are included.
2. Seller Key:

CSE: Southeast

M: Midwest

F: Fisk

W: West

CFL: Centel - Florida

CV: Centel - Virginia

CT: Centel - Texas

CO: Centel - Ohio

CM: Centel - Minnesota

CNC: Centel - North Carolina

<u>Customer</u>	<u>Seller</u>	<u>City/State</u>	<u>System</u>	<u>Size</u>
American National Bank	M	Waukegan, IL	SL-IA	17/100
American Bank	F	Baton Rouge, LA	ROLM	260 st
Amer. Bank of Commerce	W	Las Vegas, NV	SD 192	72 st
American Bank & Trust	F	Baton Rouge, LA	ROLM	300 st
Austin National Bank	F	Austin, TX	ROLM	600 st
Barnett Bank	CSE	Palm Beach, FL	Call Seq.	-
Broadway Bank	F	San Antonio, TX	ROLM	189 st
Capitol City 1st Nat'l.	CFL	Tallahassee, FL	ROLM	32/157
Charter Bank	M	Webster Grove, MO	SL-l	11/72st
Citizen's Nat'l. Bank	F	Austin, TX	ROLM	100 st
Citizen's Nat'l. Bank	F	Dallas, TX	ROLM	100 st
Citizen's Nat'l. Bank	F	Abilene, TX	ROLM	160 st
Continental Bank	F	Ft. Worth, TX	ROLM	400 st
Erie County Bank	CO	Lorain, OH	Digital	11/88
First City Bank	CT	Humble, TX	SL-1M	20/96
First Homestead Bank	F	New Orleans, LA	ROLM	242 st
First National Bank	F	Okmulgee, OK	ROLM	87 st
First National Bank	CFL	Tallahassee, FL	ROLM	157 st
First National Bank	M	Freeport, IL	SL-IA	17/100
First Western Savings	W	Las Vegas, NV	ROLM	212 st
Federal National Bank	F	Tulsa, OK	ROLM	110 st
Federal Reserve Bank	F	San Antonio, TX	ROLM	96 st
Fidelity National Bank	F	Baton Rouge, LA	ROLM	400 st
Guaranty Bank	F	Dallas, TX	ROLM	150 st
Houston Teacher's Credit	F	Houston, TX	ROLM	190 st
Nellis AFB Credit Union	W	Las Vegas, NV	SD 192	85 st
Northwestern Bank	CNC	Wilkesboro, NC	SL-IVLE	908 st
Northwest Fed. Savings	M	Des Plaines, IL	SL-IA	41/100
Pan American Bank	CSE	Miami, Florida	Call Seq.	-
Pulaski Federal S & L	F	Little Rock, AR	ROLM	145 st
Security Svcs. Credit	F	San Antonio, TX	ROLM	125 st
Tallahassee Federal S & L	CFL	Tallahassee, FL	SD 192	20/116
Turn City Bank	F	Little Rock, AR	ROLM	200 st
United American Bank	F	Tennessee	ROLM	832 st
Union Bank	F	Houston, TX	ROLM	92 st
Worthem Bank	F	Little Rock, AR	ROLM	750 st

## Centel Business Systems

### Customer Lists

#### Explanations:

1. Numbers appearing after a customer's name show the Fortune ranking of the customer as compared to other businesses of a similar nature (eg. under the heading of Diversified Financial, the 22 appearing after E. F. Hutton translates to E. F. Hutton being the 22nd largest Diversified Financial company in the U.S.)
2. Forbes lists all U.S. businesses (according to total assets) rather than segmenting by industrial type. A list of our customers by Forbes ranking is provided.
3. Also attached is a list of our Industrial customers by their Fortune Top 500 rankings (in addition to an alphabetical list).
4. The lists are designed to include only those customers who purchased a complete system.
5. Selling companies, when known, are shown in parentheses following the customer.

#### Seller's Key

CSE = Centel Southeast	CVA = Centel Virginia
F = Fisk	CM = Centel MN/IA/MO
M = Midwest	CO = Centel Ohio
CFL = Centel Florida	CT = Centel Texas
CNC = Centel North Carolina	

INSURANCE COMPANIES

Aetna Life (4) (F)  
(N) Allstate (50)  
American National (30)  
Banker's Life & Casualty (12) (F, M)  
Equitable Life Assurance (3) (M)  
Franklin Life Insurance (28)  
Hartford Insurance (F)  
Home Life (37) (M)  
John Hancock (6) (M, CT)  
Mutual of New York (13) (F)  
New York Life Insurance (5) (M, F, CV, CFL)  
Northwestern Mutual Life (9) (M, CV)  
Penn Life (18) (F)  
Prudential (1) (F, CT)  
Southwestern Life (42) (CT)  
State Farm (19) (M, CV, CO, W)

(Ranked by assets)

UNIVERSITIES/COLLEGES

Amarillo College (Texas) (F)  
Belmont College (Nashville, Ten) (F)  
Central Texas College (F)  
Concordia College (Austin, TX) (F)  
Covenant College (Tennessee) (F)  
Claremore Junior College (Claremore, OK) (F)  
Dallas Christian College (F)  
Hebrew Theological College (IL) (M)  
Northern Oklahoma College (F)  
Northwestern College (Iowa) (CM)  
Northwestern (Oklahoma) (F)  
Oakton Community College (Des Plaines, IL) (M)  
Oklahoma Baptist University (Tulsa, OK) (F)  
Southwestern Union College  
St. Gregory's College (Tulsa, OK) (F)  
Truman College (Chicago) (M)  
University of Arkansas - Law

TRANSPORTATION

American Airlines (6) (F)

Budget Rent-A-Car (W)

Federal Express (36) (M)

Greyhound (CFL)

Hertz (M, CT, CFL)

Mexicana Airlines (F)

National Car Rental (M)

Ryder Truck Rental (F)

Trailways (F)

United Parcel Service (5) (F)

(Ranked by Operating Revenues)

## LODGING

Aladdin Hotel (Las Vegas) (W)

Dunes Hotel (Las Vegas) (W)

Econo - Travel (CFL)

Hilton Inns (F, W)

\*Holiday Inns (24) (W, F, CNC, CT)

\*Marriott (32) (M, CNC, CSE)

MGM Grand Hotel (Las Vegas) (W)

Ramada Inns (F, M)

Rodeway Inns (F)

Sahara Hotel (Las Vegas) (W)

Sheraton (M)

Union Plaza (Las Vegas) (W)

\*(NOTE: These number rankings compare Holiday Inns and Marriott to other Retail companies. Fortune considers Hotels/Motels to be retail agencies, but I've listed these companies separately under lodging.)

## UTILITIES

Arkansas Power & Light (F)

Duke Power (15) (CNC)

Florida Power & Light (17) (CSE)

Carolina Power & Light (21) (CNC)

Nevada Power (W)

Houston Industries (18) (F)

Southwest Gas (W)

(Ranked by assets)



## RETAIL

A & P (CV)

Carson's (M)

Eckerd's (35) (F)

J. C. Penney (4) (F, CV, W, CT)

Jewel (14) (M)

K Mart (3) (CNC, CV)

Kroger (5) (M, CV, CO)

Lord & Taylor (F)

Marshall-Fields (45) (F)

Montgomery Wards (12) (CM, F)

Revco (41) (CT, CO)

Safeway (2) (F, CV, CT)

Sears (1) (CM, CSE, CT, CFC, M, CNC)

Southland (13) (F)

Spiegel (M)

Tandy Corp (37) (F)

Walgreens (36) (CT)

Wal-Mart (30) (F, CT)

Wickes Companies (W)

Woolworth's (6) (CT)

Zales (34) (F, W, CT)

(Ranked by sales)

COMMERCIAL BANKS

Barnett Banks (46) (CFL, CSE)

Citicorp. (2) (M)

Federal Land Banks (CM, M, CNC)

Federal Reserve Banks (F)

(N) Union Bank (32) (F)

(N) Wells-Fargo (12) (W, F)

(Ranked by assets)

Diversified Financial

A. G. Edwards (F)

Bache Group (29) (F)

(N) Beneficial (18) (F)

Continental (16) (F)

Dean, Witter Reynolds (CSE)

E. F. Hutton (22) (W)

Ernst & Whinney (M)

Ford Motor Credit (CO, W)

Household Finance Corp. (21) (M)

Kemper (34) (M)

Merrill Lynch (5) (W, CFL, M, F)

Paine Webber (38) (F)

Shearson, Loeb, Rhoades (F)

USLIFE (F)

(Ranked by assets)

OTHER SERVICES

Boy Scouts (CO, F)

Dallas Symphony Orchestra (F)

Girl Scouts (CNC, CO, F)

Goodwill Industries (CT)

I.B.E.W. (F)

National Easter Seals (M)

Playboy Enterprises (M)

Snelling & Snelling (M)

U.A.W. (F)

U.P.I. (F)

Y.M.C.A. (CNC, F)

## INDUSTRIAL COMPANIES

Allis-Chalmer (188) (M)  
American Can (81) (F)  
American Hoechst (225) (M)  
American Motors (162)  
Atlantic Richfield (10)  
Bausch & Lomb (433) (M)  
Baxter Travenol Labs (239) (M)  
Bell & Howell (393) (M)  
Bendix (86) (F)  
Bethlehem Steel (47) (F)  
Boise Cascade (143) (CNC, F)  
Burlington Industries (132) (CV)  
Burroughs (128) (F)  
Campbell Soups (153) (F)  
Cargill, Inc. (M)  
Carnation (121)  
Central Soya (199) (CM)  
Coca Cola (58) (CNC, W, CM)  
Dart-Kraft (29) (M)  
du Pont (12) (CV,CT)  
Eastman Kodak (28) (F)  
Eaton Corp. (139) (CM, M, F)  
Exxon (1) (F, M)

FMC (109) (W, M)  
Ford Motors (6)  
GAF (403) (M)  
GATX (278) (M)  
General Electric (11) (M)  
General Mills (80) (M, CV)  
Getty Oil (23) (F)  
Georgia-Pacific (67) (CT)  
Gould (179) (F)  
Greyhound (82) (CFL)  
Gulf Oil (9) (F, CT)  
Hart, Schaffner & Marx (357) (M)  
Heublin (227) (M)  
Honeywell (69) (F)  
Hormel's (247) (CM)  
IBM (8) (W, M, F, CV)  
International Harvester (46) (M)  
International Paper (77) (M)  
Illinois Tool Works (498) (M)  
Johnson Controls (291) (M)  
Johnson & Johnson (68) (M)  
J. P. Stevens (189) (CV)  
Land-o-Lakes (115)  
Lipton, TJ (352) (M)  
Litton Industries (79) (F)

Lone Star Industries (328) (M)  
McDonnell Douglas (45) (M)  
McGraw Edison (168) (F)  
Mead Containers (146) (CM)  
Mid-America Dairymen (283) (CM, M)  
Motorola (126) (F, M)  
Nabisco Brands (60) (M)  
National Can (223) (M)  
NCR (116) (F)  
Owens-Illinois (98) (W)  
Pepsico (49) (W, F)  
PPG (122) (M)  
St. Regis Paper (151) (F)  
Scott Paper (176) (F)  
Shell Oil (13) (F)  
Sherwin-Williams (231) (CV, F, CT)  
SOHIO (21)  
Square D (289) (M)  
Standard Oil of Indiana (7) (M)  
Tenneco (16) (F)  
Texaco (4) (F)  
Trane (359) (F)  
TRW (71) (F)  
Union Carbide (30) (CNC, CO)  
Union Oil (27) (W, M, F)  
U. S. Steel (19) (CO)  
Vulcan Materials (367) (F)

Warner Communications (135) (CFL, M, F)

Westinghouse (34) (F)

Xerox (42) (M)

Zenith (269) (M)

(Fortune rankings based on total sales).



CENTEL BUSINESS SYSTEM CUSTOMERS

FURTUNE TOP 50 EXPORTERS

RANKED BY TOTAL EXPORTS\*

<u>RANK</u>	<u>CBS CUSTOMER</u>
3	General Electric
4	Ford Motors
6	du Pont
9	IBM
12	Union Carbide
13	Westinghouse
18	International Harvester
31	Exxon
42	American Motors
43	International Paper

\*(1980 Business Year)

CENTEL BUSINESS SYSTEM CUSTOMERS

INDUSTRIAL COMPANIES

RANKED BY TOTAL SALES

SOURCE: Fortune Magazine

FORTUNE TOP  
500 RANKING

CUSTOMER

1	Exxon (F, M)
4	Texaco (F)
6	Ford Motors
7	Standard Oil of Indiana (M)
8	IBM (W, M, F, CV)
9	Gulf Oil (F, CT)
10	Atlantic Richfield
11	General Electric (M)
12	du Pont (CV, CT)
13	Shell Oil (F)
16	Tenneco (F)
19	U.S. Steel (CO)
21	SOHIO
23	Getty Oil (F)
27	Union Oil (W, M, F)
28	Eastman Kodak (F)
29	Dart Kraft (M)
30	Union-Carbide(CNC, CO)
34	Westinghouse (F)
42	Xerox (M)
45	McDonnell Douglas (M)
46	International Harvester (M)
47	Bethlehem Steel (F)
49	Pepsico (W)
58	Coca Cola (W, CNC, CM)
60	Nabisco Brands (M)

67	Georgia-Pacific (CT)
68	Johnson & Johnson (M)
69	Honeywell (F)
71	TRW (F)
77	International Paper (M)
79	Litton Industries (F)
80	General Mills (M, CV)
81	American Can (F)
82	Greyhound (CFL)
86	Bendix (F)
98	Owens-Illinois (W)
109	FMC (M, W)
115	Land-o-Lakes
116	NCR (F)
121	Carnation
122	PPG (M)
126	Motorola (F, M)
128	Burroughs (F)
132	Burlington Industries (CV)
135	Warner Communications (CFL, M, F)
139	Eaton Corporation (CM, M, F)
143	Boise Cascade (CNC, F)
146	Mead Containers (CM)
151	St. Regis Paper (F)
153	Campbell Soups (F)
162	American Motors
168	McGraw-Edison (F)
176	Scott Paper (F)
179	Gould (F)
188	Allis-Chalmer (M)
189	J. P. Stevens (CV)
199	Central Soya (CM)
225	American Hoechst (M)

227	Heublin (M)
231	Sherwin-Williams (CV, F, CT)
233	National Can (M)
239	Baxter Travenol Labs (M)
247	Hormel's (CM)
269	Zenith (M)
278	GATX (M)
283	Mid America Dairymen (CM, M)
289	Square D (M)
291	Johnson Controls (F)
328	Lone Star Industries (M)
352	Lipton (TJ) (M)
357	Hart, Schnaffner & Marx
359	Trane (F)
367	Vulcan Materials (F)
393	Bell & Howell (M)
403	GAF (M)
433	Bausch & Lomb (M)
498	ITW (M)

CENDEL BUSINESS SYSTEMS CUSTOMERS BY ASSETS

SOURCE: Forbes Magazine

<u>FORBES TOP 500 RANKING</u>	<u>CUSTOMER</u>
3	Citicorp.
5	Exxon
11	Aetna Life
15	Sears
19	IBM
22	Texaco
25	du Pont
28	Ford Motors
29	Standard Oil of Indiana
32	General Electric
33	Gulf Oil
34	Shell Oil
39	Merrill Lynch
42	Tenneco
43	SOHIO
50	U.S. Steel
64	Union Carbide
69	Getty Oil
70	Eastman Kodak
79	Westinghouse
89	Xerox
90	Union Oil
93	J. C. Penney
106	K Mart
108	Duke Power
132	E. F. Hutton
135	International Paper
145	International Harvester
149	Bethlehem Steel

158	Georgia - Pacific
171	Carolina Power & Light
184	Burroughs
186	McDonnell Douglas
188	Honeywell
202	Pepsico
214	Johnson & Johnson
215	Greyhound
218	Kemper
221	American Airlines
224	Safeway
225	Litton Industries
235	Coca Cola
247	Nabisco Brands
255	NCR
267	Bendix
269	Paine Webber
275	Woolworth's
277	TRW
279	USLIFE
280	Owens - Illinois
299	PPG
311	GATX
315	American Can
320	St. Regis Paper
325	Boise Cascade
326	FMC
338	Warner Communications
352	Florida Power
379	Kroger
380	Motorola
388	Eaton Corp.
396	General Mills

397	Scott Paper
410	Burlington Industries
415	Mead Containers
440	Continental Bank
441	Centel
483	Holiday Inns
489	McGraw Edison
497	Campbell Soups



**A Centel Company  
535 S. Emporia, Suite 20  
Wichita, KS 67202  
Telephone 316 263 6917**

Customer List  
For  
The State of Kansas





AB Dick Products Co.  
of Wichita, Inc.  
400 Lulu  
Wichita, KS 67211  
267-6207  
3101  
Ultracom 8/20

Albertson Architects - Planners  
225 N. Market  
Wichita, KS 67202  
264-8315  
1121  
Ultracom 8/20

American Builders  
10817 W. Kellogg  
Wichita, KS 67209  
721-2020  
1289  
1A2

American Family Insurance  
1551 E. Pawnee  
Wichita, KS 67211  
264-2309  
1295  
EK-308

Andover City Hall  
909 N. Andover Road  
Andover, KS 67002  
733-1303  
2624  
1A2

Applied Business Systems  
721 S. Emporia  
Wichita, KS 67202  
262-6118  
1384  
Ultracom 8/20

Bendix Corporation  
1935 Midfield Road  
Wichita, KS 67277  
943-9300  
1849  
Ultracom 12/36

Betts Pest Control  
1325 North Richmond  
Wichita, KS 67203  
943-3555  
1865  
1A2

Buckley Industries  
1600 E. Murdock  
Wichita, KS 67214  
262-0425  
2252  
Ultracom 12/36

Century Plastics  
101 W. Olive  
El Dorado, KS 67042  
321-1153  
2476  
Ultracom 12/36

Cessna Finance Corporation  
3900 MacArthur  
Wichita, KS 67201  
685-5456  
2490  
Ultracom 22/60

Chandler Corporation  
5156 Industrial Park  
Halstead, KS 67056  
262-3571  
2496  
SD-192

City of El Dorado  
220 E. First Street  
El Dorado, KS 67042  
321-9100  
2631  
SD-192

Coleman Company  
250 N. St. Francis  
Wichita, KS 67201  
261-3211  
2731  
SL-1



Collins & Collins  
KSB&T Building, 14th Floor  
Wichita, KS 67202  
267-0235  
2817  
EK 516

Computer Supply  
601 West Douglas  
Wichita, KS 67213  
264-7350  
4765  
1A2

Conco, Inc.  
410-A N. St. Francis  
Wichita, KS 67202  
264-4392  
2818  
Meritor-2000

Cool-Temp Awning & Siding  
507 N. West  
Wichita, KS 67203  
943-3293  
2890  
1A2

Corporate Center Partnership  
9323 East Harry  
Wichita, KS 67207  
683-6514  
2916  
Ultracom 8/20

Crickett Alley  
3595 N. Webb Road  
Wichita, KS 67203  
687-9953  
2945  
Ultracom 8/20

Data Systems, Inc.  
731 N. Water, #2  
Wichita, KS 67203  
262-2633  
3059  
Ultracom 8/20

Dellrose Printing  
1325 E. Douglas  
Wichita, KS 67211  
267-1255  
3167  
1A2

Diamond International  
303 East Kechi Road  
Wichita, KS 67219  
838-3344  
3170  
Strata III

Ed Dunn & Sons Signs, Inc.  
4500 W. Harry  
Wichita, KS 67209  
942-1418  
3189  
Ultracom 8/20

A.G. Edwards & Sons, Inc.  
United Building, Suite 101  
Salina, KS 67401  
(913) 825-4636  
3196  
Ultracom 8/20

Dr. Rolland Enoch  
315 N. Hillside  
Wichita, KS 67214  
681-0423  
3320  
Ultracom 8/20

Eye Clinic of Wichita  
655 N. Woodlawn  
Wichita, KS 67208  
684-5158  
3338  
Ultracom 22/60

Fidelity Investment  
229 South Market  
Wichita, KS 67202  
265-2261  
3466  
SL-1M



John K. Fisher, Inc.  
2570 W. Central  
Wichita, KS 67042  
321-2820  
3462  
Ultracom 8/20

Forms Management  
214 Cleveland  
Wichita, KS 67218  
267-6333  
8451  
Ultracom 8/20

Joseph P. Galicia, M.D.  
#9 St. James Place  
Wichita, KS 67206  
685-3337  
3585  
EK 516

Goddard Medical Clinic  
216 North Main  
Goddard, KS 67052  
794-8655  
4745  
1A2

Gould Oil Company  
P.O. Box 8640  
Wichita, KS 67208  
682-5523  
3850  
Ultracom 12/36

Government Employees Credit Union  
405 East Central  
Wichita, KS 67202  
263-6171  
3852  
1A2

H & L Equipment  
11500 N. Broadway  
Valley Center, KS 67147  
772-5131  
4178  
Key Bx

Hematology & Oncology  
1035 N. Emporia  
Wichita, KS 67214  
262-4467  
3175  
Ultracom 22/60

Infectious Disease Consultants  
818 N. Emporia, Suite 305  
Wichita, KS 67214  
  
4730  
1A2

Insurance Management Assoc., Inc  
Union Center Building  
Wichita, KS 67202  
267-9221  
4742  
SD-192MX

International Flying Farmers  
2120 Airport Road  
Wichita, KS 67277  
943-4234  
4756  
EK 308

Kansas Cardiology  
933 N. Topeka  
Wichita, KS 67214  
263-5889  
5102  
Ultracom 22/60

Kansas State Penitentiary  
Highway 73  
Lansing, KS 66043  
727-3235  
5104  
SL-1LE

Kelley & Dawson  
1741 N. Broadway  
Wichita, KS 67214  
263-7201  
5170  
Ultracom 8/20



Kellogg Medical Offices  
5025 East Kellogg  
Wichita, KS 67218  
682-1534  
5171  
Ultracom 8/20

KPTS/Channel 8  
320 W. 21st Street  
Wichita, KS 67203  
838-3090  
5078  
Ultracom 12/36

Kreonite, Inc.  
710 E. 10th Street  
P.O. Box 2099  
Wichita, KS 67201  
263-1111  
5237  
Wescom 580S1

Martin, Churchill & Overman  
458 N. Market  
Wichita, KS 67202  
263-3200  
5688  
Ultracom 8/20

MBPXL  
2901 N. Mead  
Wichita, KS 67201  
832-1121  
5518  
SL-1

Mid-America Computing  
555 N. Woodlawn  
Wichita, KS 67208  
263-3841  
5821  
EK 516

Mid-America Lodging Mart  
1009 East Douglas  
Wichita, KS 67214  
262-2679  
5826  
EK 516

Mid-America Systems House  
1305 Unit One, E. Waterman  
Wichita, KS 67211  
263-8882  
5823  
Ultracom 8/20

Mid-Kansas Ear, Nose & Throat  
Associates  
310 South Hillside  
Wichita, KS 67218  
683-2838  
5830  
Ultracom 8/20

Mobil Pipe Line  
310 East Second  
Wichita, KS 67202  
267-7271  
5960  
SD-192

R.A. Munroe Attorney at Law  
425 State Street  
Augusta, KS 67010  
775-1118  
5979  
EK 308

National Electric Contractors  
Association  
320 Laura  
Wichita, KS 67212  
686-3356  
6027  
1A2

Natural Energy, Ltd.  
10817 W. Kellogg  
Wichita, KS 67209  
722-0920  
6046  
1A2

New England Life Insurance Co.  
120 N. Market, Suite 701  
Wichita, KS 67202  
265-4605  
2734  
Ultracom 12/36



New York Life Insurance Co.  
Sutton Place Building  
Wichita, KS 67202  
262-0671  
6050  
SL-1M

Nye & Associates  
221 S. Broadway  
Wichita, KS 67218  
263-5878  
6136  
1A2

Bruce B. Ochsner, M.D., P.A.  
1035 N. Emporia, Suite 215  
Wichita, KS 67214  
263-6273  
6141  
Ultracom 8/20

D.L. Palmer, M.D.  
& Associates, P.A.  
654 N. Woodchuck  
Wichita, KS 67212  
945-5177  
6323  
Ultracom 8/20

Plaza Del Sol  
6100 East Central  
Wichita, KS 67206  
686-7121  
6408  
Ultracom 22/60

Pratt & Lambert  
16116 E. 13th Street  
Andover, KS 67002  
733-1361  
6489  
Ultracom 22/60

Professional Advertising Assoc.  
309 Laura, Suite 214  
Wichita, KS 67211  
263-4534  
6467  
1A2

Professional Engineering  
Consultants  
1440 East English  
Wichita, KS 67211  
262-2691  
6483  
SD-192

Ed Racette & Son, Inc.  
6021 N. Broadway  
Wichita, KS 67219  
744-1243  
6558  
1A2

Sage Drilling Co., Inc.  
202 S. St. Francis  
Wichita, KS 67202  
263-6139  
7257  
Ultracom 22/60

Saville Organs  
3046 North Meridian  
Wichita, KS 67204  
838-2545  
7331  
Ultracom 8/20

Sedgwick County Law Library  
225 N. Market, Suite 20  
Wichita, KS 67202  
263-2251  
7460  
Ultracom 8/20

Sharpline Converting  
1520 S. Tyler  
Wichita, KS 67209  
942-8302  
7559  
Key-Bx

Sherwood & Hensley  
833 N. Waco  
P.O. Box 830  
Wichita, KS 67203  
267-1281  
7586  
Ultracom 8/20



Somers, Robb & Robb  
110 East Broadway  
Newton, KS 67114  
283-4560  
7710  
EK 516

St. James Church  
214 Cleveland  
Wichita, KS 67214  
683-5686  
7949  
EK 516

U-Haul Moving & Storage  
3710 N. McCormick  
Wichita, KS 67213  
942-9605  
8585  
1A2

Vaughn & Updegraff  
310 W. Central  
Wichita, KS 67202  
265-5227  
8687  
SL-1

Vulcan Materials  
6200 S. Ridge Road  
P.O. Box 12283  
Wichita, KS 67277  
524-4211  
8774  
SL-1

Wells and Bacon  
900 N. Poplar  
Newton, KS 67114  
283-1120  
8853  
EK 516

Wendy's of Wichita, Inc.  
420 Bonnie Brae  
Wichita, KS 67207  
681-3333  
8852  
Ultracom 12/36

Western Paper  
201 S. St. Francis  
Wichita, KS 67202  
263-3277  
8854  
Ultracom 12/36

Wichita Air & Hydraulic  
2002 W. Second Street  
Wichita, KS 67203  
267-1275  
8938  
1A2

Wichita Baptist Tabernacle  
405 Cleveland  
Wichita, KS 67214  
263-0269  
8991  
Key-Bx

Wichita Health Care  
7111 East 21st Street  
Wichita, KS 67206  
684-2851  
8939  
Ultracom 22/60

Wichita Nephrology Group, P.A.  
818 North Emporia  
Wichita, KS 67214  
263-5891  
8940  
Ultracom 12/36

Wilbur E. Walker  
500 S. Market  
Wichita, KS 67202  
267-2231  
8784  
Ultracom 12/36

Wayne Williams  
2700 George Washington Blvd.  
Wichita, KS 67210  
685-1213  
8971  
Key Bx

Woolsey Petroleum  
300 West Douglas  
Wichita, KS 67202  
267-4379  
9046  
Ultracom 12/36



Customers We Service

---

Bel Air Motel  
1822 S. Broadway  
Wichita, KS 67214  
267-3251  
1837

Cessna Aircraft Co.  
P.O. Box 1521  
Wichita, KS 67201  
685-9111  
2491

Chromatech Corp.  
339 Indiana  
Wichita, KS 67214  
265-1277  
2583

Delta Electric  
833 N. Mosley  
Wichita, KS 67214  
262-3756  
3107

A.G. Edwards & Sons, Inc.  
100 N. Broadway  
Wichita, KS 67202  
267-2831  
3195

Heritage Inn  
3232 N. Summet  
Arkansas City, KS 67005  
442-7700  
4274

Mark 8 Inn  
1130 N. Broadway  
Wichita, KS 67214  
265-4679  
5690

Material Handling Corporation  
910 E. Lincoln  
Wichita, KS 67211  
265-3294  
5648

New Era Milling Company  
309 W. Madison  
Arkansas City, KS 67005  
442-5500  
6070

Norstan Information Systems  
731 N. Water, Suite 3  
Wichita, KS 67203  
262-3900  
6123

S.A. Long  
232 N. Market  
Wichita, KS 67202  
263-2271  
5453

Soundtrac, Inc.  
843 S. Woodlawn  
Wichita, KS 67207  
682-1060  
7676

Starlite Motel  
6345 E. Kellogg  
Wichita, KS 67218  
683-7576  
7953

S & V Tool  
301 Main  
Newton, KS 67114  
283-6038  
7191

Wesley Motor Hotel  
3258 E. Central  
Wichita, KS 67208  
685-1255  
8896

REPORT TO  
THE KANSAS SENATE  
WAYS AND MEANS COMMITTEE

EDWARD E. WHITACRE  
SOUTHWESTERN BELL  
FEBRUARY 21, 1983

*ATT E 2-21-83*



MR. CHAIRMAN, MEMBERS OF THE COMMITTEE, I'M ED WHITACRE, VICE PRESIDENT OF SOUTHWESTERN BELL'S KANSAS OPERATIONS. I APPRECIATE THE OPPORTUNITY TO APPEAR BEFORE YOU THIS AFTERNOON.

MY PURPOSE TODAY IS NOT TO TAKE ISSUE WITH THE TECHNICAL PARTS OF THE ADMINISTRATION'S PROPOSAL FOR A STATE-OWNED TELEPHONE SYSTEM. TECHNICALLY AND OPERATIONALLY, THE PROPOSED SYSTEM WILL DO WHAT IT'S DESIGNED TO DO.

WHAT I DO WANT TO DO THIS AFTERNOON IS TO CLARIFY SOUTHWESTERN BELL'S POSITION--NOW AND IN THE FUTURE--AS A PROVIDER OF STATE TELECOMMUNICATIONS SERVICES...THE KANS-AN NETWORK, CENTREX AND OTHER SYSTEMS.

OF EQUAL IMPORTANCE TO ME, IS THAT WHEN I AM FINISHED THIS AFTERNOON YOU'LL AGREE WITH ME THAT THERE ARE MANY UNANSWERED QUESTIONS ABOUT A STATE-OWNED SYSTEM.

(CHART)

DIVESTITURE

FIRST, THOUGH, LET ME GIVE YOU A BRIEF LOOK AT SOUTHWESTERN BELL'S POSITION IN TODAY'S CHANGING TELECOMMUNICATIONS ENVIRONMENT.

HERE'S WHAT SOUTHWESTERN BELL WILL HAVE ON JANUARY 1, 1984, AND WHAT AT&T WILL HAVE.

FIRST, SOUTHWESTERN BELL. WE'LL BE TOTALLY SEPARATE FROM AT&T., AND OFFER OUR OWN STOCK. AN INDEPENDENT COMPANY, AFTER DIVESTITURE, AS ONE OF THE SEVEN LARGEST INDEPENDENT TELEPHONE COMPANIES IN THE COUNTRY, WE'LL OFFER:

- LOCAL SERVICE (INCLUDING CENTREX SERVICE)
- YELLOW PAGES
- MOBILE PHONE SERVICE
- LONG DISTANCE SERVICE WITHIN NEWLY DEFINED BOUNDARIES CALLED LATAs
- AND AFTER JANUARY 1, 1984, SOUTHWESTERN BELL MAY CHOOSE TO BE IN THE TERMINAL EQUIPMENT BUSINESS.

Now, AT&T.

- TERMINAL EQUIPMENT (TELEPHONE SETS, PBXs)
- LONG DISTANCE SERVICE
- WESTERN ELECTRIC AND BELL LABS (MANUFACTURING AND RESEARCH)

THAT'S A LOOK AT THE HEART OF WHAT WE'LL BE IN 1984.

NOW I'D LIKE TO CLARIFY SOME ISSUES.

(CHART)

CLARIFYING OUR ABILITY TO SERVE YOU.

REPRESENTATIVES OF THE DEPARTMENT OF ADMINISTRATION HAVE PRESENTED TO YOU THEIR VIEW OF HOW DIVESTITURE WILL AFFECT SOUTHWESTERN BELL. THEIR PRESENTATION INCLUDED SEVERAL STATEMENTS ABOUT WHAT MY COMPANY CAN AND CANNOT DO AFTER DIVESTITURE.

NOW LET ME TELL YOU HOW WE IN SOUTHWESTERN BELL VIEW DIVESTITURE, AND WHAT WE CAN AND CANNOT DO.

IT IS NOT CORRECT TO SAY THAT WE'LL NO LONGER HAVE ACCESS TO CURRENT TECHNOLOGY. AFTER DIVESTITURE, SOUTHWESTERN BELL WILL BE ONE OF THE SEVEN LARGEST TELEPHONE COMPANIES IN THE COUNTRY. HOW CAN IT BE SAID, THEN, THAT WE WON'T HAVE ACCESS TO CURRENT TECHNOLOGY?

IT IS NOT CORRECT TO SAY THAT AT&T GETS ALL OF THE STATE-OF-THE-ART TECHNOLOGY. IN 1984, WE'LL HAVE FREEDOM OF ACCESS TO NEW TECHNOLOGY FROM OUR CURRENT SOURCES, AS WELL AS FROM ANY OTHER SUPPLIERS.

IT IS NOT CORRECT TO SAY THAT WE WILL BE CUT OFF FROM BELL LABS TECHNOLOGY AND WESTERN ELECTRIC PRODUCTS. WE WILL TAKE A PART OF THE LABS AND WESTERN ELECTRIC INTO

OUR OPERATIONS, AND WILL HAVE PREFERRED ACCESS TO BOTH FOR SEVEN YEARS.

IT IS NOT CORRECT TO SAY THAT WE WON'T BE ABLE TO PROVIDE TERMINAL EQUIPMENT TO BUSINESSES. WE CAN PROVIDE TERMINAL EQUIPMENT NOW, AND IN 1984. MARKET DECISIONS BY SOUTHWESTERN BELL ABOUT WHAT TERMINAL EQUIPMENT MARKETS AND OTHERS WE'LL CHOOSE TO ENTER ARE BEING MADE NOW. THE POINT IS, WE HAVE THE FREEDOM TO BE IN THESE MARKETS AFTER JANUARY 1, 1984.

IT IS NOT CORRECT TO SAY THAT WE CAN NO LONGER PROVIDE THE SERVICE YOU WANT. WE CAN CONTINUE TO PROVIDE SERVICE FOR THE STATE'S SYSTEM AFTER DIVESTITURE. FACT IS, THE STATE'S TELECOMMUNICATIONS SYSTEM WILL REMAIN INTACT FOLLOWING DIVESTITURE. AND IT WILL CONTINUE TO SERVE YOU AS A USER OF THE SYSTEM...CONTINUE TO SERVE YOU VERY WELL.

THE OTHER FACT IS, DIVESTITURE WILL MAKE IT POSSIBLE FOR US TO BE MORE COMPETITIVE IN OUR PRODUCTS, SERVICES AND PRICING STRUCTURES.

(CHART)

A PROVEN TRACK RECORD OF SUCCESS  
WITH SOUTHWESTERN BELL

SOUTHWESTERN BELL HAS A PROVEN TRACK RECORD OF SUCCESS WITH THE STATE OF KANSAS.

THE QUALITY OF THE STATE'S TELECOMMUNICATIONS SYSTEM IS WIDELY ACKNOWLEDGED. IN FACT, NO OTHER STATE HAS A FINER COMMUNICATIONS SYSTEM. IT'S MET THE STATE'S NEEDS. IT'S MET THE NEEDS OF THE AGENCIES THAT USE THE SYSTEM. AND IT HAS BEEN RESPONSIVE TO THE CHANGING NEEDS OF THE STATE AGENCIES. THE QUALITY OF SERVICE THROUGH KANS-AN IS EXCELLENT. IT'S CONSTANTLY MAINTAINED.

AS THE PROVIDER OF YOUR STATE SYSTEM, SOUTHWESTERN BELL KNOWS THE STATE'S OPERATION BETTER THAN ANY OTHER SUPPLIER. MY COMPANY AND THE STATE OF KANSAS HAVE A HISTORY OF WORKING VERY WELL TOGETHER. THE STATE HAS BEEN ABLE TO GET MAINTENANCE THROUGH ONE VENDOR -- SOUTHWESTERN BELL -- WHICH HAS RESPONDED QUICKLY TO FIX PROBLEMS WHEN THEY OCCUR.

ALMOST SEVEN YEARS AGO, WE INVESTED HUGE AMOUNTS OF CAPITAL IN A GOOD FAITH EFFORT TO BUILD THE KANS-AN NETWORK. AFTER WE BUILT IT, WE TRAINED THE TECHNICIANS WHO MAINTAINED IT. WE DEDICATED FULL-TIME MAINTENANCE AND ADMINISTRATIVE RESOURCES TO IT.

THE ADVANTAGES TO THE STATE WITH THIS ARRANGEMENT ARE MANY. THE STATE DID NOT HAVE TO RAISE THE CAPITAL TO BUILD THE SYSTEM. THE STATE DOESN'T HAVE TO MAINTAIN IT; DOESN'T HAVE TO ADMINISTER IT. THE ONLY THING THE STATE NEEDS IS A SMALL STAFF TO WORK WITH A SINGLE VENDOR -- SOUTHWESTERN BELL -- WHO PROVIDES THE ENTIRE SYSTEM. NOW, THERE IS A PROPOSAL TO BUILD A STATE-OWNED SYSTEM - INCLUDING ADDITIONAL STAFF. A SYSTEM WHICH CANNOT FULLY REPLACE THE KANS-AN NETWORK.

THE BOTTOM LINE IS THAT THE TELECOMMUNICATIONS SYSTEM YOU HAVE TODAY IS CAPABLE OF MEETING STATE AGENCY NEEDS. IT IS A FLEXIBLE SYSTEM. IT CAN GROW. IT CAN BE ADDED TO. IT CAN BE ENHANCED.

YOU MAY REMEMBER A CHART - PRESENTED BY THE STATE - WHICH LISTED SPECIAL SERVICES THAT COULD BE PROVIDED OVER THE PROPOSED NETWORK. THAT CHART LISTED DATA COMMUNICATIONS SERVICES, SERVICES FOR LAW ENFORCEMENT, WEATHER AND THE REGENTS' INSTITUTIONS.

SENATORS, ALL OF THOSE SERVICES ARE BEING PROVIDED BY KANS-AN NETWORK NOW, TODAY. THE ONLY ADDITIONAL THING WAS SERVICE VIA SATELLITE. DOES THE STATE NEED TO GET INTO SATELLITES?

THE STATE ALSO PRESENTED A CHART OF SYSTEM CAPABILITIES--IN OTHER WORDS, WHAT THE SYSTEM CAN DO IF THERE IS EVER A NEED FOR IT. NO ONE I KNOW IN THE TELECOMMUNICATIONS BUSINESS OVERBUILDS SYSTEM CAPABILITIES TODAY. THE REASON IS, NEW TECHNOLOGY IS DEVELOPING TOO RAPIDLY FOR ANY BUSINESS TO AFFORD THAT RISK.

(CHART)

"HIGH TECH" OWNERSHIP CARRIES HIGH RISK

THE STATE PROPOSAL EMPHASIZES DIGITAL AND FIBER OPTICS TO DELIVER HIGH-SPEED DATA TRANSMISSION. HOWEVER, THE PROPOSED SYSTEM ONLY BUYS THE CAPABILITY OF INCREASED TRANSMISSION SPEED. IN OTHER WORDS, IT'S LIKE BUYING THE CAPABILITY TO TRANSMIT ALL THE INFORMATION IN A PHONE BOOK IN 4 MINUTES INSTEAD OF 7. I ASK YOU, WHAT IS 3 MINUTES WORTH?

THE BASIC QUESTION TO ME SEEMS TO BE -- HOW ADVANTAGEOUS IS A FULLY DIGITAL SYSTEM COMPARED TO THE PRESENT SYSTEM?

SOUTHWESTERN BELL TODAY PROVIDES DIGITAL DATA TRANSMISSION SERVICE CAPABILITIES IN THE STATE OF KANSAS.

YOU HAVE BEFORE YOU AN IMPORTANT FINANCIAL BUSINESS DECISION. IF THIS WERE YOUR BUSINESS - AND IT IS -...WITH THE PRESENT UNCERTAINTY AND RISK...WOULD YOU MAKE THE KIND OF LONG-TERM FINANCIAL COMMITMENT THE DEPARTMENT IS ASKING YOU TO MAKE?

(CHART)

PRICE STABILITY

LET'S TURN OUR ATTENTION FOR A FEW MINUTES TO COST.

THE DEPARTMENT OF ADMINISTRATION ASSUMES SOUTHWESTERN BELL'S COSTS WILL INCREASE 15% A YEAR FOR THE NEXT 14 YEARS, THEN THEY ESTIMATE THAT THEIR OWN STATE-OWNED SYSTEM COSTS WILL INCREASE ONLY 10% A YEAR. I SEE NO EVIDENCE THAT OUR COSTS ARE GOING TO INCREASE AT A FASTER RATE THAN ANY OTHER BUSINESS, INCLUDING THE STATE. IN FACT, WITH DIVESTITURE, COMPETITION FOR LONG DISTANCE SERVICE, INCREASES MAY BE MUCH LESS THAN 10%.

FURTHER, THE OFFICE OF TELECOMMUNICATIONS HAS MADE THE POINT THAT OUR PRICES FOR KANS-AN HAVE GONE UP 130% IN THE PAST FOUR YEARS. THAT'S ONLY HALF THE STORY. WHAT HAS NOT BEEN SAID IS THAT THE STATE HAS DOUBLED ITS USE OF THE KANS-AN SYSTEM.



THAT'S LIKE SAYING MY GASOLINE BILL WENT UP \$400 LAST YEAR WITHOUT MENTIONING THAT I DROVE AN ADDITIONAL 8,000 MILES.

FACT IS, THE ACTUAL YEARLY RATE OF INCREASE OF OUR COSTS -- BASED ON MINUTE-OF-USE -- HAS ONLY BEEN 5% -- NOT 15%.

GENTLEMEN, THE WHOLE IDEA OF A STATE-OWNED AND OPERATED NETWORK IS BASED ON SAVING MONEY. THE PROJECTED SAVINGS ASSUME SOUTHWESTERN BELL'S LOCAL COSTS OR AT&T'S OR WHOEVER'S LONG DISTANCE COSTS WILL INCREASE 15% A YEAR. UP TO NOW THEY'VE ONLY GONE UP AT A RATE OF 5% A YEAR. GIVEN THAT PAST RECORD, THE DEPARTMENT OF ADMINISTRATION IS ASKING YOU TO MAKE AN AWFULLY BOLD ASSUMPTION.

SO WHAT DOES THE FUTURE HOLD FOR THE PRICE OF BUSINESS TELEPHONE SERVICE? LET ME BRIEFLY DISCUSS TWO ITEMS TO GIVE YOU A GLIMPSE OF FUTURE RATES AND PRICING STRUCTURES.

THE FIRST ITEM IS LONG DISTANCE. THE INDUSTRY IS ON THE THRESHOLD OF A NEW TECHNOLOGY THAT USES SOFTWARE DESIGN NETWORKS TO REPLACE EXISTING PRIVATE LINE NETWORKS. THE INDUSTRY IS ALSO ON THE THRESHOLD OF NEW COMPETITION FOR LONG DISTANCE SERVICE WHICH MOST EXPERTS, INCLUDING THE FCC, PREDICT WILL REDUCE LONG DISTANCE RATES BY 30 TO

40%. BECAUSE OF THIS NEW TECHNOLOGY AND NEW COMPETITION COMING NEXT YEAR, PRUDENT MANAGERS OF LARGE BUSINESSES ARE NOT BUILDING PRIVATE LINE NETWORKS SUCH AS THE ONE BEING PROPOSED.

THE SECOND ITEM IS STABILIZATION OF CENTREX RATES. THIS IS CRITICALLY IMPORTANT SINCE CENTREX DRIVES THE KANS-AN NETWORK.

LATER THIS YEAR, SOUTHWESTERN BELL PLANS TO OFFER A THREE-YEAR STABILIZATION OF CENTREX RATES WHICH WILL FREEZE THE MAJOR PORTION OF CENTREX RATES.

THE STATE HAS SAID TO THIS COMMITTEE THAT AT THE END OF THE THREE-YEAR PERIOD OF STABILIZED RATES, SOUTHWESTERN BELL INTENDS TO RAISE RATES THAT WILL OFFSET ANY FORE-GONE PRICE INCREASES. UNFORTUNATELY, THAT STATEMENT INDICATES A LACK OF UNDERSTANDING OF THE REGULATED RATE PROCESS.

THE KEY POINT IN DISCUSSING PRICING STRUCTURES IS THAT THE OFFICE OF TELECOMMUNICATIONS IS OPERATING ON THE ASSUMPTION WE'LL KEEP THE STATUS QUO AS WE BECOME AN INDEPENDENT, PARTIALLY DEREGULATED COMPANY NEXT YEAR. THE DEPARTMENT SUPPOSES OUR PRICING STRUCTURES WILL REMAIN UNCHANGED. AGAIN, THAT IS AN ASSUMPTION. THE NEW ENVIRONMENT AND THE NEW RULES WILL GIVE US AND OTHERS

THE FREEDOM TO BE MORE COMPETITIVE -- MORE FLEXIBLE. THAT WILL WORK TO THE STATE'S ADVANTAGE IF GIVEN THE CHANCE.

(CHART)

WHO REALLY KNOWS WHAT A NEW SYSTEM WILL COST?

WHO REALLY KNOWS WHAT A NEW SYSTEM WILL COST? THAT'S ANOTHER KEY QUESTION. IT'S INTERESTING TO ME THAT A YEAR AFTER ONE STUDY ESTIMATED THE COST OF A NEW STATE SYSTEM TO BE \$32 MILLION, A SECOND STUDY BY THE SAME FIRM SAID NOW IT WILL COST \$26 MILLION FOR A STATE SYSTEM...\$6 MILLION LESS.

IT'S ALSO INTERESTING TO ME THAT THE DEPARTMENT HAS SAID THE MORE YOU DELAY STARTING A NEW SYSTEM, THE MORE IT WOULD COST. THE STUDIES COMMISSIONED TEND TO SHOW JUST THE OPPOSITE. PERHAPS WITH ONE MORE STUDY NEXT YEAR, IT WILL BE SHOWN A NETWORK CAN BE BUILT FOR \$20 MILLION!

IT IS SIGNIFICANT TO NOTE THAT THE COSTS PROPOSED ARE FOR A BACKBONE NETWORK ONLY. NOT INCLUDED ARE THE ADDITIONAL COSTS TO PUT IN COMPATIBLE SYSTEMS AT KU, K-STATE, FORT HAYS, EMPORIA STATE, AND ON AND ON.

IT'S ONE THING TO HAVE A BACKBONE NETWORK, BUT IN ORDER TO REALIZE SPEED AND ENHANCED SERVICES, IT WILL REQUIRE A CHANGE-OUT OF YOUR TELEPHONE SYSTEMS THROUGHOUT KANSAS. CONSERVATIVE ESTIMATES WOULD MEAN SPENDING ABOUT \$5. MILLION MORE.

--ABOUT \$1.5 MILLION AT KU

--ABOUT \$1.5 MILLION AT K-STATE

--ABOUT \$1 MILLION AT FORT HAYS

--AND ABOUT \$1 MILLION AT EMPORIA STATE

THAT'S MORE THAN \$5 MILLION WHICH NEEDS TO BE ADDED TO THE \$26 MILLION ESTIMATE - AND EVEN THEN IT WOULD NOT BE A COMPLETE REPLACEMENT OF THE KANSAS NETWORK YOU HAVE TODAY.

WHAT YOU WOULD HAVE IS A SYSTEM DESIGNED TO PROVIDE NEW AND ADDITIONAL SERVICES, YET NO ONE HAS ADDRESSED THE COST OF THESE ANCILLARY SERVICES. FOR EXAMPLE, YOU CAN BUILD A BACKBONE NETWORK WITH VIDEO CAPABILITIES, BUT TO ACTUALLY USE THIS CAPABILITY, YOU MUST GO OUT AND BUY TV CAMERAS, MONITORS, TAPE EDITING EQUIPMENT, STUDIOS, LIGHTING AND THE PEOPLE TO RUN THIS OPERATION.

THE POINT IS...\$26 MILLION IS NOT THE PRICE TAG OF A STATE-OWNED NETWORK. IT'S THE DOWN PAYMENT.

(CHART)

HOW MUCH WILL IT COST THE TAXPAYER?

THE COST OF A NEW SYSTEM ON THE TAXPAYER IS, I KNOW, A BIG CONCERN OF YOURS...JUST AS IT IS OF OURS.

AS YOU KNOW, THE GOVERNOR AND OTHERS ARE TRYING TO BRING NEW BUSINESS TO KANSAS TO BROADEN THE TAX BASE AND CREATE NEW JOBS.

I CAN TELL YOU THAT THE PROPOSED NEW NETWORK WILL MEAN HIGHER COSTS TO THE TAXPAYERS OF KANSAS, AND RUNS COUNTER TO THE OBJECTIVE OF INCREASING THE TAX BASE BY BRINGING NEW BUSINESS TO KANSAS.

WHAT WE HAVE HERE IS A PROPOSAL THAT WOULD -- IN EFFECT -- RUN OFF A \$10 MILLION A YEAR BUSINESS WHICH GOES TO SUPPORT LOCAL GOVERNMENT THROUGH AD VALOREM TAXES AND THE STATE GOVERNMENT THROUGH STATE INCOME TAXES.

HOWEVER, UNLIKE A BUSINESS THAT MOVES ITS OPERATIONS OUTSIDE OF KANSAS, OUR INVESTMENT STAYS HERE IN KANSAS ALONG WITH OUR NEED TO RECOVER THE CAPITAL COSTS ON THAT INVESTMENT. SO KANSAS TELEPHONE USERS WILL PAY TWICE FOR A STATE-OWNED SYSTEM, AS TAXPAYERS AND AS TELEPHONE CUSTOMERS.

I MUST ALSO ACKNOWLEDGE TO YOU THAT THE PROPOSED SYSTEM IS THE VERY THING THAT IS A REAL THREAT TO REGULATORS AND TO ALL TELEPHONE COMPANIES -- BELL AND INDEPENDENT -- AND THAT IS THE BYPASS OF THE LONG DISTANCE NETWORK AND ALSO BYPASS OF THE LOCAL EXCHANGE BY LARGE USERS OF TELEPHONE SERVICES.

WHAT DO I MEAN BY BYPASS?

HERE'S AN EXAMPLE FROM THE DEPARTMENT'S PROPOSAL. THE PROPOSED NETWORK LINKS THE STATE HOSPITAL, SRS, KNI AND OTHER TOPEKA LOCATIONS. IT TOTALLY BYPASSES SOUTHWESTERN BELL FACILITIES. IT BYPASSES THE LOCAL EXCHANGE. THE STATE SYSTEM ALSO BYPASSES THE LONG DISTANCE NETWORK.

THE FACILITIES, THE INVESTMENT IN THAT LOCAL EXCHANGE REMAIN. WE CAN'T BOARD UP OUR OFFICE AT 812 JACKSON. IT SERVES OTHER CUSTOMERS. THE DIFFERENCE IS, ONE OF OUR LARGEST CUSTOMERS IS NO LONGER SHARING IN THE PROCESS OF RECOVERING THE COST OF THAT INVESTMENT.

WHEN BYPASS HAPPENS, THE REVENUE TO ANY TELEPHONE COMPANY... SOUTHWESTERN BELL OR INDEPENDENT...DROPS EVEN FURTHER. AND WHEN THOSE REVENUES DISAPPEAR...IN ORDER FOR THE COMPANY TO EARN A FAIR RETURN ON THE INVESTMENT

STILL IN PLACE...LOCAL RATES PAID BY KANSANS MUST BE INCREASED.

SIMPLY PUT, IF THE STATE BUILDS ITS OWN TELEPHONE NETWORK, KANSANS WILL PAY MORE FOR THEIR LOCAL TELEPHONE SERVICE.

ROBERT ELLIS, PRESIDENT OF THE HAVILAND TELEPHONE COMPANY AND PRESIDENT OF THE KANSAS TELEPHONE ASSOCIATION, WHICH REPRESENTS OVER THIRTY INDEPENDENT TELEPHONE COMPANIES, CALLED ME TO EXPRESS THE CONCERN OF ALL KANSAS TELEPHONE COMPANIES OVER THE IMPACT OF THE OFFICE OF TELECOMMUNICATIONS' PROPOSAL ON THE ENTIRE KANSAS TELEPHONE INDUSTRY. WE STAND TOGETHER IN THE KNOWLEDGE THAT THE PROPOSAL WILL CONSTITUTE BYPASS OF EXISTING NETWORKS AND EXCHANGES AND WILL ULTIMATELY INCREASE THE RATES OF ALL KANSAS TELEPHONE CUSTOMERS.

(AD LIB)

(CHART)

TALK ABOUT IRONY!

THE DEPARTMENT HAS SAID, IT'S IRONIC THAT THE STATE MUST LEAVE SOUTHWESTERN BELL TO GET SERVICE IN THE FUTURE.

LET ME TELL YOU WHAT I THINK IS IRONIC.

I THINK IT'S IRONIC THAT THE OFFICE OF TELECOMMUNICATIONS SAYS THE STATE MUST...

- GET AWAY FROM THE REGULATED TELEPHONE COMPANIES
- THAT IT MUST GET OUT ON ITS OWN
- THAT IT MUST GET AWAY FROM THE FCC AND THE KCC
- THAT IT MUST GET AWAY FROM REGULATORS AND CONTROLLED TELEPHONE COMPANIES
- THAT IT MUST GET INTO A SITUATION WHERE THERE IS NO DEPENDENCE ON REGULATORS.

THOSE ARE STATEMENTS THE DEPARTMENT OF ADMINISTRATION HAS MADE. I THINK IT'S IRONIC THAT THE OFFICE OF TELECOMMUNICATIONS WANTS TO GET AWAY FROM THE REGULATORY POLICY PRACTICED BY THE STATE REGULATORY AUTHORITY WHOSE OBJECTIVE IS TO PRICE TELEPHONE SERVICE TO THE BENEFIT OF ALL KANSAS TELEPHONE CUSTOMERS.

IT'S ALSO IRONIC THAT AFTER YEARS OF REGULATORY POLICY THAT KEEPS RESIDENCE RATES LOW WITH SUBSIDIES FROM HIGHER LONG DISTANCE AND OTHER SERVICES...STATE ITSELF IS NOW TRYING TO AVOID THOSE RATES.

AND IT'S IRONIC TO ME THAT THE STATE WANTS TO AVOID THE EFFECTS OF REGULATION, BUT EXPECTS REGULATION TO KEEP PHONE RATES LOW.



IT'S ALSO IRONIC THAT STATE TELEPHONE USERS WILL SEE THE EFFECT ON THEIR BILLS...FOR THEY WILL GO UP.

DOESN'T ALL THIS SEEM IRONIC TO YOU, SENATORS?

(CHART)

TOMORROW'S UNKNOWNNS

LET ME SUM UP BY EXPRESSING TO YOU THE FOLLOWING CONCERNS.

FIRST, TOMORROW'S UNKNOWNNS ARE MANY. IT IS UNKNOWN WHO ALL THE PLAYERS WILL BE, WHAT ROLE THEY'LL PLAY, WHAT THE RULES WILL BE, AND WHAT THE COSTS WILL BE.

BEYOND THESE UNKNOWNNS ARE MORE QUESTIONS...LEGAL QUESTIONS.

FOR EXAMPLE, IT HAS BEEN REPORTED IN THE KANSAS CITY TIMES THAT THE STATE PLANS TO RESELL SERVICE FROM THIS SYSTEM. RESELLING SERVICE IS A LEGAL ISSUE WHICH SHOULD BE ADDRESSED BY THE ATTORNEY GENERAL.

SECOND, IT IS NOT PRUDENT TO MAKE A QUANTUM LEAP INTO THE AREA OF UNKNOWN TECHNOLOGY. THE SECRETARY OF ADMINISTRATION SAYS THE STATE NEEDS TO GET EXPOSURE TO THE

TECHNICAL WORLD. QUESTION IS...CAN THE STATE AFFORD THE PRICE AND THE RISK THIS EXPOSURE BRINGS?

THE OFFICE OF TELECOMMUNICATIONS HAS SAID THERE WOULD BE NO FUNDING NEEDED ABOVE TODAY'S LEVELS. I WOULD MAKE A POINT: THE SYSTEMS ON THE END OF THE PROPOSED BACKBONE NETWORK ARE NOT DIGITAL AND DO NOT POSSESS END-TO-END DIGITAL CAPABILITY. SO YOU WOULD BE FACED WITH A CHANGE-OUT OF THE SYSTEM.

SECOND, THE COST OF THE ANCILLARY SERVICES I MENTIONED EARLIER -- TV CAMERAS, MONITORS, TECHNICIANS AND SO ON -- ARE NOT INCLUDED.

ONCE YOU'VE STARTED THIS PROJECT, IT'S GOT TO BE COMPLETED... AND AT THE MOMENT ALL THE COSTS ARE NOT KNOWN.

THE ONLY THING YOU HAVE IS SOMEONE ELSE'S ASSUMPTIONS OF WHAT OUR FUTURE COSTS WILL BE. YOU HAVE ONLY PROJECTIONS OF WHAT STATE AGENCIES NEED. YOU HAVE ONLY ASSUMPTIONS OF HOW THE STATE WILL WORK WITH MULTIPLE VENDORS AND CONTRACTORS TO MAINTAIN A DELICATE NETWORK OF FIBER OPTIC CABLE.

ABI AND OTHER VENDORS SAY THE NEW SYSTEM IS A GOOD IDEA. THAT DOESN'T SURPRISE ME IN THE LEAST. SHOULDN'T SUR-

PRISE YOU. PROBABLY DOESN'T. WHAT ANSWER WOULD YOU EXPECT IF YOU WENT TO AN OLDSMOBILE DEALER AND ASKED:

--"DO YOU THINK I NEED A NEW CAR?"

--AND, "WOULD YOU SELL ME ONE?"

THE QUESTION IS ONE OF HOW TO PROCEED. THE ANSWER IS TO OBSERVE THE TECHNOLOGICAL EVOLUTION NOW GOING ON, WATCH IT SHAKE OUT, SEE WHO THE PLAYERS ARE AND WHAT THEIR ROLE WILL BE, THEN MAKE INFORMED, INVESTMENT DECISIONS.

MY THIRD CONCERN IS THAT KANSANS WILL PAY TWICE FOR A NEW SYSTEM.

KEEPING THAT IN MIND, I ASK YOU, SHOULD THE STATE BE IN THE TELEPHONE BUSINESS COMPETING AGAINST PRIVATE ENTERPRISE?

MY FOURTH CONCERN IS THAT EVEN THOUGH SOUTHWESTERN BELL IS PROVIDING WHAT STATE AGENCIES NEED, THE DEPARTMENT WANTS A STATE-OWNED SYSTEM.

THE QUESTIONS IS...WHAT DO ALL THE STATE AGENCIES WANT AND NEED?

THE QUESTION IS...IS IT NECESSARY TO SPEND MILLIONS JUST FOR A BACKBONE NETWORK WITH KNOWN ADDITIONAL COSTS YET TO BE DETERMINED?

A SECOND, INDEPENDENT OPINION MAY BE USEFUL, AND SUCH AN OPINION IS AVAILABLE. HERE -- FOR EACH OF YOU -- IS AN INDEPENDENT ANALYSIS OF THE PROPOSED SYSTEM, MADE AT OUR REQUEST, BY A WELL-KNOWN FINANCIAL FIRM -- NOT A CONSULTING FIRM HIRED TO SUPPORT A PROPOSED PLAN.

WHY SHOULD YOU GIVE UP THE BEST? WHY GIVE UP THE PRESENT SYSTEM? WHY TAKE ON RISKS? WHY GIVE UP SOMETHING THAT CAN HANDLE USER NEEDS?

AND FINALLY, MY LAST CONCERN IS THAT TODAY THERE ISN'T ANYONE WHO HAS ALL THE ANSWERS TO THE CRITICAL QUESTIONS.

AND SENATORS, WITHOUT THESE ANSWERS, I DON'T SEE HOW YOU CAN MAKE A PRUDENT FINANCIAL BUSINESS DECISION WITH SO MANY UNCERTAINTIES SURROUNDING THE CHANGES GOING ON IN THE TELECOMMUNICATIONS INDUSTRY TODAY.

YOU'VE HEARD AND SEEN A LOT OF DIFFERING VIEWS ON HOW THE STATE SHOULD BE SERVED FOR YOUR TELECOMMUNICATION NEEDS, AND AT THIS POINT THERE JUST HAVE TO BE SOME QUESTIONS IN YOUR MINDS. HOWEVER, I THINK THE REAL QUESTION BEFORE YOU IS: CAN A STATE AGENCY PROVIDE TELECOMMUNICATION SERVICE WHICH IS AS DEPENDABLE AND FOR LESS MONEY (WITHOUT BUILDING AN EMPIRE) THAN THE PRIVATE SECTOR?

NOW FINALLY, BEFORE I LEAVE, LET ME SUMMARIZE FOUR POINTS.

FIRST, STATE LAW MANDATES THAT THE DEPARTMENT OF ADMINISTRATION SEEK COMPETITIVE BIDS WHEN CONSIDERING ANY LEASE OR PURCHASE -- INCLUDING TELEPHONE EQUIPMENT AND FACILITIES.

SECOND, THE DEPARTMENT OF ADMINISTRATION HAS EFFECTED SAVINGS FOR SUCH ITEMS AS COPY MACHINES AND LARGE COMPUTERS.

THIRD, THE DEPARTMENT OF ADMINISTRATION HAS EFFECTED SAVINGS IN THE PURCHASE OF SEVERAL TELEPHONE SYSTEMS.

FOURTH, I'M AWARE THE STATE FEELS IT IS CLEAR THAT THE QUESTION BEFORE THE LEGISLATURE IS NOT WHETHER TO PROCEED WITH THE STUDY OF THE STATE'S TELECOMMUNICATIONS NEEDS, BUT RATHER HOW TO PROCEED WITH SUCH A STUDY.

TO THE FIRST POINT...

SOUTHWESTERN BELL HAS NO PROBLEM WITH THE STATE SEEKING COMPETITIVE BIDS. IT'S NOT ONLY THE LAW, IT IS SOUND PRACTICE. SOUTHWESTERN BELL DOES HAVE A PROBLEM, HOW-

EVER, WHEN THE STATE DESIGNS BID SPECS SO AS TO FORECLOSE CERTAIN VENDORS OUT OF THE BIDDING PROCESS.

SOUTHWESTERN BELL ALSO HAS GRAVE CONCERNS FOR OVERALL SERVICE QUALITY WHEN INTERCONNECTING TELEPHONE TERMINALS ARE FURNISHED BY MULTIPLE LOW-BID VENDORS.

TO THE SECOND POINT...

I COMMEND THE DEPARTMENT OF ADMINISTRATION FOR THE SAVINGS IT HAS HELPED THE STATE ACHIEVE. AS AN OFFICER OF SOUTHWESTERN BELL WHICH IS ONE OF THE STATE'S LARGEST SOURCES OF TAXES, I'M PLEASED TO KNOW THE DEPARTMENT IS WORKING TO SPEND THOSE TAX DOLLARS EFFICIENTLY.

TO THE THIRD POINT...

I CAN ONLY SAY THAT SO FAR, THE DEPARTMENT OF ADMINISTRATION HAS DONE A GOOD JOB OF SAVING MONEY IN THE SELECTION OF TELEPHONE TERMINAL EQUIPMENT. THE SAVINGS DON'T SURPRISE ME, ESPECIALLY CONSIDERING WHERE THE EQUIPMENT WAS MANUFACTURED.

THE SYSTEMS INCLUDE AN OKAI FROM JAPAN, AN SL-1 SYSTEM FROM CANADA, A SIEMENS FROM SCANDINAVIA AND AN HITACHI PURCHASED FROM SUNCOM, INC., WHICH HAS SINCE GONE OUT OF

BUSINESS. SOUTHWESTERN BELL HAS FACED THE SAME FOREIGN COMPETITION MOST OTHER BUSINESSES HAVE FACED.

UP TO JANUARY 1, 1984, WE HAVE HAD THE ADDITIONAL BURDEN OF FACING THAT COMPETITION AS A FULLY REGULATED COMPANY --ONE WHICH WAS REGULATED IN SUCH A WAY TO SUBSIDIZE LOW BASIC SERVICE RATES FROM RATES CHARGED FOR LONG DISTANCE AND BUSINESS TELEPHONE SERVICE AND EQUIPMENT.

SO ANY PRICE DIFFERENCES BETWEEN OUR TERMINAL EQUIPMENT AND OUR COMPETITOR'S EQUIPMENT SHOULDN'T COME AS ANY GREAT SURPRISE. I ASK YOU TO KEEP IN MIND THAT IN 10 MONTHS, SHOULD SOUTHWESTERN BELL GET INTO THE TERMINAL EQUIPMENT MARKET, IT MAY DO SO THROUGH AN UNREGULATED SUBSIDIARY.

WHILE WE'RE STILL ON THIS POINT, LET'S TAKE A LOOK AT A PROBLEM CAUSED BY AWARDED CONTRACTS FOR TERMINAL SYSTEMS TO SEVERAL VENDORS. THESE SYSTEMS TIE INTO AN OVERALL NETWORK, SO IT'S DIFFERENT FROM BUYING A XEROX COPY MACHINE HERE AND A SAVIN THERE AND A KODAK FOR ANOTHER LOCATION.

IN BUYING TERMINAL EQUIPMENT FROM MULTIPLE VENDORS, THE STATE HAS FRAGMENTED THE RESPONSIBILITY FOR THE MAINTENANCE OF THESE INTERCONNECTING TERMINALS.

THE OFFICE OF TELECOMMUNICATIONS NOW GOES ONE PLACE FOR MAINTENANCE ON ONE TERMINAL AND GOES ANOTHER PLACE FOR MAINTENANCE ON ANOTHER. THIS INCREASES THE NEED FOR A LARGER STAFF AT THE OFFICE OF TELECOMMUNICATIONS.

THE FINAL - 'AND MOST IMPORTANT - POINT TO MAKE ABOUT SAVING MONEY ON THIS TERMINAL EQUIPMENT IS THAT THOSE SAVINGS APPLY ONLY TO TERMINAL EQUIPMENT - NOT AN INTEGRATED, STATEWIDE TELECOMMUNICATIONS NETWORK.

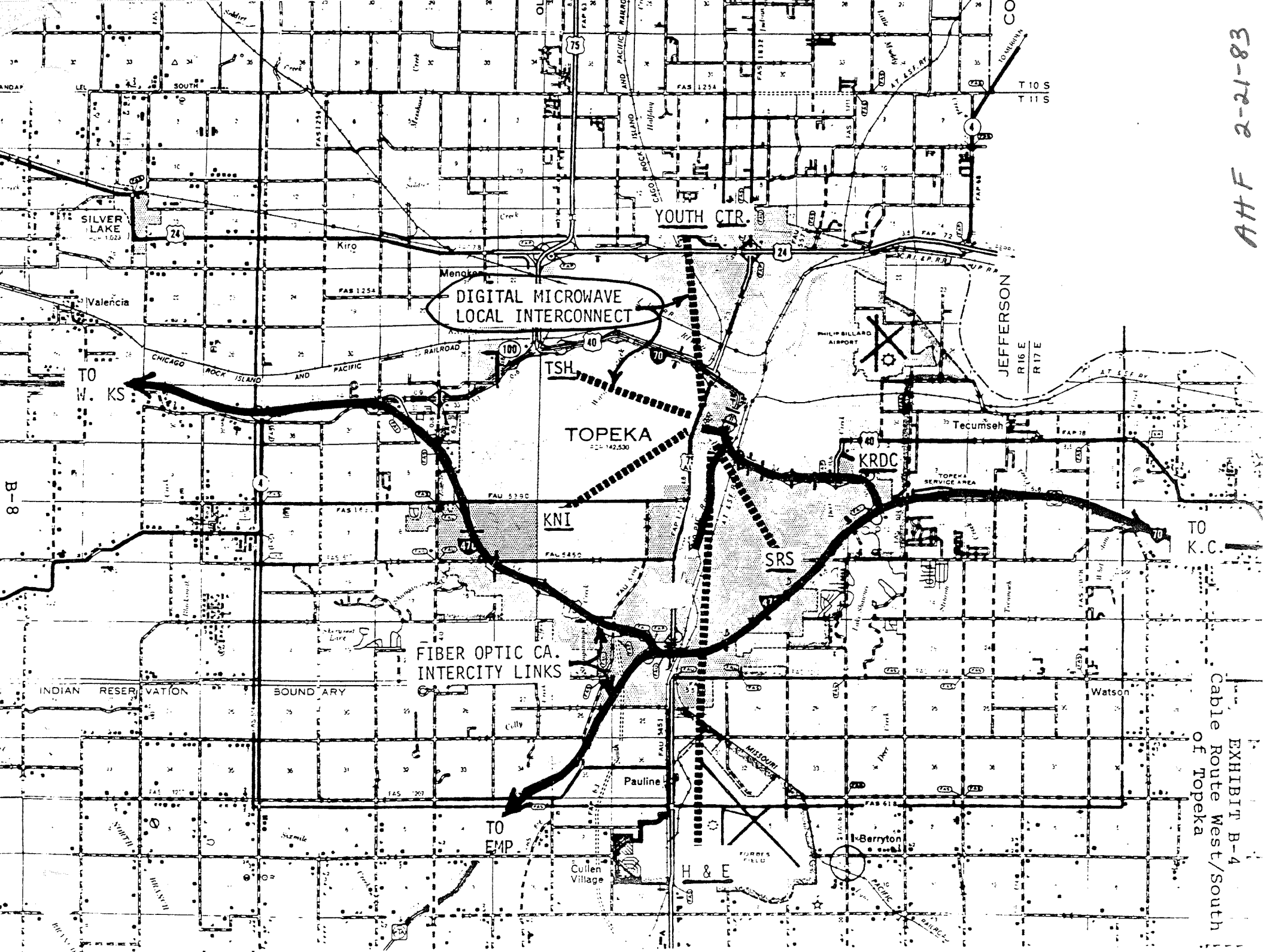
THE SAVINGS ARE COMMENDABLE, BUT THE ISSUE IS NOT A FEW HUNDRED THOUSAND DOLLARS FOR TERMINAL EQUIPMENT. THE ISSUE IS MILLIONS OF DOLLARS FOR A TOTAL STATEWIDE NETWORK.

TO THE LAST POINT ABOUT THE QUESTION NOT BEING IF TO PROCEED BUT HOW TO PROCEED...

I AGREE 100%.

TAKE A LOOK AT WHAT YOU HAVE, THEN TAKE A LOOK AT WHAT THE DEPARTMENT OF ADMINISTRATION PROPOSES AND SEE IF YOU HAVE ENOUGH INFORMATION TO PROCEED INTO A MULTI-MILLION DOLLAR CAPITAL INVESTMENT...OR, IF THE BEST PROCEDURE WOULD BE TO GET ANSWERS TO SOME IMPORTANT, CRITICAL QUESTIONS BEFORE LAUNCHING INTO SUCH A MASSIVE VENTURE,





AHF 2-21-83

EXHIBIT B-4  
Cable Route West/South  
of Topeka

# Ernst & Whinney

**An Evaluation of the Proposed  
State of Kansas  
Telecommunications System**

**SOUTHWESTERN BELL TELEPHONE COMPANY  
AUGUST, 1982**



*ATTACHMENT G 2-21-83*

AN EVALUATION OF THE PROPOSED  
STATE OF KANSAS TELECOMMUNICATIONS SYSTEM

Prepared for  
Southwestern Bell Telephone Company  
August, 1982



Ernst & Whinney  
Telecommunications Group  
Tacoma, WA — San Francisco, CA — Washington, D.C.

## PREFACE

This report was originally prepared in early August, 1982. A number of important events with major consequences for telecommunications users have occurred since that time. In August, 1982, the Modification of Final Judgement (MFJ), proposed by AT&T and the Department of Justice, was approved (with some changes) by the U.S. District Court for the District of Columbia. This action brought to a close the civil antitrust action initiated by the Department of Justice several years earlier. The implementation of the terms of the MFJ is now proceeding as we described in Chapter VI of this report.

In December, 1982, the Federal Communications Commission reached a decision in FCC Docket 78-72 which presents its solution to the access charge problem discussed in Chapter VI of this report. The text of the decision has not yet been released, but in its announcement of the decision the FCC indicated that it will adopt the flat rate charge concept as we expected when this report was written.

This report has not been updated to reflect the events of the last seven months. The scope of the analysis remains as it is described in the Introduction and Summary of Findings. Nothing has occurred which would lead us to change our evaluation. However, the reader should be aware that the report was written before the events described above occurred.

At the request of Southwestern Bell Telephone Company, this report has been revised to reflect a significant change in the quantitative analysis leading to the development of the Base Case (Appendix A). To develop a consistent treatment of the cost of leasing or purchasing

customer premises equipment (CPE), it was necessary to determine how much of the local service costs currently paid by the state government are payments for CPE. When the report was prepared last August, the only information available to Ernst & Whinney on this matter was the information presented in the proposal itself. The proposal indicated that CPE lease costs are 70 percent of local service costs. (See, for example, the excerpt on page 15 of this report.) This figure was used in developing the Base Case and the sensitivity analysis.

Southwestern Bell has recently examined its billing records and determined that the 70 percent figure is not correct. CPE lease costs are, according to Southwestern Bell, approximately 40 percent of the State's local service costs. This does not include charges for CENTREX service, which is not conventionally classified as CPE. Use of the 40 percent figure favors the State-owned system in the analysis because it implies that CENTREX charges will continue indefinitely if Southwestern Bell service is continued. This may be true, but it is a decision which does not depend on the acceptance or rejection of the proposal to construct a State-owned network.

The revision required that the sensitivity analysis in Chapter V be recalculated and that several pages of text be rewritten. Each page that was affected is marked "revised 2/83." The conclusion of our evaluation has not been altered. We find that there is no basis in the State of Kansas Telecommunications System Implementation Plan to conclude that the proposed system would reduce costs. Our analysis suggests that the proposed system might be more costly than continuing to procure service from Southwestern Bell.

TABLE OF CONTENTS

Chapter I - INTRODUCTION AND SUMMARY OF FINDINGS . . . . . 1

- A. Unresolved Issues in the Plan . . . . . 2
- B. Summary of Findings . . . . . 4

Chapter II - GENERAL REVIEW OF THE PLAN . . . . . 8

- A. Telecommunications Costs . . . . . 8
- B. Financial and Technical Risks . . . . . 11
- C. Inappropriate Cost Analysis . . . . . 12
- D. Impact of CPE Deregulation . . . . . 14
- E. Inappropriate Assessment of Divestiture and  
Deregulation . . . . . 17
- F. Other Issues . . . . . 18

Chapter III - SYSTEM DESIGN AND OPERATION . . . . . 20

- A. System Design . . . . . 20
- B. Fiber Optic Transmission System . . . . . 21
- C. Digital Microwave System . . . . . 24
- D. Redundancy Planning . . . . . 25
- E. Operation and Administration of the System . . . . . 25

Chapter IV - EVALUATION OF THE FINANCIAL PROJECTIONS . . . . . 27

- A. Review of the Cost Assumptions . . . . . 27
- B. Evaluation of the Cost Assumptions . . . . . 29
- C. Telephone Company Service Cost . . . . . 30
- D. State Management and Overhead Cost . . . . . 35
- E. Capital Outlay Payback . . . . . 35
- F. System Planning, Engineering and  
Implementation Cost . . . . . 36
- G. System Operation and Management Cost . . . . . 37
- H. Parts and Supplies . . . . . 38
- I. Continuing Telephone Company Service List . . . . . 38
- J. Indirect Costs to Kansas Taxpayers . . . . . 39

Chapter V - ECONOMIC COST COMPARISONS . . . . . 41

- A. The Time Value of Money . . . . . 45
- B. Risk and Uncertainty . . . . . 47
- C. Sensitivity Analysis . . . . . 50

TABLE OF CONTENTS  
(Continued)

Chapter VI - IMPACT OF DEREGULATION AND DIVESTITURE . . . . .	107
A. FCC Docket 78-72, Phase I (Access Charges) . . . . .	109
B. FCC Docket 80-286, (Federal-State Joint Board on Separations Procedures) . . . . .	111
C. The Proposed Divestiture of the BOCs From AT&T . . . . .	113
 APPENDIX A - DEVELOPMENT OF THE BASE CASE . . . . .	 117

## CHAPTER I

### INTRODUCTION AND SUMMARY OF FINDINGS

The State of Kansas Telecommunications Office has proposed a plan for the construction, implementation, and operation of a State-owned telecommunications system which would fulfill many of the State's current and future telecommunications needs. The proposed State-owned system is designed to supplant many of the facilities and services currently provided by the Southwestern Bell Telephone Company. Further, the plan calls for the proposed system to incorporate the latest digital and fiber optic technologies in its design and construction. The primary rationale for developing the proposed State-owned system is that it is expected to fulfill the telecommunications requirements of the State government, while better controlling "spiralling telecommunications costs" that the State feels it will be facing in the future.

Initially, the State completed a feasibility study of the proposed system in February, 1981. In March, 1981, the State contracted the firm of Booz, Allen and Hamilton to conduct a review of the system for completeness and conceptual soundness. Booz, Allen concluded that the plan was sound, and that further studies were necessary to better define the costs, requirements, management, and implementation of the system. Booz, Allen was further contracted to conduct an additional study of the plan. This report is an independent evaluation of the State of Kansas Telecommunications System Implementation Plan ("The Plan") prepared by Booz, Allen.



Ernst & Whinney was engaged by Southwestern Bell Telephone Company to evaluate the initial study by the Telecommunications Office, and the subsequent study by Booz, Allen and Hamilton prepared for the Telecommunications Office. The purpose of Ernst & Whinney's evaluation was to determine the extent to which the conclusions of these studies were justified, based on the underlying cost data and study methods.

Ernst & Whinney's evaluation was limited to the comparative cost analyses contained in the studies, and the underlying assumptions and methodologies employed in the comparative cost analyses. Ernst & Whinney did not evaluate the engineering studies or technical specifications of the proposed system.

A. Unresolved Issues in the Plan

The development of a State-owned telecommunications system, as opposed to continued utilization of Southwestern Bell's services and facilities is a complex decision involving a number of economic, regulatory, and technical questions. The cost analysis for either alternative and the underlying assumptions on which these costs are based is a critical component of a fully informed decision. Advocates of the State-owned system maintain that the telecommunications requirements of the state government can be adequately met at a lower cost to the taxpayer. The implicit assumptions often made in the consideration of any state-owned service are that financing costs, executive salaries, advertising, taxation, and public relations expenses are minimized or eliminated entirely. Also there are no costs for regulation or profits.

Conversely, proponents supporting the continued use of Southwestern Bell services might argue that higher executive salaries are necessary to attract the highly qualified managers needed to run an advanced telecommunications system. Also lower financing costs might lead to uneconomic overexpansion and resource misallocation. Advertising and public relations expenses may result in better utilization of facilities. Finally, tax revenues are not generated with a state-owned system and, in fact, subsidization of a state-owned system with tax revenues may occur.

In any case, a comparative financial analysis of the two systems should objectively consider all key factors or assumptions over a reasonable range of possibilities. That is, all key factors or assumptions might be considered on a "best case," "worst case," and "most likely" basis. By doing this, a range of possible outcomes will be presented in the comparative analysis of the two systems.

Upon close review, the Booz, Allen report produces many questions on the overall feasibility of a State-owned system. A number of issues are raised which are not fully resolved in their report. These unresolved issues are as follows:

- Inappropriate projection of Telephone Company cost increases.
- Lack of specific identification of telecommunications cost increases.
- Inappropriate assessment of the loss of intrastate TELPAK on the KANS-A-N network.
- Lack of recognition of the impact of CPE deregulation.

- Failure to adequately recognize the financial risks involved.
- No measure of the true economic cost to taxpayers.
- Failure to adequately recognize the technological risks involved.
- No recognition of the Bell System's diversity of experience in the telecommunications industry.
- Omission of significant logistical and regulatory considerations.
- Insufficient consideration of the tax revenue impact on local government.
- Failure to adequately account for deregulation in the telecommunications industry.
- Failure to adequately consider the proposed AT&T - Department of Justice antitrust settlement agreement.
- Absence of demand analysis for enhanced data and video services.
- Failure to consider the costs of providing enhanced services.
- No recognition of the construction risks associated with large capital projects.

These issues are discussed in detail in our analysis.

#### B. Summary of Findings

Ernst & Whinney has completed its review of the Booz, Allen and Hamilton study of the proposed Kansas Telecommunications System. In particular, we examined the comparative financial evaluation of the State-owned system and the existing Southwestern Bell system. The scope of our work was limited to an analysis of the Booz, Allen study and thus no attempt was made to recreate a complete financial comparison. Except for correcting arithmetic errors, most of the assumptions and figures developed by Booz, Allen were accepted at face value.

However, in our opinion, several assumptions and methods of the study

can not be supported. The first is that the financial comparison between the systems should be conducted on an "accumulated cost avoidance" basis. This method does not take into account the time value of money. This method does not, therefore, properly reflect the true costs of the systems to the taxpayers. Ernst & Whinney has chosen instead to use a discounted cash flow analysis to evaluate the systems. Discounted cash flow analyses has received wide support as a tool for evaluating investment decisions because it does consider the time value of money. Without this alteration, the projections do not, in our opinion, accurately portray the actual cost of the systems to the State.

A second assumption which we believe can not be supported is the addition of over \$2 million to the Southwestern Bell system costs for the provision of video private line service. These services are not currently provided to the State by Southwestern Bell or any other carrier. While we believe it is reasonable to assume that some State agencies might find such a service desirable, we do not have any indication that the State would change its policy and require this additional expenditure. The proposed fiber optic system does have the transmission capacity to provide video private line services. However, the plan does not provide the funds for video receiving and transmitting electronics, studio equipment, and video-teleconferencing facilities that are required to use this capacity. Thus, Ernst & Whinney has assumed in its analysis that neither the State-owned system, nor the Southwestern Bell system would be required to provide video transmission capacity.

The third assumption which requires comment is the treatment of customer premise equipment in the Booz, Allen study. This is an area which is subject to great uncertainty. The regulation of terminal equipment is undergoing radical changes at the same time that competitive pressures are growing. It is uncertain at this time what affect these changes will have on the various procurement options available to the State. However, in analyzing the two systems it is, in our opinion, necessary to make consistent assumptions about terminal equipment. Therefore, we uniformly applied the procurement assumptions employed by Booz, Allen for the State-owned system in our financial analysis. This assures that the two systems are compared on the same basis.

The Booz, Allen assumptions about private line charges must also be questioned. The Plan predicts the withdrawal of TELPAK service in 1983 and a consequent doubling of private line rates. Should these increased rates come into effect, they would apply to private lines leased under both the State Plan and the current system. However, in the Booz, Allen study, only the Bell network is subject to these increases. The private lines leased as part of the State's Plan continue at TELPAK rates. We resolved this inconsistency by applying the same rate increase to all private line services regardless of which network is involved.

Lastly, in view of the substantial risks associated with a project of this magnitude, we do not believe that the State should rely on a single projection of costs without exploring the sensitivity of these costs to changes in the economy or the regulatory environment. The Booz, Allen study provides only a single projection and is, in our

opinion, deficient in this regard. Ernst & Whinney has, therefore, developed a number of sensitivity analysis projections which suggest the effects of alternate assumptions about inflation and interest rates, construction costs, and operations costs. These compare the costs of the alternative systems under a wide range of operating conditions.

Our analysis of the financial comparisons included in the Booz, Allen report leads us to disagree with its conclusions. In nine of the thirteen cases examined, the Southwestern Bell system clearly appears to be the less costly of the two. In two other cases, the Southwestern Bell system may be the less costly alternative. The State-owned system was clearly preferred in only two cases. What is more, the difficulties and risks associated with constructing and operating a very advanced fiber optic communications system may tend to reduce the attractiveness of the State-owned system even further. In our opinion, there is no basis in the report to conclude that the proposed system would reduce costs. In fact, our analysis of the report suggests that the proposed system might be more costly.

## CHAPTER II

### GENERAL REVIEW OF THE PLAN

#### A. Telecommunications Costs

The State's impetus for planning and implementing its own telecommunications system comes from many sources. The State's Plan continually refers to a high degree of concern over the prospect of ever-increasing prices for telecommunication services. Deregulation of the telecommunications industry, the divestiture of AT&T, and various legislative actions are viewed as potential causes of rising costs. In their estimation, the annual telecommunications costs for the State are predicted to approach \$30 million in FY86, \$50 million in FY90, and \$100 million in FY95. A graphical representation of the projected annual telecommunications cost is used liberally throughout the Booz, Allen report to further impress the point of rising costs.

The cost increases for telecommunications services presented throughout the Booz, Allen report, although impressive, are misleading. Telephone company costs are simply adjusted upward by 15 percent annually to reflect both growth and service rate increases. A flat rate cost escalator such as this is highly unreliable for predicting future cost levels as it is derived solely from historical data with no consideration for future events that may affect costs in the industry. For example, deregulation in the telecommunications industry will undoubtedly have a significant impact on the cost for services and facilities. The use of a flat rate escalator, however, does not take into account any of the effects of deregulation.

Furthermore, a flat rate escalator is quite insensitive to the individual service components that make up the overall telephone company costs. The cost of each particular service component should be disaggregated from the overall cost so that a separate escalator for each component can be derived.

This disaggregated approach would provide a more accurate projection of telephone service costs. Individual telephone service components experience differential growth and rate increases and should be considered individually when projecting future costs. A composite escalator is insensitive to the differential changes that occur for each service component. Furthermore, it can be expected that deregulation will have differential impacts on the various service components.

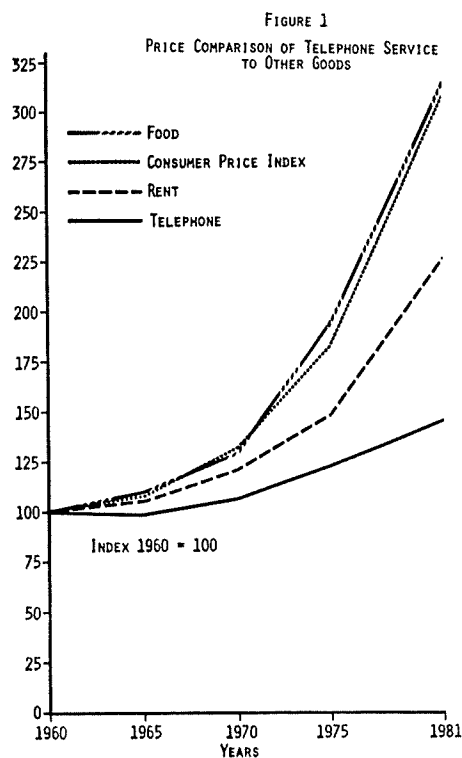
Contrary to the 15 percent cost escalator used for the telephone company costs, state management costs for the State-owned system are adjusted annually by only 10 percent. This creates the implication that the State does not face the same inflationary pressure as Southwestern Bell, that less growth is anticipated in the State-owned system, or that the State will be able to control its operating cost more efficiently than Southwestern Bell despite the multitude of competitive and regulatory pressures faced by the latter.

The straight projections of future costs for telecommunications services without any consideration for the time value of money provide an inaccurate "picture" of what the real cost for such services will be in the future. Although a budgeted increase from \$30 million in FY86 to \$100 million in FY95 for telecommunications appears unwieldy, such



figures must be considered in an appropriate context. Quite simply, a future cost for a service must be translated to current dollars in order to make an accurate comparison of costs.

In general, the cost for telephone service has remained low relative to many other goods and services. Figure 1 compares the cost of telephone service to food, rent, and the Consumer Price Index (CPI). As indicated, the cost for telephone service has remained below the CPI. Of course, with the considerable degree of change that the telephone industry is currently facing, projections of future service cost trends becomes less certain. However, certain components of telephone service have a good probability of moderate to low cost increases in the future due to the effects of increasing competition.



SOURCE: BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR

## B. Financial and Technical Risks

The Plan for the State-owned system suggests that the proposed system is virtually free of financial and technological risks. Contrary to this expectation, the risks may be quite great. The design of the proposed system calls for the use of both digital and fiber optic technology. Although digital technology has been in use for over ten years, fiber optic technology is just now being put into service. Thus, the design of the system does not employ only risk-free technology.

The proposed State system will utilize approximately 800 miles of fiber optic cable to serve as the transmission network for the system. The size of this proposed system will make it one of the largest fiber optic systems in the country. To date, most fiber optic systems being placed into service are relatively small. Only a few large fiber optic systems are currently being developed. For example, AT&T is developing a system for the Boston - Washington, D.C. corridor. The Province of Saskatchewan in Canada is constructing a 500-mile, province-wide fiber optics network. Clearly, the State-owned system in Kansas represents a most ambitious project. Considerable risk potential exists as there is relatively little practical experience in the installation of fiber optic systems at this point in time.

Further technological risk exists because obsolescence is possible over the 30 to 40 year lifetime of the system. For instance, technological advances may require the upgrade of various system components in order to meet future service needs. In the last year alone, design advancements in fiber optic technology have reduced the number of repeaters required for a given length of cable.

The financial risk of planning and implementing the State-owned system may also be great. The Plan assumes that some type of bond issue can be used to finance the capital expenditures necessary to build the system. Uncertainty in the capital markets, however, has not been addressed in the Plan. The assumption is made that a bond issue placement at 12 percent will be possible. There is considerable uncertainty, however, as to future market rates at the time of the proposed issue. Other financial risk areas include such items as increasing cost for replacement components, contract services and unforeseen construction costs. Despite the expertise and best intentions of qualified contractors, large capital projects have experienced significant cost overruns and construction delays causing rather serious increases in construction budgets.

In general, technological and financial risks must not be overlooked even though they may be difficult to quantify. With rapid developments in the state of the art of telecommunications coupled with significant changes in the industry structure, such risks must become a major consideration when evaluating the feasibility of the proposed system.

### C. Inappropriate Cost Analysis

The focus of this report is on evaluating the comparative cost analyses presented in the Booz, Allen report. Three topics were addressed in the comparison of the proposed State-owned telecommunications system to the continuation of services from Southwestern Bell. First, the capital outlays necessary to construct the State-owned system were considered. Second, an analysis of the annual costs and accumulated costs for both systems for the period of FY82 to FY95 was presented,

along with a presentation of accumulated cost avoidance. Finally, an illustration of the projected budgeting requirements for telecommunications services in future years with respect to both systems was made.

The capital outlay for the system is estimated at \$31.866 million. Construction costs are projected to commence at the beginning of FY84. It is anticipated that the system will be financed using a ten year bond issue at 12 percent annual interest. An investment plan is scheduled at 12 percent for bond proceeds which are not paid out for contractor progress payments during the two year implementation/construction phase. This financing plan is subject to several uncertainties. For example, it assumes the existence of no contingencies which might occur during the financing and construction period. For instance, it is assumed that the entire amount of capital needed for the construction of the system will be generated from the bond issue. This assumption, however, does not consider the uncertainty that exists about the capital markets two years from now. It is quite conceivable that placement of this type of bond issue could be difficult, or might occur at a higher interest rate. Furthermore, supplemental financing to meet any shortfall from the bond issue might have to be made at spot market rates. In any case, the analysis should consider a number of financing possibilities that would take into account a reasonable range of conditions at the future point in time when construction is scheduled to begin.

Another contingency that should be considered in the analysis is the potential for construction cost overruns that might occur during the installation phase. With any large capital project, the possibility of

unforeseen events resulting in higher costs is a consideration that should be factored into a construction cost estimate. It appears that the capital outlay budgeted for the system does not include any type of overrun buffer.

In general, the methodology for making the comparison of costs between the two systems was inappropriate and consequently does not reveal the true economic cost to the taxpayers that would result from adopting either course of action. The comparison of the two systems on the basis of "accumulated cost avoidance" fails to account for the timing of the cash flows and introduces bias into the analysis because of the arbitrary choice of a fourteen year time period. The statement is made that with a capital outlay of just under \$32 million, the taxpayer will benefit from an overall cost reduction of state telecommunications expenditures of approximately \$121 million. Such an assertion is clearly misleading in that comparison of present expenses (i.e., capital outlay) is made to future, uncertain cost savings.

A more appropriate method of comparison is one that utilizes present value analysis. This methodology incorporates the time value of money into a cost analysis of one or more alternatives. That is, the value of future cash flows is discounted at an appropriate discount rate to reflect the current value of the cash flow. Essentially, costs for each system alternative would be converted to today's dollars.

#### D. Impact of CPE Deregulation

Throughout the State's implementation plan, a number of questions have been raised with regard to the impact of the deregulation of customer

premise equipment (CPE). The Plan concludes that deregulation of CPE will result in sharply increased costs, in the range of a 50 to 100 percent price rise, for Bell-provided CPE. It describes a rather bleak situation resulting from the prospect of deregulation and divestiture.

"The prospect of 'divestiture' has all telephone users uncertain of the costs of local telephone services now provided by the Bell System. A large portion of the State's telephone bill (70 percent) consists of leasing those types of services that consist of CENTREX, PBXs and Key systems. Southwestern Bell increases on a per line basis will cause large increases in overall telephone costs." (p.III-8)

Although the outcome of deregulation and divestiture is uncertain, it is quite arguable that competition in this sector may, in fact, result in lower costs.

The CPE deregulation issue must be put into perspective with regard to the State's implementation plan. If the pending antitrust settlement between AT&T and the Department of Justice is entered, the provision of CPE will become a function of AT&T and will no longer be provided by Southwestern Bell. CPE would be marketed by AT&T through a fully separate subsidiary on a competitive basis with other telecommunications vendors. The State will be in a position to competitively procure CPE from a number of potential suppliers, including AT&T.

Because of the FCC's landmark Carterphone decision in 1968, the competitive replacement of business telephone instruments has increased remarkably during the last decade. Table 1 presents data on the share of the business instrument market held by both telephone companies and interconnect suppliers following the Carterphone decision.

TABLE 1

Interconnect Suppliers Market Share  
of Business Telephone Instruments

Year	Telephone Company- Provided Business Instruments	Total Interconnect Instruments	Interconnect Share (Percent)
1970	33,304,800	351,846	1.0
1971	34,444,900	457,400	1.3
1972	35,989,500	595,000	1.6
1973	37,434,884	773,076	2.0
1974	38,748,513	1,005,000	2.5
1975	39,498,000	1,307,000	3.2
1976	40,682,000	1,700,000	4.0
1977	42,320,000	2,210,000	5.0
1978	44,284,209	2,893,000	6.1
1979	45,951,980	3,760,000	7.6
1980	47,790,000	4,540,000	8.7

Source: Interconnect Industry Statistical Review 1980,  
North American Telephone Association.

As indicated in Table 1, telephone companies have maintained their historical growth trend of terminal equipment following the Carterphone decision. In later years, however, a number of new competitors entered the CPE market, gaining approximately five percent of the market by 1977. Although the market share of interconnect carriers is still small relative to the amount controlled by telephone companies, further removal of legal and regulatory barriers to competition can be expected to have a positive impact on the growth of interconnect suppliers. It is probable that the increasing level of competition will help to reduce the price of terminal equipment in the future.

However, regardless of what may happen with regard to future terminal equipment prices, CPE must be considered as a separate issue in evaluating the merits of the State-owned system. Whether the State

uses Southwestern Bell's network or builds its own, the State will have the option of choosing its terminal equipment from a variety of suppliers. The capital outlay for purchasing CPE could be incurred under either system option, and therefore, should not be considered as a deciding factor in the cost comparison of the two alternatives.

E. Inappropriate Assessment of Divestiture and Deregulation

The Plan concludes that the pending divestiture of the Bell Operating Companies (BOCs) from AT&T will result in large cost increases for the services acquired from Southwestern Bell. The basis for this conclusion, however, is not made entirely clear. The impact of divestiture is, at best, uncertain with regard to the future cost of telephone service. While certain segments of the telephone business may experience some cost increases, there are a number of segments that may be positively impacted by the divestiture. Interexchange telecommunications services will operate in an even more competitive environment. AT&T will be a direct competitor with the other specialized common carriers in the provision of long-distance services. Downward pressure on prices for some of the more competitive interexchange services will be a likely result. Additionally, intense competition will continue to develop in the terminal equipment area. Users of terminal equipment will benefit by having a wider, more competitive CPE market from which to select their equipment.

As a result of the divestiture, the Bell Operating Companies primary business will be the provision of local exchange services. The local exchange operation is generally regarded as the more capital intensive,



highly regulated, lower growth portion of the telephone business. The BOCs, however, may well be in a position to offer very attractive telecommunications services to their customers. It is quite conceivable that the BOCs will evolve from simply being local telephone companies to become the providers of local exchange voice, data, and video communication systems of the future.

In essence, the impact of divestiture, although uncertain, may be to achieve a more competitive telecommunications environment which would be beneficial to the consumer. Apart from the effects of the pending divestiture, the Plan concludes that deregulation of the industry will result in large cost increases. There can be no doubt that all of the changes being considered by the FCC, the courts, and the legislature create an element of confusion and turmoil regarding future prices for telecommunications services. The ultimate impact of the continuing movement toward deregulation, however, remains uncertain. Chapter VI will further discuss the present state of deregulation and the possible directions regulatory authorities may take on some of these current issues.

#### F. Other Issues

A number of other questions are raised from a review of the Booz, Allen report. The Plan states that future requirements for enhanced data and video communications services will be met with the proposed system. Further, the system will purportedly be capable of handling a vast number of telecommunications services such as high speed data transmission and cellular mobile radio. No demand analysis is presented to indicate the current and potential demand for such

enhanced services by the State. Furthermore, the end-to-end costs of providing a number of these services (e.g., video service) are not considered in the Plan.

Local governments would bear a part of the loss of tax revenues from Southwestern Bell Telephone Company. Questions arise as to whether they would receive a share of the expected benefits of the proposed system, thereby compensating them for their loss in tax revenues.

An overall review of the Plan indicates that a number of factors potentially having a major impact on the ultimate cost of the proposed State-owned system have not been thoroughly considered in the Booz, Allen report. Significant financial and technological risks exist which could radically affect the results presented in their report. Most importantly, however, the report presents an inappropriate and misleading cost comparison of the two systems on the basis of "accumulated cost avoidance." This approach simply fails to establish the true economic costs of the two systems.

CHAPTER III  
SYSTEM DESIGN AND OPERATION

The proposed State-owned telecommunications system represents a most ambitious undertaking for the State of Kansas. The planned system is designed to use state-of-the-art digital technology for the switching system and fiber optic cable for the 800-mile transmission portion of the system. This system will be one of the first in the country to utilize such a large amount of fiber optic transmission technology in its design. Realistically, if the State of Kansas elects to build the planned system, it will be placed in the position of being on the "leading edge" of applied fiber optic system development. The State will construct and operate a telecommunications system utilizing the latest industry technology. There are a number of potential problem areas that should be considered as their occurrence could have a detrimental impact on the costs incurred for the construction and operation of the proposed system.

A. System Design

The design of the proposed system is essentially made up of two components: a long-haul fiber optic transmission system and a digital switching system. The fiber optic system will be combined with short microwave links for city entry purposes. The plan calls for burying the six or eight strand optical fiber cable along the center median or shoulder of the state/interstate highway system in Kansas.

Three digital switching centers are planned. A central control switch

will be located at the state capital in Topeka and will provide the switching and control facilities for intercity service as well as the local switching for most of the state agencies located in Topeka. Two other nodal switches are also planned for the system. The locations of these switches will be the Kansas University Medical Center in Kansas City and Wichita State University in Wichita.

B. Fiber Optic Transmission System

The proposed State-owned system includes a fiber optic intercity transmission system. This fiber optic cable system will be the "backbone" of the proposed telecommunications system providing the integral communications link among cities around the state. There is little doubt that fiber optics represents a new technology for telecommunications of the future; however, it is a relatively new technology with some inherent risks that should be addressed. These risks might be of special concern in light of the fact that the proposed system represents one of the largest fiber optic systems planned to date.

The costs for laying the 800 miles of fiber optic cable appear to be based on the assumption that the optic fiber can be plowed into the ground without the need for pre-ripping or trenching prior to installation. Since cable placement will be along the median strip or shoulders of major highways, this assumption may be based on the notion that much of the soil will be easily plowable as it will be comprised of fill material. This assumption, however, could be somewhat optimistic.

It is equally likely that the cable route will run along highway sections that were cut as well as filled. Furthermore, some highway sections may run along rocky areas which would also introduce difficulties in plowing. Costs for laying the cable could increase dramatically if a significant amount of trenching became necessary.

There is some concern over the question of whether fiber optic cable should ever be plowed directly into the ground. The stress of plowing the cable has the potential to cause microcracks in the optic fiber. Although some telephone companies have plowed in the cable directly, others have required that trenching or pre-ripping be done prior to laying the cable. The Bell System, for instance, is not yet convinced that the cable should be plowed; to date, all Bell System installations of fiber optic cable have included pre-ripping or trenching.

Microcracks in optic fiber produce a rather difficult problem in that they may not show up at the time of initial installation. At the point that cable capacity becomes nearly fully utilized, microcrack problems begin manifesting themselves. As the cable is more fully loaded, perhaps years after installation, capacity loss and other related problems due to microcracks appear. Additionally, an entire section of fiber may fail after a period of time due to undetected microcracks despite the absence of any prior transmission problems. Microcracks tend to develop several hundred feet along the optic fiber, so replacement of fiber optic cable due to microcracks may involve hundreds of feet of cable.

As currently designed, the transmission system will run along the

state's highway system. In the event that new highway interchanges are built in the future, the installed cable would have to be relocated. Costs for future cable relocation have not been considered in the proposed system.

The plan reports that the life of fiber optic cable is conservatively estimated at 40 years. "[The cable] is impervious and insensitive to electromagnetic induction, lightning, water infiltration, and electromagnetic pulse from nuclear blasts...." Undoubtedly the cable is very durable, but it still remains susceptible to the backhoe of a highway road crew bulldozer. In fact, the probability of some section of the cable being inadvertently dug up at some point in time exists. The Bell operating companies have found it necessary to establish Underground Cable Location Assistance Programs to guard against this particular problem. Some cost consideration should be allowed for this problem, as a single occurrence could be both costly to repair and detrimental to the overall reliability of the system.

Fiber optics may be a classic example of a declining cost technology. A number of sources report that as the production of fiber optic cable increases and the technology improves, prices will, in fact, drop significantly. In addition, technological advances in fiber optics have permitted longer distances between repeaters, thus reducing the overall number of repeaters required. There appears to be a good indication that the longer one waits to install a fiber optic system, the cheaper will be the costs due to technological advances and improvements.

Finally, while this report does not directly question the construction cost estimates for the system, it is surprising to note that no contingency factor has been included in the estimates. Projects of this magnitude have a significant probability of experiencing unforeseen construction costs and construction schedule delays. Furthermore, since few contractors have experience with building and installing this kind of system, supervisory costs will undoubtedly be greater than what might normally be expected.

C. Digital Microwave System

The proposed State-owned system is designed to include 18 GHz or 24 GHz digital microwave systems in Topeka, Kansas City, and Wichita for transmitting signals between the various State buildings and the switches in each respective city. Antennas will be mounted on the top of State buildings; microwave hops will be short direct line-of-sight hops. Two problem areas should be resolved. First, there have been instances where interference problems have resulted when additional microwave systems have been installed within a limited geographic region. If interference resulted from the State's proposed microwave links, it might prove necessary to forego the use of antenna sites on State-owned buildings in favor of more expensive sites elsewhere. Second, microwaves of 18 GHz and 24 GHz are quite susceptible to rain fade. It may become necessary to maintain the Bell System network for back-up when communication problems are encountered during periods of heavy rain.

D. Redundancy Planning

A major consideration for any type of telecommunications system of this magnitude is the planning of backup systems to take over in the event of a main system failure. The proposed State-owned system does not appear to include facility protection systems and redundant transmission capacities. Southwestern Bell will be used to provide back-up service in the event of intercity transmission failures or intracity microwave switching problems. Thus, whenever a portion of the State-owned system fails, the Bell System Direct Distance Dialing Network will be used to provide back-up service during the interim diagnostic and repair period.

Rather long "down times" are quite possible during failures due to the great distances involved in the fiber optic transmission network. System failures are a potentially costly event, and it is not entirely clear how they will be handled under the proposed State Plan.

E. Operation and Administration of the System

The efficient operation and management of a major telecommunications system involves rather sophisticated personnel planning. The State Plan calls for the addition of over 50 employees to maintain and operate the proposed system. The Plan, however, does not budget for any education or training expenses. Many additional personnel expenses may be incurred due to the rather large addition of personnel. Clearly, the proposed State-owned system will require highly trained employees with specific technical abilities in fiber optics; initial and continuing education and training of these employees will be a major operating expense to plan into the proposal.



In summary, the proposed State-owned system incorporates the most advanced state-of-the-art equipment for its switching and transmission components. However, certain risks are inherent in a system of this size. Fiber optic technology is not yet a totally "proven" technology. Some potential problems are still unresolved. Furthermore, the efficient operation of a large-scale telecommunications system requires the maintenance of a large, well-trained work force. These factors should be thoroughly considered in the planning and design of the proposed system.

## CHAPTER IV

### EVALUATION OF THE FINANCIAL PROJECTIONS

#### A. Review of the Cost Assumptions

Underlying the cost comparisons presented in the State's proposal is a set of assumptions regarding the expected future behavior of costs for services provided by Southwestern Bell Telephone Company. In general, these costs are assumed to increase at the rate of 15 percent per year throughout the period of analysis. This escalation factor is applied to total telephone charges "to represent tariff increases and growth" without regard to the various service components that comprise the total. Additional increases are projected in FY83, attributable to the discontinuance of intrastate TELPAK, and in FY86, to reflect the leasing of video transmission circuits.

The second cost element associated with continuing service from Southwestern Bell is the cost of operating the State Telecommunications Office. These costs are escalated at only 10 percent per year, "to reflect salary increases, cost of overhead and growth."

The first cost element of the proposed State-owned system is systems engineering, planning, and implementation management costs. These are costs incurred for contract and in-house services during the planned four-year period of preparation before the system is operative. The costs are built up from detailed staffing plans for each phase of the implementation plan.

Next are capital outlay recovery costs, based on the latest estimate of total capital requirements (\$31,866,000). The analysis assumes that

capital requirements are met by issuing a ten-year bond in FY84. The interest rate is to be 12 percent, paid annually.

Recurring costs of the proposed State-owned system are divided into three components. The first is continuing telephone company services. For the four-year preoperative period these costs are the same as were projected for the alternative of continuing Southwestern Bell service. In FY86 some of these costs continue because the State system will not reach all points requiring services. Some WATS and private lines will be leased for low-traffic intercity routes. Eleven percent of other long distance costs will continue. Some telephone company service will still be required for connections at the three switching hubs, and 61 percent of local costs will not be replaced. These costs are combined and escalated at 15 percent annually.

The second recurring cost is system operation and management costs. For the first four years these are extrapolations of historical figures, escalated at 10 percent as before. Then for the fiscal years 1986-88, the costs are derived from the detailed staffing plan mentioned above. During these two years the system operation and management costs rise at a 32.5 percent annual rate, but thereafter, they are expected to escalate at 10 percent annually.

Parts and supplies is the third recurring cost. They are projected at three percent of equipment costs in FY84. The proposal then refers to these FY84 costs as FY85 costs and escalates them at 10 percent annually. They do not actually appear as costs until FY87 because the contractor is expected to provide a one-year warranty.

The final cost attributable to the proposed State-owned system is the loss of tax revenue caused by the anticipated decrease in telephone company revenues. State and local taxes lost are calculated at nine percent of the projected decrease in telephone company revenues.

Using the single set of projections derived as explained above, the annual cost of each alternative is computed for fiscal years 1982-95. The annual cost figures are summed for each alternative to arrive at nominal "accumulated cost" for each. The difference between the nominal accumulated cost of continuing to obtain all services from the telephone company and the nominal accumulated cost of implementing the proposed system is nominal cumulative cost avoidance, which favors the proposed State-owned system given the projections in the proposal. Based on this comparison, the Kansas Telecommunications System is purported to be the financially more attractive alternative.

B. Evaluation of Cost Assumptions

Our analysis of the systems cost comparisons presented in the State's proposal will be divided into two major parts: a critical examination of the assumptions made and the resulting projections, and a reevaluation of the expected outcomes using discounted cash flow or present value analysis. A fundamental shortcoming of the analysis presented in the proposal is that only a single set of projections is given. There is no way to completely resolve the uncertainty associated with projecting future costs based upon past and present data, so an analysis of this scope should consider the effects of probable deviations from the underlying assumptions. We will therefore

present several cost scenarios showing deviations from the State's assumptions.

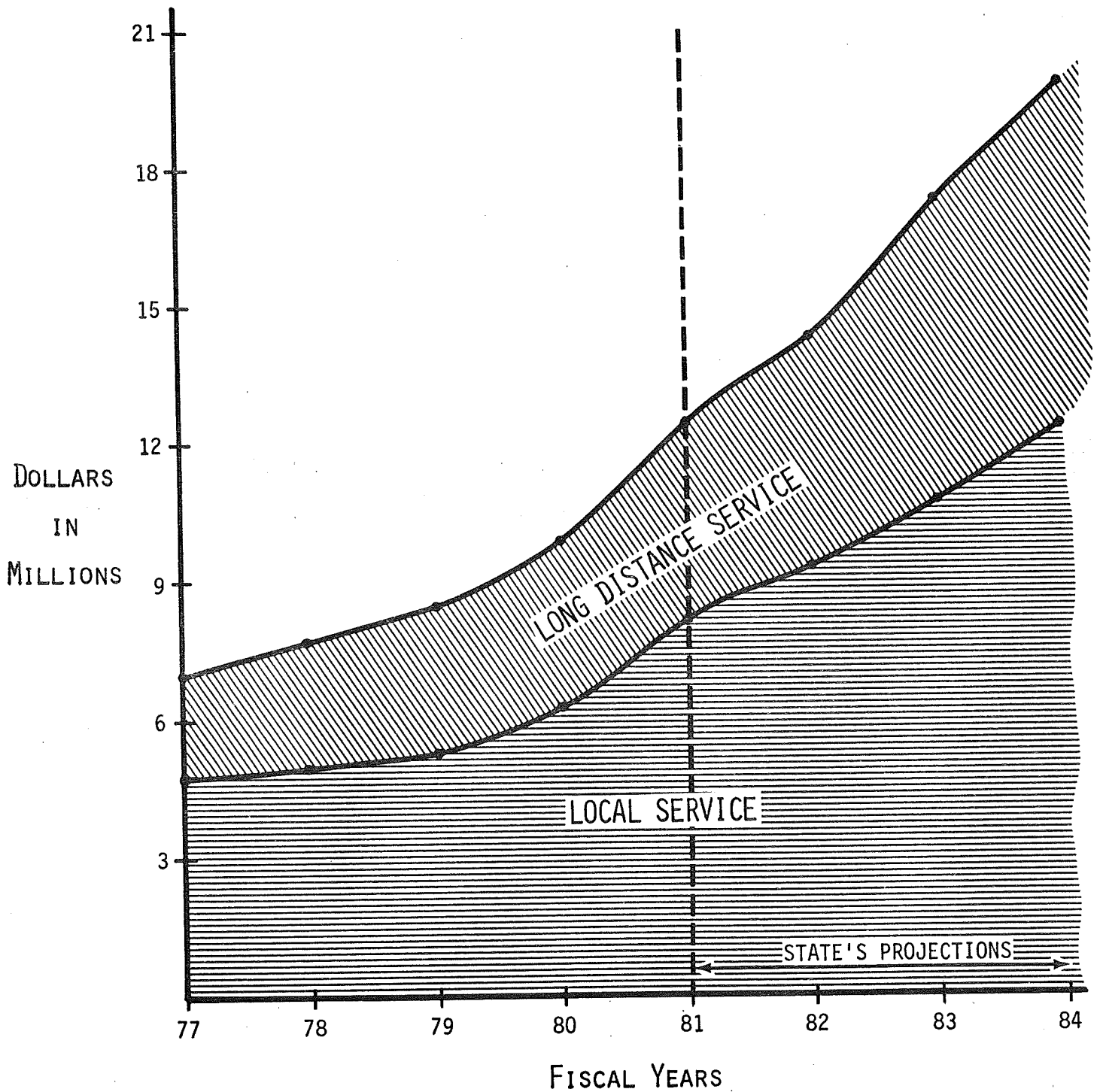
C. Telephone Company Service Cost

The State's proposal assumes a flat 15 percent annual increase in costs for service from Southwestern Bell. This figure is presented as a "conservative" estimate based upon the fact that state telecommunications costs rose at an average annual rate of 16.2 percent during the period 1975-81. The rate of increase has itself increased since 1977. No attempt is made to determine the portion of the total increase that is attributable to growth rather than to rate increases. Individual service components are not analyzed to determine the sources of the cost growth.

We found that the State's local service costs have increased much more rapidly than its long distance service costs. (See Figure 2.) As the State's proposal notes, local services are losing the subsidy previously provided by long distance services. Local rates have risen to more directly reflect the costs of providing local services. The rate of increase for the State's long distance services in 1980-81 was lower than the rates of increase in 1977-78 and 1978-79, despite the fact that the KANS-A-N network slowed toll service cost increases in 1977-79, as was pointed out in the proposal.

Increases in telephone charges stem both from rate increases and from system growth. Growth in the State's use of services has been substantial in the last five years. This is certainly responsible for a portion of the cost growth portrayed in the State's proposal. Use of

**Figure 2**  
**Pattern of Increasing Telecommunications Costs**



**Rates of Increase:**

(Fiscal Years)	<u>77-78</u>	<u>78-79</u>	<u>79-80</u>	<u>80-81</u>
Long Distance	19.6%	20.0%	12.3%	16.3%
Local	3.8%	6.2%	18.9%	31.0%
Total	8.9%	11.1%	16.4%	25.6%

the KANS-A-N network was up over 100 percent between 1977 and 1981, while the cost per minute rose under 22 percent (from 12.75 to 15.53 cents per minute), or only five percent per year. The number of lines leased to provide access to the network increased 45 percent and TELPAK circuit-miles leased were up 31 percent from 1976 to 1982. According to Southwestern Bell, the average cost increase over the last six years actually attributable to rate increases was 10.9 percent. Not included in this figure are WATS, DDD, and one-time-only charges for installation, etc.<sup>1/</sup>

Because telecommunications costs are currently subject to a variety of influences (deregulation, AT&T divestiture, competition, technological change, etc.) which affect various service components differently, the use of a composite cost escalator is unreliable. This amounts to extrapolation from historical data without regard to the fact that the system that generated the data has changed. The 15 percent average figure proposed by the State is not beyond the realm of possibility, but we believe that a range of figures must be considered to ascertain the sensitivity of the investment analysis to changes in this assumption.

One of the goals of the proposed system is to insulate the state government from the rising costs that are projected in the Plan. While the proposed Kansas Telecommunications System would replace nearly all of the long distance services now provided to the State by Bell,

---

<sup>1/</sup> The six year average cost increase figure was provided by Southwestern Bell at our request. The remainder of the data in this paragraph was excerpted from the KANS-A-N Directory.

less than 40 percent of local service costs will be eliminated by the proposed system. Since 1977, local service costs have been 60 to 70 percent of total telephone company charges to the State. According to the proposal, local service would still constitute 65 percent of residual telephone company costs in FY86. The proposed system therefore will not insulate the State from local service cost increases. In addition, the State-owned system will experience the same general effects of inflation as will Southwestern Bell.

In addition to the escalation factor applied to project Southwestern Bell's costs, two other cost increases have been built into the figures in the State's proposal. The first is the addition of \$800,000 to telephone company charges in FY83, representing the increased cost of intercity service after the discontinuance of intrastate TELPAK. At this point, intrastate TELPAK has been grandfathered until FY83. A final decision on the date of discontinuance has been reserved for the future. When this bulk service is discontinued, the impact on the cost of intercity circuits is uncertain. The expectation in the State's proposal is that the cost will double, but no justification for this estimate is given. While we grant that an increase in the cost for intercity circuits is likely, such an increase would also apply to the cost of residual intercity service provided by the telephone company in the proposed State system. This was not included in the Booz, Allen projections. (See p. B-20, Vol. III, State of Kansas Telecommunications System Implementation Plan.)

Any cost increase that does occur when TELPAK is discontinued may be viewed as a short term effect. Deregulation of intercity toll service



will free AT&T Long Lines to bid competitively to provide these services to the State. As intrastate toll service competition develops, the long term effect will be to hold down these rates. The state government could reduce its financial and technological risk by procuring intercity service in the competitive market. Private subscribers would also benefit from the availability of competitive transmission systems.

The second adjustment made to Southwestern Bell's costs in the State's proposal is the addition of \$2,410,000 to long distance costs in FY86. This represents the cost of leasing video transmission service. The justification for this, according to the proposal, is that the proposed fiber optic/microwave system would provide the capacity to transmit video, so the telephone company's costs should reflect this capacity as well. This obscures an important point. The proposed State system would provide the transmission capacity to handle many additional services, as the proposal makes clear. However, the actual cost of making these services available is not included in the proposed capital costs or operating expenses (e.g., studio construction, technical equipment and personnel). Unless these full costs are considered, the capacity of the system to transmit wideband video, etc., is simply excess capacity. An advantage of continuing to buy services from the telephone company is that there is no requirement to pay for transmission capacity before it is needed. There is no reason to add a charge for video transmission capacity in FY86 unless the State has committed the funds required to offer the service. Whether or not the benefits will justify these additional costs is a separate issue from the one at hand.

D. State Management and Overhead Cost

State management and overhead cost is the next cost element in the projected costs of continuing service from Southwestern Bell. These costs are based upon the FY82 budget of \$629,099 and the FY83 projection of \$723,048. The increase between these two years is 15 percent, but the increase projected for the future is 10 percent per year. It is plausible that these costs might increase more slowly than the costs of Southwestern Bell because growth in the State's telephone system does not have as great an impact upon overhead as it does upon the maintenance and operating costs of the telephone company. However, this is not the rationale behind the 10 percent figure. It was selected simply because the legislature has mandated a maximum yearly increase of 10 percent for the Communication Staff's budget. These costs are vulnerable to the uncertain effects of inflation, so a range of probable cost escalators bears consideration.

The only additional cost element that we might include in the cost of the telephone company system is the cost to purchase customer premise equipment (CPE) at some future time. It might be purchased from a Bell subsidiary or another vendor. Cost of leasing or buying CPE in the future is not given in the study except for certain equipment in the regional switching cities. As will be discussed later, the omission of capital cost is not important, but some adjustments need to be made to cost elements that include leases on CPE.

E. Capital Outlay Payback

The first cost element presented as part of the proposed State-owned

system is the capital cost of constructing the system. This is expressed as the annual payments necessary to repay principal and interest on a ten-year, 12 percent bond. The principal amount of the bond is set at \$31,866,000, which is the expected total of capital costs. Capital spending is scheduled over a 30 month period ending six months after the system becomes operational. Undisbursed payments and sinking fund payments are assumed to earn interest at 12 percent.

The capital cost should be subjected to sensitivity analysis. This could deviate from the expected amount for several reasons: Prices quoted by contractors may differ from those finally bid. We found minor arithmetic errors in calculating construction costs. Construction might be subject to weather delays. Additional costs might arise, such as costs to upgrade the Colby-Norton microwave and existing telephone company lines that will continue in use. Finally, the market interest rate will very likely differ from the assumed 12 percent. We will examine the effects of such deviations on the investment analysis.

F. System Planning, Engineering and Implementation Cost

The costs of engineering, planning, and managing the implementation of the proposed system in fiscal years 1982-85 are obtained by detailing the tasks to be performed, calculating manpower requirements, and assuming the labor costs to be incurred. These costs are assumed to be the same whether work is performed in-house or contracted out. They appear to be "best guess" figures and therefore are subject to some degree of variation, both in terms of magnitude and timing.

G. System Operation and Management Cost

Full telephone company services continue through the engineering, planning, and implementation period, so costs for normal state management and overhead are also included. These figures are simply carried forward from the earlier projection of the costs of continuing service from the telephone company indefinitely. As described before, they increase first at a 15 percent annual rate, then 10 percent annually for two years. In FY86 these costs are replaced by those of the former engineering, planning, and management group. Rather than assuming a cost escalator, detailed manpower requirements and cost assumptions are provided for FY86, FY87, and FY88, during which time costs grow at an average annual rate of 32 percent. Beginning in FY89, the cost of operating and managing the system is expected to resume its earlier 10 percent annual growth. Planning for enhanced services is to commence in FY88.

Beginning with the inauguration of service in FY86, the proposed Telecommunications Division of the Department of Administration is expected to operate, maintain, and manage a state-of-the-art mixed fiber optic/microwave communications system. Staff training is scheduled to commence at that time as well, so presumably the staff will be assisted by contractors for some time. While telephone company costs are projected to increase at a 15 percent annual rate throughout the period, state operation and management costs are expected to increase 7 percent (FY87), then 64 percent (FY88), then 10 percent annually to reflect salary increases and inflation. This projection appears inconsistent. It implies that the State will not face the same inflationary pressures as Southwestern Bell, that the State anticipates

less growth in its system than would be the case with Southwestern Bell, or that the State expects to control its costs more effectively than Southwestern Bell despite the competitive and regulatory pressures to be faced by the latter.

#### H. Parts and Supplies

A second recurring cost component of the proposed State system is the cost of parts and supplies. This cost, which does not arise until FY87 because of vendor warranties, is derived by taking 3 percent of the expected cost of equipment when ordered in FY84 and escalating it by 10 percent per year. Given this method of derivation, these costs are understated by 10 percent in all years because of an arithmetic error in projecting the FY87 cost.

#### I. Continuing Telephone Company Service Cost

The largest recurring cost component of the proposed system is the cost of telephone company services that must be continued indefinitely. These include some TELPAK or alternative private line service, WATS, connections at regional switching hubs, and the majority of local services statewide. As pointed out above, we feel that it is inconsistent not to adjust the cost of continuing intercity transmission for the discontinuance of TELPAK when an adjustment is made to those costs elsewhere. Also, we have questioned the reliability of a flat 15 percent escalator because of ongoing changes in the rate structure of the telecommunications industry.

The use of a flat rate cost escalator is a simplifying assumption. When employed in a comparative analysis such as this study, it is

important that the various flat rates applied to different cost elements bear the proper relationship to one another. We pointed out above that the State's proposal is to replace most long distance services now provided by Southwestern Bell, but less than 40 percent of local services (measured on a cost basis). As has been the case in the recent past, local service charges may rise more quickly than long distance charges because of the effects of competition and advanced technology in the market for interexchange service.

J. Indirect Costs to Kansas Taxpayers

The State's proposal recognizes that a decrease in telephone company revenues caused by the government's use of a private system will result in the loss of some tax revenues. The tax revenue loss is calculated at nine percent of the projected decrease in telephone company revenues. While the state tax revenues lost are to be offset by savings in other recurring costs, local tax revenues lost will not be similarly offset. Taxpayers may face higher local tax rates to make up for this loss. Should the State-owned system extend service to local governments to compensate for tax revenues lost, additional capital expenditures would be required and the State of Kansas would find itself in competition with telephone companies. Further erosion of tax revenues could result.

An unforeseen cost of implementing the State's proposal is that it would set back the development of competitive telecommunications services in Kansas. In its characterization of the future telecommunications environment, the proposal paints a bleak picture of

uncontrollable cost escalation caused by deregulation and restructuring of the industry. This is certainly not the intent of federal regulators, legislators, and judges who have permitted or initiated these changes. The purposes of deregulation and AT&T divestiture are to encourage competition wherever possible and to promote the availability of telecommunications services. As the largest consumer of telecommunications services in Kansas, the state government would significantly reduce the size of the future demand for competitive services in the state if it set up a private system. The market would support a smaller number of competitive vendors, and they would have to charge higher rates to their customers to recover their capital costs and earn profits. Once again, business and residential customers would bear these costs.

Indirect costs such as these are difficult to quantify. To do so at this stage might detract from rather than add to the reliability of the projections. We will limit our treatment of the financial projections to correcting arithmetic and conceptual errors, and examining the sensitivity of the comparison to changes in service costs, capital costs, and bond rates.

## CHAPTER V

### ECONOMIC COST COMPARISONS

The decision to be made by the State of Kansas is of a type that is encountered frequently in government and private enterprise. It is an investment decision. Two alternative courses of action have been identified in the Booz, Allen report: approve and proceed with the proposed State-owned telecommunications system, or continue to procure telecommunications services from Southwestern Bell Telephone Company.

It should be noted that the two alternatives differ in terms of the constraints placed on future actions by accepting one or the other.

The proposed State-owned system requires a large investment in fixed assets, most of which could not later be sold or converted to other uses. Because of this, acceptance of the proposal commits the state government to using the system as designed and built for many years.

Future additions to the system at additional cost are anticipated, but switching to another system would be very costly and is not anticipated. Buying service from the telephone company requires no large capital investment. The state government would not commit to this arrangement for a long period of time, so it could later choose to procure service from other sources or develop a private system with little or no penalty for making the switch. The alternatives therefore have different levels of risk associated with them. We will return to this point and its implications later in this chapter.

The alternatives also differ in the expected benefits (services) to be obtained. The proposal for the State-owned system lists a number of



services obtainable with the new system, but attempts no quantitative measure of net benefits (value of service less additional costs). Similarly, there is no discussion of the availability or cost of equivalent services from the telephone company. Consultants from Western Electric have undertaken a study to provide this information. When this information is available for both of the alternatives, it can be considered quantitatively in the economic comparison. Until then, our comparison must be limited to expected costs. Expected benefits can be considered subjectively along with other factors such as reliability and speed of maintenance support and the availability of technical and managerial services.

Finally, the alternatives differ in their expected cash flows. In the preceding chapters we showed that the cash flows projected for the two alternatives are likely to differ from the single set of figures presented in the State's proposal. This uncertainty adds another element of risk to accepting either of the two alternatives. To lessen the risk of evaluating incorrect cash flows, we will compare several sets of projections. These cash flow projections, with and without adjustments, appear as tables at the end of this chapter.

In determining the cash flows to be compared in evaluating alternative proposals, it is important that all relevant cash flows and only relevant cash flows are included. We have already alluded to this point in discussing indirect effects such as lost tax revenues and decreased benefits of competition. We also pointed out the irrelevance of adding costs of video transmission to telephone company costs when other costs of providing video service are not included in the cash

flows. Costs which are the same under both alternatives are also irrelevant to the comparison, though their inclusion will not affect the outcome of the comparison. Examples are telephone company charges and state management and overhead charges in the years before the new system would be operative. These costs could be excluded from the comparison, but including them has no net effect as long as they are treated identically in both sets of projections.

An important cost which occurs in both alternatives, but which is not identically treated in the Booz, Allen projections, is the cost of customer premise equipment (CPE). CPE is scheduled for deregulation in 1983, which means that CPE currently provided by Bell will be leased or sold competitively. Many other vendors exist for CPE, so competition should continue to evolve on the basis of price, features, and service. The proposal includes the purchase of CPE in the three cities of Topeka, Wichita, and Kansas City. This effectively changes the cost of CPE in those locations from a lease (recurring) cost to a capital cost. However, the projections for continuing Bell service do not include the purchase of CPE, so that cost remains a lease cost and is escalated at 15 percent per year.

The deregulation of CPE and the divestiture of the Bell operating companies will probably provide the State with new alternatives for the procurement of CPE. It is misleading to include any CPE lease costs in the cost of service from Bell under either alternative. Regardless of the decision to continue to use Southwestern Bell's network or to build its own, the State will have a number of options for CPE procurement.

CPE may be purchased or leased from any vendor that the state government might choose. This decision is separate from the decision to build or not to build a State-owned system.

The capital cost of CPE in Topeka, Wichita, and Kansas City, is included in a line item called "switching equipment" in Exhibits C-5, C-9 and C-13. Detail is lacking, so we have estimated the cost attributable to CPE at \$100 per telephone, for a total of \$1,300,000 (rounded) in the three cities. This amount will be added to local service costs category in the projected costs of continuing service from Southwestern Bell. This is a one-time-only charge in FY85 to provide identical treatment of this cost under both alternatives.

The cost of replacement or continued leasing of CPE in the rest of the state is not available in the data. The Booz, Allen study does not state how many telephones and other CPE items are in use, so an estimate is not possible. Once again, as long as the treatment of this unknown cost is identical under both alternatives, its omission is not important to the comparison. It should be remembered, however, that this cost will be incurred regardless of the alternative selected.

The method used in the State's proposal to compare the cost of the proposed system with the cost of continuing Bell service is simply to add up the costs projected for an arbitrarily chosen time period. Costs occurring in one year are treated as having the same economic value, dollar for dollar, as costs occurring in all other years. The cumulative cost avoidance, which is the difference between the two grand totals, is represented as having some economic meaning. In fact it does not, because its derivation ignores two fundamental concepts of

economic and financial analysis: the time value of money, and risk or uncertainty.

A. The Time Value of Money

Perhaps the simplest statement of the concept of time value of money is that a dollar today is worth more than a dollar tomorrow. If a person has some spare cash available now, he can invest it in a liquid and relatively riskless asset such as a bank savings account and receive more money at some future time. If the person were to borrow money now, he would have to repay a larger amount in the future to return both principal and interest. The existence of interest rates in the economy means that \$100 in hand today is worth more than \$100 to be received a year from now, because \$100 today can be invested to receive \$100 plus interest a year from now. Similarly, \$100 paid out today is more costly than \$100 to be paid in one year, because today's \$100 could be invested for a year, \$100 could be paid at the end of that time, and there would still be money (the interest earned) left over. Money has time value apart from the attitudes of any one person or the investment opportunities available to a particular investor.

It is possible to calculate the future value of money on hand now. It is also possible to calculate the present value of a sum of money to be received or spent in the future. If a person has \$10 now and can invest it in a riskless asset (one which is certain to repay the investment when scheduled and in the amount expected) at 10 percent annual interest, the future value in one year of his \$10 now is 1.1 times \$10 or \$11. If he were to invest for two years, the future

value at the end of that time would be (1.1) (1.1) (\$10) or \$12.10. This reflects additional interest earned in the second year, computed on the principal amount and the interest earned in the first year. Obviously, this process of "compounding" the interest can continue for any number of periods.

If a person plans to pay out \$10 in one year from now, he might want to know how much money to invest now in order to have the \$10 available in one year. If the same 10 percent investment were available, he could invest \$9.09 now and receive (1.1) (\$9.09) or \$10.00 (rounded) in one year. Therefore, \$9.09 is the present value of \$10 to be paid (or received) in one year. To find this amount, just divide the future value (\$10) by the "discount factor" (1.1). To find the present value if the payment is to occur in two years, divide the future value by (1.1) (1.1) or by 1.21. The result is \$8.264, the present value of \$10 to be paid in two years.

We propose to apply this concept by computing the present value of all of the projected cash flows of the two alternatives being evaluated. This application, called "discounted cash flow analysis" or present value analysis, is widely used to determine the economic value of investment proposals. While Booz, Allen's method of analysis produces estimates of future budget appropriations, it provides no information to help the state government decide which set of appropriations will actually cost more, in an economic sense. Present value analysis will show that differences in the timing of expenditures under the two alternatives produce different costs to the taxpayers. Because of the time value of money, future expenditures must be discounted to present

value before a valid cost comparison can be made. If the projected cash flows were certain to occur, we could determine the true economic cost of each alternative by using the appropriate discount factor to find the present value of the cash flows.

The selection of the appropriate discount factor is not a simple matter. The process may be begun by finding the "opportunity cost of capital" for the investor, in this case the State of Kansas. The opportunity cost of capital is the return that must be foregone to make the investment being evaluated. For an individual, the opportunity foregone to make an investment might be a savings account deposit or a money market investment. The returns on these alternatives are easily calculated. For the State, the opportunity foregone might be to repair highways, build a prison, or buy some office equipment. The returns on these investment alternatives are not easily calculated. For this reason, the rate often substituted as an approximation of the opportunity cost of capital is the rate paid to raise the capital for the investment project.

B. Risk and Uncertainty

Several times we have pointed out risks of the alternative being evaluated. Unlike the notion of cumulative cost avoidance, the present value concept takes risk into account. The risks that should be considered are many, but they can be grouped into two major classifications: technological risks and financial risks.

Technological risks of the alternative of continuing service from the telephone company are minimal. For example, the risks of obsolescence and system malfunction are borne almost entirely by the telephone

company. This allows the State to take advantage of the evolving competitive market for telecommunications services as other vendors present alternative technologies. Financial risk exists in that it is not possible to know precisely what services will be available at what cost. Once again, competition should minimize this risk by exerting pressure on all vendors to hold prices down and provide attractive services.

Constructing and operating a private system would shift most technological risk to the State. The proposed system incorporates some fairly mature technologies (e.g., microwave transmission, digital coding and switching) and some relatively new ones. The use of over 750 miles of fiber optic cable and associated equipment is not without risk. Other carriers have proceeded with caution in developing fiber optic systems because such systems are subject to failures caused by defects (microcracks) that are not apparent until the system is used to capacity. No fiber optic system has been in place for more than a fraction of the 30 to 40 year design lifetime, so lifetime service records are not available. Lightwave communication is a rapidly advancing science, so some components (e.g., repeaters, multiplexers) may require upgrade to achieve the level of service envisioned for the future.

As in the other alternative, financial risk exists in that cost projections are uncertain. This is true of both capital costs and recurring costs. Market rates at the time of the expected bond issue are unknown. Costs of replacement components and contract services and the impact of regulated access charges cannot be accurately predicted

years in advance. The state government will bear these risks directly, as it would find it very difficult to switch to a lower cost alternative if one should arise. The large capital expenditure represents a commitment to operate the system for many years.

If a relatively risk-free investment exists, an investor will demand a higher return from a risky investment before he will choose to invest in it. This is why the rate of return on U.S. Treasury securities is lower than the rate of return on corporate bonds issued for an equal term. (Taxes and tax exemptions complicate this relationship, but do not alter the result.) The discount rate used in present value analysis should reflect the risk of the investment being evaluated. While an investor might purchase a State of Kansas bond at 12 percent interest, if the obligation is backed by the full taxing powers of the state, this 12 percent rate reflects the rather small risk of default by the state rather than the specific risks of the project being financed. The project being considered should be evaluated from the taxpayers' point of view: Are the expected future savings worth the present expenditure required? How great are the chances that savings may not materialize as projected?

Texts on investment analysis describe a method of determining a reliable estimate of the discount rate which includes an appropriate adjustment for the risk of the individual investment being considered.<sup>2/</sup> A "risk-adjusted discount rate" is developed for a given

---

<sup>2/</sup> For examples, see Richard Brealey and Stewart Myers, Principles of Corporate Finance (New York: McGraw-Hill, Inc., 1981), Chapters 7-9, or any current financial management text.



investment proposal by adding together the risk-free rate of return (generally the current rate on U.S. Treasury securities, which includes expected inflation) and a "risk premium." The risk premium for a specific project or investment is derived via statistical analysis of the relationship between the expected returns from the investment and the expected return on a large portfolio of common stocks (called the "market portfolio"). Because of the complexity of this analysis, financial managers often use rules-of-thumb to set risk premiums for various categories of investment. Expansion of the existing business might be evaluated at the company's cost of capital, which is determined by the stock market and by the rate the company pays to borrow money. Investment in a new product might be evaluated using an additional five percent risk premium. A speculative new venture might receive a 15 percent risk premium above the company's cost of capital.

We propose to evaluate the two alternatives for telephone service using a range of discount rates. The range will extend from 15 percent to 25 percent. This will allow us to compare the alternatives using a range of risk premiums from 5 to 10 percent if the underlying cost of capital (approximated by bond rates) is in the range of 10 to 15 percent. Comparisons made using this method of analysis will show the relative economic cost to the taxpayers of the State of Kansas rather than the simple difference between nominal costs over the period of analysis.

C. Sensitivity Analysis

Our sensitivity analyses are based on data from the Booz, Allen report.

The adjustments that we have made to the data to establish our Base

Case are explained in Appendix A to our report.

Twelve variations of the Base Case are described in this chapter. The assumptions altered in each case are listed, the resulting projections are shown, present values of the projected costs are calculated at five discount rates, and a graphical comparison is made. The variations are also detailed in notes incorporated into the tables. The phrase "No Changes" indicates that values in that line are unchanged from the Base Case. A summary of the outcomes is presented in Table 2.

We examine the effects of changes in five assumptions used to derive the cost projections in the Booz, Allen report. The first assumption is that TELPAK will be discontinued by 1983, and that this event will cause an increase of \$800,000 in the State's long distance charges. This assumption is followed in the Base Case and in Cases 4-13. In Cases 2 and 3 the adjustment is delayed first until 1984, then until 1985. In each case the amount of the adjustment is the equivalent of \$800,000 in 1983. The cost escalator is 15 percent per year. The effect on the present values of annual costs is relatively small. In Cases 1-3, the proposed State-owned system appears to be the more costly alternative.

In Cases 4-13, the TELPAK adjustment is fixed at \$800,000 in 1983. Four other assumptions are examined: the cost escalator applied to Southwestern Bell service costs; the cost escalator applied to State costs for management, overhead, and operation of the proposed system; the rate of interest on the bond issued to raise capital for the proposed system; and the amount of the bond issue required.

Southwestern Bell service costs were escalated at 15 percent, 10 percent, and 20 percent in various cases. (See Table 2.) State costs of management, overhead, and operation were escalated at 10 percent and 15 percent. The detailed costs for system planning, engineering, and implementation in 1982-88 have not been varied from the costs presented in the State's proposal. Also, in no case was the State cost escalator higher than the Bell cost escalator.

Three bond interest rates were tested: 10 percent, 12 percent, and 15 percent. We calculated the capital outlay payback in the same manner as Booz, Allen did in their Exhibits F-5 and F-6. As was done in the proposal, we assumed reinvestment of undisbursed funds at the same rate as the bond interest rate.

Three capital expenditure amounts were tested: \$32 million, \$27.2 million (15 percent savings), and \$36.8 million (15 percent overrun). Various combinations of bond amount and bond interest rate were tested.

We did not try what we believe to be unlikely combinations of assumptions. For example, we did not assume low cost escalators with high interest rates and a cost overrun. All four factors are influenced by general inflation, so such a scenario is not likely to occur.

The assumption to which the present values are most sensitive is the cost escalator applied to Bell service costs. This is because Bell service costs are the largest costs in both alternatives. This underscores the point that the proposed State-owned system will not

insulate the state government from telephone company cost increases.

The case which is most favorable to the State's proposal is Case 12, in which capital costs are 15 percent under the Booz, Allen projections, the bond is issued at 10 percent interest, and State costs of management and operation rise at a 10 percent annual rate. Bell costs are escalated at 20 percent annually. In this case and in one other (Case 10), the State-owned system is favored at all discount rates examined.

The case which is most favorable to the alternative of continuing services from Southwestern Bell is Case 13, in which there is a 15 percent cost overrun on construction of the State-owned system, the bond interest rate is 15 percent, and both Bell costs and State costs rise at 15 percent per year. In this case and in eight others, continuing with Southwestern Bell is favored at all discount rates examined. In two other cases (Cases 6 and 11) the preferred alternative changes, depending on the discount rate.

TABLE 2

SUMMARY OF SENSITIVITY ANALYSIS

<u>Case</u>	<u>Less Costly System At 15 Percent Discount Rate</u>	<u>Bond Rate</u>	<u>Construction Cost Variance</u>	<u>Annual Bell Cost Increases</u>	<u>Annual State Cost Increases</u>	<u>TELPAC Ends</u>
Base Case	Bell	12%	-0-	15%	10%	FY83
Case 2	Bell	12%	-0-	15%	10%	FY84
Case 3	Bell	12%	-0-	15%	10%	FY85
Case 4	Bell	15%	-0-	15%	10%	FY83
Case 5	Bell	12%	+15%	15%	10%	FY83
Case 6	State	12%	-15%	15%	10%	FY83
Case 7	Bell	10%	-0-	10%	10%	FY83
Case 8	Bell	12%	-0-	10%	10%	FY83
Case 9	Bell	12%	-0-	15%	15%	FY83
Case 10	State	12%	-0-	20%	15%	FY83
Case 11	State	15%	+15%	20%	15%	FY83
Case 12	State	10%	-15%	20%	10%	FY83
Case 13	Bell	15%	+15%	15%	15%	FY83

Case 1 (Base Case)

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- (3) Telco costs increase 15% per year
- (4) State management costs increase 10% per year
- (5) Bond rate at 12%
- (6) No capital cost overrun

CASE #1 (BASE CASE)

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18006	20671	19299	20654	23705	27207	31230	35850	41157	47253	54256	62303	71544

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	153105
AT 17.5 %	131858
AT 20.0 %	114772
AT 22.5 %	100890
AT 25.0 %	89499

- NOTES: (1) NO CHANGES.  
 (2) ADJUSTED TO EXCLUDE CPE LEASES BEGINNING 1985. SEE "COMPUTATION OF ADJUSTMENTS FOR CPE AND TELPAK". ESCALATION AT 15%.  
 (3) NO CHANGES.

CASE #1 (BASE CASE)

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	933
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>25777</b>	<b>23372</b>	<b>20049</b>	<b>23745</b>	<b>28720</b>	<b>31934</b>	<b>35609</b>	<b>39812</b>	<b>44618</b>	<b>49775</b>	<b>50567</b>	<b>57768</b>

PRESENT VALUE OF ANNUAL COST

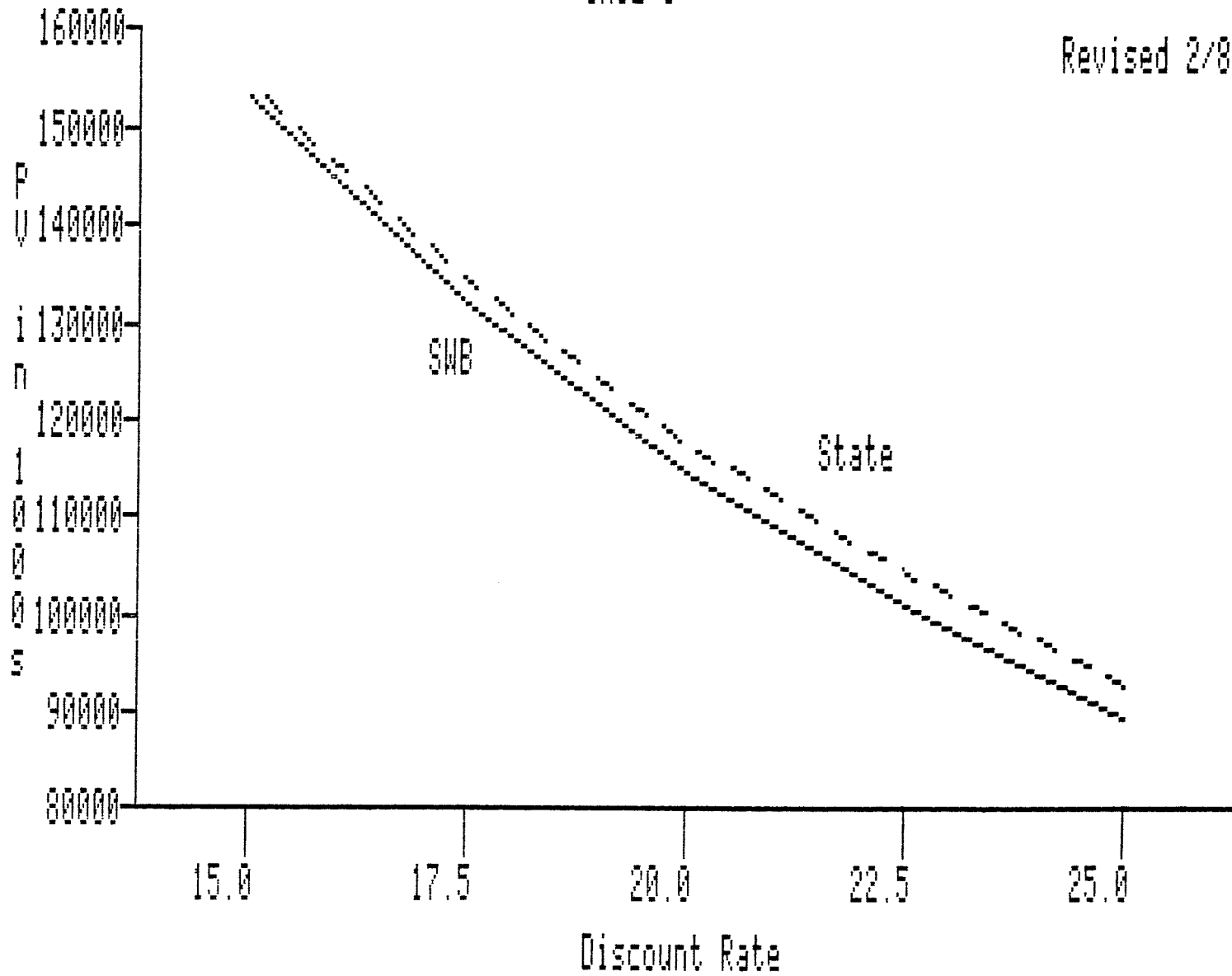
AT 15.0 %	154445
AT 17.5 %	134039
AT 20.0 %	117501
AT 22.5 %	103959
AT 25.0 %	92763

- NOTES: (1) NO CHANGES.  
 (2) NO CHANGES.  
 (3) ADJUSTED TO INCLUDE TELPAK DISCONTINUANCE INCREASE AND TO EXCLUDE CPE LEASES BEGINNING IN 1985. SEE "COMPUTATION OF ADJUSTMENTS FOR CPE AND TELPAK".  
 ESCALATION AT 15%.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.



CASE 1

Revised 2/83



Case 2

Sensitivity analysis includes:

- (1) CPE adjustment
- \* (2) TELPAK discontinuance in FY84
- (3) Telco costs increase 15% per year
- (4) State management costs increase 10% per year
- (5) Bond rate at 12%
- (6) No capital cost overrun

\* Indicates changes from "Base Case"

REVISED 2/83

CASE #2

SCHEDULE A

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>TELEPHONE SERVICE COSTS</b>														
(1) LONG DISTANCE	4908	5644	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
<b>TOTAL TELEPHONE SERVICE COSTS</b>	<b>14333</b>	<b>16483</b>	<b>19876</b>	<b>18424</b>	<b>19692</b>	<b>22646</b>	<b>26043</b>	<b>29949</b>	<b>34441</b>	<b>39607</b>	<b>45548</b>	<b>52381</b>	<b>60239</b>	<b>69275</b>
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
<b>ANNUAL COST</b>	<b>14962</b>	<b>17206</b>	<b>20671</b>	<b>19299</b>	<b>20654</b>	<b>23705</b>	<b>27207</b>	<b>31230</b>	<b>35850</b>	<b>41157</b>	<b>47253</b>	<b>54256</b>	<b>62303</b>	<b>71544</b>

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	152500
AT 17.5 %	131279
AT 20.0 %	114217
AT 22.5 %	100357
AT 25.0 %	88987

- NOTES: (1) NO ADJUSTMENT FOR TELEPAK UNTIL 1984. ESCALATION AT 15%.  
 (2) NO CHANGES.  
 (3) NO CHANGES.

CASE #2

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	16483	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>17891</b>	<b>25777</b>	<b>23372</b>	<b>20049</b>	<b>23745</b>	<b>28720</b>	<b>31934</b>	<b>35609</b>	<b>39812</b>	<b>44618</b>	<b>49775</b>	<b>50567</b>	<b>57768</b>

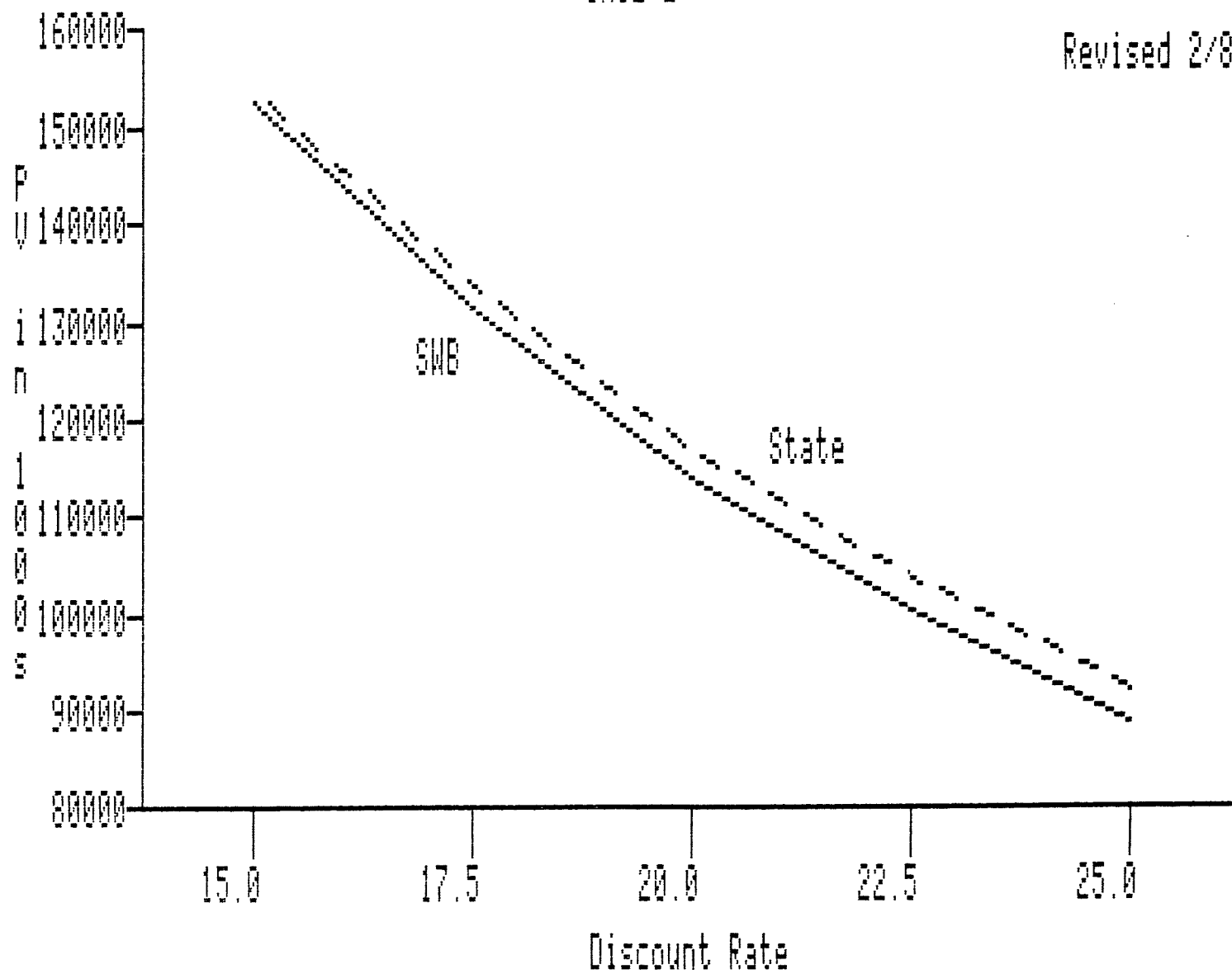
PRESENT VALUE OF ANNUAL COST

AT 15.0 %	153840
AT 17.5 %	133460
AT 20.0 %	116945
AT 22.5 %	103426
AT 25.0 %	92251

- NOTES: (1) NO CHANGES.  
 (2) NO CHANGES.  
 (3) NO ADJUSTMENT FOR TELEPAK UNTIL 1984. ESCALATION AT 15%.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.

CASE 2

Revised 2/83



Case 3

Sensitivity analysis includes:

- (1) CPE adjustment
- \* (2) TELPAK discontinuance in FY85
- (3) Telco costs increase 15% per year
- (4) State management costs increase 10% per year
- (5) Bond rate at 12%
- (6) No capital cost overrun

\* Indicates changes from "Base Case"

REVISED 2/83

CASE #3

SCHEDULE A

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	5644	6491	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	16483	18956	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2289
ANNUAL COST	14962	17206	19751	19299	20654	23705	27207	31230	35850	41157	47253	54256	62303	71544

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	151895
AT 17.5 %	130712
AT 20.0 %	113684
AT 22.5 %	99857
AT 25.0 %	88516

- NOTES: (1) NO ADJUSTMENT FOR TELPAK UNTIL 1985. ESCALATION AT 15%  
 (2) NO CHANGES.  
 (3) NO CHANGES.

CASE #3

REVISED 2/83

SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	16483	18956	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>17891</b>	<b>24857</b>	<b>23372</b>	<b>20049</b>	<b>23745</b>	<b>28720</b>	<b>31934</b>	<b>35609</b>	<b>39812</b>	<b>44618</b>	<b>49775</b>	<b>50567</b>	<b>57768</b>

PRESENT VALUE OF ANNUAL COST

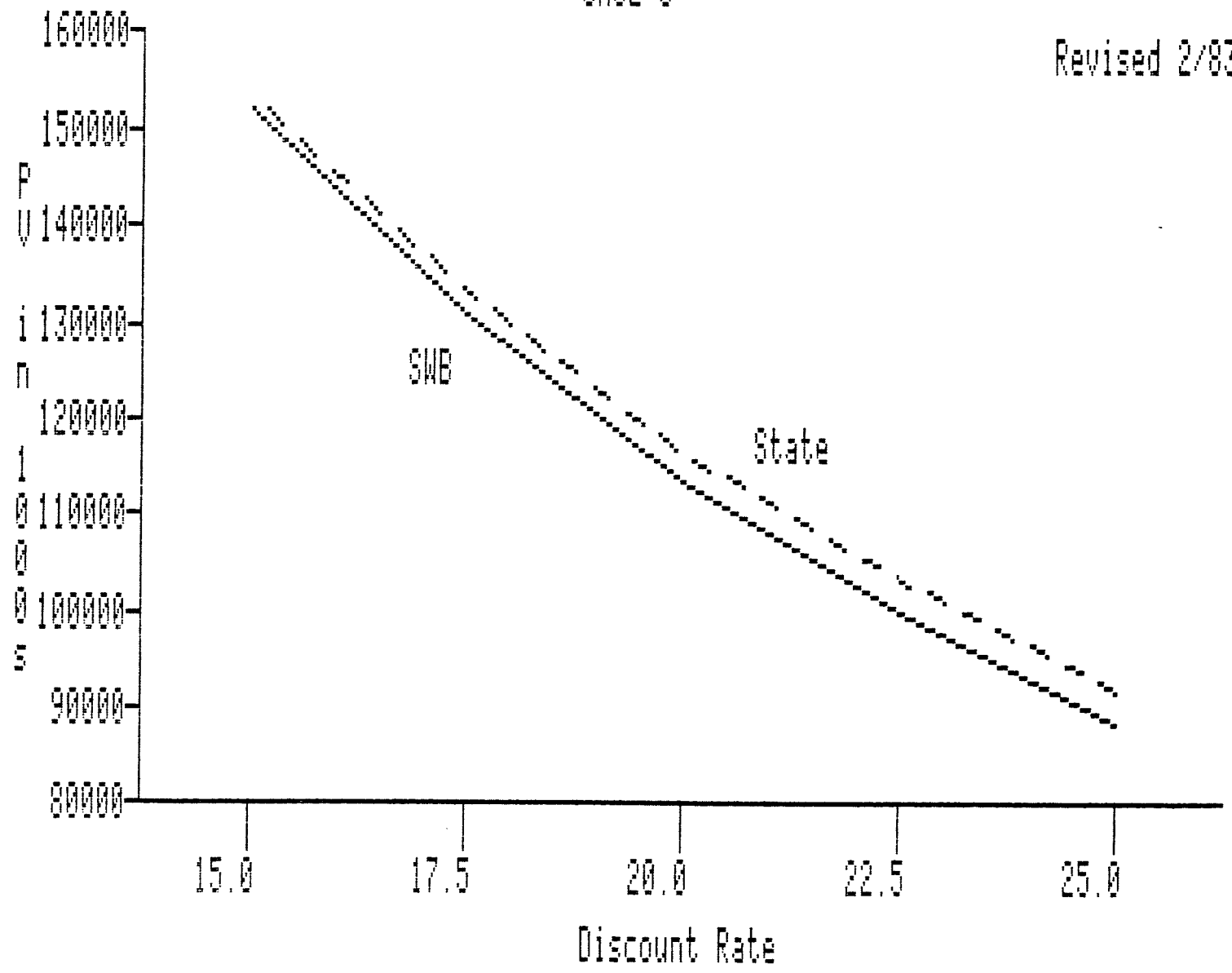
AT 15.0 %	153235
AT 17.5 %	132893
AT 20.0 %	116413
AT 22.5 %	102926
AT 25.0 %	91780

- NOTES: (1) NO CHANGES.  
 (2) NO CHANGES.  
 (3) NO ADJUSTMENT FOR TELPAK UNTIL 1985. ESCALATION AT 15%  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.



### CASE 3

Revised 2/83



Case 4

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- (3) Telco costs increase 15% per year
- (4) State management costs increase 10% per year
- \* (5) Bond rate at 15%
- (6) No capital cost overrun

\* Indicates changes from "Base Year"

CASE #4

REVISED 2/83

SCHEDULE A

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18006	20671	19299	20654	23705	27207	31230	35850	41157	47253	54256	62303	71544

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	153105
AT 17.5 %	131858
AT 20.0 %	114772
AT 22.5 %	100890
AT 25.0 %	89499

NOTES: (1) NO CHANGES.  
(2) NO CHANGES.  
(3) NO CHANGES.

CASE #4

REVISED 2/83

SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	4800	4800	4800	4800	5800	5800	5800	5800	6800	5413	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>26737</b>	<b>24332</b>	<b>21009</b>	<b>23705</b>	<b>28680</b>	<b>31894</b>	<b>35569</b>	<b>39772</b>	<b>45578</b>	<b>49690</b>	<b>50567</b>	<b>57768</b>

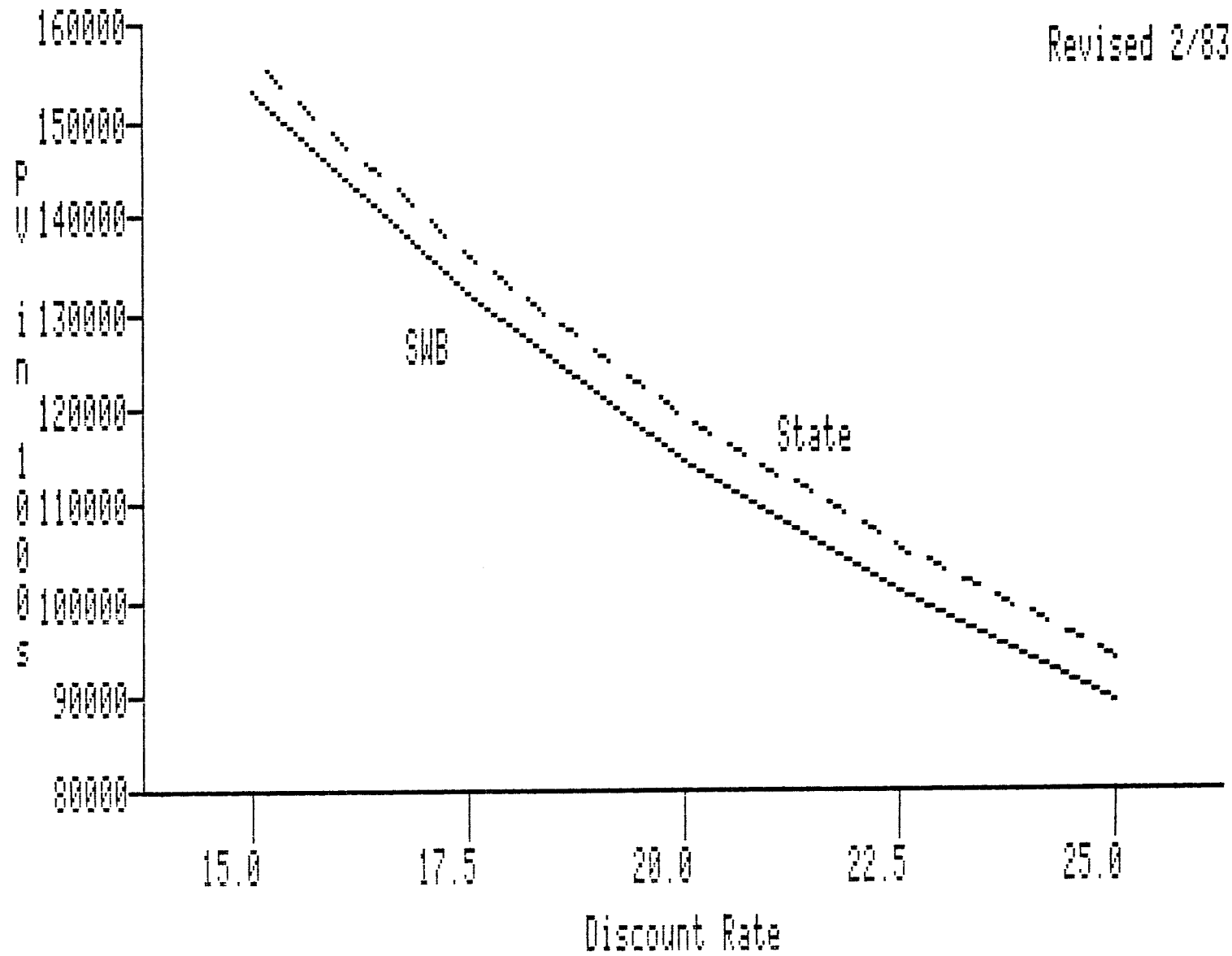
PRESENT VALUE OF ANNUAL COST

AT 15.0 %	156226
AT 17.5 %	135657
AT 20.0 %	118977
AT 22.5 %	105310
AT 25.0 %	94004

- NOTES: (1) BOND RATE AT 15%  
 (2) NO CHANGES.  
 (3) NO CHANGES.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) NO CHANGES.

CASE 4

Revised 2/83



Case 5

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- (3) Telco costs increase 15% per year
- (4) State management costs increase 10% per year
- (5) Bond rate at 12%
- \* (6) 15% capital cost overrun

\* Indicates changes from "Base Case"

CASE #5

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18006	20671	19299	20654	23705	27207	31230	35850	41157	47253	54256	62303	71544

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	153105
AT 17.5 %	131858
AT 20.0 %	114772
AT 22.5 %	100890
AT 25.0 %	89499

NOTES: (1) NO CHANGES.  
(2) NO CHANGES.  
(3) NO CHANGES.

CASE #5

REVISED 2/83

SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	4416	4416	4416	6416	6416	6416	6416	6416	6416	6784	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>26353</b>	<b>23948</b>	<b>20625</b>	<b>25321</b>	<b>29296</b>	<b>32510</b>	<b>36185</b>	<b>40388</b>	<b>45194</b>	<b>51061</b>	<b>50567</b>	<b>57768</b>

PRESENT VALUE OF ANNUAL COST

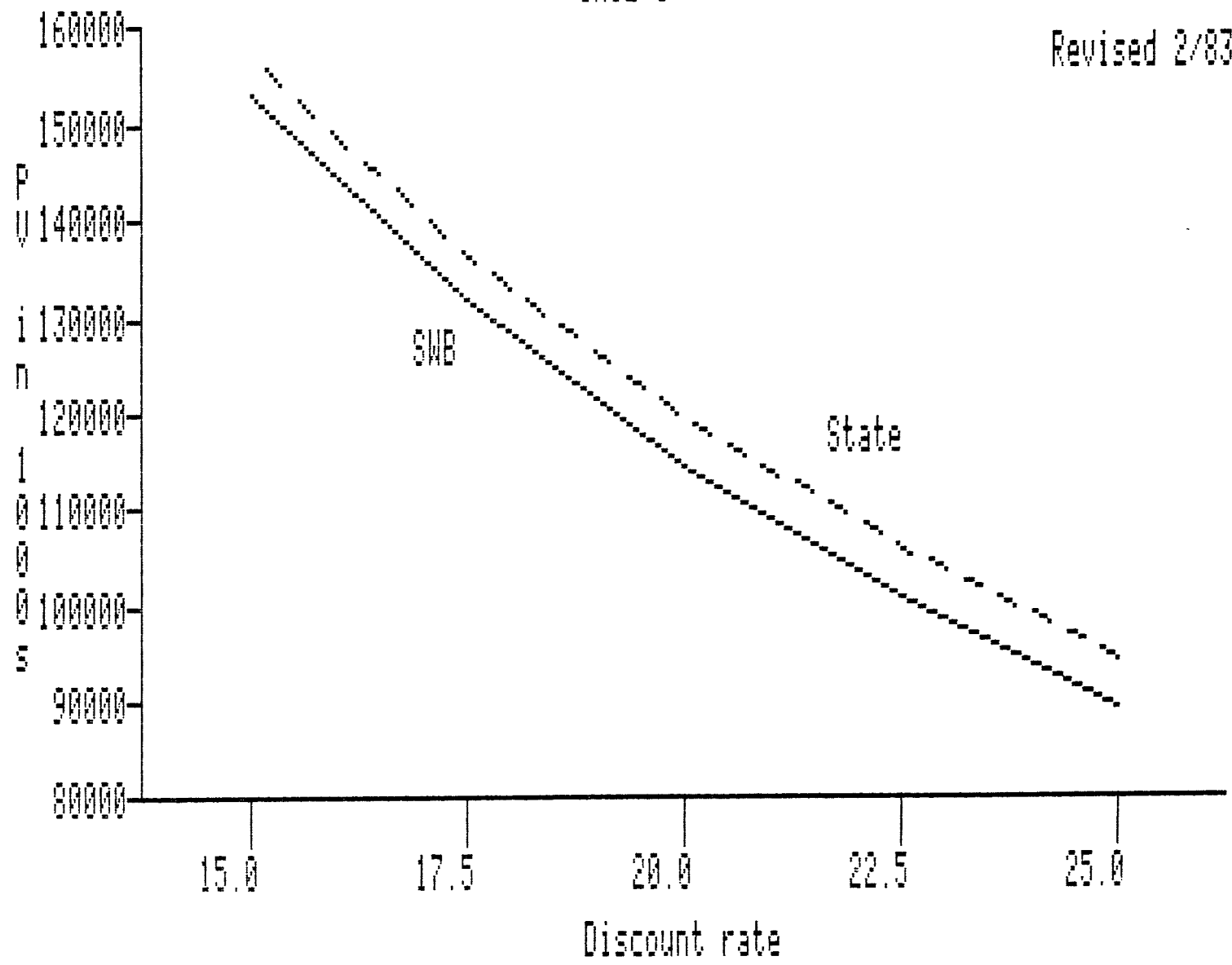
AT 15.0 %	157196
AT 17.5 %	136430
AT 20.0 %	119592
AT 22.5 %	105799
AT 25.0 %	94390

- NOTES: (1) COST OVERRUN OF 15%.  
 (2) NO CHANGES.  
 (3) NO CHANGES.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) NO CHANGES.



CASE 5

Revised 2/83



Case 6

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- (3) Telco costs increase 15% per year
- (4) State management costs increase 10% per year
- (5) Bond rate at 12%
- \*(6) 15% capital cost underrun

\* Indicates changes from "Base Case"

CASE #6

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18006	20671	19299	20654	23705	27207	31230	35850	41157	47253	54256	62303	71544

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	153105
AT 17.5 %	131858
AT 20.0 %	114772
AT 22.5 %	100890
AT 25.0 %	89499

NOTES: (1) NO CHANGES.  
(2) NO CHANGES.  
(3) NO CHANGES.

CASE #6

REVISED 2/83

SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3264	3264	3264	3264	5264	5264	5264	5264	5264	4217	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>25201</b>	<b>22796</b>	<b>19473</b>	<b>22169</b>	<b>28144</b>	<b>31358</b>	<b>35033</b>	<b>39236</b>	<b>44042</b>	<b>48494</b>	<b>50567</b>	<b>57768</b>

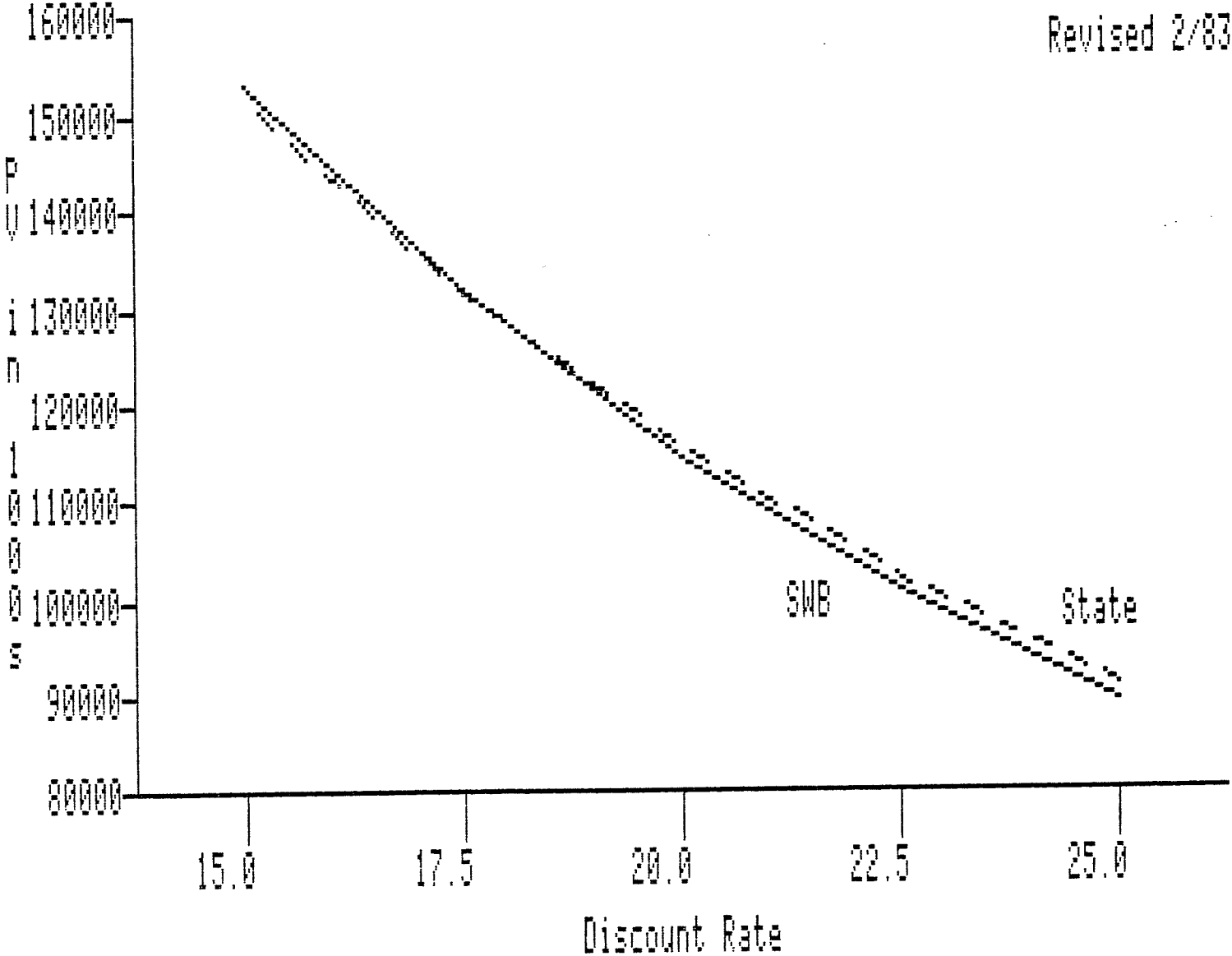
PRESENT VALUE OF ANNUAL COST

AT 15.0 %	151695
AT 17.5 %	131649
AT 20.0 %	115410
AT 22.5 %	102120
AT 25.0 %	91136

- NOTES: (1) COST UNDERRUN OF 15%.  
 (2) NO CHANGES.  
 (3) NO CHANGES.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (5) NO CHANGES.  
 (6) NO CHANGES.

CASE 6

Revised 2/83



Case 7

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- \* (3) Telco costs increase 10% per year
- (4) State management costs increase 10% per year
- \* (5) Bond rate at 10%
- (6) No capital cost overrun

\* Indicates changes from "Base Case"

CASE #7

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6199	6819	7501	8251	9076	9984	10982	12080	13288	14617	16079	17687	19456
(2) LOCAL	9425	10368	11404	8827	8279	9107	10018	11020	12122	13334	14667	16134	17747	19522
TOTAL TELEPHONE SERVICE COSTS	14333	16567	18223	16328	16530	18183	20002	22002	24202	26622	29284	32213	35434	38978
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	17290	19018	17203	17492	19242	21166	23283	25611	28172	30989	34088	37498	41247

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	120208
AT 17.5 %	105097
AT 20.0 %	92798
AT 22.5 %	82683
AT 25.0 %	74282

- NOTES: (1) ESCALATION AT 10%.  
 (2) ESCALATION AT 10%.  
 (3) NO CHANGES.

CASE 07

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3200	3200	5200	5200	5200	5200	5200	5200	5200	4325	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	16567	18223	15028	10982	12080	13288	14617	16079	17687	19456	21402	23542	25896
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	499	549	604	665	731	804	885	973	1070	1177
<b>ANNUAL COST</b>	<b>15284</b>	<b>17975</b>	<b>23484</b>	<b>20636</b>	<b>18881</b>	<b>20624</b>	<b>23445</b>	<b>25269</b>	<b>27276</b>	<b>29485</b>	<b>31914</b>	<b>33711</b>	<b>32323</b>	<b>35556</b>

PRESENT VALUE OF ANNUAL COST

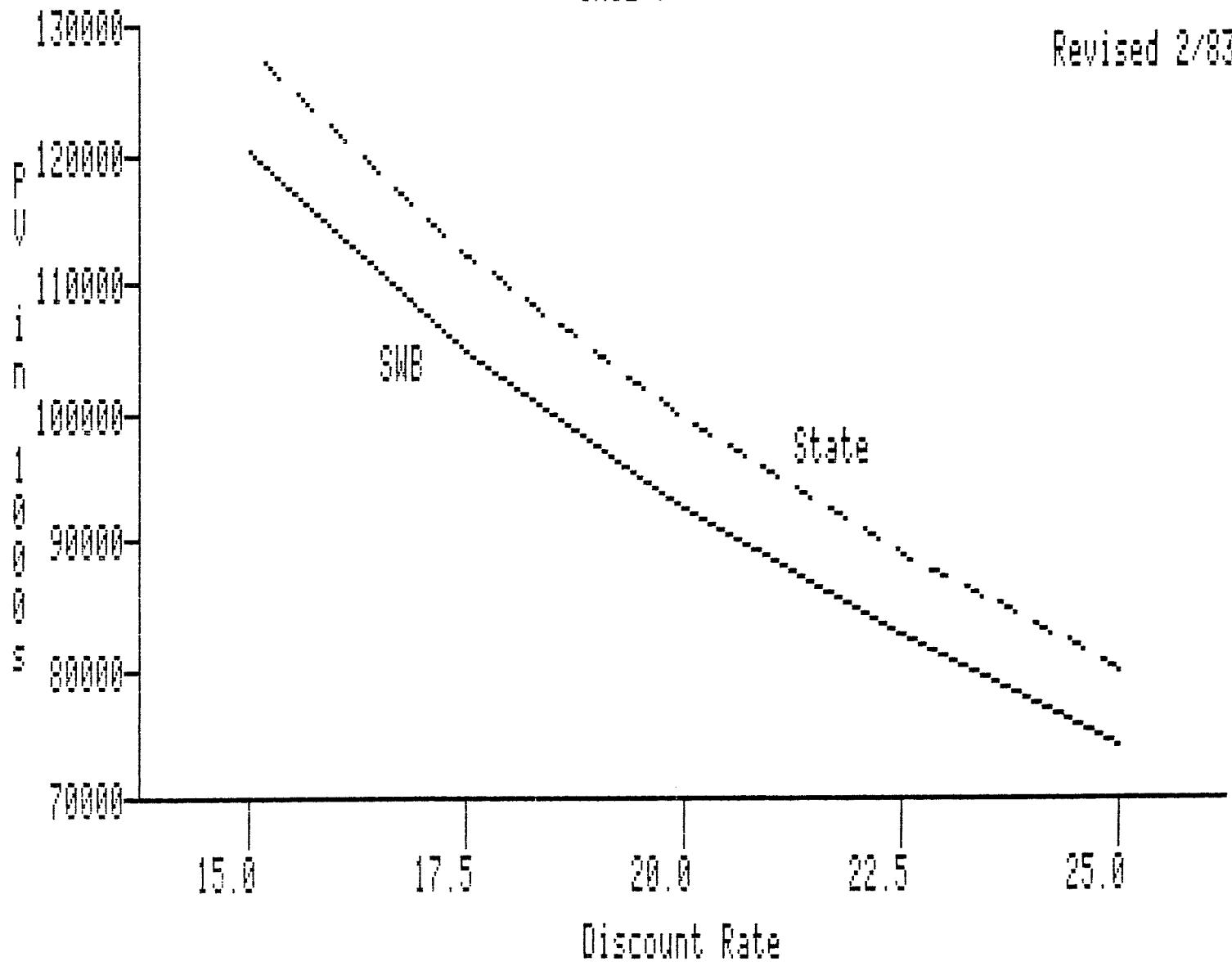
AT 15.0 %	127981
AT 17.5 %	112373
AT 20.0 %	99591
AT 22.5 %	89016
AT 25.0 %	80183

- NOTES: (1) BOND RATE AT 10%.  
 (2) NO CHANGES.  
 (3) ESCALATION AT 10%.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.



CASE 7

Revised 2/83



Case 8

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- \*(3) Telco costs increase 10% per year
- (4) State management costs increase 10% per year
- (5) Bond rate at 12%
- (6) No capital cost overrun

\* Indicates changes from "Base Case"

CASE #8

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6199	6819	7501	8251	9076	9984	10982	12080	13288	14617	16079	17687	19456
(2) LOCAL	9425	10368	11404	8827	8279	9107	10018	11020	12122	13334	14667	16134	17747	19522
TOTAL TELEPHONE SERVICE COSTS	14333	16567	18223	16328	16530	18183	20002	22002	24202	26622	29284	32213	35434	38978
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	17290	19018	17203	17492	19242	21166	23283	25611	28172	30989	34088	37498	41247

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	120208
AT 17.5 %	105097
AT 20.0 %	92798
AT 22.5 %	82683
AT 25.0 %	74282

- NOTES: (1) ESCALATION AT 10%.  
 (2) ESCALATION AT 10%.  
 (3) NO CHANGES.

CASE #8

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	16567	18223	15028	10982	12080	13288	14617	16079	17687	19456	21402	23542	25896
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	499	549	604	665	731	804	885	973	1070	1177
<b>ANNUAL COST</b>	<b>15284</b>	<b>17975</b>	<b>24124</b>	<b>21276</b>	<b>17521</b>	<b>20264</b>	<b>24085</b>	<b>25909</b>	<b>27916</b>	<b>30125</b>	<b>32554</b>	<b>34884</b>	<b>32323</b>	<b>35556</b>

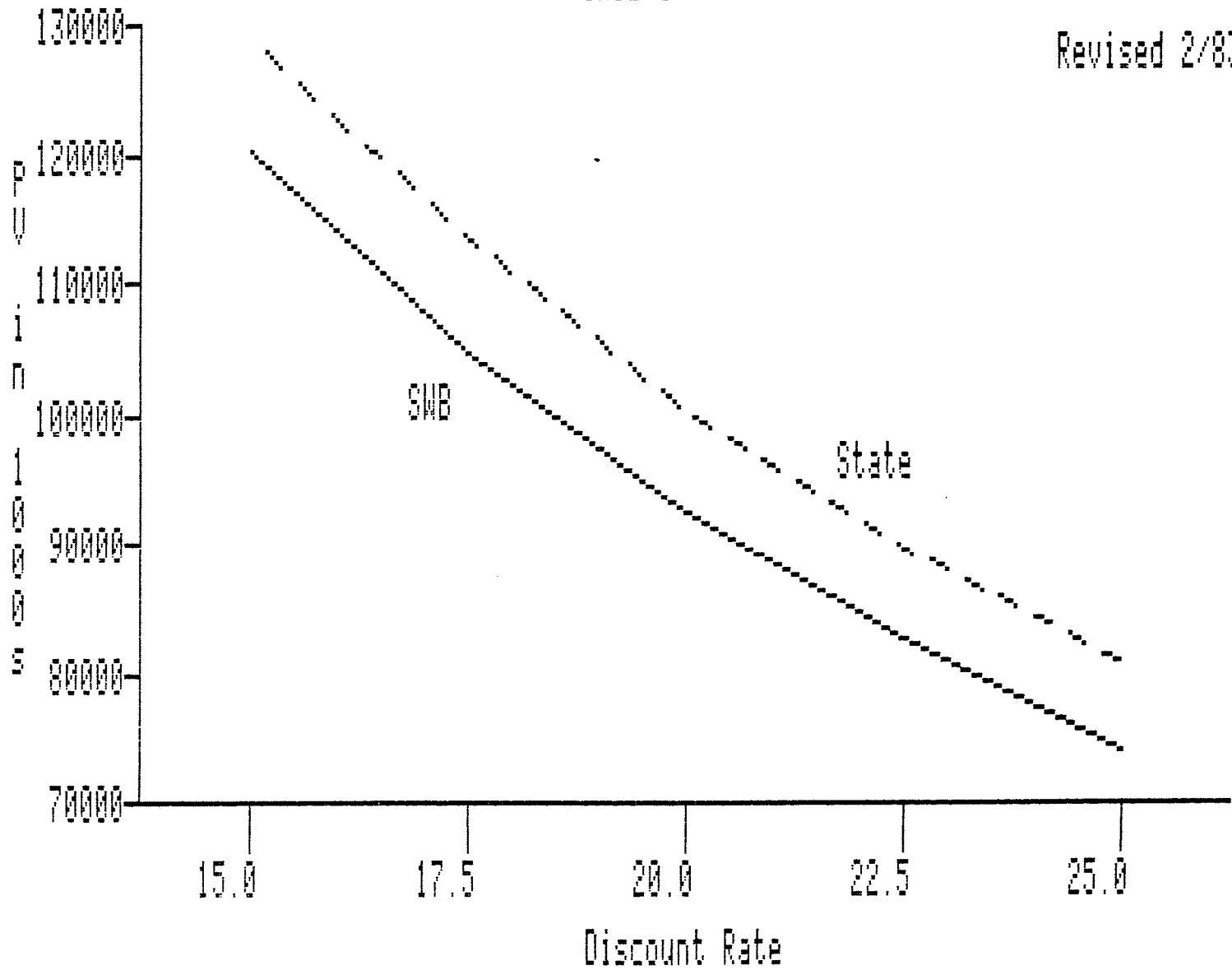
PRESENT VALUE OF ANNUAL COST

AT 15.0 %	129082
AT 17.5 %	113298
AT 20.0 %	100375
AT 22.5 %	89688
AT 25.0 %	80764

- NOTES: (1) NO CHANGES.  
 (2) NO CHANGES.  
 (3) ESCALATION AT 10%.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.

CASE 8

Revised 2/83



Case 9

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- (3) Telco costs increase 15% per year
- \*(4) State management costs increase 15% per year
- (5) Bond rate at 12%
- (6) No capital cost overrun

\* Indicates changes from "Base Case"

CASE #9

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	832	957	1100	1265	1455	1673	1924	2213	2545	2927	3366	3871
ANNUAL COST	14962	18006	20708	19381	20792	23911	27498	31622	36365	41820	48093	55308	63605	73146

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	154696
AT 17.5 %	133141
AT 20.0 %	115815
AT 22.5 %	101744
AT 25.0 %	90205

- NOTES: (1) NO CHANGES.  
(2) NO CHANGES.  
(3) ESCALATION AT 15%.

CASE #9

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	832	957	2200	2351	3864	4444	5111	5877	6759	7773	8938	10279
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>25814</b>	<b>23454</b>	<b>20049</b>	<b>23745</b>	<b>28720</b>	<b>32128</b>	<b>36045</b>	<b>40546</b>	<b>45720</b>	<b>51325</b>	<b>52660</b>	<b>60517</b>

PRESENT VALUE OF ANNUAL COST

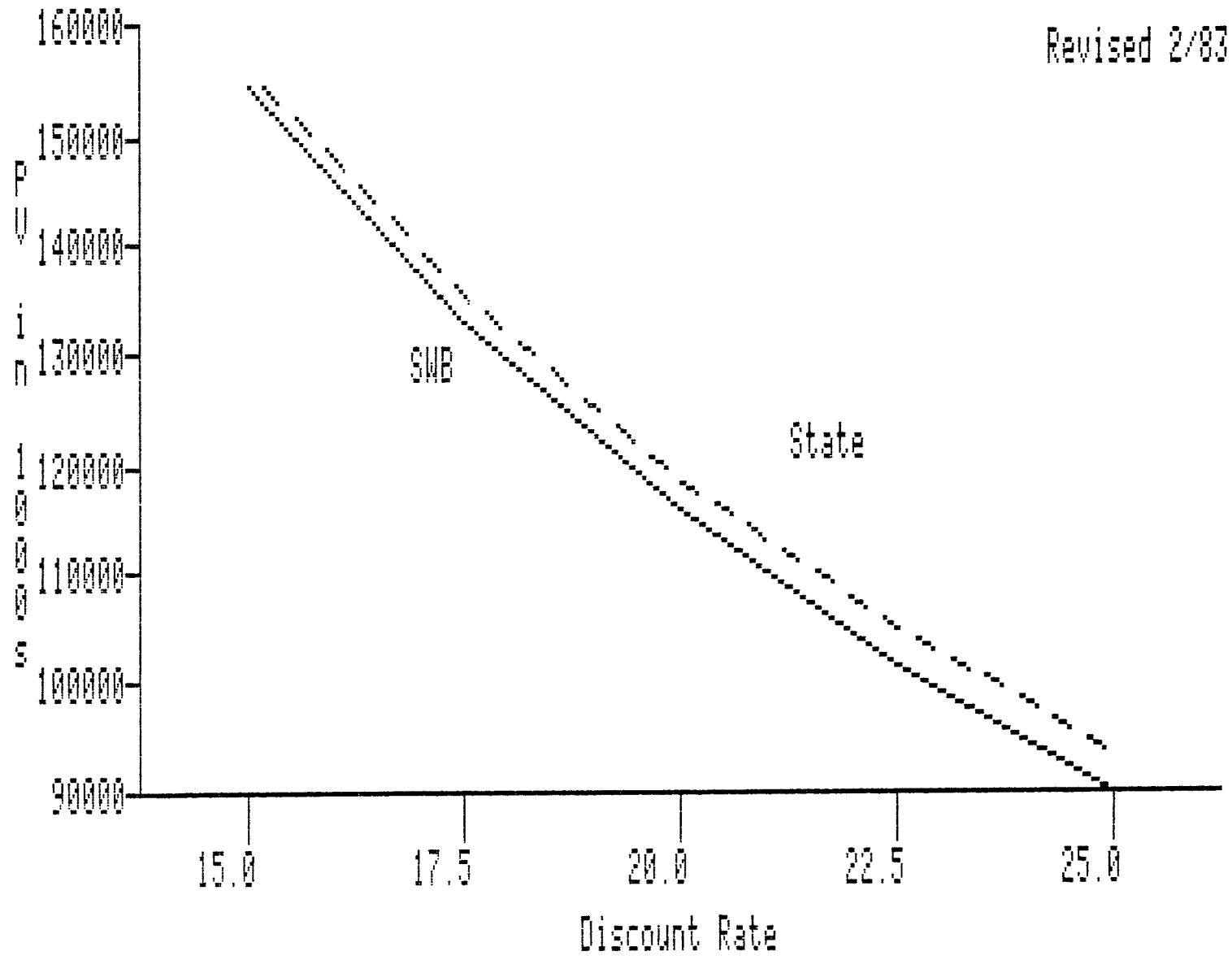
AT 15.0 %	156140
AT 17.5 %	135362
AT 20.0 %	118542
AT 22.5 %	104785
AT 25.0 %	93423

- NOTES: (1) NO CHANGES.  
 (2) NO CHANGES.  
 (3) NO CHANGES.  
 (4) ESCALATION AT 15%.  
 (5) NO CHANGES.  
 (6) NO CHANGES.



CASE 9

Revised 2/83



Case 10

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- \*(3) Telco costs increase 20% per year
- \*(4) State management costs increase 15% per year
- (5) Bond rate at 12%
- (6) No capital cost overrun

\* Indicates changes from "Base Case"

CASE #10

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>TELEPHONE SERVICE COSTS</b>														
(1) LONG DISTANCE	4908	6690	8028	9633	11560	13872	16646	19975	23970	28764	34517	41420	49704	59645
(2) LOCAL	9425	11310	13572	11072	11726	14071	16885	20262	24314	29177	35012	42014	50417	60500
<b>TOTAL TELEPHONE SERVICE COSTS</b>	<b>14333</b>	<b>18000</b>	<b>21600</b>	<b>20705</b>	<b>23286</b>	<b>27943</b>	<b>33531</b>	<b>40237</b>	<b>48284</b>	<b>57941</b>	<b>69529</b>	<b>83434</b>	<b>100121</b>	<b>120145</b>
(3) STATE NGMT & OVERHEAD	629	723	832	957	1100	1265	1455	1673	1924	2213	2545	2927	3366	3871
<b>ANNUAL COST</b>	<b>14962</b>	<b>18723</b>	<b>22432</b>	<b>21662</b>	<b>24386</b>	<b>29208</b>	<b>34986</b>	<b>41910</b>	<b>50208</b>	<b>60154</b>	<b>72074</b>	<b>86341</b>	<b>103487</b>	<b>124016</b>

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	201028
AT 17.5 %	170461
AT 20.0 %	146155
AT 22.5 %	126630
AT 25.0 %	110793

- NOTES: (1) ESCALATION AT 20%.  
(2) ESCALATION AT 20%.  
(3) ESCALATION AT 15%.

CASE #10

REVISED 2/83

SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	18000	21600	19405	16334	19601	23521	28225	33870	40644	48773	58528	70234	84281
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	832	957	2200	2351	3864	4444	5111	5877	6759	7773	8938	10279
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	626	751	901	1081	1297	1557	1868	2242	2690	3228
<b>ANNUAL COST</b>	<b>15284</b>	<b>19408</b>	<b>27538</b>	<b>25735</b>	<b>23000</b>	<b>27987</b>	<b>34615</b>	<b>40127</b>	<b>46709</b>	<b>54569</b>	<b>63956</b>	<b>74829</b>	<b>82728</b>	<b>98741</b>

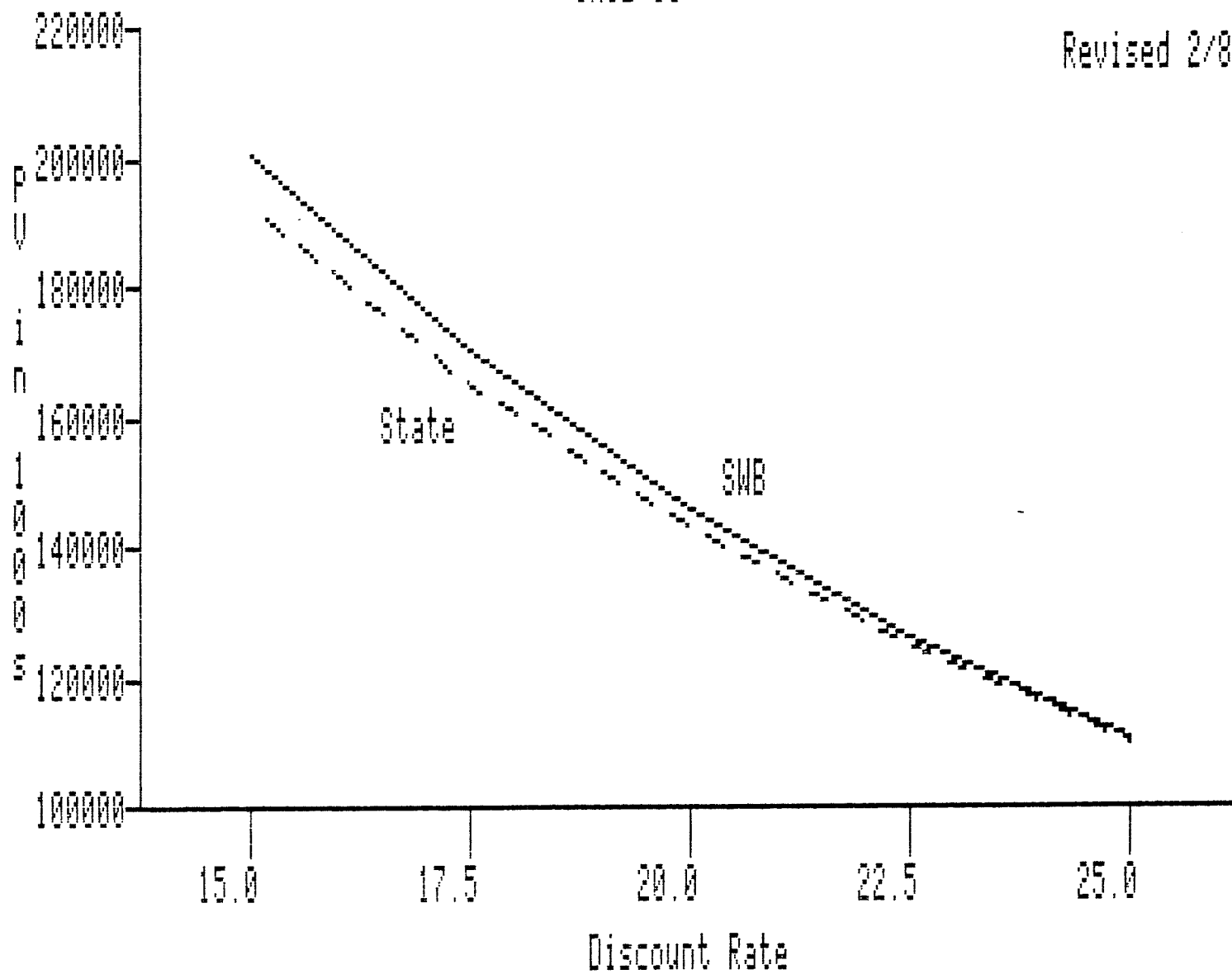
PRESENT VALUE OF ANNUAL COST

AT 15.0 %	192351
AT 17.5 %	164652
AT 20.0 %	142459
AT 22.5 %	124494
AT 25.0 %	109809

- NOTES: (1) NO CHANGES.  
 (2) NO CHANGES.  
 (3) ESCALATION AT 20%.  
 (4) ESCALATION AT 15%.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.

CASE 10

Revised 2/83



Case 11

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- \* (3) Telco costs increase 20% per year
- \* (4) State management costs increase 15% per year
- \* (5) Bond rate at 15%
- \* (6) 15% capital cost overrun

\* Indicates changes from "Base Case"

CASE #11

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6690	8028	9633	11560	13872	16646	19975	23970	28764	34517	41420	49704	59645
(2) LOCAL	9425	11310	13572	11072	11726	14071	16885	20262	24314	29177	35012	42014	50417	60500
TOTAL TELEPHONE SERVICE COSTS	14333	18000	21600	20705	23286	27943	33531	40237	48284	57941	69529	83434	100121	120145
(3) STATE MGMT & OVERHEAD	629	723	832	957	1100	1265	1455	1673	1924	2213	2545	2927	3366	3871
ANNUAL COST	14962	18723	22432	21662	24386	29208	34986	41910	50208	60154	72074	86361	103487	124016

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	201028
AT 17.5 %	170461
AT 20.0 %	146155
AT 22.5 %	126630
AT 25.0 %	110793

NOTES: (1) ESCALATION AT 20%.  
(2) ESCALATION AT 20%.  
(3) ESCALATION AT 15%.

CASE 011

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	5520	5520	5520	5520	6520	6520	6520	7520	7520	6238	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	18000	21600	19405	16334	19601	23521	28225	33870	40644	48773	58528	70234	84281
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	832	957	2200	2351	3864	4444	5111	5877	6759	7773	8938	10279
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	626	751	901	1081	1297	1557	1868	2242	2690	3228
<b>ANNUAL COST</b>	<b>15284</b>	<b>19408</b>	<b>29218</b>	<b>27415</b>	<b>24680</b>	<b>28667</b>	<b>35295</b>	<b>40807</b>	<b>47389</b>	<b>56249</b>	<b>65636</b>	<b>75569</b>	<b>82728</b>	<b>98741</b>

PRESENT VALUE OF ANNUAL COST

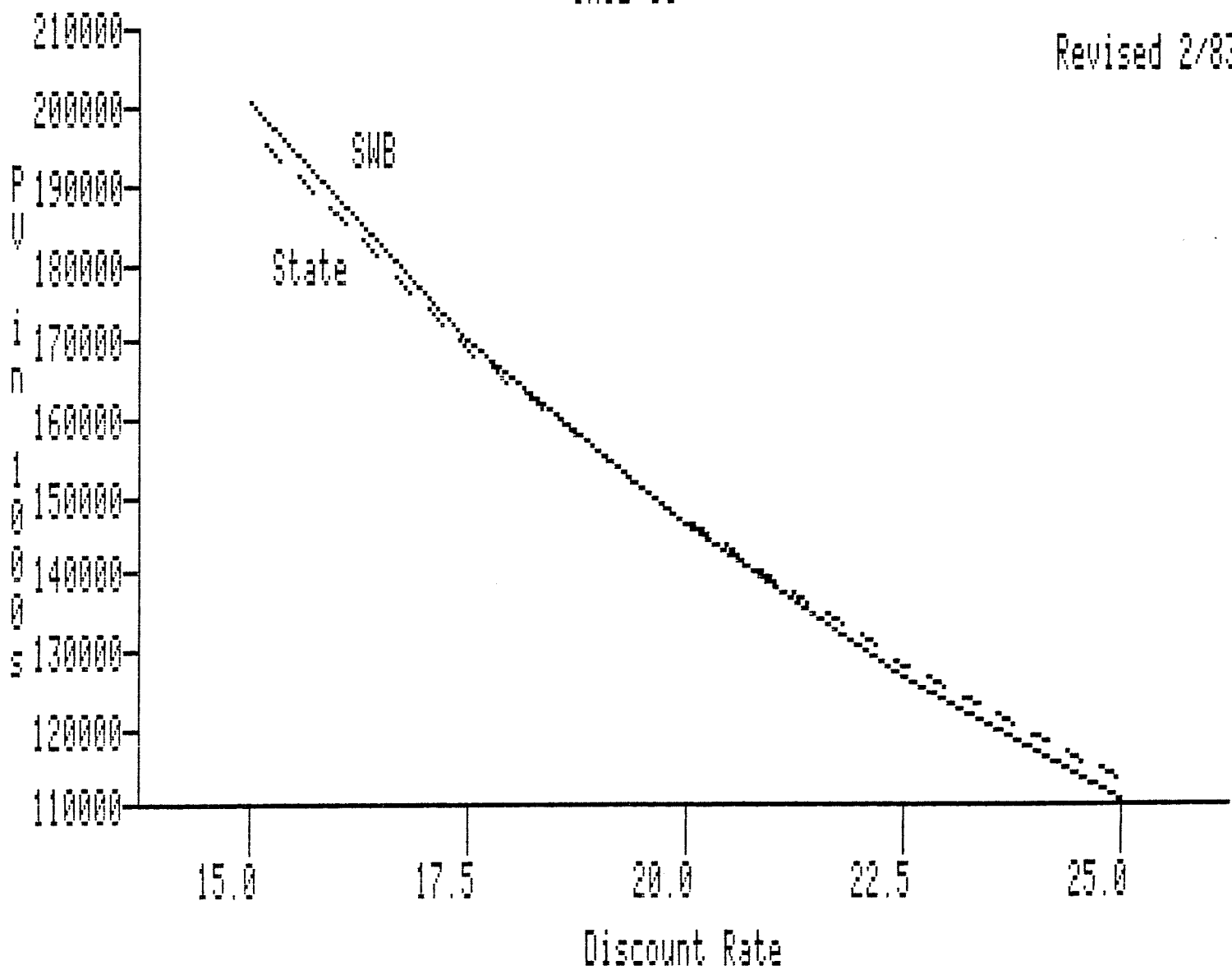
AT 15.0 %	197132
AT 17.5 %	168871
AT 20.0 %	146204
AT 22.5 %	127838
AT 25.0 %	112809

- NOTES: (1) BOND RATE AT 15%. COST OVERRUN OF 15%.  
 (2) NO CHANGES.  
 (3) ESCALATION AT 20%.  
 (4) ESCALATION AT 15%.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.



CASE 11

Revised 2/83



Case 12

(Most positive case for State)

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance
- \*(3) Telco costs increase 20% per year
- (4) State management costs increase 10% per year
- \*(5) Bond rate at 10%
- \*(6) 15% capital cost underrun

\* Indicates changes from "Base Case"

CASE #12

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6690	8028	9633	11560	13872	16646	19975	23970	28764	34517	41420	49704	59645
(2) LOCAL	9425	11310	13572	11072	11726	14071	16885	20262	24314	29177	35012	42014	50417	60500
TOTAL TELEPHONE SERVICE COSTS	14333	18000	21600	20705	23286	27943	33531	40237	48284	57941	69529	83434	100121	120145
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18723	22395	21580	24248	29002	34695	41518	49693	59491	71234	85309	102185	122414

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	199436
AT 17.5 %	169179
AT 20.0 %	145113
AT 22.5 %	125777
AT 25.0 %	110088

- NOTES: (1) ESCALATION AT 20%.  
(2) ESCALATION AT 20%.  
(3) NO CHANGES.

CASE #12

SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	2720	2720	2720	4720	4720	4720	4720	4720	4720	4443	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	18000	21600	19405	16334	19601	23521	28225	33870	40644	48773	58528	70234	84281
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	626	751	901	1081	1297	1557	1868	2242	2690	3228
<b>ANNUAL COST</b>	<b>15284</b>	<b>19408</b>	<b>26381</b>	<b>24533</b>	<b>21880</b>	<b>27867</b>	<b>33495</b>	<b>38813</b>	<b>45153</b>	<b>52715</b>	<b>61734</b>	<b>72224</b>	<b>80635</b>	<b>95992</b>

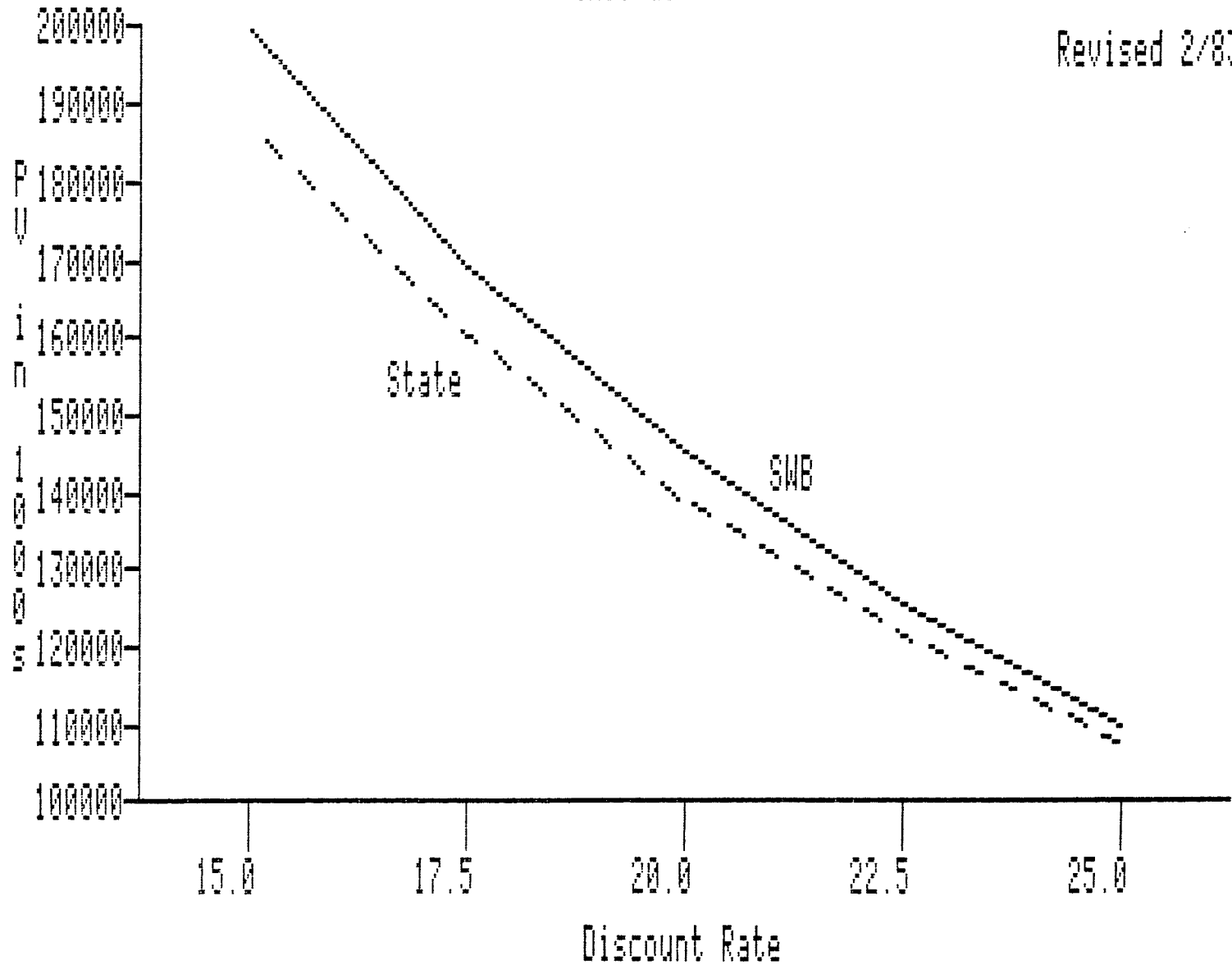
PRESENT VALUE OF ANNUAL COST

AT 15.0 %	186850
AT 17.5 %	160007
AT 20.0 %	138499
AT 22.5 %	121089
AT 25.0 %	106856

- NOTES: (1) BOND RATE AT 10%. COST UNDERRUN OF 15%.  
 (2) NO CHANGES.  
 (3) ESCALATION AT 20%.  
 (4) NO CHANGES.  
 (5) NO CHANGES.  
 (6) REFLECTS ADJUSTMENTS ABOVE.

CASE 12

Revised 2/83



Case 13

(Most positive case for SWB)

Sensitivity analysis includes:

- (1) CPE adjustment
- (2) TELPAK discontinuance in FY83
- (3) Telco costs increase 15% per year
- \* (4) State management costs increase 15% per year
- \* (5) Bond rate at 15%
- \* (6) 15% capital cost overrun

\* Indicates changes from "Base Case"

CASE #13

SCHEDULE A

REVISED 2/83

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8523	9801	11271	12962	14906	17142	19713	22670	26071	29982	34479
(2) LOCAL	9425	10839	12465	9901	9891	11375	13081	15043	17299	19894	22878	26310	30257	34796
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	18424	19692	22646	26043	29949	34441	39607	45548	52381	60239	69275
(3) STATE MGMT & OVERHEAD	629	723	832	957	1100	1265	1455	1673	1924	2213	2545	2927	3366	3871
ANNUAL COST	14962	18006	20708	19381	20792	23911	27498	31622	36365	41820	48093	55308	63605	73146

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	154696
AT 17.5 %	133141
AT 20.0 %	115815
AT 22.5 %	101744
AT 25.0 %	90205

- NOTES: (1) NO CHANGES.  
(2) NO CHANGES.  
(3) ESCALATION AT 15%.

## SCHEDULE B

REVISED 2/83

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	5520	5520	5520	5520	6520	6520	6520	7520	7520	6238	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	17124	13447	15464	17784	20452	23520	27048	31105	35771	41137	47308
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	832	957	2200	2351	3864	4444	5111	5877	6759	7773	8938	10279
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	117	562	646	743	855	983	1130	1300	1495	1719	1977
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>27494</b>	<b>25134</b>	<b>21729</b>	<b>24425</b>	<b>29400</b>	<b>32808</b>	<b>36725</b>	<b>42226</b>	<b>47400</b>	<b>52065</b>	<b>52660</b>	<b>60517</b>

## PRESENT VALUE OF ANNUAL COST

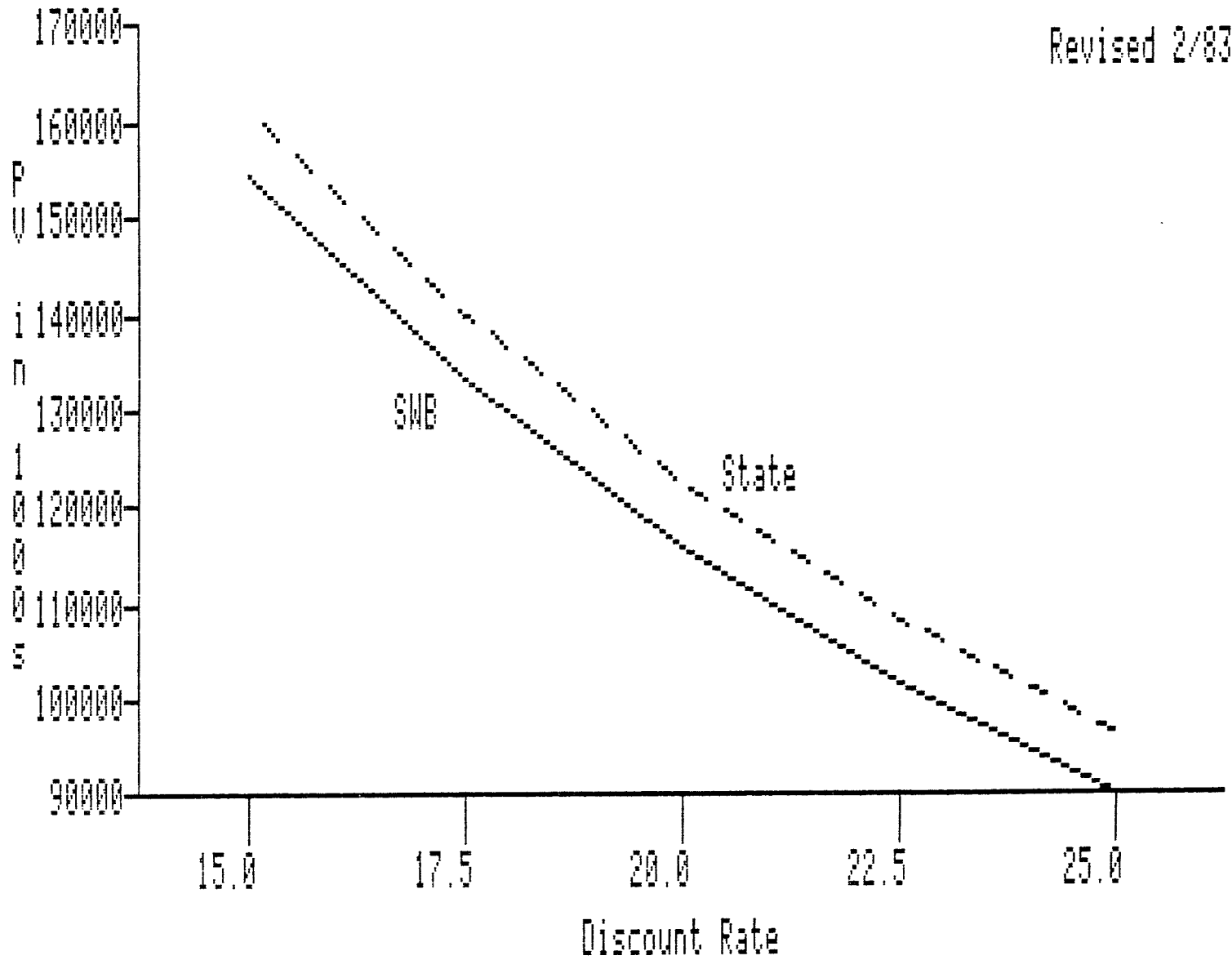
AT 15.0 %	160920
AT 17.5 %	139581
AT 20.0 %	122287
AT 22.5 %	108129
AT 25.0 %	96423

- NOTES: (1) BOND RATE AT 15%. COST OVERRUN OF 15%.  
 (2) NO CHANGES.  
 (3) NO CHANGES.  
 (4) ESCALATION AT 15%.  
 (5) NO CHANGES.  
 (6) NO CHANGES.



CASE 13

Revised 2/83



CHAPTER VI  
IMPACT OF DEREGULATION AND DIVESTITURE

Deregulation and the proposed divestiture of the Bell Operating Companies (BOCs) from AT&T have contributed significantly to the turmoil within the telecommunications industry. The introduction of competition into the intercity transmission, terminal equipment and enhanced services markets is forcing policymakers to reevaluate longstanding regulatory assumptions. Major structural changes are being imposed upon the industry, in order to hasten an era of greater competition in most segments of the telecommunications industry.

Precise answers to many fundamental questions of industry structure are still several years away. The proposed AT&T-Justice Department consent decree, if signed without major modifications, will set into motion a two year implementation phase under the supervision of the court. During this period, it is very likely that Congress will continue its consideration of major amendments, or total rewrite, of the Communications Act. Congressional action may modify the proposed consent decree in major respects.

Throughout this period of uncertainty, the FCC and the states will continue to grapple with the problems posed to the existing industry, and to consumers, by the increasing number of competitors and competitive services. There will be new methods of pricing regulated telecommunications services, such as "access charges" applied by telephone companies for the local distribution of long distance calls. There is likely to be a change in the level of regulated telephone

costs borne by the state and interstate jurisdictions, as a result of changes to jurisdictional separations procedures. Such changes will be phased in over several years, in order to ameliorate the price and revenue consequences for consumers and common carriers.

While many uncertainties still exist, and will exist for some time, it is possible to distinguish several directions of movement in the continuing debate. We have listed the more significant trends below. Even these trends are subject to significant uncertainty, but less so than the resulting magnitudes of the possible changes.

- All users of the switched networks of exchange telephone systems will pay an "access charge" when using a local switched network to obtain access to an interexchange carrier, such as AT&T Long Lines.
- Access charges for MTS/WATS service may be lower on a per unit basis than the corresponding amount implicit in today's end-to-end MTS/WATS rates. Lower per unit charges are most likely for large users of MTS/WATS services.
- Access charges for MTS/WATS-type services will be applied to services which today are priced, for the most part, on a basis different from MTS/WATS (e.g., Foreign Exchange Service).
- As access charges replace the current ENFIA (Exchange Network for Interstate Access) tariffs, in both the interstate and state jurisdictions, the greater pricing certainty of an industry-wide access charge system will encourage the development of competitive interexchange services.
- Increasing competition in interexchange telecommunications services will tend to constrain future price increases over competitive routes.
- The price of "local" telephone service, for calling within one's own exchange, will probably tend to increase at a greater rate than either access charges or interexchange rates. The magnitude of such local rate increases, however, will vary among the various classes of users. This will be due to several factors: the loss of support by regulated terminal equipment charges of basic local rates, due to the deregulation of terminal equipment; possible changes to jurisdictional separations procedures, which will shift costs from interstate and state long distance services to local services; the

continued technological advances, and decline in price per unit of capacity, in interexchange transmission and switching relative to local distribution.

Following is a discussion of three very significant proceedings which may affect the pricing of telecommunications services in the ways mentioned above.

A. FCC Docket 78-72, Phase I (Access Charges)

This Federal proceeding will probably have significant effects on state rate structures as well. The resolution of the access charge question will in the large part determine the method used for allocating jointly used facilities between the state and interstate jurisdictions. This, in turn, will influence the state procedures for setting intrastate access charges and long distance rates. Furthermore, there will be a continued need to integrate in some fashion the state and interstate rate structures for long distance services. Finally, Congressional action on a revised Communications Act may result in a redefinition of jurisdictional boundaries, giving the FCC jurisdiction over all interexchange services.

The current focus of Docket 78-72 is on the development of access charges for all interstate services. The access charge would replace the current ENFIA tariff under which the Other Common Carriers (OCCs), such as MCI, obtain switched local distribution services from telephone companies. The access charge would result in an "unbundling" of end-to-end MTS/WATS rates into at least two components: interexchange and access. This proceeding has taken on greater urgency in light of the proposed consent decree, which would require a system of tariffed

access charges as a replacement for the current industry settlements procedures.

The most recent Commission proposals for a solution to the access charge problem are contained in the Fourth Supplemental Notice of Inquiry and Proposed Rulemaking (June 4, 1982), in Docket 78-72. The access charge concept which is most favored by the majority of Commissioners, who issued a separate statement on the Notice, is based on a direct charge to the subscriber. The concept would have each subscriber pay a maximum of a certain flat rate charge per month for the loop connecting the subscriber to the telephone company's switch. For example, a subscriber may pay six dollars per month for the ability to make interstate long distance calls. (This would be in addition to his local rate.) Alternatively, the subscriber may pay fifty cents per interstate call, up to some maximum amount per month. These charges would cover the interstate-allocated cost of the subscriber's local loop, while the local switching and interexchange charges would be computed as today on a minutes-sensitive basis.

The result of this access charge concept would be a significant reduction in MTS/WATS-type charges for large users. A significant portion of the current MTS/WATS rates would be priced on a flat rate, rather than minutes-sensitive, basis, which would significantly reduce the per minute rates. Large users would probably pay much less than they currently pay for a given number of long distance calls.

The FCC will probably make a decision on an access charge concept in 1983. Implementation of such a concept, however, would be dependent upon the transition method chosen to avoid large pricing and revenue

effects, and upon the implementation schedule for the proposed divestiture of the BOCs.

B. FCC Docket 80-286 (Federal-State Joint Board on Separations Procedures)

The Joint Board was established in 1980 to consider changes to the jurisdictional cost separations procedures contained in the February, 1971, NARUC-FCC Separations Manual. The first area of concern was treatment of the station equipment accounts (231 and 234) in light of the pending deregulation of customer premises equipment (CPE). The Joint Board and FCC adopted a plan whereby CPE investment in Accounts 231 and 234 at December 31, 1982, (along with related expenses) would be phased-out of interstate separations procedures over a five-year period. This plan was later amended to permit phase-out to begin at a date earlier than January 1, 1982, subject to the action of each state commission.

The results of the Joint Board and FCC action with respect to CPE will be a gradual reduction of interstate rate base; a concomitant increase in intrastate costs; in most states, a reduction in state toll costs and an increase in local costs, due to adoption of the CPE phase-out in intrastate toll settlements; and finally, a reduction in overall rate base in states which adopt regulated sales programs for existing telephone company CPE.

The second order of business for the Joint Board is consideration of new allocation methods for the so-called "non-traffic sensitive" (NTS) portion of local exchange costs. These costs, after the deregulation of CPE, will be comprised mainly of drop and inside wire, subscriber

loop plant, and the non-traffic sensitive portion of local switching. It is alleged that the current interstate allocation factor - the Subscriber Plant Factor (SPF) - has been growing at too rapid a rate. It is further alleged that NTS cost allocations to interstate are too high, resulting in MTS/WATS rates that are too high, and creating an incentive on the part of large users to completely bypass the telephone company's exchange facilities.

Thus, AT&T has proposed to drastically reduce the level of interstate allocation of NTS costs. AT&T's initial recommendation would have caused a \$4.5 billion reduction in annual interstate revenues (in 1980 dollars). A recent telephone industry task force recommendation (which included AT&T) would reduce annual industry interstate revenues by approximately \$4 billion.

The Joint Board and FCC have already taken action to freeze the SPF allocation to interstate at the 1981 level. Presumably, this freeze is a beginning step in what may be substantial reductions in interstate cost allocation, and resulting reductions, at least in real terms, to interstate rates.

The freeze of SPF and subsequent reductions in real long distance rates would probably be applied in a similar manner to intrastate toll rates in many states, if for no other reason than to keep the disparities between interstate and intrastate toll rates at a reasonable level. The result in many states would be reductions, in real terms, to state toll rates and increases in local rates.

It is impossible to forecast at this time the amount of reduction, if any, to interstate and state toll costs which may occur as a result of the Joint Board's deliberations. It is clear, however, that the direction is toward reducing the portion of NTS costs that are recovered through interstate and state toll rates. The amount of reduction will depend on, among other things, a realistic assessment of the amount of bypass of telephone company local facilities that is likely to occur at present rate levels. If a significant bypass problem is thought to exist, in particular one that would divert large interstate and state toll users from the telephone company network, there will be a more persuasive argument for reducing the toll portion of NTS costs. The balance will be made up through increases in local rates.

C. The Proposed Divestiture of the BOCs from AT&T

In January, 1982, the Department of Justice (DOJ) and AT&T proposed a settlement of the civil anti-trust action initiated by DOJ several years earlier. The settlement, proposed in the form of a Modification of Final Judgement (MFJ) of the 1956 settlement in another DOJ action against AT&T, is now before the court for its consideration. Action by the court is expected sometime in 1982.

The objective of the proposed MFJ is to separate the monopoly and competitive business segments of AT&T. The BOCs would remain regulated entities in the traditional sense, and provide monopoly services (primarily local exchange services) under state and Federal tariffs. AT&T, on the other hand, would divest itself of the BOCs while retaining business segments for which competition would replace at



least some forms of regulation. AT&T would also be permitted entry into unregulated fields from which it was previously constrained.

The proposed MFJ must yet survive consideration by the court of jurisdiction, probable further legal action on appeal, a complex implementation phase under court supervision, and possible legislative modification. However, the overall direction of a final settlement is clear. The BOCs will be independent from AT&T, and will provide mainly "exchange" services, possibly under somewhat revised definitions of "an exchange" and "exchange services."

AT&T will probably handle much of what are now primarily BOC functions: state toll and private line services, and CPE. CPE will be sold or leased on a competitive basis by a separate subsidiary of AT&T. AT&T Long Lines will take responsibility for much of the state toll and private line business, particularly on the longer haul routes between major population centers within a state.

Such divisions of responsibility are likely to cause significant changes to the current toll and local rate structures. Toll rates will probably be unbundled into access charge (BOC) and interexchange (Long Lines or OCC) components. Any redefinition of exchange boundaries, such as the proposed LATAs (Local Access and Transport Areas) will likewise make necessary a restructuring of exchange rates.

For telephone subscribers, particularly small users in rural areas of the country, the biggest concern would be the ability of the carriers to maintain a nationwide average (and statewide average) rate structure for toll services. The proposed MFJ is ambiguous on the point of rate

averaging. However, without rate averaging of either access charges or interexchange rates or both, high cost areas (mainly rural) would be faced with significant rate increases. Today such subscribers benefit from nationwide averaged long distance rates. State long distance rates are averaged as well. Without the continuation of such a policy, high cost rural areas would experience significant rate increases, for both state and interstate toll.

The BOCs within each state will be primarily dependent upon exchange services for their revenues. Bypass of the exchange networks of the BOCs by other carriers and other large users may jeopardize the viability of the BOC exchange networks. At the least, a significant amount of exchange bypass would force the remaining BOC subscribers to pay higher exchange service rates.

Exchange bypass can occur in several ways: local non-BOC microwave distribution systems, cable television systems' use of coaxial cable for two-way communication, cellular radio, or direct subscriber-to-subscriber satellite services. BOCs may be faced in the future with long distance carriers (including Long Lines) and large toll users attempting to bypass the exchange network by such means. Bypass is most likely to occur in major population centers, where large volumes of traffic are concentrated, as opposed to outlying rural areas.

In summary, the proposed MFJ faces several hurdles before its effects on the industry can be accurately predicted. One area of concern, however, for many telephone subscribers is the proposed MFJ's affect on nationwide and statewide averaged rate structures for long distance

service. In addition, the ability of the BOCs to deal with the bypass question will have a significant affect on future subscriber rates.

## APPENDIX A

### DEVELOPMENT OF THE BASE CASE

We base our sensitivity analyses on a Base Case which was derived from the data presented in Exhibits F-1, F-10, and F-11 of the Booz, Allen report. The Booz, Allen report supports these data with other exhibits contained in their Appendices B through F.

The Base Case was developed in two steps. The first step was to correct basic errors in the unadjusted Booz, Allen projections. Video transmission costs of \$2,410,000 were removed from Southwestern Bell's costs. Chapter IV discusses the reason for deleting these costs. Also, arithmetic errors were corrected. This added \$97,920 to the State's capital cost of the proposed system. The capital cost was then rounded to \$32 million. The cost of parts and supplies to maintain the proposed system was understated by 10 percent given the Booz, Allen assumptions. This was also corrected. The effect of these three adjustments was to convert the "Unadjusted Data" to "Adjusted Data" (See the tables at the end of this appendix).

The second step in developing the Base Case was to make more complex adjustments to the data. There were two additional adjustments: one was necessary because Booz, Allen did not carry forward their adjustment to long distance charges because of the assumed termination of the TELPAK tariff when they calculated residual Southwestern Bell costs to be included in the proposed system's costs. The other adjustment was to exclude CPE lease costs from local service costs under both alternatives. This was done to compare the two alternatives

on an equivalent basis: no CPE lease costs either way. Of course, there will be costs for CPE regardless of the alternative selected. The equipment may be leased or purchased from a vendor of the State's choosing. The CPE procurement decision is separate from the decision at hand, so the costs (whether lease or purchase) should be considered separately. The adjustment was made effective in 1985 because the proposed implementation plan would disconnect and remove replaced switches and equipment at that time.

Because of the complexity of these two adjustments, we describe them in detail. The results of the adjustments appear below and in Case #1 (Base Case) in Chapter V.

To adjust the State system's projections: First, long distance charges must be corrected to include an increase for the discontinuance of TELPAK. We assume that this will add \$800 (thousand) in FY83 and that the cost escalation is 15 percent annually. (This is the assumption in the Booz, Allen projections.)

Result:

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
Long Distance	4908	6444	7411	8522

To find the figure for FY86, refer to Booz, Allen Exhibits B-13, F-7, and F-8. There was no TELPAK adjustment made. To calculate the adjustment, recall that the FY82 cost for TELPAK service is \$933,000 (from Appendix A, page 4 of Planning Activities Status Report, a.k.a. Original Proposal). Exhibit B-13 shows that the FY82 cost of TELPAK service to be retained in FY86 is \$289,272, or 31 percent of the total. The next step is to transform the FY83 adjustment to FY84 dollars.

The adjustment is 31 percent of \$800, or \$248. We escalate at 15 percent for one year to get \$285 in FY84 dollars. This is added to the total from Exhibit B-13 (\$3,866,616) and carried forward to Exhibit F-7. The new "TELCO SERVICES" column is:

Intercity Transmission	\$4,152
Regional Switching	
Topeka	431
Kansas City	213
Wichita	153
Total (FY84)	<u>\$4,949</u>

We must include the residual long distance charge (\$449,864) from Exhibit F-8, which is in FY81 dollars. We escalate that charge to FY84 dollars (\$684,187) and then add it to the intercity transmission cost above. The total is then escalated to FY86 dollars. The result is that long distance charges in FY86 are \$6,396 (thousands).

Secondly, local service costs must be adjusted to exclude CPE lease costs. In the proposal this has already been done for Topeka, Wichita, and Kansas City, so we only need to adjust the residual charges and escalate the costs to FY86 dollars. For the years before FY85, local service costs will be the same as in the other alternative (continuing with Southwestern Bell). In FY85, local service costs will be the same in both alternatives except for a special adjustment made to the Bell cost, as explained below. According to the State's proposal (Vol. 1, p. 12), 70 percent of telephone charges are for CPE (including CENTREX). Subsequent Southwestern Bell studies indicate that the correct percentage (excluding CENTREX, which is not actually CPE) is less than 70 percent. CPE lease costs actually represent approximately 40 percent of local service costs, so we will rely upon this figure to

adjust local service costs. Please refer to the Preface to this revised edition.

To calculate local service costs for FY86, first add up the charges in the Regional Switching Areas (Exhibit F-7). The result is \$796,500 in FY84 dollars. Refer next to Exhibit F-8, which shows that residual local service costs total \$4,970,163 in FY81 dollars. Both of these costs should be escalated to FY86 dollars. The result (in thousands) is \$1,053 for the Regional Switching Areas, and \$9,997 for residual service in other areas. The figure for "other areas" still includes CPE leases, so it must be adjusted downward by 40 percent to \$5,998. Total local service costs in FY86 are \$7,051 (thousands).

To adjust the Southwestern Bell projections: The adjustment for TELPAK discontinuance has already been made, so no long distance adjustment is necessary. Local service costs must be adjusted to exclude CPE lease costs beginning in FY85. This is simply a 40 percent reduction of local service charges.

The proposed bond issue to finance the State's system has funds included for the purchase of CPE in Topeka, Wichita, and Kansas City. We do not know how much, because the cost is embedded in an item called "switching equipment" throughout Appendix C of the proposal. To fairly compare the two alternatives, we must include some capital cost to buy CPE in the cost of continuing service from Southwestern Bell. This has been estimated at \$100 per telephone for the nearly 13,000 telephones listed for the three major cities. A one-time charge of \$1,300,000 is added in FY85 to local service costs.

A summary of the results of adjusting for the assumed discontinuance of TELPAK by FY83 and for the exclusion of CPE lease costs beginning in FY85 is as follows:

Projected annual costs of continuing to procure service from Southwestern Bell:

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>FY86</u>
Long distance	4,908	6,444	7,411	8,523	9,801
Local	9,425	10,839	12,465	9,901	9,891
Total	<u>14,333</u>	<u>17,283</u>	<u>19,876</u>	<u>18,424</u>	<u>19,692</u>

Projected residual Southwestern Bell charges with State-owned system:

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>FY86</u>
Long distance	4,908	6,444	7,411	8,523	6,396
Local	9,425	10,839	12,465	8,601	7,051
Total	<u>14,333</u>	<u>17,283</u>	<u>19,876</u>	<u>17,124</u>	<u>13,447</u>

(After 1986, these costs escalate at 15 percent annually.)



UNADJUSTED DATA

SCHEDULE A

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7410	8522	12210	14041	16148	18570	21355	24559	28242	32479	37350	42953
(2) LOCAL	9425	10839	12465	14335	16485	18958	21802	25072	28833	33158	38131	43851	50429	57993
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19875	22857	28695	32999	37950	43642	50188	57717	66373	76330	87779	100946
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18006	20670	23732	29657	34058	39114	44923	51597	59267	68078	78205	89843	103215

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	200400
AT 17.5 %	170743
AT 20.0 %	147009
AT 22.5 %	127826
AT 25.0 %	112172

NOTE: THESE PROJECTIONS ARE FROM THE BOOZ, ALLEN REPORT, EXHIBIT F-10.

## UNADJUSTED DATA

## SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

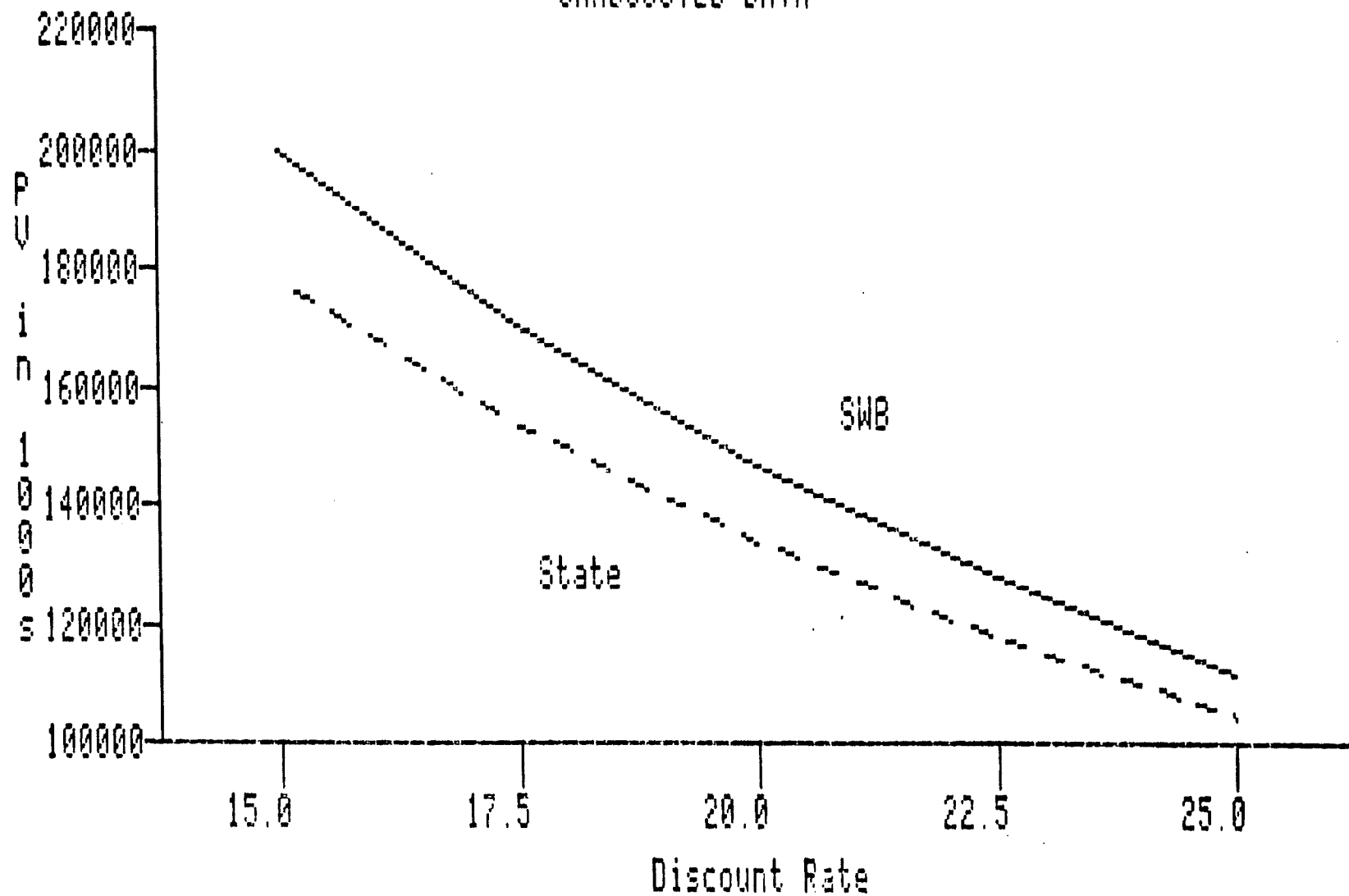
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3824	3824	3824	4824	5824	5824	5824	5824	5824	5413	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19875	22857	17068	19628	22573	25959	29852	34330	39480	45402	52212	60044
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	404	444	489	537	591	651	716	788	866
(6) TAX REVENUES LOST	0	0	0	0	1046	1203	1384	1591	1830	2105	2420	2784	3201	3681
ANNUAL COST	15284	18691	25760	28972	24138	28410	34089	38113	42718	47993	54032	60538	63046	72121

## PRESENT VALUE OF ANNUAL COST

AT 15.0 %	177859
AT 17.5 %	153484
AT 20.0 %	133790
AT 22.5 %	117717
AT 25.0 %	104472

NOTE: THESE PROJECTIONS ARE FROM THE BOOZ, ALLEN REPORT, EXHIBIT F-11.

# UNADJUSTED DATA



ADJUSTED DATA

SCHEDULE A

PROJECTED ANNUAL COSTS OF CONTINUING SOUTHWESTERN BELL SERVICE  
(000'S)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TELEPHONE SERVICE COSTS														
(1) LONG DISTANCE	4908	6444	7411	8522	9801	11271	12962	14906	17142	19713	22669	26070	29981	34478
(2) LOCAL	9425	10839	12465	14335	16485	18958	21802	25072	28833	33158	38131	43851	50429	57993
TOTAL TELEPHONE SERVICE COSTS	14333	17283	19876	22857	26286	30229	34764	39978	45975	52871	60800	69921	80410	92471
(3) STATE MGMT & OVERHEAD	629	723	795	875	962	1059	1164	1281	1409	1550	1705	1875	2064	2269
ANNUAL COST	14962	18006	20671	23732	27248	31288	35928	41259	47384	54421	62505	71796	82474	94740

PRESENT VALUE OF ANNUAL COST

AT 15.0 %	188424
AT 17.5 %	160961
AT 20.0 %	138955
AT 22.5 %	121146
AT 25.0 %	106592

- NOTES: (1) ADJUSTED TO EXCLUDE COSTS FOR VIDEO TRANSMISSION BEGINNING IN 1986. OTHER DIFFERENCES DUE TO ROUNDING. ESCALATION AT 15%.  
 (2) NO CHANGES. ESCALATION AT 15%.  
 (3) NO CHANGES. ESCALATION AT 10%.

## ADJUSTED DATA

## SCHEDULE B

PROJECTED ANNUAL COSTS OF PROPOSED STATE OWNED SYSTEM  
(000'S)

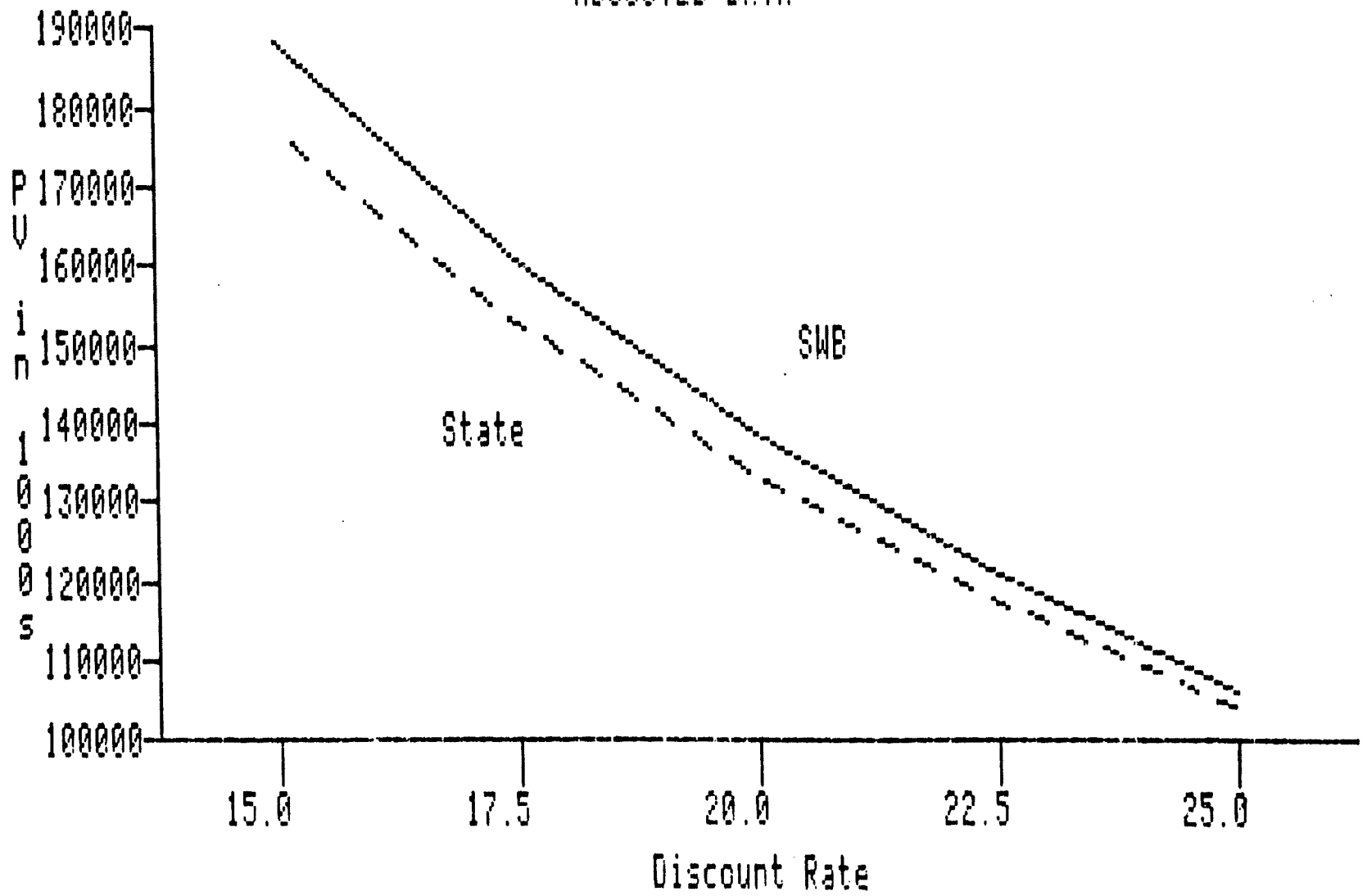
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
(1) CAPITAL OUTLAY PAYBACK	0	0	3840	3840	3840	4840	5840	5840	5840	5840	5840	5498	0	0
(2) SYSTEM PLANNING ENGINEERING & IMPLEMENTATION	322	685	1266	1416	0	0	0	0	0	0	0	0	0	0
(3) TELEPHONE SERVICE COST	14333	17283	19876	22857	17068	19628	22573	25959	29852	34330	39480	45402	52212	60044
(4) STATE SYSTEM OPERATION & MANAGEMENT	629	723	795	875	2200	2351	3864	4250	4675	5143	5657	6223	6845	7530
(5) PARTS & SUPPLIES	0	0	0	0	0	444	489	537	591	651	716	788	866	953
(6) TAX REVENUE LOST	0	0	0	0	830	954	1097	1262	1451	1669	1919	2207	2538	2918
<b>ANNUAL COST</b>	<b>15284</b>	<b>18691</b>	<b>25777</b>	<b>28988</b>	<b>23938</b>	<b>28217.09</b>	<b>33863</b>	<b>37848</b>	<b>42409</b>	<b>47633</b>	<b>53612</b>	<b>60118</b>	<b>62461</b>	<b>71445</b>

## PRESENT VALUE OF ANNUAL COST

AT 15.0 %	176988
AT 17.5 %	152775
AT 20.0 %	133209
AT 22.5 %	117236
AT 25.0 %	104072

- NOTES: (1) CAPITAL OUTLAY ADJUSTED FOR ARITHMETIC ERRORS AND ROUNDED TO \$32 MILLION. BOND RATE 12%  
 (2) NO CHANGES.  
 (3) NO CHANGES. ESCALATION AT 15%.  
 (4) NO CHANGES. ESCALATION AT 10%.  
 (5) ADJUSTED FOR ARITHMETIC ERROR. ESCALATION AT 10%.  
 (6) REFLECTS ADJUSTMENT OF OF SCHEDULE A, LINE (1). CALCULATED AS 9% OF LOST REVENUES TO TELEPHONE COMPANY.

ADJUSTED DATA



TESTIMONY TO SENATE WAYS AND MEANS  
COMMITTEE BY  
PATRICK J. HURLEY  
SECRETARY OF ADMINISTRATION

After all these hours and days of very complicated, and often confusing, testimony, I would like to try to put the real issue into perspective for you.

The real question is this - can the State of Kansas acquire its telephone service more cost effectively than it does today; that is to say, telecommunications is costing the State of Kansas millions and millions of dollars each year - can we get this service more cheaply?

The answer is yes, and the procedure is simple, go into the competitive free market place.

Force all vendors to compete for our dollars and thereby get the best product for the least dollars.

Quite simply, in the past we got most of that service from a regulated monopoly - Southwestern Bell. As such we have had neither choice as to the product (we are already on their system), nor as to the cost (it is set in tariffs by regulation).

All we are telling you is that in the area of telecommunications, tomorrow has come. Because of the deregulation of the telephone industry and the divestiture of the monopoly of A. T. & T., all users - from the largest to the smallest - whether it is for a

AH H

total system or a single telephone - every single user can now take advantage of the competitive market place and choose the vendor, the product and the price.

Let me give you examples in the three areas under my authority as Secretary of Administration where the State has benefitted significantly by abandoning the monopolistic practice of dealing with a single vendor and has entered the free market place:

1. In the area of reprographics - or in laymen's terms - copying machines. Previously the State had a policy of allowing agencies statewide to obtain copying machines by indiscriminately selecting the vendor of their choice. The result was that two companies had a monopoly on this business and the effect was that agencies spent far more for copiers than they needed to. Today we strictly control the acquisition of copiers under a single state contract. We require all vendors to bid competitively in ten different categories of copiers based on size, volume and specialized equipment.

The low bidder in each category becomes the supplier for that size and type of copier. All agencies have been assigned one of these categories based upon the needs of the agency. In less than three years, we will have saved almost two million dollars as a result of forcing competitive bidding in this area.

2. In the area of large computers, previously we had a single vendor policy which meant that each time we went out to acquire a new piece of computer hardware,



only one company could bid. We abrogated that monopolistic policy, and the first time we put out a proposal that allowed more than one vendor to bid we received three bids, two of which were twice and three times as low as the bid from the vendor that previously held the monopoly. We saved over \$600,000 on that one bid alone, and have since continued to generate similar savings by this practice.

Finally, in the area of telecommunications, by law we are in fact required to competitively bid in every instance where we can. However, previously the policy of the State of Kansas was to never competitively bid any telecommunications acquisitions.

In the last year, however, we have begun bidding, and let me share with you some interesting results. Attachment A shows that our five year savings from bidding telecommunications equipment for seven offices is in excess of \$1,200,000.00.

Finally, let me give you one last real example in the area of telecommunications of how we stand to continue to benefit if we competitively bid.

You have heard us say a number of times in our testimony that we are presently on Southwestern Bell's system of Centrex switches located on Southwestern Bell's premises in each of the large cities serving large state installations, such as here in Topeka.

In Kansas City one such Centrex switch serves the University of Kansas Medical Center. For a year Southwestern Bell has been proposing to the Regents and

to the State of Kansas that we abandon that Centrex switch and to do an on-site switch called "The Bell Dimension System." Southwestern Bell has maintained that it was the best technology that Bell had to offer, that it was better than the Centrex switch, and that it would cost less money even while regulated.

Today Southwestern Bell is no longer offering the Medical Center or the State that system or those cost savings. Today Southwestern Bell wants us to stay on the Centrex switch in Kansas City under regulated costs. Why - because they can no longer offer what they in fact were offering prior to divestiture, and what, prior to divestiture, they had been bidding again and again, that is Bell's current best product, "the Bell Dimension System."

Let me now complete this story, I am today in receipt of a proposal for an on-site switch for the University of Kansas Medical Center that we can consider if we want to go out for competitive bids for a new system at the University of Kansas Medical Center. Let me describe this actual proposal to you and its attendant cost savings.

It proposes the State discontinue utilizing the Centrex switching service that currently is utilized at the Medical Center. It also proposes the State purchase the station equipment currently leased from Southwestern Bell. The proposal could be implemented without any increase in the Medical Center's telecommunications

budget, and in the first year alone, a savings in excess of \$100,000 would be realized. Every year thereafter the savings would be in excess of \$600,000. (See Attachment B.)

Q-1. Do you know what the name of that system is - "Bell Dimension PBX Telephone System."

Q-2. Do you know the name of the company that is offering that system to us as the best product available in the Bell system - "American Bell."

Q-3. In fact you would be interested to know that the representative of American Bell who is offering that system to us today competitively is the same person who has been preparing that offer and proposing it to the State for almost a year as Southwestern Bell's representative.

This example is the best illustration we can give you of what we have been trying to explain through all of this testimony.

Therefore you may say why are we asking for you to approve anything if we can achieve the same results some day by following the law and competitively bidding all of these matters in a piecemeal fashion as they come along.

The answer to the question is that we can probably in fact do just that. However, it is our judgment that for maximum cost savings, maximum efficiency, and maximum benefits to the State, the best approach to that

goal is the one we have proposed, that is for the State to develop a total plan and go out at one time to acquire the basic structure of that plan.

That is the only question before the Legislature--not should we competitively bid the acquisition of our future telephone equipment and service--that is required by state law and only enhanced by divestiture and deregulation.

The only question for the Legislature to decide is how do we get there.

Should we proceed piecemeal without a plan, or should we follow a plan to manage as effectively as possible the future of telecommunications for the State of Kansas?

We recommend the latter course. We are asking you only to provide the funds for the technical design work on the plan which cannot be done in-house by our own staff. This will then allow us to request bids from all vendors including Southwestern Bell if they care to bid. There are many companies anxiously awaiting the opportunity to bid on this plan.

Our course has been set by a combination of State law and acts by the Federal government, and the Federal courts. It is no longer a question of should we proceed, but simply how do we proceed? That decision is yours.

NEW STATE OWNED TELEPHONE SYSTEMS AS OF JANUARY, 1983

DATE PLACED IN SERVICE	AGENCY	CAPITOL COST	PROJECTED STATE OWNED 5 YEAR COSTS (Inclds capital payback)	PROJECTED TELCO LEASED 5 YEAR COSTS	5 YEAR SAVINGS	LOW BIDDER	SWB BID
08-21-81	Human Resources 1430 S. Topeka Topeka, Kansas PBX	\$ 85,168.00	\$223,241.00	\$448,343.00	\$225,102.00	\$ 85,168	\$148,880
10-01-81	SRS Office Key Pratt, Kansas System	\$ 18,576.00	\$ 31,115.00	\$ 60,799.00	\$ 29,684.00	\$ 28,098	\$ 70,761
08-02-82	KPERS Key Topeka, Kansas System	\$ 23,950.00	\$ 53,333.00	\$127,000.00	\$ 73,667.00	\$ 23,950	\$ 81,246
08-02-82	SRS Office Key Emporia, Kansas System	\$ 19,950.00	\$ 52,661.00	\$104,927.00	\$ 52,266.00	\$ 19,950	\$ 93,709
12-01-82	SRS Office Lawrence, Kansas PBX	\$ 53,476.00	\$ 91,144.00	\$195,325.00	\$104,181.00	\$ 66,916	\$ 86,458
10-16-81	KSIR Hutchinson, Kansas PBX	\$ 88,107.00	\$153,937.00 (Large upgrade in service)	\$408,869.00	\$254,932.00	\$ 88,107	\$241,648
11-27-82	OSH Osawatomie, Kansas PBX	\$246,612.00	\$325,637.00 (Large upgrade in service)	United Telephone Co. (No telco bid to compare)		\$246,612	No Bid
12-10-82	KSP Lansing, Kansas PBX	\$311,228.00	\$415,256.00 (Large upgrade in service)	\$912,879.00	\$497,623.00	\$311,228	\$762,346
	TOTALS	\$847,067.00	\$1,346,324.00	\$2,258,142.00	<u>\$1,237,455.00</u>		

ATTACHMENT "A"

2702 Rock Creek Parkway  
North Kansas City, Missouri 64117  
Phone (816) 346-1000

February 8, 1983

Facilities Operations  
K.U. Medical Center  
39th and Rainbow  
Kansas City, Kansas 66112

Dear Sirs:

*over*  
The enclosed document discusses the replacement of your Centrex service with American Bells Dimension PBX Telephone System. There are several reasons why this proposal warrants your serious consideration.

First and foremost the Dimension could provide substantial cost saving when compared to Centrex. The Dimension will save \$28,000 a month and will pay for its self in 8 to 9 months. This Dimension proposal will directly address Secretary of Administration, Partick Hurley's August 24, 1982 memo asking for telephone expense reductions.

Second, this is an interim solution for the Medical Center focusing on cost reduction. The proposal is not in lieu of the system planned for the Medical Center under the State plan, telecommunications but a step towards such a plan. It moves the Medical Center closer to the state plan by getting the station side and wiring plan on line today. At such time when the state telecommunications plan is funded, the Medical Center would need only to change out the PBX. We would recommend an extremely short lease period for such a system or the ability to terminate the lease arrangement on a month to month basis. This will allow the Medical Center to lower their communications cost, maintain high level of service through the Bell System and finally the flexibility to move towards the state plan on short notice.

American Bell stands ready to implement this proposal upon receiving your commitment. If you have any questions please call on 346-1287.

Sincerely,

*[Signature]*  
Don R. Hoven  
Account Executive

K.U. MEDICAL CENTER  
 MONTHLY EQUIPMENT BREAKDOWN  
 LEASING DIMENSION -PURCHASE STATION EQUIPMENT

	Centrex (Mon.)	Dimen (Mon.)	Dimen I.C.	Trunks (Mon.)	Key & Misc.	756 & CKT's	DID	Purchase of Stat.	Total (Mon.)	Total (I.C.)
Centrex	69,040	----	----	----	27,476	3,489	----	-----	100,005	----
Dimension	----	28,835	157,000	9,872	----	3,489	3,805	300,000	45,384	550,000

Monthly Savings

\$ 54,621

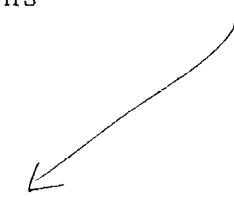
*.112*

\$ 655,452

Payback Period =  $\frac{550,000}{54,621}$  = 10 months

First Year Savings = \$109,242

Every Year Thereafter = \$655,452



K.U. MEDICAL CENTER  
 MONTHLY EQUIPMENT BREAKDOWN  
 LEASING DIMENSION -LEASING STATION EQUIPMENT

	Centrex (Mon.)	Dimen (Mon.)	Dimen I.C.	Trunks (Mon.)	Key & Misc.	756 & CKT's	DID	Purchase of Stat.	Total (Mon.)	Total (I.C.)
Centrex	69,040	----	----	----	27,476	3,489	----	-----	100,005	----
Dimension	----	28,835	157,000	9,872	27,476	3,489	3,805	-----	73,477	255,200

Monthly Savings

\$ 26,528  
 x 12  
 -----  
 318,336

Payback Period =  $\frac{255,200}{26,528} = 9.6$  months

First Year Savings = \$ 63,667

Every Year Thereafter = \$318,336

