ALASKA LEGISLATURE COMMITTEE FILES 1985-1986 8672

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11/24/89
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02-519 (REV 8/78)

SB

156

When is it your money?

Banks rarely let you draw on a large check the same day you deposit it. But some banks make you wait much longer than others.

If you've ever deposited a large check in your account, then waited day after day for the money to become available for you to draw on, you know how frustrating the check-clearing process can be for banking customers.

It's not as if bounced checks were a major threat to the banking system. Almost 40 billion checks are written in the U.S. each year. All of them must "clear"—the checks, and the funds they represent, must shuttle between the banks where they are deposited and the banks on which they are drawn. In most cases, the checks clear without problems. About 1 percent of those checks are returned, usually for insufficient funds.

Is this hold necessary?

With the risk of bounced checks relatively small, why don't banks credit your account with the value of deposited checks right away? Banks justify their often-lengthy hold policies by asserting that the returned checks could result in a large monetary loss to the bank if they are not collected. Yet, in New York, the one state that currently limits how long banks can make customers wait for their funds, banks don't seem to have been hurt. According to New York Banking Superintendent Vincent Tese, 90 percent of the state's banks experienced no losses from bounced checks at all in the three months ending in June 1984. For banks that did have losses, the average loss from all bounced checks combined was $2400. It's also worth noting that banks can and do insure themselves against loss from bad checks.

When banks do put a hold on a check, it is usually a check for $100 or more, drawn on a bank outside the locale where the check is deposited. Smaller checks (which constitute about 80 percent of checks written) are routinely available for withdrawal immediately or within a day or two of deposit.

Banks allow you access to your funds in a designated number of business days. With most banks, that number is fixed, regardless of how soon the bank itself gets the use of the funds—which is typically within a day or two of deposit. When banks count up the number of business days for check-clearing purposes, they exclude the day the deposit is made. So, if you deposit a check on Monday and the check has a one-day hold on it, the money would be available for your use at the start of the banking day on Wednesday. Saturdays and Sundays don't count, even if the bank is open for business. So, an eight-day hold on a Monday deposit ordinarily means funds don't become available until the opening of business on Friday of the following week.

If you put a deposit into an automated teller machine during a bank's banking hours, the business days usually run just as if you'd given your deposit to a teller within the bank. But if you make a deposit after banking hours, the bank will usually treat your deposit as if it had been made on the following banking day.

The turtle express

A major reason for the delays consumers experience is an antiquated system of clearing checks. When you deposit a check, your bank can speed the check by various means (including private courier services) to the originating bank in a few days at most.

If the account does not have the required amount available, the check is marked "insufficient funds" and must be returned to your bank. At this point, the bottleneck develops. The return trip is much slower than the first trip—checks sometimes travel by regular mail, for example. Bankers say that speeding up the return trip would in many cases cost the banks a good deal of money, because expensive new equipment would have to be installed.

Perhaps so. But maybe the banks just don't have a strong reason to change the present system. Congressman Fernand St. Germain (D., R.I.), chairman of the House Banking, Finance and Urban Affairs Committee, summed it up this way: "While the depository institutions hold the deposit uncredited, the customer writes checks—many of which are marked 'insufficient funds' and socked with a $10, $15, $20 fee. All the while the financial institution refuses to post the deposit, which is often hundreds of dollars in excess of the insufficient funds items. The institution has use of the 'float'—a profitable item—and at the same time collects a little extra in the form of returned-check fees from the customer." In short, said St. Germain, it's "an all-win solution for the institutions, a sure loser for the customer."

Pulling the stopwatch

Last spring, New York became the first state to pull a stopwatch on the banks. (See CONSUMER REPORTS, July 1984.) Under its regulations, these time limits apply to commercial banks, for checks up to $2500:

- If the check is drawn on a bank in the local metropolitan area, the funds must be available within two business days.
- If the check is drawn on any bank in New York State, the maximum holding period is three business days.
- For out-of-state checks, the maximum is six business days.

Savings-and-loan institutions and credit unions are allowed slightly longer than commercial banks to make deposited funds available.

California banking officials have approved similar regulations, which may go into effect as soon as this fall.

Both the New York and California rules establish a one-day holding period on checks written by the Federal Government or the home-state government.

In both states, the usual time limits don't apply in certain special situations. The most common of those is a hold on checks deposited into a newly opened checking account.

Both the New York and California regulations require that banks disclose to consumers (on request) information about holding periods.

Where's Uncle Sam?

In March, the major Federal banking agencies—the Federal Reserve Board, the Federal Deposit Insurance Corporation, the Federal Home Loan Board, and the Comptroller of the Currency—asked banks to limit check-clearing delays, and to disclose voluntarily the amount of time it takes them to credit a depositor's account. Knowing that information, consumers are likely to prefer banks with shorter waits. Competition should bring down the average waiting time.

There is also Federal legislation pending. Two bills before the Congress are similar to the New York and California rules. The House bill, H.R. 5301, is spon-

sored by Representative St. Germain, with 131 co-sponsors. The Senate bill, which was folded into the pending Omnibus Banking Bill, was authored by Senator Christopher Dodd (D., Conn.). It passed the Senate in September and awaited action by the House, as this issue went to press.

Recommendations

CU favors a Federal law establishing maximum check-holding periods, and requiring disclosure of banks' check-holding policies. Pending federal action, we hope more states will follow the lead of New York and California. With or without a law, there are things you can do.

Be aware that banks in the same city may have widely varying policies on when the funds you've deposited become yours to use. The table below shows the recent funds-availability policies of the five largest commercial banks in each of six major cities.

If you deposit a lot of out-of-town checks, you may want to shop around for the bank in your area that has the shortest holding periods. You can often get a copy of the bank's policy from a bank officer or teller. We suggest getting the information in writing. CU callers have gotten conflicting information on successive calls to the same bank.

Banks do sometimes make exceptions from their general rules. If you need access to funds quickly, talk with the bank manager about getting faster credit on a deposited check. Also, some banks will routinely give you immediate access to funds you deposit if you pledge another account (such as a savings account) at that bank as collateral. ■

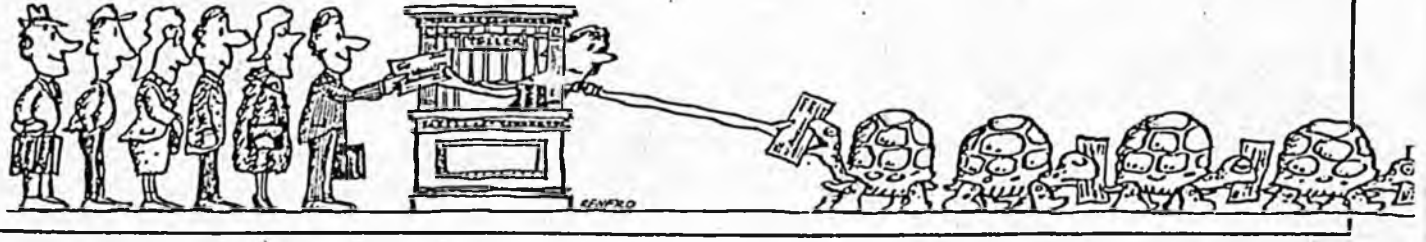
How long must you wait?

This table shows the maximum number of days it would customarily take each of 30 major banks to make funds available on a deposited check. The banks surveyed were the five largest commercial banks in each of six major cities. "0" means the funds are available immediately. "1" means funds are available the day after the deposit, and so on. Thus, "2" corresponds to a one-day hold on a check (see story). In all cases, a "day" means a business day. Data are from late August 1984, and are based on statements by officials of the listed banks.

	Maximum number of days to clear checks drawn on:		
	Same bank [1]	Nearby bank [2]	Distant bank [3]
Boston			
Boston Safe Deposit	0	3	3
Bank of New England	1	3	3
Shawmut Bank	2	4	7
State St. Bank & Trust	1	[A]	[A]
First of Boston	Refused to divulge policy.		
Chicago			
First National	0	2	3
Harris Bank	0	3	3
American National	0	3	3
Continental Illinois	0	6[B]	8[B]
Northern Trust	1	6	9
Dallas			
Interfirst Bank	0	2	3
Mercantile Bank	0	2	3
BancTexas	1	3	3
First City	1	1	4
Republic National	7	8[C]	11[C]

	Maximum number of days to clear checks drawn on:		
	Same bank [1]	Nearby bank [2]	Distant bank [3]
Los Angeles			
Mitsui Bank	0	5	7
Union Bank	2	6	8
Lloyds Bank	1	5	11
First Interstate	5	11	11
Security Pacific	5	7	13
New York			
Chase Manhattan	2	4	7
Manufacturers Hanover	2	4	7
Irving Trust	2	4	7
Citibank	2	5	9
Chemical Bank	1	3	11
San Francisco			
Bank of California	1	3	3
Bank of America	0	2	4
California First	2	5	10
Wells Fargo	3	7	11
Crocker National	0	11	13

[1] *Own bank, branch, subsidiary, or affiliate.*
[2] *200 miles away.*
[3] *1500 miles away.*
[A] *Customer given credit when bank gets funds.*
[B] *Six days in state of Illinois; eight days outside state.*
[C] *Eight days in Dallas/Ft. Worth area; 11 days elsewhere.*



CU's director elected head of worldwide consumer group

Consumers Union does not stand alone. We have 127 allied organizations in countries around the world.

A nexus for these far-flung consumer groups is the International Organization of Consumers Unions (IOCU), founded in 1960 to protect consumers' interests worldwide through research, information, and education.

Consumers' needs vary around the globe. Shopping for specials at the supermarket is important for many people in the industrialized West. But for many in the Third World, finding adequate food at any price is the issue.

Responding to the disparate needs of consumers around the world is a challenge for IOCU and its leaders. In December, CU's Executive Director, Rhoda H. Karpatkin, was elected president of IOCU (she had previously been vice president), and took on an increased measure of that challenge.

New priorities for the next three years, Karpatkin said, include: combating the promotion of smoking worldwide; strengthening consumer-education programs for young people; accelerating consumer-organizing efforts in Africa; and encouraging the development of consumer organizations in Latin America. IOCU will continue to work actively with three global citizens' networks—the Pesticide Action Network, Health Action International, and the International Baby Food Action Network—as well as with Consumer Interpol.

New help for Medicare patients

As many older people know only too well, Medicare doesn't take care of medical expenses in full.

For example, a surgeon might charge a woman $1800 to perform cataract surgery. Medicare will pay 80 percent of the "approved fee," but the approved fee may be only $1300. So Medicare would pay only $965 (80 percent of $1300, minus a $75 deductible). The woman must pay the remaining $835 herself, unless she has other health insurance.

Only about 20 percent of the nation's doctors have agreed to "accept assignment"—that is, to take the Medicare-approved fee as payment in full for their services. Yet these doctors perform more than half of all medical procedures done on patients eligible for Medicare. Clearly, older people on tight budgets are seeking them out.

To help America's 26 million senior citizens locate these doctors, the Health Care Finance Administration, the agency that administers Medicare, recently published the "Medicare Participating Physician/Supplier Directory," a regional listing of doctors who accept assignment. Reference copies are available at senior-citizen centers and Social Security offices.

All doctors listed in the directory have agreed to accept assignment. But doctors who aren't listed still have the option of accepting assignment on a case-by-case basis. So even if your doctor isn't listed in the directory, it may pay to ask if he or she will accept assignment in your case.

Follow-Up

The 'hold' on checks. Several banks have protested our November report ("When Is It Your Money?") on the delays consumers face in getting access to funds they have deposited.

RepublicBank Dallas, formerly Republic National, says that the numbers originally furnished to us for our table were incorrect. It says funds are normally available immediately on checks drawn on its own affiliates, within three days for other local banks, and within seven days for out-of-area banks.

Wells Fargo Bank in San Francisco says that its maximum hold periods, at the time CU did its survey, were one day shorter than those we gave.

Republic and Wells Fargo are also among several banks that say they almost never make consumers wait for their money, making funds available on the next business day in more than 99.6 percent of cases.

Neither the Federal Reserve Board nor the American Bankers Association could provide us with nationwide-average figures on the percentage of checks subject to holds. But Senate testimony indicates that from 13 to 25 percent of consumers have had a problem with the hold on checks.

On October 1, California joined New York in imposing limits on the time banks can take to make customers' checking-account funds available. The rules require banks to disclose their funds-availability schedules by notifying customers in writing.

Charge cards. In our January report on charge cards, CU listed five banks that said they issued low-rate credit cards to residents of any state. The information was obtained in a telephone survey of 133 bank credit-card centers in which a CU reporter called anonymously as a potential applicant. Before going to press, CU updated and double-checked the information for the top-rated banks, again anonymously.

Some of our banks' sources were apparently in error, however.

Several readers have told us that three of the five banks listed—Rainier National, Comerica Midwest, and Central National Bank—would not issue cards outside their main service areas. So we checked back again, this time in "on the record" interviews. Here is what we found:

Rainier National, which boasts a 15.5 percent rate, will issue a card to residents of any state—provided there is already some sort of relationship between bank and applicant, such as a certificate of deposit. Otherwise, only residents of 10 western states—Alaska, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming—can get a *Visa* card from Rainier. Some of our readers who applied for a card from Rainier National had their applications forwarded to The Chase Manhattan Bank in New York, which charges 19.8 percent interest on *Visa* cards. Thanks, but no thanks.

Comerica Midwest (16.9 percent) will issue cards only to residents of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Central National Bank will issue cards only in Ohio.

The central point of our report—that you can save money by shopping for your charge card—remains valid.

EXHIBITS

1. Request for Attorney General's Opinion - April 26, 1968.
2. Attorney General's Opinion - June 24, 1968.
3. House Journal page 246 - Letter of Intent - February 17, 1968.
4. Definition and characteristics of checks - Excerpts from "The Law of Bank Checks" by Henry J. Bailey - Fourth Edition - 1969.
5. Definitions from "The Encyclopedia of Banking and Finance" by Munn and Garcia - Seventh Edition - 1973.

   A. Bank Draft - page 76.

   B. Cashier's Check - page 173.

   C. Certified Check - pages 179-180.

   D. Check - page 182.

   E. Draft - pages 282-283.

   F. Federal Reserve Check Collection System - pages 343-345.

   G. Negotiable - page 626.

   H. Negotiable Instruments - page 627.

EXHIBIT 1.

HB 365

FORM 5A-18
125.5M 8/67

MEMORANDUM

State of Alaska
DEPARTMENT OF COMMERCE

TO: OFFICE OF ATTORNEY GENERAL
G. Kent Edwards
Deputy Attorney General

DATE : April 26, 1968

FROM: W. W. Fritz
Director of Insurance

SUBJECT: HOUSE BILL 365
"Negotiable Bank Check Payable On Demand"

We are requesting your opinion on House Bill 365 that passed both the House and the Senate and has been signed by the Governor. A copy of the Bill is attached hereto for your information.

We are specifically requesting your interpretation of the term "negotiable bank check payable on demand." The use of the word "bank" in the Bill needs clarification. The original Bill as submitted called for payment by Cashier's Check or Certified Check.

It is specifically requested that a determination be made as to whether the words "negotiable bank check payable on demand" means a check issued by a bank in the form of either a Cashier's Check or some other instrument made by the bank.

Please rush your opinion as I must notify all of the insurance companies immediately.

Enclosures - 2
WWF:hc

EXHIBIT 2.

FORM 3-18
125.5 8/67

MEMORANDUM

State of Alaska

365

TO: Department of Commerce

Attn: Mr. W. W. Fritz
Division of Insurance

DATE : June 24, 1968

FROM:
G. Kent Edwards
Attorney General

By: Vernon L. Snow
Assistant Attorney General

SUBJECT: House Bill No. 365
"Negotiable Bank Check
Payable on Demand"
Our File No. COM-129

Reference is made to your memorandum dated April 26, 1968, requesting our opinion as to the meaning of the term "negotiable bank check payable on demand" used in House Bill No. 365.

You state that the original bill read "Cashier's check or certified check". The Legislature amended the wording of the bill to read "negotiable bank check payable on demand".

Enclosed herewith is a xerox copy of Black's Law Dictionary covering the definition of "bank check" and "checks". You will note that the dictionary states under "bank check" "See 'check'". The definition of "check" in that dictionary does not lend much help in determining the meaning of the term "negotiable bank check". However, it is noted that the following statement is made regarding "check" and "draft":

> "The term 'check', within the ordinary meaning of that term includes 'draft', the only distinction being that in a draft the drawer is a bank, while in the ordinary check the drawer is an individual. Leach v. Mechanics' Sav. Bank, 202 Iowa 899, 211 NW 506, 508, 50 A.L.R. 388."

Bank check is defined in 11 Am. Jur. 2d., Bills and Notes, §17, p. 47, as follows:

> "The term 'bank check' means nothing more than 'check'. It merely designates a check which is drawn on a bank and thus is generally tautological, although it may be used to distinguish checks for money from such things as baggage checks, or from some travelers' checks which are not always drawn on a bank." (Emphasis added)

In 10 C.J.S., Bills and Notes, §5, p. 409, the following reference is made to a "bank check":

> "The phrase 'bankers check' has no place in legal or financial terminology, it has been suggested; but the popular significance of the term is a check drawn by a banker, as distinguished from a bank check which may be drawn on the bank by anybody. . . ." (Emphasis added.)

The above language was approved in the case of Banker of M W of A v. Harrison, 62 S.W. 2d 486, (Mo. App. 1933). Though C.J.S. does not specifically define "bank check" their treatment of it definitely implies a definition akin to that given by Am. Jur. 2d, in that a "bank check" means nothing more than an ordinary check.

5 Words and Phrases, p. 175, cites two cases under the word bank check, neither of which are very helpful. No definition is given in the case of German Nat. Bank v. Beatrice, 63 Neb. 246, 88 N.W. 480 (1901). Only a statement is contained stating that "bank checks in this Country, are regarded as inland bills of exchange, for the purpose of presentment and demand and notice of dishonor". However the facts of the case indicate that an ordinary check was at issue.

In the case of Byrd Printing Co. v. Whitaker Paper Co., 135 Ga. 865, 70 S.E. 798 (1911) again a definition of bank check is absent but the case involved an ordinary check and the court stated as follows:

> "A bank check is a contract in writing by the execution and delivery of which the drawer contracts with the payee that the bank will, on presentation, pay to him or his order the amount designated, and is not a mere request upon a third person to pay, . . ."

A bank check is in no sense of the word either a "cashiers check" or a "certified check". Both of these terms are defined separately by Am. Jur., and an inspection of their definitions clearly demonstrates that they are entirely different animals with different legal consequences than the ordinary bank check. 10 Am. Jur. 2d, Banks, §10, p. 518 defines a cashier's check as follows:

> "A cashier's check is a bill of exchange, drawn by the bank upon itself, and is accepted by the act of issuance. While the only apparent basic or factual difference between a cashier's check and the ordinary check is that the ordinary check is drawn on one other than the drawer, while in a cashier's check both the drawer and the drawee are the same, there are certain

> differences, some radical, in the incidents and consequences of the two types of checks. A cashier's check is a primary obligation of the bank, rather than the depositor, as in the case of an ordinary check, and a promise to pay which ordinarily cannot be countermanded. It is issued by the authorized officer of a bank, directed to another person, evidencing the fact that the payee is authorized to demand and receive from the bank, upon presentation, the amount of money represented by the check. Cashiers' checks, from their peculiar character and general use in the commercial world, are regarded substantially as the money which they represent, a rule that is not extended to ordinary checks of the depositor drawn on his bank."

11 Am. Jur. 2d, Bills and Notes, §17, p. 47, defines a certified check as "a check upon which the drawee bank has assumed an obligation by assuring that the drawer has funds and that such funds have been set apart for the satisfaction of the check". 10 Am. Jur. 2d, Banks §588, p. 556, clearly pointed out that a bank check and certified check are not one and the same, when the commentator stated as follows:

> "In a certain broad sense the certification of a check is equivalent to a certificate of deposit, inasmuch as the deposits of the drawer to the amount of the check are set aside or appropriated for the holder thereof. The certification of a bank check is not, however, in all respects like the making of a certificate of deposit; it is a think sui generis, and its effect depends upon the person who, in his own behalf, or for his own benefit, induces the bank to certify the check."

In conclusion, the definition and use of the term bank check is identical with the term check, and does not imply that a check is to be treated as either a cashier's, or certified check. This is also in keeping with the intent of the legislature, to halt the use of the insurance sight draft (since an ordinary check is in no sense of the word a sight draft - said draft requiring an additional acceptance by the drawer - See page 246 of House Journal for February 17, 1968), without requiring the rather restrictive casher's or certified check.

We trust the foregoing answers your question, If not, please advise.

GKE:VLS:agm

Enclosures as indicated

to make loans, and to issue its promissory notes, (designed to circulate as money, and commonly called "bank-notes" or "bank-bills,") or to perform any one or more of these functions. State v. Wagner, 202 Iowa, 739, 210 N.W. 901, 902; People v. Bartow, 6 Cow.N.Y. 290; Dearborn v. Northwestern Savings Bank, 42 Ohio St. 617; In re Prudence Co., D.C.N.Y., 10 F.Supp. 33, 36.

An institution, usually incorporated with power to issue its promissory notes intended to circulate as money (known as bank notes); or to receive the money of others on general deposit, to form a joint fund that shall be used by the institution, for its own benefit, for one or more of the purposes of making temporary loans and discounts; of dealing in notes, foreign and domestic bills of exchange, coin, bullion, credits, and the remission of money; or with both these powers, and with the privileges, in addition to these basic powers, of receiving special deposits and making collections for the holders of negotiable paper, if the institution sees fit to engage in such business. State of Kansas ex rel. Boynton v. Hayes, C.C.A.Kan., 62 F.2d 597, 600. The term "bank" is usually restricted in its application to an incorporated body; while a private individual making it his business to conduct banking operations is generally denominated a "banker." Hobbs v. Bank, C.C.A. N.Y., 101 F. 75, 41 C.C.A. 205; Wells, Fargo & Co. v. Northern Pac. R. Co., C.C.Or., 23 F. 469.

The house or place where the business of banking is carried on.

Banks in the commercial sense are of three kinds, viz.: (1) of deposit; (2) of discount; (3) of circulation. Strictly speaking, the term "bank" implies a place for the deposit of money, as that is the most obvious purpose of such an institution. Originally the business of banking consisted only in receiving deposits, such as bullion, plate, and the like, for safe-keeping until the depositor should see fit to draw it out for use, but the business, in the progress of events, was extended, and bankers assumed to discount bills and notes, and to loan money upon mortgage, pawn, or other security, and, at a still later period, to issue notes of their own, intended as a circulating currency and a medium of exchange, instead of gold and silver. Modern bankers frequently exercise any two or even all three of those functions, but it is still true that an institution prohibited from exercising any more than one of those functions is a bank, in the strictest commercial sense. Oulton v. German Sav. & L. Soc., 17 Wall. 118, 21 L.Ed. 618; Millikan v. Security Trust Co., 118 N.E. 568, 569, 187 Ind. 307; Rev.St.U.S. § 3107 (12 USCA § 561).

—Bank-account. A sum of money placed with a bank or banker, on deposit, by a customer, and subject to be drawn out on the latter's check. The statement or computation of the several sums deposited and those drawn out by the customer on checks, entered on the books of the bank and the depositor's passbook. Gale v. Drake, 51 N.H. 84.

—Bank bill. Same as bank note. Eastman v. Com., 4 Gray (Mass.) 416. See Bank note, *infra*.

—Bank book. A book kept by a customer of a bank, showing the state of his account with it. See Pass-book.

—Bank cashier. A chief executive officer and general agent through whom financial operations of bank are conducted. Hamilton Nat. Bank of Chattanooga, Tenn., v. Lerman, 229 Ala. 363, 157 So. 75.

—Bank charges. This term in an action on a bill of exchange is equivalent to expenses of noting and may be especially endorsed as a liquidated demand; [1893] 1 Q.B. 318.

—Bank check. See Check.

—Bank credit. A credit with a bank by which, on proper security given to the bank, a person receives liberty to draw to a certain extent agreed upon. In Scotland also called a cash account. Cent. Dict.

—Bank depositor. One who delivers to or leaves with a bank a sum of money subject to his order. Wharton v. Poughkeepsie Sav. Bank, 31 N.Y.S.2d 311, 313, 262 App.Div. 598.

—Bank draft. A check, draft, or other order for payment of money, drawn by an authorized officer of a bank upon either his own bank or some other bank in which funds of his bank are deposited. Polotsky v. Artisans Sav. Bank, Del., 180 A. 791, 792, 7 W.W.Harr. 142.

—Bank note. A promissory note issued by a bank or banker authorized to do so, payable to bearer on demand, and intended to circulate as money. Townsend v. People, 4 Ill. 328; Low v. People, 2 Park.Cr.R. (N.Y.) 37. See, also, Banker's note.

In the early history of banks, their notes were generally denominated bills of credit. Briscoe v. Bank of the Commonwealth of Kentucky, 11 Pet. 257, 9 L.Ed. 709.

—Bank stock. Shares in the capital of a bank; shares in the property of a bank. In England the term is applied chiefly to the stock of the Bank of England.

—Bank teller. See Teller.

—Bank in failing condition. Under some statutes, an insolvent bank. Hanson v. State, 160 Ark. 329, 254 S.W. 691, 694.

—Bank of circulation. One which issues bank notes payable to bearer. Dunn v. State, 13 Ga. App. 314, 79 S.E. 170, 171. See Bank of issue, *infra*.

—Bank of deposit. A savings bank or any other bank which receives money on deposit. Dunn v. State, 13 Ga.App. 314, 79 S.E. 170, 171.

—Bank of discount. One which lends money on collateral or by means of discounts of commercial paper. Dunn v. State, 13 Ga.App. 314, 79 S.E. 170, 171.

—Bank of issue. One which, pursuant to authority conferred by its charter, issues its own notes intended to circulate as money. Millikan v. Security Trust Co., 187 Ind. 307, 118 N.E. 568, 569.

—Joint-stock banks. In English law. Joint-stock companies for the purpose of banking. They are regulated, according to the date of their incorporation, by charter, or by 7 Geo. IV, c. 46; 7 & 8 Vict. cc. 32, 113; 9 & 10 Vict. c. 45, (in Scotland and Ireland;) 20 & 21 Vict. c. 49; and 27 & 28 Vict. c. 32; or by the "Joint-Stock Companies Act, 1862," (25 & 26 Vict. c. 89.) Wharton.

—Savings bank. An institution in the nature of a bank, formed or established for the purpose of receiving deposits of money, for the benefit of the

... 188 S.W. 815, 816; State v. Hearn, 115 ... 310, 154 N.E. 244, 245. Particularly used ... reference to the control or supervision of ... partment, bureau, office, or person over ...

... in initiative statute, to compare names of signer ... against official registration list. Halgren v. ... 91 Utah, 16, 63 P.2d 550, 554.

Check, n. A commercial device intended for use ... temporary expedient for actual money, and ... ily designed for immediate payment, and ... circulation. Kennedy v. Jones, 140 Ga. 302, ... 1069, 1070, Ann.Cas.1914D, 355; Merchants' ... Bank v. Bank, 10 Wall. 647, 19 L.Ed. 1008.

... aft for payment of money. Wright v. Loring, 351 ... 181 N.E. 865, 866. An order for payment of money. ... v. Rochester Trust & Safe Deposit Co., 209 N.Y. ... E. 537, 539, 52 L.R.A.,N.S., 302, Ann.Cas.1915A, ... Weiss v. Fenwick, 111 N.J.Eq. 385, 162 A. 609, 611; ... n v. National Bank of Tacoma, 146 Wash. 520, 264 ... A request to pay money, Standard Factors Cor- ... n v. Manufacturers Trust Co., 182 Misc. 701, 50 N.Y. ... 13.

... aft or order upon a bank or banking-house, pur- ... to be drawn upon a deposit of funds, for the pay- ... all events of a certain sum of money to a certain ... therein named, or to him or his order, or to bearer, ... able instantly on demand. 2 Daniel, Neg.Inst. § ... Bank v. Wheaton, 4 R.I. 33; Economy Fuse & Mfg. ... Standard Electric Mfg. Co., 359 Ill. 504, 194 N.E. ...

... of exchange drawn on a bank payable on demand. ... cial & Savings Bank Co. of Bellafontaine, Ohio, v. ... Nat. Bank of Franklin, 68 Ind.App. 417, 120 N.E. ... Bell-Wayland Co. v. Bank of Sugden, 95 Okl. 67, ... 705; Thomas v. Berger, 118 Pa.Super. 422, 180 ... A check differs from an ordinary bill of exchange ... it is drawn on a bank or bankers, and is payable ... ely on presentment, without days of grace; it is ... immediately on presentment, and no acceptance as ... from payment is required; it is supposed to be ... on a previous deposit of funds, and is an absolute ... ition of so much money in the hands of the bank- ... the holder of the check. Merchants' Nat. Bank v. ... Nat. Bank, 10 Wall. 647, 19 L.Ed. 1008; People v. ... on, 223 Cal. 403, 56 P. 44.

... term "check," within the ordinary meaning of that ... includes "draft," the only distinction being that in ... the drawer is a bank, while in the ordinary check ... drawer is an individual. Leach v. Mechanics' Sav. ... 202 Iowa, 899, 211 N.W. 506, 508, 50 A.L.R. 388.

... ck is a contract. Deal v. Atlantic Coast Line R. ... 235 Ala. 533, 144 So. 81, 82, 86 A.L.R. 455; Roff v. ... Cal.App., 159 P.2d 661, 662.

Cashier's Check

... issued by an authorized officer of a bank directed to ... person, evidencing that the payee is authorized ... and and receive upon presentation from the bank the ... of money represented by the check. State v. Tyler ... State Bank, Tex.Com.App., 277 S.W. 625, 627, 42 A. ... 1017. A form of a check by which the bank lends its ... to the purchaser of the check, the purpose being to ... it available for immediate use in banking circles. ... v. Johnson, 127 Wash. 601, 221 P. 321, 322. A bill of ... drawn by a bank upon itself, and accepted by the ... drawer. Anderson v. Bank of Tupelo, 135 Miss. 351, ... 179; In its legal effect, it is the same as a certifi- ... deposit, certified check or draft. Montana-Wyo- ... Ass'n of Credit Men v. Commercial Nat. Bank of ... City, 60 Mont. 174, 259 P. 1060, 1061. An acknowl- ... ment of a debt drawn by bank upon itself. In re ... tion of State Bank of Binghamton, 152 Misc. 579, ... N.Y.S. 41.

Crossed Check

... ck crossed with two lines, between which are either ... of a bank or the words "and company," in full ... abbreviated. In the former case, the banker on whom ... check must not pay the money for the check to any other than the banker named; in the latter case, he must not pay it to any other than a banker. 2 Steph.Comm. 118, note c. And see 7 Exch. 359; [1905] A.C. 240; Farmers' Bank v. Johnson, King & Co., 134 Ga. 486, 68 S.E. 85, 30 L.R.A.,N.S., 697.

Forged Check

A check on which the maker's name is forged—not one which has forged indorsements. Kleinman v. Chase Nat. Bank of City of New York, 124 Misc. 173, 207 N.Y.S. 191, 193. See, also, International Union Bank v. National Surety Co., 245 N.Y. 368, 157 N.E. 269, 270. A check which is created as a result of a criminal act of forgery. Samples v. Milton County Bank, 34 Ga.App. 248, 129 S.E. 170.

Memorandum Check

A check given by a borrower to a lender, for the amount of a short loan, with the understanding that it is not to be presented at the bank, but will be redeemed by the maker himself when the loan falls due. This understanding is evidenced by writing the word "*Mem.*" on the check. This is not unusual among merchants. See U. S. v. Isham, 17 Wall. 502, 21 L.Ed. 728; Franklin Bank v. Freeman, 16 Pick., Mass., 539; Story, Pr.Notes § 499.

Traveler's Check

See that title.

CHECK-BOOK. A book containing blank checks on a particular bank or banker.

CHECK-OFF SYSTEM. Deduction by employer from pay of employees of sums and payment of such sums to union. Pacific Mills v. Textile Workers' Union of America, Local No. 254, 197 S.C. 330, 15 S.E.2d 134, 136, 135 A.L.R. 497; Local 60 of Industrial Union of Marine and Shipbuilding Workers of America v. Weiln Davit and Boat Corporation, 133 N.J.Eq. 551, 33 A.2d 708, 709; Borderland Coal Corporation v. International Organization of United Mine Workers of America, D. C.Ind., 275 F. 871, 873.

CHECK-ROLL. In English law. A list or book, containing the names of such as are attendants on, or in the pay of, the queen or other great personages, as their household servants.

CHECKER. The old Scotch form of exchequer.

CHECKERBOARD SYSTEM. This term, with reference to entries on lands, means one entry built on another, and a third on the second. Sequatchie & South Pittsburg Coal & Iron Co. v. Tennessee Coal, Iron & R. Co., 131 Tenn. 221, 174 S.W. 1122.

CHEFE. In Anglo-Norman law. Were or were-gild; the price of the head or person, (*capitis pretium.*)

CHEMERAGE. In old French law. The privilege or prerogative of the eldest. A provincial term derived from *chemier, (q. v.)* Guyot, Inst.

CHEMIER. In old French law. The eldest born. A term used in Poitou and other places. Guyot, Inst.

CHEMIN. Fr. The road wherein every man goes; the king's highway. Called in law Latin *via regia.* Termes de la Ley; Cowell; Spelman, Gloss.

CHEMIS. In old Scotch law. A chief dwelling or mansion house.

EXHIBIT 3.

HB 365 This bill seeks to prevent the delay, inconvenience, financial loss and frustration experienced by insurance claimants when payment by the insurance company is made in the form of an instrument not readily exchangeable for cash. The intent is to prohibit the use of what is commonly called a "sight draft", still used by some insurance companies, which requires an additional "acceptance" by the company before actual payment is made.

/s/ Tom Fink
Tom Fink, Chairman"

The Judiciary Committee has had HOUSE BILL NO. 365 (payments of judgments and settlements) under consideration and a majority of the members of the committee recommends it be replaced with COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 365 and that COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 365 do pass. The report was signed by Mr. Fink, Chairman, and concurred in by Messrs. Fink, Fritz, Metcalf, Moran, Tillion, Hensley and Brady.

HOUSE BILL NO. 365 was referred to the Commerce Committee.

CONSIDERATION OF THE CALENDAR

SECOND READING OF HOUSE RESOLUTIONS

HJR 55 HOUSE JOINT RESOLUTION NO. 55 (former Naval Base at Dutch Harbor) was read the second time with the State Affairs Committee report (page 213 of the journal).

Mr. Holm moved and asked unanimous consent that HOUSE JOINT RESOLUTION NO. 55 be considered engrossed, advanced to third reading and placed on final passage. There being no objection, it was so ordered.

HOUSE JOINT RESOLUTION NO. 55 was read the third time.

The question being: "Shall HOUSE JOINT RESOLUTION NO. 55 pass the House?" The roll was called with the following result:

Yeas: 32 - Anderson, Balone, Banfield, Beirne, Boardman, Bradner, Brady, Cessnun, Fink, Fritz, Getman, Guess, Haugen, Hensley, Hohman, Holm, Metcalf, Miller, Moore, Moran, Moses, Orbeck, Powell, Ray, Sassara, See, Smith, Strandberg, Tillion, Wiggins, Wright, Young.

Nays: 0 -

Excused: 5 - Borer, Sackett, Simpson, Stevens, Westdahl.

Absent: 3 - Harris, Kerttula, McGill.

And so, HOUSE JOINT RESOLUTION NO. 55 passed the House and was referred to the Chief Clerk for engrossment.

SECOND READING OF HOUSE BILLS

HB 468 HOUSE BILL NO. 468 (reports of injuries sustained by fishermen) had been held in second reading until this time.

THE
LAW OF BANK CHECKS

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FOURTH EDITION
Revised and Enlarged

THE BANKING LAW JOURNAL
BOSTON
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official text and Comments as last revised in 1966. Some states have not enacted all the revised Code provisions.[18]

The Code was originally presented for enactment in a version drafted in 1952 and was enacted in that version in Pennsylvania. Several modified versions were presented by the Code sponsors from time to time, the last having been in 1966. Most states including Pennsylvania, have enacted the Code as it appears in the 1962 Official Text. The 1966 text makes few changes from the 1962 text.

By the beginning of 1969, the Code was enacted in 49 of the 50 states, as well as in the District of Columbia and the Virgin Islands. As of that time, Louisiana is the only state that has not enacted the Code.

§ 1.5. Definition and characteristics of checks. Four basic types of negotiable instruments are recognized in the Code. They are (a) a draft or bill of exchange if the instrument is an order to pay money, (b) a check if the instrument is a draft drawn on a bank and payable on demand, (c) a certificate of deposit if the instrument is an acknowledgment of the receipt of money with an engagement to repay it, and (d) a note if the instrument is a promise other than a certificate of deposit.[19]

While notes and certificates of deposit are important to banks, they will not be dealt with in this volume except incidentally. On the other hand, a number of cases referred to in this text involved notes; the law enunciated in such cases may carry over into the law of checks. With respect to drafts or bills of exchange, many of the legal principles relevant to such instruments apply equally to checks, since they are drafts of a special kind.

It should be recognized that a check is a draft or bill of exchange under both the Code and the Negotiable Instruments Law. Under other statutes, a check has also been recognized as a bill of exchange. Thus a statute of limitations applicable to the time of commencement of an action on "bills of exchange" has been held applicable to checks,[20] a statute providing that a married woman

18. A so-called 1952 version of the Code was enacted in Pennsylvania, but later revised. The Code draftsmen developed revised versions of the Code in 1957 and 1958, and there was some revision also in 1962. Most states have the Code as revised through 1962. The 1966 revisions, relatively minor, are set forth in Report No. 3 of the Permanent Editorial Board for the Uniform Commercial Code.

19. U.C.C. § 3-104(2). A bill of exchange is defined in N.I.L. § 126, a note in N.I.L. § 184 and a check in N.I.L. § 185. Such definitions are comparable to those of U.C.C. § 3-104(2), although in different language.

may be sued jointly with her husband on a bill of exchange has been held applicable to a suit on a check,[21] and a criminal enactment proscribing the forging of an acceptance of a bill of exchange was applied in a case involving a forged certification of a check.[22] And it has been held that an instrument labelled a "draft" given by an insurance company to a liability claimant against an insured, payable through a named bank to the order of such liability claimant and his attorneys, is a check.[23] However, in some instances under other laws, a check may not necessarily be a bill of exchange.[24]

While it is undoubtedly correct to say that a check is a draft or a bill of exchange, checks differ from the other instruments in certain important particulars. A check is a demand instrument drawn on a bank. A draft drawn on a business house is not a check.[25] In many states, a note or accepted draft stated to be payable at a bank is equivalent to an order on the bank to pay the amount thereof for the account of the principal debtor,[26] but it does not follow that such a note or draft has all the attributes of a check[27] There is also an important distinction between checks and other drafts with respect to requirements of presentment and notice of dishonor, as well as with respect to the right of the holder to have the instrument accepted.

It should be noted that, under the Code, a check must contain an unconditional order to pay a sum certain in money.[28] However, that requirement has been held not to mean that payment by means

20. Rogers v. Durant (1891) 140 U.S. 298, 11 S.Ct. 754, 35 L.Ed. 481.

21. Wilderman v. Rogers (1886) 66 Md. 127, 6 A. 586.

22. People v Somsky (1920) 46 Cal. App. 377, 189 P. 458, 37 B.L.J. 561.

23. Baucum v. Great American Ins. Co. (Tex. Civ. App., 1963) 364 S.W.2d 713, 80 B.L.J. 647. See also Grohusky v. Atlas Assurance Co. (Kan. 1965) 408 P.2d 697, 83 B.L.J. 366. Under the Code, such an instrument is clearly not a check where it is drawn on a nonbank drawee but payable "through" a bank. See U.C.C. §§ 3-104(2)(a) and (b), 3-120.

24. See Townsend v. State (1893) 92 Ga. 732, 19 S.E. 55.

25. Amsinck v. Rogers (1907) 189 N.Y. 252, 82 N.E. 134.

26. U.C.C. § 3-121, Alternative A so provides. U.C.C. § 3-121, Alternative B, provides that a note or acceptance payable at a bank is not of itself an order or authorization to the bank to pay it.

27. An instrument payable at a certain bank is not a check within the scope of N.I.L. § 186 requiring presentment within "a reasonable time." Binghamton Pharmacy v. First Nat. Bank (1915) 131 Tenn. 711, 176 S.W. 1038, 2 A.L.R. 1377.

But see Mt. Vernon Nat. Bank v. Canby State Bank (1929) 129 Or. 36, 276 P. 262, 63 A.L.R. 1133, 46 B.L.J. 560, where it is stated that a draft on the drawer payable at a named bank is a check.

28. U.C.C. § 3-104(2)(b) states that a check is a draft drawn on a bank and payable on demand. An "order" is a direction to pay and

of a check is absolutely unconditional. As between the original parties, payment is conditional[29] and a defense of failure of consideration may be asserted by the drawer of the check. The requirement that the check be unconditional applies only to the matter of the form of a negotiable instrument.[30]

§ 1.6. Particular kinds of checks. A cashier's check is simply a bill of exchange or draft drawn by a bank upon itself and is accepted by the act of issuance.[31] A bank which issues a cashier's check impliedly authorizes the purchaser thereof to deliver or withhold delivery to the payee of the check. The payee of a cashier's check cannot be a holder in due course thereof where he takes it from an intermediary under circumstances amounting to notice to the payee of bad faith on the part of the intermediary, and such payee is deemed acting in bad faith. Prior to valid delivery, the purchaser of a cashier's check may cause it to be cancelled.[32]

A bank draft is a bill of exchange drawn by an authorized officer of a bank on either his own bank or a correspondent bank, issued at the solicitation of a person purchasing it.[33] A banker's check is one in which the drawer is a banker, or the duly authorized agent of a bank, drawn on funds either in the bank of which he is an officer or agent or on funds in a correspondent bank in which his own bank has credit.[34]

Other forms of checks in use to at least some extent include so-called non-negotiable counter-checks for use by a depositor who withdraws funds from his own account in the bank.[35] Also used on occasion is a so-called "postcard" check or check on a postcard which may be filled in and mailed.[36]

§ 1.7. Bank money orders and personal money orders. In recent years use has been made by banks and others of so-called "bank money orders" and "personal money orders" which have

must be more than an authorization or request. U.C.C. § 3-102(1)(b).

29. U.C.C. § 3-802(1)(b). See § 1.18, infra.

30. Mansion Carpets, Inc. v. Marinoff (1965) 29 App. Div. 2d 947, 288 N.Y.S.2d 298.

31. State v. Tyler Co. Bank (Tex., 1925) 277 S.W.2d 625, 43 B.L.J. 290; Ross v. Peck Iron & Metal Co. (C.A., Va., 1959) 264 F.2d 262, 70 B.L.J. 774.

32. Burke v. Mission Bay Yacht Sales (1963) 214 Cal. App. 2d 723, 29 Cal. Rptr. 685, 80 B.L.J. 818.

33. Kohler v. First Nat. Bank (1930) 157 Wash. 417, 289 P. 47.

34. Holland v. Mutual Fertilizer Co. (1911) 8 Ga. App. 714, 70 S.E. 151.

35. Bailey, Modern Uniform Commercial Code Forms, No. 30.7.

36. Bailey, Modern Uniform Commercial Code Forms, No. 30.9.

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37. A "money o
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order: the remit
payee, and the dr
cyclopedia of Ban
Bankers Publishing
1962).

38. Bailey, Mode
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30.13. See also N
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39. The "Regist
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proxy nor any other single measure can be perfectly indicative of monetary trends and therefore a guide to monetary policy. But the bank credit proxy is held in high regard by the Board's chief of the Banking Section of the Division of Research and Statistics: "The availability of a sensitive current measure of bank credit trends, which the proxy represents, has contributed significantly to improving the factual foundation for the discussion, formulation, and implementation of monetary policy."

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BANK DEBITS The Division of Research and Statistics of the Board of Governors of the Federal Reserve System announced in July 1972 revision of the monthly data prepared for bank debits and for deposits for the 233 Standard Metropolitan Statistical Areas (SMSA's) reporting in the bank debits, deposits, and deposit turnover series. This revision, the first major change since March 1967, incorporated the following statistical improvements:

1. Seasonal adjustments. Trading-day adjustments were recalculated and applied to the debits data, and seasonal adjustments have been recalculated and applied to the debits data, and seasonal adjustments have been recalculated and applied to both debits and deposits data for all SMSA's in the Board's national series.

SMSA coverage. The series also were revised to reflect minor changes that had been made in the boundaries of SMSA's since the previous revision.

Data are shown for all 233 SMSA's and for 232 excluding New York City; for leading SMSA's — for New York City, and for six others combined — and for 226 excluding the leading ones. In addition to the figures that they collect for the centers that appear in the national series published in the *Federal Reserve Bulletin* monthly, after public release, by the Board of Governors, some of the district Federal Reserve Banks collect and publish in their regional releases data for SMSA's and centers that are not in the national series.

The national figures for debits (at annual rates) and for end-of-month deposits are aggregates of seasonally adjusted SMSA totals prepared by the Federal Reserve Banks. The annual rate of turnover is calculated monthly from the aggregate of these debits and the average of two deposits figures — one for the current and one for the preceding month-end.

The account coverage of the debits series, which measures the extent to which depositors are using their checking accounts, continues to include debits to demand deposit accounts of individuals, partnerships, and corporations (IPC deposits), and of states and political subdivisions; it excludes, however, debits to U.S. Government, interbank, and time deposit accounts.

Summary. — As indicated, bank debits make possible the estimates of turnover of demand deposits, and hence of velocity of demand deposits, which are the largest single component, quantitatively, of the "Money Supply". Multiplied by the velocity factor, however, the aggregates of demand deposits provide what might be termed Effective Money Supply, reflecting both the aggregate and the intensity of usage of demand deposits. In the exercise of Monetary Policy through affecting the Money Supply, Velocity is the most difficult factor to control: an increase in the Money Supply might be offset by decrease in Velocity, while a decrease in the Money Supply might similarly be offset by increase in Velocity.

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BANK DEPOSIT

See BANK ACCOUNT, DEMAND DEPOSITS, DEPOSITS, TIME DEPOSITS.

BANK DEPOSIT INSURANCE ACT The name given to the Act of June 16, 1934, which extended to June 30, 1935 the temporary plan for insurance of bank deposits originally set up by the BANKING ACT OF 1933. Public Resolution of June 28, 1935 further extended the temporary plan for insurance of commercial bank deposits to August 31, 1935. Permanent deposit insurance was provided by the BANKING ACT OF 1935, approved August 23, 1935. On September 21, 1950 the "Federal Deposit Insurance Act" as such (64 Stat. 873; 12 U.C.S. 1811–1831) was made a separate independent law, with numerous amendments, representing its withdrawal from Section 12B of the Federal Reserve Act as amended, which previously had carried the bank deposit insurance act and amendments.

BANK DIRECTORS

See DIRECTORS.

BANK DISCOUNT

BANK DRAFT A sight or demand draft, drawn by one bank as drawer upon another bank as drawee. Such an instrument is to be distinguished from a CASHIER'S CHECK.

Domestically, bank drafts purchasable at small fee by a bank's customers provide a highly acceptable instrument of DOMESTIC EXCHANGE. For example, "New York Funds" would be readily provided by the bank draft of an interior bank, drawn on its New York City correspondent bank, purchased by the interior bank's customer faced with the necessity of payment in New York City, as compared to local check.

In FOREIGN EXCHANGE, bankers' sight or demand drafts, drawn on balances maintained with foreign bank correspondents, provide a demand form of payment in the foreign currency concerned which may be available at "spot" rates if the distance involved permits quick air-mail arrival of the instruments.

See BANK ACCEPTANCE, DRAFT.

See BANK OCCUPATIONS, PERSONNEL DEPARTMENT.

BANK EQUIPMENT As the result of *Automation* of bank operations the use of electronic equipment, equipment in the modernized bank may be classified in two categories, the conventional and the electronic.

Conventional bank equipment includes such manual, semi-automatic, and automatic items as the following: adding machine, adding typewriter, addressing machine, annunciator, automatic typewriter, bookkeeping and billing machine, calculating machine, cash register, check cancellation machine, check endorsing machine, check protecting and writing machine, check signer, check sorters (vertical, flat, and rotating), coin counters, sorters, trays and wrappers, counter cutter, dictaphone, dictation machine, duplicator, dry copier, endorsing machine, envelope sealing machine, files (elevator, power, rotary, and visible), folding machine, letter opener, mailing machine, microfilm processor, mimeograph, multigraph, numbering machine, paper destroyer, perforating machine, photostat, posting machine, posting tray cabinets, proof machine, receipt machine, Recordak equipment, stamp affixing machine, tabulating equipment, telautograph, time dating stamp, time lock, time recording machine, transit machine, typewriters (manual, electric).

Electronic bank equipment includes electronic bookkeeping machines; MICR (Magnetic Ink Character Recognition) check equipment, including electronic reader-sorter and computer; electronic data processing equipment, including punched card tabulating equipment, sorting machine, tabulating and printing machine, and computer; TV bank protection units, including TV cameras; TV bank signature verifier; video tape recorder; tape listers; selective tape printers; on-line disk files; electronic accounting computer; data communication equipment.

Bank "equipment", comprehensively, includes all movable furniture and fixtures of the bank. By contrast, bank "premises" includes vaults, fixed machinery and equipment, parking lots owned adjoining or not adjoining the bank premises that are used by customers or employees, and potential building sites. Equipment expenses include normal and recurring depreciation

EXHIBIT 5.8

Effective November 24, 196[illegible] the supplement to Regulation [illegible] was amended to permit member banks to count *all* of their currency and coin as part of their required reserves; and effective the same date, the supplement was further amended to increase the reserve requirement against net demand deposits of banks not classified as central reserve or reserve city banks from 11% to 12%. Effective December 1, 1960, the supplement was also amended to reduce the reserve requirement for central reserve city banks against net demand deposits from 17½% to 16½%. Authority of the Board of Governors of the Federal Reserve System to classify or to reclassify cities as central reserve cities terminated effective July 28, 1962 (see below).

Counting vault cash toward required reserves by member banks also removed an inequity in comparison with non-member banks so permitted. Of the 47 States which have legal reserve requirements for commercial banks, the Economic Policy Commission of the American Bankers Association pointed out, 10 specifically require that part of the reserve be kept in cash form; and the other States have no specific vault cash requirement but allow full reserve credit for vault cash. Allowance of reserve credit for vault cash, it is felt, would encourage more rural banks to join the Federal Reserve System.

P.L. 86–114 (supra), which thus provided allowance of reserve credit for vault cash, also amended the Federal Reserve Act so as to change the minimum and maximum legal reserve requirements of member banks in reserve cities and central reserve cities; and to provide for termination of the classification "central reserve cities" on July 28, 1962. For details of major revision in 1972 of legal requirements against demand deposits, *See* RESERVES.

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CASH TRADE A transaction in securities, grain, real estate, etc., in which cash in full is paid for immediate delivery, possession, and title.

See FOR CASH.

CASHIER A term commonly applied to a person who receives and disburses money for a business. In banking, an officer who is responsible for the custody of the bank's assets and whose signature is required on all official documents. While other higher officers of a bank may delegate their authority, or act as "dummies," a cashier never does so, even in the largest banks. His duties vary according to the size of the bank. Usually he is the chief administrative officer and has direct charge of the bank's operations, and corresponds to the general manager in a mercantile or industrial establishment. Among large banks the duties of the cashier are so numerous that Assistant Cashiers are appointed to administer separate assigned functions and have authority to sign instruments in the same manner as the cashier.

CASHIER'S ACCOUNT

CASHIER'S CHECK A bank's own check; a check drawn upon a bank and signed by its cashier, or assistant cashier, being a direct obligation of the bank. Cashier's checks are issued to borrowers when loans are made in lieu of a deposit credit or actual cash, sold to customers for remittance purposes, and issued in payment of the bank's own obligations, money transfers, etc. When a cashier's check is issued it becomes a credit, and upon its return through the clearing house or otherwise, a debit to the cashier's account. Cancelled cashier's checks are preserved as vouchers in the bank's files.

nsurance other than life or fire and marine insurance, and ncluding such lines as automobile liability, workmen's compenation and accident and health, the three largest lines for volume, nd miscellaneous lines such as automobile property damage, iability other than automobile, automobile collision, fidelity, urety, plate glass, steam boiler, etc.

See INSURANCE.

CATS AND DOGS An expression used to denote highly speculative securities. It is particularly applied to non-income bearing stocks of uncertain or no value; stocks acknowledged to be a gamble because the underlying properties are not yet developed, and which are worthless as bank collateral.

CATTLE LOAN COMPANY A company organized for the purpose of lending its credit to cattlemen for the purchase, raising, and marketing of cattle or other live stock, and referred to in the Federal Reserve Act as livestock loan companies. They are sometimes separate companies, but in most instances are affiliated with or owned or controlled by State or national banks, located at or near the large stockyards, or in producing centers. In many instances these institutions are connected with banks specializing in the livestock business, and use the same building and officers. As affiliates, these companies are excepted from the restrictions contained in Section 23-A of the Federal Reserve Act as to loans and investments to affiliates or collateral loans on their obligations, the ordinary restrictions on loans and investments being applicable.

The function of a cattle loan company is to relieve the commercial banks from the burden of carrying cattle paper, which under normal circumstances amounts to millions of dollars. Very often these companies act as middlemen between cattlemen-borrowers and the ultimate investors, *i.e.*, the banks in the large centers. Some classes of cattle paper are also eligible for rediscount and for market purchases by the Federal Reserve banks.

See CATTLE LOAN.

CATTLE LOANS Loans made for the purpose of financing the cattle industry, which includes the purchase for breeding, feeding, grazing, fattening, and marketing of cattle. They may be divided into three classes: feeder, stocker, and dairy loans. Feeder loans are made on beef steers ready for the last stage of feeding prior to their sale as finished beef. These loans range from 3 to 6 months' maturity. Stocker loans are made on cows for breeding purposes, and on young calves. They usually have a 6 months' maturity, subject to 3 or 4 renewals, and require about 50% margin. Dairy loans are made for the purpose of improving the dairy business. Their usual maturity is 6 months, subject to 4 or 5 renewals.

The procedure in making cattle loans is as follows: (1) application of the borrower; (2) sworn statement of the financial condition of the borrower; (3) inspection of borrower's cattle with reference to location, brands, number, approximate weight per head, etc.; (4) search of records to ascertain whether any liens against the borrower's real or personal property exist; (5) execution of chattel mortgage in which the market value is usually at least 20% above the amount of the loan; and (6) execution of the note.

Under Sec. 5200, par. (7) of the Revised Statutes, which contains limitations on loans by National banks (also applicable to State member banks) to any one person, obligations of any person in the form of negotiable instruments secured by shipping documents or instruments of title covering livestock or giving a lien on livestock, which are secured 115% by such collateral, are entitled to another 15% of capital and surplus in addition to the basic 10% of capital and surplus limitation. P.L. 86–251, enacted September 9, 1959, added a new sentence to this paragraph, similarly permitting National banks (and thus State member banks) to make loans up to 25% of capital and surplus (rather than up to 10% previously applicable general limitation) to dealers in *dairy* cattle when the obligations carry a full recourse endorsement or unconditional guaranty of the seller and arise out of the sale of dairy cattle.

See CATTLE LOAN COMPANY.

CEDULE In Europe, where the warehouse receipt is issued in duplicate, the "receipt", also called the "cedule", the copy, used in transfers or assignments, as compared with the "warrant" or "bulletin" copy used as collateral for loans. In the United States, the warehouse receipt is not so issued in duplicate.

See WAREHOUSE RECEIPT.

EXHIBIT 5.C

.....Ba.....

No. .....New York, N.Y., ... 19

This certifies that there has been deposited in this bank the sum of ..... Dollars $. . . . .

Payable to the order of .....

on the . . . . day of 19

with interest thereon at the rate of ..... per cent per annum, upon presentation and surrender of this Certificate at this Bank.

Authorized Signature

CERTIFICATE OF INCORPORATION The charter or franchise which the original incorporators of a company receive from the Secretary of State of the State of incorporation, legally empowering it to act as a corporation.

See CAPITAL STOCK.

A certificate of incorporation for each type of bank or trust company must be applied for from the proper authority. Application for a National bank charter is made to the Comptroller of the Currency. Organizing State banks and trust companies apply to the proper State authority known under different titles, e.g., Superintendent of Banks (New York), Commissioner of Banking (Massachusetts), Auditor (Illinois). A typical certificate of incorporation for all types of banking institutions contains the following information: (1) name of bank, (2) location, (3) capital and number of shares, (4) name, address, financial worth, and number of shares of each stockholder, and (5) that the certificate is made in order to take advantage of either the National or State banking laws. The certificate is executed in duplicate; one copy for the Comptroller of the Currency (or State banking department), and the other for the bank.

See ARTICLES OF ASSOCIATION, ORGANIZATION CERTIFICATE.

CERTIFICATE OF INDEBTEDNESS A short term note, corporate or issued by a governmental body, representing floating indebtedness (current debt). A corporate certificate of indebtedness is merely an unsecured promissory note, the holder having a general creditor's recourse against the unpledged general assets. U.S. Treasury Certificates of Indebtedness are obligations with maturity of not over one year, which have been issued in the past with and without coupons. Since 1929 Certificates of Indebtedness were being replaced by Treasury Bills as the U.S. Treasury's instruments of short-term finance, and since 1966 none have been outstanding. When outstanding, Certificates of Indebtedness have been acceptable collateral to secure deposits of Government moneys. However, they have not been acceptable to pay taxes, and income therefrom has been subject to all federal income taxes. Certificates of Indebtedness have been issued in bearer form, in denominations of $1,000, $5,000, $10,000, $100,000, $1,000,000, $100,000,000, and $500,000,000. The latter two denominations available only for certain issues in the past. When available, Treasury Certificates of Indebtedness have been suitable for the "secondary reserve" portion of investment accounts of commercial banks, as well as for investment of tax reserves and other liquidity needs of corporations and other business units.

See U.S. GOVERNMENT SECURITIES.

CERTIFICATE OF INSPECTION This certificate, or combined certificate of weight and inspection, is a document which an importer may require the foreign seller to accompany the bill of exchange drawn against the shipment in accordance with the terms of the applicable letter of credit. It is prepared by a trade association or commission authorized to make inspections and tests, and gives a description of the goods shipped by package (boxes, barrels, weights, contents, markings, etc., but not the prices. This instrument is frequently required in the shipment of heavy and bulky materials and differs from a certificate of analysis in that the latter usually applies to goods of high value and small bulk.

See LETTERS OF CREDIT.

CERTIFICATE OF ORIGIN A certificate sometimes required by an importer to assure that merchandise has originated in a country in which it was intended to be purchased, and is not being relayed through another country. An importer sometimes desires to protect himself against purchasing goods of a belligerent country which may masquerade as coming from another. A certificate of origin contains practically the same information as a seller's invoice, gross and net weights stated, but prices omitted.

In peace time the chief purpose of this certificate is to protect the most favored nation clause in the customs tariff.

See LETTERS OF CREDIT.

CERTIFICATE OF PROTEST

See NOTARIAL PROTEST CERTIFICATE.

CERTIFICATE OF STOCK

See STOCK CERTIFICATE.

CERTIFICATE OF WEIGHT

See CERTIFICATE OF INSPECTION.

CERTIFICATED STOCKS Those amounts of a commodity which are stored in warehouses approved by a commodity exchange, and which are certified as being deliverable on future contracts.

See FUTURES.

CERTIFICATION DEPARTMENT The department of a bank which certifies checks. Among small banks checks are certified at the paying teller's window, but larger banks maintain a separate window or windows, usually adjacent to the paying teller's window, whenever the volume of certification business is sufficiently large to warrant a separation of functions. The certification of checks is a part of the paying teller's functions, because certifying a check is equivalent to paying it.

See CERTIFIED CHECKS.

CERTIFICATIONS

CERTIFIED CHECK A check which certifies that the signature of the drawer is genuine and that the depositor has sufficient funds on deposit for its payment. The amount certified is then set aside for the express purpose of paying the check and payment cannot be refused because of insufficient funds. When a bank certifies a check, certification is acceptance, *i.e.*, the check becomes an obligation of the bank, instead of being an order on the bank. It is incorrect, however, to say that the bank "guarantees" payment of the check.

The new *Uniform Commercial Code* (sec. 3–411 (2)) now makes specific the point that unless otherwise agreed, a bank has no obligation to certify a check. When a check is presented at the window for certification, the drawer's account in the ledger is first inspected to see that sufficient funds are on deposit to cover the amount which is immediately deducted from the drawer's deposit balance before the check is certified. Certification consists of stamping or writing across the face of the check the word, "Certified" or "Accepted", together with the date, the bank's title, and signature of the officer authorized to make certification.

Since a certified check becomes an obligation of the bank, when a check is certified the drawer's account is reduced (charged) and "Certified Checks" account (in the general ledger) is increased (credited). When certified checks are returned through the clearing house or other channels, the account "Certified Checks" is reduced (charged). Thus the balance of this account represents the total certified checks outstanding.

Although a bank is not obliged by law to certify checks for its customers, among the banks in the larger cities, especially in New York, certification business forms a very important service, especially for customers who deal in securities. Certified checks are also extensively used in those types of business where it is important to receive the equivalent of cash, without at the same time using cash, such as in brokerage and security transactions, payments of loans, and real estate transfers.

CERTIFIED PUBLIC ACCOUNTANT

A check may be certified at the instance of either the holder or drawer. Where a holder obtains the certification, the drawer and all prior indorsers are discharged (sec. 3-411 (1), *Uniform Commercial Code*). On the other hand, certification obtained by drawer of the check still leaves him liable in the event the certifying bank should fail, before the check is presented for payment. A bank may certify a check before returning it for lack of proper indorsement, but if it does so, the drawer is discharged (sec. 3-411 (3), *Uniform Commercial Code*).

tant to whom a State has given a certificate to the effect that he has met its requirements as to age, education, experience, and technical qualifications, as shown by the fact that he has passed the prescribed examination. The holder of such a certificate is permitted to use the designation "Certified Public Accountant," or the letters "C.P.A.", as an abbreviation, within the State of issue.

State requirements for the C.P.A. certification generally require that a candidate (1) be a citizen and of high moral character, etc.; (2) have adequate educational prerequisites (some States require a college degree, with major in accounting; others, at the very least, a high school diploma). Key requirement is to pass a comprehensive examination in accounting, both in theory and practice; auditing; business law; and (in some States, in Economics. The examination is prepared by the American Institute of Certified Public Accountants. In addition, the candidate is required to have one to 5-years' experience in the offices of a C.P.A. or the equivalent. Interested parties are referred to the State Education Department or other appropriate agencies of the State in which they intend to become candidates, in order to obtain the specific requirements in the State concerned.

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CESTUI QUE TRUST The beneficiary of a trust, or the person in whose favor a trust operates. The cestui que trust holds the equitable title to an estate, while the trustee holds the legal title.

See TRUSTS.

CHAIN BANKING As defined by the Board of Governors of the Federal Reserve System, "chain banking" indicates a type of multiple office banking in which the operations or policies of at least three independently incorporated banks are controlled by one or more individuals. This control may be accomplished through stock ownership, common directors, or in any other manner permitted by law. Generally speaking, chain systems are built around a key bank that is considerably larger than the other banks in the chain.

See BRANCH BANKING, GROUP BANKING.

CHAIN STORES Development of chain stores in the U.S.A. was a sequential rather than a direct accompaniment of mass production methods, for furnishing many retail outlets served by central warehouses, all under one general control, chain store organization is a form of mass merchandising that is the inevitable answer to mass production. Although the movement began in the '90s, the F. W. Woolworth chain being the oldest of the important systems, a rapid expansion began in the decade 1921–1930; so rapid, in fact, that by 1929 competition among the various chains effected a retardation of sales growth and profit margins. A fresh surge of expansion has occurred in the post-World War II period, caused by such factors as increase in population, rise in the general standard of living, the shift of population from the cities to suburbia and "exurbia", the rise of shopping centers, and the popularization of the home freezer and giant-sized refrigerator. These factors have applied particularly to development of the "supermarket" in the food field, with its emphasis on larger space and larger sales per customer.

In principle, chain stores offer an ideal plan of distribution of standardized non-perishable merchandise, the demand for which is constantly recurring and in which the style factor is unimportant. Chains are particularly adapted to the following lines: variety ("five and dimes", although even they have long since abandoned such price limits), groceries, apparel, candy, gasoline stations, luncheonettes, restaurants, sporting goods, radio and TV music shops (including records), household appliances, tobacco, "drug" stores (actually variety stores with pharmaceutical backdrop), and automobile accessories. By eliminating middlemen, credit customers, deliveries (not always), elevator service, and expensive overhead charges, the aim is to place merchandise in the hands of the consumer at a minimum of mark-up per unit, on a low-cost, self-service basis. The supermarket in particular has been able to achieve large sales per customer and per store because of self-service, large wheeled market baskets, readily accessible and attractively displayed goods, centralized high-speed checking stations, and loading of customer's car in the convenient parking space provided.

In the grocery trade, especially, the rise of supermarkets, mostly under chain control, and the mergers of small chains by larger chains have led to a continuous rise in the proportion of grocery business done by organizations with 11 or more retail outlets.

Thus, based on new revised series, 1971 sales of All Grocery Stores rose 4% to a new high record of $82,793 million, compared with $79,756 million in 1970; compared to rise of 5% for 1971 for grocery stores of organizations operating 11 or more retail stores, from $43,183 million to $45,235 million, thus accounting for new high of 55% of all grocery store sales for 1971, compared to 54% in 1970, and compared to 44% (old series data) in the early '60s.

All told, annual sales of organizations operating 11 or more retail stores showed an increase of 7% for 1971 over 1970 for all kinds of businesses combined. Multi-unit organizations particularly accounted in 1971 for sales in their chains of as high as 76% of total sales, in the general merchandise groups and as high as 87% in the department stores group, both even higher "chain store" proportions than in the grocery field.

Vertical Integration. — The large grocery chains and many of the smaller chains in this field have integrated "backwards" to the processing stage, operating their own dairies, bakeries, cheese manufacturing plants, coffee roasting plants, meat packing plants, canneries, etc., leading to heavy volume of their own sponsored brands for distribution in their stores in competition with established national brands. Similarly, the mail order houses, operating chains of retail outlets, have a large volume in their own sponsored brands of various types of goods. Besides profitable control over pricing and quality characteristics, another advantage of such integration is the bargaining position of such chains for distribution of competing brands and goods.

Public Policy. — The rise of the giant, integrate and integrated chains has posed problems for them in regard to the anti-trust laws, alleged price discrimination practices, and discriminatory State taxation. Chains, however, have adjusted successfully to these reactions against their bigness, although these factors continue to be problems. In particular, the growth of chains has antagonized independent retail merchants. The late Edward A. Filene, head of one of the largest department stores in the country, years ago went so far as to predict that chain stores would drive the individual merchant out of business. Although the independent cannot hope to compete with the chain in mass buying and mass distribution, there is a definite place for the independent merchant in providing differences in goods carried, service, hours of operation, and "place utility" of locational convenience, even in such a line as groceries which is highly amenable to chain store organization and operation.

Chain Store Management. — In no line of merchandising is efficient management more important than in chain store operation. Upon the judgment and experience of the central executive staff depend the success of every store. Standardized operations make it possible to centralize chain store control. A trained staff, that a number would formerly have been needed for a single large store, can successfully control the operation of fifty or more chain units. Detailed accounting systems keep the executives informed as to the progress or lack of progress of individual stores. Perpetual inventories keep them in close touch with changes in public demand and store turnover. Elements of good management include: (1) purchases have to be so handled

EXHIBIT 5.D

CHATTEL MORTGAGE

CHATTEL MORTGAGE A mortgage with chattel instead of real property given as security. Movable goods (personal property such as railroad equipment, machinery, furniture, automobiles or trucks, livestock, crops, etc., may be the chattels pledged in a chattel mortgage. In form, the chattel mortgage is like the real estate mortgage, constituting a defeasible conveyance of the pledged property as security for the loan as well as the promissory note evidencing the personal promise to pay the debt. One important similarity of both real property mortgages and chattel mortgages is that ordinarily there can be no substitution of collateral, the mortgagee in each case applying to the specific items described therein; thus in chattel mortgages care should be taken to assure readily identification of the specific items covered, because their movability makes them liable to unauthorized substitution. "After-acquired-property clauses" however, although upheld in real property mortgages as to additions and betterments to the mortgaged property, are not upheld in a chattel mortgage if in fact they are sought to apply to additional items of personal property.

Chattel mortgages nevertheless are preferred by most lenders in financing personal property transactions, to the conditional bill of sale. In various States, statutes control strictly the terms and procedure in detail of conditional bill of sale transactions and repossessions, whereas the chattel mortgage would not so rigidly control the lender's recourse pursuant to mortgage provisions.

With expansion in *Consumer Credit* and other forms of lending on personal property in modern times, chattel mortgages have long since ceased to be regarded as a sign of weakness in a credit risk.

CHEAP MONEY An expression used to denote money

CHECK As defined by the *Uniform Commercial Code* (sec. 3-104) and by the British Bills of Exchange Act, a check is: "a bill of exchange drawn on a bank, payable on demand." Commentators usually treat checks under the general classification of bills of exchange, but checks differ from bills of exchange also in that they purport to be drawn against a deposit, and are always payable on demand.

As defined by the Board of Governors of the Federal Reserve System (footnote to Regulation J, pertaining to Check Clearing and Collection), "a check is generally defined as a draft or order upon a bank or banking house, purporting to be drawn upon a deposit of funds, for the payment at all events of a certain sum of money to the order of a certain person therein named, or to him or his order, or to bearer, and payable on demand."

Under the *Uniform Commercial Code*, checks (along with drafts, certificates of deposit, and notes) are "commercial paper", covered specifically by Art. 3 of the Code, which represents a complete revision and modernization of the Uniform Negotiable Instruments Law. All such "commercial paper" under Art. 3 must have the attributes of negotiability (signed by the maker or drawer; containing an unconditional promise or order to pay a sum certain in money and no other promise, order, obligation or power given by the maker or drawer except as authorized by this Article; payable on demand or at a definite time; and payable to order or to bearer); and if it is a draft drawn on a bank and payable on demand, it is a "check".

Other definitions of a check are: (1) a written order drawn by a depositor upon his bank to pay a sum of money to a designated party; (2) an order on a bank (drawee) by a depositor (drawer, maker or payer) to pay a certain sum of money to a third party (payee); (3) an order upon a bank or banker for the payment of money to a stated party out of funds credited to the account of the drawer. While a check from a legal point of view is an order calling for the payment of money, in actual practice it is rather an order for transferring bank credit used as a substitute for money from one account to another.

The essential elements of a check are: (1) the words of negotiability — "order" or "bearer" — express or implied. The phrase "Pay to the order of" imparts negotiability to the check and makes it an unconditional promise to pay upon demand. The single word "Pay" if used makes such a check not negotiable, *i.e.*, payable only to the person named as the payee; (2) name of payee — person in whose favor the check is drawn. Checks are sometimes made out payable to Self, Currency, Bearer or Cash, which makes them payable to bearer; (3) amount payable in figures; (4) amount payable in written words; (5) name and location of drawee bank; (6) signature of drawer or maker. In the case of some corporations the signature and counter signatures of designated officers are necessary. The signature is the final touch without which the check is valueless; (7) indorsement. The check should be indorsed as drawn, either in blank or by a special or other indorsement.

The non-essential but convenient elements of a check are: (1) location (name of city in which maker or drawer is located); (2) date of drawing the check; (3) number of the check; (4) transit number, indicating the name and location of the drawee bank according to the universal numerical transit system.

In cashing checks, the paying-teller observes the following points to insure against irregularities, informalities, or discrepancies which, if unnoticed, might involve the drawee bank in a loss; identification of presenting party; date, filling; alterations; signature (authority to sign and forgery); stop payment; financial responsibility; whether a home debit or drawn on another bank; indorsement.

Checks should not be dated ahead (post dated), otherwise they are, in effect, time bills of exchange. Checks should be presented promptly. "In the case of an uncertified check which is drawn and payable within the United States and which is not a draft drawn by a bank the following are presumed to be reasonable periods within which to present for payment or to initiate bank collection: (a) with respect to the liability of the drawer, thirty days after date or issue whichever is later; and (b) with respect to the liability of an indorser, seven days after his indorsement" (sec. 3-503(2), *Uniform Commercial Code*). Banks usually refuse to honor checks more than six months old. These are known as STALE CHECKS, since when checks are not presented within a reasonable time after they are drawn there arises a presumption of irregularity. The date is not an essential element of a check, and an undated check is valid.

The amount written in words should agree with the amount written in figures and when there is a discrepancy between the two the amount denoted by the words is the sum payable.

A bank is usually responsible to its customer for paying raised or altered checks. A number of mechanical devices have been invented to prevent the fraudulent alteration of checks.

See CHECK PROTECTING DEVICES.

A bank is not required to make a partial payment on a check whenever the drawer has insufficient funds to his credit to make payment in full. Checks made payable to Cash, Currency, or Self, legally require no indorsement when presented by the drawer, but as a matter of practice, paying tellers request indorsement as a type of receipt. In case the drawer himself does not present the check so drawn, the indorsement of the presentor, the drawer's representative, should be requested by the paying teller.

Checks may be classified according to method of collection into five groups: (1) checks drawn on the bank in which they are deposited for credit or cashed over the paying teller's window, known as "own checks," "self checks," or "home debits"; (2) checks drawn on banks in the same city and which will be paid through the clearing house, known as "clearing house checks"; (3) checks drawn on banks, corporations, and individuals in the same city which are not members of the clearing house and which must be presented for payment either through the city collection department of the clearing house, or directly by messengers; (4) checks drawn on banks located at various out-of-town points which must be collected through the Federal Reserve Clearing System, or through correspondents or other collecting agents, known as out-of-town checks, transit checks, or foreign checks, and (5) checks drawn on, or issued by a bank located in a foreign country.

See ALTERATION, CASHIER'S CHECK, CERTIFIED CHECK, CHECK BOOK, CHECKING ACCOUNT, COMMERCIAL CODE, CREDIT INSTRUMENTS, CROSSED CHECKS, DATE, FILLING, FORGED INSTRUMENTS, NEGOTIABLE INSTRUMENTS LAW, SIGNATURE, TRAVELERS CHEQUES, VOUCHER CHECK.

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St. Louis	4.25s	Los Angeles	4.25s
Houston	4.65s	California	4.00s
Kansas City	4.00s	New Orleans	4.50s
Missouri	4.00s	Detroit	4.50s
Chicago	4.00s	Cleveland	4.00s

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DOW JONES STOCK AVERAGES
Yearly Range

	30 Industrials		20 Transport Cos.		15 Utilities	
	High	Low	High	Low	High	Low
1929	381.17	198.69	189.11	128.07	144.61	95.72
1930	294.07	157.51	157.94	91.65	108.62	65.14
1931	194.36	73.79	111.58	31.42	73.40	30.55
1932	88.78	41.22	41.30	13.23	36.13	16.53
1933	108.67	50.16	56.53	23.43	37.98	19.33
1934	110.74	85.51	52.97	33.19	31.03	16.83
1935	148.44	96.71	41.84	27.31	29.78	14.46
1936	184.90	143.11	59.89	40.66	36.08	28.63
1937	194.40	113.64	64.46	28.91	37.54	19.65
1938	158.41	98.95	33.98	19.01	25.19	15.14
1939	155.92	121.44	35.90	24.00	27.10	20.71
1940	152.80	111.84	32.67	21.14	26.45	18.03
1941	133.59	106.34	30.88	24.25	20.65	13.51
1942	119.71	92.92	29.28	23.31	14.94	10.58
1943	145.82	119.26	38.30	27.59	22.30	14.69
1944	152.53	134.22	48.60	33.45	26.37	21.74
1945	195.82	151.35	66.89	47.03	39.15	26.15
1946	212.50	163.12	68.31	44.69	43.74	33.20
1947	186.85	163.21	63.42	41.16	37.55	32.28
1948	193.16	165.39	64.95	48.13	36.04	31.[illegible]
1949	200.52	161.60	54.29	41.03	41.31	3[illegible]6
1950	235.47	196.81	77.89	51.24	44.26	[illegible]40
1951	276.37	238.99	90.08	72.39	47.22	41.47
1952	292.00	256.35	112.53	82.03	52.64	47.53
1953	293.79	255.49	112.21	90.56	53.8[illegible]	47.87
1954	404.39	279.87	146.23	94.84	62.[illegible]	52.22
1955	488.[illegible]	388.20	167.83	137.84	[illegible]68	61.39
1956	521.05	462.35	181.23	150.44	[illegible].17	63.03
1957	520.77	419.79	157.67	95.67	74.61	62.10
1958	583.65	436.89	157.91	99.89	91.00	68.94
1959	679.36	574.46	173.56	146.[illegible]	94.70	85.05
1960	685.47	566.05	160.43	121.[illegible]7	100.07	85.0[illegible]
1961	734.91	610.25	152.92	1[illegible].06	135.90	99.7[illegible]
1962	726.01	535.76	149.83	94.86	130.85	103.1[illegible]
1963	767.21	646.79	179.46	142.03	144.37	129.1[illegible]
1964	891.71	766.08	224.9[illegible]	178.81	155.71	137.3[illegible]
1965	969.26	840.59	249.[illegible]	187.29	163.32	149.8[illegible]
1966	995.15	744.32	27[illegible].2	184.34	152.39	118.9[illegible]
1967	943.08	786.41	[illegible].49	205.16	140.43	120.9[illegible]
1968	985.21	825.13	[illegible]9.48	214.58	141.30	119.7[illegible]
1969	968.85	769.93	279.88	169.03	139.95	106.[illegible]
1970	842.00	631.[illegible]	183.31	116.69	121.84	[illegible]8
1971	950.82	797.[illegible]	248.33	169.70	128.39	[illegible].0
1972	1036.27	8[illegible]15	275.71	212.24	124.14	105.0

• Called the Railroad Average through Dec. 31, 1969.
Source — Dow Jones & Co., Inc.

DOW THEORY A theory of stock price movement, based upon interpretation of action of the *Dow Jones Averages* (Industrials and Transportation Companies) for indication of direction of the "primary trend" (major upward or downward movement). "Secondary movements" (rallies in a primary downtrend or reactions in a primary uptrend) are temporary reversals of the primary trend. The daily fluctuations are considered to be of no value individually, but collectively may be the first two movements. Closings for the Industrials and the Transportation Companies (formerly the Railroad Average) only are used as basic data. The primary trend is likened to the tide; the secondary movements, to the waves; and the daily fluctuations, to the ripples. The forecasting aim in applying the Dow Theory is to determine the direction of the primary trend (tide). The primary movement, once established, continues in the same direction, although interrupted by secondary movements, until there is a "confirmation" of change in direction. The Industrials must be confirmed by the Transportation Companies and vice versa, in the indication of change in primary trend.

"Confirmation" in Dow Theory literature may occur (1) on breakouts by both Averages in either direction, up or down, from a narrow band of fluctatuion ("line"); (2) by new highs or lows made on secondary movements by both Averages. The latter interpretation is preferred by Dow Theorists of modern times. In a "bull market," each secondary rise is followed by a secondary reaction, the rise must exceed the previous secondary peak and the low on the secondary reaction must not fall below the low of the previous secondary reaction. If this happens, the direction on the primary trend continues upward. If, however, both Averages fail in their secondary movements to sustain the primary trend. (*e.g.*, a secondary movement high fails to penetrate previous secondary high; and secondary movement low penetrates below the previous secondary low), a change in direction of the primary trend is confirmed from uptrend ("bull market") to downtrend ("bear market"). The new primary trend will continue in that direction, again interrupted by secondary movements, until a new confirmation is given of change in primary trend. Each average must confirm the other, even if it involves a time lag so that the signal of change in direction of primary trend is late.

The "Dow Theory" evolved from the editorials of Charles H. Dow, founder of the Dow Jones & Co., Inc., in the Wall Street Journal at the turn of the century. The "Dow Theory" is first found labeled as such in S. A. Nelson's *The A B C of Speculation* (1902). William Peter Hamilton, who succeeded Dow as editor of the Wall Street Journal, particularly popularized the Dow Theory by editorials therein, particularly his famous editorial "A Turn in the Tide", of October 25, 1929. Although the Wall Street Journal no longer promotes the Dow Theory by editorials, etc., the Theory still has many practitioners and proponents, notwithstanding mixed results with its signals over the years.

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DRAFT A written order drawn by one party (the drawer) ordering a second party (the drawee) to pay a sum of money to a third party (tne payee). Oftentimes the drawer and payee are the same party, the draft being made payable to "Ourselves". In reality, a draft is a bill of exchange, except that in this country the term draft is customarily used in domestic transactions, whereas, both terms, draft and bill of exchange, are used in foreign transactions. A draft may be made non-negotiable, but a bill of exchange cannot. Drafts have all the chief characteristics of bills of exchange.

Drafts are of three kinds: (1) sight, demand or presentation drafts, payable immediately, at sight, or on demand or presentation; (2) arrival drafts — a modification of a sight draft — payable upon the arrival of goods at the destination of the drawee and for which the draft has been drawn in payment; (3) time drafts — payable at a fixed date, or a certain number of days after date (the latter sometimes being called "days after date" drafts).

A time draft payable 30 days after sight must be presented for acceptance, and at maturity for payment. A 30-day sight draft is payable 30 days after ACCEPTANCE by the drawee, when it comes an acceptance or obligation. Upon acceptance the drawee

becomes the acceptor and principal debtor, and is bound to pay the draft at maturity. The bank at which a draft is payable should be indicated on the face of the instrument by the acceptor.

Drafts usually arise out of commercial transactions in which the buyer and seller are located at different points. A draft differs from a check in that it may be a time instrument drawn on an individual, firm, corporation or bank, and the initiative for payment of the goods is taken by the seller and not the buyer. Usually previous arrangements have been made between the buyer and the seller which permit the seller to draw drafts against the buyer in settlement of all transactions between them. Generally a shipper (seller) sends the draft drawn against the drawee (buyer) to its bank to make a presentation and collection with shipping documents attached. The shipper's bank then forwards the draft with documents to its correspondents in the city to which the goods are destined. Instructions are given to the collecting bank to surrender the bill of lading either upon acceptance or payment of the draft, the documents being referred to as "documents against acceptance," or "documents against payment," respectively.

Some drafts do not arise out of commercial transactions, but to secure payment for securities sent from one place to another, the draft being sent to a bank for collection with instructions to release the securities only upon payment. Other drafts, without documents attached, merely operate as "duns" or demands for payment of bills past due.

See ARRIVAL DRAFT, BILL OF EXCHANGE, FOREIGN BILLS OF EXCHANGE, TRADE ACCEPTANCE.

tion or bank, against which a check or draft is drawn and from which payment is expected.

DRAWER The party, whether an individual, firm, corporation or bank, who draws, *i.e.*, makes, a check, draft, or bill of exchange. The drawer is also known as the maker. In the case of a check the drawer is a debtor, and therefore the payer, while in the case of a draft and bill of exchange the drawer is the creditor, and also very often the payee.

DRAWN BONDS Bonds which have been called for redemption by lot.

See CALLED BONDS.

DRIVE An expression to indicate a sudden attack upon a security or commodity values by sellers in an effort to force prices down. Section 9 of the Securities and Exchange Act of 1934 prohibits manipulative practices in such activity.

See MANIPULATION.

DROP An expression to indicate a fall in a security or commodity price.

See DECLINE.

DUE DATE The date upon which a note, draft, acceptance, bond, or other evidence of debt becomes payable; the maturity date.

See TIME TO RUN.

DUE FROM BANKS An asset account appearing in the general ledger and financial statement of a bank to indicate the aggregate amount of balances outstanding with and due from other banks.

DUE FROM BANKS—COLLECTIONS A contingent asset account appearing in the general ledger and financial statements of a bank to indicate the aggregate amount of out-of-town checks in process of collection, but not yet available as cash, through the medium of collection agents or correspondent banks. When the items are collected, the amount is added to the account entitled "Due from Banks," and subtracted from this account.

DUE FROM FEDERAL RESERVE BANK (OR FEDERAL RESERVE BANK ACCOUNT) An asset account appearing in the general ledger and financial statement of a member or clearing member bank to indicate the balance due from a Federal Reserve Bank. This amount represents approximately the cash reserve required by law to be kept with the Federal Reserve Bank.

DUE FROM FEDERAL RESERVE BANK, COLLECTIONS A contingent asset account appearing in the general ledger and financial statement of a bank to indicate the aggregate of checks in the process of collection but not yet available as cash reserve through the agency of the Federal Reserve Bank. When these items are collected, the account entitled, "Due from Federal Reserve Bank," is increased, and the amount subtracted from this account.

DUE FROM FOREIGN EXCHANGE DEPARTMENT An asset account appearing upon the general ledger or financial statement of a bank to indicate the aggregate funds entrusted with the foreign department for use or investment in foreign exchange operations. The operations of a foreign department are usually considered as distinct from those of the rest of the bank, and its bookkeeping operations are kept separate. This item represents the accountability of the foreign department to the bank.

DUE TO BANKS A liability account appearing in the general ledger or financial statement of a bank to indicate the aggregate amount deposited by banks as distinguished from individuals, firms and corporations (other than banking corporations).

DULL An expression used on a stock or commodity exchange to indicate inactive trading, and that little interest is displayed in the movement of prices.

DUMMY A term used in connection with directors, officers, stockholders, etc., to indicate a person who acts for another, but who has no real responsibility or liability. He is merely placed in office to complete the number required by law or for publicity purposes.

DUMP To offer suddenly for sale large blocks of securities on the market for the purpose of disposing of them regardless of the prices offered; to unload large blocks of a security or securities.

In a commercial sense this term is used in connection with international trade. When one nation floods the market of another with large quantities of a certain commodity or commodities at prices lower than they can be purchased at home, or in other foreign countries, the foreign nation is said to be dumping its goods in the other country's market.

DUN & BRADSTREET The oldest and largest mercantile agency in the United States and of the world, supplying credit information and credit ratings on and for all types of business concerns. The present company, Dun & Bradstreet, Inc., represents an amalgamation, as of March 1, 1933, of two nationwide credit information agencies, R. G. Dun & Co. and The Bradstreet Company.

Lewis Tappan, pioneer credit executive and originator of the idea of centralized credit reporting, was first proprietor of The Mercantile Agency, which was founded in 1841. Succession to proprietorship of The Mercantile Agency was as follows: Lewis Tappan & Co., 1841–1849; Tappan & Douglass, 1849–1854; B. Douglass & Co., 1854–1859; and R. G. Dun & Co., 1859–1933. The J. M. Bradstreet & Son's *Improved Mercantile Agency* was founded in 1849, and was incorporated in 1876 as The Bradstreet Company, continuing as such until the merger with R. G. Dun & Co. in 1933. John M. Bradstreet was a dry goods merchant and lawyer who had acquired a substantial file of credit information in the process of liquidating a large estate.

EXHIBIT 5.F

Regulation T to cover all brokers and dealers and thus bring under the new Margin requirements all brokers and dealers handling Over-the-Counter accounts exclusively.

Amendments to Regulations G, T and U, effective May 6, 1970 lowered Margin requirements from 80% to 65% for credit extended by brokers, dealers, banks, and other lenders to finance purchase of stocks; and from 60% to 50% for credit extended by such persons to finance purchase of convertible bonds. No change was made in the 70% retention requirement applicable to unmargined accounts.

See MARGIN REQUIREMENTS.

Regulation U — Credit by Banks for the Purpose of Purchasing or Carrying Margin Stocks (formerly, prior to amendment effective May 8, 1969, entitled Credit by Banks for the Purpose of Purchasing or Carrying Registered Stocks). See *supra* under Regulation G and Regulation T; and see MARGIN REQUIREMENTS.

Regulation V — Loan Guarantees for Defense Production. Provides that rates of interest, guarantee fees, commitment fees, and other charges which may be made with respect to guaranteed loans and guarantees executed through the agency of any Federal Reserve Bank under the Regulation will from time to time be prescribed, either specifically or by maximum limits or otherwise, by the Board of Governors after consultation with the guaranteeing agencies designated in the Defense Production Act of 1950, as amended, and pertinent Executive Orders.

Regulation Y — Bank Holding Companies. Effective March 15, 1968, Regulation Y was revised, primarily to make the Regulation conform to the provisions of the Bank Holding Company Act amendments of 1966.

Regulation Z — This new Regulation, Truth in Lending, was adopted effective July 1, 1969 to implement Title I (Truth in Lending Act) and Title V (General Provisions) of the Consumer Credit Protection Act.

The discontinued regulations, Regulation W and Regulation X, were terminated in 1952. Regulation W, Consumer Credit, governed down payments and length of maturities on instalment credit and amounts of $5,000 or less in connection with consumer durable goods, pursuant to the last statutory authority therefor, the Defense Production Act of 1950, amendments to which approved June 30, 1952 repealed the Board's authority for regulation of consumer credit. Effective May 7, 1952, the Board had suspended the regulation.

Regulation X, Real Estate Credit, regulated credit extended for real estate construction, residential and non-residential, by specifying maximum loan values, minimum down payments, maturities, and amortization required. Pursuant to the provisions of sec. 607 of the Defense Production Act as amended, and sec. 503 of Executive Order No. 10161, as amended, the Board with the concurrence of the Housing Home Finance Administrator, announced the beginning on September 16, 1952 of a period of residential credit control relaxation" and the suspension of the Board's Regulation X, effective September 16, 1952.

In addition to the published Regulations of the Board of Governors of the Federal Reserve System, the Board of Governors also make available their Published Interpretations of the Board of Governors, explaining points of general interest in the Regulations, which also appear in the *Federal Reserve Bulletin*. Each Federal Reserve Bank also publishes arabic-numbered circulars for "operating letters" for the guidance of its member banks on forms and procedures.

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FEDERAL RESERVE BOARD SETTLEMENT Settlement of balances arising among Federal Reserve Banks, arising as the result of inter-district collections.

See INTER-DISTRICT SETTLEMENT FUND.

FEDERAL RESERVE BRANCH BANKS Banks operating as branches of a Federal Reserve bank. The Federal Reserve Act authorizes Federal Reserve banks to establish branches without limit as to number under regulations approved by the Federal Reserve Board of Governors, but each branch must be within the boundaries of the Federal Reserve district of the Reserve bank which establishes it. At the date of this publication twenty-four branches had been established. As of mid-1970, however, the Federal Reserve Bank of Atlanta received the approval of the Board of Governors to plan the establishment of an additional branch for that District, at Miami, Florida.

For the boundaries of the Federal Reserve districts and the areas served by the branch banks, see map under Federal Reserve Districts.

Location of Branch Federal Reserve Banks

District	*Branches*
1st District, Boston	None
2nd District, New York	Buffalo
3rd District, Philadelphia	None
4th District, Cleveland	Cincinnati, Pittsburgh
5th District, Richmond	Baltimore, Charlotte
6th District, Atlanta	Birmingham, Nashville, Jacksonville, New Orleans
7th District, Chicago	Detroit
8th District, St. Louis	Louisville, Memphis, Little Rock
9th District, Minneapolis	Helena
10th District, Kansas City	Denver, Oklahoma City, Omaha
11th District, Dallas	Houston, El Paso, San Antonio
12th District, San Francisco	Seattle, Portland, Salt Lake City, Los Angeles

FEDERAL RESERVE BULLETIN The official organ of the Board of Governors of the Federal Reserve System. It is issued monthly under the direction of the staff Editorial Committee, which is responsible for opinions expressed, except in official statements and signed articles. Copy of the Federal Reserve Bulletin is sent to each member bank without charge. Member banks desiring additional copies may secure them at a special annual rate (as of 1970) of $2. Regular subscription price is $6 per annum or 60¢ per copy, in the United States and its possessions; Bolivia, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Republic of Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, El Salvador, Uruguay, and Venezuela. Elsewhere, the subscription rate is $7 per annum or 70¢ per copy. Subscription for more copies to one address is 50¢ per copy per month, or $5 for 12 months.

FEDERAL RESERVE CHECK COLLECTION SYSTEM The Federal Reserve Act authorizes the Board of Governors of the Federal Reserve System to require each Federal Reserve Bank to "exercise the functions of a clearing house for its member banks." Although the Federal Reserve System began operations in 1914, the check collection system was not established until July 1916.

The purpose of the Federal Reserve check collection system was to correct the defects of the methods previously employed, and particularly the following abuses: (1) circuitous routing of checks which grew out of the efforts of banks to avoid exchange charges, and which resulted in great delay in the presentation of items; (2) inequitable distribution of exchange charges between Eastern metropolitan banks and "country" banks; and (3) excessive exchange charges.

At the present time, the Federal Reserve check collection system is efficiently organized, and through its instrumentality, out-of-town items are passed directly, economically, and at par among member banks and clearing non-member banks, *i.e.*, non-member banks on the PAR LIST. Consequently, the only banks which do not participate in this collection system are such non-member banks as are not on the par list.

FEDERAL RESERVE CIRCULATION

When a member bank transmits out-of-town checks to a Federal Reserve Bank to be collected from another member or clearing non-member bank, the sending bank is immediately credited in the collection or "float" account of the Federal Reserve Bank. That is to say, the amount of the checks so sent does not become available as reserve credit until the checks are credited as collected pursuant to the automatic timing provided by the "Schedule Showing When the Proceeds of Items Become Available" (Deferred Availability Schedule), of each Federal Reserve Bank. In this Schedule, the United States is divided geographically as to items payable at specified Federal Reserve Bank or Branch cities, and those payable at banks on the Par List in localities outside of such Bank or Branch cities. The deferred credit, after one day or after two days (depending on the cities where the items are payable) after receipt, "ripens" automatically to credit to the reserve account of the member bank at its Federal Reserve Bank. The same procedure applies as to items received on out-of-town points forwarded by non-member clearing banks, their account at the Federal Reserve Bank being a "clearing account" rather than reserve account.

Federal Reserve check routing symbol system: Expeditious collection of out-of-town checks, prepared in packages with accompanying listing of amounts of individual checks ("cash letters"), is aided by the check routing symbol system, a numerical code indicating basic information needed in collections, which was developed by the Bank Management Commission of the American Bankers Association and the Committee on Collections of the Federal Reserve System. The routing symbol for Federal Reserve Bank purposes is the denominator of a fraction, the numerator being the ABA TRANSIT NUMBER assigned to the drawee bank. The combined symbol is printed on the upper right hand corner of checks in uniform type. The routing symbol (denominator of the fraction) is composed of not less than 3 nor more than 4 consecutive digits printed close together. The code value for handling of collections may be summarized as follows:

1. In the case of a 3-digit routing symbol, the first digit indicates at a glance the particular Federal Reserve district, and the digits run from 1 to 9, as follows:

Boston	1	Atlanta	6
New York	2	Chicago	7
Philadelphia	3	St. Louis	8
Cleveland	4	Minneapolis	9
Richmond	5		

The second digit in a 3-digit routing symbol indicates the head office of the Federal Reserve Bank, or of the branch serving the territory in which the drawee bank is located. Head office is indicated by the digit "1". Branches, if any, arranged alphabetically are indicated by the figures "2" to "5". Figures "6" to "9" are reserved to indicate special collection arrangements.

The third digit in a 3-digit routing symbol indicates whether the item is receivable for immediate credit or for deferred credit without regard to the standard days of deferred availability, and the State in which the drawee bank is located. The figure "0" indicates items receivable for immediate credit, if received in time to be cleared the current day. All other figures, "1" to "9", indicate items receivable for deferred credit and also designate the State (arranged alphabetically) in which the drawee bank is located, parts of States, or certain cities.

2. In the case of a 4-digit routing symbol, the digits have the same meaning as those in a 3-digit routing symbol, except that the first two digits indicate the 10th, 11th, or 12th Federal Reserve Districts, as follows:

Kansas City	10	San Francisco	12
Dallas	11		

For Federal Reserve adaptation to the new era of automation in check handling, including use of magnetic ink-encoded checks, *See* AUTOMATION.

Federal Reserve charges for collections: Originally, in July 1916, when the Federal Reserve Banks initiated their plan for clearing and collection of checks, a charge of not exceeding 2¢ per item was made, pursuant to authorization (still existing) in sec. 16 of the Federal Reserve Act. Charge was gradually reduced, so that by the close of 1917, the maximum charge was 1½¢ per item. As of July 1, 1918, the charge was entirely eliminated by action of the Federal Reserve Board, and it has never been reimposed.

Par and Non-Par Banks: Member banks and non-member banks clearing through the Federal Reserve Banks must agree to remit collection items at par. Each Federal Reserve Bank stands ready to collect free of charge checks as well as certain other types of non-cash transit items, but banks still prefer to utilize the services of correspondent banks for collection of non-cash transit items requiring special handling. Such items may be forwarded to correspondents, irrespective of their membership in the Federal Reserve System, but it is stipulated by the rules of the New York and other Clearing Houses that if the correspondents are in the System, items forwarded to them cannot be collected under any other terms than those prescribed by the rules governing Federal Reserve collections as regards exchange and time outstanding. It should be noted that nothing in the Federal Reserve Act or Clearing House rules prohibits banks from charging customers placing items for collection, and such collection charges are customary in properly costed accounts.

As of June 30, 1972, there were on the par list of the Federal Reserve System a total of 13,523 banks (5,715 member banks and 7,808 non-member banks), compared with 247 banks not on the par list. The par banks had total branches and offices of 23,840 locations, compared with 142 branches and offices for the non-par banks. By comparison, as of December 31, 1959 there had been 11,695 banks on the par list, and 1,690 non-par banks; and twenty years previous to that date, the total number of par banks was 11,757 banks, compared with total of 2,719 non-par banks.

See ABA TRANSIT NUMBER, AUTOMATION, CLEARING HOUSE, FEDERAL RESERVE INTER-DISTRICT COLLECTION SYSTEM, INTER-DISTRICT SETTLEMENT FUND, SCHEDULE SHOWING WHEN PROCEEDS OF ITEMS WILL BECOME AVAILABLE.

See FEDERAL RESERVE NOTES.

FEDERAL RESERVE CITIES The cities in which the twelve Federal Reserve banks are located. Each Federal Reserve bank has a number corresponding to the district in which it operates. The twelve federal reserve cities, together with the districts in which they are located, are:

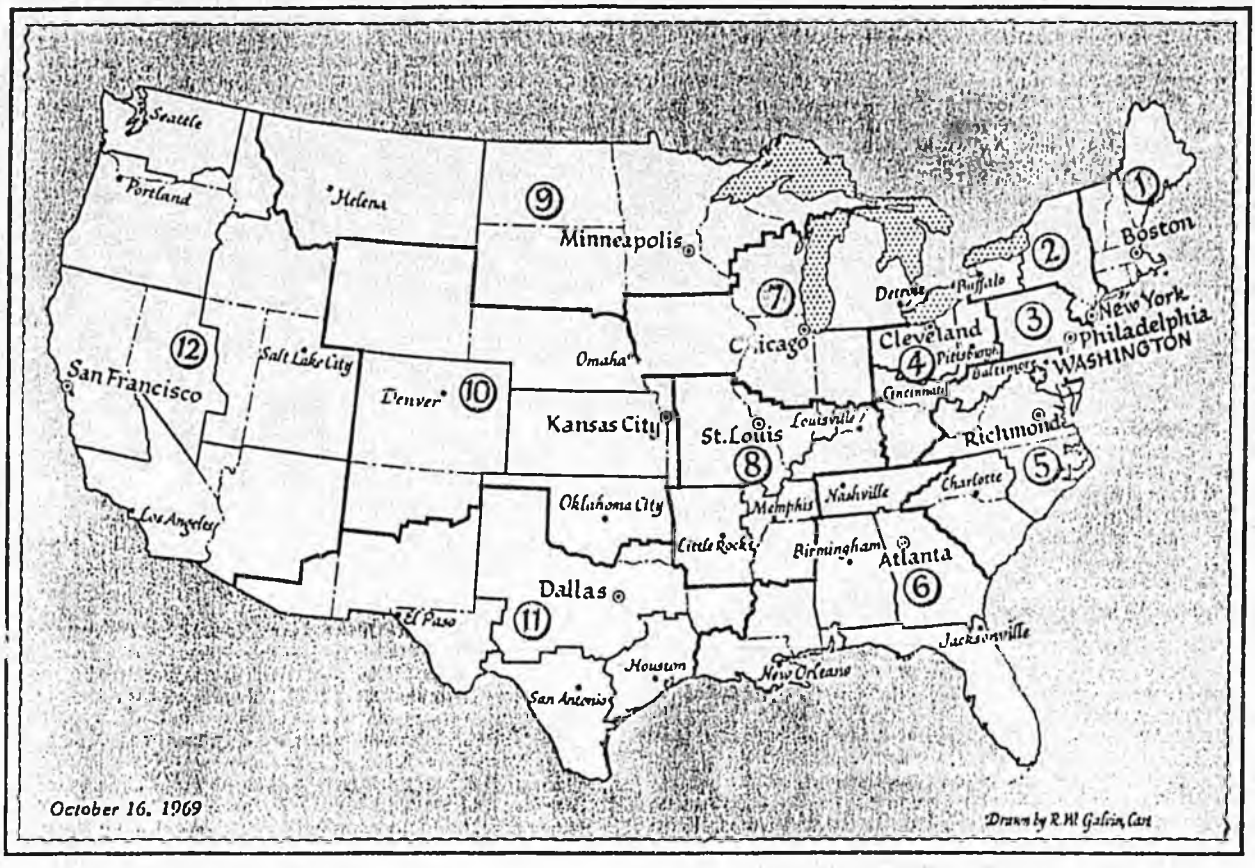
1.	Boston	7.	Chicago
2.	New York	8.	St. Louis
3.	Philadelphia	9.	Minneapolis
4.	Cleveland	10.	Kansas City
5.	Richmond	11.	Dallas
6.	Atlanta	12.	San Francisco

See FEDERAL RESERVE BRANCH BANKS, FEDERAL RESERVE DISTRICTS.

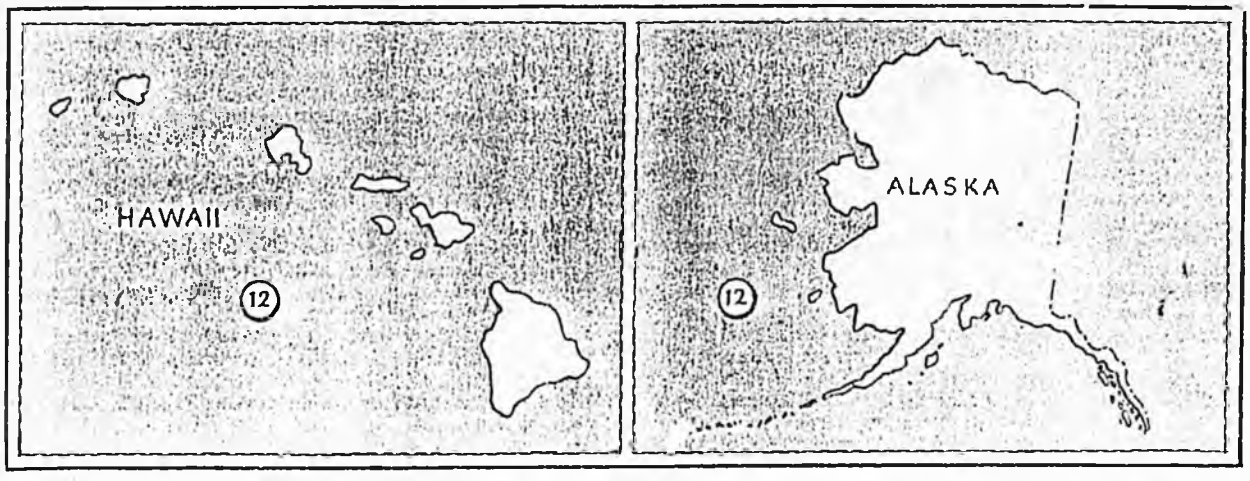
FEDERAL RESERVE CREDIT Total volume of Federal Reserve credit outstanding is the "supply" which the Federal Reserve Banks have contributed to member bank reserves, and consists principally of earning assets of the Federal Reserve Banks: (1) bills discounted; (2) bills bought, either outright or on repurchase agreement; (3) advances to member banks; (4) discounts for member banks; (5) holdings of U.S. Government securities either outright or under repurchase agreements; and (6) all other Reserve Bank credit. Included in the miscellaneous forms of Federal Reserve Banks' credit is "float", or difference between items at Federal Reserve Banks in process of collection and total of deferred availability credits, such difference representing credits to accounts of clearing member and non-member banks before charge to drawee banks upon actual collection.

Also included in the miscellaneous forms of Federal Reserve credit is the catch-all classification, "Other Federal Reserve Assets", which in recent years includes an important international item, holdings of foreign currencies reflecting "swap" foreign exchange arrangements with foreign central banks and other operations in foreign exchange; International Monetary Fund gold deposited; as well as Federal Reserve Banks' investment in bank premises and other assets. Such "Other Federal Reserve Assets" are now reported gross, instead of net as formerly after deduction of capital accounts (capital paid in, surplus, and other capital accounts), other liabilities, and accrued dividends. The total of these latter items is now shown gross by itself as "Other Federal Reserve

BOUNDARIES OF FEDERAL RESERVE DISTRICTS AND THEIR BRANCH TERRITORIES



THE FEDERAL RESERVE SYSTEM



Legend

—— Boundaries of Federal Reserve Districts ——Boundaries of Federal Reserve Branch Territories

✪ Board of Governors of the Federal Reserve System

⊙ Federal Reserve Bank Cities • Federal Reserve Branch Cities

EXHIBIT 5.G

NEGOTIABLE

Gross National Product: Receipts and Expenditures by Major Economic Groups
(in billions of dollars)
Calendar Years 1970 – 1971

	1970			1971p		
	Receipts	Expenditures	Excess of Recs. (+) over Exps.(−)	Receipts	Expenditures	Excess of Recs. (+) over Exps.(−)
Persons:						
Disposable personal income	$669.9			$722.6		
Personal consumption expenditures		615.8			$662.2	
Personal net saving			+54.1			+60.4
Business:						
Gross retained earnings	99.2			112.2		
Gross private domestic investment		135.3			150.8	
Excess of investment			−36.0			−38.1
International:						
Net transfers to foreigners by persons and government	3.1			3.4		
Net exports of goods and services		3.6			0.7	
Excess of exports			−0.4			+2.7
Government (Federal, State and local):						
Tax and nontax receipts or accruals	300.5			320.8		
Less: Transfers, interest and subsidies (net)	94.2			108.0		
Equals: net receipts	206.3			212.8		
Total Government expenditures		313.6			341.1	
Less: Transfers, interest and subsidies (net)		94.2			108.0	
Equals: Purchases of goods and services		219.4			233.1	
Surplus or deficit on income and product account			−13.1			−20.6
Statistical discrepancy	−4.5		−4.5	−4.7		−4.7
Gross national product	974.1	974.1	...	1,046.8	1,046.8	...

Note: Totals may vary because of rounding.
p — Preliminary.
Source — Council of Economic Advisers, *Annual Report, 1972.*

reasoned, would provide the incentive for additional drilling and discoveries for proving up the potential reserves. Because Natural Gas reserves are found often in conjunction with crude oil wells, the two natural resources are intertwined insofar as incentives and additional exploration for increased domestic supplies are concerned.

See OIL, PUBLIC UTILITY INDUSTRY.

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NEGOTIABLE When an instrument is negotiable, legal title thereto may be transferred from one person to another in such a manner as to constitute the transferee the holder. Negotiation may be accomplished by mere delivery, if the instrument is a bearer instrument; or by indorsement and delivery, if the instrument is an order instrument. The holder of a negotiable instrument may sue thereon in his own name, and payment to him in due course discharges the instrument.

The most important attribute of negotiable instruments is the superior position of the holder who is a HOLDER IN DUE COURSE, who holds the instrument free from any defect of title of prior parties, and free from all defenses except the "real defenses" available to prior parties among themselves, and who may enforce payment of the instrument for the full amount against all liable parties. For the requirements of negotiability, see: sec. 3-104, Uniform Commercial Code, which has been enacted in the various States.

See NEGOTIABLE INSTRUMENTS, NEGOTIABLE INSTRUMENTS LAW.

clude all forms of NEGOTIABLE INSTRUMENTS, and other paper which is negotiable by merely delivery, e.g., bearer checks, drafts or notes, bearer bonds or bond coupons; or by delivery

EXHIBIT 5.H

and indorsement, e.g., order checks, drafts or notes, order bills of lading. Technically, a negotiable instrument is one which calls for the payment of money. Bills of lading and warehouse receipts call for delivery of merchandise, and while they cannot be considered negotiable instruments in the technical sense, still they may be negotiated by made order documents. Similarly, in the case of securities, the doctrine of "bona fide purchaser" is analogous to that of holder in due course applicable to negotiable instruments, in that such a purchaser for value in good faith and without notice of any adverse claim who takes delivery of a security in bearer form or of one in registered form issued to him or indorsed to him in blank, acquires the security free of any adverse claim in addition to acquiring the rights of a purchaser (secs. 8-301(2) and 8-302, Uniform Commercial Code).

Negotiable documents, therefore, is a term employed to designate all paper which may be negotiated, whether negotiable instruments or not.

NEGOTIABLE INSTRUMENTS Written orders or promises to pay money which may be transferred from one person to another by delivery, or by indorsement and delivery, the full legal title thereby becoming vested in the transferee; and the negotiation of which to a HOLDER IN DUE COURSE, gives such holder the same rights as the original payee (promisee) free from defenses (except the "real" defenses) which might defeat them. Thus, a holder in due course who has purchased a negotiable instrument and secured title by negotiation is the absolute owner. He does not merely purchase as good a title as the previous owner, as does a mere assignee.

Negotiation is achieved (1) by delivery, *i.e.*, by merely handing it from one person to another, when the negotiable instrument is payable to bearer; or (2) by INDORSEMENT, and delivery, when the negotiable instrument is payable to order.

Any writing to be a "negotiable instrument" within the meaning of sec. 3-104 of the Uniform Commercial Code must: (a) be signed by the maker or drawer; and (b) contain an unconditional promise or order to pay a sum certain in money, and no other promise, order, obligation or power given by the maker or drawer except as authorized by the Code (sec. 3-112 authorizes an instrument to include limited obligation or power besides the promise or order to pay a sum certain in money); and (c) be payable on demand or at a definite time; and (d) be payable to order or to bearer.

The principle negotiable instruments in the United States are checks, bills of exchange, promissory notes, and acceptances.

See NEGOTIABLE SECURITIES.

ing to negotiable instruments, which has undergone two major attempts to achieve greater uniformity among the various States: (1) the original Uniform Negotiable Instruments Law (UNIL), which beginning in 1897, was legislated by all the various States with, however, variations and departures from the "uniform" model for specific States; and (2) the Uniform Commercial Code (UCC), which constitutes a more comprehensive attempt to achieve greater uniformity in the fields of Sales, Commercial Paper, Bank Deposits and Collections, Letters of Credit, Bulk Transfers, Warehouse Receipts, Bills of Lading, other Documents of Title, Investment Securities, and Secured Transactions, including sales of accounts, chattel paper, and contract rights. The UCC, first offered to the States for adoption in 1952 and first enacted by Pennsylvania in 1953, was by 1971 adopted in every State except Louisiana, and also adopted in the District of Columbia and the Virgin Islands.

The term "Commercial Paper" of the UCC comprehends "negotiable instruments", the subject of the UNIL.

Prior to the codification and enactment of the UNIL, cases growing out of litigation concerning bills, notes, and checks were governed by case law, the so-called "law merchant"—a body of rules, customs, and principles which had been practiced for centuries in England and recognized legally by the law courts beginning in the 18th century, particularly by the famous English jurist, Lord Mansfield, sitting on the Court of King's Bench. The case law, based on the law merchant, and involving litigation in modern times as well, is resorted to still in those rare cases not covered "on all fours" or on moot points arising under the Codes. The first statement of the principles of the law merchant was the British Bills of Exchange Act, enacted in 1882. The American UNIL was to a large extent influenced by the English law.

The UCC is composed of ten Articles, as follows:

Article 1, General Provisions. — Part 1, Short Title, Construction, Application and Subject Matter of the Act; Part 2, General Definitions and Principles of Interpretation.

Article 2, Sales. — Part 1, Short Title, General Construction, and Subject Matter; Part 2, Form, Formation and Readjustment of Contract; Part 3, General Obligation and Construction of Contract; Part 4, Title, Creditors and Good Faith Purchasers; Part 5, Performance; Part 6, Breach, Repudiation and Excuse; Part 7, Remedies.

Article 3, Commercial Paper. Reproduced below.

Article 4, Bank Deposits and Collections. Also reproduced below, in view of the provision that Article 3 is subject to the provisions of Article 4.

Article 5, Letters of Credit.

Article 6, Bulk Transfers.

Article 7, Warehouse Receipts, Bills of Lading, and Other Documents of Title. — Part 1, General; Part 2, Warehouse Receipts: Special Provisions; Part 3, Bills of Lading: Special Provisions; Part 4, Warehouse Receipts and Bills of Lading: General Obligations; Part 5, Warehouse Receipts and Bills of Lading: Negotiation and Transfer; Part 6, Warehouse Receipts and Bills of Lading: Miscellaneous Provisions.

Article 8, Investment Securities. — Part 1, Short Title and General Matters; Part 2, Issue — Issuer; Part 3, Purchase; Part 4, Registration.

Article 9, Secured Transactions; Sales of Accounts, Contract Rights and Chattel Paper. Also reproduced below, in view of the provision that Article 3 is subject to the provisions also of Article 9).

Article 10, Effective Date and Repealer.

Because of persisting although reduced variation in the specific provisions of enacted State versions of the UCC, reference should be made to the particular State law in each jurisdiction, along with the interpretive case law of the jurisdiction, which sometimes has construed particular statutory provisions with variation as compared with other jurisdictions.

Text of Articles 3, 4 and 9 of the UCC is appended herewith, for general information and as a basis for noting the variations or departures therefrom by the particular State's statutes.

Uniform Commercial Code
Article 3
Commercial Paper

Part 1
Short Title, Form and Interpretation

Section 3-101. Short title.

This Article shall be known and may be cited as Uniform Commercial Code — Commercial Paper.

Section 3-102. Definitions and Index of Definitions.

(1) In this Article unless the context otherwise requires

(a) "Issue" means the first delivery of an instrument to a holder or a remitter.

(b) An "order" is a direction to pay and must be more than an authorization or request. It must identify the person to pay with reasonable certainty. It may be addressed to one or more such persons jointly or in the alternative but not in succession.

(c) A "promise" is an undertaking to pay and must be more than an acknowledgment of an obligation.

(d) "Secondary party" means a drawer or endorser.

(e) "Instrument" means a negotiable instrument.

(2) Other definitions applying to this Article and the sections in which they appear are:

"Acceptance". Section 3-410.

"Accommodation party". Section 3-415.

"Alteration". Section 3-407.

"Certificate of deposit". Section 3-104.

"Certification". Section 3-411.

"Check". Section 3-104.

"Definite time". Section 3-109.

"Dishonor". Section 3-507.

Department of Commerce & Economic Development / POSITION PAPER

SB 156 "An Act relating to payment of insurance settlements."

The department is essentially neutral on this bill because we do not feel it corrects the problem it was designed to fix. Many years ago, all insurers in Alaska and elsewhere paid claims with claim drafts. Banks refused to accept drafts for credit until they had been presented and honored at the bank of the insurer. Alaskans were at the mercy of the banks.

Legislation was introduced and passed which required insurance claim payments by bank check. This was to provide prompt cashing privileges. Instead, insurers pulled back draft issuing authority from adjusters and issued checks from the home office instead of the field. Banks held the checks for several weeks for clearing before crediting the claimant's account. Some may have held them much longer.

Now comes another attempt to shorten the time a claimant must wait to receive credit. Insurers will have an additional step because they must go to a bank for a certified check which will delay payments. Banks may continue to hold certified checks for payment. We understand that certified checks are not common any more. Cashiers checks are a possible substitute except that insurers normally print a release on the claim check.

We understand that even though banks may receive credit under the federal reserve bank within a few days there may be situations in which funds are held for much longer periods of time before crediting the claimant's account.

for Loren H. Lounsbury, Commissioner

Date: 2/26/85

REGLR1/1R/22685d

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March 1, 1985

Senator Fred Zharoff
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Re: Senate Bill 156

Dear Senator Zharoff:

I represent State Farm Insurance Company and Allstate Insurance Company and am writing to you on their behalf in opposition to Senate Bill 156. Senate Bill 156 would require that payment for a judgment or settlement of a claim in excess of $25,000 be by certified bank check. We understand the purpose of this requirement is to eliminate delay after the check has been presented to a bank, however we do not believe such a requirement will do so and in fact, such a requirement may well cause more delay then it eliminates. Both Allstate and State Farm currently have the capability of obtaining settlement checks almost immediately. Settlement checks can be written by Alaska personnel, so once a case is settled, or in the alternative a judgment is entered, a check in payment of that claim can be obtained within hours, or even sooner, if necessary. To impose a requirement that the payment be made by certified bank check will require the check to be issued by an out of state bank, and then sent to Alaska. For example, the State Farm checks for Alaska are drawn on a bank in their regional headquarters, Salem, Oregon. Allstate checks are drawn on a Seattle bank. I frankly don't know of any insurance company which issues settlement checks from banks located in Alaska.

The passage of this legislation will impair our ability to issue settlement checks in excess of $25,000 in a timely manner.

HUGHES THORSNESS GANTZ POWELL & BRUNDIN
ATTORNEYS AT LAW

Most of the complaints that we are aware of regarding the timing of settlement checks concerns a delay in obtaining that check, not a delay once the check is received. In short, if there is any benefit to this legislation, we feel it would be outweighed by the delay the legislation itself will cause in obtaining the certified checks.

We also wish to add that a certified check does not guarantee that a bank will give it credit any sooner than our standard checks. We are aware of no requirement that a certified check be paid upon presentation, and would suspect that the banks will simply wait for the check to be honored before they in turn will get the credit.

If there is a problem with the payment of claims, we suspect it deals with a very small number of insurance companies, and that the problem could more appropriately be dealt with on a case-by-case basis through the Division of Insurance.

Sincerely,

HUGHES THORSNESS GANTZ
POWELL & BRUNDIN

By: Michael L. Lessmeier
Michael L. Lessmeier

MLL/mh

cc: Senator Richard Eliason
Senator John Sackett
Senator Don Bennett
Senator Bill Ray

Bill No. Senate Bill No. 106

Title "An Act relating to Alaska bidder preference."

Date March 1, 1985

Contact: Bob Landau
465-2700

The Department of Labor supports the passage of Senate Bill 106. This legislation would amend the Alaska bidder's preference law, AS 37.05.230(5), to require that each member of a joint venture must separately qualify as an Alaska bidder in order for the joint venture itself to qualify for the bidder preference.

The Department believes that this legislature is necessary to protect against out-of-state firms joining with a nominal Alaska partner in order to gain preferential bidder status on public contracts. In I.by-Northface vs. Commonwealth Electric Co., 664 p. 2d 557 (Alaska 1983), the Alaska Supreme court interpreted existing law to permit a joint venture to qualify for the bidder's preference even though the primary partner in the venture was a large out-of-state construction firm. Because of the higher cost of doing business for Alaska firms, as well as the high rate of unemployment among Alaskans, an amendment to the law is necessary to ensure that the benefits of a bidder's preference flow only to those persons or businesses that have established a bona fide presence in Alaska.

APPROVED:

Jim Robison

Jim Robison, Commissioner
Department of Labor

POSITION PAPER/Department of Labor

STATE OF ALASKA 1985 LEGISLATIVE SESSION

FISCAL NOTE

Revision Date:

REQUEST

Bill/Resolution No.: SB 106

Title: "relating to Alaska bidder preference"

Sponsor: Eliason & Fahrenkamp

Requestor: Senate Labor & Commerce

Date of Request: 03/01/85

FISCAL DETAIL

Agency Affected: Labor

Program Category Affected: Social Services

BRU, Program or Subprogram(s) Affected: Administrative Services

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

Prepared By: AB Judy Knight, Director — Phone: 465-2720

Division: Administrative Services — Date: 3/1/85

Approved by Commissioner: BY Jim Robison — Date: 3/1/85

Agency: Labor

Distribution (by Agency preparing fiscal note):

Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

7/1/84

STATE OF ALASKA 1985 LEGISLATIVE SESSION

FISCAL NOTE

Revision Date:

REQUEST

Bill/Resolution No.: SB 156
Title: Relating to payment of insurance settlements
Sponsor: Rodey
Requestor: Rodey
Date of Request: 2/26/85

FISCAL DETAIL

Agency Affected: Commerce & Econ. Dev.
Program Category Affected: Public Protection
BRU, Program or Subprogram(s) Affected: Division of Insurance

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY	-0-	-0-	-0-	-0-	-0-	-0-

ANALYSIS: Attach a separate page if necessary

Prepared By: Donald A. Koch
Division: Insurance
Phone: 465-2577
Date: 2-26-85

Approved by Commissioner: Loren H. Lounsbury
Agency: Commerce and Economic Development
Date: 2/26/85

Distribution (by Agency preparing fiscal note):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

Fiscal Note

1764W22685a

RECORDS CERTIFICATION

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James A. Smith
Signature of Camera Operator

11/24/89
Date

02-519 (REV 8/78)

SB

166

THE ALASKA CHAPTER*
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WILLIAM E. SCHNEIDER
MANAGER

October 3, 1985

Fred F. Zharoff
Box 405
Kodiak, AK 99615

Dear Senator Zharoff:

The U.S. Department of Housing and Urban Development recently compared the delivery of municipal services by both the private sector and the public sector. I have enclosed a summary of the study's major findings. I think you will find these findings are interesting particularly with regard to cost savings.

According to the report, which covers asphalt paving and other work sometimes performed by local governments, private firms perform more efficiently - 96 percent more so in the case of asphalt paving - and deliver a product or service that is of a higher quality.

Almost all services provided by municipalities were significantly more costly than those provided by private contractors. Private contractors were found to be more efficient because they tend to: 1) require more work from their employees; 2) use less labor intensive means in their projects; and 3) give line managers more responsibility, including making decisions on hiring and firing employees.

You are concerned with costs and productivity. This government study points toward private contracting as a means of assuring quality construction with substantial cost savings. This study could well apply to state projects as well as municipal projects.

If you are interested in receiving a full copy of the HUD study, please contact our office. I am interested in your views.

With best personal regards,

ALASKA CHAPTER
ASSOCIATED GENERAL CONTRACTORS

George W. Easley
President

GWE:WES/dlc

Enclosure

cc: AGC Executive Committee

ForceAcc:lc

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

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WALTER K. PRIESTER, *Treasurer* HUBERT BEATTY, *Executive Vice President*

Construction by Contract Bulletin #85-1
August 9, 1985

TO: Construction by Contract Committee
AASHTO-AGC-ARTBA Joint Committee
Asphalt Pavement Committee
Chapter Managers

SUBJECT: Federal Government Report Confirms Long-Held AGC View That Contracting Out Is More Cost Effective Than Performing Work With Government Employees

A recent Department of Housing and Urban Development (HUD) report, "Delivering Municipal Services Efficiently," confirms AGC's view that work that is contracted out to private firms is performed more efficiently, resulting in a better work product and substantial savings for the tax-paying public. According to the report, which covers asphalt paving and other work sometimes performed by local governments, private firms perform more efficiently - 96 percent more so in the case of asphalt paving - and deliver a product or service that is of a higher quality. The following are some highlights of the study.

- Almost all services provided by municipalities were significantly more costly than those provided by private contractors.
- Private contractors were found to be more efficient because they tend to: 1) require more work from their employees, 2) use less labor intensive means in their projects, and 3) give line managers more responsibility, including making decisions on hiring and firing employees.

The savings that can be obtained through the use of private firms is well illustrated by the findings on asphalt paving. According to the report, asphalt paving performed by local governments is 96 percent more costly than similar work done by private contractors. Additionally, private asphalt pavement contractors turned out a work product that is superior to that of local governments. (Attached are the main findings of asphalt pavement portion of the report.)

Productivity was found to be a key for the overwhelming efficiency of asphalt pavement contractors. Workers employed by asphalt pavement contractors were four times more productive than local government employees. (Contractor employees, it was found, averaged 4,508 tons of asphalt laid per year compared to 1,180 tons for municipal employees.)

The use of private contractors provides the tax-paying public benefits that extend beyond efficiency. For example, by using the contract method of construction:

- The general contractor provides centralized responsibility for the project.
- The price is firm and guaranteed by the contract, and the public has no risk of cost increases. All of the variables the market-place, such as increases in material prices, wages and shortages are borne by the private contractor.
- Timely completion is assured by a liquidated damage provision.
- Faithful performance is backed by performance and payment bonds.
- Risk of damage during construction is borne by the contractor, not the public.
- The contractor must "defend and hold harmless" the public against claims and must provide the public with insurance coverage.
- Quality inspection is at "arm's length" by independent inspectors.
- The final work is warranted and defects must be corrected at no expense to the public.

Copies of the 42 page report summary can be obtained by contacting the AGC National Office.

The HUD report will be discussed at the Construction by Contract Committee Meeting which will be held on September 29 during the Detroit Midyear Meeting.

Sincerely,

Valentin J. Riva

Valentin J. Riva
Secretary
Construction by Contract Committee

Asphalt Paving

Main Findings

- There is a significant cost difference between service delivered by a contractor compared to that provided by a municipal agency. On average, asphalt overlay construction services provided by a municipal agency are 96% more costly than when performed by a private firm under contract to the municipality.

- There is no significant difference in the quality of service provided by contractors and that provided by municipal agencies. Using a rating sysem modified after one developed by the Asphalt Institute, asphalt overlays put down by contractors had an average rating of 97.2 (out of a perfect score of 100), while those put down by municipal agencies had an average rating of 94.9.

- Most of the difference in the cost of contract as compared to municipal asphalt overlay construction services appears to be explained by five factors: (1) higher productivity -- contractor crews put down more tons of asphalt per man-day than municipal operations; (2) technology -- contractors use pavers with larger paving widths and heavier rollers than their municipal counterparts; (3) management -- contractors assign larger crews to an overlay project than do municipal agencies; (4) supervision of workers -- contractor foremen are more likely than municipal foremen to remain on-site directing operations continuously throughout a shift and are also more likely to have the authority to fire workers; and (5) responsibility for equipment maintenance -- contractors are more likely to be responsible for equipment maintenance than are the municipal departments delivering asphalt overlay services. Contractor crewmen are also paid significantly more than comparable municipal employees.

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MANAGER

November 20, 1985

Senator Fred F. Zharoff
P.O. Box 405
Kodiak, Alaska 99615

Dear Senator Zharoff:

Per your request, please find enclosed HUD's full report on contracting out Government Services.

We appreciate your interest and if we can answer any questions please let us know.

Sincerely,

ALASKA CHAPTER
ASSOCIATED GENERAL CONTRACTORS

George Easley by dlc
George Easley
Immediate Past President

WES:dlc

Enclosure:1

HUDStudy.1c

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Delivering Municipal Services Efficiently

A Comparison of Municipal and Private Service Delivery

Summary

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Delivering Municipal Services Efficiently

A Comparison of Municipal and Private Service Delivery

Summary

DELIVERING MUNICIPAL SERVICES EFFICIENTLY: A COMPARISON OF MUNICIPAL AND PRIVATE SERVICE DELIVERY

SUMMARY

Barbara J. Stevens, Editor

Prepared by:

Ecodata, Inc.
New York, New York 10005

For:

U.S. Department of Housing and Urban Development
Office of Policy Development and Research
Community Development and Fair Housing Analysis Division

June 1984

ACKNOWLEDGEMENTS

Ecodata wishes to thank the many city officials and private contractors who participated in this project. Their cooperation and the time they took from their busy schedules to share data and insights made this study possible.

Thanks also go to the organizations who assisted us in the early project stages, to our knowledgeable and active Advisory Panel, and to, of course, the project research staff.

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Lancaster, California

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League of California Cities

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Bruce Stephenson
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Building Service Contractors
International City Management Association (Lydia Manchester and Carl Valenti)
International Arborist Assoc.
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This report summarizes the findings from a study of the cost-effectiveness of the delivery of eight local government services--street sweeping, janitorial, refuse collection, payroll, traffic signal maintenance, asphalt overlay, street tree maintenance, and turf maintenance. The study focused on the relative efficiency of private contractors and municipal employees in delivering these services. In addition, the study identified those management factors associated with effective service delivery, regardless of organizational arrangement. For a more comprehensive disscussion of the study's findings and methodology, see Delivering Municipal Services Efficiently: A Comparison of Municipal and Private Service Delivery--Technical Report, prepared by Ecodata, Inc. for the U.S. Department of Housing and Urban Development, June 1984.

A. PRINCIPAL FINDINGS

Eight local government services were studied. Data on the cost, level of service, scale of output, quality of service, management practices and technology utilization were obtained from ten cities contracting for each service and from ten cities providing each service with municipal employees. All cities were located in the Los Angeles Standard Consolidated Statistical Area. In all cases, the cost of contractor provided service included not only payments to the contractor but also municipal contract monitoring costs.

The eight services studied are: street cleaning, janitorial services (building cleaning), residential refuse collection, payroll preparation, traffic signal maintenance, asphalt overlay construction, turf maintenance, and street tree maintenance.

Exhibit 1 provides a definition of each of the eight services studied. Also indicated on this chart is the average percentage of municipal non-capital expenditures which the cities in the sample devoted to this service. Of the eight services studied here, refuse collection represents, at 4.2%, the greatest component of the average city budget, while payroll preparation, at 0.4%, represents the smallest component of the average city budget.

The basic goal of the analysis was to proceed in three steps, answering the following questions, one per step:

- QUESTION #1: Is there a significant difference in the cost of service delivery between contract and municipal cities, when the influence of the scale of operations and the level of service provided is removed?

  ANSWER: For all services except payroll preparation, municipal service delivery is, on average, significantly more costly than private contractor service delivery. Municipal provision of service ranged from 37% (street tree maintenance) to 96% (asphalt overlay construction) more costly than contractor service delivery.

- QUESTION #2: Do differences in the cost of service delivery by contractors as compared to municipal employees arise because of differences in the quality of service provided?

  ANSWER: No statistically significant differences in the quality of service provided by contractors as compared to municipal agencies was found for any service studied.

- QUESTION #3: What management or technology factors account for differences in the cost of service delivery (and, particularly, what factors could be implemented by a locality which did not wish to contract out)?

  ANSWER: In comparison to municipalities contractors tend to: 1) require more work from their employees, offering equivalent salaries but less liberal vacation and leave; 2) use the least qualified

EXHIBIT 1: Definitions of Services Studied

Service	Definition	% of City Budget
Street Cleaning	Removal of litter, dirt, and other unwanted materials from street surfaces, excluding the transport, transfer, and haul associated with disposal.	0.9%
Janitorial Services -- Building Cleaning	Regular cleaning of public buildings in cities. Included are buildings such as City Hall, City Courthouse, Prisons, and Public Works Buildings.	0.5%
Residential Refuse Collection	The pick up and removal of refuse from households (and small commercial establishments served on residential routes).	4.2%
Payroll	Production of paychecks and employee pay records; issue of 1099's and w-2's; completion of payroll journal entries; maintenance of employee master list.	0.4%
Traffic Signal Maintenance	The routine repair and preventive maintenance of existing signal devices, and emergency repair in response to accident, storm, or other unplanned event.	0.8%
Asphalt Overlay Construction	The application of a new asphalt wearing surface to a street, including the associated functions to maintain the structural integrity of the roadway, such as preparation, raising of street hardware, laying of interliners.	0.7%
Turf Maintenance	The maintenance of grassy areas in parks, within median strips, along public roadways, and surrounding public buildings. Includes all maintenance, such as mowing, watering, weeding, fertilizing, reseeding, and aerating.	2.0%
Street Tree Maintenance	Maintenance of street trees, including pruning, planting, watering, spraying, and other maintenance activities. Excludes maintenance of trees located in public parks.	1.3%

personnel able to perform each task; 3) use part time (not receiving full fringe benefits) labor wherever appropriate; 4) require that managers be responsible for equipment availability as well as labor availability; 5) allow first line supervisors hiring and firing authority; and 6) use a less labor intensive means of providing each service. These findings hold true across the services taken as a group. Additional findings pertaining to the individual services studied are outlined in Section F.

The preceding questions and answers provide but a glimpse of the findings of this project. Of obvious interest to local officials interested in evaluating how their city measures up are the basic data themselves. These data are presented in the following section.

B. SERVICE DELIVERY -- BASIC DATA

In this section, basic data are presented for each of the eight services studied. All cost data are for fiscal 1982. City officials may be interested in comparing the achieved efficiency (measured in non-monetary terms) in their city to that of the cities studied here. Additionally, comparisons of the level of service provided can often provide the starting point for an overall evaluation of service delivery.

Section #1 highlights data on unit costs, level of service, and quality of service. Section #2 shows how contract and municipal costs break down into such components as labor, depreciation, and fringe benefits; also presented here are comparisons of contractor and municipal wage and fringe benefit payments.

1. Cost, Level, and Quality of Service

For this project, it was sometimes necessary to define new measures of the level of service provided or the scale of output. For janitorial services, for example, the level of service was defined as the sum of the standard time (obtained from industry associations) which would be required to perform all cleaning services required/performed by the city, taking into account the frequency of each cleaning activity, divided by the number of square feet of floor space in buildings cleaned. This measure allows one to compare a city where janitorial services include floor cleaning, furniture dusting, window washing and kitchen cleaning to one where janitorial services consist of floor cleaning only. The sample average level of service for janitorial services is 34.04 minutes per thousand square feet. Street sweeping is a more straightforward example. Here, the level of service is the number of times per year streets are cleaned. The output variable is the curb miles swept, which equals curb miles swept times frequency of sweeping. Exhibit 2 defines the preferred scale and level of service measures for each service.

It is possible to define various measures of the efficiency of service delivery. An obvious measure is the cost per unit of output. Another attractive efficiency measure is the full time equivalent labor hours required per unit of output. These measures, while attractive, do not control for level of service.

EXHIBIT 2: Variables Defining Scale and Level of Service, by Service[a]

SERVICE	SCALE	LEVEL OF SERVICE
Street Sweeping	Curb miles swept	Sweepings/year
Janitorial	Thousands of square feet cleaned per year (frequency by type of cleaning x square feet served)	(Specified cleaning function x standard time[b] to perform, summed over all cleaning tasks)/1000 feet square
Refuse Collection	Tons collected	Frequency/pick up location, once a week curbside
Payroll	# of paychecks issued	% of checks to salaried employees
Traffic Signal Maintenance	# of intersections maintained	# of preventive maintenance visits per intersection per year
Asphalt Overlay	Tons laid	Preparation - % with interlayer reinforcement
Street Tree Maintenance	Adjusted tree trimming visits[c]	Type and extent of pruning; # of different tree maintenance activities
Turf Maintenance	# of acres mowed per year (frequency x acres maintained)	# of different turf maintenance activities performed; frequency of mowings

[a]These are the primary measures. In the chapters on each service, alternate measures are considered and analyzed.

[b]Standard times were obtained from the publications of the Building Service Contractors Association of America.

[c]To adjust for variance in the portion of visits for tree trimmings (as compared to, for example, watering), the actual number of tree trimming visits was divided by the percentage of time tree maintenance crews devoted to tree trimming to obtain adjusted tree trimming visits. For example, in a city with 1000 tree trimming visits, where crews spend 80% of their time on this activity, the adjusted tree trimming visits is 1000/.8 = 1250.

Exhibit 3 presents basic information about the per unit cost of delivering each of the eight services. The sample mean, minimum, and maximum is presented for two efficiency measures for each of the eight services. For each service, the range in the cost per unit of output is very large -- over 500% in payroll, where the cost per paycheck issued ranges from $2.35 to $10.27; over 700% in janitorial services, where the cost per thousand square feet cleaned* ranges from $1.52 to $10.91; almost 600% in street cleaning, where the cost per curb mile cleaned ranges from $6.25 to $36.92; 350% in refuse collection, where the cost per ton of refuse collected ranges from $12.48 to $43.62; over 400% in asphalt overlay, where the cost per ton laid ranges from $30.96 to $136.77; over 300% for traffic signal maintenance, where the cost per signaled intersection maintained ranges from $8.43 to $28.01; almost 500% for turf maintenance, where the cost per acre mowed ranges from $39.02 to $193.46; and over 600% in street tree maintenance, where the cost per tree trimming visit ranges from $20.25 to $130.99. Some of these cost differences are attributable to differences in the level of service provided, but the major portion of cost differences is dependent upon the technology and management of service delivery. In short, without affecting the level of service, many cities will find that appropriate changes in management practices can result in savings of up to or even greater than 50%.

As local officials commonly wonder if contractors provide service of equivalent quality to that provided by municipal workers, accurate measurement of service quality was important here. Quality of service was usually measured by direct observation. Exhibit 4 describes the specific procedures and definitions which were devised to measure quality. In general, there was less variation in quality of service provided by cities or contractors than there was in cost of service. However, cities were observed where quality of service was exceptionally high and exceptionally low. Without exception, though, differences in service quality were not found to explain differences in service cost. This is an important finding given local government officials concern for maintaining service quality.

2. Cost Components

As a rule, the services studied are quite labor intensive. As Exhibit 5 shows, across all eight services, the cities with municipal service delivery expended 60.1% of total costs on direct labor and fringes for direct labor. The least labor intensive service was asphalt overlay construction, with an average of 44% of total costs composed of salaries and fringes for direct labor. The most labor intensive service was janitorial services, with an average of 76.3% of total costs going to labor.

Exhibit 5 also shows the cost components of contract cities. Here, detailed information is available about the components of the municipal monitoring and contract letting costs. Perhaps the most interesting conclusion to be drawn from this is that municipal monitoring represents, on average, a large percent of total costs -- 25.2%. The service in which

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*Square feet actually cleaned, not space in buildings to be cleaned. Thus, 100 square feet mopped 260 times a year equals 26 thousand square feet cleaned.

EXHIBIT 3: Cost, Level of Service, and Scale of Output of Eight Services

BAR NUMBER	1	2	3	4	5	6	7	8
Efficiency Measure:	Street Sweeping: $/Curb Mile Swept	Janitorial: $/1000 Square Feet Cleaned	Refuse Collection: $/Ton	Payroll: $/Check	Traffic Signal Maintenance: $100/Intersection Maintained	Asphalt Overlay: $/Ton Laid	Turf Maintenance: $/Acre Mowed	Street Tree Maintance: $/Tree Trim Visit
Mean:	12.36	4.83	28.10	5.97	16.72	58.59	88.54	54.16
Minimum:	6.24	1.52	12.48	2.35	8.43	30.65	39.02	20.25
Maximum:	36.92	10.92	43.62	10.27	28.01	136.77	193.46	130.99
Efficiency Measure: (Non-Monetary)	Curb Miles Cleaned /Hour	FTE Minutes per Standard Time Minute	Households per Crew Shift	Labor Hours per Check	# of Intersections Maintained/ Crewman	Tons Laid per Crewman	Labor Hours per Acre Mowed	Labor Hours per Adjusted Tree Visit
Mean:	3.09	.775	445	.34	36	2,844	5.27	2.43
Minimum:	1.37	.40	250	.07	19	1274	2.14	.56
Maximum:	4.50	1.37	719	.80	103	11,860	9.87	7.02
Level of Service:	Sweeping/ Year	Standard Time Minutes /Square Feet to be Cleaned	Frequency/ Location 100% in Curb Side	% Salaried Employees	# of PM Visits/ Intersection	% Preparation with Inter-layer Fabric	Frequency of Mowings	Type of Pruning
Mean:	43.44	10.79	100%	54.10	9.00	51.47	45.80	1.91
Minimum:	2.4	6.17	100%	0	1.00	2.86	33.00	1.00
Maximum:	76.68	16.22	100%	85.40	16.00	85.71	52.00	3.00
Scale of Service:	Curb Miles Cleaned/Hour	000's of Feet Cleaned	Tons Collected	# of Checks Issued	# of Intersections Maintained	Tons Laid	Acres Maintained	Adjusted Tree Trim Visits
Mean:	11,416	17,410	27,390	11,951	52	6,962	32.5	2,448
Minimum:	1,056	2,377	4,798	1,163	12	395	2.0	187
Maximum:	32,967	75,392	103,564	48,382	156	31,303	84.0	8,750

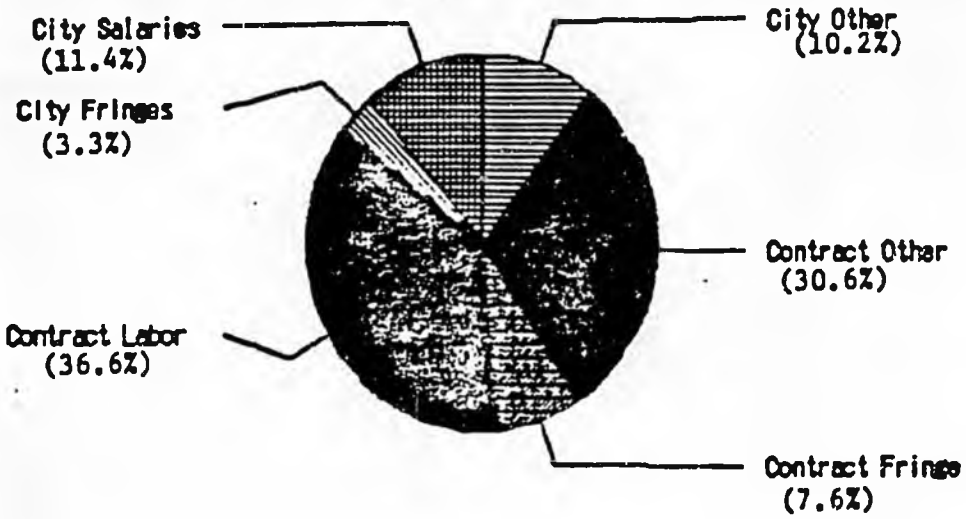
EXHIBIT 4: How Quality of Service Delivery Was Measured

SERVICE	QUALITY MEASUREMENT PROCEDURE	QUALITY RATING Mean	QUALITY RATING Minimum-Maximum
Payroll	From records, determined the % of paychecks with errors.	0.6%	.1% - 5.0%
Janitorial	Direct observation of floors and washrooms, rated on a 3 point scale (1=clean;...3=dirty).	1.66	1.00 - 2.3
Street Sweeping	Direct observation of 4 curb faces of 25 randomly selected blocks in each city; block faces rated on a four point scale (1=clean;...4=dirty).	1.64	1.07 - 2.57
Refuse Collection	Field personnel followed each vehicle, noting the incidence of such negative quality components: failure to empty cans completely, failure to clean up spilt refuse, (spilled either before arrival of or by collection crews) creation of excessive noise, failure to replace lids, failure to place cans upright after dumping, failure to replace cans on curb etc. Field data fed into index of overall quality, ranging from 92.7 (worst) to 11.05 (best).	36.2	11.0 - 92.7
Asphalt Overlay Construction	Field personnel rated all asphalt overlay projects completed during year for which costs were obtained. Projects ranked for cracking, distortion, etc. (100=pavement free of defects).	96.05	84.0 - 100
Traffic Signal Maintenance	Number of signal devices requiring maintenance on the day that field data was obtained.	2.25	00 - 12
Street Tree Maintenance	A professional arborist rated trees on ten randomly selected block faces in each city for overall health, species diversity, quality of pruning cuts, and safety. Each tree rated on a 4 point scale. (1=excellent;...4=poor).	1.98	1.60 - 2.90
Turf Maintenance	Field personnel visited randomly selected areas of the turf maintained by the service provider, and the quality of the turf was assessed on a four point scale rating color, coverage, extent of weeds, height and edging (1=excellent;...4=poor).	1.71	1.14 - 2.76

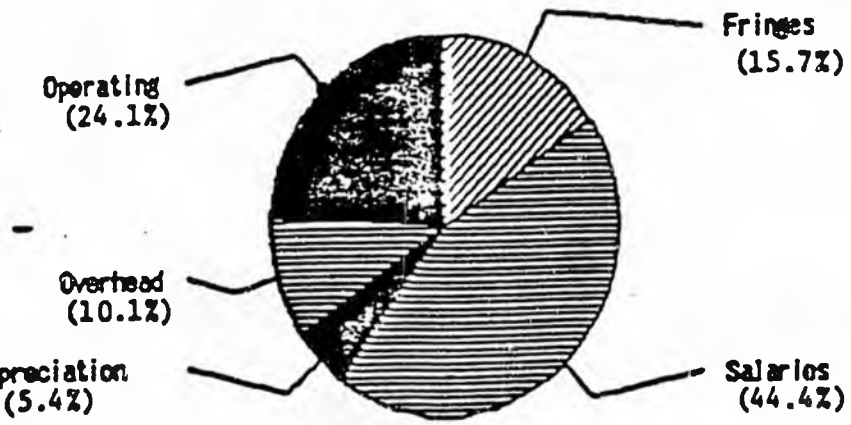
EXHIBIT 5: Cost Distribution of Contractors and Cities

Cities	Cost Component	Contractors
44.4%	Municipal Salaries	11.4%
15.7%	Municipal Fringes	3.3%
24.1%	Municipal Other Operating Expense	6.1%
5.4%	Municipal Depreciation	.4%
10.1%	Municipal Overhead	3.7%
0.0%	Payments to Contractor	74.8%
100.0%	TOTAL	100.0%

Contractor Cost Distribution



Municipal Cost Distribution



municipal expenditures are the greatest percent of total costs is payroll preparation, where municipal expenditures (in large part consisting of municipal employees serving as timekeepers) account for 68.7% of total costs; the service with the smallest municipal expenditure is asphalt overlay construction, where municipal expenditures account for 5% of total costs. When payroll preparation is excluded from services analyzed, the average municipal expenditure in a city with contract service decreases to 19% of total cost.

Exhibit 6 presents by organizational arrangement the percentage of total costs attributable to labor and fringe benefits. (Contract city statistics include both municipal and contractor wage and fringe costs.) For all services except turf maintenance, the contract cities are less labor intensive than the municipal cities. Street tree maintenance and turf maintenance are the two services with the greatest overall labor intensity -- 70% of the costs go to labor in these services. As might be expected, asphalt overlay construction is the least labor intensive service, with an average of 37% of costs going to labor. Exhibit 6 also presents data on wage and fringe benefit rates for the eight services. As shown, the fringe benefit rate paid municipal workers is higher than that paid to contractor staff for seven of eight services. Likewise, municipal workers are paid a higher monthly wage than their contract counterparts for seven of the eight services, although the disparity in wage rates is not as great as that for fringe benefits.

The service with the lowest monthly wage is janitorial services; building cleaners are paid an average of $881 per month by private firms and $1,234 by municipalities. Private firms pay asphalt overlay workers most highly -- $2,421 per month. This is the only service where the private sector pays more than the public sector. Payroll preparation is so different from the other services that it is not considered in making these comparative statements. Traffic signal maintenance workers receive the highest wage from municipal agencies --$1,721 per month. The effect of these remuneration rates on service costs is examined later.

C. ORGANIZATIONAL ARRANGEMENT AND THE COST OF SERVICE DELIVERY

Section A presented the major findings of this project. The preceding section discussed some of the values for key factors used in the analyses. These data are helpful for a city official interested in comparing his city to the cities studied here. This section goes beyond the simple summary of overall results and key data and explains how these results were obtained.

The answer to the questions -- Do contractors provide services at a lower cost than municipalities do? Does the quality of service differ between contractors and municipal agencies? -- is a basic goal of this research. These questions were addressed using several analytical techniques.

EXHIBIT 6: Labor and Fringe Benefit Costs and Rates by Service and by Organizational Arrangement

	Labor & Fringe Benefit Costs as % of Total Costs		Fringe Benefits as % of Labor Costs		Average Monthly Wage of Laborers	
Service	Contract[a]	Municipal	Contract[b]	Municipal	Contract[b]	Municipal
Payroll	49%	63%	27.6%	29.7%	$2,083[c]	$2,375[c]
Asphalt Overlay	30%	44%	36.3%	34.0%	$2,421	$1,532
Refuse Collection	39%	50%	20.1%	38.5%	$1,237	$1,418
Street Cleaning	44%	46%	13.9%	37.7%	$1,576	$1,612
Janitorial	56%	76%	15.0%	39.4%	$ 881	$1,234
Traffic Signal	54%	62%	21.5%	30.6%	$1,500	$1,721
Street Tree	70%	69%	27.5%	35.7%	$1,390	$1,475
Turf Management	71%	69%	19.3%	40.5%	$ 956	$1,237

a Includes labor and fringe benefit costs for both municipal and contractor personnel.

b Contractor personnel only.

c Average monthly salaries for supervisory/managerial level personnel. Contractors do not employ operations staff (laborers) equivalent in responsibilities (and wage rates) to those in municipal cities.

Analyses were conducted across the matched pairs for each service, as well as between the ten municipal and the ten contract cities as pooled groups for each service* Additionally, analyses were conducted between the group of ten cities with below-median unit cost (the "low-cost" cities) and the ten cities with above-median unit costs (the "high-cost" cities). Case study analysis, single variable analysis, and multivariate analyses are all discussed and presented in the individual service chapters of the main report to this study.

Of greatest interest here is the multiple regression analysis which was used to estimate the separate impacts on total service delivery costs of three different types of factors. First, are the factors known to affect the costs of service delivery (namely, the scale of output and the level of service provided and the physical -- i.e., geographic and topographic -- conditions under which service is provided) which are usually outside the control of the service deliverer** Second, is the organizational arrangement for service delivery (contract or municipal, which at this stage embodies all of the factors which <u>are</u> under the control of management). Third, is the quality of service delivered.

The multiple regression analyses, relating total costs to the three sets of factors described above, are highly successful in explaining the cost of service delivery. The percentage of the variation in the cost of service delivery explained ranges from a low of 83% (in payroll and turf maintenance) to a high of 94% (in refuse collection). For all services, as expected, total costs increase with increases in the scale of operations and the level of service provided.

Exhibit 7 lists the variables held constant in analyzing each service, the percentage of total cost explained by these factors, and the impact of organizational arrangement on cost. For all services except payroll preparation, the organizational arrangement for service delivery -- contract or municipal -- is statistically significant in predicting the total cost of service delivery. Excluding payroll preparation, where no difference in cost is found between contract and municipal service delivery, service provided by municipal agencies is from 37% (street tree maintenance) to 96% (asphalt overlay) more expensive than when service is provided by a private contractor. In deriving these differences in cost, the quality of service provided by the individual cities was also held constant.

Exhibit 8 translates the results of the regression analyses into more familiar terms. For each service, this exhibit shows the cost per unit output which is predicted by the regression equation for cities with a specified scale and level of service with contract compared to municipal service delivery.

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*A matched pair consists of two cities delivering the same service with similar service levels and scale of output; the cities differ in the organizational arrangement for service delivery -- one city uses a municipal agency while the other contracts for service.

**Such factors are usually determined by the size of the municipality, the vote of the citizens or the city council, or otherwise by someone not directly responsible for service delivery.

EXHIBIT 7: Results of Cost Comparisons Holding Other Factors Constant

Service	Percent Difference MU-CO / CO	Variable Controlled For: Scale	Level of Service	Quality	Condition	Percent of total cost explained
Street Cleaning	43%	Curb miles cleaned/ year*	Times cleaned per year	Rating -- block faces	Retail sales/curb mile	86%
Janitorial	73%	Square feet in buildings to clean*	Standard time per square foot	Quality rating -- cleanliness	NA	92%
Refuse Collection (residential)	28-42%	Cubic yards of refuse collected	**Refuse/ household	Quality rating (lids replaced, etc.)	Population/ curb mile*	98%
Payroll	None	# of checks issued*	% salaried	% with errors	NA	83%
Traffic Signal	56%	# of intersections maintained*	# preventive maintenance visits/ intersection/ year*	# of items in need of repair	NA	93%
Asphalt Overlay Construction	96%	Tons of asphalt laid*	% with reinforcing material*	Rating (cracks, etc.)	NA	93%
Turf Maintenance	40%	Acres mowed*	# of activities*	Rating -- visual	% of area with no problems*	83%
Street Tree Maintenance	37%	# of tree trimming visits*	Weighted level of pruning*	Rating -- by arborist	# of activities performed	89%

*Variable is significantly related to total cost.
**All cities studied had once a week curb or alley refuse collection.

EXHIBIT 8: Predicted Average Cost, by Contract and Municipal Service Deliverer, Holding Constant the Scale, Level of Service, and Quality of Service Delivered

Service	Efficiency Measure -- for Specified Service*	Predicted Unit Cost CON	MUN	Percent Difference**
Street Cleaning	Dollars per curb mile swept; service = cleaning 327 curb miles 3.62 times per month	$ 9.93	$14.17	43%
Janitorial Services	Dollars per thousand square feet cleaned; service = cleaning buildings with 56,776 square feet of floor space	$3.74	$6.49	73%
Refuse Collection	Dollars per ton collected; service = once a week curbside pickup of 27,390 tons of refuse annually from 20,520 households	$21.16	$29.97	42%
Payroll Preparation	Dollars per paycheck issued; service = issue of 11,951 paychecks per year, checks issued biweekly to employees, 54% of whom are salaried	$ 6.13	$ 5.93	N.S.
Traffic Signal Maintenance	Dollars per signaled intermaintained (without electricity); service = maintaining 52 intersections with 45% of staff time spent on preventive maintenance	$1303.38	$2039.44	56%
Asphalt Overlay Construction	Dollars per ton laid; service = placing 6962 tons of asphalt with 17% of jobs requiring installation of reinforcing fabric	$42.85	$83.99	95%
Turf Management	Dollars per acre mowed; service = mowing 1451 acres annually	$57.92	$81.09	40%
Street Tree Maintenance	Dollars per adjusted tree trimming visit; service = trimming 2448 trees per year, providing a medium to high level of pruning	$37.08	$50.80	37%

* These are the average values for scale and level of service. Quality is also held constant; see the chapters on the individual services for discussions of the quality variable.

**All percentage differences are statistically significant at the 90% level or higher, unless otherwise noted. (MUN-CON)/CON is the percent difference.

In sum, the regression analysis explains a highly significant portion of the total cost of service delivery, for each of the eight services studied. In seven of the eight services studied, municipal service delivery is significantly more costly than contract service delivery, holding constant the scale, level of service, and quality of service delivered. The percentage by which municipal agency costs tends to exceed private contractor costs ranges from 37% to 96% for the seven services in which significant cost differences are found. Only payroll preparation shows no impact of organizational arrangement on the cost of service delivery. The next section explains why these differences in costs occur.

D. WHY ARE THERE DIFFERENCES IN THE EFFICIENCY OF SERVICE DELIVERY?

This section presents some overall findings about why cost differences exist. Section F, below, presents explanations for cost differences on a service-by-service basis.

1. Introduction

A wide array of management and technology factors were examined to determine their separate effects on service delivery costs. In addition, different management practices and technology utilization between municipal agencies and contractors were identified. Clearly, the list of appropriate management and technology factors to consider varies from service to service; for a complete discussion of the results for each service, one should consult the body of the report from which this summary is drawn, in the chapter devoted to each individual service. However, it is appropriate here to summarize those management and technology variables which significantly affect the cost of service delivery for more than one service, and to indicate how contractors and municipal agencies differ in their average practices, on a variable by variable basis.

2. What Does Not Explain the Cost Differences

Perhaps it is well to begin this discussion by emphasizing the factors which do not explain the cost differences between contract and municipal cities. Contract cities in this study did not provide service of any different quality, on average, than municipal cities. This is true for all eight services studied. Nor, on average, is the cost discrepancy due to differences in wages paid by contractors as compared to municipal agencies. The preceding statement is true on average only, and not individually for each of the eight services studied. Over the eight services, contractors paid workers a monthly salary averaging $1,521 while municipal agencies paid their workers an average monthly salary of $1,442 -- this difference is not statistically significant. Additionally, the average difference in fringe benefits paid does not account for cost differences between contractors and municipal agencies -- contractors paid workers an average of $551 per month in benefits while municipal agencies paid workers an average of $524 per month in benefits.

There are some significant differences between contract and the municipal cities in scale of operations and demographic factors. These factors, of course, were explicitly held constant when analyzing the impact of

organizational arrangement on the cost of service delivery. Thus, these differences serve not so much to explain differences in cost as to provide background information about the type of city likely to contract out services and the manner in which such contracting is likely to occur. Contract cities tend to be smaller and to have wealthier populations than municipal cities (population 48,920 versus 57,941 and median 1980 household income of $21,750 versus $18,998); contract cities are also likely to have smaller retail sales than are the municipal cities in this sample.

As contract cities are smaller than municipal cities, it should come as no surprise that the scale of operations (measured by such a list of items as square feet of building space to clean, curb miles in the city, etc.) is greater in municipal cities than in contract cities. However, perhaps because of their larger median household income, contract cities require a higher level of cleaning, or more frequent waxing of the floors in city hall. These two forces balance each other out, so that there is not a significant difference in the number of activities performed per year -- i.e., the number of square feet cleaned, the number of curb miles swept, etc.

3. What Does Explain the Cost Difference

The preceding section indicates that some of the more obvious candidates for explaining the differences in cost according to organizational arrangement for service delivery do not, in fact, explain the differences. This is not to say that there are not reasons for the cost differences between contractors and municipal service deliverers. Across many of the services, contractors are distinguished by providing a fringe benefit package of equal out-of-pocket value to that provided by municipal agencies (e.g., in social security, retirement packages, health care insurance, etc.) but requiring a greater amount of work on the part of the worker. Municipalities, on average, offer workers almost three weeks of vacation, while contractors offer but two. As absenteeism is defined in this study as the percentage of workers not present for work on any of the 260 work days per year, for whatever reason (including holiday and vacation leave), it is clear that there would be a significant difference between the contractors and the municipal agencies in absenteeism, based only on the difference in vacation policy. This is the case. Thus, the first reason why contractors achieve lower costs than municipal agencies is that workers employed by contractors work more days per year than do employees of municipal agencies. The average number of days per year worked by employees of contractors is 237, while that for employees of municipal agencies is 226. If all else were equal, this factor alone would account for approximately a 5% cost difference between municipal agencies and contractors.

A second manner in which contractors differ from municipal agencies is in the use of labor. Contractors tend to use part time labor wherever possible. Part time labor does not accrue the more expensive fringe benefits (e.g., retirement benefits) which are available to full time employees. Also, contractors are very likely to use the least qualified personnel capable of doing the job. Thus, for example, in the service in which wages are a significant cause of organizational cost differences (janitorial services), the contractor uses workers only able to clean, while the municipal agency also expects the cleaners to be able to handle simple building

maintenance chores, such as unclogging toilets and changing fuses. While the use of "overqualified" workers for some tasks no doubt provides great flexibility in being able to respond to requirements for building maintenance, the municipalities using this management technique are paying dearly for this flexibility. And, it should be noted, there is no evidence that the cleanliness provided by the relatively overqualified municipal cleaners is greater than that provided by the minimally qualified, largely part time workers employed by private contractors.

Another area in which contractors tend to differ from municipal agencies is their expectations of managers. Contractors are far more likely than municipal agencies to require that the manager of service delivery be responsible for equipment maintenance as well as worker activities. Contractors are also more likely than municipal agencies to vest authority for hiring and firing of workers in their first line supervisors. Contractors also appear to have more worker turnover (whether through firings or voluntary departure), than municipal agencies, to the extent that this is indicated by a younger, less tenured work force.

The average values of managerial factors, for all contract and municipal cities studied, are presented in Exhibit 10. These data show that the contract cities have, in comparison with municipal cities, significantly less labor intensity of production, shorter vacations, more frequent use of incentive systems, greater likelihood that supervisors have the right to fire workers, a younger work force, a leaner organization, responsibility for equipment maintenance, a work force with less seniority, lower absenteeism, and larger crews. Only the likelihood that a foreman is responsible for crews at more than one location shows a different significance between the matched pair and the pooled analysis. In one form of the analysis, the matched pair analysis (see the next section for more information), it was found that contractors are significantly less likely than municipal service deliverers to have foremen responsible for crews at more than one physical location; this variable is not significantly different in other analyses.

Additional management practices are examined in Exhibit 10. As might be expected from government bureaucracy, municipal agencies are more likely than private contractors to have formalized communications -- including unions, staff meetings, and the use of written (as opposed to informal oral) reprimands for unsatisfactory behavior. There is no significant difference between contractors and municipal agencies in number of pieces of capital equipment owned, use of radios for communication, and number of crew shifts dispatched per day.

4. "High-Cost" Versus "Low-Cost" Cities

While all the differences in management practices of contractors as compared to municipal agencies are of interest, perhaps of greater interest are differences in the management procedures of high-cost versus low-cost cities, irrespective of organizational arrangement for service delivery. When the sample is disaggregated in this manner, far fewer variables are significant than were significant between the contractor and municipal groups. High-cost cities are significantly more likely than low-cost cities to have high absenteeism and to allow long vacations. Low-cost

EXHIBIT 10: Pooled Analysis Across Services -- Differences in Individual Variables****

	Mean Value		Mean Value	
	Contract	Municipal	Low Cost	High Cost
Percent of cost to direct labor	49.0%	60.2%[A]	53.6%	55.7%
Vacation days per worker	10.1	14.0[A]	11.2	13.2[B]
Percent of workers with specialized assignments	55.3%	46.0%	49.9%	51.3%
Percent of cities with incentive systems	26.9%	12.3%[B]	22.5%	16.5%
Crew size	3.30	2.67	2.73	2.45
Crew supervision (0=don't check on crews; 4=check all the time	.99	1.21	1.00	1.20
Percent of cities where foreman can fire workers	53.7%	16.0%[A]	39.0%	30.4%
Average age of workers	32.1	36.1[A]	32.9	35.4[B]
Number of management levels between worker and department head	1.51	1.91[B]	1.63	1.80
Percent of cities in which service provider maintains equipment	92.5%	48.1%[A]	76.8%	63.3%[C]
Average tenure of workers	5.83	8.12[A]	6.54%	7.50%
Percent absent for all reasons	8.84%	12.85%[A]	9.80%	11.94%[A]

(continued on next page)

EXHIBIT 10: Pooled Analysis Across Services -- Differences in Individual Variables (continued)

	Mean Value		Mean Value	
	Contract	Municipal	Low Cost	High Cost
Workers per foreman	13.0	13.9	13.8	13.1
Percent of cities where foreman supervises workers	46.2%	58.0%	46.3%	58.2%
Percent of cities with staff meetings	53.8%	81.5%[A]	64.2%	71.8%
Percent of cities unionized	20.0%	48.1%[A]	28.0%	40.5%[C]
Percent of cities using written reprimands to workers	33.8%	72.5%[A]	41.2%	66.2%[A]
Number of pieces of capital equipment*	5.42	4.54	4.88	5.09
Percent of cities communicating via radio**	55.2%	70.0%	65.5%	60.0%
Crew shifts/day***	3.93	4.75	4.12	4.57
Organizational arrangement 1=municipal; 2=contract	NA		1.68	1.31[A]

A = Significant at the 99% confidence level.
B = Significant at the 95% confidence level.
C = Significant at the 90 confidence level.

* 161 observations
** 59 observations
*** 140 observations
****This pooled analysis is based on a maximum sample survey of 161 observations; values reported for a variable may, in some cases, differ from those reported for the same variable in the earlier discussed matched pair analyses which are based on a total of 80 matched pairs, or 160 observations.

cities, in comparison to high-cost cities, are more likely to have the service deliverer responsible for equipment maintenance, to use informal communication instead of written reprimands, to have a younger, non-unionized work force, and to be a private contractor rather than a municipal agency.

Thus, the significant differences between high- and the low-cost cities do not rest on such obvious factors as wage rates, degree of capital intensity, ratio of foremen to workers, or extent of direct supervision and authority of first line supervisors. Rather, of greatest importance is the extent to which workers and supervisors are responsible for service delivery -- as evidenced by worker-foreman interaction and the responsibility for maintenance of equipment as well as mustering of requisite labor. The latter factor is of some significance for municipal agencies. There, it is common that capital equipment is maintained in a central garage, located in a department quite different from the one responsible for providing service. When the responsibility for equipment is severed from those responsible for service delivery, the possibility of "passing the buck" for service inefficiencies inevitably arises. The lack of clear lines of responsibility leading to credit for success or failure must be balanced against the possible economies of scale to be gained by centralized equipment maintenance. On balance, it does not appear that the latter factor justifies sacrifices of the former clarifications of responsibility.

The preceding observations are generally true irrespective of the service under consideration. The last section of this summary discusses those factors that lead to more efficiency on a service-by-service basis.

E. HOW THE RESEARCH WAS DONE

1. Area and Services Studied

In order to maximize the number of services which could be studied, it was decided to limit the organizational arrangements to be studied to two: municipal agency service delivery and delivery of service by private for-profit firms under contract to municipalities. As existing data and resources did not allow a nationwide random sample to be selected, all data observations were confined to a single geographic area -- the five county Los Angeles Standard Consolidated Statistical Area. The advantages of confining the study to a single geographic area are not just administrative and budgetary. With all cities located in the same geographic area, it is not necessary to control for the impact of varying climates, local labor markets, or various state regulations on the efficiency and effectiveness of service delivery. Thus, confining the sample to one geographic area means that research requires fewer observations per service (as many factors are held constant by virtue of the entire sample's unified location) and that more services can be studied.

The Los Angeles Standard Consolidated Statistical Area was selected for study as it is the most populous area in the Western part of the United States. Contracting is more common in the Western region of the United States than in the North or Eastern regions; it was necessary to select an area where contracting is common if sufficient observations were to be

found to allow study of several services. Clearly, the more cities in the area selected for study, the greater the probability of finding sufficient observations to allow the study of a wide variety of local government services.

As noted earlier, eight services were selected for study. The services were selected after the organizational arrangement was determined across 38 candidate services for all 121 cities in the Los Angeles Standard Consolidated Statistical Area. The eight services selected for study were those of the 38 for which at least ten municipal cities and ten cities with contracts to for-profit firms were identified.

The individual cities to be studied for each service were selected so as to allow the formation of "matched pairs." A matched pair consists of two cities delivering the same service with similar service levels and scale of output; the cities differ in the organizational arrangement for service delivery -- one city uses a municipal agency while the other contracts for service. The cities were selected using a stratified systematic random sampling technique. This technique allows one to match the randomly selected contract cities with the randomly selected municipal cities by proxies for scale of service (population was used) and level of service provided (median household income was used). Ex post, final pairings of contract and municipal cities were made, using actual variables for the scale of operation and level of service provided* Ten contract and ten municipal cities were selected for each of the eight services to be studied.

2. Data Collection

Data collection took place in March and April of 1983, following a visit and pretest of data gathering instruments and procedures in December of 1982. Field personnel remained on site throughout the data collection period. Prior to the start of data collection, all field personnel received extensive training in the various methodologies of service delivery, as well as in the procedures for data collection. Practice sessions were conducted for gathering the data required for each service.

Great attention was devoted to obtaining accurate cost data. In general, reliance was placed on actual city records, such as payroll statements, fringe benefits paid per identified worker, actual expenditures on parts and labor for each piece of capital equipment -- by name or number -- used in delivering a particular service, other operating expenses, depreciation computed

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*The reason the initial sampling used proxies for scale of operation and level of service provided is that data were not available on these factors for all of the cities eligible for study -- those in the sampling frame. Obtaining data on scale of operation and level of service for all cities would have been too costly; thus, proxies were used for sampling purposes.

based on actual purchase price, etc. Total costs of service delivery were defined as the sum of:

1. direct municipal salaries for service provision, apportioned as necessary (For example, if a parks employee spent 50% of his time on street tree maintenance and 50% of his time on parks tree maintenance, only 50% of his wages would be apportioned to the costs of street tree maintenance in that city.);

2. the actual fringe benefits paid out to those persons identified in the direct labor section (if direct labor was apportioned, fringe benefits would be apportioned in the same ratio);

3. operating expenses, including operation of capital equipment, office expenses, payments to a contractor in the case of a contract city, insurance premiums, and, as appropriate, other direct expenses such as electricity, water, etc.;

4. overhead -- an allocation of general government expenditures for departments such as City Manager, City Attorney, which are not allocated into any one service directly. Two different methods were used to compute overhead. These details are presented in the individual service chapters of the report from which this summary is drawn; and,

5. depreciation of capital equipment, computed on a straight line basis of purchase price.

Thus, for contact cities, the total cost definition includes all the municipal expenditures for contract monitoring, contract letting, and payments to the contractor for service delivery. Also, where the municipality provides components of services directly (as, for example, in janitorial services, where it is not uncommon for a contract city to provide the cleaning supplies to the contractor) these municipal costs are also included in the cost of service delivery in the contract city.

For each service studied, data were obtained not only about the cost of service delivery, but also concerning the technology used for service provision, the management practices followed by the service deliverer, the scale of operation, the level of service provided, and the quality of service actually delivered. Clearly, different variables were appropriate for each service, particularly regarding the measures of scale of operation, level of service, and quality of service delivered. Exhibits 2 and 4 present the definitions of the variables used to define scale of operation, level of service, and quality of service for each of the eight services studied. Data on the management of service delivery were obtained in as consistent a manner as possible across all services, to facilitate eventual analysis of pooled services.

The cost, technology, scale (or output), level of service, and management information was obtained by senior field personnel. This information was obtained through direct visit to each city and inspection of that city's records. In the case of a contract city, the contractor was also contacted and information was obtained from him. On average, at least one full person day of effort was required to obtain those data in each city for each service.

Additional field efforts were devoted to obtaining the quality of service data. Clearly, each of the eight services requires a different approach for measuring quality. In general, direct observation was the approach taken to measure quality of service.

3. Analysis of Data

Before any analysis of data began, all field data collection forms were subjected to rigorous accuracy and consistency checks. All field personnel participated in a debriefing session in which it was verified that all variables had been defined in the same manner by all field personnel. Also, all arithmetic was checked and rechecked. Particular attention was devoted to the accuracy of the information obtained concerning scale of operation. With contractors, it was necessary in some cases to reconfirm that data pertained only to the city under study rather than to the contrator's entire operation.

Analysis of data commenced with a simple comparison of mean values for contract and municipal cities. Case studies were also written. As was discussed above, multiple regression analysis was the analysis technique in which conclusions regarding cost differences between municipal and contract cities are based.

Once analyses of cost differences between municipal and contract cities had been completed, attention was turned to determining the reasons for these cost differences. Management practices and technology for service delivery were the areas examined, as no differences had been found in the quality of service delivery. Then analyses considered not only contract cities in comparison to municipal cities but also the "low-cost" cities (those with unit costs below the median) in comparison to the "high-cost" cities. The latter analyses explain the factors, irrespective of organizational arrangement, which are associated with particularly efficient service delivery.

An additional form of analysis was conducted across the ten matched pairs of cities for each of the eight services. This analysis consisted of writing a mini case study on each contract-municipal matched pair. The mini case studies include impressions of service delivery, as expressed by local officials; interesting background data about the decision making process which led to the organizational arrangement in existence during data collection was often found. In each mini case study, the efficiency, effectiveness, and management practices of the two cities are compared. Explanations are offered for any differences in the cost or quality of service delivery.

F. SERVICE SPECIFIC FINDINGS

This section presents the major findings from the analysis of each service. While there is some duplication here with information presented above, particularly in the definition of each service and the presentation of basic data, this duplication is intentional, so that these service-by-service summaries may be read as self-contained units. Further service-specific information, of course, is contained in the individual service chapters of the report on which this summary is based.

1. Street Cleaning

Summary: Street cleaning is defined as the removal of litter, dirt and other unwanted materials from street surfaces and the hauling of that material to a disposal site. The disposal of collected material is not included in this definition. Other services often related to street cleaning -- such as catch basin cleaning, empty lot cleaning and sidewalk cleaning -- are also excluded from study here.

For the 20 sample cities the mean total cost of service delivery is $137,580. On average, each city was responsible for the cleaning of 327 curb miles. At an average sweeping frequency of 3.62 times per month, cities swept an average of 11,416 curb miles annually.

Overall, street cleanliness was quite good. Based on observations of 25 randomly selected blocks in each city, with each block rated for cleanliness on a scale of 1 to 4 (1=excellent ... 4=poor), the average cleanliness rating was 1.64. The range in average cleanliness ratings for the 20 cities was from 1.07 to 2.57.

The annual cost per curb mile cleaned, one measure of efficiency, was $12.75. The cost per curb mile cleaned ranged from $7.08 to $38.65. Cost per cubic yard of debris collected is another efficiency measure. This cost ranged from a low of $20.17 to a high of $84.62; the mean cost per cubic yard of street debris collected was $35.33. Efficiency can also be measured by the number of curb miles swept per shift hour. This variable takes a mean value of 3.09 curb miles.

There were no statistically significant differences between contract and municipal cities in variables indicating scale of operations, level of service, conditions affecting street sweeping, or quality of service delivered. Efficiency of service delivery, however, was found to be significantly different at the 90% level of confidence. The cost per curb mile cleaned in contract cities ($10.25) is significantly lower than the municipal city's cost of $15.26.

The ten municipal cities and the ten contract cities were formed into ten matched pairs. Each matched pair consisted of one municipal city and one contract city, matched by curb miles cleaned and frequency of cleaning. In seven of the ten matched pairs, the municipal city's costs per curb mile cleaned exceeded those of the paired contract city. The cause of the cost difference between municipal agencies and private contractors cannot be identified with certainty. However, significant differences in the management practices and technology used by municipal cities as compared to contractors were found.

The absentee rate in municipal cities (16.2%) is higher than that of contractors (10.1%). Contractor crews work longer shifts (8.96 hours versus 7.60 hours) and clean more curb miles per hour (3.46 compared to 2.71) than their municipal counterparts. The latter is achieved in spite of the fact that contractor crews expend more time unproductively traveling to/from disposal locations. The net result is that contractor sweepers sweep faster and more often, municipal sweepers sweep at a slower rate and less often. The level of cleanliness achieved is almost identical (1.62 for contract cities and 1.66 for municipal cities).

Contractors also employ a more standardized fleet than municipal operations. On average, contractors used 1.2 different types of cleaning vehicles (e.g., mechanical sweepers, vacuum sweepers, flushers, etc.); municipal cities employed 1.8 different types. The fewer different types of equipment, the more familiar vehicle operators and mechanics can be with the equipment on hand. Also, the number of different spare parts that must be kept on inventory is minimized. Both these factors contribute to lower operating costs.

In terms of managerial practices, the workers to supervisor ratio was significantly different. Contractor supervisors had a span of control of 13.6 crewmen, significantly higher than the 6.86 workers each municipal supervisor directs on average. Contractor operations also had fewer managerial levels between the crewmen and firm or department head than did municipal operations: 1.3 versus 1.9. This promotes greater communications and worker morale.

Other managerial differences involve the level of authority delegated to supervisors. Contractor supervisors more often have the authority to fire workers and more often are responsible for the maintenance of their equipment. The more an individual is held responsible for performance, the more likely he will perform effectively.

Main Findings: The main findings of this analysis are summaried below:

- There is a significant cost difference between service delivered by a contractor as compared to that provided by a municipal agency. On average, holding constant the curb miles swept, the frequency of cleaning, the conditions under which cleaning occurs, and the quality of service provided, street cleaning by a municipal agency is 43% more costly than street cleaning performed by a private firm under contract to the municipality.

- The quality of service provided by contractors and municipal agencies is almost identical. On a four point rating scale, with 1=cleanest and 4=dirtiest, observers, on average, rated contract cities as 1.62 and municipal cities as 1.66.

- Most of the difference in the cost of contract as compared to municipal street cleaning appears to be explained by four factors: 1) speed and duration of sweeping -- contract crews sweep more miles per shift hour and work longer shifts than do municipal crews; 2) management and fringe benefits -- contractors achieve a much lower absentee rate (which here defines vacation absences as an absence) than do municipalities; 3) supervision of workers -- contractors have a much wider span of control for workers than do municipalities; and 4) responsibility for equipment maintenance -- contractors are more likely to be responsible for equipment maintenance than are the municipal departments delivering street cleaning services.

- Of the ten low-cost cities, three were municipal cities. Management factors that distinguished low cost (efficient) cities from high-cost (inefficient) cities include: 1) duration of street

sweeping -- crews in efficient cities tend to work longer shifts than do crews in inefficient cities; and 2) supervision of workers -- supervisors in low-cost cities have a wider span of control for workers than do inefficient cities.

Main Conclusions: Based on this study's analysis several suggestions for ways to improve the efficiency of street cleaning emerge. These are summarized below.

- The efficient provision of street cleaning services does not require a high level of supervision. One direct supervisor for every 12 workers (operators) was the average for the low-cost cities studied, compared to one direct supervisor for every 8 workers in high-cost cities. Productivity does not seem to be adversely affected by reduced supervision.

- Longer shifts are associated with higher productivity and efficieny. Shifts averaged 8.8 hours in the low-cost cities studied versus 7.8 hours in the high-cost cities. Cities on a typical 5-day, 8-hour day schedule should consider a 4-day, 10-hour day format.

- Lower costs are associated with faster, more frequent cleaning. Although slow sweeping speeds maximize cleaning power, and although cities sweep slower and less often than contractors, the quality of service provided by municipal and contract cities was rated as equal. Municipalities might do well to sweep faster and more frequently, as contractors do.

- The cleaning methods employed should be minimized. This lends itself to fleet/equipment standardization which, in turn, promotes cost efficiencies. These efficiencies are achieved via greater familiarity with equipment by their operators and mechanics (obviously the more types of equipment on hand, the less familiar staff can be with any one type) and via reductions in the volume of spare parts that must be kept in inventory.

- Equipment maintenance and other operating costs are a significant component of the cost of this service, accounting for 36% of the total cost of service delivery in the municipal cities studied. Equipment breakdowns are characteristic of the service; as such, back-up vehicles are required if service delivery is to be maintained. The capital cost of back-up vehicles can have disastrous effects on the cost of service delivery in cities the scale of whose operations are not sufficiently large to efficiently support such capital purchases. Small cities should consider joint purchases with neighboring small cities or lease/rent back-up equipment on an as-needed basis.

2. Janitorial Service

Summary: The total costs of service delivery include, in the case of contract cities, not only the payment to the contractor but also any costs the municipality incurs for contract monitoring. Total costs ranged from $8,753 to $418,713, with a 1982 average of $88,856. The average city cleaned

56,776 square feet of building space; however, as each square foot is cleaned many times per year, the total number of square feet cleaned per year averaged 17,409 thousand. The average cost per square foot to be cleaned was $1.46.

Municipal service providers with high janitorial costs might consider using part-time workers/cleaners. As the mini case studies point out, "municipal" cities upgrade their janitorial staff to higher job titles (and higher pay) so that they may be used for functions (e.g., plumbing work) other than those strictly janitorial in nature. However, in so doing, these people become "over qualified" for janitorial work. The city, as a result, has significantly higher than necessary costs. Cities should seriously consider assigning these other functions to non-janitorial personnel.

Main Findings: The principal findings in this analysis of janitorial services are:

- Costs in cities with municipal service provision average 73% higher than costs in cities which contract for janitorial services. This is so when holding constant the effect on costs of square feet to be cleaned, the cleaning tasks specified, and the cleanliness achieved.

- There is no difference in the quality of janitorial services provided by contractors as compared to municipal agencies. On a scale of 1=cleanest to 3=dirtiest, contractors rated an average of 1.65 while municipal agencies rated an average 1.66.

- Contractors, as compared to municipal agencies, tend: (1) to pay lower wages and fringes; (2) to use part-time workers; (3) to schedule cleaning during non-business hours; (4) to employ more equipment; and (5) to achieve a lower absentee rate. The factors most closely associated with low cleaning costs are wage rates and cleaning schedules.

- Disaggregating the sample by their level of efficiency, eight of the ten low-cost cities (i.e., cities whose cost per thousand square feet cleaned is below the sample median cost) are contract cities, and the other two are municipal cities. The remaining two contract and eight municipal cities are high-cost cities (i.e., cities whose cost per thousand square feet is cleaned above the sample median cost). Low-cost cities, compared to high-cost cities, tend: (1) to pay lower wages; and (2) to use younger workers.

Conclusions: The following suggestions for improving the provision of janitorial services are offered:

- Make every effort to schedule cleaning when rooms will not be in use;

- Use workers who perform cleaning functions only, and pay at the appropriate wage scale for such services;

- When the amount of cleaning to be done and the schedule does not provide a full day's work, do not hesitate to use part-time workers;

- When more than one building is to be cleaned, it is advisable to have basic equipment, such as supplies and mops, stored at each site, to eliminate the need for transporting equipment.

3. Residential Refuse Collection

Summary: Residential refuse collection is defined as the pickup and removal of refuse from households and small commercial establishments which are served on the same routes and with the same equipment as is used to serve households. The service is defined to include collection only; costs incurred after collection vehicles are emptied (whether into a transfer trailer, a landfill, or the pit of a resource recovery plant) are not included in the costs of refuse collection.

Findings are obtained from data collected on site from 20 California cities. In these cities, the total cost of service delivery (1982) averaged $696,959. For contract cities, the average percentage of total cost which was attributed to payments to the contractor was 95.6%; thus, for this service, municipal monitoring costs amount to under 5% of total costs. The annual per household tons generated is 1.61, which translates into residential refuse generation of 3.07 pounds per capita per day. All cities studied provided once a week curb (or alley) refuse collections.

The annual cost per ton of refuse collected, a commonly used efficiency measure, averaged $28.10. The cost per ton ranged from $12.48 to $43.62. The cost per cubic yard of refuse collected averaged $8.20 with a range of $4.35 to $13.71. The average number of households served per crew shift was 445 with a range of 250 to 719.

Municipal workers received significantly higher wages and fringe benefits than did the refuse collectors employed by private firms. The average monthly wage of a municipal refuse collector was $1,418, compared to the $1,237 average monthly wage of an employee of a private firm. As refuse collection is a fairly labor-intensive service, with 49.1% of the costs of service delivery attributable to labor, this factor explains some of the difference in cost. It should be noted, however, that as all cities are in the same market area, the fact that municipalities pay higher wages is a choice; contractors in the same labor market are able to employ workers at lower wages who deliver the same quality service.

The statistical analysis of the cost of refuse collection predicted over 95% of the cost of this service. The most significant factors in explaining the cost of service are the total tons of refuse to be collected, the frequency and location of pickup, and the organizational arrangement for service delivery.

Residential refuse collection practices in 1982, as studied here, were also contrasted to practices observed in a 1974 study of this same service. In that study, municipal refuse collection was found to be more costly for

cities with populations over 50,000* That 1974 study had a larger sample size, which allowed the disaggregation of the sample by size of city. No such disaggregation was possible here, given the small sample size; nevertheless, the results of this study of 20 California cities are in agreement wtih the results of the 1974 study of 315 United States cities (including 24 California cities). Interestingly, the capital intensity of refuse collection has increased over the past decade. The costs of refuse collection have increased 33%, less than half as much as the consumer price index, despite an increase of over 90% in the salaries paid to refuse collectors.

Main Findings: The main findings of this analysis of residential refuse collection services are:

- On average, refuse collection by a municipal agency is 28-42% more costly than refuse collection by a private contractor. This finding is the result of statistical analysis where the effect of quantity of refuse collected, refuse generation per stop, frequency and location of pickup, route density, and the quality of service provided are held constant.

- Quality of refuse collection service varied from 11.05 (best) to 92.7 (worst), with an average value of 34.3 for the municipal cities and 38.2 for the contract cities. Thus, the average quality of service provided by contractors and municipal agencies is almost identical.

- In comparison to municipal agencies, contractors are able to achieve lower absentee rates (7.9% versus 13.4%) and vehicle downtime ratios (6.2% of the contractor vehicles versus 16.2% of municipal agency vehicles are in the garage for repair, on average, at any time); are more likely to operate one-brand fleet; and contractor workers are more likely to make two loads per truck shift than are municipal workers.

- Of the ten low-cost cities, eight are contract cities. Management factors that distinguished low-cost (efficient) cities from high-cost (inefficient) cities include: 1) number of loads -- crews in low-cost cities are more likely to make two loads per truck shift than are high-cost cities; 2) absentee rates -- low-cost cities experience lower absentee rates than high-cost cities (absenteeism includes sick days, personal days, holidays and vacation days); 3) vehicle downtime -- a smaller percentage of low-cost city vehicles are non-functional and in the garage for repair at any one time than in high-cost cities; 4) incentive systems -- low-cost cities are more likely than high-cost cities to have their workers on a "go-home-when-route-is-finished" incentive system.

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*E.S. Savas, et al., The Organization and Efficiency of Solid Waste Collection (Lexington, Massachusetts; D.C. Heath & Company, Lexington Books, 1977).

Main Conclusions: Based on this study's analysis several policy guidelines emerge which are summariz_d below.

- Longer shifts and incentive systems are associated with higher productivity and efficiency. Cities on a 5-day, 8-hour day schedule, for example, should consider a 4-day, 10-hour day format. A program allowing crews to go home when their route is completed should also be considered for implementation.

- Low costs are associated with keeping collection vehicles in good operating condition. Cities should structure and implement comprehensive preventive maintenance programs. Further, responsibility for equipment maintenance should be located within the department responsible for service delivery. Should the scale of the residential refuse collection operation not be sufficiently large to justify a full-scale, in-house maintenance facility for all repairs, service agencies should consider: retaining in-house mechanics for minor maintenance and preventive maintenance; and/or, assigning central garage mechanics to work solely under the direction of the manager of the refuse collection agency.

- Standardization of the refuse collection fleet promotes cost efficiencies. Standardization allows vehicle operators and mechanics to become familiar with the equipment on hand (obviously, the more types of vehicles on hand, the less familiar staff can be with any one type). Standardization also means a lesser volume of spare parts much be kept in inventory which, in turn, lends itself to cost efficiencies.

- Lower refuse collection costs are associated with increases in the quantity of refuse at each stop. Cities should encourage neighboring residents to place their cans or bags of refuse together at the adjoining lot line rather than in the center of each lot.

4. Payroll Preparation

Summary: Payroll preparation costs are computed as the sum of labor, fringe benefits, other operating, overhead, and capital depreciation of equipment. Municipal payroll employees include those involved in timekeeping, preparation of payroll transmittal forms, supervision of contractors, printing and distribution of paychecks and other functions associated with payroll preparation. These muncipal costs are included in the cost of payroll preparation for both municipal and contract cities. In contract cities, the payments to the contractor are also included in the total cost. Cost, output, and technology/ management information was obtained through on-site data collection efforts from ten contract cities and eleven municipal cities.

The cost of payroll preparation is positively related to the number of checks issued, and negatively related to the percentage of employees paid on a salary basis and the time required to prepare paychecks; organizational arrangement does not have a significant relationship to cost. These variables explain 83% of the variance in the total cost of payroll preparation.

On average, the per employee cost of payroll preparation was $152; this figure includes the costs associated with timekeeping. The cost per paycheck issued was $5.97, with a range of $2.35 to $10.27. The errors in paychecks averaged .7% in municipal cities and .55% in contract cities; this difference is not statistically significant.

A 1% increase in the percent of employees who are salaried (rather than paid by the hour) is associated with a statistically significant 1.0% decrease in the costs of payroll preparation. A decrease in the speed with which paychecks are prepared is also associated with a decrease in the costs of payroll preparation; every extra day between the end of the pay period and the delivery of paychecks reduces the cost per paycheck, on average, by about $1.17.

This is a clear case where defining the costs of service delivery to include municipal functions of preparing data and supervising the contractor affects the outcome of the analysis. Contractor payments average but 31.3% of the costs of payroll preparation in contract cities. If one compared the total costs of municipal payroll preparation to the payments to the contractor, one would find the costs in the latter case to be significantly lower than in the former. However, for this service, such a procedure would be fallacious. The contractors sampled have, in general, simply run the computer program to generate the paychecks. They do not, on average, gather the data to prepare the payroll transmittal form, keypunch the data, sign the paychecks, or distribute the paychecks. These very essential payroll tasks are performed by municipal employees even in the case of "contract" cities.

It would appear, then, that cities with adequate data processing capability would probably do as well preparing the payroll themselves as in contracting out. Of course, individual cities must make individual analyses before deciding on a particular organizational arrangement. In the ten contract-municipal pairs of cities which were studied, in four cases the contract city was less costly than the municipal city while in the remaining six cases the reverse was true.

Main Findings: The major findings of this study of payroll preparation are:

- Costs in cities which contract for payroll preparation are no different from those of cities where payroll is handled entirely by municipal workers.

- There is no difference in the quality of payroll service provided by contractors as compared to municipal agencies.

- Cities with the lowest costs of payroll preparation tend: 1) to achieve lower absenteeism; 2) to have a younger workforce; 3) not to reward workers with bonuses for suggestions; 4) to have the contractor sign the check if the service is contracted out; 5) not to have the data processing division in the same department as payroll; 6) to pay a smaller percentage of all municipal workers on an hourly -- as compared to salaried -- basis; 7) to have lower error rates in paychecks; and 8) to have slightly less speedy payroll preparation.

Main Conclusions: The following suggestions for improving the efficiency of payroll preparation are offered:

- Any city which does decide to contract out for payroll preparation should carefully consider specifying that the contractor, in addition to running a computer program, input data and run the check signing machine.

- Cities should pay as many workers as possible on a salary, rather than on an hourly basis (assuming that conversion to salary pay does not initiate benefit programs whose additional cost exceeds the saving in paycheck preparation).

- As each paycheck costs about $6.00 to prepare, cities can save money by paying workers less often -- e.g., twice a month instead of biweekly.

- Managers should encourage high quality (more accurate) payroll preparation, though not through incentive pay systems.

- Cities might consider smoothing the payroll preparation schedule, perhaps by increasing the interval from the receipt of the payroll transmittal form to the production of checks.

5. Traffic Signal Maintenance

Summary: Traffic signal maintenance costs are computed as the sum of labor, fringe benefits, other operating expenses, overhead, and capital depreciation involved in the repair and preventive maintanence of traffic signal devices. All of these municipal items are included in the cost of traffic signal maintenance for both municipal cities and contract cities. In the case of contract cities, the municipal costs are mainly for contract monitoring, and total costs are the sum of payment to the contractor plus municipal monitoring costs. Output, quality, technology, management and cost data were obtained through on-site data collection efforts in ten contract and ten municipal cities.

On average, the cost per signaled intersection maintained in 1982 was $1,672. The range in values for intersection maintenance was $842 to $2,801. Of the ten matched pairs, in 7 cases the contract city's cost per signaled intersection was lower than that of the municipal city. The average cost per visit (excluding electricity) was $110 for the entire sample; the range in costs was $40-$217.

The twenty cities studied each maintained an average of 52 intersections. Scale ranged from a minimum of 12 to a sample high of 156 intersections. All cities with the exception of one municipal city, had a preventive maintenance (PM) program. Contractors, however, made significantly more PM checks/actions per intersection per year (56.5) than municipal service providers (31.2).

An average of 56 intersections were maintained for each full time equivalent worker -- with a range of 19 to 103. In terms of the quality of service delivered, there was no significant difference between the contract

and the municipal cities when quality of service was measured as the speed of repair of intersections, or as the number of items awaiting repair on a given day. The sample average for the former measure of quality was 58.9 minutes and 2.25 items for the latter.

All contract cities and seven of ten municipal cities use a one man crew. The remaining three municipal cities use a two man crew. This may help explain why labor costs account for an average of 62% of total costs in municipal cities and 54% of total costs in contract cities. On average, 13.3% of the costs of signal maintenance in contract cities goes for municipal monitoring expenses.

Main Findings: The principal findings in this analysis of traffic signal maintenance are noted below.

- Holding constant the number of intersections maintained, the number of preventive maintenance visits per intersection per year, and the quality of service delivered, on average, municipally delivered traffic signal maintenance is 56% more costly than is the same service provided by a private contractor.

- In comparison to contract cities, municipal cities tend to: (1) take longer to complete repairs. They have no backup crew members and, if unable to complete a repair due to lack of parts or equipment, they must go and get it and return to complete the repair; (2) spend more time in a response mode rather than in a preventive one. They are so busy "putting out fires" (responding to requests) that they are unable to get "ahead" of future problems; (3) allocate less time to preventive maintenance and perform significantly fewer preventive maintenence checks or activities; (4) have older and generally less sophisticated systems and therefore repairs are more serious and take longer to make; and (5) have less productive workers -- each contractor repairman maintains 70 intersections compared to 43 intersections per municipal repairman.

- Regarding the quality of service, municipal cities get to repairs faster (37 versus 43 minutes) but take longer to do the repair (77 versus 37 minutes) than contract cities. The net result is that there is no significant difference between municipal and contract cities in the total time elapsed between receipt of a repair request and completion of the repair.

- Six contract cities were among the ten cities with below-median unit costs. These ten low cost cities were, in comparison wih the high cost cities, likely to: (1) handle absences by reassigning workers rather than by requiring overtime; (2) assign specialized tasks to workers; (3) have an older work force; (4) require that supervisors inspect some but not all work done by signal maintenance crews; and (5) have fewer master controllers.

Main Conclusions: The following suggestions for providing traffic signal maintenance service are derived from the analysis of the twenty

cities. Most could be effected by a city without a change in organizational arrangement for signal maintenance.

- Cities should have a preventive maintenance program. Each signal should be inspected periodically; frequency of once a month is recommended. Preventive maintenance should include: the inspection and cleaning of controllers; timing checks; and the replacement of signal lamps at specified intervals.

- Lower costs are associated with more sophisticated signal technology. Cities should design and implement a capital replacement program, installing solid state signal technology. Postponement of capital expenditure may not save money, as older systems are more expensive to maintain than newer systems.

- Cities should properly train repair staff. Staff should be largely responsible for repair completion. Traffic signal supervisors/foremen should serve more as working managers and leadmen than as inspectors. They should assist repairmen on difficult repair assignments. Otherwise, foremen should not inspect each and every repair done by a repairman; they should have their own repair assignments.

- Cities should consider merging traffic signal operations with other related municipal service operations -- e.g., street lighting -- in order to share overhead and other expenses. Street lighting staff, for example, possess similar skills to traffic signal crews and must travel to the same work locations (street lights are often located on traffic signal support poles). This merger would allow cities to avoid redundancies in work efforts. Additionally, the larger staff would allow more flexibility in reassigning workers to handle absences.

6. Asphalt Overlay Construction

Summary: This study defines asphalt overlay construction as the application of a new asphalt surface to an existing street. Asphalt overlay construction costs are computed as the sum of labor, fringe benefits, other operating costs, overhead costs and capital expenditures. Other operating costs include payments to contractors in contract cities. Municipal costs are included in the cost of asphalt overlay construction in both municipal and contract cities; in the latter case, these municipal costs are largely those costs of contract letting and supervision.

The cost of asphalt overlay construction is closely related to tons of asphalt, labor intensity and the maximum width of pavers. Organizational arrangement is also highly significant. Contract city costs averaged $41.19 per ton, significantly less than the municipal city mean cost of $76.00. The sample mean was $58.59. Contract city costs fell within a limited range ($30.63 to $52.74 per ton) whereas municipal costs showed large variations ($45.15 to $136.77). Eight of the sample's ten low-cost cities used contractors to provide this service. The mean cost of municipal service is 84% higher than the mean cost of contract service. This is

very close to the more accurate estimate of the difference in cost between the organizational arrangements -- 96% -- obtained via regression analyis.

This cost advantage is achieved via the superior productivity of contractor employees versus municipal workers. Contract cities averaged 4,508 tons per full-time equivalent (FTE) employee compared to 1,180 tons per municipal FTE employee. This productivity edge enables contractors to overcome the higher salaries they pay and higher asphalt costs they incur. Contractor crewmen earn $29,049 per year compared to $18,384 annually for the same category of municipal employees. Contractors pay on average $27.58 per ton for asphalt versus the $23.38 per ton that municipalities pay.

Contractors also provide a higher quality of service than their municipal counterparts. Out of a perfect score of 100, asphalt overlays put down by contractors were, on average, rated 97.2 while those put down by municipal agencies were, on average, rated 94.9. The skill of the equipment operator is the key factor in laying a uniformly even and smooth overlay. Contractors on average employ equipment operators with more experience who, in turn, command the higher salaries. Contractor paver operators average 12.11 years of experience compared to 7.78 years for their municipal counterparts.

The production of this service requires that significant capital and human resources be available at the time an overlay is placed. This includes such high cost items as pavers and compactors. This self-propelled paver has the capacity to lay large quantities of asphalt; production, however, is tied to the rate asphalt is delivered and the number and capacity of rollers on site to compact the asphalt which must be rolled while hot.

Contractors generally possessed better technological capabilities than municipal cities. They more often employ self-propelled pavers with greater paving widths. They also use larger rollers in addition to a greater number of rollers. The maximum width of pavers used by contractors averaged 14 feet compared to 10.25 feet in municipal cities. Contractors generally had 2.0 rollers on site averaging 11.0 tons each; corresponding statistics for municipal cities are 1.5 rollers, averaging 7.89 tons.

The delivery of this service, in addition, normally requires a large crew on site. Contractors, on average, employed larger crews (11.00 men versus 8.30 men). A city intent on providing this service with municipal employees must have an operation of sufficient scale to support expenditures for the necessary manpower and equipment. If not, unit costs are expected to be greater than when the optimum labor/equipment mix is operated at capacity.

Management practices also have a direct impact on achieving greater efficiency. Contractor supervisors generally have the authority to fire workers and are responsible for the care and maintenance of equipment. In contrast, these functions are more often centralized in municipal departments other than those actually laying the asphalt where the service is municipally-provided. In 8 out of 10 cases, contractor direct supervisors

have the authority to fire workers; this same authority was granted to municipal supervisors in only 3 of 10 instances. In all cases, contractor supervisors were responsible for the care and maintenance of their equipment. This same responsibility was placed on municipal managers in only 2 cases. Another significant management difference between contractors and municipal agencies is that the former is more likely to have a supervisor on site continuously directing overlay operations.

Main Findings: The major findings of this research are summarized below.

- There is a significant cost difference between service delivered by a contractor compared to that provided by a municipal agency. On average, asphalt overlay construction services provided by a municipal agency are 96% more costly than when performed by a private firm under contract to the municipality.

- There is no significant difference in the quality of service provided by contractors and that provided by municipal agencies. Using a rating system modified after one developed by the Asphalt Institute, asphalt overlays put down by contractors had an average rating of 97.2 (out of a perfect score of 100), while those put down by municipal agencies had an average rating of 94.9.

- Most of the difference in the cost of contract as compared to municipal asphalt overlay construction services appears to be explained by five factors: (1) higher productivity -- contractor crews put down more tons of asphalt per man-day than municipal operations; (2) technology -- contractors use pavers with larger paving widths and heavier rollers than their municipal counterparts; (3) management -- contractors assign larger crews to an overlay project than do municipal agencies; (4) supervision of workers -- contractor foremen are more likely than municipal foremen to remain on-site directing operations continuously throughout a shift and are also more likely to have the authority to fire workers; and (5) responsibility for equipment maintenance -- contractors are more likely to be responsible for equipment maintenance than are the municipal departments delivering asphalt overlay services. Contractor crewmen are also paid significantly more than comparable municipal employees.

- Comparison of the high-cost cities versus the low-cost cities confirms that the differences between contractors and municipal agencies affect the cost of service delivery. High cost cities are those ten cities whose cost per ton of asphalt laid is above the median. Eight municipal cities and two contract cities were identified as "high cost"; the remaining two municipal and eight contract cities are "low cost" -- i.e., below the sample median cost per ton. Contrasted to the high-cost cities, low-cost cities use heavier rollers, are more likely to have the service provider responsible for equipment maintenance, and pay higher wages. These same differences are significantly different between contract and municipal cities. Two additional factors distinguish low-cost cities from high-cost cities: (1) labor