調査資料

米国政府の政府調達にみる中小企業支援制度

平成１０年３月

財団法人　日本情報処理開発協会
先 端 情 報 技 術 研 究 所

本調査資料は、平成９年度にMUSE Associates（MUSE社）に調査委託し、
入手した基礎資料やデータを取りまとめたものである。

KEIRIN 00 この事業は、競輪の補助金を受けて実施したものです。

目　次

第1章　米国経済における中小企業の重要性と連邦政府施策

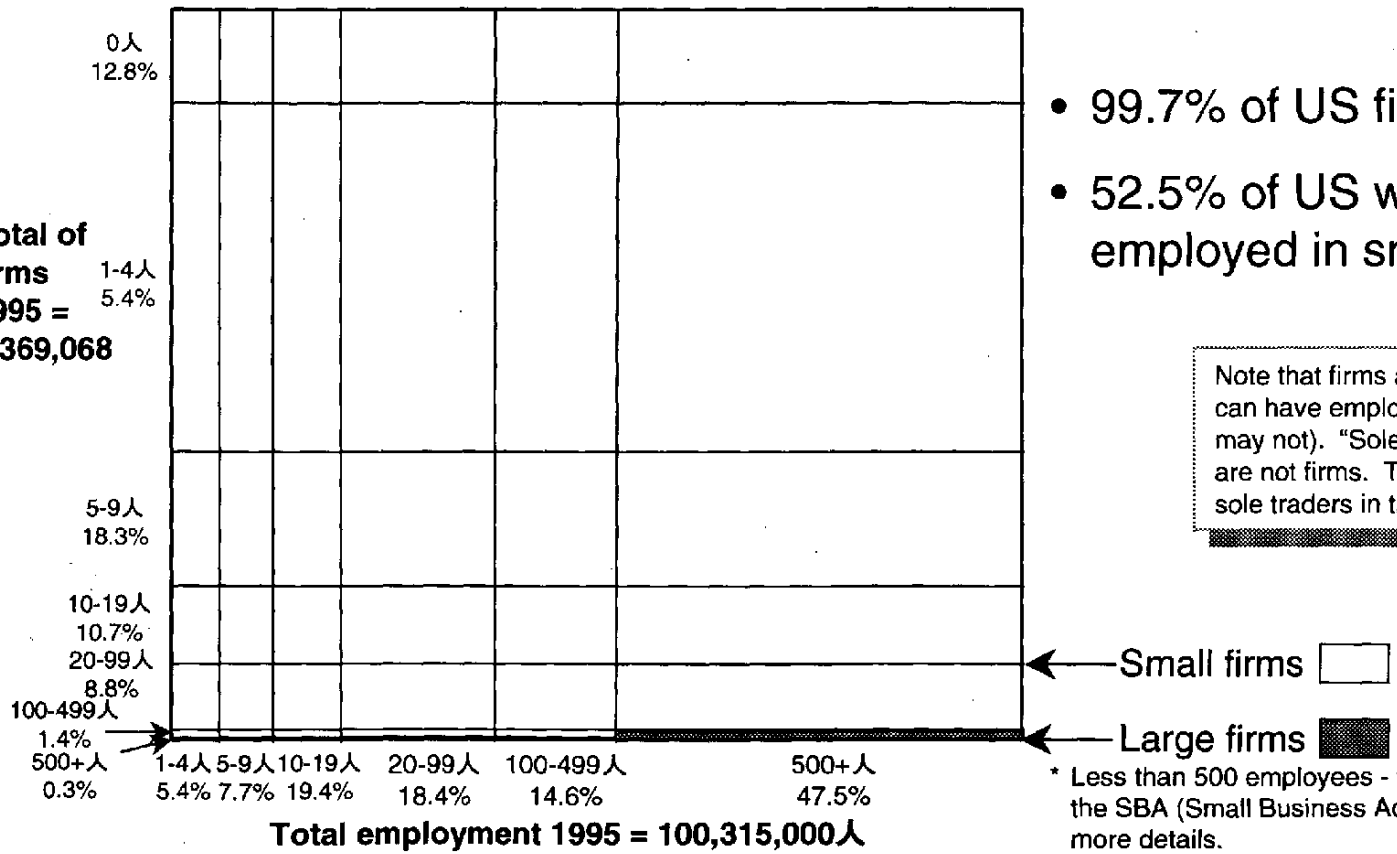
Introduction and background

Contents

The majority of US business are small*, and most working US citizens work for small companies

US Distribution of Labour by Firm Size

Source : US Department of Labour, MUSE analysis



- 99.7% of US firms are small
- 52.5% of US workforce is employed in small firms

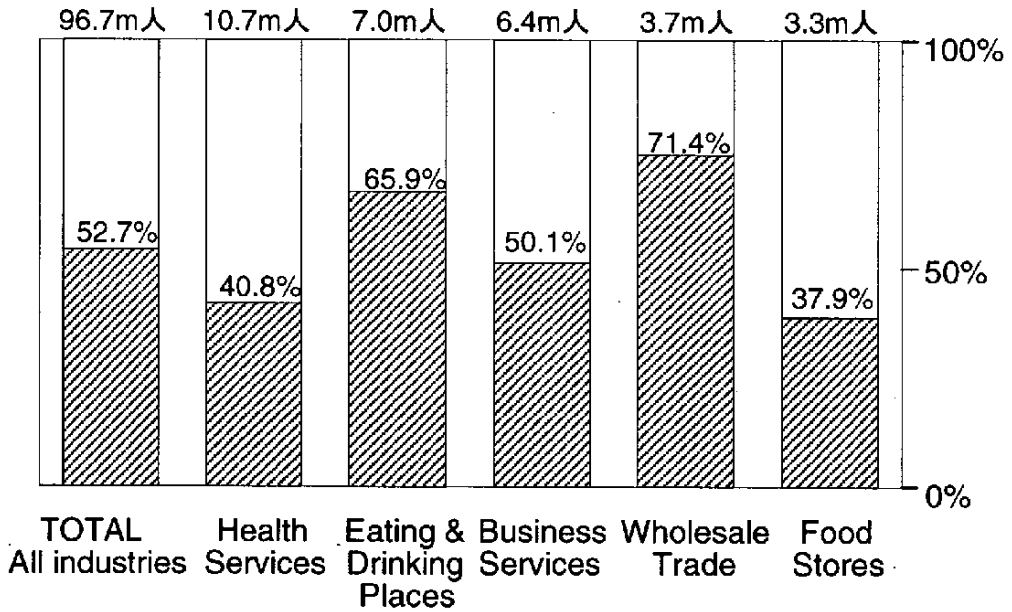
Note that firms are legal entities that can have employees (although they may not). "Sole traders" (contractors) are not firms. There are approx. 9m sole traders in the US.)

* Less than 500 employees - the general definition used by the SBA (Small Business Administration) See Chapter2 for more details.

Small businesses are very important to the US economy

- In 1996, small businesses represented :
  - 50% of private GDP
  - 39% of GNP
- From 92-96, of 11.8m net new jobs :
  - 100% came from small businesses
  - of which, 68.4% from very small businesses (<20 employees)
- From 82-96, the total number of small firms rose from 12.0m to 15.1m, an increase of 25.9%, or 1.7% per year on average

Small businesses employ most people in most business sectors



Employment in small business 1994, Department of Labor

% employed in small businesses

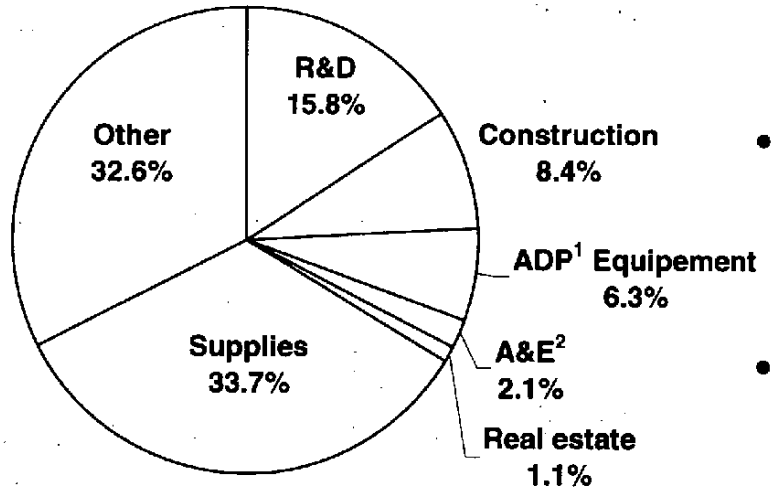
Source: Office of Advocacy (part of SBA)

The importance of small businesses has long been recognised, and is deeply embedded in US government policy and daily life

- Promotion of small business has been formally a key aim of government policy for the latter half of the 20th century
  - establishment of SBA (Small Business Administration) by Congress in 1953
- Small business enjoys a leading role in the national consciousness, having contributed many of America's past and present industry folk-heroes ....
  - the Rockefellers, the Onassis family, Bill Gates, Steve Jobs, Ross Perot
- .... as well as a string of America's 20th century inventions
  - the airplane, audio-tape recorders, double-knit fabric, fiber-optic examining equipment, heat valve, optical scanner, pacemaker, personal computer, soft contact lenses, zipper
- "Small business are a manifestation of the 'American Dream' - the small business owner embodies the American tradition of individualism"
  Aida Alvarez, Administrator, SBA 1997

One of the government's key tools for encouraging small business is its own market - Federal Procurement

1996 Federal Procurement Expenditure Classification



Source: Federal Procurement Data Center, 1997

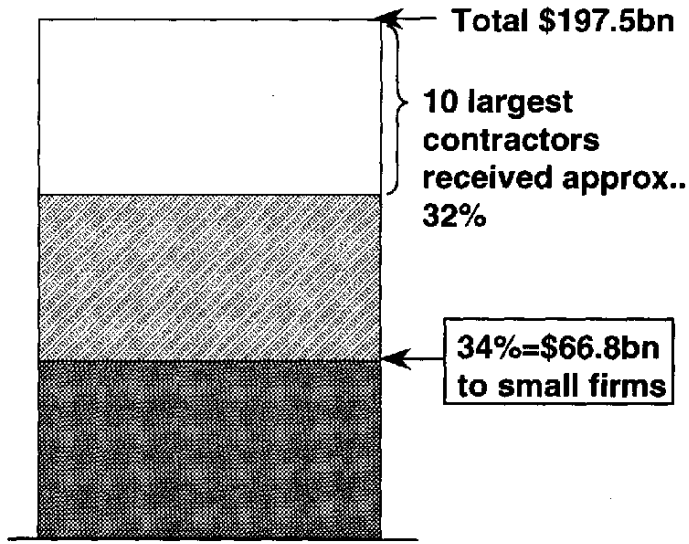
1. Automatic Data Processing 2. Architect & Engineering

- US Government procurement represents only a small market in comparison with the US as a whole (all government procurement represents only about 5.6% of US GDP)
- However as a 'single' market, with relatively consolidated purchasing power, US Federal Procurement is a significant power - about $197.5 billion in 1996
- State and local governments add a similar amount on top (although the purchasing process, nature of goods purchased, and hence nature of opportunity, are somewhat different - see Chapter 2 for details)

One of the government's key tools for encouraging small business is its own market - Federal Procurement (continued)

- The impact of government is in reality even greater than the direct money amount
- Formal subcontracting is accounted for in the statistics. Purchase of supplies, materials, facilities etc is not, nor is purchase of goods by subcontractors
- As a result, federal purchases of end products create significant markets for products further up the supply chain
- Hence, perhaps more than any other policy, federal procurement holds the largest potential for positive impact on the growth of US small business

1996 Federal Procurement



Source: FPDC, SBA

This report examines the US system for supporting small businesses in government procurement - its system and process, strengths and weaknesses, success and failure - and draws some possible lessons for Japan

Chapter 2

- US policy on procurement and small business
- The system of information, assistance, formal/informal networks which support the policy
- The process by which the policy is put into action
- Differences between the federal system and State / Local government procurement
- The success of the system
- Likely future evolution

Chapter 3

- Procurement policy and process insofar as it specifically singles out or treats differently the IT, and in particular software, industry

Chapter 4

- Quantitative measures of the impact of government procurement on the US economy as a whole

Chapter 5

- Possible lessons for Japanese government procurement policy and practice

第2章　米国連邦政府調達と中小企業

US Federal Procurement and small businesses

Contents

Contents

At the highest level, the US Federal Government sets numerical targets for the proportion of all federal procurement that should go to small business

Existing Legal Requirement

(first set in 1978 by Public Law 95-507, and implemented in practice by the FAR*)

- (Minimum of 20% of all federal procurement to go to small businesses)**

- 20% of all prime contracts to small business
- 5% of total prime and sub-contracts to small disadvantaged businesses
- 5% of total prime and subcontracts to women-owned businesses

New criteria mid-implementation

(put forward in the 1995 White House Conference on Small Business, but not as yet formally set in practice)

- Minimum of 35% of all federal procurement to go to small businesses [as independent requirement, qualified by the following requirements]

- [replaced by the above]
- 10% of prime and 10% of sub-contracts to small disadvantaged businesses
- 5% of prime and 5% of sub-contracts to women-owned businesses
- 10% of all R&D to small businesses

* Federal Acquisition Regulation. See section 2.2 for more details. The existing legislation was reformulated in the Business Opportunity Development Reform Act of 1988, and implemented by OFPP policy letter 91-1, but the numerical targets were unchanged.

** Implication of three conditions below. Not specifically implemented by FAR. I.e. if the three conditions below were met, then at least 20% of all federal procurement (prime and sub contracts included) would go to small businesses.

The government mandates definition of a 'small business' to the SBA, which formulates definitions based on several criteria

SBA Small Business Definition

A small business is :

- independently owned and operated

AND

- not dominant within its field

AND

- less than x employees in total* (averaged over 3 years)

OR

- less than $y m in annual sales* (averaged over 3 years)

* values of x/y are set in detail according to the SIC (Standard Industrial Classification) code of the company's product. In practice, employee limits range from 100-500 people, and revenue limits from $10 - $50m.

Numerical targets distinguish "prime contractors", who work directly for the government, from "sub-contractors", who are employed by prime contractors

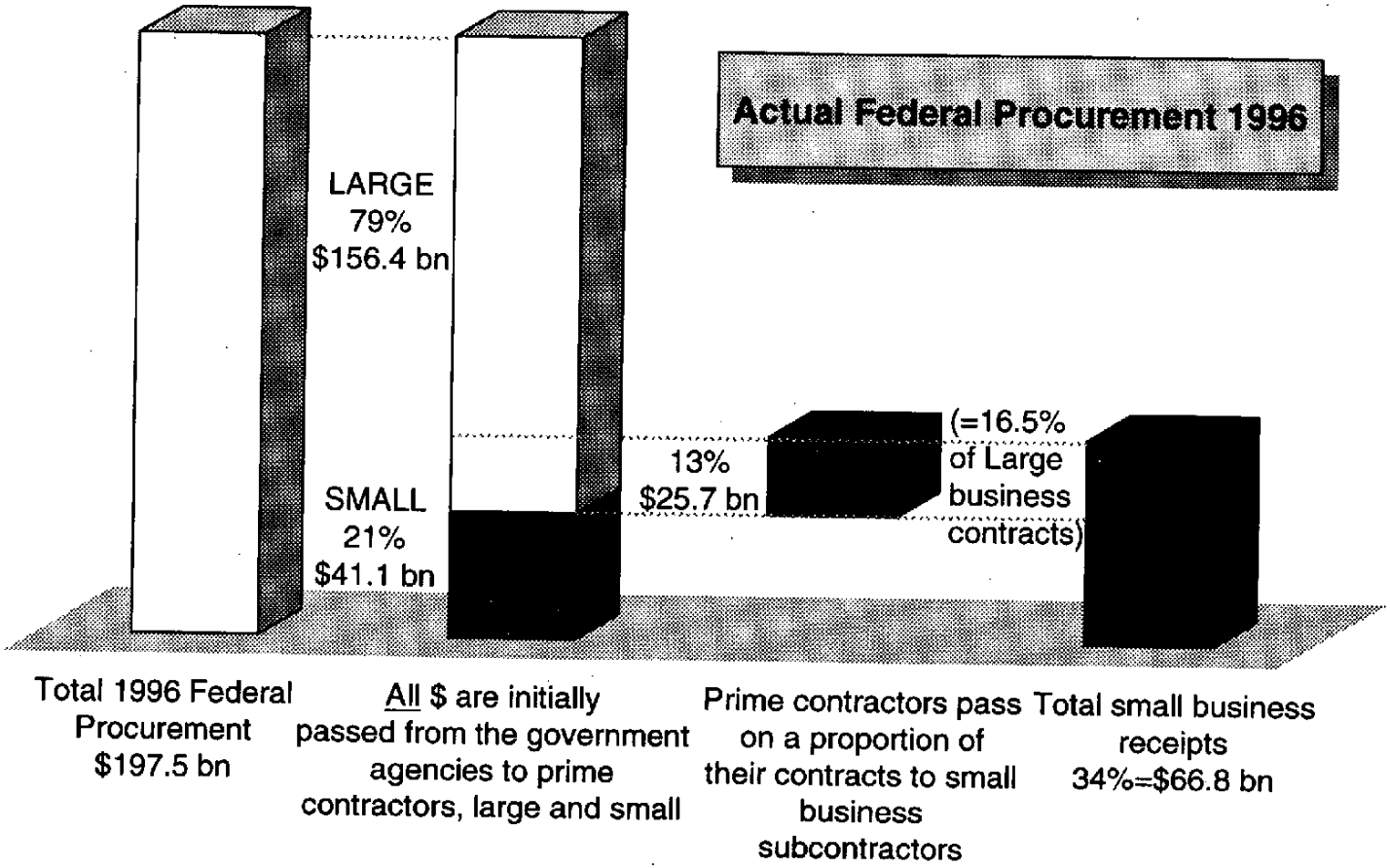
Prime Contractors

- Employed directly by the government
- For contracts over $500,000, all prime contractors must specify detailed arrangements for subcontracting, including their attempts to use small business subcontractors
- The SBA is authorized to contract with other agencies as a prime contractor, break the contract into parts, and sub-contract the parts to small businesses

Sub- contractors

- Employed by prime-contractors
- Often a first step for small businesses, since the procedures and bureaucracy are far less intimidating than those for becoming a prime contractor
- Assistance to sub-contractors is provided by the SBA, in the form of :
  - assistance in finding opportunities
  - CMRs (Commercial Marketing Representatives), who monitor prime contractors' compliance with sub-contracting procedures

Numerical targets distinguish "prime contractors" from "sub-contractors" (continued)



In addition to the top level targets, the government requires certain contracts to be set aside automatically for small business

- The concept of a 'set-aside' for small businesses was first introduced by the OMB in 1980
- Today, all contracts greater than $2,500 and less than $100,000 are automatically reserved (set-aside) for small businesses unless the contracting officer determines there is "not a reasonable expectation" of receiving competitive offers from two or more small businesses
- Additionally, the contracting offices must set-aside contracts over $100,000 if there is a reasonable expectation of receiving two small business offers
- The difference between these statements is a minute change of emphasis only - the expectation is that for contracts <$100k there are likely to be small business contenders, but for those >$100k there may not

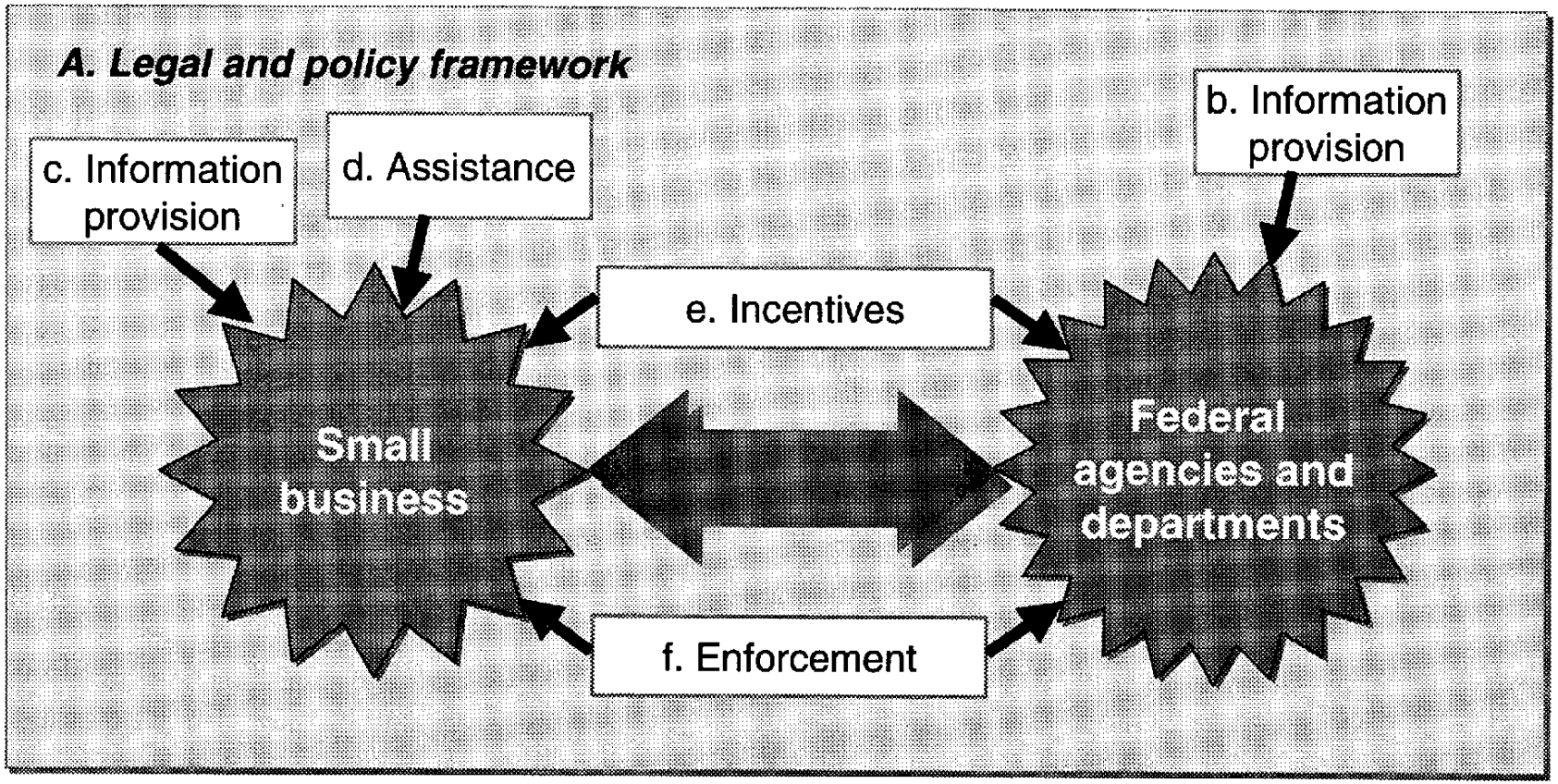
Small business set-asides

Total contract actions* 96	14,650,643
Total contract dollars	$197.5 bn
Average contract action value	$11,925
Total small purchases (<$100k)	$10.1bn
Small business direct contracts	$41.1bn
Set-aside share	41%
Small business set-asides	$16.9bn

* Includes new awards, modifications, orders, and small purchases

Contents

Federal support for small business is engendered and maintained at many levels and in many different aspects throughout the federal government



a. Legal and policy framework

Federal procurement policy and its impact on small business are determined by a series of interrelated acts, official policy documents, and other influential policy statements

Year	Type	Title and principle impact
1996	Act	**Federal Acquisition Reform Act (passed as part of National Defense Aquisition Appropriation)** • Further simplified procedures for cheaper contracts; further permitted restriction of competitive bids; removed authority for IT procurement from GSA and vested in individual agencies (see also Chapter 3)
1995	Recomm-endation	**White House Conference on SB** • Recommended establishment of national certification program unified across federal, state and local governments; increased procurement allocation to SBs; greater enforcement of use of PASS and "rule of two"
1995	Policy	**(date of latest amendment) Federal Acquisition Regulation Part 19** • Established roles of SBA and agencies in implementing foregoing acts; established procedure for set-asides; established guidelines for determination of an SB; established sub-contracting policy
1994	Act	**Federal Acquisition Streamlining Act** • Established statutory preference for (and expanded list of) "commercial items"; increased "small purchase" threshold (below which acquisitions are subject to simplified procedures) to $100k; established "micro-purchases" threshold at $2500 below which procedures are further simplified; established FACNET; established procurement target of 5% for women-owned SBs
1994	Act	**SB and Minority SB Procurement Opportunities Act** • Amended SBA to reserve all procurement contracts under $100k exclusively for SBs ("set-aside rule"), and to require extension of the FACNET facility to small businesses
1994	Recomm-endation	**Presidential Document: Executive Order 12931 Federal Procurement Reform** • Directed agencies to 'review agency procurement rules ... over and above those required by statute ... and ...replace them with guiding principles'; delegated more authority to purchasing office; established 'Procuremnent Executive' post in agencies

Abbreviations: SB Small Business, SDB Small Disadvantaged Business (including Minority Businesses)

a. Legal and policy framework

Federal procurement policy and its impact on small business are determined by a series of interrelated acts, official policy documents, and other influential policy statements *(continued)*

Year	Type	Title and principle impact
1994	Recomm-endation	**Presidential Document: Executive Order 12928 Promoting Procurement with SDBs** • Directed agencies to pay particular attention to the interests of SDBs
1993	Act	**Government Procurement Act** • Amended Federal Property Act of 1949 to require federal agencies to evaluate procurement contracts exceeding $100k on the basis of lowest net cost to government
1992	Policy	**OFPP Policy Letter 92-1: Inherently Governmental Functions** • Set out detailed guidelines on functions which must inherently be performed by the government
1991	Policy	**OFPP Policy Letter 91-1: Government-wide SB and SDB Goals for Procurement Contracts** • Required all federal personnel to 'commit to the letter and spirit' of all laws promoting the participation of SDB's in federal procurement
1988	Act	**Public Law 100-656: Business Opportunity Development Reform Act** • Amended SB Act to require President to set annual goals for SB share of procurement; improved SBA reporting requirements to ensure compliance; enabled SBA to set policy through its annual "Guidelines on Goals under Procurement Preference Programs"
1983	Policy	**OMB Circular A-76: Performance of Commercial Activities (replaced 1979 policy of same name)** • Established fundamental 'non-compete' rule such that all goods and services which are not 'inherently governmental' should be contracted to non-government providers

Abbreviations: SB Small Business, SDB Small Disadvantaged Business (including Minority Businesses)

a. Legal and policy framework

Federal procurement policy and its impact on small business are determined by a series of interrelated acts, official policy documents, and other influential policy statements *(continued)*

Year	Type	Title and principle impact
1978	Act	**Public Law 95-507** • Made sweeping revisions to SB Act requiring commitment to subcontracting; specific details of subcontracting plans for contracts over $500k; established OSDBUs in each agency; required federal agencies to set annual goals for SB share of procurement; established set-asides under "rule of two" (if two small firms can be found who could submit bids competitive with market prices for a given contract, bidding is restricted to those two firms) - contracts under $100k automatically reserved for small businesses, over $100k if companies can be found
1974	Act	**Public Law 93-400: The Office of Federal Procurement Policy Act (amended 1979)** • Established Office of Federal Procurement Policy as primary policy setter for government procurement, and placed under authority of OMB (Office of Management and Budget)
1953	Act	**SB Act** • Established SBA (Small Business Administration), its mission, and powers
1949	Act	**Federal Property and Administration Services Act**

Abbreviations: SB Small Business, SDB Small Disadvantaged Business (including Minority Businesses)

b. Information provision - to the government

Several resources are in place which greatly assist government procurement officers in their task of finding small business contractors, as well as in understanding and applying the underlying regulations and policies

OSDBU	**"Office of Small and Disadvantaged Business Utilization"** • Located in every federal department and agency, the role of these offices is to monitor and ensure compliance of the agency with numerical targets and procedures for utilization of small businesses
PCR	**"Procurement Center Representative"** • These individuals, employed by the SBA but located within federal departments and agencies, monitor all contract solicitations issued, and attempt to obtain "set-asides" for small businesses, or subcontracting opportunities within larger prime contracts. The information they collect is recorded in the PCRIS (Procurement Center Representative Information System), established in 1993
CCR	**"Central Contractor Registry"** • A register, maintained by the DoD but accessible to all other agencies, containing detailed information on all contractors (small and large businesses) who register themselves
PASS	**"Procurement Automated Sourcing System"** • A computer database maintained by the SBA but accessible to all PCRs, OSDBUs, and other procurement officials, of all small businesses who register themselves on the system. Founded in 1978, the system contained information on 220,000 companies by 1993.
COCACS	**"Certificate of Competency Automated Computer System"** • A computer database maintained by the SBA and accessible from each of its area offices of all companies receiving COC Certification

c. Information provision - to businesses

Additionally, many information resources are available to assist small businesses in the process of securing federal contracts

Resource type	*Examples*
'How to' guides	**General guides to contracting with the government** • "Resources for US government contractors" • "US Government Purchasing and Sales Directory" • "Small Business Guide to Procurement Reform" • "Small Business Success Magazine" • "Procurement Assistance" (SBA) • "Small Business Subcontracting Directory" (SBA) **Guides specific to individual agencies** • "Best Practices: How to avoid surprises in the world's most complicated technical process" (DoD) • "Selling to the Military" (DoD) • "Guide to doing business with the Department of State" (DoS) • "GSA subcontracting directory" (GSA)
Contract information	• "Commerce Business Daily" (detailed daily list of forthcoming contracts plus contact information) • "Pro-Net" (electronic gateway to procurement information, listing contracting opportunities, contact details and other information
Online contracting	• "FACNET" (government's electronic commerce initiative, eventually intended to take government contracting entirely online) • NEPAC (National Electronic Procurement Assistance Center) distributes information electronically to over 4000 companies and agencies • "GovCon" (similar initiative but for IT purchasing - see Chapter 3)
Seminars and training	• The SBA and various agencies offer public seminars and workshops to businesses offering training in the procedures and complexities of the federal procurement process
Collections of information resources	• "ArNET (Acquisition Reform Network)" (provides detailed collection of resources to businesses illustrating how the procurement process is evolving and how it will affect businesses in the future

d. Assistance

Various bodies provide very practical advice and assistance to small companies to help them secure contracts

US Business Advisor	• Provides one-stop access to application forms, business development guidance and software, and information from the SBA and other agencies
OFPP (Office of Federal Procurement Policy)	• Primary responsibility is to set procurement policy and monitor compliance. Policy is defined by the FPC (Federal Procurement Council, chaired by the OFPP and including representatives of various agencies), set in the FAR (Federal Acquisition Regulation), and supplemented by various guidelines issued directly by the OFPP • In addition, the OFPP provides access to regulation, support with interpretation of the regulation to the general public, and a legal recourse in times of difficulty (although a small business would usually utilize the SBA)
SBA	• Office of Advocacy provides access to regulation, support with interpretation of the regulation to the general public, and a legal recourse in times of difficulty • Office of Government Contracting provides information brochures detailed on previous page, holds seminars, and offers general advice • PCRs (Procurement Center Representatives), BPCRs (Breakout Procurement Center Representatives), and CMRs (Commercial Marketing Representatives), while located in various places, provide the same basic function of finding small businesses and helping those businesses to secure contracts
PTACs (Procurement Technical Assistance Centers)	• Located in agencies and departments, these offices are responsible for finding small businesses, and helping those businesses to secure contracts

d. Assistance

Various bodies provide very practical advice and assistance to small companies to help them secure contracts (continued)

BIC (Business Information Centers)	• High-tech hardware, software and telecommunications to help small businesses (not specifically with the aim of securing procurement contracts) • Various counseling and training services • Usually joint ventures between SBA and private firms
CoC Representative (Certificate of Competency Representative)	• Total of 31, split between each of the SBA's 6 area offices • Responsible for reviewing a small company's eligibility to perform a specific government contract and issuing, if appropriate, a 'Certificate of Competency' (see Section 2.3 for more details)
SBDCs (Small Business Development Centers)	• Variety of information and practical assistance to small businesses • Similar function to BICs, but more numerous, and often located by SBA within institutions (in particular universities)

e. Incentives

Through the Federal Procurement Awards Program, the SBA offers prestige and marketing advantages to large and small businesses, creating a very real incentive to contract with small businesses

The Federal Procurement Awards Program	
Dwight Eisenhower Award for Excellence	• Large federal prime contractors with the most outstanding small business subcontracting programs • Companies must first receive the Award of Distinction to be eligible
Award of Distinction	• Large federal prime contractors with exceptional small business subcontracting programs • Of the SBA's portfolio of over 2500 large prime contractors, less than 15 have earned the Award
Small Business Prime Contractor of the Year	• Small businesses that have provided outstanding goods or services under federal prime contracts
Small Business Subcontractor of the Year	• Small businesses that have provided outstanding goods or services under federal sub-contracts
Frances Perkins Vanguard Award	• Federal agencies that have excelled in their use of women-owned small businesses as prime or sub-contractors

f. Enforcement

In addition to rewards for success, the SBA has the authority to inflict stiff penalties on agencies or businesses that feel to meet the guidelines imposed

Penalty imposed on	
Federal agencies	• ... that fail to meet annual targets for small businesses utilization ➪"target stacking", ie the office must in the subsequent year meet the new annual target plus an additional amount equivalent to the shortfall in the previous year
Prime Contractors	• ... that fail to provide adequate subcontracting plans ➪Loss of contract • ... that fail to meet subcontract targets subject to commencement of project ➪Loss of contract, fine equal to any additional cost incurred by the government in lost work to date and selection of new contractor
Small Businesses	• ... that mislead the government over size or status (ie whether could be considered a small business or not) ➪$500,000 fine and/or 2 years in prison

Contents

US Federal Procurement is effected through three parallel interlocking processes

I.
Government agencies work with the SBA to set small business procurement goals

II.
Companies establish themselves as able and willing to participate in procurement

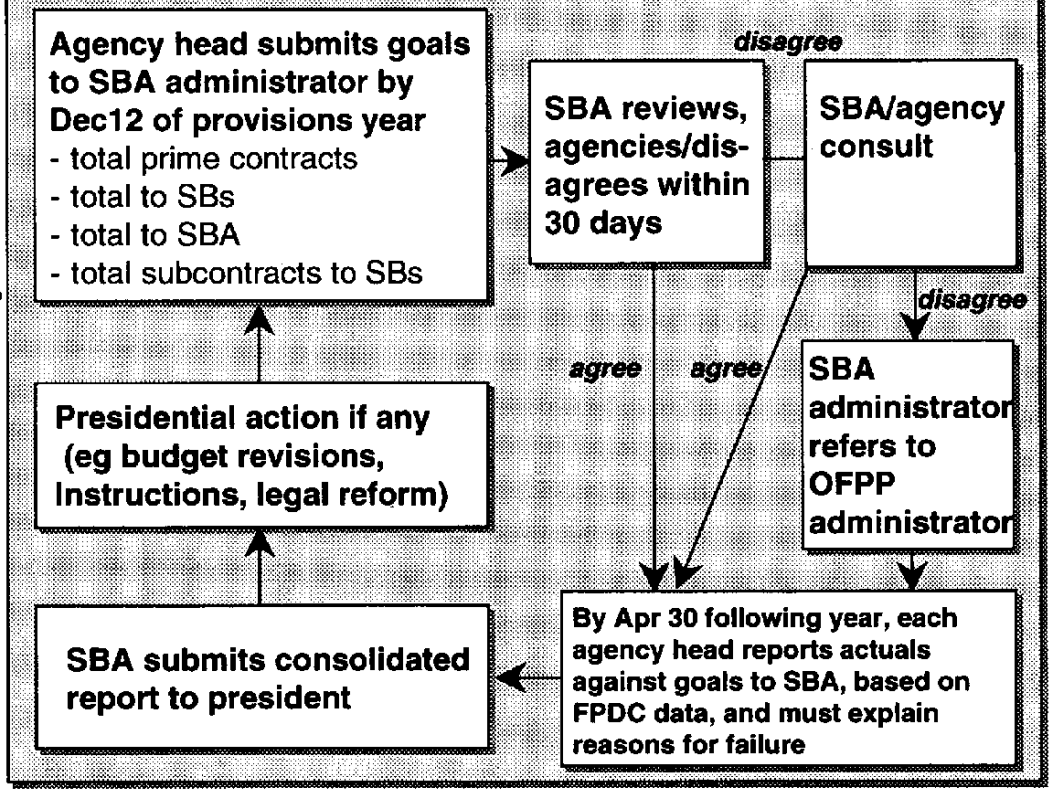
III.
The contract allocation process itself involves the offering companies, the SBA, and the soliciting government agency

I. Government agencies work with the SBA to set small business procurement goals

Government-wide target defined by legislation

- 20% target first set by Public Law 95-507 in 1978
- Reformulated in Business Opportunity Development Act of 1988
- Implemented in practice by Federal Acquisition Regulation (FAR)
- Modifications recommended, but not yet implemented, by 1995 White House Conference on Small Business

Annual targets established by heads of each Federal Agency after consultation with the SBA



II. Companies establish themselves as able and willing to participate in procurement

Exploration

- **Procedure explanation guides**
- **Lists of goods purchased and contracting officers responsible**
- **Individual agency how-to guides**
- **Agency websites**

Registration

Subscribe to agency bidder lists
- Fill out SF 129 'Solicitation Mailing List Application'
- Send to each agency separately

List in CCR (Central Contractor Registry)
- Contact DoD

Connect PASS (Procurement Automated Souring Service)
- Contact SBA

Connect to FACNET
- Retain (or become!) a VAN (Value Added Network) service provider
- Contact an ECRC (Electronic Commerce Resource Center)

Get product "qualified"
- New standard products are listed in the GSA Federal Supply Schedule

Networking and scouting

Review CBD (Commerce Business Daily)
- Available electronically/on paper
- Lists allcontracts over $100k and those over $25k not yet in FACNET

Review FACNET

Reviews agency websites
- Forthcoming opportunity bulletin boards

Contact individual contracting officers

Attend procurement seminars

Contact prime contractors

III. The Contract allocation process itself involves the offering companies, the SBA, and the soliciting government agency

Company sends unsolicited proposal to contracting offices

- Sometimes unsolicited proposals can stimulate a new need
- At the very least they make the contracting officer aware of the offering company

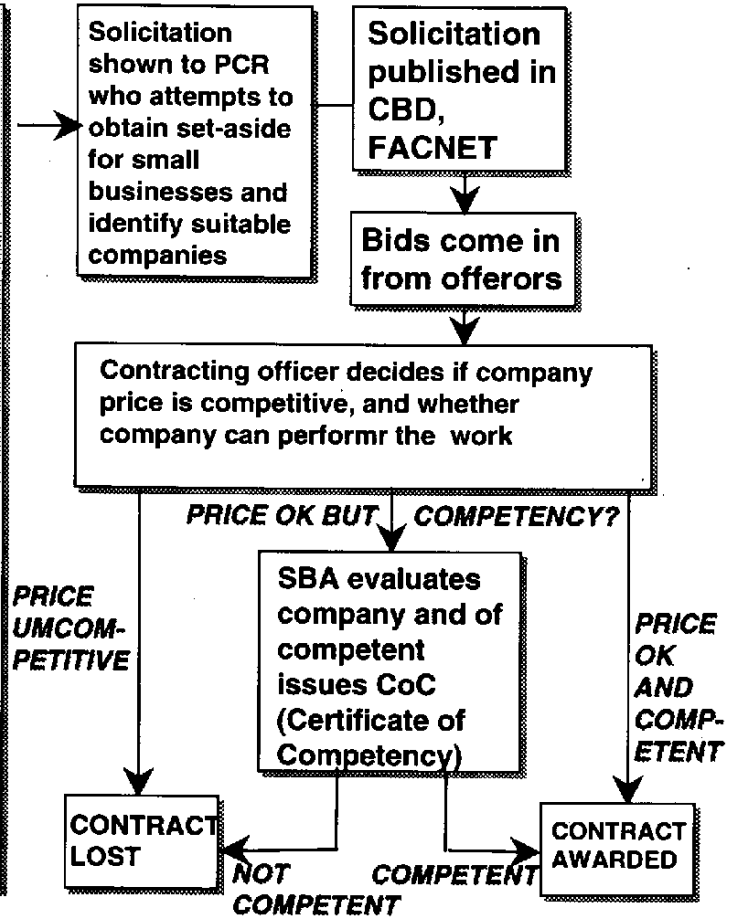
Government contracting officer solicits bids for a contract!

①<$2500
- "Micropurchase"
- no competitive quotes required
- not reserved for small companies

②<$2500¥ - $100k
- "RFQ(Request for Quotation)"
- no formal commitment to contract at time of ?

③<$100k "Sealed Bid"
- used when contract requirements are clear and decision will be made on price

Or "Negotiated"
- used when contract requirements are complicated and decision will be made or more than price alone

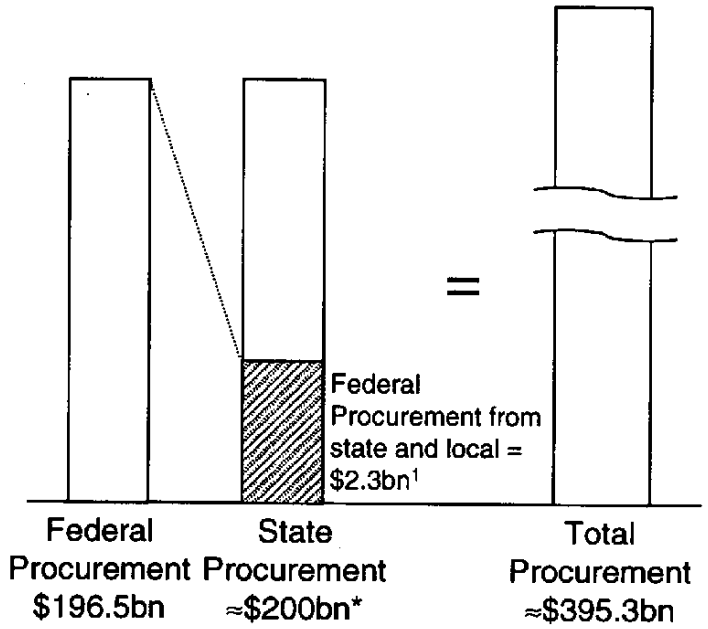


Contents

Although no reliable data source is available, state and local government procurement represents about half of total US government procurement

- The FPDC (Federal Procurement Data Center) does not keep central records of state and local procurement data, and no other centralized source of procurement data exists
- The SBA has conducted its own research into state and local government procurement, and found the total to be about $200bn in 1996
- However, a small proportion of federal procurement expense goes on state and local government resources, so total procurement comes to about $395bn

Total US government procurement



* Source SBA
1 Source FPDC

Broadly speaking, state and local government procurement is governed by similar principles to those at the federal level, but differences arise due to the differing roles of the government institutions themselves

- The principles of state and local government procurement are broadly the same as federal procurement - the process, level of competition, and pace of reform all proceed in parallel*
- However the profile of goods purchased is quite different - in particular, for example, IT purchasing
  - federal government is by definition a broader entity with a greater burden of cross-communication between individuals and locations, and consequently spends more on communications and information flow
- A growing trend towards sharing of state and federal resources exists - for example California state purchasers can refer to federal schedules of approved products and vendors, saving time and resources

* Although state legislation tends to lag by a few years

Key differences between federal/state procurement principles and variations between states

- Individual states are governed by state legislation which parallels, but not in every detail, federal legislation (eg "California Acquisition Reform Act" of 1996 is broadly the same as the "Federal Acquisition Reform Act")
- States vary according to :
  - the level of information they provide
  - whether or not small-business set-aside programs exist
  - registration process (some states charge a fee)
- Incentive schemes (separate state and state-wide schemes exist, such as the 'Cronin club')
- Multi-state collaboration (several schemes exist facilitating joint purchasing between states)

Contents

Receipt of federal procurement contracts is clearly beneficial to the well-being of small companies in several ways

Direct Cash Flow Impact

- Government contracts provide a source of income for small companies
- That source is often more lucrative than equivalent private contracts (the government often pays better, the government usually pays on time)

Indirect Cash Flow Impact

- Receipt of government contracts can be considered an asset for the purpose of obtaining financial aid (eg bank loans)
- Repeat government contracts can require less marketing than commercial contracts, and initial contracts often last longer

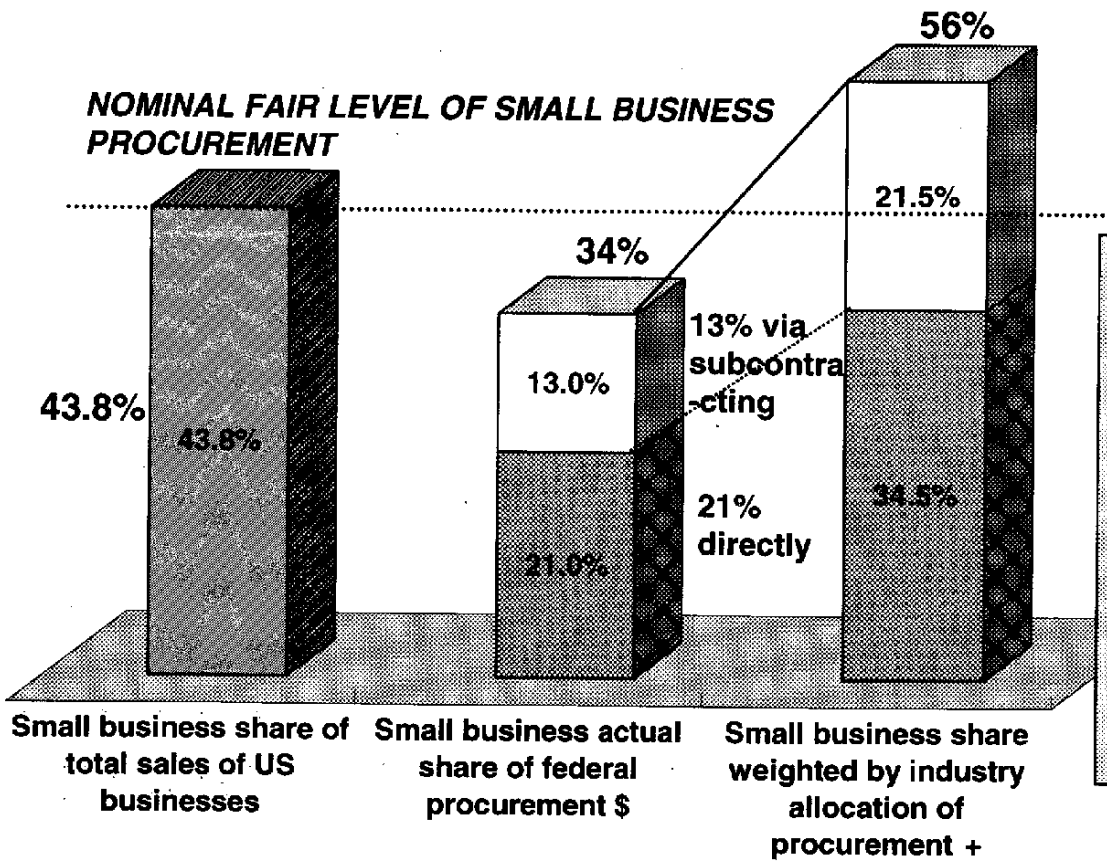
Intangible

- Companies can develop skills while performing government work that can later be leveraged into the private sector
- Government contracts can provide a certain 'prestige' which can assist a company in marketing to the private sector

However, assessment of whether small companies are receiving their 'fair share' of government procurement (and consequently whether the procurement system is effective in supporting small business) is more difficult

- Quantification of the benefit to small companies of having received federal procurement is possible (see analysis in Chapter 4)
- However, the system can only be said to be 'working' if overall a fair proportion of federal procurement is being allocated to small companies
- Simply comparing the percentage of procurement dollars which small companies receive with the total contribution of small companies to US sales is inadequate :
  - not all small companies choose to go for federal contracts
  - the burden of administration required to win contracts is disproportionately high for small companies (learning the rules, watching for contracts, proving competence, developing relationships) and so, other things being equal, small businesses would get a lower share than large businesses
  - the allocation of federal procurement dollars by industry is not the same as that in the economy at large, and so may be weighted forwards industries with a higher (or lower) than average share of small businesses

Taking these factors into account, small businesses today receive more than a fair share of federal procurement dollars



A 1987 study* found that although small businesses only received 17% of procurement, vs a contribution of 42% to sales, when this figure was reassessed according to the share of those industries receiving federal procurement of the economy as a whole, the receipts were actually equivalent to 28%

* "Procurement share vs Industry share", Jun 1987, Jack Faucett Associates (based on 1983 data)

\+ Source : MUSE Analysis

Contents

Federal procurement evolution will continue to favour small businesses relative to large but in absolute terns the dollar value will decrease

- Once the recommendations of the 1995 White House Conference are implemented, the clearest trend will be more stringent targets for small business share
  - White House Conference recommended increasing share to 35%
  - although the total is already close (34%), the breakdown of the 35% includes 10% for small and disadvantaged businesses and 5% for women-owned businesses - meeting these targets, (if other totals remain the same) could push the small business share close to 40%
- However, at the same time total federal procurement spending may well decrease
  - in nominal dollars, federal procurement has not grown at all in the last ten years
  - hence in real terms, it has been declining by about 2.5% per year
  - today, the federal administration is facing ever greater pressure to cut costs
- In an attempt to reduce costs and streamline federal procurement, several changes will occur
  - move to Electronic Commerce (all transactions online over FACNET by 2000)
  - more off-the-shelf buying
  - more empowerment of contracting officers
  - more consolidation (bundling) of contract requirements

第3章　米国連邦政府調達とソフトウェア産業

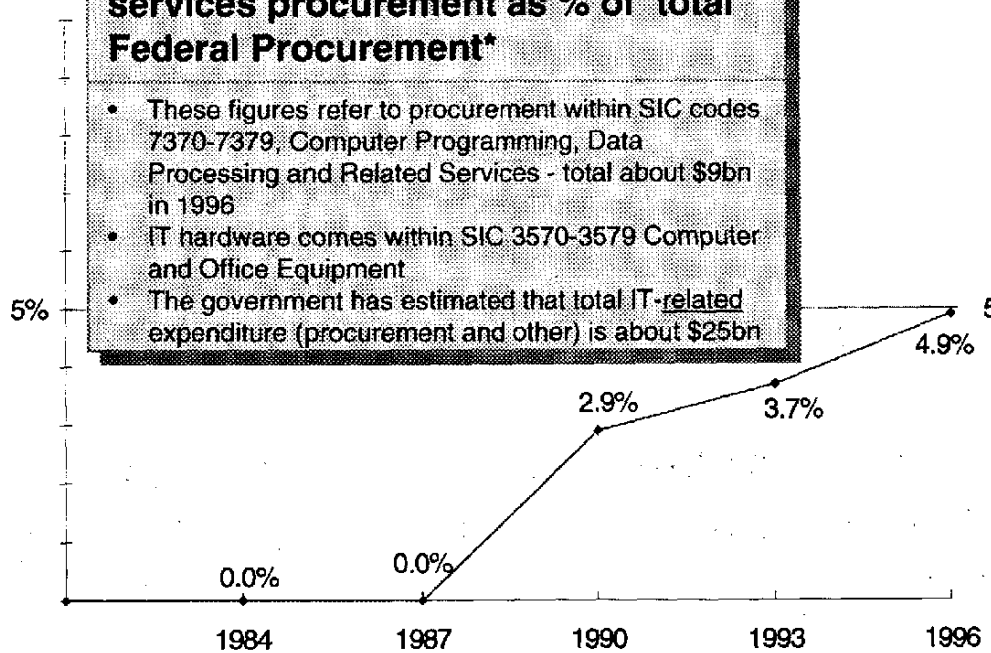
US Federal Procurement and the software industry

Contents

Computer software and services procurement is a significant proportion of total US procurement, and has historically been good hunting ground for small companies

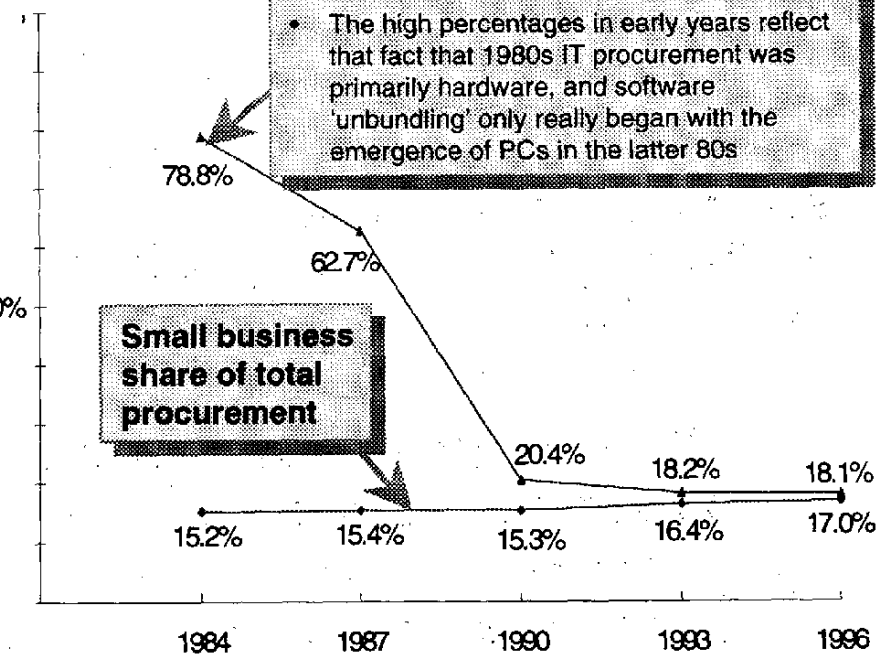
Total computer software and services procurement as % of total Federal Procurement*

- These figures refer to procurement within SIC codes 7370-7379, Computer Programming, Data Processing and Related Services - total about $9bn in 1996
- IT hardware comes within SIC 3570-3579 Computer and Office Equipment
- The government has estimated that total IT-related expenditure (procurement and other) is about $25bn



Small business share of total computer software and services procurement

- The high percentages in early years reflect that fact that 1980s IT procurement was primarily hardware, and software 'unbundling' only really began with the emergence of PCs in the latter 80s

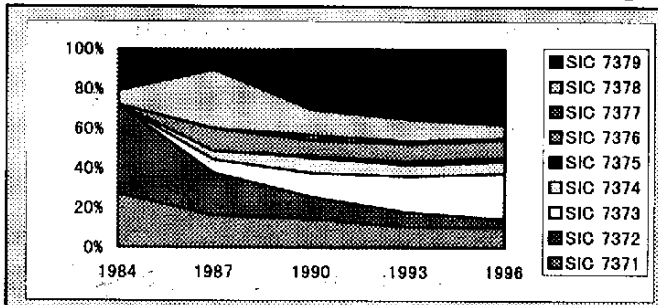


Source: FPDC, MUSE Analysis

* Note : Total Federal Procurement figures used here exclude subcontracting. The figures also exclude so-called SF281 data which is maintained separately by the FPDC and difficult to correlate - however, this data represents <10% of the total

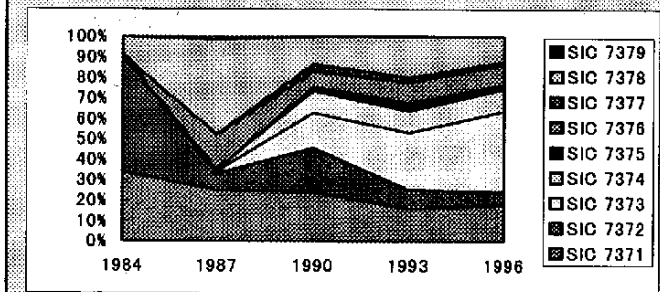
Small businesses have traditionally fared well in systems design and computer maintenance, but not in computer-related services

All IT procurement (small and large businesses)



	1984	1987	1990	1993	1996
SIC 7371	27.4%	16.7%	14.6%	10.6%	10.4%
SIC 7372	44.8%	21.5%	11.0%	7.3%	4.2%
SIC 7373	0.0%	6.6%	12.0%	18.3%	23.2%
SIC 7374	0.0%	5.0%	7.7%	5.7%	5.8%
SIC 7375	0.0%	-0.4%	0.8%	1.7%	2.0%
SIC 7376	0.0%	11.4%	7.9%	8.9%	8.9%
SIC 7377	0.0%	0.0%	2.7%	1.4%	0.8%
SIC 7378	7.1%	29.8%	12.9%	11.2%	6.7%
SIC 7379	20.8%	9.5%	30.3%	34.9%	37.8%

Small business IT procurement

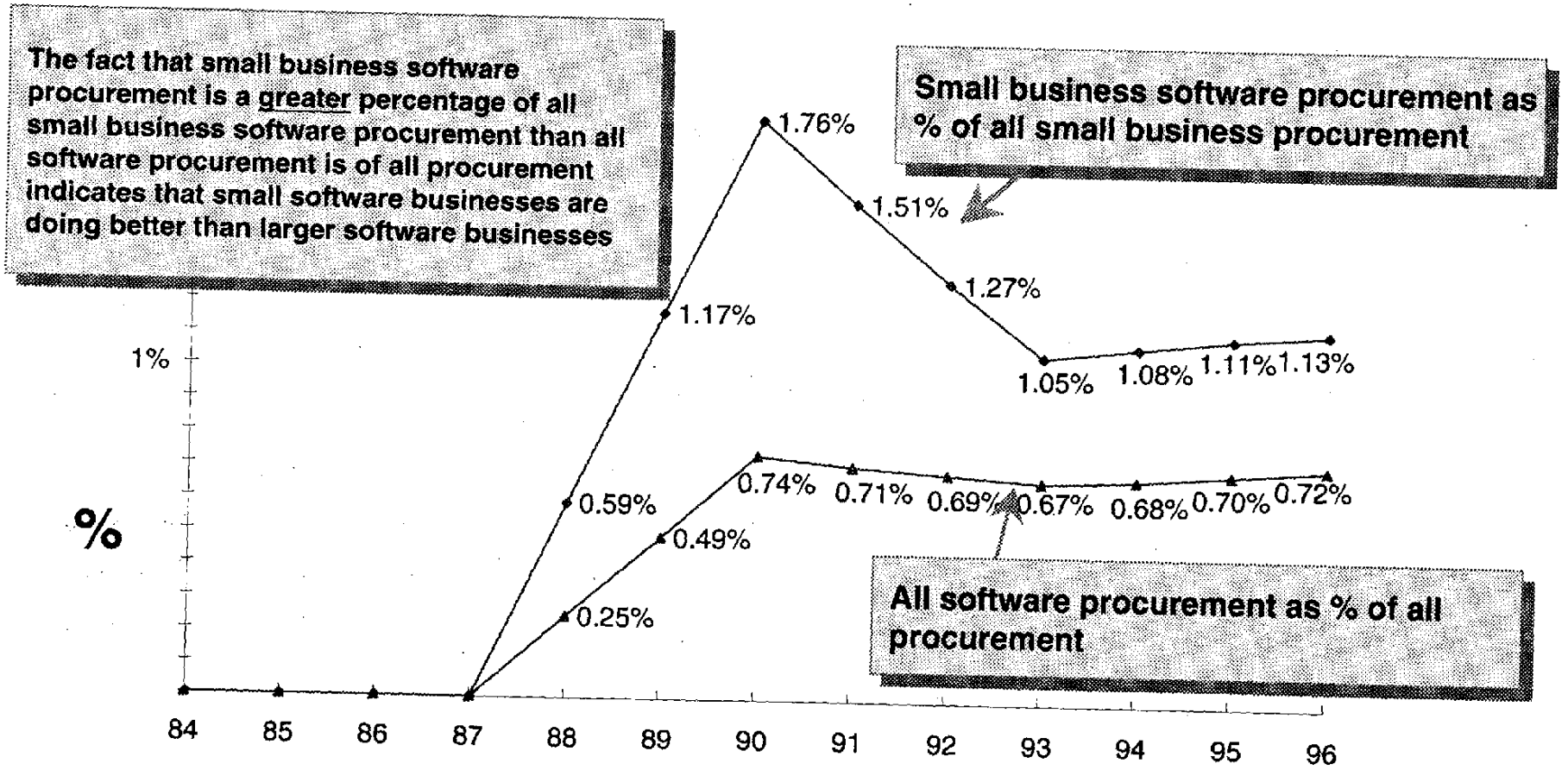


	1984	1987	1990	1993	1996
SIC 7371	34.1%	25.6%	24.3%	16.1%	18.0%
SIC 7372	56.9%	8.0%	21.4%	9.4%	6.4%
SIC 7373	0.0%	1.3%	17.1%	27.7%	39.4%
SIC 7374	0.0%	1.2%	10.9%	10.6%	10.9%
SIC 7375	0.0%	-0.7%	1.8%	3.9%	2.1%
SIC 7376	0.0%	17.7%	7.5%	10.3%	10.0%
SIC 7377	0.0%	0.0%	3.5%	2.2%	1.1%
SIC 7378	9.0%	46.9%	13.4%	19.9%	12.0%
SIC 7379	0.0%	0.0%	0.0%	0.0%	0.0%

SIC 737x COMPUTER PROGRAMMING, DATAPROCESSING, & OTHER COMPUTER RELATED SERVICES

7371	COMPUTER PROGRAMMING SERVICES
7372	PREPACKAGED SOFTWARE
7373	COMPUTER INTEGRATED SYSTEMS DESIGN
7374	COMPUTER PROCESSING & DATA PREPARATION & PROCESSING SERVICES
7375	INFORMATION RETRIEVAL SERVICE
7376	COMPUTER FACILITIES MANAGEMENT SERVICES
7377	COMPUTER RENTAL & LEASING
7378	COMPUTER MAINTENANCE & REPAIR
7379	COMPUTER RELATED SERVICES

Small businesses have fared considerably better than average in software procurement in particular



Source: FPDC, MUSE Analysis

Interest in IT expenditure is growing rapidly as more and more federal services are delivered through technology

- Computers have been used in the federal government for more than three decades
  - over 50,000 mainframes and minicomputers
  - over 2m PCs
- Initial efforts focused primarily on internal process automation and communications
- Increasingly attention is shifting to the concept of 'electronic service delivery', which is becoming a central tenet of several of the Clinton Administration's reform policies
  - "Reinventing government"
  - "Service to the citizen"
  - "National Performance Review"
  - "Technology Policy for Economic Growth"
  - "National Information Infrastructure"
  - OTA's "Make Government Work"

Federal government use of Information Technology

- Internal process automation
  - –document filing
  - –internal communications
  - –internal application and transaction processing

(in particular IRS, SSA, Bureau of Cersus and NASA report that they are critically dependent on their information infrastructure)

- Electronic service delivery
  - –direct deposit of social security payments
  - –filing of electronic income fax returns
  - –access to documents and data via internet / CDs
  - –videoconferencing for public meetings
  - –NSF electronic submission and review of grant proposals

The growing significance of IT and software expenditure has made it a particular focus of federal procurement policy in recent years

Year	Type	Title and principle impact
1997	Policy	**Software development contracts: Performance-based service contracting (PSBC) work statement** • Defined by Software Development Committee of OFPP • Provided detailed policy guidelines as to implementation of modular contracting as defined by Information Technology Management Reform Act (see below)
1996	Act	**Information Technology Management Reform Act (passed as part of National Defense Authorization Act for fiscal year 1996), also known as the 'Clinger-Cohen Act'** • Modified OFFP Act to require "modular contracting", in which major projects are implemented in successive stages, with each stage compatible with prior and succeeding stages, and open to bidding from separate contractors • Required implementation of modular contracting by FAR • Authorized pilot programs for information technology acquisitions, with pilot program value not to exceed $750k • Authorized agencies to conduct pilot into "solutions-based contracting", whereby agencies determine objectives of IT contracts, and allow bids to define the actual implementation • Required set-aside of up to 10 projects between $25-$100k and up to 10 projects between $1m and $5m for small businesses (section 5312.d.2) • Required FACNET to provide (by Jan 1998) access to information on prices, vendors etc available for "multi-contract ordering" (to all intents and purposes off-the-shelf goods), and required at least 60% of all orders to be made through FACNET • Devolved authority for procurement from GSA to all individual agencies • Established chief information officer role in each agency and department

In addition, several policy initiatives are underway at the state and local government level

- A 1992 study by the Texas state found that governments spent an average 5.5¢ to process $1 of procurement, compared with only 1¢ in the private sector
- Extrapolated nationwide, a 1996 study* found that the government could save $1.5bn per year by implementing procurement procedures closer to the private sector model
- The same report detailed several clear policy recommendations based on a combination of forward moves by individual states and federal-level reform
  - commodity procurement (Texas, California, North Carolina, New York, New Mexico)
  - electronic commerce (Texas, Massachusetts, Oregon, Indiana, New York, Missouri, New Mexico)
  - best value (ie not only cost) (Texas, Massachusetts, New York, Missouri, New Mexico)
  - vendor partnerships (Michigan, New York)

* "Buying Smart : State Procurement Saves Millions", NASPO

Modular contracting for software procurement is in line with many of the central principles of procurement reform

- Software in particular has suffered as a result of government red tape in the procurement process
  - 'grand-design' projects outdated before completion
  - inadequate understanding by government leading to inoperability
- Modular contracting, first envisaged several years ago and implemented practically over 1996 and 1997
  - faster streamlined process
  - more electronic collaboration
  - more openness and government understanding

Benefits of modular contracting

- Flexibility
  - direction of a project can be changed more frequently to adapt to changing needs and changing technology environment
- Closer cooperation
  - designing modules forces contracting officers to work more closely with vendors to examine the need and implementation approach
- Speed
  - aided by electronic commerce and process streamlining, modular contracting greatly speeds up software procurement
- Competition
  - continuous competition and competitive evaluation

第4章　米国連邦政府調達のソフトウェア産業に対する数量的効果

Quantitative impact of US Federal Procurement

Contents

Federal Procurement has three separate quantifiable effects on the US economy, and in particular the growth and well-being of small software companies

I. Every year, federal procurement of software from small businesses benefits the US economy by about $759m (equivalent to about 2.3% of the sales of small-business software companies in the US)

II. Historical bias of federal procurement towards software from small businesses has led to a cumulative investment equivalent to about 6.3% of the small-business-generated US software industry today

III. In addition, federal procurement has indirectly caused around another 19.6% of the small-business-generated software sales

I. Every year, federal procurement of software from small businesses benefits the US economy by about $759m

Federal government procures software from US small businesses → ***Those companies reinvest a proportion of their contract money in supplies*** → ***The supplier companies also reinvest a proportion of what they receive*** → . . .

Direct expenditure = $369m

- 1996 figure
- Source FPDC
- Total of SIC 7371 and SIC 7372
- Does not include subcontracting expense (data unavailable) which could amount to an additional $228m

- Compares reinvest at a maximum 60.4% (the average receipts less wages across the software industry)
- In reality most companies probably make a profit, which would reduce this figure (although in a sense this profit is also a direct benefit of federal procurement)

- Averaged across US industry, companies reinvest 83.2% (average receipts less wages across industry as a whole)

I. Every year, federal procurement of software form small businesses benefits the US economy by about $759m (continued)

- Total direct expenditure is $369m (1996)
- With subcontracting, this may be as much as $597m
- With reinvestment, the 'economic multiplier' effect means that the total (reinvested) benefit to sales of US companies is $759m
- Again, with subcontracting, this could be as much as $1,228m
- This is equivalent to about 2.3% (3.7% including subcontracting) of total sales of small US software businesses of about $33,266m

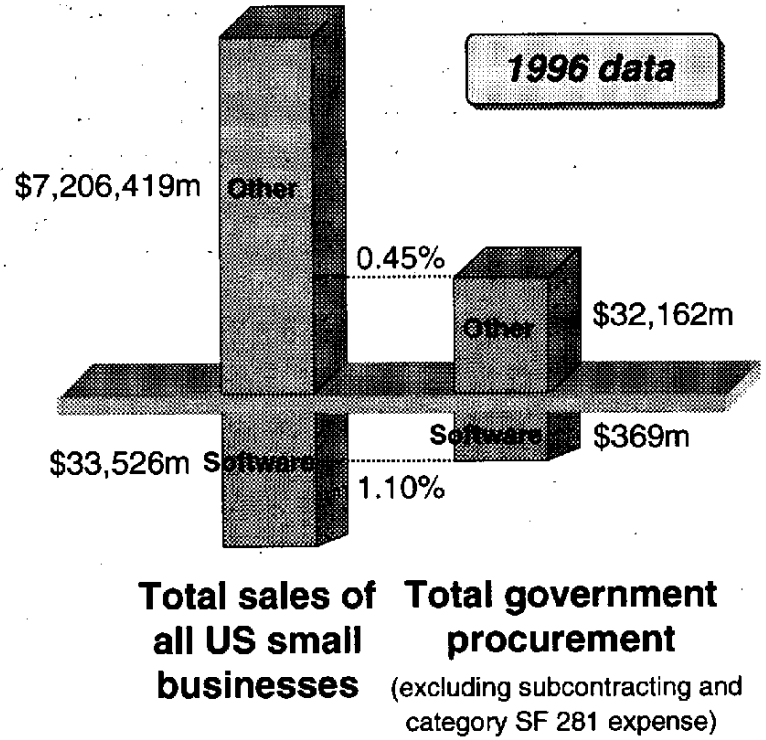
Calculation of the 'economic multiplier'

Direct procurement = P
Reinvestment by small software companies % = a %
Reinvestment by suppliers to small software companies % = b %
Total impact = I

$$I = P+Pxa\%+(Pxa\%)xb\%+(Pxa\%)x(b\%)^2 + \cdots$$
$$= P+(1+a\%)+(Pa\%)[b\%+ (b\%)^2 + \cdots]$$
$$= P+(1+a\%)+\frac{Pa\%b\%}{1-b\%}=P(1+60.4\%)+\frac{P(60.4\%)(83.2\%)}{1-83.2\%}$$
$$I = Px2.06$$

If P = $369m,
I = 369x2.06=$759m

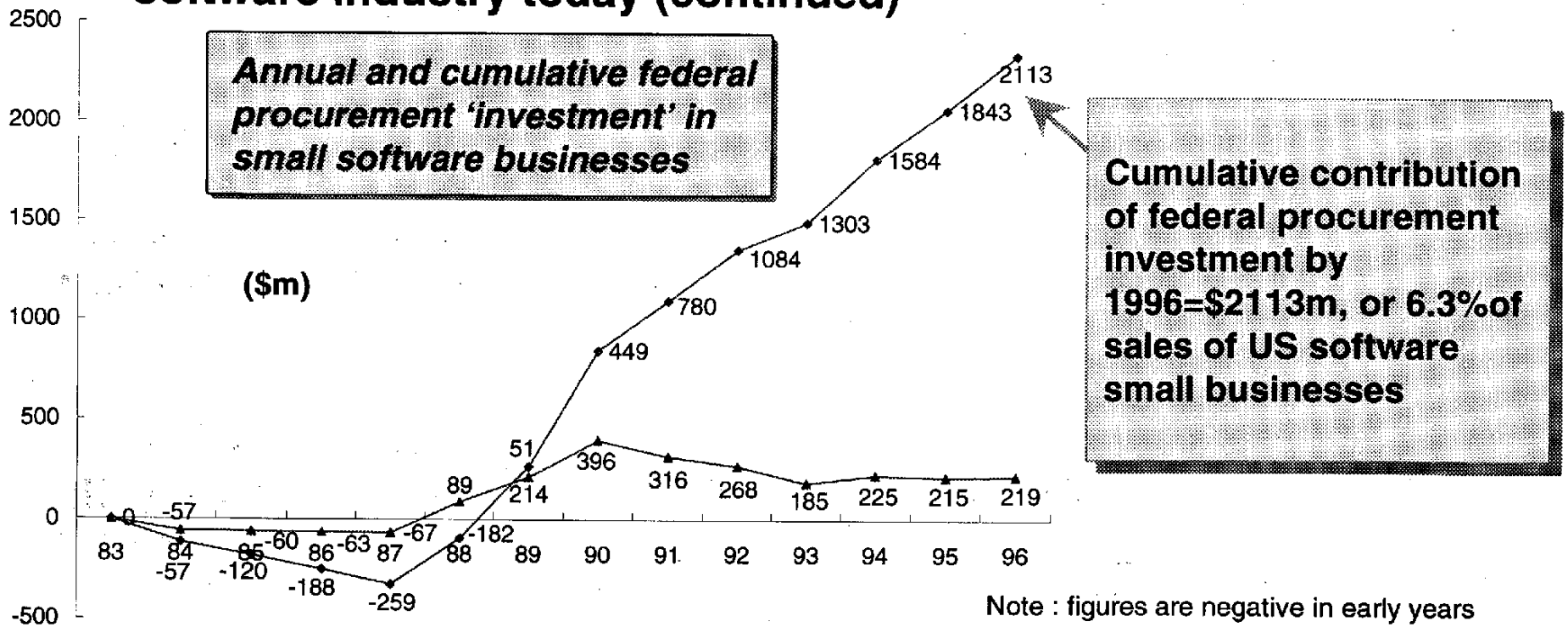
II. Historical bias of federal procurement towards software from small businesses has led to a cumulative investment equivalent to about 6.3% of the small-business-generated US software industry today



Source : FPDC Department of Commerce SBA : MUSE Analysis

- A higher proportion of government procurement goes to small businesses in the software sector than that sector contributes to the economy as a whole
- The imbalance can be considered 'investment' by the government in the sector
- I.e. in 1996 the government 'invested' $369m x 0.45% / 1.10% = $219m
- To estimate the total cumulative effect, we calculate the 'investment' each year since software procurement began, and calculate the size of that investment today

II. Historical bias of federal procurement towards software from small businesses has led to a cumulative investment equivalent to about 6.3% of the small-business-generated US software industry today (continued)



Source : MUSE Analysis
[See Appendix for detail of calculation]

Note : figures are negative in early years because federal procurement was skewed against software (government is not a technology early adopter)

III. In addition, federal procurement has indirectly caused around another 19.6% of small-business-generated software sales

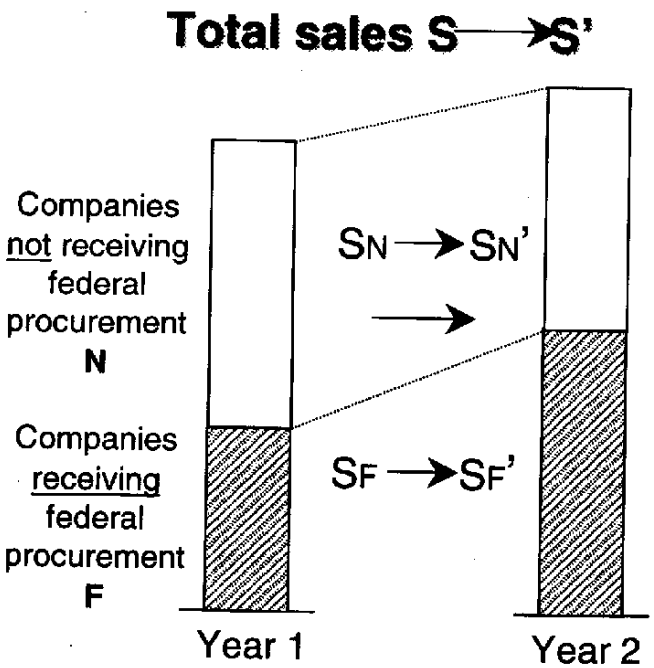
- Federal procurement contributes to the long-term economic wellbeing of the small firms that receive it*
- Those firms receiving federal procurement grow faster, and live longer, than equivalent firms that do not
- Although their statistical contribution is not known, there are several reasons, eg :
  - –marketing prestige
  - –direct cash flow impact
  - (see chapter 2.5 for more detail)

	Death Rate	Employment Growth Rate
Small businesses not receiving FP	+8.2% (32.9%)	-1.5% (-5.8%)
Small businesses receiving FP	+3.8% (15.4%)	2.2% (+8.7%)

( ) Figure in brackets are the four year rates derived by the report

* This conclusion, as well as the growth / death rates, derive from a statistical study of 50,000 companies receiving federal procurement, and comparing their long-term growth / death rates with the industry average of the time. See 'Impact of Federal Procurement on Small Business Development', M&R Associates, 1992

III. In addition, federal procurement has indirectly caused around another 19.6% of small-business-generated software sales (continued)



- As a result of the different growth/death rates, the contribution to sales of those companies who received federal procurement in a given year will increase relative to that of those that didn't
- Specifically,

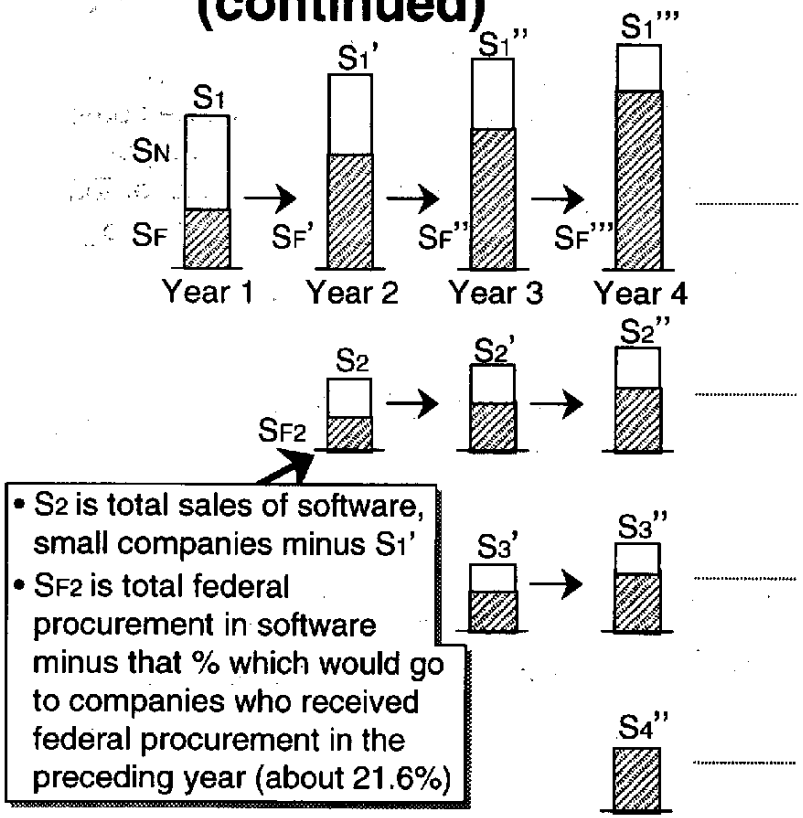
  $S_N' = S_N \times (1-8.2\%) \times (1-1.5\%)$

  $S_F' = S_F \times (1-3.8\%) \times (1+2.2\%)$

  $\Rightarrow \frac{S_F'}{S_N'} = (1+8.6\%) \times \frac{S_F}{S_N}$
- Ie the sales growth rate of those companies that have received federal procurement is on average 8.6% higher than that of those that did not*

* Note : this is not to say individual companies have 8.6% higher sales growth : rather that the total sales of all those companies that received procurement is (on average) higher

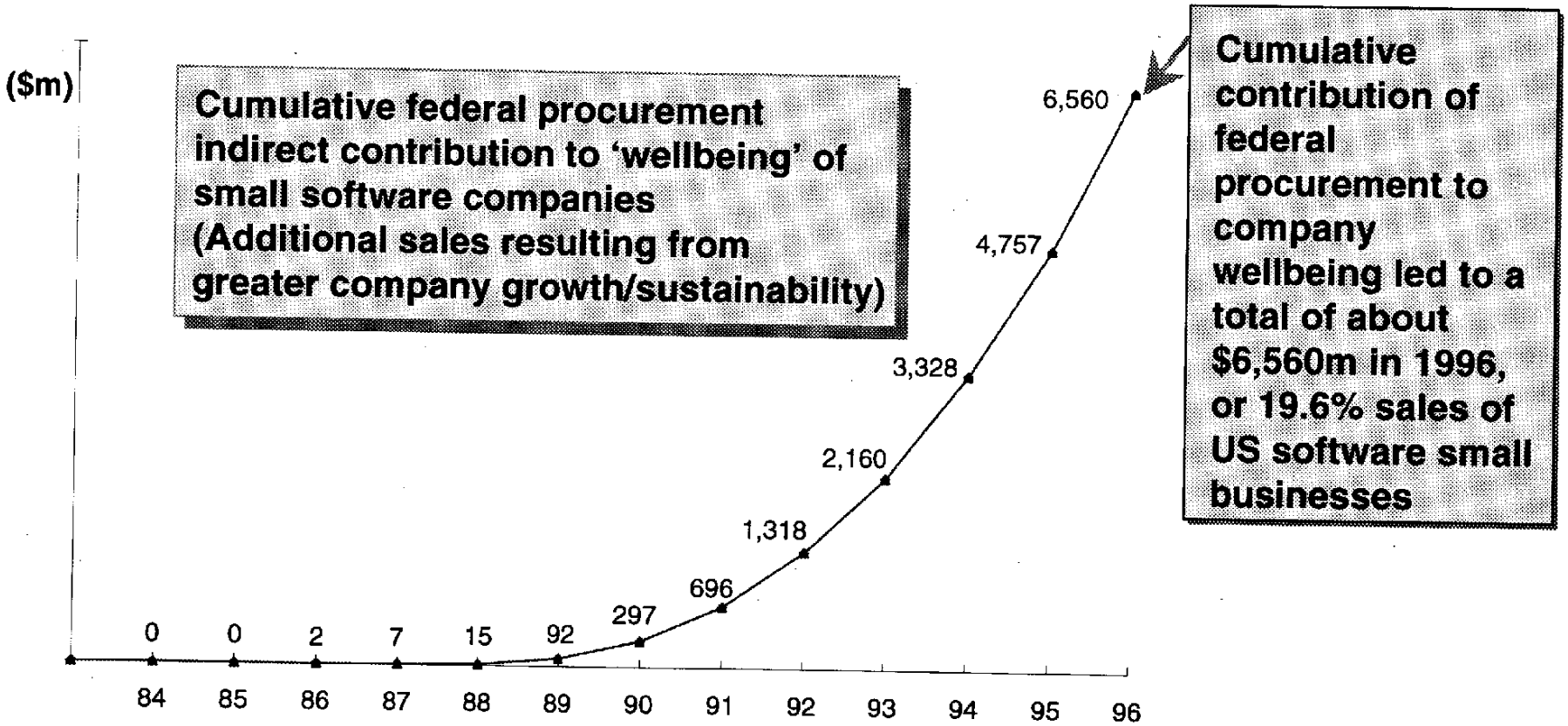
III. In addition, federal procurement has indirectly caused around another 19.6% of small-business-generated software sales (continued)



- Total cumulative effect can be assessed by isolating the progression over time of companies who received federal procurement in a given year
- The net contribution to the wellbeing of the sector is the comparison between what has actually happened ($S_F \rightarrow S_F' \rightarrow S_F''$ etc) and what would have happened to the same companies if they had not received federal procurement (ie S_F would have grown at the industry average rate)
- The cumulative contribution is the sum of all the separate annual effects since software procurement began, extrapolated forward to the present day

(S_1) $(S_1' + S_2)$ $(S_2'' + S_2')$ $(S_1''' + S_2'' + S_3')$ = **Total sales of small business software sector in each year**

III. In addition, federal procurement has indirectly caused around another 19.6% of small-business-generated software sales (continued)



Source: FPDC MUSE Analysis [See Appendix for detail of calculation]

第５章　日本政府調達システムへの提言

Lessons for Japanese government procurement

Contents

Perhaps the most important lesson from the US Federal Procurement system comes from the underlying philosophy

- The US Federal Procurement system embodies a deep-seated belief in the importance of small businesses to the US economy, and in fostering the small businesses that may become the titans of emerging industries
- However, the purpose of the system is not to provide 'back-door financial support' to small companies - supporting weaker companies unable to survive alone in the marketplace
  - contracts are only set-aside for small businesses when at least two possible candidate companies exist
  - companies must be able to win competitive contracts by proving that they can provide the products required
- Rather, the US system is about finding companies with potential - and helping them to fulfill that potential by purchasing their products according to the same rules as any commercial purchaser

In addition, Japan could benefit from emulating several very practical aspects of the US system

1. Detailed and accessible information provision to small companies
2. Infrastructure of supporting personnel
3. Formal sub-contracting rules
4. Contract set-asides
5. A 'Certificate of Competence' mechanism

1. Detailed and accessible information provision to small companies

- Guides explaining the procurement process, the purchasing organizations, the goods purchased, the people to contact, the registration procedure, and the differences in purchasing practice across different parts of government
- Readily accessible - on the Internet, in local government offices, from central government information publishing houses, in government (and even private) bookshops
- Forthcoming contract information guide (equivalent of US CBD) detailing contracts, budget, and contact details readily available in both hard copy and online
- Online transaction and contract negotiation (equivalent of FACNET) would remove some of the paperwork burden from small companies

2. Infrastructure of supporting personnel

- Personnel at key interfaces between procurement contracting officers and small businesses (within contracting establishments, within small business support organizations, and within central contracting control organization)
- As the influence of Japan's lifetime employment system slowly breaks down, two new sources of of people suitable for these supporting functions are emerging:
  - people with long experience at traditional manufacturing / other companies who have been forced into early retirement / redundancy
  - younger individuals with more limited experience but who feel freer to 'shop around' and change jobs
- Key roles for which different posts should be established could include: developing and maintaining database of eligible small businesses; monitoring set-asides (see 4); monitoring subcontracts (see 3); ensuring information availability to small businesses (see 1)

3. Formal sub-contracting rules

- In addition to a quota for the proportion of procurement which directly goes to small businesses, establishment of a quota for the proportion of expenditure which goes to large businesses which is then passed on to small businesses
- Establishment of a monitoring role (such as individuals physically located at prime contractors)
- Establishment of a requirement for prime contractors to include a small business sub-contract plan in their initial proposal submission

4. Contract set-asides

- Establishment of formal rules setting aside certain contracts for small businesses
  - for contracts within certain size limits
  - when at least two small businesses who can perform the contract exist
- Establishment of a 'set-aside officer' role
  - monitoring new contracts for the possibility of set-asides
  - maintaining a database of small companies eligible to perform different types of contracts
  - helping to connect contracting officers with suitable small businesses
- Establishment of a penal mechanism enabling an appropriate body (eg the government small business representative) to make sure that government agencies are correctly setting aside contracts

5. A 'Certificate of Competence' mechanism

- Establishment of process similar to US 'Certificate of Competence' such that a small business has a proper and fair review when it fails to obtain a contract:
  - under US CoC process, if a small business believes it has been 'discriminated against' and not received a contract even though capable, it can complain to the SBA
  - the SBA then review s the contracting officer's reasons for not awarding the contract to the company, and if the company's competence was in question, the company's ability to perform the contract
  - if the SBA deems the company able to perform the contract, it issues a CoC, and requires the contracting officer to award the contract to the small business
- Establishment of a review body able to perform company evaluation
- Establishment of public awareness of the existence of the body and its usefulness in supporting small business

付属資料

Appendix

A Glossary of abbreviations

B Quantitative analysis detailed printout

C FPDC statistical data

D List of references and URLs

A Glossary of abbreviations

B Quantitative analysis detailed printout

C FPDC statistical data

D List of references and URLs

ADP	Automatic Data Processing
A&E	Architect and Engineering
BIC	Business Information Center
BPCR	Breakout Procurement Center Representative
CBD	Commerce Business Daily
CCR	Central Contractor Registry
CMR	Commercial Marketing Representative
COC	Certificate of Competence
COCR	Certificate of Competence Representative
COCACS	Certificate of Competence Automated Computer System
ECRC	Electronic Commerce Resource Center
FACNET	Federal Acquisition Computer Network
FAR	Federal Acquisition Regulation
FPC	Federal Procurement Council (chaired by OFPP and includes representatives from various agencies)
FPDC	Federal Procurement Data Center
GSA	US General Services Administration (US federal agency responsible for a variety of miscellaneous services to other government agencies)
NASPO	National Association of State Purchasing Officials
NEPAC	National Electronic Procurement Assistance Center
NSF	National Science Foundation
OFPP	Office of Federal Procurement Policy (office of OMB responsible for design and implementation of high-level federal procurement policy)
OMB	Office of Management and Budget (US White House Executive Office responsible for design and implementation of federal budget)
OSDBU	Office of Small and Disadvantaged Business Utilization
OTA	Office of Technology Assessment
PASS	Procurement Automated Sourcing System
PBSC	Performance-Based Service Contracting
PCR	Procurement Center Representative
PCRIS	Procurement Center Representatives Information System
PTAC	Procurement Technical Assistance Center
SB	Small business
SBA	Small Business Administration
SBDC	Small Business Development Center
SDB	Small disadvantaged business
SIC	Standard Industrial Classification
VAN	Value Added Network

A Glossary of abbreviations

B Quantitative analysis detailed printout

C FPDC statistical data

D List of references and URLs

Economic benefit of Federal Procurement to US Small Businesses in the Software Industry

		Note		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
GDP			$m	3,902,400	4,180,700	4,422,200	4,692,300	5,049,600	5,438,700	5,743,800	5,916,700	6,244,400	6,558,100	6,947,000	7,265,400	7,636,000
Firms	All industry	2		4442983	4560954	4639010	4807540	4954645	5021315	5073795	5051025	5095356	5193642	5276964	5369068	5491335
	SB	3		4430680	4548304	4626143	4794206	4941821	5007442	5059772	5037048	5081234	5179013	5261967	5353624	5476104
	Software	4		9170	10271	11594	13041	14443	16312	18751	21198	23725	26848	27358	30387.38	33707.792
	Software SB	5		9050	10136	11442	12871	14254	16099	18506	20921	23415	26486	27010	29970	33268
Receipts	All industry	6	$m	8,447,499	9,049,934	9,572,707	10,157,391	10,930,636	11,773,118	12,433,566	12,961,444	13,605,184	14,098,572	14,840,452	15,751,365	16,529,599
	SB	7	$m	3,899,995	3,963,861	4,192,835	4,449,926	4,786,904	5,156,557	5,445,634	4,909,700	6,112,880	6,395,452	6,679,975	7,023,980	7,239,945
	Software	8	$m	18,852	18,874	21,305	23,985	26,540	29,976	34,457	38,954	43,598	49,336	54,983	61,032	67,745
	Software SB	9	$m	8,340	9,340	10,543	11,860	13,135	14,835	17,053	19,278	21,576	27,799	23,440	30,204	33,526
Procurem	All industry	10	$m	168,004	172,669	177,334	182,000	180,755	179,511	178,266	179,837	181,408	182,980	182,033	181,086	180,139
	Software	10	$m	0	5	10	14	449	884	1,318	1,285	1,251	1,217	1,246	1,275	1,304
	SB	10	$m	25,520	26,374	27,228	28,082	27,813	27,544	27,274	28,212	29,149	30,087	30,901	31,716	32,531
	Software SB	10	$m	0	3	5	8	165	323	480	425	370	315	333	351	369
Procurement firms	All industry	10		409,097	416,497	423,898	431,298	422,795	414,292	405,789	439,123	472,458	505,792	502,970	500,149	497,327
	Software	10		6	21	35	50	1,840	3,630	5,420	5,352	5,285	5,217	5,309	5,402	5,494
	SB	10		171,800	176,965	182,130	187,295	188,301	189,306	190,312	209,157	228,002	246,847	242,753	238,659	234,565
	Software SB	10		5	18	31	44	801	1,557	2,314	2,276	2,238	2,200	2,322	2,445	2,567

Effect 2: Direct contribution to small software companies

SB Software receipts	8,340	9,340	10,543	11,860	13,135	14,835	17,053	19,278	21,576	27,799	23,440	30,204	33,526
SB Other receipts	3,691,655	3,954,520	4,182,291	4,437,066	4,773,670	5,141,722	5,428,782	4,890,422	6,091,304	6,367,652	6,656,536	6,993,777	7,206,419
SB Software procurement	0	3	5	8	165	323	480	425	370	315	333	351	369
SB Other procurement	25,520	26,371	27,223	28,074	27,647	27,221	26,795	27,787	28,779	29,771	30,568	31,365	32,162
SB Software procurement / software receipts	0.00%	0.03%	0.05%	0.07%	1.26%	2.17%	2.81%	2.20%	1.72%	1.13%	1.42%	1.16%	1.10%
SB Other procurement / other receipts	0.69%	0.67%	0.65%	0.63%	0.58%	0.53%	0.49%	0.57%	0.47%	0.47%	0.46%	0.45%	0.45%
SB *Software industry gain in year*	*-57*	*-60*	*-63*	*-67*	*89*	*244*	*396*	*316*	*268*	*185*	*225*	*215*	*219*
SB *As proportion of software industry receipts*	*-0.7%*	*-0.6%*	*-0.6%*	*-0.6%*	*0.7%*	*1.6%*	*2.3%*	*1.6%*	*1.2%*	*0.7%*	*1.0%*	*0.7%*	*0.7%*
Annual growth of GDP per company 11		104.4%	104.0%	102.4%	104.4%	106.3%	104.5%	103.5%	104.6%	103.0%	104.3%	102.8%	102.8%
Growth of cumulative gain (at GDP / company rate)	0	-60	-124	-192	-271	-193	53	465	816	1,117	1,358	1,628	1,894
New gain for y	-57	-60	-63	-67	89	244	396	316	268	185	225	215	219
Cu m	-57	-120	-183	-259	-182	51	449	780	1,084	1,303	1,584	1,843	2,113
As proportion of software SB receipts	*-0.7%*	*-1.3%*	*-1.8%*	*-2.2%*	*-1.4%*	*0.3%*	*2.6%*	*4.0%*	*5.0%*	*4.7%*	*6.8%*	*6.1%*	*6.3%*

Economic benefit of Federal Procurement to US Small Businesses in the Software Industry

Effect 3: Indirect contribution to long-term wellbeing of small software companies

Software SB sales – FP		5	17	29	41	738	1,435	2,132	2,097	2,062	2,309	2,015	2,464	2,587
Less sales from companies already counted (ie who received FP in previous year)	12	5	16	25	34	729	1,276	1,822	1,637	1,609	1,864	1,517	2,028	2,055
Annual growth of GDP per company	11		104.4%	104.0%	102.4%	104.4%	106.3%	104.5%	103.5%	104.6%	103.0%	104.3%	102.8%	102.8%
Software SB sales of cos receiving FP	**1984**	5												
Expected growth (if average)	11	5	5	5	5	5	6	6	6	6	7	7	7	7
Actual growth (as a result of FP)	3	5	5	6	7	7	9	10	11	12	14	16	18	20
cumulative FP contribution to software SBs			*0*	*1*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*9*	*11*	*12*
Software SB sales of cos receiving FP	**1985**		16											
Expected growth (if average)			16	16	17	17	18	19	20	21	21	22	23	24
Actual growth (as a result of FP)			16	18	20	22	26	29	33	37	42	47	53	59
cumulative FP contribution to software SBs				*1*	*3*	*5*	*7*	*10*	*13*	*16*	*20*	*25*	*30*	*35*
Software SB sales of cos receiving FP	**1986**			25										
Expected growth (if average)				25	26	27	28	30	31	32	33	35	35	36
Actual growth (as a result of FP)				25	28	32	36	41	46	53	59	67	75	83
cumulative FP contribution to software SBs					*2*	*5*	*8*	*12*	*16*	*21*	*26*	*32*	*39*	*47*
Software SB sales of cos receiving FP	**1987**				34									
Expected growth (if average)					34	36	38	40	41	43	44	46	48	49
Actual growth (as a result of FP)					34	39	45	51	57	65	73	83	92	103
cumulative FP contribution to software SBs						*3*	*7*	*11*	*16*	*22*	*29*	*36*	*45*	*54*
Software SB sales of cos receiving FP	**1988**					729								
Expected growth (if average)						729	775	810	838	877	903	942	968	995
Actual growth (as a result of FP)						729	842	955	1,074	1,220	1,366	1,547	1,727	1,928
cumulative FP contribution to software SBs							*67*	*146*	*236*	*344*	*463*	*605*	*759*	*933*
Software SB sales of cos receiving FP	**1989**						1,276							
Expected growth (if average)							1,276	1,333	1,380	1,443	1,487	1,551	1,594	1,638
Actual growth (as a result of FP)							1,276	1,448	1,628	1,850	2,070	2,344	2,618	2,922
cumulative FP contribution to software SBs								*115*	*248*	*406*	*583*	*794*	*1,024*	*1,284*
Software SB sales of cos receiving FP	**1990**							1,822						
Expected growth (if average)								1,822	1,886	1,973	2,033	2,119	2,178	2,238
Actual g								1,822	2,048	2,328	2,605	2,950	3,294	3,676
cumulative FP contribution to software SBs									*163*	*355*	*572*	*831*	*1,115*	*1,438*
Software SB sales of cos receiving FP	**1991**								1,637					
Expected growth (if average)									1,637	1,712	1,784	1,839	1,891	1,943
Actual growth (as a result of FP)									1,637	1,860	2,082	2,357	2,632	2,938
cumulative FP contribution to software SBs										*148*	*317*	*518*	*741*	*995*
Software SB sales of cos receiving FP	**1992**									1,609				
Expected growth (if average)										1,609	1,658	1,729	1,777	1,826
Actual growth (as a result of FP)										1,609	1,801	2,040	2,277	2,542
cumulative FP contribution to software SBs											*143*	*311*	*500*	*716*
Software SB sales of cos receiving FP	**1993**										1,864			
Expected growth (if average)											1,864	1,943	1,997	2,052
Actual growth (as a result of FP)											1,864	2,110	2,356	2,630
cumulative FP contribution to software SBs												*168*	*359*	*578*
Software SB sales of cos receiving FP	**1994**											1,517		
Expected growth (if average)												1,517	1,559	1,602
Actual growth (as a result of FP)												1,517	1,693	1,890
cumulative FP contribution to software SBs													*134*	*288*
Software SB sales of cos receiving FP	**1995**												2,028	
Expected growth (if average)													2,028	2,084
Actual growth (as a result of FP)													2,028	2,264
cumulative FP contribution to software SBs														*180*
Software SB sales of cos receiving FP	**1996**													2,055
Expected growth (if average)														2,055
Actual growth (as a result of FP)														2,055
cumulative FP contribution to software SBs														
Total cumulative benefit to software SBs		*0*	*0*	*2*	*7*	*15*	*92*	*297*	*696*	*1,318*	*2,160*	*3,328*	*4,757*	*6,560*
As proportion of software SB receipts		*0.0%*	*0.0%*	*0.0%*	*0.1%*	*0.1%*	*0.6%*	*1.7%*	*3.6%*	*6.1%*	*7.8%*	*14.2%*	*15.8%*	*19.6%*

Economic benefit of Federal Procurement to US Small Businesses in the Software Industry

Notes

are calculated according to assumptions listed here
All other figures are taken from US official statistics

1 **Software = SIC 7371+7372**

2 **No of firms all industry**
State_level_firms% 88.7%
Firms / state level firms % average from 1988 to 1994

3 **Small businesses**
Average of number of SBs / total number of firms, 88-95
99.72%

4 **Software firms**
Follow change in software receipts

5 **S6**
Average of 1993 and 1994 ratios of software SBs to all software firms
98.69%

6 **Receipts** 216%
Data taken from http://www.sba.gov/ADVO/stats/us88_95.html
First year measured 1990 (1990 incomplete year)
Earlier years use average of receipts over GDP from 1991 to 1995

7 **Small business receipts**
Based on small business receipts / over all receipts, modified by % of small businesses over all businesses
Uses average of above over 88-95

8 **Software receipts**
1993-4 growth rate, modified by GDP growth rate in the year (averages around 12%)

9 **Software SB receipts**
Average of 1993 and 1994 ratios of software SB receipts to all software receipts
49.49%

10 **Procurem**
FPDC data linearly extrapolated during intervening years

11 **Average growth**
Annual GDP growth divided by growth in number of companies
Measures change in contribution per company to GDP

12 **Dou**
A proportion of companies receiving FP in a given year also received it in the previous year
Hence their success is already being reflected in the figures extrapolated from the previous year
% of FP cos in a given year who receive FP in following year
21.60%

13 Additional growth constant resulting from FP (see main report for calculation)
8.62%

A Glossary of abbreviations

B Quantitative analysis detailed printout

C FPDC statistical data

D List of references and URLs

FPDC Special Report Data – Procurement by SIC

	1984		1987		1990		1993		1996	
Total dollars	168,004,455		181,999,506		178,266,045		182,979,587		180,139,298	
Total companies	409097		431298		405789		505792		497327	
Total SB dollars	25,520,301		28,081,697		27,274,420		30,086,886		32,530,693	
SB share of total	**15.2%**		**15.4%**		**15.3%**		**16.4%**		**18.1%**	
Total SB compaies	171800		187295		190312		246847		234565	
Total dollars	212		37413		5134888		6804701		8895022	
	0.0%		**0.0%**		**2.9%**		**3.7%**		**4.9%**	
SIC 7371	58	27.4%	6245	16.7%	751924	14.6%	722444	10.6%	928829	10.4%
SIC 7372	95	44.8%	8027	21.5%	566394	11.0%	494509	7.3%	374714	4.2%
SIC 7373		0.0%	2487	6.6%	615543	12.0%	1243800	18.3%	2061264	23.2%
SIC 7374		0.0%	1852	5.0%	396842	7.7%	386255	5.7%	519644	5.8%
SIC 7375		0.0%	−162	-0.4%	41855	0.8%	118749	1.7%	180391	2.0%
SIC 7376		0.0%	4272	11.4%	407604	7.9%	604012	8.9%	795201	8.9%
SIC 7377		0.0%	0	0.0%	138096	2.7%	93441	1.4%	72773	0.8%
SIC 7378	15	7.1%	11135	29.8%	662396	12.9%	763571	11.2%	595616	6.7%
SIC 7379	44	20.8%	3557	9.5%	1554234	30.3%	2377920	34.9%	3366590	37.8%
Total companies	8		126		21057		26338		29713	
	0.0%		**0.0%**		**5.2%**		**5.2%**		**6.0%**	
SIC 7371	4		26		2918		2775		3045	
SIC 7372	2		24		2502		2442		2449	
SIC 7373			7		1887		2839		4764	
SIC 7374			10		1809		1907		2732	
SIC 7375			1		272		682		550	
SIC 7376			23		524		1187		1427	
SIC 7377					916		363		180	
SIC 7378	1		14		4379		4568		3660	
SIC 7379	1		21		5850		9575		10906	
Total SB dollars	167		23462		1048771		1239013		1508926	
SB share of total	**78.8%**		**62.7%**		**20.4%**		**18.2%**		**17.0%**	
SIC 7371	57	34.1%	6001	25.6%	255237	24.3%	199187	16.1%	271838	18.0%
SIC 7372	95	56.9%	1884	8.0%	224608	21.4%	116257	9.4%	96668	6.4%
SIC 7373		0.0%	295	1.3%	179446	17.1%	343490	27.7%	594917	39.4%
SIC 7374		0.0%	293	1.2%	113977	10.9%	130890	10.6%	164319	10.9%
SIC 7375		0.0%	−162	-0.7%	19283	1.8%	48083	3.9%	32277	2.1%
SIC 7376		0.0%	4149	17.7%	78798	7.5%	127121	10.3%	150410	10.0%
SIC 7377		0.0%		0.0%	37229	3.5%	27399	2.2%	17110	1.1%
SIC 7378	15	9.0%	11002	46.9%	140193	13.4%	246586	19.9%	181387	12.0%
SIC 7379		0.0%		0.0%		0.0%		0.0%		0.0%
Total SB companies	6		82		6437		7591		8638	
SIC 7371	3		24		1320		1307		1592	
SIC 7372	2		20		994		893		975	
SIC 7373			2		1177		1425		2650	
SIC 7374			5		974		1014		1131	
SIC 7375			1		151		375		169	
SIC 7376			20		296		769		689	
SIC 7377					561		185		79	
SIC 7378	1		10		964		1623		1353	
SIC 7379										

A Glossary of abbreviations

B Quantitative analysis detailed printout

C FPDC statistical data

D List of references and URLs

Appendix D

1. Internet resources

Specifically IT-related resources

Navy's ITEC Direct IT purchase automation system http://itec.part.net/itec.htm

GovCon http://www.govcon.com/

FCW article "How to leverage new IT procurement approach" http://www.fcw.com/pubs/gbb/guides/feat3.htm

SOFTWARE DEVELOPMENT CONTRACTS - PERFORMANCE-BASED SERVICE CONTRACTING (PBSC) WORK STATEMENT

FAR Part 39 (IT acquisition) http://farsite.hill.af.mil/reghtml/far/39.htm

Federal Computer Week database of federal IT contracts http://www.fcw.com/pubs/gbb/guides.htm

Use of IT in government report by OTA "Make Government Work" - got some good stats up top on federal IT expenditure http://www.contrib.andrew.cmu.edu/usr/rk2x/makegovtwork.html

Information Technology Management Reform Act http://frwebgate.access.gpo.gov/cgi-bin/useftp.cgi?IPaddress=wais.access.gpo.gov&filename=publ106.104&directory=/diskc/wais/data/104_cong_pub

Background information sources

National Archives and Records Administration (laws etc) http://www.access.gpo.gov/nara/nara005.html

US general economic and other statistics

- Fedstats http://www.fedstats.gov/
- Fedstats A-Z index http://www.fedstats.gov/key.html
- HTML table of historical GDP from 1929 to present day http://www.bea.doc.gov/bea/dn/0897nip2/tabl.htm
- NTDB (National Trade Data Bank) http://www.stat-usa.gov/BEN/databases.html

National Technical Information Center http://www.ntis.gov/index.html

Government procurement resources and indices of resources

GPO

Index of government information resources http://www.access.gpo.gov/su_docs/locate.html

List of all government documents on procurement http://www.access.gpo.gov/su_docs/sale/sb-129.html

Search GPO database page http://www.access.gpo.gov/su_docs/aces/aaces002.html

Federal Acquisition Jumpstation (links to all the procurement offices of the different agencies, commerce business daily, various guidelines and so on) http://nais.nasa.gov/msfc/fedproc/home.html

The Federal Acquisition Virtual Library http://www.arnet.gov/References/References.html

Procurement Reference Library http://nais.nasa.gov/msfc/procref.html

Pro-Net (hosted by SBA) - procurement opportunities for small business http://pro-net.unh.edu/

ARNet (Acquisition Reform Network) http://www-far.npr.gov/

US Business Advisor http://www.business.gov/

Commerce Business Daily http://cbdnet.access.gpo.gov/index.html

NEPAC (National Electronic Procurement Assistance Center) http://cbd.savvy.com/nepac.htm

Small Business Administration (SBA) http://www.sba.gov/

- Search http://www.sba.gov/searchsba.html
- what is a small business? http://www.sbaonline.sba.gov/starting/whatis.html
- "Procurement Opportunities - A Small Business Guide to Procurement Reform" (full text) http://www.sba.gov/advo/special/opport.html
- Office of Advocacy stats on small business http://www.sba.gov/ADVO/stats/
- list of all research on small businesses in government procurement http://www.sba.gov/advo/research/summaries/catalog/chapt15.html
- summary report to Pres Clinton 10/Dec/97 http://www.sba.gov/regulations/clinton.html
- Federal Procurement Awards Program http://www.sba.gov/opc/pubs/co48.txt
- Office of Advocacy list of detailed stats on small businesses http://www.sba.gov/ADVO/stats/int_data.html
- Certificate of Competency program http://www.sba.gov/regulations/125.html#certificate

"The Federal Page" - full list of federal government sites http://www.channel1.com/users/paulk/fed.htm

DSMC Government Procurement and Management links http://www.dsmc.dsm.mil/r/port/ss/she3696a.htm

OMB homepage http://www.whitehouse.gov/WH/EOP/omb

Federal Procurement Resources: Fedmarket http://www.fedmarket.com/resources/resource_index.html

Procurement data collections

Federal Procurement Data System http://fpds.gsa.gov/fpds/fpds.htm

1998 Federal Agency Procurement Forecasts (index by agency) http://www.sba.gov/gc/forecast.html

Federal Procurement Data Center http://tsd.r3.gsa.gov/bsc/bsc_iiie.htm

Procurement-related articles and full-text documents

Article - "The Procurement Manager of the Future" lists some good potential academic contacts http://www.doc.gov/oam/future/

"How the government buys" note http://www.sba.gov/gopher/Government-Contracting/buy.txt

Business Forum article on Federal Procurement for small businesses http://www.businessforum.com/fedprocure.html

Policy and Legislation

OFPP circular 91-1: Government-Wide Small Business and Small Disadvantaged Business Goals for Procurement Contracts http://www.arnet.gov/References/Policy_Letters/PL91-1.html

OFPP testimony to senate http://www.arnet.gov/References/Policy_Letters/testmony.htm

OMB Circulars on Federal Procurement index http://www.whitehouse.gov/WH/EOP/OMB/html/index-procure.html

Circular A76, Aug 1983 http://www.whitehouse.gov/WH/EOP/OMB/html/circulars/a076/a076.html

EO12928 Sep 1994 "Promoting procurement with disadvantaged small businesses" http://www.dhhs.gov/progorg/aspe/newlaws/eo12928.txt

FAR (Federal Acquisition Regulation) Part 19.202.1-6 http://www.fedmarket.com/far_html/19index.html

FAR Part 19.10 Small Business Competitiveness Demonstration Program http://www.fedmarket.com/far_html/19index.html

FACs (Federal Acquisition Circulars) modify the FAR http://www.fedmarket.com/facs.html

Federal Acquistion Streamlining Act of 1994 http://frwebgate.access.gpo.gov/cgi-bin/useftp.cgi?IPaddress=historical.access.gpo.gov&filename=s1587enr.txt&directory=/diskc/wais/data/103_c

Small Business and Minority Small Business Procurement Opportunities Act of 1994 http://frwebgate.access.gpo.gov/cgi-bin/useftp.cgi?IPaddress=historical.access.gpo.gov&filename=h4263cdh.txt&directory=/diskc/wais/data/103_c

Government Procurement Act of 1993 http://frwebgate.access.gpo.gov/cgi-bin/useftp.cgi?IPaddress=historical.access.gpo.gov&filename=h1702ih.txt&directory=/diskc/wais/data/103_co

COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES ON THE OMB DRAFT BILL "TO SIMPLIFY AND CONSOLIDATE STATUTES AFFECTING GOVERNMENT ACQUISITION AND TO MAKE MORE EFFICIENT THE GOVERNMENT ACQUISITION PROCESS" 1988 http://www.dhhs.gov/progorg/aspe/billrpts/b880805a.txt

State and Local Government resources

NASPO (National Association of State Procurement Officials" www.naspo.org

NAPM (National Association of Purchasing Managers" www.catalog.com/napmsv/

"Buying smart: state procurement saves millions" http://www.naspo.org/pubs/buyingsmart.html

Texas - procurement resources page http://www.window.state.tx.us/tba/procure.html

2. Text resources

- Subcontracting Opportunities with DoD Major Prime Contractors, Directorate of Small and Disadvantaged Business Utilization, Office of Secretary of Defense, DoD, 1996
- Procurement Opportunities: A Small Business Guide to Procurement Reform, SBA, March 1996
- US Government Purchasing and Sales Directory, SBA, 1994
- Impact of Federal Procurement on Small Business Development, M and R Associates, Prepared for SBA, July 1992
- Factors Affecting the Small Business Share of Federal Procurement, Jack Faucett Associates, Prepared for SBA, June 1987
- Procurement Share vs Industry Share, Jack Faucett Associates, Prepared for SBA, June 1987

米国政府の政府調達にみる中小企業支援制度

© 平成10年3月発行

発行所　財団法人 日本情報処理開発協会
先端情報技術研究所
東京都港区芝2丁目3番3号
芝東京海上ビルディング4階
TEL（03）3456-2511