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The Impact *of* Federal Procurement *on the* National Capital Region

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By

STEPHEN S. FULLER, PH.D.

University Professor and Director | Center for Regional Analysis | George Mason University

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Executive Summary

Federal procurement has become a major force in the economic growth of the National Capital Region (NCR). The research reported herein has documented the magnitude of federal procurement in the NCR and its changing patterns across jurisdictions and among federal agencies, and established the relationship between the NCR's economic growth and these changing and differential patterns of federal procurement.

Growing Importance of Federal Procurement

What makes these findings important is that they expand what public and private sector decision makers know about the role of the federal government in the NCR's economy. Where historically the federal government's role in the region's economy was measured in terms of how many workers it employed, now the importance of this job base can be augmented by measures of the federal government's direct support of jobs and income growth in the private sector. This combined view of the federal government as a source of jobs and income has taken on further importance as the federal workforce has declined from its peak employment in July 1993 (396,600 federal workers) to a level of 328,900 in October 2001 for a decline of 67,700 jobs (17.1%). During this same period, federal procurement spending increased approximately 100 percent from $15.6 to 31.5 billion with the full-time equivalent number of contractor jobs growing from an estimated 194,500 to 389,000 workers. With a multiplier of 1.8, the total federal procurement spending in the NCR accounted for 20 percent of its employment base in 2000 while federal employment (all branches) accounts for 12.7 percent of the region's total employment base.

Federal procurement spending has been one of the most important forces in shaping the NCR's economy—its changing structure and growth—over the decade of the nineties. During that decade, while the NCR's employment base was increasing 17.6 percent (federal employment declined 10.8%) and the real value of the goods and services generated (gross regional product-GRP) in the region increased 68.4 percent, federal procurement outlays grew 126.6 percent (neither GRP or federal $s are adjusted for inflation). This shift away from payroll and towards procurement spending by the federal government has had important economic impacts on the NCR and the relative performance of its sub-state areas, and has further distinguished its economy from other metropolitan areas.

Federal Procurement Trends Favor NCR

The NCR has been the principal beneficiary of changing federal procurement patterns. Over the 18 years from 1983 to 2001, federal procurement spending nationwide increased 55 percent while in California, the state receiving the largest value of federal contracting, its total actually declined 6.2 percent. In contrast, firms located in the National Capital Region experienced a 359 percent increase in federal procurement outlays over this period. No state receives as much in the total value of federal procurement awards as the NCR. And, the next closest metropolitan area in dollar value of federal contract awards is Los Angeles—during this period its total declined from $19.5 billion to $14.1 billion for a decrease of 27.5 percent. Where federal contracting in the NCR accounted for just 36 percent of the total 1983 award value in the Los Angeles metropolitan area, by 2001 the NCR's total value of federal procurement awards was 126.5 percent greater or more than double those in the Los Angeles metropolitan area. These procurement trends and comparisons are presented in Table 1.

Table 1

Changing Federal Procurement Patterns in the U.S.
Selected States and Metropolitan Areas, FY1983 and FY2001
(in billions of current year dollars)

States and Metro Areas	1983	2001	Percent Change*
USA	$158.93	$246.22	54.9
California	30.85	28.95	- 6.2
New York	9.70	6.17	- 36.4
Texas	8.16	15.65	91.9
Virginia	7.92	26.94	240.3
Maryland	5.36	10.74	100.3
Pennsylvania	4.10	6.79	65.5
Illinois	2.22	4.14	86.2
Los Angeles	19.49	14.13	- 27.5
NCR	**6.97**	**32.00**	**359.3**
Philadelphia	3.11	6.47	107.9
Chicago	1.41	2.98	111.0
Houston	1.24	4.80	286.5

Sources: US Census, Consolidated Federal Funds Report, 1993 and 2001, GMU Center for Regional Analysis. *Percent change calculated from unrounded data.

This shift in value of awards is explained by the shift in the mix of federal purchases from supplies and equipment (hardware) to services. This shift began in the eighties with the downsizing of the military and was reinforced by the downsizing of the federal workforce in the nineties, and is seen in the NCR in the shift in contract awards to program support and away from outlays for personnel and facilities support.

This shift in the composition of federal procurement has clearly favored the NCR. Vendors providing services to the federal government need to be located close to the agencies they serve and, as a result, the NCR has dominated the growth in procurement outlays nationwide. Between 1983 and 2001, total federal procurement spending increased by $87.3 billion while procurement awards in the NCR increased by $25.03 billion; firms located in the NCR accounted for 28.7 percent of the nationwide increase in federal procurement spending over this 18-year period. In comparison, the next largest gain in federal procurement outlays was in the Houston metropolitan area, with an increase of $3.56 billion accounting for 4 percent of the national increase.

Table 2

Trends in Federal Procurement in the NCR, 1990-2000
(in billions of current dollars)

Indicators	District of Columbia	Suburban Maryland	Northern Virginia	NCR
Number of Contractors				
1990				6,451
2000				9,111
% Change				41.2
Places of Performance				
1990	4,015	3,477	4,046	11,538
2000	6,990	4,348	7,251	18,589
% Change	74.1	25.0	79.2	62.1
Value of Awards				
1990	$3.65	$3.67	$5.21	$12.54
2000	7.56	6.11	14.74	28.41
% Change	107.1	66.6	182.8	126.6
% Change in Real GRP*				
1990-2000	13.2	34.7	54.2	35.6

Sources: FPDC; GMU Center for Regional Analysis
*change in inflation-adjusted gross regional product

The Economic Impact Of Federal Procurement

The most important contribution of this research is the substantiation of the differential economic impacts across the NCR from federal procurement contracting. As shown in Tables 2 and 3, these impacts are substantial and confirm continuing importance of the federal government as the NCR's economic growth. The growth of contracting activity, as measured by the number of contractors and the even greater increase in their "places of performance," and the increase in award value, compares favorably with the growth of the local economy in the nineties.

Federal procurement spending has become one of the economy's major pillars in terms of its direct and indirect/induced contribution to GRP, the jobs this spending supports and the personal earnings associated with these jobs. Given the significance of federal procurement spending in shaping the sub-economies of the NCR, appropriate consideration should be given to federal contracting in planning for the future needs of federal agencies, their location, and their impacts on the growth and vitality of the private sector economy within the NCR and its constituent communities.

Table 3

Economic Impacts of Federal Procurement
in the National Capital Region, 2000
(in billions of 2000 dollars)

Impacts		Value
Value Total awards		$28.409
Total Contribution to GRP		$51.208
Percent of GRP		21.0
Total Jobs Supported*		621,643
District of Columbia	163,783	
Suburban Maryland	132,167	
Northern Virginia	325,589	
Total Personal Earnings		$17.001

Sources: FPDC, GMU Center for Regional Analysis,
Us Department of Commerce, Bureau of Economic Analysis
*jobs include direct contractor workers plus employee of suppliers and jobs supported by the payroll spending of these workers within the area economy reported by place of employment; sub-state totals do not added up to NCR total due to cumulative rounding.

By all measures federal procurement has grown rapidly in the National Capital Region and has contributed significantly to the region's economic growth and vitality. The research presented in this report has documented the growth of federal procurement spending in the NCR and the changes that have occurred in the composition of purchases, in agency spending patterns, and in their impacts on NCR's jurisdictions, minority contractors and other firms participating in "preference" programs, and on areas within the NCR identified as targets for revitalization.

Key research findings

- Between 1990 and 2000, the total value of federal contracting increased 126.6 percent while the number of contract awards grew 88.8 percent, the "places of performance" grew 61.1 percent and the number of contractors increased by 41.2 percent;

- The growth in federal contracting activity favored firms in Northern Virginia—they accounted for 60 percent of the gain in contract value while firms in the District and Suburban Maryland captured 24.6 percent and 15.4 percent respectively;

- Seven federal agencies—DOD, GSA, HHS, Treasury, Justice, Commerce and NASA, each with more than $1 billion in contract awards in 2000—accounted for most of the federal contracting activity in the NCR increasing their share of the total from 79.0 percent in 1990 to 84.2 percent in 2000;

- Federal procurement spending in the NCR shifted away from R&D and Supplies and Equipment to Services during the nineties; additionally, the value of awards for program support grew substantial more (171%) than awards for facility support (97%) while awards for personnel support actually declined (-4.2%);

- Federal contracting outlays under "preference programs" grew faster than total outlays between 1990 and 2000 increasing their share of the total from 10.9 to 12.5 percent with Northern Virginia firms capturing the greatest gains followed by firms in Suburban Maryland; firms participating in "preference programs" located in the District of Columbia experienced the smallest increase in award value;

- Federal procurement contracting was not found to support the revitalization programs of local jurisdictions; only $13 million or 0.2 percent of all contract dollars received by firms located in the District went to firms located in any of its HUBZones; of the 8,586 firms located in the District's HUBZones, only 44 firms were federal contractors;

- The overall multiplier associated with federal procurement outlays in the NCR in 2000 was 1.8; that is, the $28.4 billion in procurement spending actually generated a total of $51.2 billion in economy activity accounting for 21 percent of the NCR's gross regional product; this spending supported 621,600 jobs across all sectors within the NCR and generated personal earnings totaling $17 billion; however, these economic impacts were not distributed equally among the NCR's jurisdictions with Northern Virginia capturing more than half of these benefits;

- The economic performance of the NCR has been favorably impacted by the growth in federal procurement contracting; during the 1983-2001 period, real growth in the NCR's economy totaled $111.2 billion (in 1996$s) for a gain of 99.1 percent while all federal spending was increasing from 26.7 to 77.1 billion for a gain 189 percent; the cumulative total of procurement spending in the NCR over this period was $334.5 billion (in 1996$s) with cumulative salary and wage spending by the federal government totaling $373.7 billion (in 1996$s);

- The correlation between economic growth and the combined federal spending for wages and salaries and procurement in the NCR was very strong at .956 with procurement dollars (4.756) being twice as important as salary and wage dollars (2.315) in this correction as indicated by their respective coefficients.

Policy Implications

With the rapid growth in procurement spending in the National Capital Region, its uneven distribution across local jurisdictions and its differential impacts on the region's sub-economies, the importance of federal procurement spending has now been clearly established. Given its importance and growing magnitude, federal procurement spending should be viewed by local and state government officials seeking to strengthen their respective economies as a principal source of near-term growth as well as an important factor in shaping the economy's longer-term performance. In this context, attracting and retaining firms that do federal procurement contracting should be a local economic development objective. Similarly, using federal contracting as a vehicle for achieving community-based revitalization objectives also has merit. The findings of this research support the formulation of public policies at the federal, state and local levels that reflect the importance of federal procurement outlays as a potent forces in shaping and positioning the economy to achieve and sustain its vitality in an increasingly competitive environment.

I. The Impact of Federal Procurement on the National Capital Region, 1990 and 2000

Introduction

The total value of federal procurement outlays received by businesses located in the National Capital Region during fiscal year 2000 was $28.4 billion up from $12.5 billion in 1990. This total value for federal procurement spending in 2000 exceeded the value of contract awards captured by businesses in any other state. These federal outlays accounted for almost twelve percent (11.9%) of the total output of the Region's economy and have become a major force in directing and shaping its growth during the last decade.

In addition to supporting job and income growth in the private sector, federal procurement spending has attracted new business activities to the Region and expanded its capacity to compete in non-federal markets. As a consequence, the type and magnitude of the products and services procured from local firms by the federal government and where these firms locate to fulfill the terms of their federal contracts have become important determinants of the Region's economic health. Understanding how the patterns of federal contracting have evolved over the past decade and how these patterns may differ depending on the federal agency issuing the contract award and the types of products and services being purchased will enable the National Capital Planning Commission to better assess the planning requirements of federal agencies and their host jurisdictions in the context of this broader matrix of associated economic and land use activities.

The first section of this report will present the following. The pattern of federal procurement contract awards will be documented from two perspectives—by the jurisdiction in which the federal contract work is being conducted and by the contracting agency. In each case, the number of contract awards, the category of work being contracted (research and development, services, or supplies and equipment), and the value of awards will be separately identified to provide a profile that could differentiate the nature of federal procurement contracting among the jurisdictions of the National Capital Region and among the major federal agencies.

In addition to profiling federal procurement spending for each jurisdiction in the National Capital Region and for each federal agencies and major category of purchase and comparing this spending in 1990 and 2000, two special analyses are included. The federal procurement profile for "Preference Program and Woman-Owned Contractors" is developed by federal contracting agency and jurisdiction for 1990 and 2000. Also, the possibility that some local contractors are more dependent on their contracting agency than others is examined. This is done by identifying those firms that only contract with a single federal agency; this exclusivity may be indicative of a locational dependency or preference that could widen the scope of federal facilities planning to include both the federal agency and its linked federal contractors.

This research will establish the database and federal agency and jurisdictional profiles for the analysis of the economic impacts—the job and income generation—associated with federal procurement within the National Capital Region that will be presented in Section II. Building on the research presented in the first two sections of this report, the public policy implications of federal procurement trends in the National Capital Region will be assessed and presented in the report's third and final section.

Federal Procurement Contracting in the National Capital Region: By Jurisdiction, 1990 and 2000

In 1990 there were 6,451 firms with federal contracts performing their contracted services in the National Capital Region with a total contract value of $12.5 billion. By 2000, the number of federal contractors working in the National Capital Region had grown to 9,111 for a gain of 41.2 percent. These 9,111 firms were contracted by federal agencies for a total of $28.4 billion of locally performed services for an increase from 1990 of 126.6 percent. In 1990, federal procurement contracting accounted directly for 8.7 percent of the Region's economy (gross regional product); by 2000, federal procurement outlays had increased their share of the Region's economy to 11.9 percent. The Region's federal procurement profile is presented in Table 1.

Table 1

Federal Procurement Contracting in the
National Capital Region: 1990 and 2000
(in billions of current-year $s)

Characteristics	1990	2000	Change	
			Actual	Percent
Number of Contractors*	6,451	9,111	2,660	41.2
Number of Obligations	45,329	86,024	40,695	89.8
Number of Deobligations	2,079	4,379	2,300	110.6
Value of Obligations	$12.9	$29.1	$16.2	126.4
Value of Deobligations	$0.3	$0.7	$0.4	119.1
Total Net Award Value	$12.5	$28.4	$15.9	126.6

Source: Federal Procurement Data Center (FPDC) and GMU Center for Regional Analysis. *Distinct firms performing federal contracts in the NCR not reported by the count of their multiple places (jurisdictions) of performance as identified in Tables I and II in the Appendix.

During the 1990-2000 period, the number of federal contractors (distinct firms) doing federal work in the National Capital Region increased 41.2 percent while the number of contract award increased almost 90 percent and the net value of these contracts gained

126.6 percent. Deobligations, federal contracts rescinded during the year, represented 5 percent of all contract actions in 2000 but only accounted for 2 percent of total contract value. Still, deobligations increased since 1990 at almost the same rate as obligations. The growth in federal contracting between 1990 and 2000 reflects an increase in the number of contractors and the number of awards and not a significant change in the size-value of the average contract award; while this average grew, its gain was less than the rate of inflation over this ten-year period.

In which jurisdictions this increasing federal contract activity occurred, which agencies were responsible for this growth in procurement spending, and what contracted services dominated these gains are analyzed in the following sections.

On a sub-state basis, contractors whose place of performance in 1990 was Northern Virginia accounted for 35.1 percent of reporting firms and 41.6 percent of the Region's total federal contract value (see Table 2). The District of Columbia had 34.8 percent of the contractors and 29.1 percent of the contract value and the two counties of Suburban Maryland accounted for 30 percent of the contractors and 29.3 percent of the award value. Only Northern Virginia enjoyed a percentage of contract value greater than its share of contractors. This difference is explained by Northern Virginia's federal contractors having larger value contracts than contractors working in the District and Suburban Maryland.

The growth of contractors and contract value between 1990 and 2000 was not shared evenly across the Region's jurisdictions or in proportion to the distribution that existed in 1990. The number of federal contractors reporting their place of performance in the District increased 74.1 percent over the nineties and its share of all contractors increased from 34.8 to 37.6 percent. In contrast, its share of contract value in the Region declined from 29.1 to 26.6 percent. During this same period, the Region's share of federal contractors reporting their place of performance in Northern Virginia grew from 35.1 to 39.0 percent while their share of contract value increased from 41.6 to 51.9 percent. For the two counties of Suburban Maryland, the share of both the number of federal contractors and the value of their contracts declined as a percentage of the Region's totals.

Table 2

Federal Procurement Awards in the National Capital Region
By Sub-State Area, 1990 and 2000
(in billions of current-year $s)

Sub-State Area	1990 Actual	1990 Share*	2000 Actual	2000 Share*	Percent Change
District of Columbia					
Contractors*	4,015	34.8	6,990	37.6	74.1
Award Value	$3.65	29.1	$7.56	26.6	107.1
Suburban Maryland					
Contractors*	3,477	30.1	4,348	23.4	25.0
Award Value	$3.67	29.3	$6.11	21.5	66.6
Northern Virginia					
Contractors*	4,046	35.1	7,251	39.0	79.2
Award Value	$5.21	41.6	$14.74	51.9	182.8
NCR					
Contractors*	11,538		18,589		61.1
Award Value	$12.54		$28.41		126.6

Sources: FPDC and GMU Center for Regional Analysis
*number of federal contractors reporting their location by place of performance in the included jurisdictions.

The distribution of federal procurement awards among the jurisdictions of the National Capital Region, presented in Table 3, show that in 1990 the District of Columbia had the largest number of federal contractors reporting it as their place of performance (34.8%) while accounting for 29 percent of the Region's total contract value. Fairfax County ranked second with 18.5 percent of the contractors and 24.7 percent of the contract value. Montgomery and Prince George's County were the next in order with the Region's other jurisdictions accounting for significantly smaller shares.

In terms of numerical growth, Fairfax County experienced the largest gain in the number of federal contractors and value of federal contract awards. The District had the second largest (numerical) gain in the number of contractors and value of awards followed by Arlington County and Montgomery County. Only in Prince William County did the number of federal contractors and the value of contract awards decline. Loudoun County, with the smallest base of federal contractors and value of awards, had the greatest percentage gain in both categories. This increase in federal contractor activity in Loudoun County parallels its rapid population and economic growth during the nineties and reflects the continuing dispersion of the Region's growth to its outer jurisdictions.

Table 3

Federal Procurement Awards in the National
Capital Region, By Jurisdiction: 1990 and 2000
(in millions of current-year $s)

Jurisdiction	1990	2000	Change Actual	Change Percent
District of Columbia				
Contractors*	4,015	6,990	2,975	74.1
Award Value	$3,653.1	$7,562.2	$3,909.1	107.0
Montgomery County				
Contractors*	1,947	2,681	871	44.7
Award Value	$2,138.9	$3,917.0	$1,778.1	83.1
Prince George's County				
Contractors*	1,530	1,667	137	9.0
Award Value	$1,529.0	$2,192.1	$663.1	43.4
Alexandria				
Contractors*	599	851	252	42.1
Award Value	$601.3	$1,172.1	$570.8	94.9
Arlington County				
Contractors*	938	1,942	1,004	107.0
Award Value	$907.4	$3,143.8	$2,236.4	246.5
Fairfax County**				
Contractors*	2,140	3,973	1,833	85.6
Award Value	$3,098.6	$9,752.3	$6,653.7	214.7
Loudoun County				
Contractors*	96	243	147	153.1
Award Value	$72.3	$408.8	$336.5	465.4
Prince William County**				
Contractors*	273	241	- 32	- 11.7
Award Value	$535.8	$261.6	- $274.2	- 51.2
NCR				
Contractors*	11,538	18,589	7,051	61.1
Award Value	$12,536.4	$28,409.9	$15,873.5	126.6

Sources: FPDC and GMU Center for Regional Analysis
*contractors are reported by where they are performing the contracted work; when a contractor is performing contract work in more than one jurisdiction, it is counted separately for each jurisdiction of performance. Hence the number of contractors reported by jurisdiction is larger than the number reported in Table 1 for the National Capital Region.
**includes independent cities

The jurisdictional patterns of federal procurement that emerged during the nineties can be summarized as follows. The number of federal contractors (business entities) increased 41.2 percent between 1990 and 2000. During this period, while the number of contractors was increasing, the number of locations in which they performed their federal services increased even more (61.1%), and the total value of their contract awards was up 126.6 percent. In simple terms there were more federal contractors working in more locations within the National Capital Region with more contracts resulting in a total increase in award value of $15.9 billion between 1990 and 2000. These gains occurred disproportionally across the NCR with Northern Virginia's jurisdictions experiencing an increase in total awards value of $9.5 billion (from $5.2 to $14.7 billion) accounting for more than half of the Region's total federal contract value in 2000.

Federal Procurement By Purchase Category: 1990 and 2000

The growth in federal contracting (number of contractors and value of awards) reflects a shift in the mix of goods and services that the federal government buys from its contractors. Between 1990 and 2000, federal contracting for research and development by all agencies from contractors in the National Capital Region increased 48.3 percent, a rate well below the overall gain in total award value of 126.6 percent. The number of contractors providing federal agencies R&D services actually declined from 993 to 974. Contractors providing supplies and equipment were up by 2,136 for a gain of 67 percent while the value of their awards increased by $2.65 billion or 104.9 percent; a gain still below the rate of overall contract value growth. The big gainer was services. The value of contract awards for services increased from $7.9 to $20.1 billion (up 154.6%) while the number of federal contractors providing these services increased from 7,359 to 12,292 (67%). The composition of these service contracts (and R&D and supplies and equipment) will be detailed and analyzed in Section II of this report.

The jurisdictional distribution of federal contract awards by major type is presented in Table 4. While R&D contracting increased the least between 1990 and 2000, substantial gains in R&D occurred in Alexandria and Arlington and Fairfax Counties while federal contractors working in Montgomery County experienced a decline in contract value. This contrasting pattern reflects a shift in agency priorities and budgets with Department of Defense R&D contracting in Northern Virginia increasing while HHS (NIH and FDA) awards declining to contractors working in Montgomery County. Federal contract awards for services also favored Arlington, Fairfax and Loudoun Counties with gains far exceeding the Region's average.

The procurement of supplies and equipment varied across the Region due to the range of products comprising this category. Much of this spending relates to the operations of the federal government and tends to be concentrated in jurisdictions having a large federal presence. In the District, these outlays are predominantly facilities related. However, this category also includes the procurement of software and electronic components. A greater share of these vendors is located in Northern Virginia than elsewhere in the Region.

Table 4
Federal Procurement By Jurisdiction and Major Type of Award
(in millions of current-year $s)

Jurisdiction	R&D	Services	Supplies	Total
District of Columbia				
1990	$176.8	$3,003.3	$473.0	$3,653.1
2000	262.1	5,764.0	1,536.1	7,562.2
% Change	48.2	91.9	224.8	107.0
Montgomery County				
1990	$409.1	$1,168.4	$561.4	$2,138.9
2000	379.6	2,800.5	736.8	3,917.0
% Change	- 7.2	139.7	31.2	83.1
Prince George's County				
1990	$710.0	$546.5	$272.4	$1,529.0
2000	551.8	1,217.8	422.5	2,192.1
% Change	77.7	122.8	55.1	43.4
Alexandria				
1990	$112.1	$422.8	$66.4	$601.3
2000	317.6	688.2	166.2	1,172.1
% Change	183.3	62.8	150.3	94.9
Arlington County				
1990	$138.0	$684.9	$84.5	$907.4
2000	463.1	2,230.3	405.4	3,143.8
% Change	235.6	225.6	379.8	246.5
Fairfax County				
1990	$492.6	$1,938.5	$667.5	$3,098.6
2000	1,063.0	6,943.1	1,746.2	9,752.3
% Change	115.8	258.2	161.6	214.7
Loudoun County				
1990	$2.3	$18.7	$51.3	$72.3
2000	9.4	298.3	101.2	408.8
% Change	308.7	1495.2	97.3	465.2
Prince William County				
1990	$73.0	$105.4	$357.4	$535.8
2000	87.4	141.1	33.1	261.6
% Change	19.7	33.9	- 90.7	- 51.2
NCR				
1990	$2,113.9	$7,888.5	$2,534.0	$12,536.4
2000	3,134.1	20,083.2	5,192.6	28,409.9
% Change	48.3	154.6	104.9	126.6

Sources: FPDC and GMU Center for Regional Analysis. Note: columns and rows may not add up to the total due to rounding; totals are correct.

Federal Procurement in the National Capital Region: By Federal Agency: 1990 and 2000

There are many federal agencies with contracting authority (26 are shown in Table 6), but seven agencies accounted for almost 85 percent of the total procurement outlays in the NCR—Defense, GSA, HHS, Treasury, Justice, Commerce, and NASA. With the exception of three agencies—Department of Transportation, EPA and NSF—all other major federal agencies in the National Capital Region experienced increases in the value of procurement contract awards during the 1990-2000 period. The Departments of Agriculture and Energy, EPA and NSF had fewer contractors in 2000 than in 1990. The contracting profile for these agencies is presented in Table 5.

Increases in federal procurement awards between 1990 and 2000 for the major agencies listed in Table 5 exceeded the averages for all agencies resulting in their share of the total increasing from 79.1 percent in 1990 to 84.2 percent in 2000. The Department of Defense is the largest single source of procurement contracts in the National Capital Region accounting for 42.5 percent of the total value of contract awards in 2000. However, DOD's dominance has declined since 1990 when the value of its procurement awards accounted for 53.8 percent of the total. While the value of DOD awards increased 77.9 percent between 1990 and 2000, total contract value for all agencies increased 126.6 percent. The sharp increases in procurement contracting by GSA, HHS, Treasury, Justice, Commerce and NASA, especially for services, shifted the balance away from Defense towards these domestic agencies.

This shift of procurement to services and to the non-defense agencies has been a fundamental change in federal procurement at the national level that has had significant impact on the NCR. R&D procurement spending overall increased 48.3 percent in the Region, well below the 126.6 percent average increase for all procurement spending. DOD's procurement of R&D grew 90.6 percent between 1990 and 2000 increasing its dominance of total R&D outlays from 59.8 to 76.8 percent.

In contrast, procurement of services (principally technology-based services) increased from \$7.9 to \$20.1 billion in the NRC between 1990 and 2000, a gain of \$12.2 billion (154.6%). The seven major agencies identified in Table 5 had combined outlays for services increasing from \$5.86 to \$16.34 billion (178.9%) accounting for \$10.5 billion or 85.9 percent of the total increase in procurement outlays for services.

Procurement outlays for supplies and equipment were also dominated by these seven major agencies. In 1990, their purchases of supplies and equipment accounted for 81.7 percent of all such purchases and, by 2000, they accounted for 87.7 percent. Between 1990 and 2000, outlays in this category increased \$2.65 billion overall; \$2.48 billion of this gain or 93.4 percent was accounted for by contract awards from these seven major agencies. Altogether, procurement outlays increased by \$15.87 billion between 1990 and 2000; increased outlays by the seven major agencies listed in Table 5 totaled \$14.01 billion or 88.2 percent of the Region's total gain.

Table 5

Federal Procurement in the National Capital Region
Agencies with Awards Greater Than $1 Billion in 2000
By Major Category of Purchase: 1990 and 2000
(in millions of current-year $s)

Federal Agency	R&D	Services	Supplies	Total
Defense				
1990	$1,263.7	$4,007.5	$1,474.8	$6,746.0
2000	2,408.5	7,488.5	2,102.2	11,999.1
% Change	90.5	86.9	42.5	77.9
GSA				
1990		$804.4	$34.0	$836.4
2000		3,603.5	1,089.7	4,693.3
% Change		339.1	3,305.0	461.1
HHS				
1990	$138.7	$237.3	$74.4	$450.4
2000	302.0	1,375.3	204.3	1,881.6
% Change	117.7	479.6	174.6	317.8
Treasury				
1990	$4.5	$258.1	$215.1	$477.8
2000	--	1,130.2	433.9	1,586.1
% Change	--	337.9	101.8	232.0
Justice				
1990	$0.9	$201.2	$142.5	$344.6
2000	0.3	1,053.5	309.4	1,363.2
% Change	- 68.8	423.3	117.1	295.6
Commerce				
1990	$1.8	$140.2	$81.3	$223.4
2000	2.6	1,029.5	303.7	1,335.8
% Change	44.4	634.3	273.6	497.9
NASA				
1990	$573.0	$212.0	$47.4	$832.4
2000	291.5	657.9	110.7	1,060.1
% Change	- 49.1	210.3	133.5	27.4
7 Agency Totals				
1990	$1,982.7	$5,858.7	$2,069.5	$9,911.0
% All Awards	93.8	74.3	81.7	79.0
2000	$3,004.9	$16,338.4	$4,553.9	$23,919.2
% All Awards	95.9	81.4	87.7	84.2
% Change '90-'00	51.6	178.9	120.0	141.3
% Change All Awards	48.3	154.6	104.9	126.6

Source: FPDC and GMU Center for Regional Center

Table 6

Federal Procurement in the National Capital Region
By Major Agency: 1990 and 2000
(in millions of current-year $s)

Agency	1990 Contractors	1990 Value	2000 Contractors	2000 Value	Change Contractors	Change Value
Agriculture	397	$100.3	378	$153.9	- 19	$48.4
Commerce	469	223.4	929	1,335.8	460	1,112.4
Defense	4,463	6,746.0	5,622	11,999.1	1,159	5,253.1
Energy	313	247.9	309	453.0	4	205.1
HHS	523	450.4	1,404	1,881.6	881	1,431.8
Interior	360	77.5	612	181.2	252	103.7
Justice	578	344.6	1,456	1,363.2	878	1,018.6
Labor	202	114.6	412	292.4	210	177.8
State	448	211.4	581	560.8	133	349.4
Transportation	419	806.6	490	420.7	71	- 385.9
HUD	92	111.9	126	434.0	34	322.1
Treasury	518	477.8	1,285	1,586.1	767	1,108.3
Education	122	83.5	216	455.5	94	372.0
FEMA	116	117.4	143	170.0	27	52.6
EPA	164	370.0	135	271.5	- 29	- 98.5
GSA	813	836.4	1,877	4,693.3	1,064	3,856.9
AID	139	160.0	313	343.5	174	183.5
NSF	85	64.5	72	51.6	- 13	- 12.9
NASA	486	832.4	499	1,060.1	13	227.7
NRC	62	25.7	133	39.7	71	14.0
Off of the Pres.	59	13.3	79	31.1	20	17.8
OPM	89	2.7	102	64.2	13	61.5
Smithsonian	99	30.4	164	56.0	65	25.6
SBA	38	12.1	86	35.3	48	23.2
SEC	31	25.4	69	30.1	38	4.7
Veterans Affairs	151	- 14.4*	456	298.5	305	312.9
Others	347	64.5	641	147.5	294	83.0
All Agencies**	11,538	$12,536.4	18,589	$28,409.9	7,051	$15,813.5

Source: FPDC and GMU Center for Regional Analysis
*Deobligations totaled $44.6 million and obligations totaled $30.25 million
**sum of individual agencies may not add up to total due to rounding

Single-Agency Contractors

Federal contractors performing federal contract activities for multiple agencies in multiple jurisdictions are likely to select their location based on operational efficiency while, for firms contracting with a single federal agency a location convenient to the contracting agency might have priority over other locational factors. In 1990, there were 11,538 contractors (by jurisdiction of performance) working within the NRC; 4,435 or 38.4 percent of these held contracts with only one agency. These single-agency contracts had a total value of $4.1 billion and accounted for 32.6 percent of the total value of all procurement contract awards in the Region. In 2000, the percentage of single-agency contractors increased slightly to 40.3 percent (7,484 of 18,589) but accounted for a lower percentage of the total award value (29.1%). The jurisdictional patterns for these single-agency contractors are presented in Table 7.

The District of Columbia had the largest number of single-agency contractors and its share of these contractors increased between 1990 and 2000 from 35.1 to 41.7 percent in the NCR. There were also a substantial number of single-agency contractors in Montgomery and Fairfax Counties (together they accounted for 32.6% of the total in 2000) but their numbers did not grow as fast at their multiple-agency contractors.

A comparison among jurisdictions and between 1990 and 2000 does not reveal consistent patterns. The only major deviations from the regional averages occur in the jurisdictions with lower levels of federal procurement contracting activity. In Loudoun County, single-agency contractors accounted for only 8.8 percent of the total value of all federal contractor awards in 1990 but this portion increased to 63.2 percent in 2000 reflecting the growth of single-agency contractors with large-value contracts. These percentages also increased in Prince William County between 1990 and 2000 although the total number of contractors and the value of awards both declined; Prince William County was the only jurisdiction to experience a decrease in federal procurement activity during this period.

The pattern of single-agency contractors by major federal agencies is shown in Table 8 for 2000. The seven major federal agencies (with total procurement outlays in the NCR exceeding $1 billion) accounted for 69.8 percent of all single-agency contractors and 84.5 percent of the total contract value for all federal agencies. Four out of seven of these major federal agencies—DOD, Treasury, Justice and NASA—had a greater percentage of single-agency contractors than the average for all agencies. Still, the award values represented by these single-agency contractors, with the exception of DOD and HHS, are generally lower than the all-agency percentage. GSA had the lowest percentage of single-agency contractors while Commerce had the lowest contract award value by single-agency contractors. The agencies with broader constituencies and ranges of services appear more likely to contract with multiple-agency contractors than agencies whose mission is more specialized and technical.

The large and continuing presence of single-agency contractors suggests that many contractors specialize in the work they perform for federal agencies. However, among the major jurisdictions, single-agency contractors are only becoming more concentrated in the District. And, even though the total contract value of single-agency contractors accounts for only 29 percent of all contract value, it would be wrong to conclude that these contractors tend to have smaller-value contracts. In fact, the average value of contract award to single-agency contractors in 2000 was 14 percent greater than the average for all awards. Thus, the lower total award value of single-agency contractors is a result of their having fewer contracts per firm than multiple-agency contractors.

Table 7

Single-Agency Federal Contractors in the NRC
By Jurisdiction, 1990 and 2000
(in millions of current-year $s)

Jurisdiction	Contractors	% Total	Award Value	% Total
District of Columbia				
1990	1,542	38.4	$1,558.3	42.6
2000	3,122	44.7	2,242.9	29.6
Montgomery County				
1990	758	38.9	$415.6	19.4
2000	1,071	39.9	1,253.6	32.0
Prince George's County				
1990	616	40.3	$681.7	44.3
2000	654	39.2	467.6	21.3
Alexandria				
1990	218	36.4	$203.9	35.1
2000	299	33.9	431.9	36.8
Arlington County				
1990	347	37.0	$248.1	37.4
2000	741	38.2	1,196.4	38.1
Fairfax County				
1990	773	36.1	$762.7	36.2
2000	1,370	34.5	2,263.0	23.2
Loudoun County				
1990	43	44.8	$6.4	8.8
2000	99	40.7	258.3	63.2
Prince William County				
1990	138	50.5	$210.5	39.3
2000	128	53.1	166.5	63.6
Totals				
1990	4,435	38.4	$4,087.2	32.6
2000	7,484	40.3	8,280.2	29.1

Source: FPDC and GMU Center for Regional Analysis

Table 8

Single-Agency Contractors By Major Federal Agency, 2000
(in millions of current-year $s)

Agency	Single-Agency	All Contractors	Percent
Defense			
Contractors	2,600	5,622	46.3
Award Value	$3,722.9	$11,999.1	31.0
GSA			
Contractors	647	1,877	34.5
Award Value	$1,323.0	$4,693.3	28.2
HHS			
Contractors	651	1,404	46.4
Award Value	$839.4	$1,881.6	44.6
Treasury			
Contractors	584	1,285	45.4
Award Value	$418.0	$1,586.1	26.4
Justice			
Contractors	684	1,456	47.0
Award Value	$291.0	$1,363.2	21.3
Commerce			
Contractors	303	834	36.3
Award Value	$151.9	$1,335.8	11.4
NASA			
Contractors	226	499	45.3
Award Value	$248.6	$1,060.1	23.4
7 Major Agencies			
Contractors	5,695	12,977	43.9
Award Value	$6,994.8	$23,919.2	29.2
All Agency Totals			
Contractors	7,484	18,589	40.3
Award Value	$8,280.2	$28,409.9	29.1

Source: FPDC and GMU Center for Regional Analysis

Preference Programs and Woman-Owned Contractors

The number of federal contractors qualifying for preference programs and as woman-owned firms increased in each jurisdiction of the NCR except Prince William County between 1990 and 2000. Overall, the number of these firms receiving federal contracts increased from 1,984 to 5,080 or by 156.0 percent. This compares to the overall 56.3 percent growth in the number of contractors working within the NCR (by place of performance summed by jurisdiction). The growth of these firms, as a percentage of the total, was greater in the suburbs than in the District of Columbia with Northern Virginia's totals in 2000 actually exceeding the District in both number and as a percent of all contractors. While Montgomery and Prince George's County do not have as many federal contractors working locally that qualify either under the preference programs or as woman-owned firms as the District, these firms represent a greater percentage of all federal contractors in these jurisdictions than in the District, as shown in Table 9.

Table 9

Federal Procurement Contracting in the NRC
Preference Program and Woman-Owned Contractors
By Sub-State Region, 1990 and 2000
(in millions of current-year $s)

Contract Activity	District of Columbia	Suburban Maryland	Northern Virginia	National Capital Region
Number of Contractors				
1990	739	604	641	1,984
2000	1,785	1,366	1,929	5,080
Change	1,046	762	1,288	3,096
% Change	41.5	126.2	200.9	156.0
% of All				
Contractors, 1990	18.4	17.3	15.8	17.2
2000	25.5	31.4	26.6	27.3
Contract Value				
1990	$400.8	$423.0	$537.6	$1,361.4
2000	853.7	1,069.6	1,621.0	3,544.3
Change	452.9	646.6	1,083.4	2,182.9
% Change	112.9	152.9	201.5	160.3
% of Total Award				
Value, 1990	11.0	11.5	10.3	10.9
2000	11.3	17.5	11.0	12.5

Source: FPDC and GMU Center for Regional Analysis

The value of all federal contract awards increased 126.6 percent in the NCR between 1990 and 2000. For federal contractors participating in these preference programs or as woman-owned firms, the value of their contract awards increased 160.3 percent raising their share of all awards from 10.9 to 12.5 percent. While gains in award value have been achieved over the 1990-2000 period, the average value of contract awards received by preference program participants and woman-owned firms is smaller than other federal contractors; 27.3 percent of the Region's federal contractors accounted for 12.5 percent of the total value of contract awards.

Summary of Findings

Federal procurement spending in the Washington metropolitan area has become a major force in the economy's growth and performance over the past two decades. With procurement spending in the metropolitan area increasing from \$4.2 billion to \$28.6 billion, a gain of almost 600 percent, it has helped to accelerate the growth of the private sector as well as influence the differential patterns of economic growth among the Region's jurisdictions. The research reported in this section has developed the profile of federal contractors by jurisdiction and contracting agency as well as by broad product composition, and compared these profiles in 1990 and 2000. Also, single-agency contractors have been compared with multiple-agency contractors to identify and analyze differences in location and performance. Finally, federal contractors benefiting from "preference programs" including woman-owned firms have been profiled by jurisdiction and major federal agency. Detailed data tabulations supporting this analysis and discussion are included in the Appendix. The major findings are as follows:

- In 2000 there were 9,111 firms with at least one federal contract working in the National Capital Region, an increase of 41.2 percent from 1990, with a total of 81,645 net contract awards (obligations less deobligations) with a total net value of \$28.4 billion, up 126.6 percent from 1990;

- Many of these 9,111 firms conducted their federal contract work in more than one jurisdiction with these multiple locations totaling 18,588: 6,990 (37.6%) were in the District, 4,348 (23.4%) were in the two counties of Suburban Maryland and 7,250 (39.0%) were in the five jurisdictions of Northern Virginia;

- The distribution of contract value differs from this pattern of performance locations: the District's value of contract awards totaled \$7.6 billion or 26.6 percent of the total in 2000 while Suburban Maryland's totaled \$6.1 billion or 21.5 percent of the total and firms working in Northern Virginia had awards totaling \$14.7 billion or 51.9 percent of the total.

- In summary, the total value of federal contracting increased more (126.6%) between 1990 and 2000 than the number of contract awards (88.8%) and the number of contractors (41.2%) with the distribution of federal work expanding to more locations (61.1%) across the Region's jurisdictions, with this growth favoring firms located in Northern Virginia.

- Seven federal agencies—DOD, GSA, HHS, Treasury, Justice, Commerce, and NASA, each with more than $1 billion in contract awards in 2000—accounted for most of the federal contracting activity in the NCR and these have become more dominant over the decade accounting for 88.2 percent of the increase in federal procurement spending in the NCR between 1990 and 2000 and, as a result, increased their share of all agency procurement awards from 79.0 to 84.2 percent.

- Federal procurement spending in the NCR has shifted its mix of product towards services at the expense of R&D and supplies and equipment between 1990 and 2000 reflecting the sector strength of the Washington area economy as well as national economic trends—outlays for services increased $12.2 billion or 154.6 percent accounting for 76.8 percent of the Region's total gain in procurement outlays;

- While R&D outlays grew much more slowly than outlays for services, there was a shift in R&D among agencies with Defense procurement accounting for the entire increase in R&D outlays between 1990 and 2000; this shift in R&D spending favored Northern Virginia's jurisdictions;

- Single-agency contractors comprise 40 percent of all federal contractors (counting places of performance), however their share of total awards has declined slightly since 1990; federal contractors in the District are more likely to be single-agency contractors than in any other major jurisdiction; and DOD, Treasury, Justice and NASA have above-average percentages of single-agency contractors; and,

- Federal procurement contracting under "preference programs" and by woman-owned firms has increased more in the suburbs than in the District between 1990 and 2000 with Northern Virginia having the most contractors and greatest contract value under these programs; the total value of contracts under these programs has grown faster than the value of all procurement awards in the NRC between 1990 and 2000, 160.3 percent compared to 126.6 percent raising their percentage of the total from 10.9 to 12.5 percent.

With the value of federal procurement contracting more than doubling over the past decade, the places of federal contracting performance have become more dispersed across the jurisdictions of the National Capital Region with the share of Northern Virginia's jurisdictions now exceeding 50 percent. In contract to this jurisdictional dispersion, these federal outlays have become more concentrated among federal agencies with seven major agencies accounting for almost 85 percent of the NCR's federal contract value in 2000, up from 79 percent in 1990. Still, federal contractors have continued to specialize with the proportion of single-agency contractors reaching 40 percent in 2000 with their value of contract awards standing at 29 percent. And, federal contractors participating in preference programs have increased in number as well as in the share of the NCR's total contract award value since 1990. By all measures, federal contracting in Northern Virginia has experienced the greatest gains between 1990 and 2000.

II. The Impact of Federal Procurement On Business Development and Job and Income Growth

Introduction

The jurisdictional and agency patterns of federal procurement spending in the National Capital Region in 1990 and 2000 were presented and analyzed in the previous section of this report. The value of federal procurement contracts increased 126.6 percent during this period to $28.4 billion and, with this growth in contracting outlays, the places of federal contract work became more dispersed across the region with firms located in Northern Virginia capturing more than 51.9 percent of the outlays in 2000 up from 41.6 percent in 1990. At the same time, the sources of federal contract awards have become more concentrated with seven major agencies accounting for 85 percent of all procurement outlays in the NCR. These findings reinforce the importance that federal procurement spending has had in shaping these local economies and in underpinning the broader performance of the Washington metropolitan area economy.

The objectives of Section II of this report are to examine federal procurement contracting more closely distinguishing between the types of services and products being purchased by the federal government in terms of their differential patterns of economic impact. These analyses are designed to determine the differential magnitudes of economic impact among types of federal procurement awards to clarify whether some jurisdictions may gain greater returns than others from the mix and orientation of federal contracting. Additionally, analyses in this section examine the extent to which federal procurement awards were supporting the goals of local economic development by channeling new business activity into distressed areas. The findings of this research are reported in the following pages along with supporting data tabulations that provide agency and jurisdictional specific federal procurement outlays fro 1990 and 2000 in the Appendix.

Types of Federal Procurement Spending

Federal procurement spending is reported by both product code and standard industrial classification code (SIC Code) in this section and, in greater detail, inn the Appendices provide greater detail as to what items or services are being purchased by the federal government from firms in the NCR. These codes were initially aggregated into three major categories: Research and Development, Services, and Supplies and Equipment. The profile of federal procurement spending in the NCR in 1990 and 2000 was presented previously by agency and jurisdiction. While this grouping of purchases helps to simplify and summarize the voluminous data provided for more than 86,000 contract awards, these major groupings do not identify the functional beneficiary of these outlays. To clarify these analyses, federal procurement outlays were re-classified to achieve this objective by grouping awards by type of support; that is, do they support the facilities that house the federal government—building operations? Do they support the federal workforce—training, health services, local transportation, supplies used by federal employees, and other support services? Or, do they support the programs being implemented by the federal government? This categorization of federal procurement outlays differentiates between the overhead of the federal government and the activities of the federal government.

With the federal workforce shrinking during the Nineties from 373,300 in 1990 to 333,100 in 2000, a loss of 40,200 workers or 10.8 percent (the federal workforce peaked in July 1993 at 396,600 with the job loss from the National Performance Review totaling 63,500 or 16% by 2000), it would be expected that federal procurement spending in support of this workforce and to provide facilities in which this smaller work force would be housed also would slow and possibly even decline. And, with fewer federal workers to implement federal programs, it would be expected that outlays in support of these programs would grow as outsourcing was substituted for the decline in federal workers. This, in fact, is the federal procurement pattern that has emerged (see Table 10).

Table 10

Federal Procurement Trends By Type of Support
In the National Capital Region, 1990 and 2000
(in billions of current year dollars)

Contract Value by Type	1990	2000	$ Change	% Change
Personnel Support	$1.083	$1.038	- $0.045	- 4.2
Facilities Support	4.916	9.686	4.770	97.0
Program Support	6.537	17.685	11.149	170.6
Totals	$12.536	$28.409	$15.873	126.6

Sources: Federal Procurement Data Center (FPDC); GMU Center for Regional Analysis.

From the standpoint of economic impact, the differences in the growth of federal procurement outlays are important. Jurisdictions having greater concentrations of federal workers would be expected to experience a different pattern of procurement growth than jurisdictions with a greater concentration of federal contractors specializing in program support. To illustrate these differences, Tables 11 and 12 present these patterns of procurement spending for the District of Columbia and Fairfax County.

Table 11

Federal Procurement Trends By Type of Support
In The District of Columbia, 1990 and 2000
(in billions of current year dollars)

Contract Value By Type	1990	2000	$ Change	% Change
Personnel Support	$0.746	$0.286	- $0.460	- 61.7
Facilities Support	1.649	3.169	1.520	92.2
Program Support	1.259	4.107	2.848	226.2
Totals	$3.653	$7.562	$3.909	107.0

Sources: FPDC; GMU Center for Regional Analysis

Table 12

Federal Procurement Trends By Type of Support
In Fairfax County, 1990 and 2000
(in billions of current year dollars)

Contract Value By Type	1990	2000	$ Change	% Change
Personnel Support	$0.223	$0.242	$0.019	8.5
Facility Support	1.053	2.544	1.491	101.6
Program Support	1.823	6.961	5.138	281.8
Totals	$3.099	$9.747	$6.648	214.5

Sources: FPDC; GMU Center for Regional Analysis

A comparison of the procurement patterns in these two jurisdictions—the District of Columbia and Fairfax County—reveals several trends that are found among other local jurisdictions in the NCR. Procurement in support of federal personnel has declined or gained only marginally as the federal workforce has declined, procurement spending in support of federal programs has expanded rapidly, and outlays in support of federal facilities (these include leasing) have increased but at rates slower than the overall gain in procurement spending. Furthermore, federal contracting has shifted to the suburbs with contracting in the District of Columbia growing at a rate below the overall procurement growth rate of 126.6 percent between 1990 and 2000.

Program Support Outlays By Major Agency

Outsourcing in support of federal programs has been shown to be responsible for the rapid gains in federal procurement spending in the NCR. Between 1990 and 2000, outlays for program support increased from $6.536 billion to $17.681 billion for a 270.5 percent gain while total procurement outlays increased 126.6 percent. This rapid growth rate resulted in the percentage of total federal procurement outlays for program support increasing from 52 percent in 1990 and 62 percent in 2000.

The seven federal agencies that have been shown to dominate federal procurement spending in the NRC have experienced above-average rates of gains in program support contract awards, as shown in Table 13. Program support outlays increased overall by 170.5 percent while this type of procurement spending by the seven major agencies increased 207.3 percent accounting for gains totaling $9.992 billion while gains in program support spending by all other agencies totaled $1.152 billion, a gain of only 67 percent between 1990 and 2000.

Table 13

Program Support Outlays by Major Agency
National Capital Region, 1990 and 2000
(in billions of current years dollars)

Major Agency	1990	2000	$ Change	% Change
Defense	$3.081	$7.838	$4.757	154.4
GSA	.276	2.358	2.082	754.3
HHS	.269	1.102	.833	301.8
Treasury	.201	1.019	. 818	407.0
Justice	.140	.840	.700	500.0
Commerce	.132	.758	.626	474.2
NASA	.720	.896	.176	24.4
All Other Agencies	1.718	2.870	1.152	67.0
Totals	$6.537	$17.681	$11.144	170.5
Major Agencies as Percent of Total	73.7%	83.8%	89.7%	

Source: FPDC; GMU Center for Regional Analysis

Federal Procurement Spending in Distressed Areas

Federal contract awards are reported by place of performance; that is, where the contracted work is being done. The "place of performance" may be the location of the firm’s principal place of business, or it could be a field office or even a federal facility. Because matching any of these locations to a distressed or redevelopment area requires address matches, an alternative approach was used. Federal contractors located in HUBZones can be identified. HUBZones are “historically underutilized business zones” and are designated by the SBA based on level of median household income or unemployment and are defined geographically by census tract. There are 84 census tracts in the District of Columbia designed as HUBZones. Also, there are a total of eleven HUBZones (census tracts) in suburban jurisdictions: three in Montgomery County, five in Prince George’s County, one in Arlington County and two in Fairfax County.

The HUBZone analysis has been limited to the District, as it accounts for 88 percent of all the HUBZones in the NCR. There were 81 contract awards made to 44 firms located within the District’s HUBZones in FY 2000 with a total value of $13.0 million. Ten (10) of these 44 firms have benefited from the small-business set aside program and 15 are classified as “woman-owned” businesses with seven of these also qualified under the small business set aside program. Federal contract awards in HUBZones accounted for 0.3 percent of the District’s total number of awards and 0.2 percent of the District’s total award value. Consequently, not only do the federal contractors located in HUBZones represent a very small share of the District’s total federal contractor base, their average contract value is below the average for all contractors in the District.

Federal contractors located in HUBZones not only represent a small share of all federal contractors in the District, but they also represent a small percentage of the firms located within the HUBZone. Based on an InfoUSA data base listing all firms in the District of Columbia by census tract, 8,586 companies were identified as being located in the 84 HUBZone census tracts. While many of these firms provide services to area residents and would not be considered potential federal contractors, the 81 firms receiving federal contracts in the HUBZone accounted for less than 1 percent of all HUBZone businesses. This small percentage suggests the possibility of additional underutilized federal contracting potential being present in these HUBZones.

A comparison of the contract services or products by four-digit SIC Code between the HUBZone and the District is presented in Table 14. While HUBZone awards accounted for only 0.27 percent of the District’s awards for the same SIC Codes, there were several SIC Codes where contractors located in the HUBZones provided exclusive services (100% of the District’s contract work in a SIC Code) or had a significant proportion of the federally contracted work done in the District. These categories included: 8049 – Offices of Health Practitioners, NEC; 8713 – Surveying Services; 0782 – Lawn and Garden Services; 1761 – Roofing, Siding, and Sheet Medal; 1796 – Installing Building Equipment; 3272 – Concrete Products, NEC; 4119 – Local Passenger Transportation, NEC; 4953 – Refuse Systems; 7213 – Linen Supply; 2679 – Converted Paper Products, NEC; 3841 – Surgical and Medical Instruments; and 5047 - Medical and Hospital Equipment. It should be noted that the actual nature of the service or product being provided under these federal contracts cannot be fully identified by the SIC Code as it reflects the predominant characterization of the business.

Table 14

Federal Contracting Activity in HUDZones in
The District of Columbia, By SIC Code, FY 2000

SIC Code	Description	Total Value of Awards ($s in 000) HUBZones	Total DC	Percent
Research and Development				
7379	Computer Related Services, NEC	2,807	1,295,217	0.22
8049	Office of Health Practitioners, NEC	63	1,946	3.24
8713	Surveying Services	75	4,064	1.85
	Total Research and Development	2,945	1,301,227	0.23
Services				
0782	Lawn and Garden Services	210	3,218	6.53
1542	Nonresidential construction, NEC	1,673	556,836	0.30
1761	Roofing, Siding, Sheet Metal Work	798	4,354	18.33
1796	Installing Building Equipment, NEC	257	2,678	9.60
1799	Special Trade Contractors, NEC	303	9,674	3.13
3272	Concrete Products, NEC	39	39	100.00
3663	Radio & TV Communications Equipment	86	6,915	1.24
4119	local Passenger Transportation, NEC	830	2,045	40.59
4953	Refuse Systems	403	4,809	8.38
7213	Linen Supply	50	218	22.94
7349	Building Maintenance Services, NEC	558	42,842	1.30
7379	Computer Related Services, NEC	1,614	1,295,217	0.12
7389	Business Services, NEC	53	119,843	0.04
8011	Offices & Clinic of Medical Doctor	80	13,386	0.60
8049	Offices of Health Practitioners, NEC	60	1,946	3.08
8099	Health and Allied Services, NEC	175	25,911	0.68
8331	Job Training and Related Services	48	7,787	0.62
8711	Engineering Services	286	111,877	0.26
8712	Architectural Services	10	109,017	0.01
8741	Management Services	289	201,387	0.14
8742	Management Consulting Services	159	443,526	0.04
8744	Facilities Support Services	793	176,998	0.45
8999	Services, NEC	3	218,183	0.00
	Total Services	8,777	3,358,706	0.26
Supplies				
2679	Converted Paper Products, NEC	45	45	100.00
3841	Surgical and Medical Instruments	62	804	7.71
5047	Medical and Hospital Equipment	776	1,423	54.53
7371	Computer Programming Services	304	213,198	0.14
7629	Electrical Repair Shops, NEC	118	1,713	6.89
	Total Supplies	1,305	217,183	0.60
Total, All Activities		13,027	4,877,116	0.27

Source: FPDC, GMU Center for Regional Analysis

Employment and Income Impacts of Federal Procurement

Federal procurement spending in the NCR represents a substantial source of economic activity in the form of the jobs its supports and the payroll it generates. The federal contractor jobs and their payroll support other jobs and generate additional personal earnings in businesses that are patronized by these workers throughout the region's economy. Federal contractors also do business with other local firms—suppliers and subcontractors. These business outlays generate additional jobs and related personal income. The sum total of the direct federal procurement outlays, which totaled $28.4 billion in 2000, and the induced and indirect impacts these direct outlays generated within the region's economy, which totaled $22.8 billion, represent the full contribution of federal procurement spending to the gross regional product of the NCR.

The total economic impact of federal procurement in the NCR totaled $51.2 billion in 2000 reflecting an aggregate multiplier of 1.80253; that is, for each dollar of federal procurement spent in the NCR, the regional economy benefits in total by $1.80. The direct and indirect value of federal procurement outlays accounted for 21 percent of the economy's total $243.4 billion output or gross regional product (the value of goods and services produced within the NCR). These values for total output, jobs and personal earnings are presented for the NCR in Table 15.

Table 15

The Economic Impacts of Federal Procurement Outlays
In the National Capital Region, 2000
(in billions of 2000 dollars)

Procurement In Support Of	Outlay $	Total Output*	Jobs Created	Personal Earnings
Personnel	$1.038	$1.844	29,515	$0.625
Facilities	9.686	16.737	191,024	4.870
Programs	17.685	32.627	401,104	11.506
Totals	$28.409	$51.208	621,643	$17.001

Sources: FPDC; GMU Center for Regional Analysis; aggregate multipliers developed from individual sub-sector multipliers provided by the Bureau of Economic Analysis, US Department of Commerce, RIMS II I-O Model for the Washington metropolitan area, 2000.
*contribution to the NCR's gross regional product

Federal procurement contracts generate jobs in the firms receiving the contract awards. Estimates of the contractor jobs supported by these federal procurement outlays place the total in a wide range from 250,000 to more than 450,000 inclusive of prime and subcontractors. The actual number is not known. However, the combined total number of jobs supported by federal procurement spending in the NCR can be estimated using multipliers provided by the U.S. Department of Commerce's Bureau of Economic Analysis. As shown in Table 15, the jobs in the regional economy created and supported by the $28.4 billion in federal procurement spending in 2000 was calculated to total 621,643 inclusive of the contractors' employees and the employees of sub-contractors and suppliers, and the private and public sector jobs supported in the NCR by the consumption spending and taxes paid by the workers employed by the federal contractors, sub-contractors and vendors but excluding federal government personnel. These federal procurement-related jobs represented 20.3 percent of all jobs (covered, self-employed, contract workers, uniform military) in the National Capital Region.

These indirectly generated jobs are distributed across all sectors of the economy and can be located in any jurisdiction. The source jurisdictions of these 621,643 jobs supported directly, indirectly or induced by federal contract outlays in 2000 are shown in Table 16. Federal contract outlays in the identified jurisdictions have the associated job impact spread across the NCR.

Table 16

Job Creation Impact of Federal Procurement Spending
By Jurisdiction in the National Capital Region, 2000
(in billions of 2000 dollars)

Jurisdiction	Procurement Outlay	Jobs Created*
District of Columbia	$7.562	163,783
Arlington County	3.144	68,680
Fairfax County	9.752	214,931
Loudoun County	.409	10,193
Prince William County	.262	5,663
City of Alexandria	1.172	26,122
Montgomery County	3.917	84,704
Prince George's County	2.192	47,463
Totals	$28.409	621,539**

Sources: FPDC; GMU Center for Regional Analysis
*jobs may be located in any jurisdiction within the NCR.
**disaggregated total is slightly less than total in Table 6
due to errors from cumulative rounding of individual values.

The mix of procurement awards among major categories—support of facilities, personnel, and programs—have a marginal impact on the proportional job and income impacts resulting from their differing job multipliers (facilities, 21.11 jobs per million dollars; personnel, 30.44 jobs per million dollars; and programs, 24.28 jobs per million dollars adjusted to 1997 constant dollars). While the effect of these differences is small, it does confirm that all types of federal procurement outlays do not have the same economic impact. At this aggregated level, the District's share of all procurement dollars was 26.6 percent while its share of the total job impact was slightly less at 26.4 percent. Conversely, Fairfax County's share of all procurement outlays was 34.3 percent and its share of all jobs generated was 34.6 percent. In both Montgomery and Prince George's Counties their mix of procurement outlays resulted in slightly lower shares of the jobs generated compared to their respective share of procurement outlays. Loudoun County and Alexandria had slightly more favorable job outputs for their federal procurement outlays while Arlington County had a slightly less favorable mix.

As these differences are small, it can be concluded that the mix of federal procurement outlays across the region's jurisdictions has not resulted in one jurisdiction having a significantly more favorable per dollar economic impact. Rather, the significant differences remain the actual levels of federal procurement activity captured by contractors in the Region's jurisdictions and the shift in these capture rates between 1990 and 2000 that has favored Northern Virginia jurisdictions at the expense of Suburban Maryland counties and the District of Columbia.

Economic Multipliers

The multipliers developed for estimating the economic impacts of federal procurement outlays in the NCR are a composite of individual multipliers reflecting constituent products and services comprising the procurement groupings as shown in Table 17. These multipliers reflect marginal but important differences. Larger multipliers denote higher levels of productivity or output per unit of input.

Procurement of R&D has the greatest magnitude of impact on the area economy per dollar spent while the procurement of supplies and equipment has the lowest impact per dollar spent. R&D is labor intensive requiring workers with technology-intensive skills with higher rates of pay while the procurement of supplies and equipment involve products that are manufactured outside the region and are wholesaled, fabricated or assembled and serviced locally and their related job multipiers and pay rates are lower than for R&D.

A similar pattern of relative performance was found regarding procurement outlays in support of programs—higher value added, higher levels of personal earnings and a moderate job multiplier. Procurement in support of facilities and their operations had the lowest value added, lowest level of personal earnings per dollar of procurement and was the least job intensive. These different economic characteristics could result in some jurisdictions having a more economically favorable mix of procurement contract awards than another jurisdiction. While the actual differences in product/service mix within the

NCR appear to be relatively small, the different multipliers and resultant economic impact potential associated with federal procurement awards supports the conclusion that all contracts do not have the same impact on the local economy; that is, some types of federal work are better (have more impact) than others as measured by their contribution to the local economy, its job base and its income level.

Table 17

Aggregate Economic Multipliers for Major Categories of
Federal Procurement in the NCR, 2000

Types of Procurement	Total Output	Jobs*	Personal Earnings
Research & Development	1.8990	22.680	.6942
Supplies and Equipment	1.7186	19.925	.5287
Services	1.8062	26.970	.6783
Personnel Support	1.7765	30.440	.6023
Facility Support	1.7279	21.112	.5028
Program Support	1.8449	24.280	.6506

Sources: US Department of Commerce, Bureau of Economic Analysis, RIMS II (2000); GMU Center for Regional Analysis
*jobs are based on spending values converted to 1997 dollars per million

Summary of Findings

The analyses presented in this section have shown that federal procurement in the NCR has shifted away from contracts related to personnel support and to contracts for program support with contracts for facilities support continuing to grow but at a rate below the overall gain in federal procurement between 1990 and 2000. This procurement pattern is consistent with the downsizing of the federal workforce that has occurred since 1993. This changing procurement pattern was found to vary across the NCR's jurisdictions and among federal agencies.

These differential procurement patterns were shown to have different economic impacts based on their related job and income multipliers and contribution to the total output of the NCR's local jurisdictions. Overall, the economic impact of federal procurement in 2000 was calculated to have a multiplier of 1.8; that is, the $28.4 billion in direct procurement spending in the NCR generated a total economic impact of $51.2 billion accounting for 21 percent of the NCR's gross regional product. This direct and indirect and induced spending supported an estimated 621,643 jobs in the NCR generating personal earnings of $17 billion. While all jurisdictions within the NCR have benefited from these favorable economic impacts, firms located in their distressed areas were only marginally benefiting from federal procurement outlays.

III. Policy Implications of Federal Procurement Trends

Introduction

Federal procurement trends in the National Capital Region between 1990 and 2000 were identified and analyzed in the previous two sections of this report. These trends have been examined from both agency and jurisdictional perspectives. Additionally, the composition of federal procurement and trends in the mix of purchases have been analyzed. Also, the impacts of federal procurement on areas targeted for revitalization and on disadvantaged businesses have been assessed. Finally, the differential employment and income effects of federal procurement by product type and SIC Code and by jurisdiction have been examined.

The objectives of these analyses have been to establish the patterns of federal procurement spending in the National Capital Region and to measure the importance of federal procurement to the economies of the Region's jurisdictions. The findings of this research will enable planners and policy makers to better reflect the federal government's procurement activities in combination with its employment and other dimensions as future plans are developed and debated for accommodating the federal government's evolving space and operational needs and functions within the National Capital Region.

This third section of the report will present an analysis of the contribution of federal procurement spending in the National Capital Region to its economic growth over the past two decades. Based on these findings, which will confirm that procurement spending has been a significant source of economic growth relative to other federal spending, the implications of these findings to the economic development strategies and policies of the area's local and state governments will be explored. Finally, the federal policy implications of federal procurement trends in the National Capital Region will be discussed.

Impact of Federal Procurement on the Economic Growth Of the NCR

With the substantial increase in federal procurement spending during the nineties (its accumulated value exceeded $215 billion) the changing mix of these purchases in terms of products (less R&D and supplies, more services) and function (program support instead of personnel support), and the resultant shift in the geographic patterns of procurement spending in the NCR, the important question is: have federal procurement outlays had a major impact on the performance of the area's economy? And, if they have, has this impact benefited one portion of the regional economy at the expense of another?

To establish the importance of federal procurement spending to the growth of the regional economy, and to determine whether some types of federal contract spending may have had greater relative economic benefits than other types, product/service multipliers were developed and the regional economic benefits calculated for the full National Capital Region (see Table 17). In sum, the $28.6 billion in federal procurement dollars spending in 2000 generated a total impact on the regional economy (its value of goods and services produced locally) of $51.2 billion, reflecting an aggregate multiplier of 1.8. This contribution to gross regional product (GRP) accounted for 21 percent of the total economy.

This federal procurement spending supported (or generated) 651,643 jobs in the private sector including workers in the direct employment of federal contracting firms, workers employed by suppliers and firms otherwise linked to these local federal contracting firms, and workers distributed across the area economy whose jobs are supported by the consumption spending of worker whose salaries are tied to federal procurement contracting activity. These direct and indirect jobs supported by federal procurement contracting in the NCR accounted for 20 percent of all jobs in the NCR of any type. And, these jobs supported by federal procurement outlays generated personal earnings totaling $17 billion in 2000.

An analysis of the respective multipliers associated with the different types of federal procurement confirms that some types of procurement outlays have greater economic impacts than other types. Program support contracts generated $1.85 for each $1 in contract value while facility support contracts generated $1.72 per $1 in value. Similarly, the job and earnings benefits favor program support outlays over outlays for facility support. Procurement outlays for personnel support have the highest job multiplier but these jobs have lower-value added and therefore do not carry as high an average income as do other types of federal procurement contracting.

These differences appear relatively small on a dollar basis but when multiplied by the total value of federal contracting, these differences can have a major impact on the patterns of local economic growth. These differences are impacted further by the uneven geographic distribution of federal contract outlays overall and by the geographic differences across the types of procurement.

Federal spending data by local jurisdiction are available each year since 1983. Over this period, federal spending in the National Capital Region has grown from $26.7 billion in 1983 to $77.1 billion in 2001, a gain of 189 percent. The two major components of this growth that are not linked to the area's population base are the salaries and wages paid directly to federal government employees working in the NCR and federal procurement contracts awarded to firms conducting their work (providing their contracted services) in the NCR. Table 18 presents federal spending for salaries and wages and procurement over this 18-year period in the NCR by sub-state area.

Table 18

Federal Procurement in the National Capital Region
Economic Impacts, 2000
(in billions of 2000 dollars)

Contract Purpose	Outlay $	Total Output*	Jobs Supported	Personal Earnings
Personnel Support	$1.038	$1.844	29,515	$0.625
Facilities Support	9.686	16.737	191,024	4.870
Program Support	17.685	32.627	401,104	11.506
All Procurement	$28.409	$51.208	621,643	$17.001

Sources: FPDC and GMU Center for Regional Analysis; multipliers developed From RIMS II I-O Model, BEA, Department of Commerce, 2000.
*contribution to NCR's gross regional product

Is Procurement More Important Than Payroll?

The key question to be explored here is whether federal spending for salary and wages and procurement has had a significant effect on the economic growth that has occurred in the National Capital Region and, if so, are the growth effects associated with federal payroll outlays the same as for federal procurement awards? If a federal dollar spent for procurement has a different value to the economy of the NCR than a federal dollar spent for salaries and wages, this difference could then compound the geographic differences in the patterns of federal procurement documented previously.

If procurement dollars have had a greater impact on the area's economic growth than federal spending for salaries and wages, then the shift in spending patterns and growth of procurement spending may have had unintended long-term structural impacts on the economies of the Region's jurisdictions that are not directly linked to the physical locations of federal agencies within the NCR. This added dimension of federal impact in comparison to the traditional view of the federal government as a major employer could (and maybe should) be considered in future federal and local planning and policy formulation to assure that the full short- and long-term effects of the federal presence in the NCR be assessed.

An examination of Table 19 appears to confirm that federal spending for procurement has had an impact on the differential growth rates experienced by the NCR's sub-state areas over the 1983-2001 period.

Table 19

Federal Payroll and Procurement Spending
in the National Capital Region by Sub-State Area, 1983-2001
(in billions of 1996 dollars)

Sub-State Area	Change in GRP*	Salaries and Wages	Procurement
District of Columbia	46.5%	$206.6	$81.5
Suburban Maryland	103.8%	72.3	92.7
Northern Virginia	153.4%	94.8	160.3
NCR**	99.1%	$373.7	$334.5

Sources: U.S. Census Bureau and GMU Center for Regional Analysis
*% change from 1983 to 2001; **GRP growth for PMSA

The sub-state area that experienced the most rapid growth rate—Northern Virginia—benefited from federal procurement outlays totaling $160.3 billion over the 19-year period, an amount accounting for 48 percent of all procurement outlays in the NCR. Suburban Maryland experienced the second fastest GRP growth rate, although one well below the rate in Northern Virginia, and had federal procurement spending totaling $92.7 billion, a level 42 percent below the total procurement value in Northern Virginia. And, the District of Columbia's economy experienced the slowest growth over this period and experienced the greatest increase in federal spending for salaries and wages but the least accumulated value for procurement outlays.

This simple comparison would seem to support the hypothesis that federal dollars spent for procurement have had a greater impact of the local economy than federal dollars spent on salaries and wages.

To test this hypothesis more rigorously, a regression analysis was performed with gross county product of each of the NCR's local jurisdictions serving as the dependent variable and federal spending for salaries and wages and procurement being the independent variables. These values were regressed for the NCR and for Northern Virginia and Suburban Maryland (the District, with only 19 observations was not analyzed independently from the NCR). The results, presented in Table 20, confirm the importance of procurement outlays over the 1983-2001 period to the economic growth of the NCR and help explain the substantially greater growth that occurred in Northern Virginia relative to Suburban Maryland and the District.

The correlation between economic growth and federal spending for procurement and salaries and wages is strong with the coefficients for the two variables showing procurement to be twice as important as spending for salary and wages in this correlation.

Table 20

Federal Payroll and Procurement Spending
in the National Capital Region by Sub-State Area, 1983-2001
Summary of Regression Model Results

Area	Correlation Value (R)	Coefficients	
		Salaries/Wages	Procurement
NCR	.956	2.315	4.756
Northern VA	.973	1.720	4.971
Suburban MD	.935	12.743	1.415

Source: GMU Center of Regional Analysis

In Northern Virginia, which experienced an almost 150 percent real increase in GRP between 1983 and 2001, the correlation between this growth and federal spending was very strong with procurement spending being almost 3 times as important to this correction as spending for salaries and wages (as established by the relative coefficient values). In comparison, federal spending had a slightly weaker correlation to the economic growth in Suburban Maryland over this period (real GRP doubled between 1983 and 2001) but procurement spending had only a marginal impact on this growth; spending for salaries and wages was much more significant but yielded weaker returns to the economy. In conclusion, a dollar spent for federal procurement in the NCR economy has been more important than a federal dollar spent for salaries and wages; based on the relative coefficients, a procurement dollar had two times the economic impact of the payroll dollar. The complete analyses and data inputs are included in the Appendix.

Federal Procurement and the Changing Job Structure

The importance of federal procurement spending to the economic growth of the NCR has been established by measuring its contribution to the growth of gross regional product. It might also be expected that this growing federal market for specific and specialized goods and services might be reflected in the NCR's changing job structure; not just the number of jobs (in 2000 federal procurement accounted for 21 percent of the area's jobs, see Table 18) but also in the types of jobs being created.

While a statistical analysis could establish the correlation between federal procurement spending by type of purchase and the patterns of job growth over the study period, a comparison of the job structure in the NCR (actually in the PMSA) in 1980 and 2000 clearly establishes the nature of the restructuring that has occurred (see Table 21). As total employment was increasing 63.6 percent, job growth in the service sector increased by 138.6 percent and accounted for 62 percent of the net job growth during this 20-year period.

It is interesting to note that while the regional economy was growing 120 percent (inflation adjusted change) between 1980 and 2000, the region's employment base grew only 63.6 percent. In order for the economy to grow at a rate almost double the job base, the types of new jobs being added had to be different from the base that existed in 1980. Economic growth results from both the generation of new jobs and the substitution of better jobs for not-as-good jobs over time; that is, shifting the job base overall to higher value added jobs that support higher incomes and larger multipliers. This shift is evident in Table 21.

Between 1980 and 2000, the region's employment base increased by 1.3 million new jobs with the private sector accounting for all but 3.3 percent of this gain. As a result, the share of the employment base composed of government jobs declined from 32.4 percent in 1980 to 20.5 percent in 2000. At the same time, the share of jobs in the services sector increased a corresponding amount, from 28.2 to 41.2 percent. As a result, the share of the regional employment base that is comprised of service sector and government jobs (60.7% in 1980; 61.6% in 2000) has not changed significantly over this 20-year period. Rather, only the distribution of jobs between these two dominant sectors has changed.

With all the attention to job growth in telecommunications in the latter half of the nineties, it is interesting to note that jobs classified as TCPU (C represents communications) only increased their share of the employment base from 4.0 to 4.6 percent and accounted for less than 6 percent of the job growth over 20 years. With services dominating job growth, the remainder of the gains can be largely explained by growth in area's population over this period and not the growth of its core industries.

One final measure of the structural change that occurred over this period, consistent with the generation of technology-based jobs and jobs requiring knowledge workers including the approximately 200,000 new federal contractor jobs added to the economy, is the "real" growth in salary income. The average salary per worker in the NCR (in 1996 $s) was $26,442 in 1980 with service-sector jobs having an average salary of $28,973. By 2000, these salary averages had increased respectively to: $35,734 and $42,241. The real salary increases—35.1 percent and 45.8 percent—illustrate the shift to higher paying, higher value added jobs over this period. In 1980, service-sector workers had salaries that averaged 10 percent greater than the overall average salary in the NCR; by 2000, service-sector workers enjoyed an 18 percent salary differential.

Driving the growth of service sector jobs in the NCR were gains in business services and engineering and management services. These are the types of jobs that grew in response to increasing demands for technology-intensive knowledge workers to meet the requirements of federal contractors. While some of this job growth occurred in response to the expansion of non–federal markets in the NCR, often these two markets (federal and non-federal) were quite similar in the nature of the employee skills and services being provided. This interchangeability of skills and disciplines among federal and non-federal sectors has further strengthened the Washington area economy and provided it greater resilience to cyclical trends in the national economy.

Table 21

Employment Structure and Change
in the Washington Metropolitan Area, 1980-2000
(in thousands)

Sector	1980%	2000%	Job Change	% Change	% Share
Construction	5.3	5.4	76.8	69.0	5.7
Manufacturing	3.9	3.1	23.5	28.4	1.8
TCPU*	4.0	4.6	75.2	85.6	5.6
Wholesale Trade	3.1	2.8	31.3	47.5	2.3
Retail Trade	14.1	13.6	171.4	57.5	12.8
FIRE**	8.2	7.6	90.1	52.3	6.7
Services	28.2	41.2	826.2	138.6	61.6
Government	32.4	20.5	22.8	3.3	1.7
Federal	18.5	10.4	- 30.8	- 7.9	
Military	3.9	2.3	- 2.6	- 3.1	
State/Local	10.0	7.7	56.2	26.7	
Totals	100.0	100.0	1,342.1	63.6	100.0

Sources: NPA Data Services, Inc., GMU Center for Regional Analysis
*transportation, communications, and public utilities
**finance, insurance, and real estate
Note: % share represents the contribution of each sector to the region's total job gain for the 20-year period.

Recent employment data for the District of Columbia report its job base totaled 667,899 in 2001, up from 621,117 in 1996, for a gain of 7.5 percent. A listing of these jobs by 2-digit SIC Code is included in Appendix II. In summary, the five largest sources of private sector employment in the District were: SIC 81—legal services with 1,626 firms and 62,388 employees; SIC 80—health services with 2,408 firms and 58,573 employees; SIC 81—educational services with 1,008 firms and 48,970 employees; SIC 86—membership organizations with 2,865 establishments and 40,028 employees; and SIC 58—eating and drinking places with 1,875 establishments and 36,692 employees. Engineering and management services and business services, which include many of the federal contractors, reported 2,466 and 1,716 firms with 33,195 and 20,669 employees respectively. This employment structure appears better suited to supporting the demands of the area's residents, the hospitality industry and federally related lobbying functions than competing in federal procurement market.

Federal Procurement and Workforce Downsizing

One dimension of the changing role of the federal government in the economies of the District of Columbia and NCR that is beyond the scope of this research is the impacts of downsizing of the federal workforce and increase in outsourcing (as seen in increased federal procurement outlays) on the local office market. A summary of the office space distribution and ownership in the Washington metropolitan area in 1992 at the peak of federal employment and in 2002 raises some interesting questions (see Table 22).

With a declining federal workforce (down approximately 66,000 from 1992), federally owned office space (net) has grown by 17 million square feet or by 61 percent. At the same time, federally leased space in private office buildings increased by 11 million square feet or by 35.5 percent. In total, federally occupied space, owned and leased (net), has increased from 59 million to 87 million square feet, for a gain of 47.4 percent while the federal workforce declined by 16.7 percent. Dividing the federal workforce into the federally controlled office space in 1992 would yield an occupancy value of 150 square feet per worker. Using that same value, the 2002 federal workforce would require 49.2 million square feet, leaving 37.8 million feet (owned or leased) vacant. At 150 square feet per worker, this surplus federal space could house 253,700 additional workers.

Table 22

Office Space Ownership and Use in the Washington Metropolitan Area
By Sub-state Areas, 1992 and 2002
(in millions of square feet)

Sub-State Area	Privately Owned		Federal	Total
	Private Use	Federal Use	Owned	Space
District of Columbia				
1992	82	13	20	115
2002	89	18	32	139
Suburban Maryland				
1992	58	5	2	65
2002	67	8	6	81
Northern Virginia				
1992	93	13	6	112
2002	127	16	7	150
Totals				
1992	233	31	28	292
2002	283	42	45	370
% Change	21.4	35.5	60.7	26.7

Source: Delta Associates, Inc. Federally owned space is inclusive of the Pentagon, Navy Annex, and CIA Headquarters reflecting net useable footage.

The unanswered question is: is this surplus space being occupied by federal contractors, contract workers working directly for the federal government, or by the current federal work force. If the current federal work force were occupying this space, each worker would have 263.6 square feet. The correct answer is some combination of the above choices. Additionally, some of the currently owned space is out of service (Pentagon and Federal Triangle renovations and repairs). Still, it is clear that the reduction of federal jobs (down 16.7% from their peak in 1993) has not resulted in a reduction in federally owned or leased office space in the NCR.

Public Policy Implications of Federal Procurement Trends

The differential patterns of economic and employment growth in the NCR appear to be linked to the differential patterns of federal spending in the Region with procurement spending having a greater impact on economic growth than federal spending for salaries and wages. The range of products and services that the federal government buys has been shown to be very broad. These purchases have been shown to have different income and employment multipliers with those for program support having greater benefits than those purchases for personnel and facilities support.

The question, then, is whether the capacity to provide the products and services that the federal government buys is sufficiently dispersed across the NCR that each sub-state portion has the business base to compete effectively for federal contracts? Or, are the economic structures of the District of Columbia, Suburban Maryland and Northern Virginia sufficiently specialized in different sub-sectors that the evolving patterns federal of procurement are not likely to be reversed as a result of normal market forces?

The answer to this question is that the evolving pattern of federal procurement spending in the NCR has resulted in concentrations of contractor capacity that appear to have established specialized capabilities that now characterize and differentiate the sub-economies of the NCR. However, there still exists sufficient scale and diversity in the composition of the sub-state economies that there are still competitive opportunities among federal contractors located across the region.

Historically, intra-regional shifts in competitive positions in the federal market place have occurred largely as a result of mergers, acquisitions and relocations. Mergers and acquisitions result from business and financial conditions beyond the scope of public policy. And, while relocations could be influenced by public policy they often reflect factors affecting operating efficiencies such as overhead costs, labor force accessibility, and proximity to suppliers and competitors.

Rarely have these shifts been caused by changes in the locations of federal agencies, although relocation of the Department of the Navy from Crystal City and other locations in the suburbs to St. Mary’s County, Maryland and to the Navy Yard in the District of Columbia have resulted in some contractor relocations. Beyond these business-based location decisions that have been responsible for the geographic distribution of federal contractors in the NCR, local and state governments (also the federal government) have not publicly recognized the importance of federal procurement contracting to the economic health and differential development capacity in the NCR's economy.

The strategies and policies of local economic development organizations have not targeted federal contracting as a major theme of their economic development efforts either to make already existing firms more competitive, and thereby increase their capture rate of contract dollars, or to attract federal contractors to create a greater capacity to compete in the federal market place. Rather, the federal government has been viewed as an inherent source of local business that will benefit the regional economy and, as such, no local government policies or programs are warranted to enhance the jurisdiction's competitive position in this local market. The federal procurement market has not been seen as either a nationally or regionally competitive market relative to federal agencies and decisions affecting their location within the NCR or threats of agency relocation from the NCR to other parts of the nation.

If the federal contracting process is governed by the principles of the market economy (lowest responsive bid), then the policy options that might be considered to increase the competitive position of local businesses in competing for federal contracts are limited. Additionally, the process is limited by the nature of the goods and services that the federal government is proposing to purchase. However, if federal procurement was to be used to achieve other public purposes, such as minority business development or the revitalization of declining areas, then the efficiency factors that largely shape urban economies would have to be subordinated to these public purposes.

The following policy discussion reflects these two distinct contexts: (1) increasing the competitive position of locally based businesses and (2) using federal procurement to achieve public purposes such as stimulating local business or economic development in distressed areas.

(1) Policies to Increase A Locality's Competitive Position

The primary thrust of policies that can increase a jurisdiction's competitive position within federal markets is the elimination of barriers that have made it and its business base less competitive. Secondarily, strategies designed to make the jurisdiction attractive to firms seeking locations in which to perform their federal contracts can result in building a capacity to capture increased federal procurement awards. Several policies/strategies could help achieve a more competitive position in the federal market place. These policies, in some combination, should target: (1) making existing businesses more competitive in bidding for federal contracts and (2) increasing the number of firms that submit federal contract bids.

The first category of policies/strategies involves actions by local and state governments (but mainly local) to reduce costs of operations for local firms to levels consistent with cost structures in adjacent jurisdictions. The cost reductions that local governments can impact would include taxes, utilities and other community services, local transportation and parking, and labor force development. Local government's can do little to reduce the majority of overhead costs but can affect the costs imposed by the public sector that, at the margin, could make the jurisdiction unattractive for location of federal contractors or make the cost proposals of federal contractors uncompetitive.

For many smaller firms that might consider federal contracting as a source of business, the costs associated with preparing the proposal and meeting other federal contracting requirements could discourage their pursuit of contracts for which they may be technically qualified. Local government assistance in the proposal preparation process could make a difference to these firms. Additionally, there are many smaller firms that possess capabilities being sought by the federal government. However, with the bundling of work orders into larger contract vehicles, these firms can no long satisfy the requirements of the scope of work without teaming with other firms. Local government could establish a clearing house for small firms interested in sub-contracting, partnering, or teaming with larger, more established federal contractors thereby overcoming the limits of their size and experience which could disqualify them from a successful bid.

Additionally, local economic development organizations can help match federal contracting opportunities with qualified local firms. By disseminating information relating to prospective federal contracts within the local business community and through business organizations, local firms that may be unaware of these opportunities could be encouraged to undertake the development of a cost and qualifications proposal.

A second grouping of policy actions and strategies that state and local governments could undertake, one more similar to the pursuit of new businesses as part of an economic development campaign, would be directed at expanding the number of established federal contractors located within the jurisdiction. This approach would identify federal contractors that have had success in receiving contract awards, determining what amenities and attributes are important to these firms, and seek them out. In the Washington area, jurisdictions could shop for federal contractors locally or they could target non-local federal contractors that could become more successful if located in proximity to the federal markets they serve as well as to other federal contractors that may be competitors, suppliers or candidates for partnering.

The promotional strategies of economic development organizations in the Washington area have not been directed to building the federal contractor base of their respective jurisdictions. Federal contractors typically are viewed as needing a local location and so they are not pursued with the same vigor as non-federal contractors. However, when a non-local federal contractor has indicated an interest in relocating to the Washington area, then the development organization pays more attention. A more effective approach in building this federal contractor base would be to overtly seek these types of firms. Similarly, retention should be given equal emphasis. Federal contractors move. Contractors locating in the NRC because their federal client requires them to be close at hand may decide to leave the area at the completion of the contract that brought them here. However, these firms have the potential to capture future federal contract awards and also may be encouraged to diversify into non-government markets trading on the knowledge and skills developed as a federal contractor.

As federal contracting accounts for 21 percent of the NCR's economy and supports directly or indirectly 20 percent of the area's workforce, building a hospitable environment that will attract and retain firms that have had success in the federal market and helping to extend these business opportunities to existing firms that have been excluded because of market barriers, will result in a stronger and more resilient economy. Local and state policies that recognize the economic benefits associated with federal contracting and address the barriers that have restricted access to the federal market for local firms can yield positive results. The same would be true of policies/strategies designed to bolster the capacity in the jurisdiction to capture federal contract awards by encouraging the location and growth of proven federal contractors.

In the past, the growth of the area's capacity to serve the federal government's needs for goods and services was largely driven by market forces with little or no intervention by local or state government. As a result, there have been losers and winners in the pursuit of the federal market with significant economic consequences. Even though the location pattern of federal contractors in the NRC has become less fluid over time some reshaping of this pattern could be achieved by adopting and implementing policies and programs that target the relocation (and retention) of federal contractors.

2. Policies to Achieve Public Purposes

All levels of government could formulate and adopt policies that recognize the important economic benefits that accrue to communities from hosting firms receiving federal contract awards. These firms support jobs and pay salaries. They may partner and subcontract with other local firms further distributing the economic benefits of federal contracting within the surround economy. These firms may also support local suppliers. These economic benefits are easily measured and their consequences can have important impacts on the community's vitality and attractiveness to private investment.

Using federal contracting as a tool to achieve other economic and social objectives is not a new idea. Provisions already exist to assist small, minority-owned and other disadvantaged businesses in participating in the federal contracting process. Construction of federal buildings has been used to stimulate private investment by building investor confidence in portions of cities where investor confidence had eroded. While federal funding to support community revitalization has a long history and steering federal contractors into locations that could benefit from their positive impacts has precedent, these strategies have not been widely practiced in recent years.

Still, federal contractors have been influenced in their selection of locations by the contracting agency generally to assure convenient access and interchange between the contractor's staff and the agency's staff—for efficiency purposes. Federal policy could expand this concept beyond the direct benefits to be achieved by the contracting agencies to the broader public benefits that might flow from fulfillment of contracting obligations in less competitive areas without incurring any significant increase in cost.

If the general principle of using federal contracting to support other broad business development and community revitalization objectives was adopted, the contracting agencies would need to include the "impact of location" in their proposal evaluation criteria. Along with cost and qualifications and other common measures of "responsiveness," evaluation criteria reflecting the secondary impacts of the federal contract on the investment and business environments could be included. Impact on the local economy could be added as an evaluation criterion. If federal contractors understood that the probability of their bids being accepted was materially improved by being located (having its place of performance) in an area targeted for revitalization, such as a HUBZone, more federal contractors would opt to locate in these targeted areas.

A more selective approach to using federal contracting as a stimulus for community revitalization or business development would be to match federal contracting needs with the capabilities of existing businesses located in these target areas. As was shown in the analysis of the District's HUBZones, there were a large number of businesses located in these Zones that appeared to do the same kinds of work (based on SIC Codes) that federal agencies were seeking in the NCR, but HUBZone-based businesses captured just 0.3 percent of all of the federal contracts in the District. Additionally, prospective federal contractors located in these distressed areas (such as HUBZones) could be pre-qualified by local, state or the federal governments within categories of services or products making them eligible for non-competitive contract awards or giving these firms preferential consideration as sub-contractors or partners on contractor teams.

Agencies could also be encouraged to distribute their contract awards to businesses that have been pre-qualified based on their locations in areas targeted for revitalization. The extra costs that might accrue by targeting these smaller, less-efficient firms could be reimbursed from a pool of funds established for this purpose and managed centrally. In order for a policy to use federal contracting as a tool for business development and community revitalization, the direct costs to the participating agencies will have to be compensated directly or indirectly by meaningfully incentives. Directives and policy statements have not proved to be sufficient to achieve these extra public benefits from the regular business of government.

NCPC's Federal Procurement Policy Position

From the preceding analyses it is clear that the impact of the federal government on its host jurisdictions far exceeds the physical locations of federal facilities and the on-site activities of the federal workforce. The impacts of federal agencies extend into the surrounding economy in numerous ways. The residential pattern of the federal work force (where they live) is important because it affects where they spend their earnings. Additionally, and of growing importance, is the location of federal contractors as this has established a capacity to do federal work as well as to perform similar work for other levels of government and to a wide range of domestic and international private sector clients. Federal contractors also appear to cluster with their suppliers, competitors, and subcontractors.

With the growth of procurement spending in the NCR exceeding the growth of federal spending for salaries and wage (total procurement outlays have exceeded total federal payroll each year since 1996), NCPC should include the off-site economic impacts and their corollary federal contractor impacts in its planning for federal facilities. As the employment and personal earnings impacts of federal procurement spending in the NCR has been calculated for each jurisdiction (Table 16), this same type of calculation could be made for any specific federal agency. With this added information, the planning requirements and impacts of federal agencies would reflect their full economic and physical environments and the impacts of changes in agency location or function could be fully assessed. With this information, agency and community effects would be more fully understood and any resultant planning solutions could be more responsive to both agency and community needs.

As the community impacts of federal procurement contracting have been found to be significant and to have differentially shaped the evolving economic structure of the sub-state portions of the NCR, NCPC could serve an important role in educating local government leaders and economic development professionals about the consequences of federal procurement spending on their jurisdictions and the opportunities federal procurement spending represent in terms of the both the future pace of economic growth and the subsequent effects on local differences in economic vitality.

NCPC's information role could underscore the importance of federal procurement spending to the NCR's economy overall (21% of GRP) and the need to not only expand but also retain the area's competitive federal contracting position in the nation (60% of the national increase in federal procurement spending for ADP and Telecommunications Services between 1990 and 2000 was captured by firms located in the Washington metropolitan area). Also, NCPC could work in an advisory capacity with individual local governments to help them and their respective economic development organizations understand the federal procurement process and its importance as a stimulus for long-term economic growth.

Appendices

(Available upon request)

- Table I: Federal Contracting Activity, FY1990
- Table II: Federal Contracting Activity, FY2000
- Table III: Contracting Agency Profile, All Contractors, FY1990
- Table IV: Contracting Agency Profile, All Contractors, FY2000
- Table V: Contracting Agency Profile, Single Agency Contractors, FY1990
- Table VI: Contracting Agency Profile, Single Agency Contractors, FY2000
- Table VII: Contracting Agency Profile, Preference Program and Women Owned Contractors, FY1990
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- Table IX: Type of Contractual Support, FY1990
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- Table XIII: Federal Procurements Of Supplies And Equipment For Facility Support, FY1990 and FY2000
- Table XIV: Federal Procurements Of Supplies And Equipment For Personnel Support, FY1990 and FY2000
- Table XIV: Federal Procurements Of Supplies And Equipment For Program Support, FY1990 and FY2000
- Federal Contracting Activity, Research & Development, By SIC Code Of Contractor, FY2000
- Federal Contracting Activity, Procurement of Services, By SIC Code Of Contractor, FY2000
- Federal Contracting Activity, Procurement of Supplies, By SIC Code Of Contractor, FY2000
- HUBZone Contract Awards, FY2000
- Comparison of HUBZone Awards And All Awards, FY2000
- Regresson Analysis: Federal Salaries And Wages And Procurement In The NCR, 1983-2001

NATIONAL CAPITAL PLANNING COMMISSION
401 9th Street, NW
North Lobby, Suite 500
Washington, DC 20576
Tel: 202 482-7200
Fax: 202 482-7272
www.ncpc.gov