

**W.**

\*

- 2002

( )

-

W. (George W. Bush) 2 28  
 2002 4 9 (1  
 9 7 ) .  
 1)

2),  
 W. 가  
 “ ” . 2002  
 (discretionary spendings)<sup>3)</sup> 가 (< 1 > ) 4%  
 4).

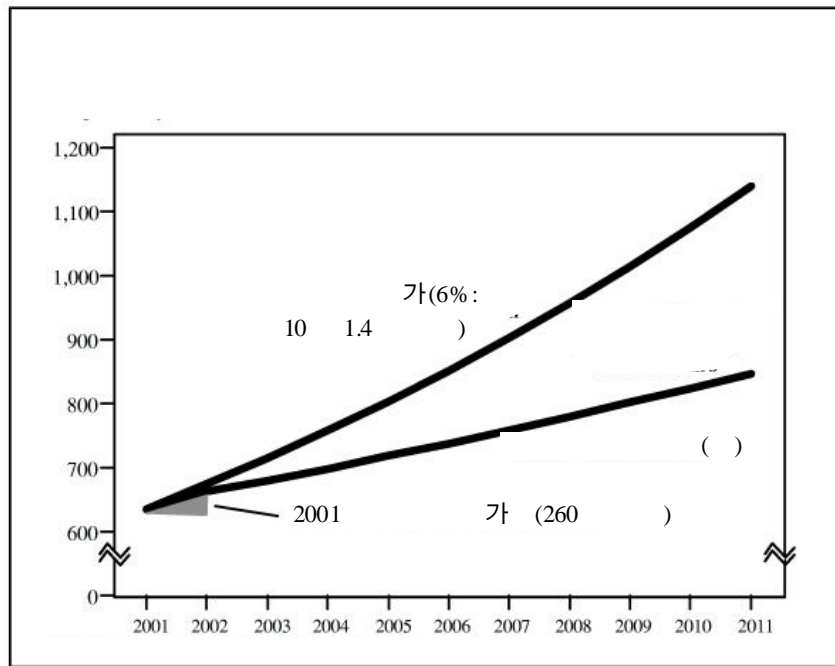
OSTP, AAAS, U.S. Congress, OMB, 가

- 1) W. 2000  
 ‘ (new economy) 가(H-1B ) ,  
 ,
- 2) 가 4 가 (FRB) 7 가 (0.3% )  
 78.5% 1991 4 가  
 2002 1/4 0.1%  
 2001 4/4 2% 가 1995 1/4  
 0.8% 가  
 surplus: 590 ; 2002 (on-budget  
 W. 2002 - ) .
- 3) 1/3  
 2002 6610
- 4) 가 W. 1998  
 (on-budget surplus) 가 ( 3 1990  
 가) ( 10 5 6 ,  
 3 ) ( 1 6 )  
 .( 10 1 4 ) 가 )

가 (260 ) 가 ( 50 , 28 , 50 )  
 140 , )  
 10

< 1> 가

( : 10 )



2> ) , R&D (953 ) 5.8% (< 1> 가)<sup>5)</sup>(< 가 , (DOD) (NIH) 가 ,

< 1> 2002 ( )

( : 100 )

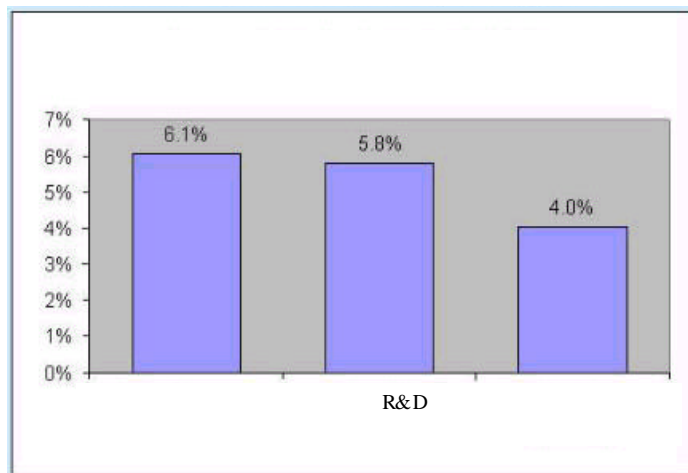
	2000	2001	2002		
	39,664	41,571	<b>45,159</b>	3,588	8.6%
	8,312	8,980	<b>9,175</b>	195	2.2%
	31,352	32,591	<b>35,984</b>	3,393	10.4%
	18,051	20,805	<b>23,313</b>	2,508	12.1%
	17,158	19,715	<b>22,400</b>	2,685	13.6%
	9,242	9,632	<b>9,311</b>	-321	-3.3%
	6,892	7,692	<b>7,435</b>	-257	-3.3%
	2,947	3,297	<b>3,242</b>	-55	-1.7%
	1,773	1,961	<b>1,803</b>	-158	-8.1%
	1,110	1,096	<b>1,029</b>	-67	-6.1%
	596	635	<b>649</b>	14	2.2%
	454	406	<b>355</b>	-51	-12.6%
	618	632	<b>593</b>	-39	-6.2%
	603	743	<b>795</b>	52	7.0%
	559	610	<b>575</b>	-35	-5.7%
	1,679	1,971	<b>1,998</b>	27	1.4%
	83,138	90,010	<b>95,253</b>	5,243	5.8%
R&D	42,906	44,946	<b>48,579</b>	3,633	8.1%
R&D	40,232	45,064	<b>46,674</b>	1,610	3.6%
	19,421	22,018	<b>23,352</b>	1,334	6.1%
	18,466	20,734	<b>21,553</b>	819	4.0%
	40,524	42,594	<b>45,954</b>	3,360	7.9%
	4,727	4,664	<b>4,394</b>	-270	-5.8%

: AAAS, R&D in the FY 2002 Budget by Agency

5) 5.8% 가 가 (4.0%) W.

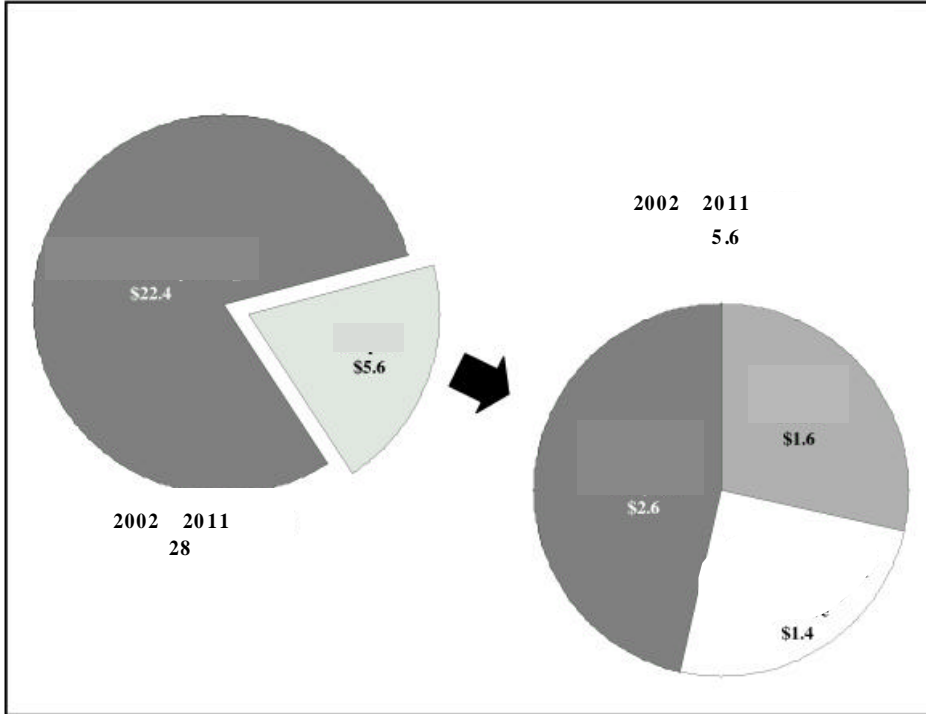
W. (230 : 6.1% 가) , (< 4> ) (R&D Tax Credit) 6)(< 5> ) , 2003 NIH 가 28 , (life science) [ 21.8%, 19.0%, (commerce) 17.6% ] , 5 . 10 W. 2002 .

< 2> 가 (2001 2002)

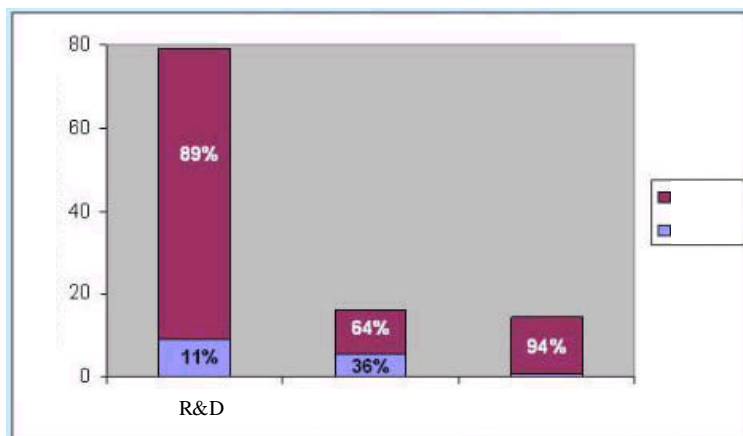


6) 가 2003 1981 W. 2004 - 2011 500 2 1,800 2001

< 3> W. 10 ( )  
 ( : 1 )



< 4> (1993 1999 가 )  
 ( : 10 )



< 5 >

( )

( : 100 )

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2002-2011
	6,760	5,390	4,710	2,720	1,160	0	0	0	0	0	20,740
	0	0	1,055	3,431	5,415	6,542	7,388	8,020	8,567	9,158	49,576
	<b>6,760</b>	<b>5,390</b>	<b>5,765</b>	<b>6,151</b>	<b>6,575</b>	<b>6,542</b>	<b>7,388</b>	<b>8,020</b>	<b>8,567</b>	<b>9,158</b>	<b>70,316</b>

## . 2002

- W. 가  
 W. 13.6% (27 ) ,  
 . 8.6% (36 ) .(< **6**> )<sup>7)</sup>

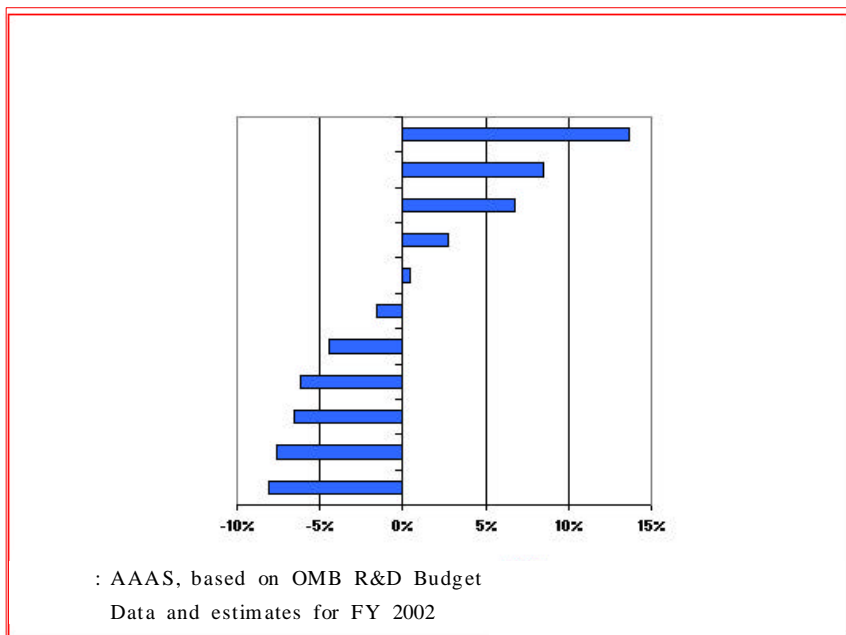
7) 가

(Transportation Trust Funds)  
 21.8%

가 (52) , (63) ) 2002  
 , 5.8% 가 .  
 4.2% . ,  
 (ATP) (NIST)

ATP ( W.  
 ) W.  
 (< 2> ) .

< 6> 2002 (2001 )



6.1% 가(13 ) 234 가 .( 7> )  
 12.4% 가 NIH .

< 2> 2002 . ( )

( : 100 )

	2000	2001	2002		
	1,136	1,317	<b>1,345</b>	28	2.1%
	10,062	11,544	<b>12,980</b>	1,436	12.4%
	<i>10,060</i>	<i>11,542</i>	<i>12,978</i>	<i>1,436</i>	<i>12.4%</i>
	2,137	2,548	<b>2,465</b>	-83	-3.3%
	2,262	2,378	<b>2,344</b>	-34	-1.4%
	2,540	2,796	<b>2,799</b>	3	0.1%
	684	742	<b>717</b>	-25	-3.4%
	42	40	<b>46</b>	6	15.0%
	52	57	<b>54</b>	-3	-5.3%
	10	17	<b>21</b>	4	23.5%
	58	106	<b>98</b>	-8	-7.5%
	103	105	<b>102</b>	-3	-2.9%
	266	290	<b>304</b>	14	4.8%
	69	78	<b>77</b>	-1	-1.3%
	<b>19,421</b>	<b>22,018</b>	<b>23,352</b>	<b>1,334</b>	<b>6.1%</b>
	4,541	4,981	<b>5,086</b>	105	2.1%
	17,754	20,459	<b>22,804</b>	2,345	11.5%
	<i>16,916</i>	<i>19,483</i>	<i>21,993</i>	<i>2,510</i>	<i>12.9%</i>
	3,671	4,231	<b>4,276</b>	45	1.1%
	4,136	4,563	<b>4,364</b>	-199	-4.4%
	2,724	3,016	<b>3,017</b>	1	0.0%
	1,515	1,664	<b>1,546</b>	-118	-7.1%
	822	869	<b>866</b>	-3	-0.3%
	539	578	<b>583</b>	5	0.9%
	265	284	<b>276</b>	-8	-2.8%
	572	594	<b>557</b>	-37	-6.2%
	406	473	<b>528</b>	55	11.6%
	446	475	<b>447</b>	-28	-5.9%
	633	689	<b>707</b>	18	2.6%
	153	167	<b>169</b>	2	1.2%
	194	213	<b>203</b>	-10	-4.7%
	103	105	<b>102</b>	-3	-2.9%
	217	253	<b>233</b>	-20	-7.9%
( + )	<b>37,887</b>	<b>42,752</b>	<b>44,905</b>	<b>2,153</b>	<b>5.0%</b>

: AAAS, Research in the FY 2002 Budget



NIH 2002 56%  
 非  
 (NSF) 0.1%<sup>8)</sup>  
 NIH 1.0% (102 )  
 9). W. NIH  
 가 “ ” (balanced research portfolio)<sup>10)</sup>  
 (< 8 > )  
 3.6% (16 ) 가<sup>11)</sup> 467 가  
 가 NIH  
 4.2% (11 )  
 8.1% (36 ) 가 486 12)가  
 (< 3 > ) W.  
 2001 20 對

< 7 > 2002

( : 100 )

	2001	2002	(%)
	22,018	23,352	6%
	20,734	21,553	4%
	42,594	45,954	8%
	4,664	4,394	-6%
	90,010	95,253	6%

8) 2001 10% 가

9) 5.0% 449 가

NIH ( 12.9% 가) ( 1.5% )

10) NIH 非

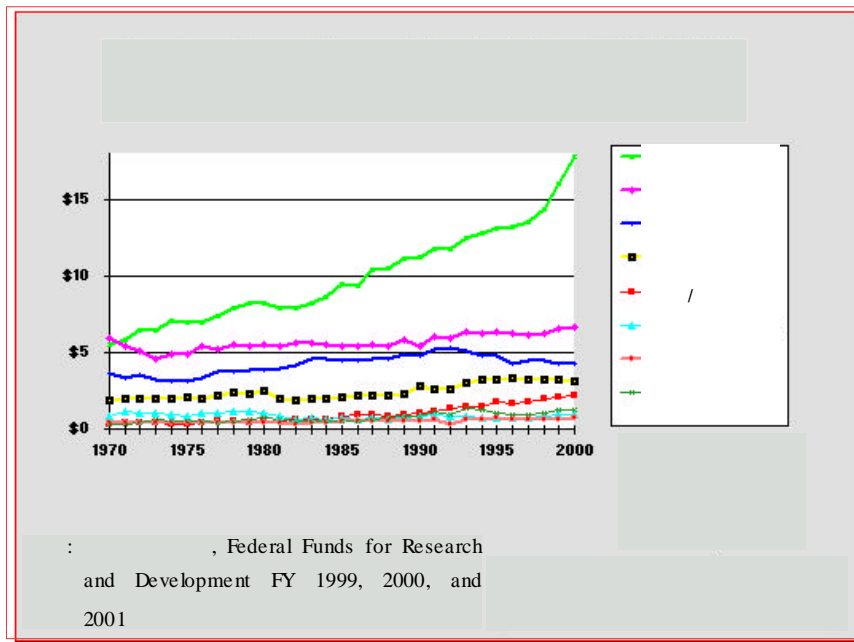
11) 2.1% 가가

12) 34 (1.3%)

가 3.6% (16 ) 가<sup>13)</sup> 467 가  
 . 가 NIH .  
 4.2% (11 ) .  
 8.1% (36 ) 가 486 <sup>14)</sup>가 .(<  
 3> )

< 8> 1970 2000

( : 10 )



: , Federal Funds for Research and Development FY 1999, 2000, and 2001

13) 2.1%

14) 34 (1.3%)

가가

(multi-agency initiatives) 2002  
 . Nanoscale Science, Engineering, and  
 Technology Initiatives(NSETI) 8.1%가 가 4 8  
 , Networking and Information Technology R&D  
 Initiatives(NITRDI)<sup>15)</sup> 2.1%가 가 20  
 . U.S. Global Change Research Program  
 4.4%(16 )가 .

< 3> “ ( )” ( 21 )  
 ( : 100 )

	2000	2001	2002		
	17,827	20,361	<b>23,112</b>	2,751	13.5%
	17,827	20,361	23,112	2,751	13.5%
	3,897	4,416	<b>4,472</b>	56	1.3%
	4,353	4,910	<b>4,682</b>	-228	-4.6%
	6,389	6,957	<b>7,038</b>	81	1.2%
	4,541	4,981	<b>5,086</b>	105	2.1%
	1,739	1,831	<b>1,759</b>	-72	-3.9%
	819	809	<b>711</b>	-98	-12.1%
	813	883	<b>813</b>	-70	-7.9%
	683	732	<b>679</b>	-53	-7.2%
	321	350	<b>360</b>	10	2.9%
	317	363	<b>368</b>	5	1.4%
	646	621	<b>631</b>	10	1.6%
	42,345	47,214	<b>49,711</b>	2,497	5.3%

: AAAS, “Federal Science and Technology Budget ” by Agency

15) NSETI 2001 2 가 4 5 ,  
 NITRDI 2001 30%가 가

가  
Century Research Fund”<sup>16)</sup>  
Science and Technology)

497  
0.9% .(< 4> )

NIH

”21st  
(FS&T: Federal  
5.3%가 가

< 4> R&D

( : 100 )

	2000	2001	2002			
	42,906	44,946	48,579	3,633	8.1%	51.0%
	40,232	45,064	46,674	1,610	3.6%	49.0%
	8,182	8,706	8,800	94	1.1%	9.2%
	18,627	21,452	23,989	2,537	11.8%	25.2%
	1,090	1,409	1,142	-267	-19.0%	1.2%
	5,591	6,285	6,212	-73	-1.2%	6.5%
	2,036	2,182	2,113	-69	-3.2%	2.2%
	1,558	1,716	1,553	-163	-9.5%	1.6%
	1,663	1,669	1,306	-363	-21.8%	1.4%
	513	460	379	-81	-17.6%	0.4%
	200	216	206	-10	-4.6%	0.2%
	772	969	974	5	0.5%	1.0%
	83,138	90,010	95,253	5,243	5.8%	100.0%

: AAAS, Major Functional Categories of R&D

16) FS&T

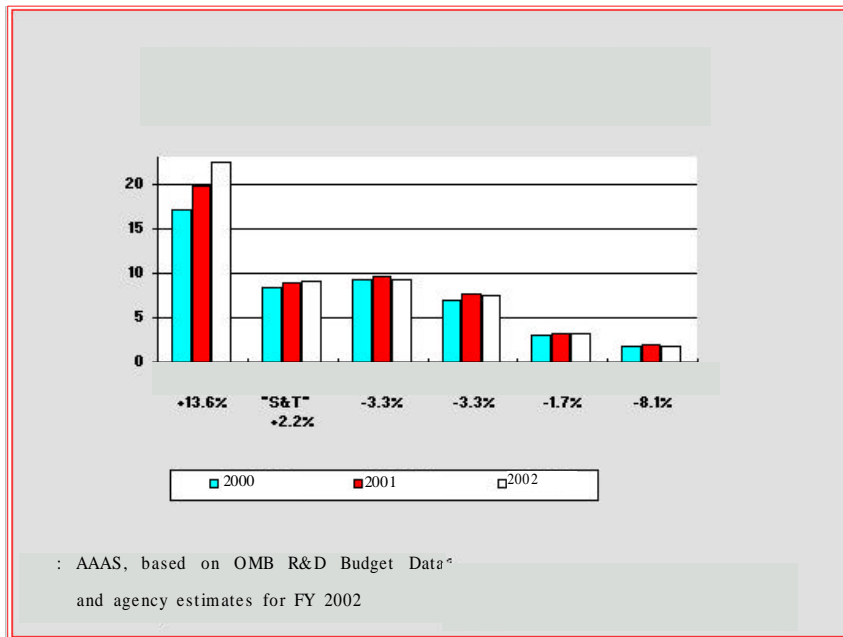
2. 2002

○ (NIH)

NIH 13.5% (28 ) 가 231 가 .  
 2002 가 1998 2003 5  
 NIH 가 .(< 9> ) NIH  
 13.6% 가 224 가 .  
 가 .  
 30% 가 1  
 2 가 3 가 .  
 (ORWH) 2 , (NIMHHD)  
 20% 가 1 6  
 (NIBIB) 2 가 .

< 9> (2001 )

( : 10 )



○ (DOD)

8.6% 가 452 가 . “  
 ”(review of defense spending priorities)  
 (MD: Missile Defense) 26  
 17) . DARPA 2.1%  
 가 (BMDO: Ballistic Missile Defense  
 Organization)

○ (DOC)

가 NIH/DOD  
 6.1% 10 .  
 (NIST)  
 (ATP) ( 91% )

○ (NSF)

NSF 1.7% 32 .  
 2001 NSF 13% 가  
 W.  
 가 ,  
 (instrumentation) 33%,  
 20%

---

17)

○ (NASA)

NASA 2002 가

가 가 145 18) 1.8%

3.3%가 93

6.2% 가 28 , 7.3% 가 24

(Earth Science Enterprise)

11.7% 15 , (Biological and Physical Research)

4.7% 3 6 , 1.2%

21 .

○ (DOE)

DOE 3.3% 74 .

2001 12% 가

33% , 50% ,

25% . 8.2%

(Office of Science) 가

1.3% 가 10 , 1.3%

가 7 가 .

### III.

< 2> (on-budget surplus)

(2011 : 5 6 )

W. 가 2002 (discretionary spendings) 가

4% 1998

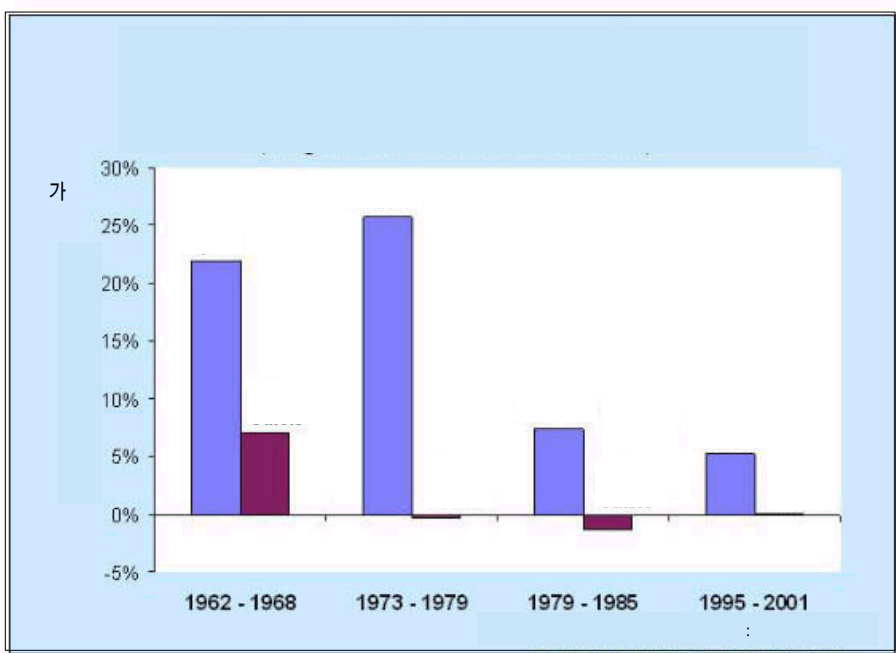
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18) (mission support costs)

W.  
( )

19) .(< 10> )

< 10>



W. 20) (dual-use technology) (spin-on) (spin-off)

19) W. 1980 seeds가 10  
가 ( ) 5 8 : “  
20) 가 ” .... 1 가 : “  
2 ”



NIST

(ATP)

4% W. 가  
 ‘ , 6%  
 W.  
 21) , , 22)  
 가 .

21) 4 가 , 가 . ‘ 5 2000  
 2001 , 16 11 86  
 48% (2 5,614 ) 가 3 7,919  
 - , 1 9,445 , 가 가 1  
 4,036 , . 4,438 , , 가 21  
 92% 가 9,559 , 가  
 60% 가 ,  
 28% 가 .  
 , 1 1,649 , 가  
 21 7,420 , 5,592 ,  
 3,958 , 2,921  
 22) , 4 가 가  
 “ 2002 ‘ (IT) ” 가 19  
 . 가 PDA ASIC  
 2 가