

DIGITIZING 'MUST-CARRY'

Regulating Broadband Content in the Internet Age

Thomas W. Hazlett

U.C. Davis & American Enterprise Institute

hazlett@primal.ucdavis.edu

Institute of Public Policy

George Mason University

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History

- 1992 Cable Act
- FCC's version twice unconstitutional
 - 1985
 - 1987
- á la flag-burning prohibition, CDA
- This one slipped through the filter!

Must-carry Rules

- Cable systems ‘must carry’ all local TV stations without charge
- One-third limit for commercial broadcasters
- PBS stations can exceed 1/3 limit
- Low-power TV stations can fill 1/3 limit

- Effectively cedes cable channel space from operator to broadcaster, cable nets get bumped for TV stations

Rationale

PUBLIC INTEREST

- Constrain cable TV market power
 - TV stations compete in local advertising
- Protect public's right to receive news and public affairs (even non-cable households)

PRIVATE INTEREST

- Rent transfer to broadcasters
- Broadcasters' lobby relatively effective
- Congress prefers licensed media to unlicensed
- Cable losses mitigated (as we shall see)

Turner Broadcasting v. FCC

- Cable operators/programmers filed suit
- 1994 S. Ct. decision (*Turner I*) established standard, sent case back for more facts
 - Cable had First Amendment standing, but only “intermediate scrutiny” applicable
- 1997 S. Ct. opinion (*Turner II*) decided 5-4
- Upholds rules under First Amendment
 - Kennedy writes opinion, O’Connor dissent

Grounds for Opinion

- 4 of 5 see must-carry as economic regulation, effectively an antitrust remedy
- All 5 see regulation of content as benign so long as “substantial interests” served
 - Making available “a multiplicity of information sources” to cable & non-cable households
- Court need not agree with analysis
 - “Our sole obligation is to assure that... Congress has drawn reasonable inferences based on substantial evidence”

Digital Must Carry

- March 31, 1997: *Turner II*
- April 3, 1997: each TV station awarded a second 6 MHz license for digital TV
- TV stations double, cable system must-carry obligations rise by up to 100%
- FCC's "digital must-carry" proceeding

Economics of Must-Carry

Cable TV system operator maximizes profit in 2-stage strategic process:

- Builds an optimal system
(technology and package size)
 - Selects an optimal array of programming
- Both decisions impacted by must-carry.

I. Selecting a Capacity

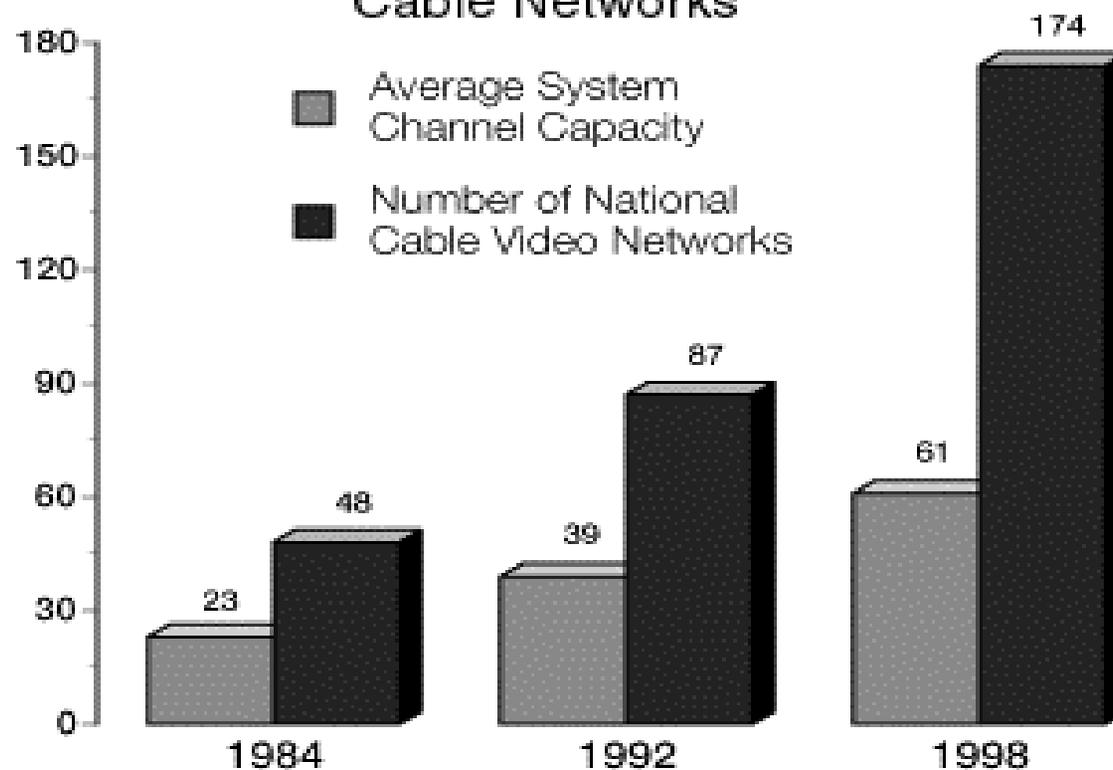
- Must-carry is a tax on capacity
 - Regressive tax
 - Technologically non-neutral
- Consequences are empirically clear (below)
- Typical U.S. cable system: 54 channels of capacity, 41 for basic program services

II. Selecting Channels

- Simple ranking function
- Not so simple as ranking audience sizes (Justice Kennedy's error)
- “Excess supply” of cable programs

Figure 7

Increased Channel Capacity and Increased Number of National Cable Networks



Source: Channel Capacity: Paul Kagan Associates, Inc., *Cable TV Programming*, July 23, 1992, p.1 and August 31, 1997, p.1;
Cable Networks: NCTA, *Cable Television Developments*, Spring 1998, p.6.

Equation (1):

$$\text{VALUE of CHANNEL X} = f(\text{SUB GAIN, FEE INC, AD REV}_s, \text{LIC. FEE})$$

Where:

- SUB GAIN = increased subscribership due to X
- FEE INC = higher fees due to carriage of X
- AD REV's = advertising sales on X [= g (audience)]
- LICENSE FEE = cost of programming service (+/-)

Figure 1: Cable System Ranking of Cable TV Networks

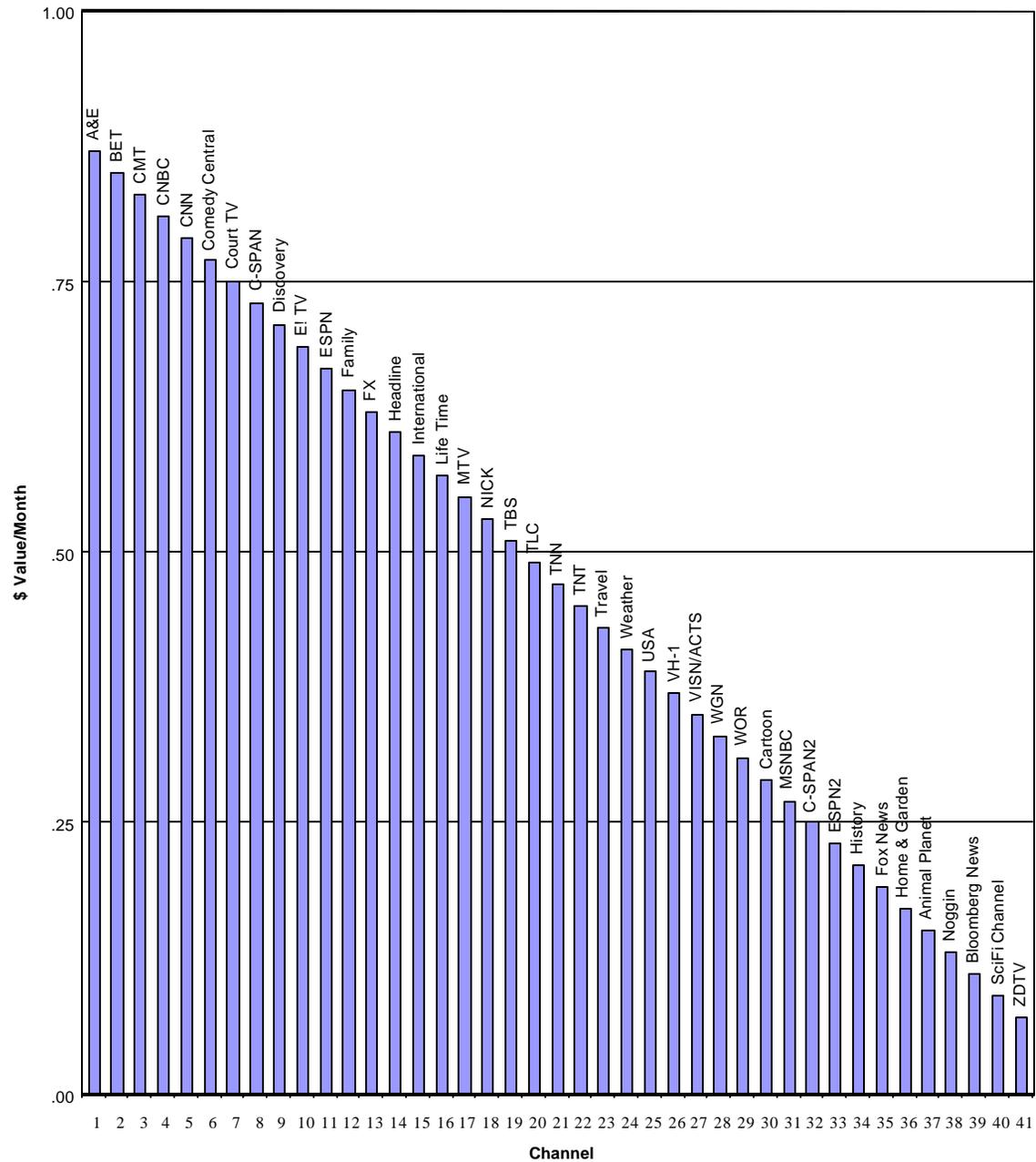


Figure 2: Cable System Ranking of Broadcasting TV Stations

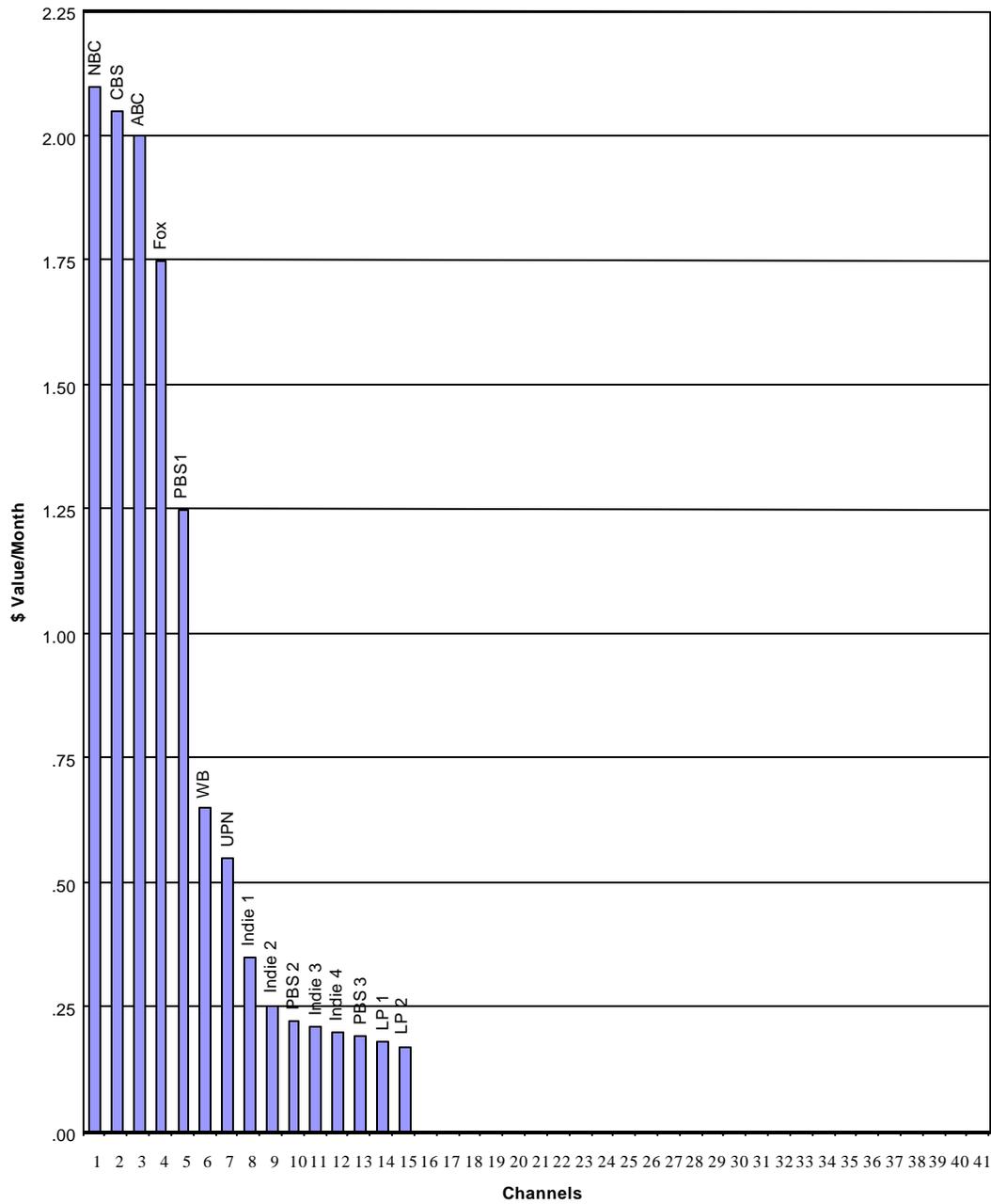


Figure 3: Basic Cable TV Channel Allotment (Unregulated)

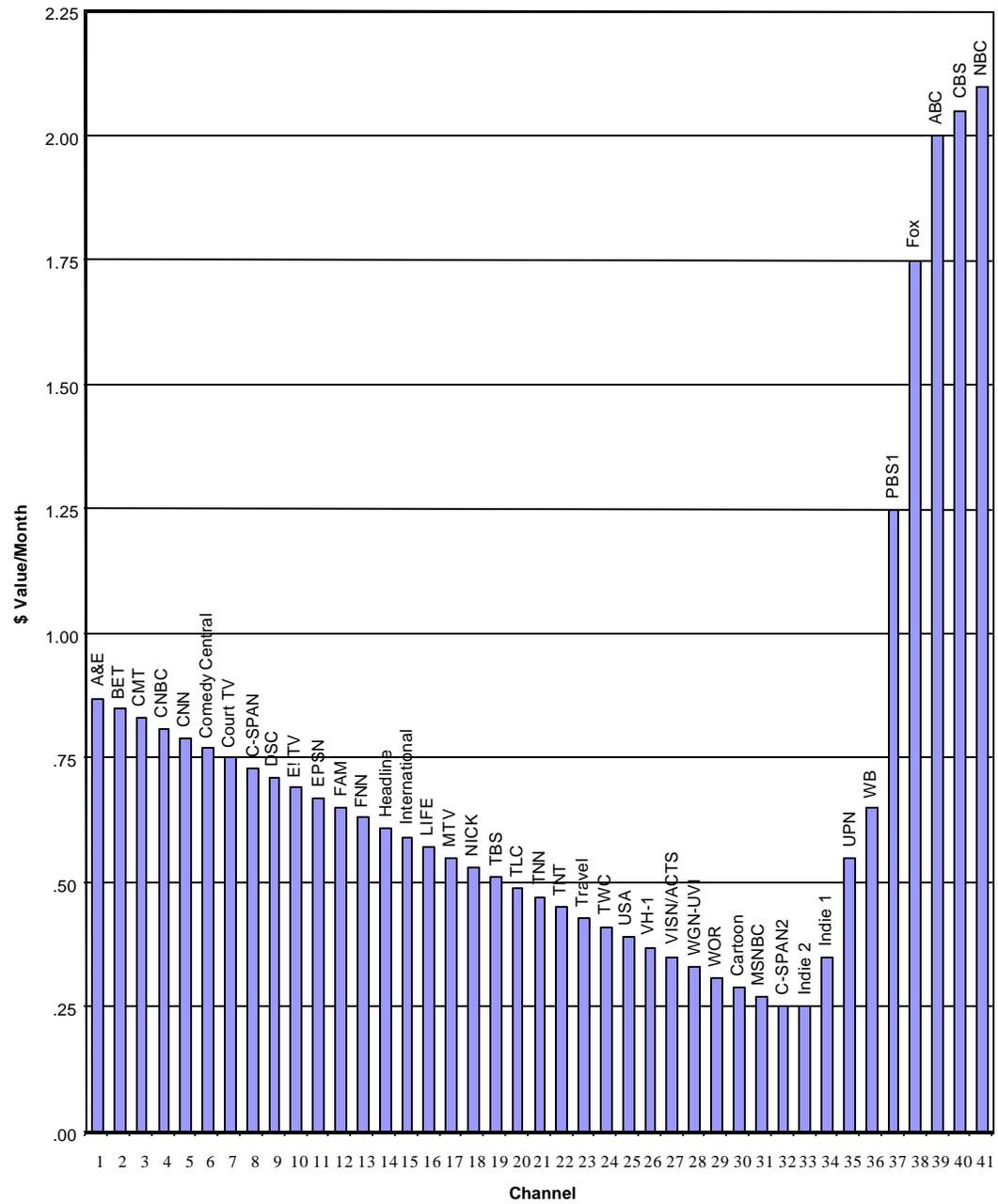
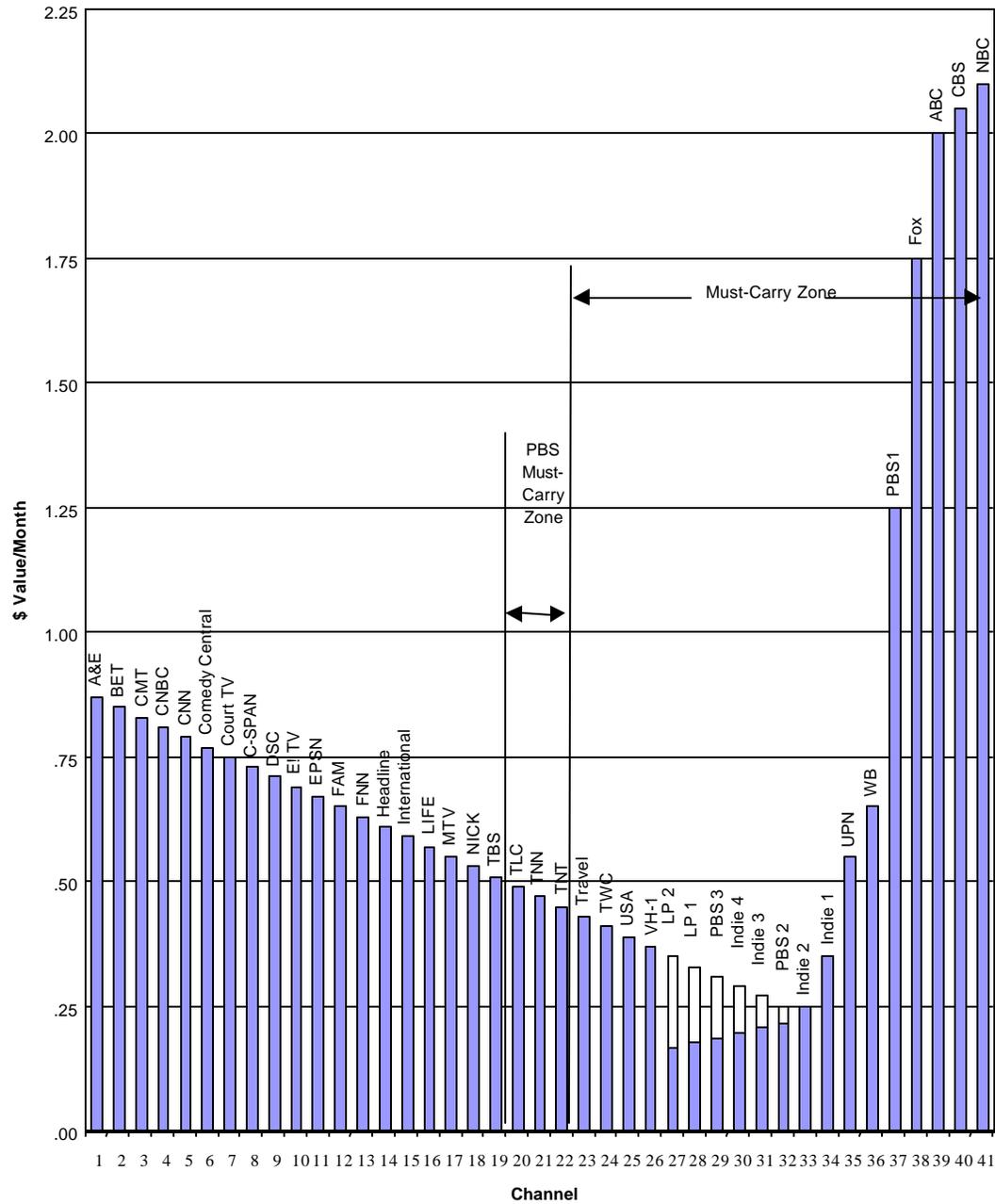


Figure 4: Basic Cable TV Channel Allotment Under Must Carry (Analog)



Relevant Findings

- Must-carry only impacts marginal programs
 - “substantial government interests”
- tax on capacity reduces speech
 - asymmetric effects on broadband media
- FTC investigation
 - Station non-carriage negatively correlated with audience, advertising competitiveness

Event Study

- *Turner II* opinion released early 3-31-97
- Surprise (NYT, trade press)
- Stock prices react

The Dom Perignon was just arriving at Bud Paxson's office Monday morning... 'You're talking to the happiest man in America,' he said... Paxson Communications' stock was up \$1.75 [19.44%]...

Home Shopping Network Inc. Chairman Barry Diller was the second happiest man... Diller noted that people continually ask him, "What are you doing with all those crummy little UHF television stations?" They are "a little less crummy" after last week's decision, he said.

Stephen McClellan, *Must Carry Upheld: Champagne, Real Pain*, Broadcasting & Cable (April 7, 1997).

Figure 6: Stock Market Reactions to Turner II

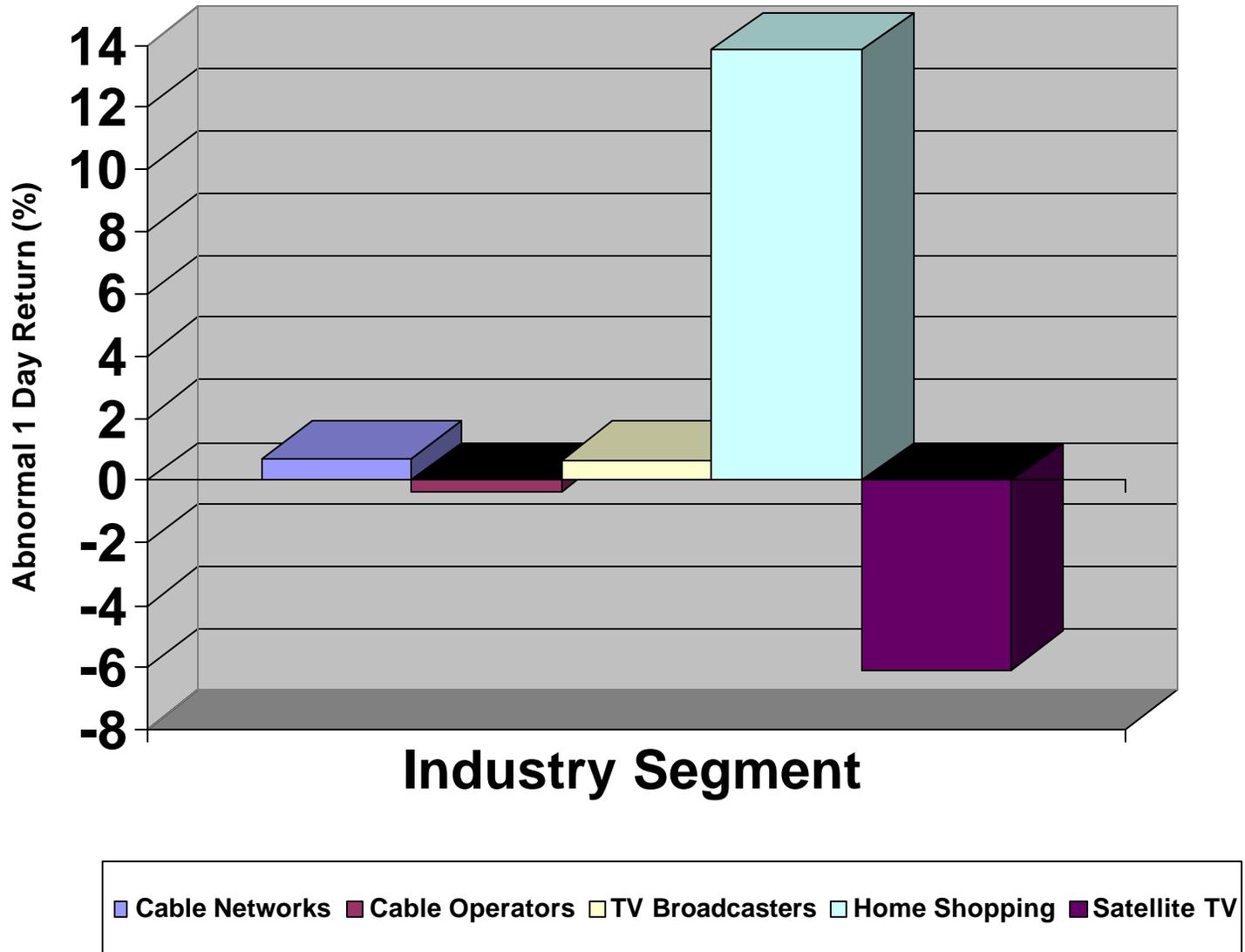


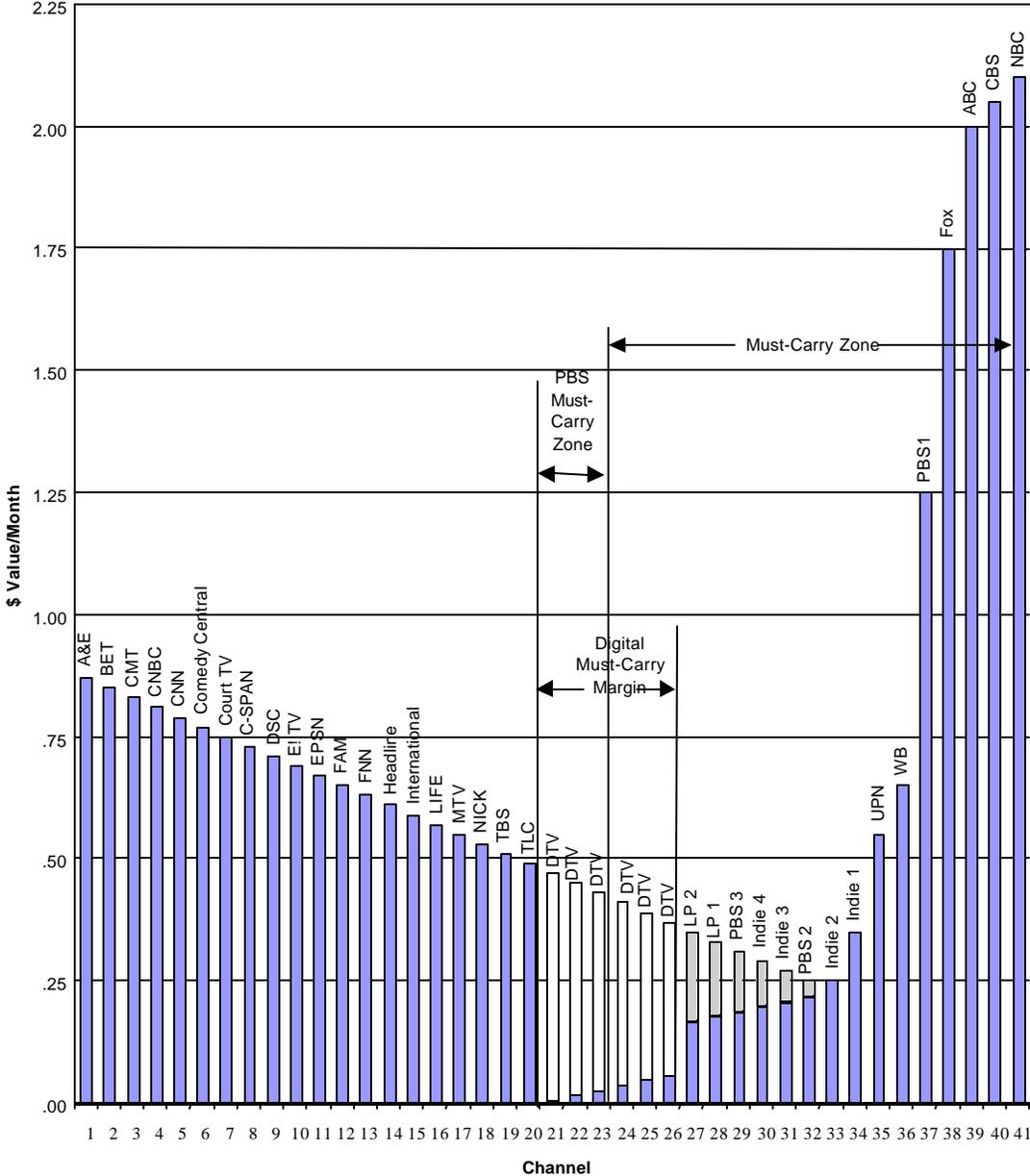
Table 3.
Abnormal Returns by Industry Segment Around *Turner II* Verdict
(t_0 = March 31, 1997)

<i>Industry Segment</i>	<i>No. of Firms</i>	<i>Expected Reaction</i>	<i>One day Adjusted Return</i>		<i>Three day Adjusted Return</i>	
			(%)	1997 Rank	(%)	1997 Rank
Cable TV Networks	2	negative	0.69	164/250	4.825	232/248
Cable TV Operators	4	negative	-0.37	90/250	-0.48	74/248
TV Broadcasting	6	positive	0.66	61/250	0.08	96/248
Home Shopping	4	positive	13.83	1/250	17.75	3/248
Satellite TV	2	negative	-6.12	5/250	-7.21	15/248

Marginal Trade-offs in Analog

- UHF/Home shopping gains
- DBS loses (where capacity tax bites)
 - Cable competition suffers
 - Program competition constrained
- C-SPAN loses
 - New, niche audience cable programs impacted
- IRONY of MUST-CARRY

Figure 5: Basic Cable TV Channel Allotment Under Must Carry (Digital)



Trade-offs in Digital Must-Carry

- Ratchet up from Analog
 - C-SPAN dropped in 5 million homes (1/12)
 - Typical system will drop 10-13 cable channels under digital must-carry scenario (2 per station)
- Brian Lamb's "train wreck"
- Costs 
- Benefits essentially nil
 - Only 100,000 digital TV sets sold (Jan. 2000)

Internet TV

- Meanwhile, back in Cyberspace... TV is converging with the Internet
- TV broadcasts retransmitted both legally and illegally
- AOL TV
- Excite@Home, Road Runner → Cable TV is “broadband access,” high-speed Internet

Competitive Issues

- AT&T accused of limiting video streaming to protect cable TV revenues
- Disney now challenging AOL/Time Warner merger on grounds it would disadvantage rival programmers in online services

“Substantial interests”

- Protecting a “multiplicity of information sources” for non-cable, off-line households
- Congress only need draw “reasonable inferences based on substantial evidence”

Convergence & Regulation

- Video signals delivered via wires
 - Cable TV or Broadband Internet?
- Must-carry has already spread to DBS
- Broadcasters have digital TV argument
- Lots of cross-subsidies to dangle
 - V-chip, free time for political candidates, High Definition TV, kidvid

The FCC and the Unregulation of the Internet

Jason Oxman*

Counsel for Advanced Communications

Office of Plans and Policy

joxman@fcc.gov

Office of Plans and Policy

Federal Communications Commission

Washington DC 20554

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The success of the Internet has not been an accidental development. Market forces have driven the Internet's growth, and the FCC has had an important role to play in creating a deregulatory environment in which the Internet could flourish.

Table 4
 "TV News Shows" Listed on About.com Search
 (U.S. Commercial Broadcasters, Dec. 6, 1999)

<i>Network</i>	<i>Shows</i>
ABC	20-20, Good Morning America, Good Morning Sunday, Nightline, This Week, World News Now (overnight), World News This Morning (lead-in to GMA), World News Tonight
CBS	CBS Evening News, CBS Morning News, CBS This Morning, CBS Up to the Minute (overnight), Face the Nation, 48 Hours, 60 Minutes, 60 Minutes II
NBC	Nightly News, Dateline, Meet the Press, Today

Table 5
Local News on Broadcast TV Stations, 5 California Markets (1998)

<i>TV Station Affiliation</i>	<i># Stations</i>	<i># w/ Local News</i>	<i>% w/ Local News</i>	<i>News Hours per Week</i>
ABC, CBS, or NBC	16	16	100.0	25.0
Fox	4	3	75.0	13.9
WB or UPN	8	5	62.5	9.8
Independent	24	2	8.3	2.3
PBS	10	3	30.0	0.6

Table 6
Major Cable Networks Featuring News or Public Affairs Programming (12/31/98)

<i>Network</i>	<i>Owner</i>	<i>Format</i>	<i>Launch Date</i>	<i>Subs (millions)</i>
CNBC	General Electric	financial news, current affairs	4/89	67.9
CNN	Time Warner	news, current affairs	6/80	75.6
Headline News	Time Warner	news headlines	1/82	70.6
CNNfn	Time Warner	financial news	12/95	11.1
CNN International	Time Warner	international news	1/95	5.5
MSNBC	Microsoft/GE	news, current affairs	7/96	46.0
Fox News Channel	NewsCorp	news, current affairs	10/96	36.4
C-SPAN	C-SPAN Networks	live Congress, speeches, hearings	3/79	74.9
C-SPAN II	C-SPAN Networks	US Senate, book TV	6/86	53.3
America's Health	<i>N/A</i>	health and medical news	3/96	9.2
Gay Entertainment Television	<i>N/A</i>	gay interest programming	12/95	1.2
Court TV	Time Warner	live trials, legal news	7/91	33.9

Table 6
Major Cable Networks Featuring News or Public Affairs Programming (12/31/98)

<i>Network</i>	<i>Owner</i>	<i>Format</i>	<i>Launch Date</i>	<i>Subs (millions)</i>
Bravo Cable Network	Cablevision Sys.	arts and culture	12/80	38.0
Deep Dish TV	Non-profit	progressive politics for public access channels	11/87	300 affiliates
Discovery Channel	Liberty Media	informative entertainment	12/85	75.9
Discovery People	Liberty Media	fascinating people	3/97	11.0
Knowledge TV (Mind Extension University)	Jones Intercable	money, health, technology	11/87	26.0
SCOLA	<i>N/A</i>	international news, culture	12/87	4.5
History Channel	Hearst/Disney	historical documentaries	1/95	54.6
A&E	Hearst/Disney	biographies, investigative reports	12/84	73.7
TLC	Liberty Media	educational programs	8/79	68.2
FiT TV	News Corp.	exercise, health, cooking, beauty, fashion	10/93	8.3
International	<i>N/A</i>	global entertainment, news	7/90	7.8

Table 7
Television Coverage of Presidential Debates Early in Campaign 2000

Event	Sponsor/ Moderator(s)	Local Cable	National Cable	Local Broadcas t	National B'cast
GOP, 10/22, NH	NH Debate Partnership/Cokie Roberts	New England Cable News	C-SPAN	NH Public TV	NONE
Dems, 10/27, NH	WMUR-CNN/Karen Brown, Bernard Shaw	NONE	CNN, C-SPAN	WMUR- TV	NONE
GOP, 10/28, NH	WMUR-CNN/ Tom Griffith, Judy Woodruff	NONE	CNN, C-SPAN	WMUR	NONE
GOP, 11/21, AZ	AZ GOP/Robert Novak, John Hook	NONE	CNN, C-SPAN	NONE	NONE
GOP, 12/2, NH	WMUR-Fox News Channel/ Karen Brown, Brit Hume	NONE	Fox News	WMUR	NONE
GOP, 12/6, AZ	AZ GOP/Judy woodruff, Candy Crowley, John King	NONE	CNN, C-SPAN	NONE	NONE
GOP, 12/13, Ia	WHO, NBC/Tom Brokaw	NONE	MSNBC	WHO	NONE
Dems, 12/17, NH	ABC News/Ted Koppel	New England Cable News	C-SPAN	NONE	Nightlin e
Dems, 12/19, DC	NBC News/Tim Russert	NONE	NONE	NONE	Meet the 35 Press

Table 7
Television Coverage of Presidential Debates Early in Campaign 2000, continued

Event	Sponsor/ Moderator(s)	Local Cable	National Cable	Local Broadcas t	National B'cast
Dems, 1/5, NH	NH Debate Partnership/Peter Jennings	New England Cable News	MSNBC, C-SPAN	NH Public TV	NONE
GOP, 1/6, NH	NH Debate Partnership/Tim Russert	New England Cable News	MSNBC, C-SPAN	NH Public TV	NONE
GOP, 1/7, SC	SC GOP/Brian Williams, David Stanton	NONE	MSNBC, C-SPAN	WIS	NONE
Dems, 1/8, Iowa	Des Moines Register/Dennis Ryerson	NONE	C-SPAN, CNN, Fox News	Iowa Pubic TV	NONE
GOP, 1/10, MI	WOOD-TV, Calvin College, Kent Co. GOP/ Tim Russert	NONE	C-SPAN, MSNBC	WOOD, WEYI	NONE
GOP, 1/15, Iowa	Des Moines Register/Dennis Ryerson	NONE	C-SPAN, CNN, Fox News	Iowa Public TV	NONE
Dems, 1/17, Iowa	Brown & Black Forum/Soledad O'Brien, Tavis Smiley	Public access channel	MSNBC, C-SPAN	Iowa Public TV	NONE
GOP, 1/26, NH	WMUR-CNN/ Karen Brown, Bernard Shaw	NONE	CNN	WMUR	NONE
Dems, 1/26, NH	WMUR-CNN/ Tom Griffith, Judy Woodruff	NONE	CNN	WMUR	NONE

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
Anthropology Programming Entertainment*	N/A	Cultural, historical
C-SPAN4**	N/A	public policy, politics
C-SPAN5**	N/A	public policy, politics
ABC News All-News Channel	11/96	24-hour news
The Air & Space Network	9/96	Aviation and space
America's Talking	7/94	Live talk, entertainment
The Anti-Aging Network	9/96	Anti-aging science
Arts & Antiques Network	12/96	Cultural heritage
BBC World Channel	1/97	International news
The Benefit Network	1/98	Ecological

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming, continued

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
BET on Jazz	1/96	Jazz music
Booknet	9/96	Bibliophile
c/net: The Computer Network	1/97	Computer information
Canal de Noticias	10/94	Spanish-language news
Career & Education Opportunities	7/97	Self-improvement
CBS Eye on People	3/97	Information
CBS Telenoticias	3/97	Latin American news
CelticVision	3/95	Irish Culture
The CEO Channel	9/96	Corporate leaders
Channel 500	11/96	Documentaries

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming, continued

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
Channel Earth	3/97	Lifestyle
Children's Cable Network	5/95	Preschool kids
Conservative Television	1/96	Political/news
Consumer's Choice	1/96	Information
The Crime Channel	7/96	Law enforcement
Discovery Civilization	10/96	Education, history
Discovery en Espanol	8/98	Spanish-language
Discovery Health	7/98	Health information
Discovery Kids	10/96	Children
Discovery Living	10/96	Information

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming, continued

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
Discovery Science	10/96	Science
Discovery Wings	7/98	Flying
The Dream Network	7/96	Urban issues
The Ecology Channel	9/96	Ecological
Enrichment Channel	1/97	Self-help
Filipino Channel	4/94	Filipino
Fitness Interactive	9/96	Exercise/health
Free Speech TV	6/95	Cultural issues
Global Village Network	12/96	International culture
Golden American Network	9/96	Age 50+ news

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming, continued

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
Home & Garden Television	12/94	How-to shows
Horizons Cable	1/98	Cultural
International Channel	1/97	Multiethnic
Jones Computer Network	8/94	Computer use
Jones Health Network	12/96	Health information
Kid City	1/98	Kids age 2-12
Lightspan	12/96	Kid's interactive
The Love Network	6/96	Personal relations
The Military Channel	11/97	Military
Native American Nations	1/97	Native American issues

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming, continued

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
New Science Network	1/97	Scientific discovery
NewsTalk Television	10/94	Live talk/news
Newsworld International	9/94	24-hour news
Oxygen	2/2000	All-original women's programming
Parent Television	12/96	Parenting
Parenthood Television	12/96	Parenting
Parenting Satellite TV Net	12/96	Parenting
Planet Central Television	5/96	Ecological
The Recovery Network	6/96	Addiction recovery
Seminar TV Network	9/96	Holistic health

Table 8
Start-up Cable Networks Featuring News, Educational, or Public Affairs Programming, continued

<i>Network</i>	<i>Date Launched</i>	<i>Format</i>
Share TV	1/97	Family
The Space Network	9/96	Astronomy
TCI/Microsoft Channel	12/96	Personal computing
The Technology Channel	9/96	Technology
TeleNoticias	12/94	Spanish-language news
Total Communications Network	5/95	Hearing impaired
Trio	9/94	Dramas/docus
URU TV/The EarthCast Network	1/97	Ecological
Wingspan	9/96	Aviation and space
WorldJazz	9/96	Jazz music
ZDTV	5/98	Computing

Table 9
Regional News and Public Affairs Services on Cable TV

<i>Network</i>	<i>Launch Date</i>	<i>Subscribers (millions)</i>
BAY TV (San Francisco)	7/94	1.40
Bay News 9	n.a.	0.75
ChicagoLand Television News	1/93	1.50
New York 1 News (New York City)	7/92	1.97
News 12 Connecticut (Fairfield & Bridgeport)	6/95	0.21
News 12 The Bronx	n.a.	0.25
News 12 Long Island	12/86	0.75
News 12 New Jersey	3/96	1.25
News 12 Westchester	11/95	0.32
NewsChannel 8 (Washington, D.C.)	10/91	1.10
NorthWest Cable News (Seattle & Northwest)	12/95	2.10
Orange County (California) NewsChannel	9/90	0.52

Table 9
Regional News and Public Affairs Services on Cable TV, continued

<i>Network</i>	<i>Launch Date</i>	<i>Subscribers (millions)</i>
Pittsburgh Cable News Channel	1/94	0.64
Cable TV Network of New Jersey (financial news)	7/83	1.80
Washington Television	n.a.	n.a.
New York Channel	n.a.	n.a.
California Channel	2/91	5.22
Michigan Government TV	7/96	1.61
Pennsylvania Cable Network	9/79	2.34
Central Florida News 13	10/97	n.a.
County Television Network San Diego	7/96	0.76
Ecumenical Television Channel	1983	0.50
International Television Broadcasting (Time Warner)	4/86	0.5 0
MediaOne/CAMA (Atlanta)	12/95	0.5 0

Table 9
Regional News and Public Affairs Services on Cable TV, continued

<i>Network</i>	<i>Launch Date</i>	<i>Subscribers (millions)</i>
Metro Channels	n.a.	2.20
New England Cable News	n.a.	2.50
NGTV-National Greek Television	12/87	n.a.
Nippon Golden Network (Japanese language)	1/82	0.02
Ohio News Network	5/97	0.32
Pennsylvania Cable Network	9/79	1.70
Six News Now (Florida)	7/95	n.a.
Sunshine Network (Florida)	3/88	4.20
Florida News Channel	n.a.	1.00
Texas Cable News	1/99	n.a.
The Arabic Channel (New York, New Jersey)	4/91	0.49
Tri State Media Network	n.a.	1.20
Turner South	n.a.	2.28

Table 10
 Television Network Ratings, 1982 v. 1997
 (Shares of U.S. TV Viewing)

<i>Network Type</i>	<i>Includes</i>	<i>1982</i>	<i>1997</i>
Broadcast networks	CBS, NBC, ABC (Fox in 1997)	72%	51%
Independent stations	Superstations except TBS	21%	12%
Basic cable networks	TBS	3%	37%
Pay cable networks		5%	7%
PBS		3%	3%