

# How Hollywood Hooks Kids: The Effects of Seeing Movies on Smoking

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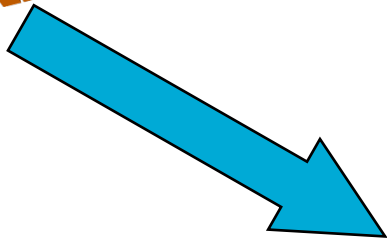
A Comprehensive Cancer  
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# Could Movies Influence Behavior

## Movie Smoking



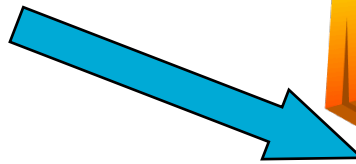
## Kid Smoking

# Motion Picture Industry Viewpoint

“I believe films always mirror society; what film makers are trying to do is to document what’s happening in society...I think that if people are going to be influenced to start smoking or smoke cigarettes as a consequence of watching motion pictures or television, then they probably need more help than anyone can give them.”

– *Male, director/producer*

**Kid Smoking**



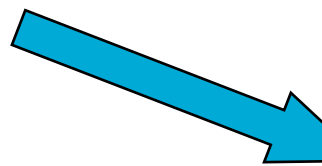
**Movie Smoking**

# Tobacco Industry Viewpoint

“The medium is the message, and the message would be right — part of the show. How different from being the Corporate Moneybags or pushing samples in the lobby. It's the difference between B&W [Brown and Williamson Tobacco] doing commercials in movie houses and Marlboro turning up in the movies.

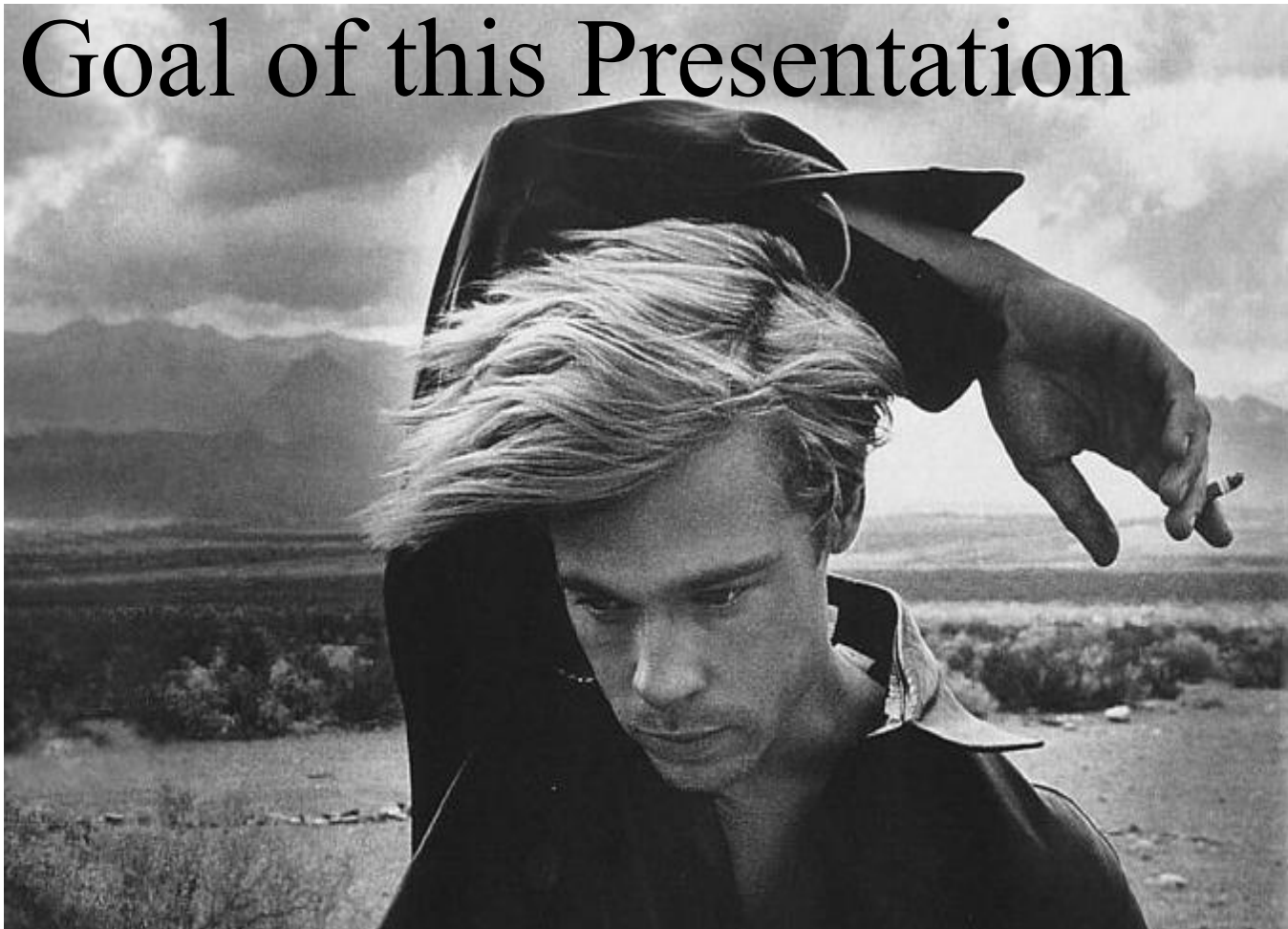
“Pull, not push. Nobody tells them the 'answer,' they just know. Not 'why are you smoking that?' but 'I saw that video — can I try one?' If they feel like wearing the badge, they'll buy it. Like magic.” — *RJR Marketing Executive*

**Kid Smoking**



**Movie Smoking**

# Goal of this Presentation



- This presentation will change the way you view and interpret movies



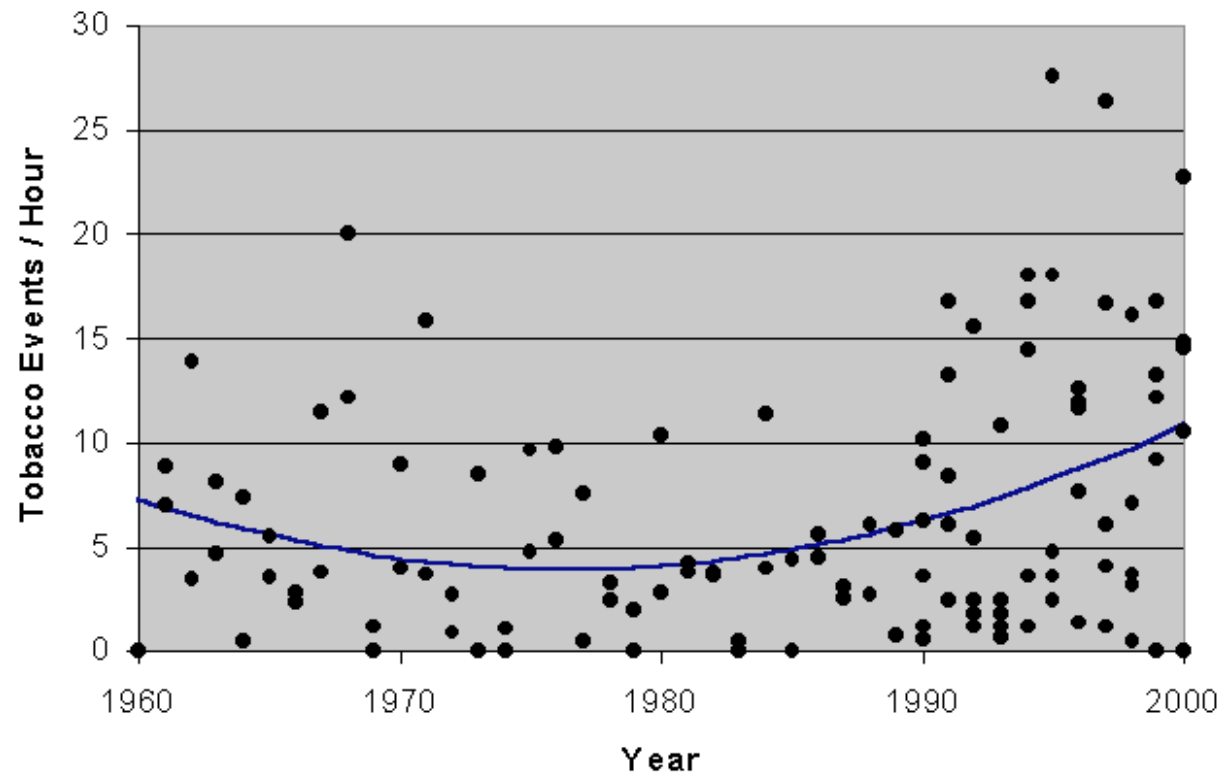
# Content Analysis

- What can we say about tobacco use in movies?
  - Dose
  - Content





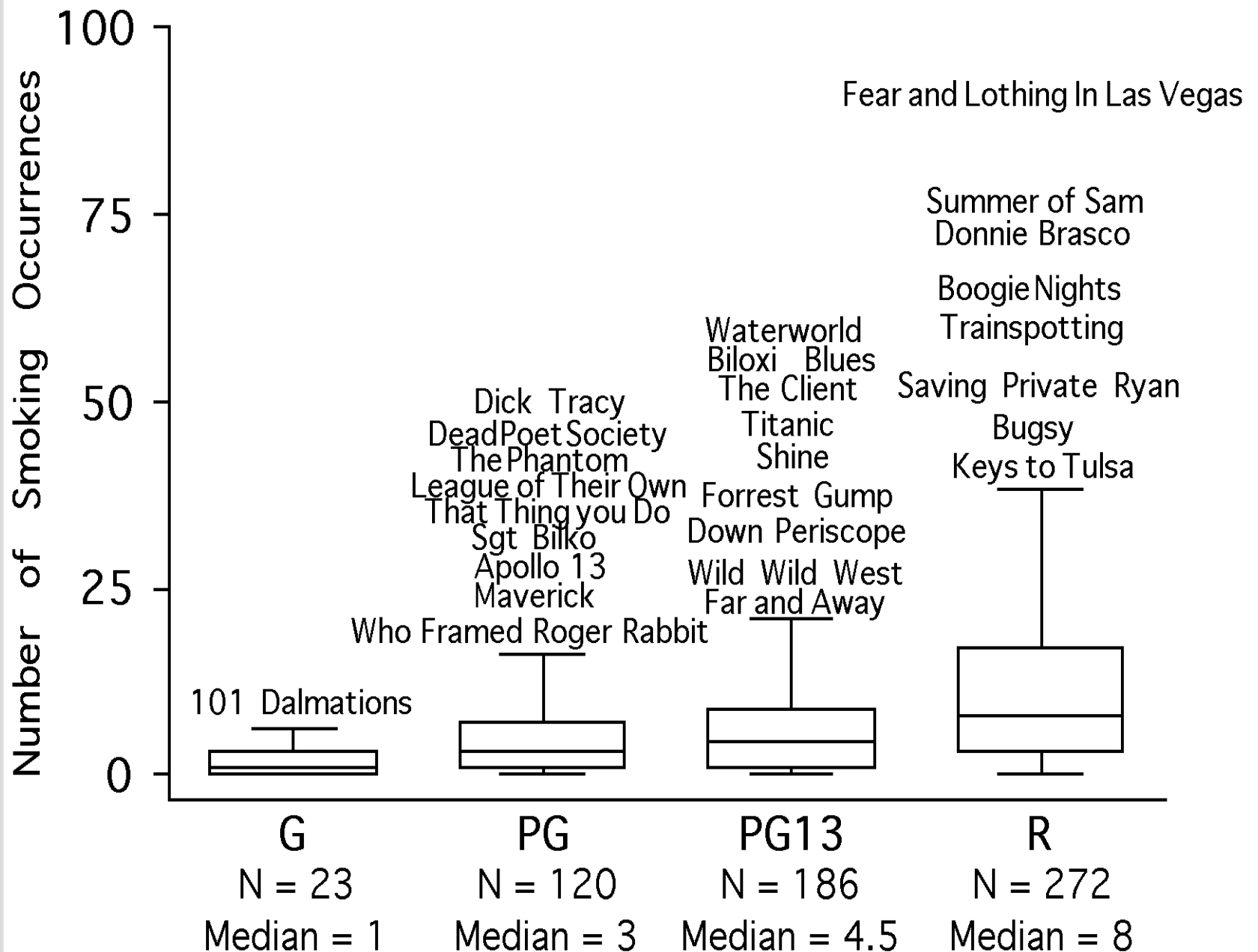
# Smoking in Movies is Increasing



Source: Glantz, S. University of California at San Francisco.

# Dose: Occurrences of Movie Tobacco Use

601 popular box office hits during the years 1988-1999







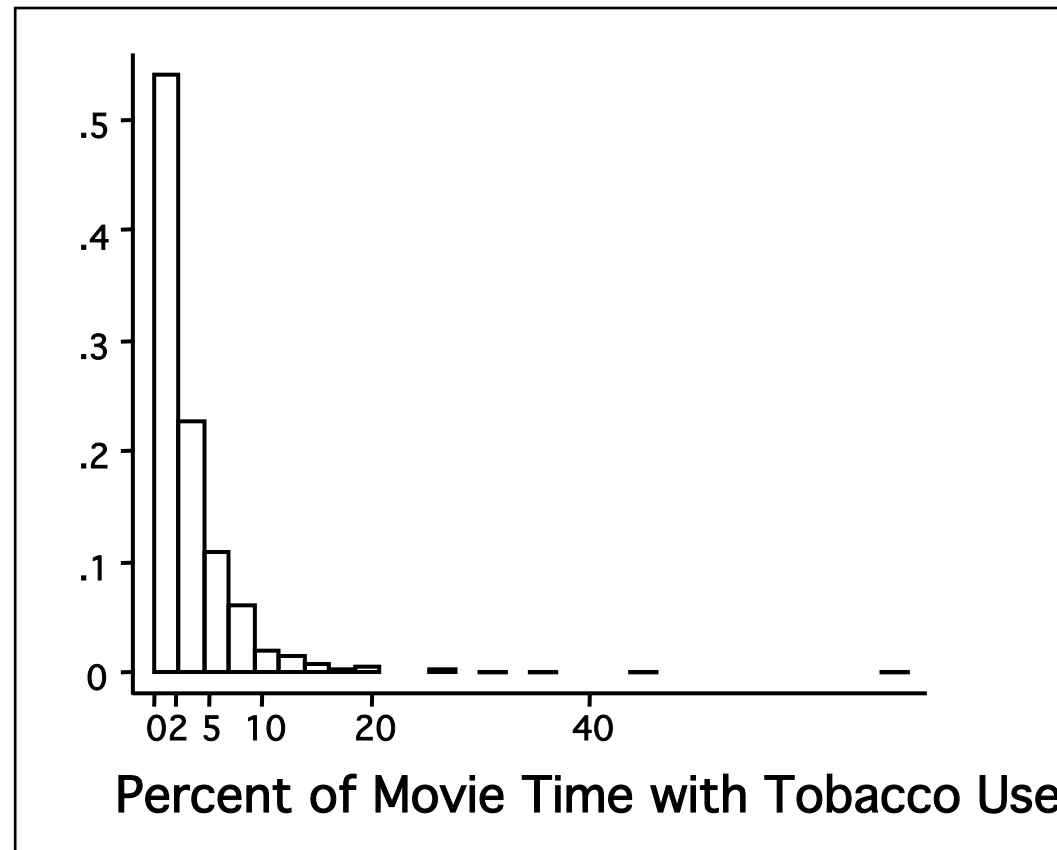
## Smoking in PG13 movies is increasing

- 92% of top 10 grossing PG13 films in theaters in July-October, 2002 included tobacco
- Two out of three tobacco shots in the Top 50 movies from April 2000 – March 2001 were in G/PG/PG13 movies
  - The year before on 21% of tobacco occurrences were in G/PG/PG13
- The amount of screen time devoted to smoking in PG 13 movies increased by 50% between 1996/7 and 1999/2000
  - Tobacco industry promised to stop product placement in 1998 Master Settlement Agreement

Source: Mekemson C. Thumbs up-Thumbs down. ALA, Sacramento.

# Screen Time

- Tobacco depictions take up less than 4 minutes of screen time in over 75% of movies





# Conclusions

- Tobacco use occurs frequently
  - It is widespread in youth-oriented films, and growing in PG13
- Tobacco use takes up little screen time
  - Removing it would affect only 5% of the movie

# Teens and Movies: How much do they watch?



# Exposure to Non-Interactive Screen Media by Age

TABLE 10-A

## Average Daily Time with Each Medium

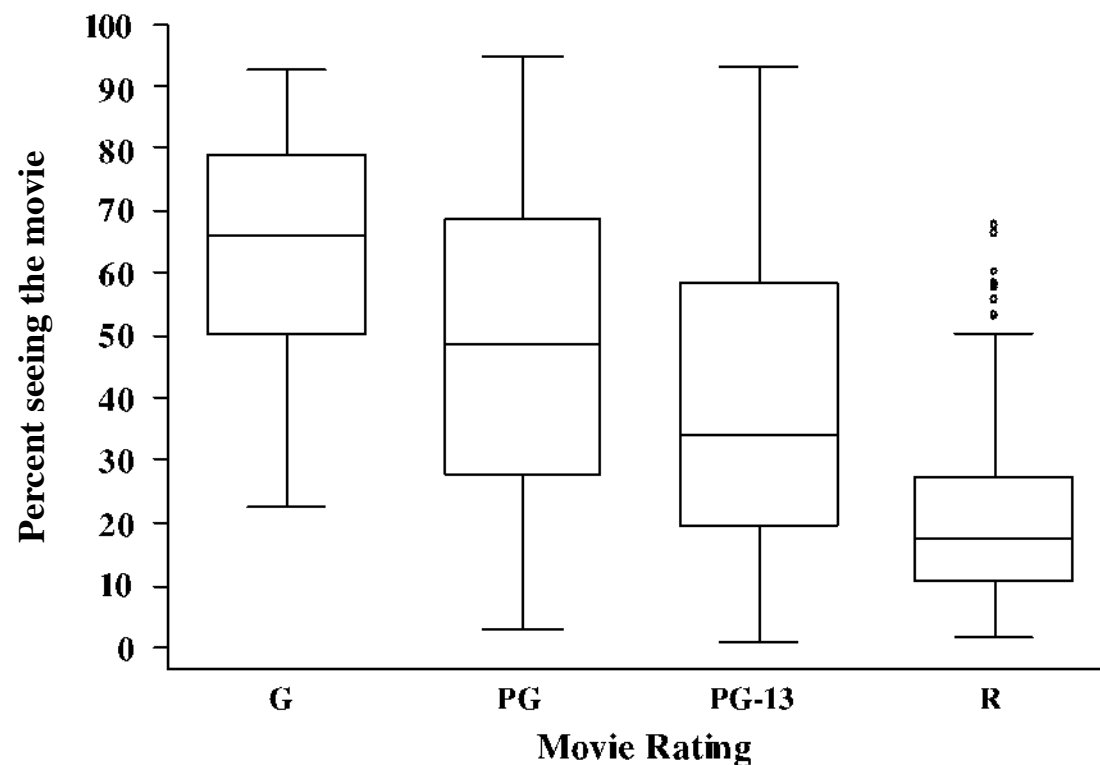
Medium	Age in years				
	2-4	5-7	8-10	11-13	14-18
Videos (commercial)	0:32 <sup>a</sup>	0:21 <sup>b</sup>	0:27 <sup>ab</sup>	0:31 <sup>ac</sup>	0:29 <sup>c</sup>
Movies	0:01 <sup>a</sup>	0:02 <sup>a</sup>	0:30 <sup>b</sup>	0:22 <sup>b</sup>	0:11 <sup>c</sup>

3 Movies per Week  
150 Movies per Year



# An R rating reduces the likelihood that a teen will see a movie ...

Distribution for the percent of adolescents who had seen movies by MPAA rating. G=23, PG = 120, PG-13 = 186, R = 272







# ... but Kids do see Lots of R rated Movies

Title	Responses	%seen	Year	Rating	Rank
Speed	481	67.6	1994	R	1
Scream	473	66.4	1996	R	2
I Know What You Did Last Summer	470	60.4	1997	R	3
Air Force One	458	58.3	1997	R	4
I Still Know What You Did Last Summer	460	58.3	1998	R	5
Scream 2	464	58.2	1997	R	6
There's Something About Mary	460	57.8	1998	R	7
Terminator 2: Judgment Day	478	55.7	1991	R	8
Con Air	474	53.4	1997	R	9
Lethal Weapon 4	484	53.3	1998	R	10
Lethal Weapon 2	466	53.2	1989	R	11
Lethal Weapon 3	466	50.2	1992	R	12
Braveheart	458	49.3	1995	R	13
Faculty, The	456	49.3	1998	R	14
Face/Off	461	48.6	1997	R	15
Die Hard	460	48.3	1988	R	16
Pretty Woman	471	45.7	1990	R	17
Saving Private Ryan	478	45.6	1998	R	18
Jerry Maguire	475	45.3	1996	R	19
Die Hard 2	465	45.2	1990	R	20

# Cigarette Brand Appearances in Movies



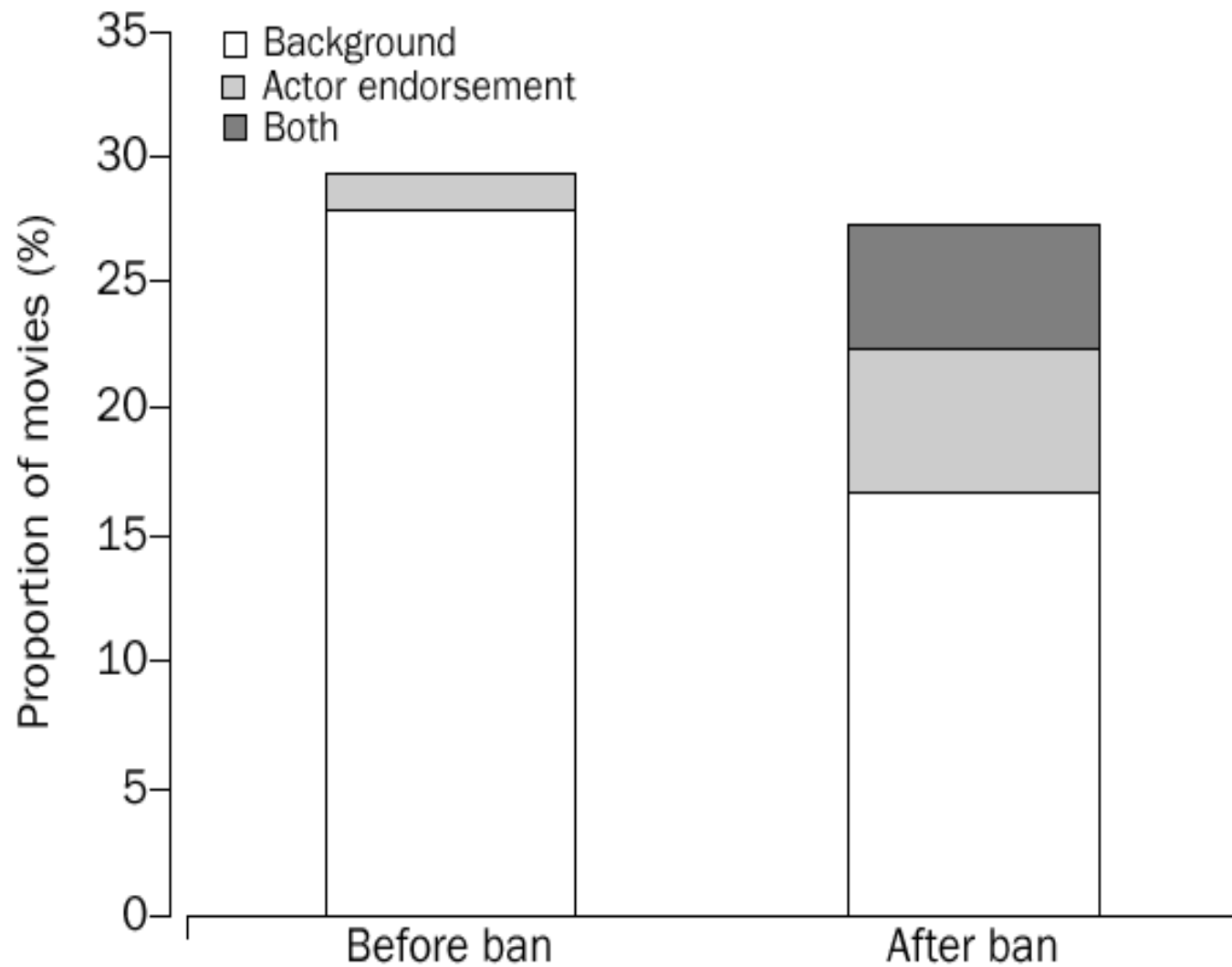
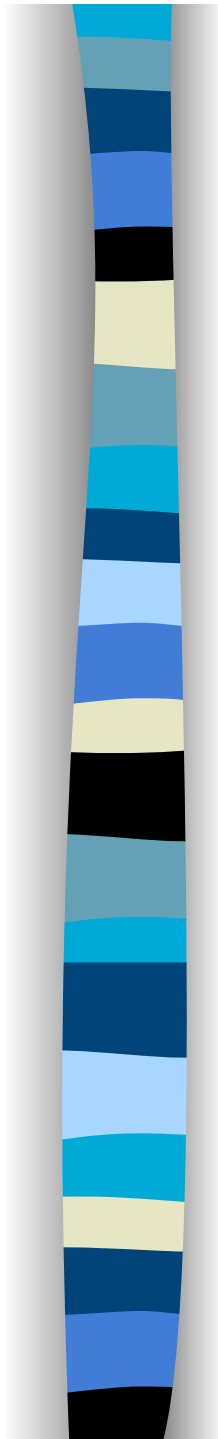
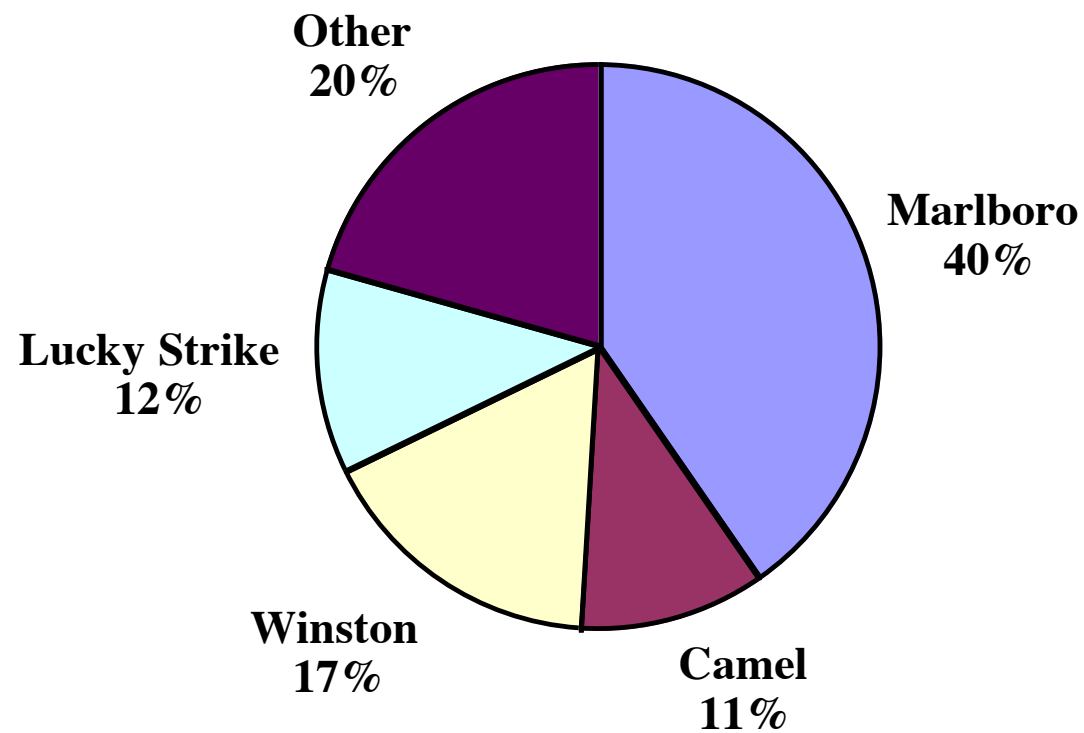


Figure 3: **Films containing actor endorsement, background appearances, or both before and after voluntary ban**

## Cigarette Brands Placed in Movies





# Conclusions

- Tobacco use occurs frequently
- Tobacco use takes up little screen time
  - Removing it would affect only 5% of the movie
- Cigarette brands appear often
  - Increasingly endorsed by actors
  - The most highly advertised brands account for most brand appearances (advertising motive)



# Salience of Tobacco Use in Films

- Does the depiction mirror society?
  - Does it reflect smoking in the real world?
    - No
  - Or does it look more like a cigarette ad?
    - Yes
- Is the depiction artistic or commercial speech?
  - Are there potential commercial implications?
- What is the message kids are likely to take away?
  - Could viewing this alter their attitudes?
  - Could it influence their behavior?



# Linking Tobacco Use in Movies with Adolescent Smoking

- Is what they view related to what they do?
- Measure the Exposure
  - How much smoking do adolescents see in the movies they watch?
  - Does it vary from adolescent to adolescent?
- Link seeing smoking with trying smoking





# Survey Kids

- School-based survey of 4795 kids
- 15 randomly selected New Hampshire and Vermont middle schools
- Grades 5 to 8
- Boys and girls equally represented
- From urban and rural communities



# How Did We Measure Smoking?

## ■ Ever tried smoking

– How many cigarettes have you smoked in your life?

- None

Never smoked



- Just a few puffs

Tried smoking



- 1-19 cigarettes (less than a pack)

- 20-100 cigarettes (one to five packs)

- More than 100 cigarettes (more than five packs)



# How Did We Measure Exposure to Movie Smoking?

- Two stage assessment:
  - Stage 1. We counted occurrences of tobacco use or imagery in each of 601 recent popular motion pictures (content analysis)
  - Stage 2. Each student was asked to select movies they had seen from a list containing a random subset of 50 titles
  - Combine Stages 1 and 2. Movie tobacco occurrences viewed were summed for each student

## Select Popular Movies

• Box office hits	N
Top 25, 1988-1995	200
Top 100, 1996-1998	300
Top 50, 1999 (assessed 6/30/99)	50
• With popular teen stars	51

## Generate movie lists

- Randomly select 50 movies for each survey
- Use stratified sampling to ensure representative distribution by rating (45% R, 31% PG 13, 20% PG, 4% G)

## Survey Students

- Questionnaire assesses which of the 50 movies the adolescent has ever seen  
Median = 17, Interquartile range 11-22

## Content Analysis

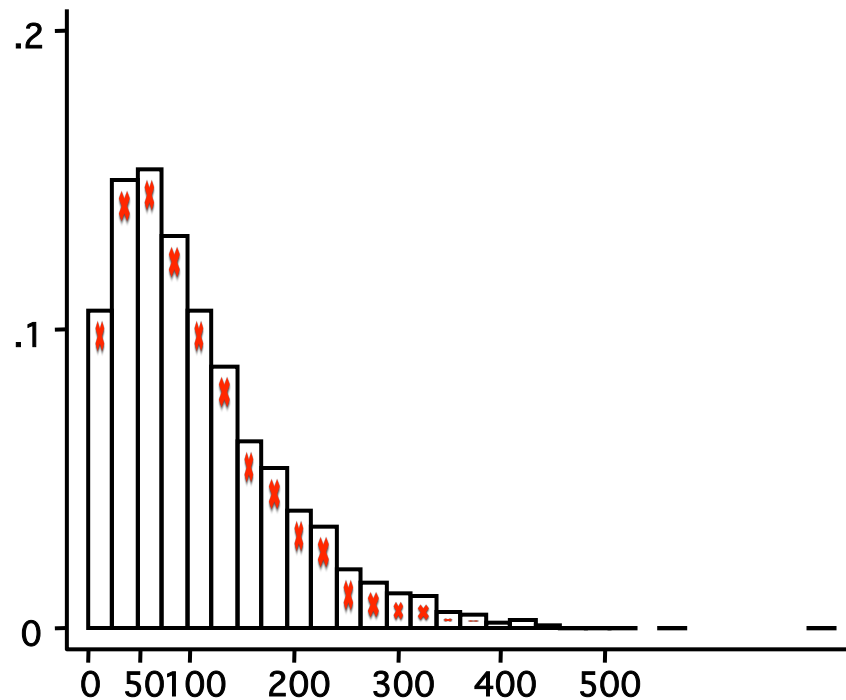
- Count the tobacco use occurrences in each movie

## Merge

## Movie Tobacco Use Exposure Variable

Number movie tobacco use occurrences seen  
Median = 91, Interquartile range 49-152

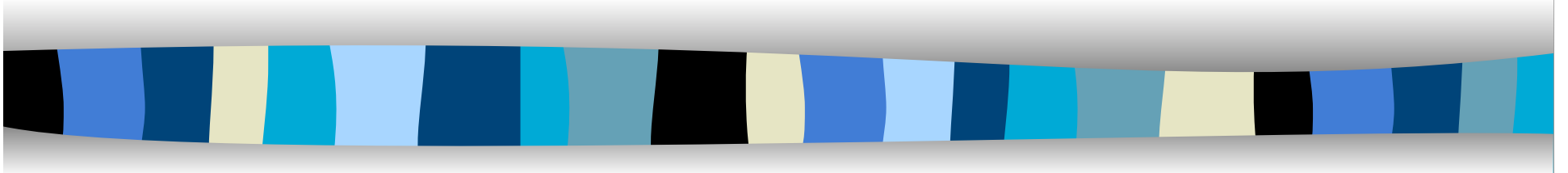
# Exposure to Tobacco Use in Movies



Number of tobacco occurrences seen	
– 0-50	26.1%
– 51-100	28.6%
– 101-150	19.7%
– >150	25.7%

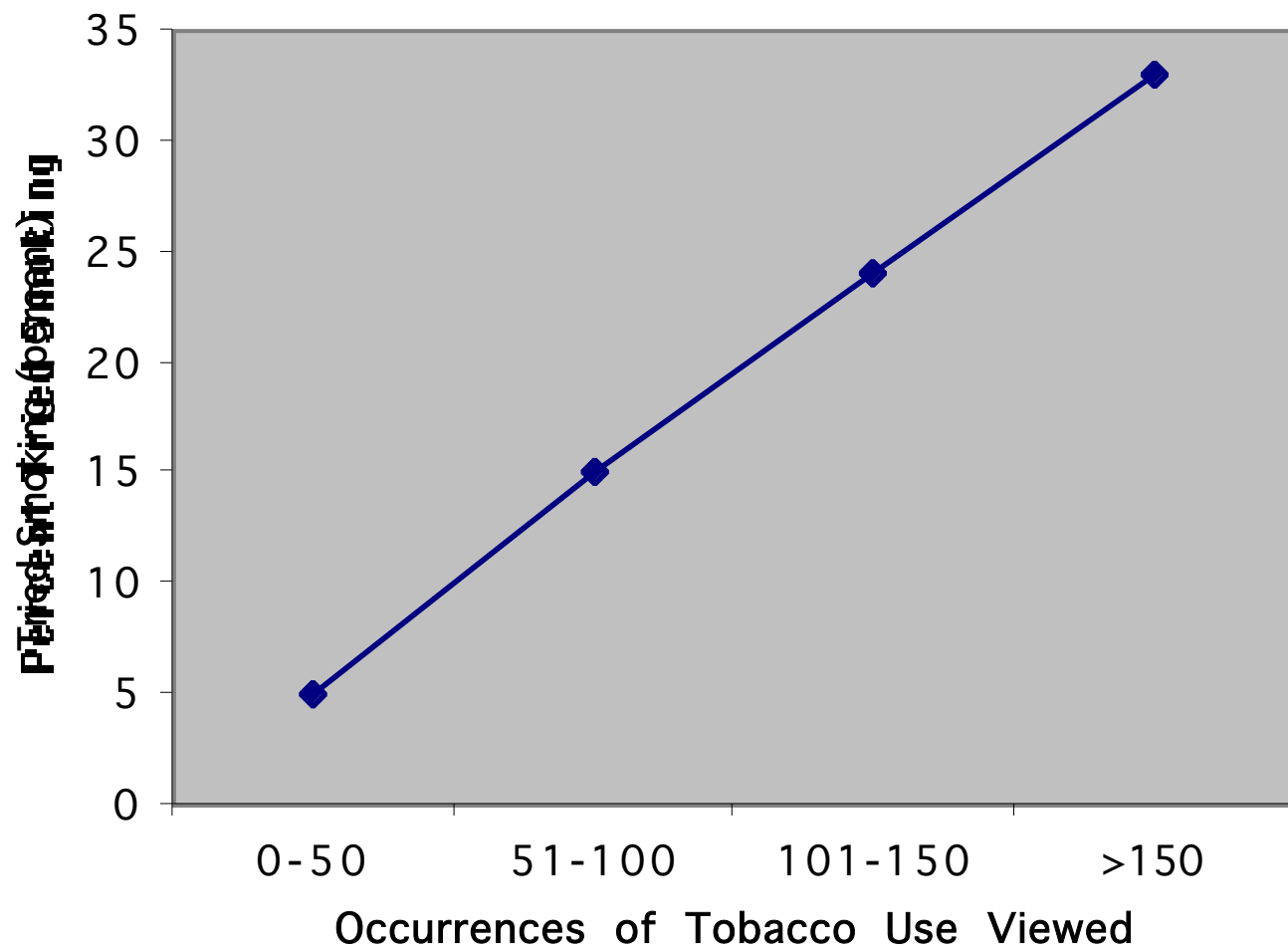
Number of Tobacco Occurrences Seen

Can we link what they view  
with what they do?



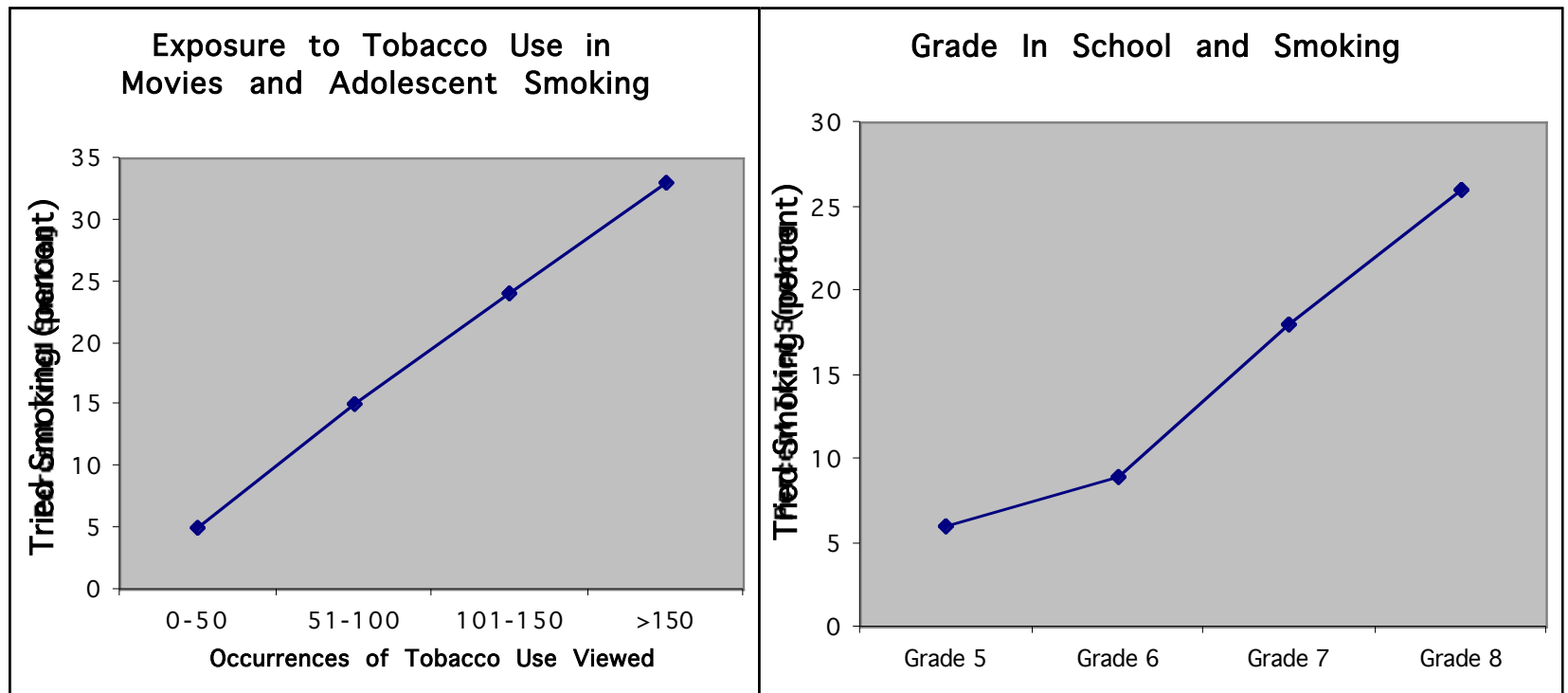
Is higher exposure associated with  
a higher rate of smoking?

## Exposure to Tobacco Use in Movies and Adolescent Smoking

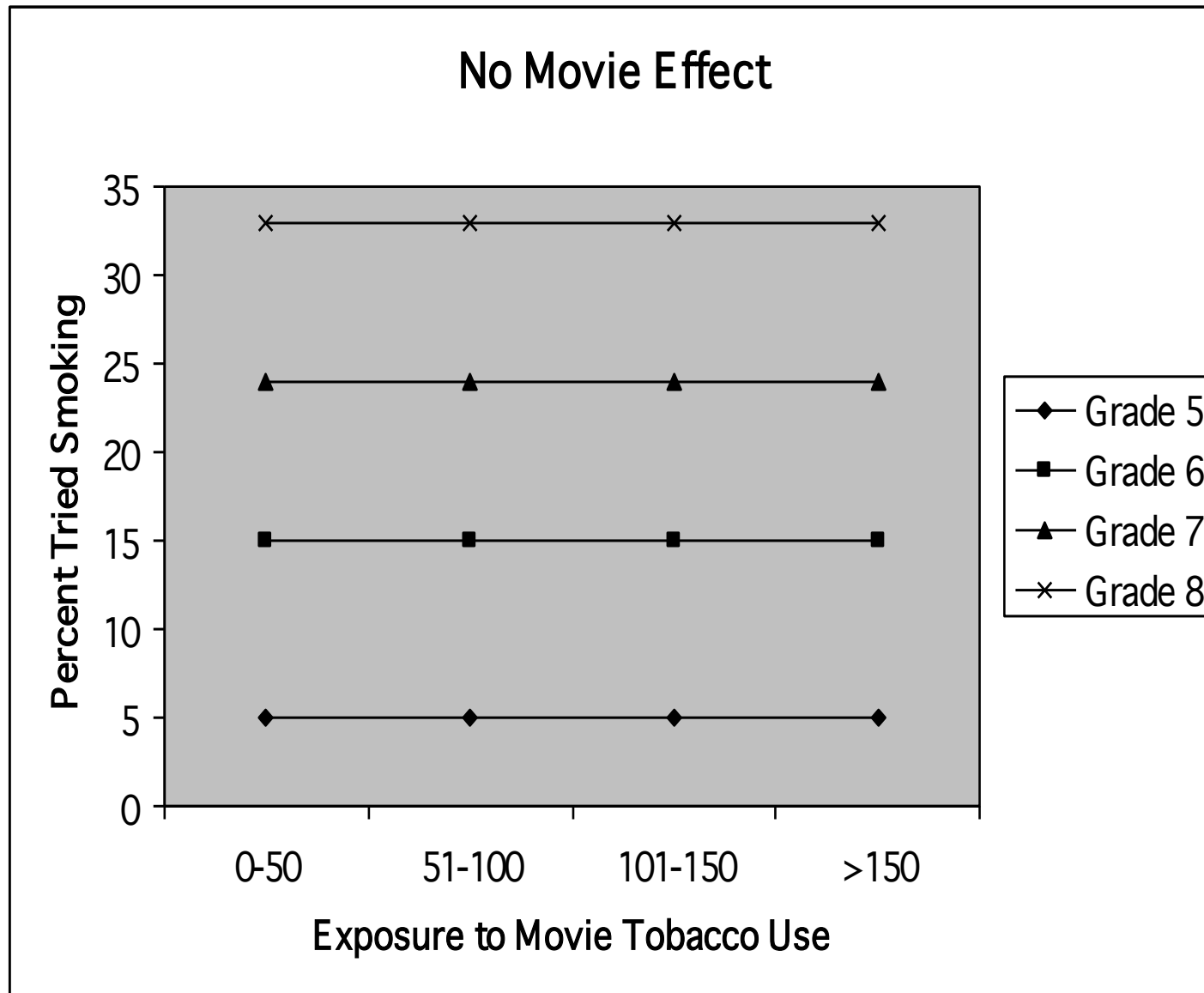




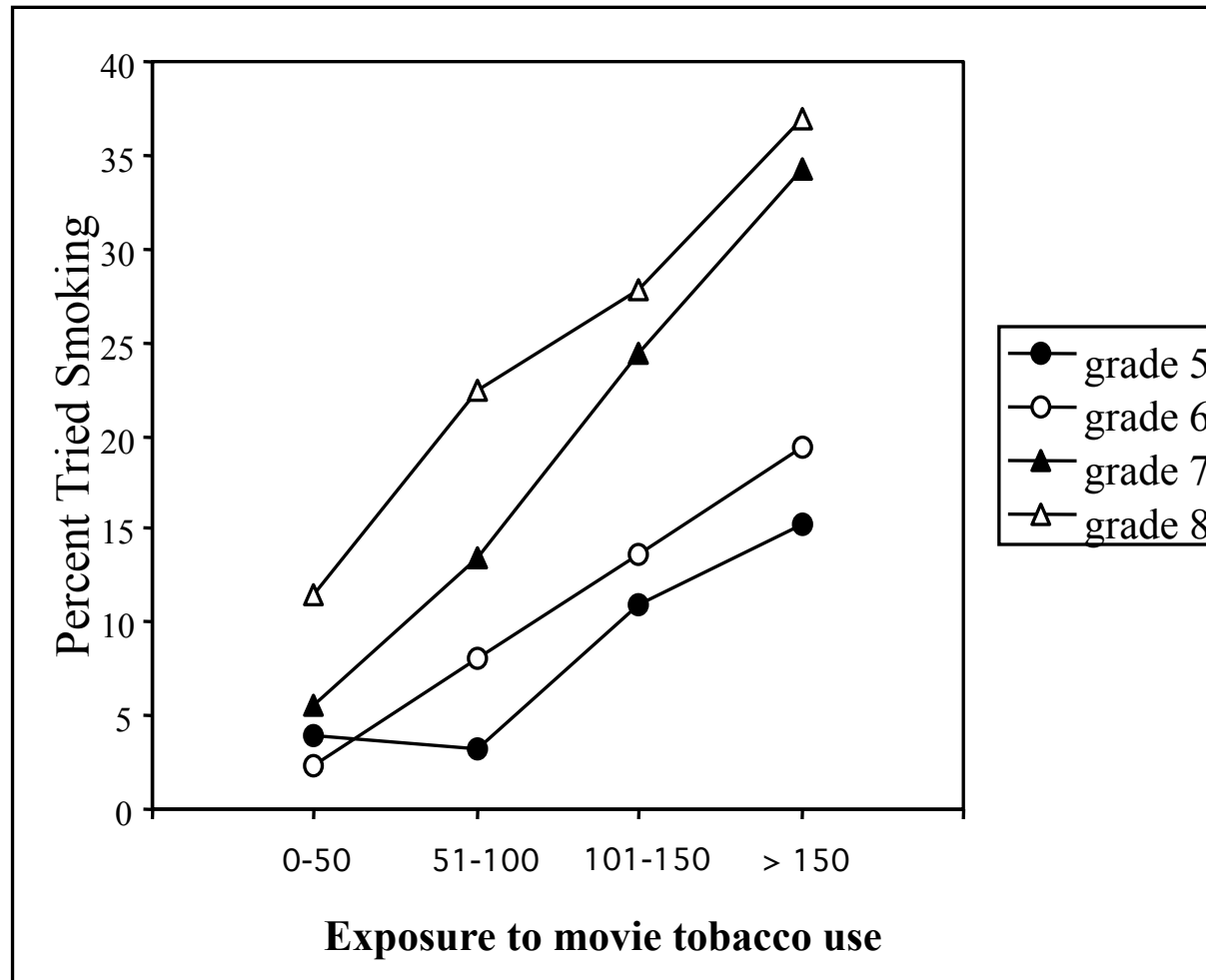
# Is the Association Independent of Other Factors Known to be Linked with Smoking?



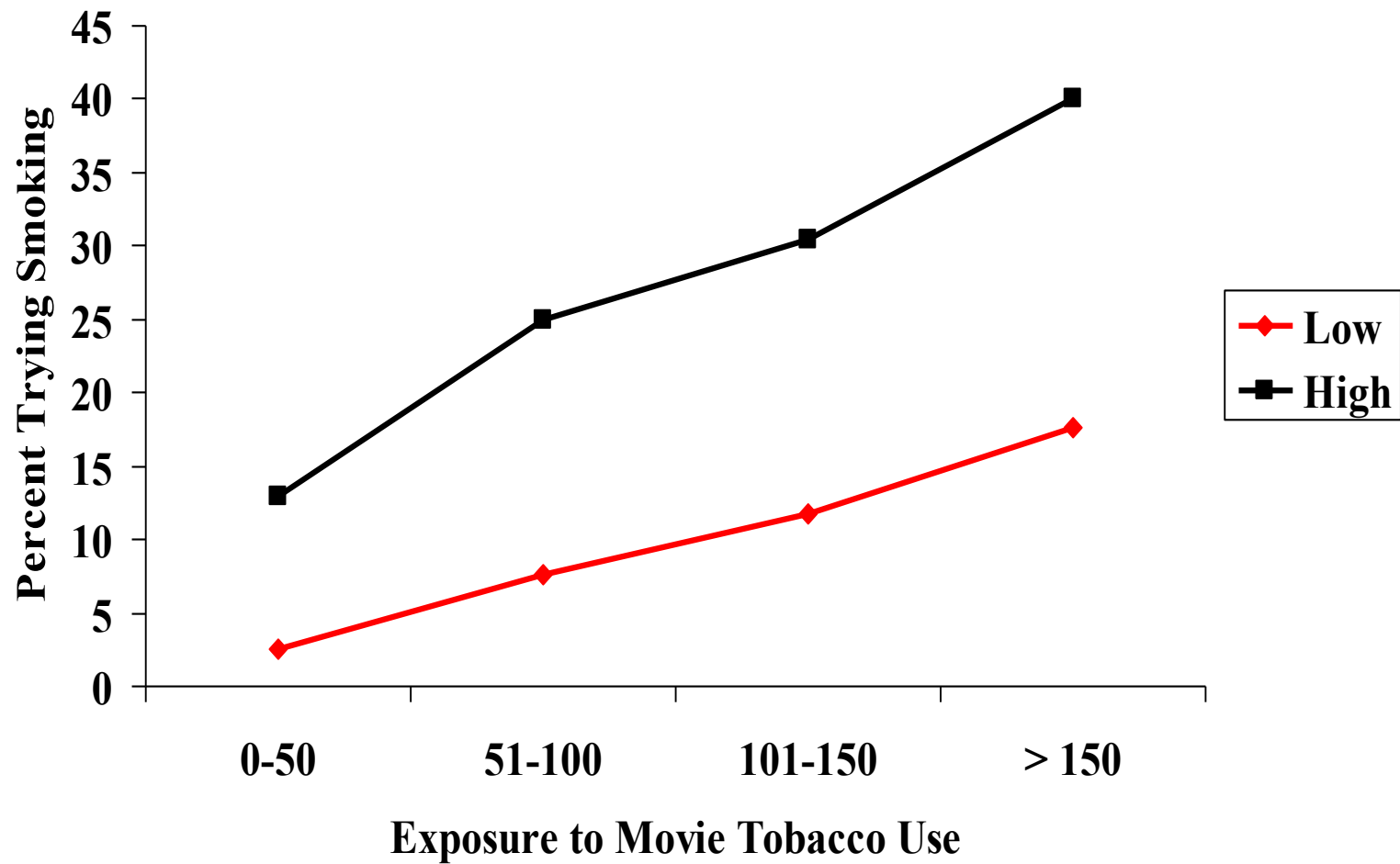
# Stratification



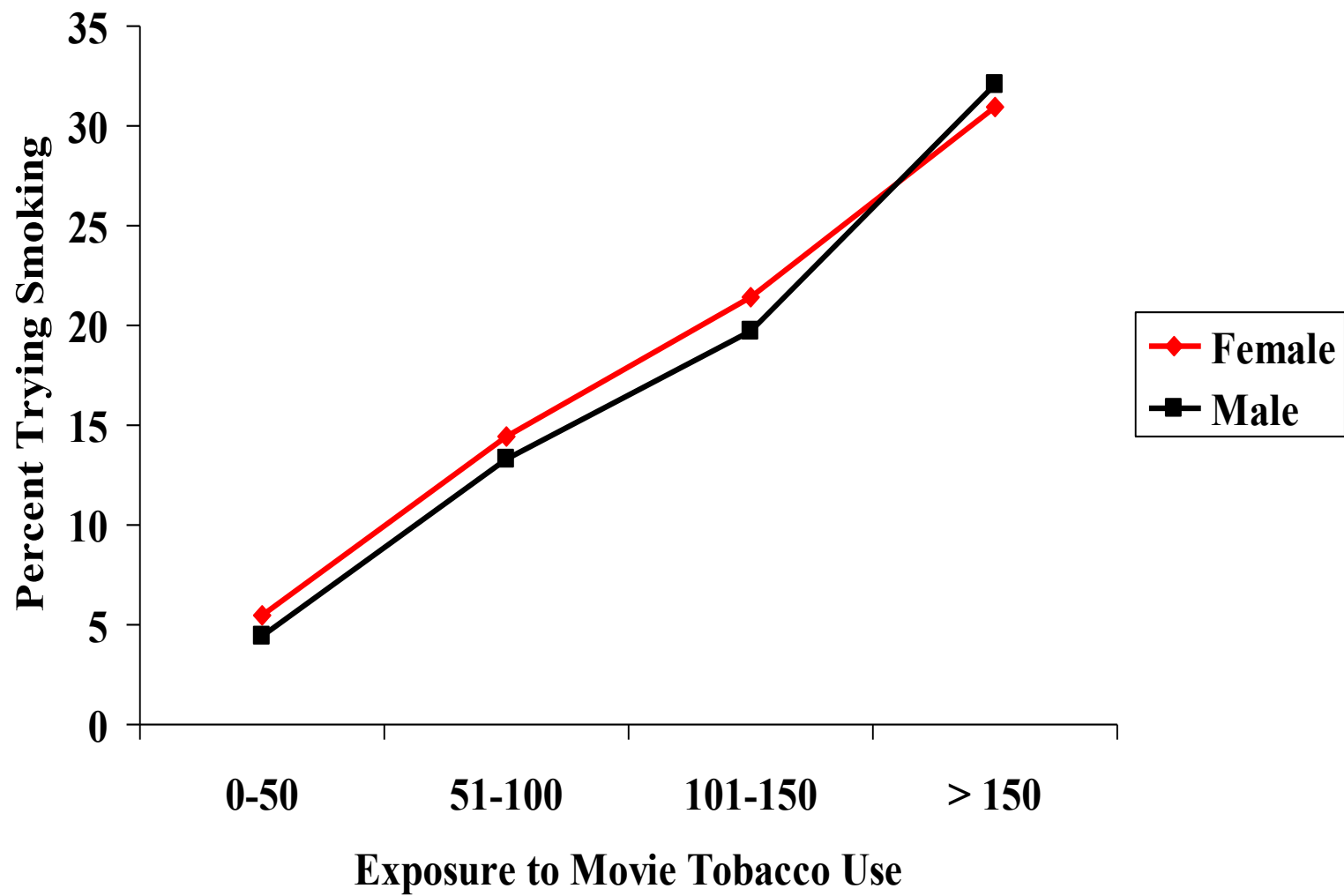
# Association is Independent of Grade



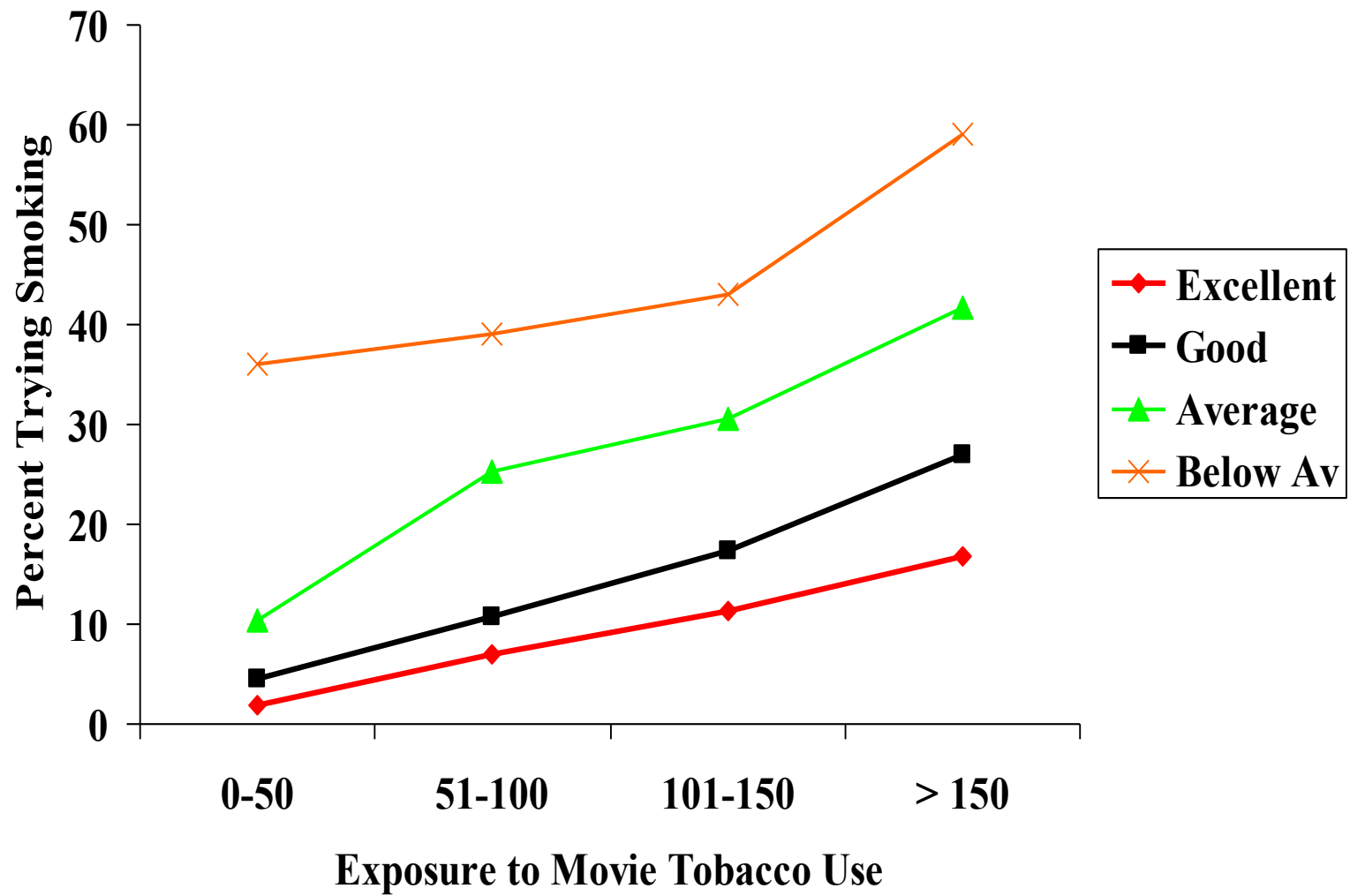
# By Sensation Seeking Status



## By Gender



## By School Performance





But What About Parenting  
Style?





# Parenting Style: Authoritative Parenting

## ■ Responsive

- She listens to what I have to say
- She makes me feel better when I'm upset
- She wants to hear about my problems

## ■ Demanding (rules/monitoring)

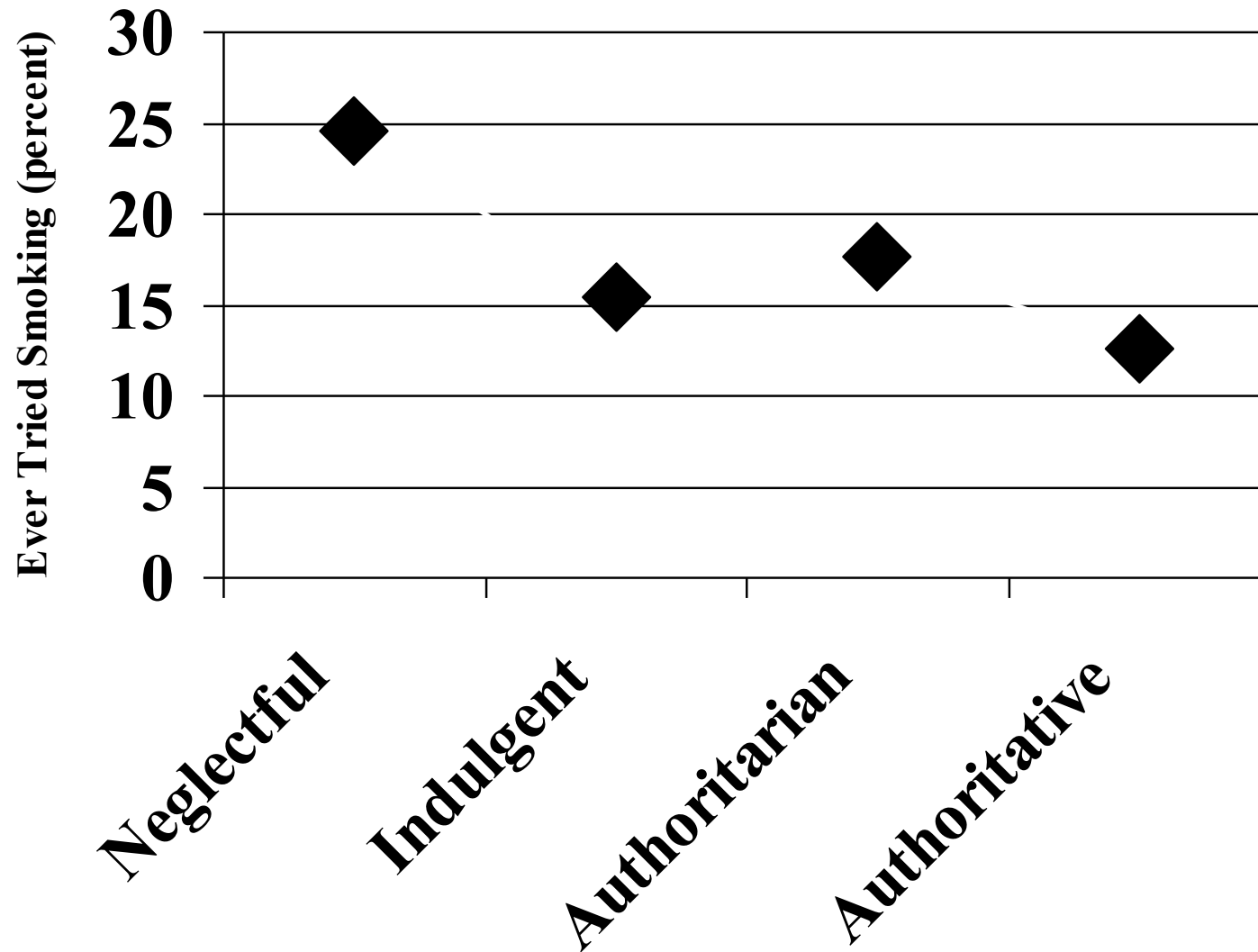
- She makes me follow her rules
- She tells me what time I have to be home
- She knows where I am after school



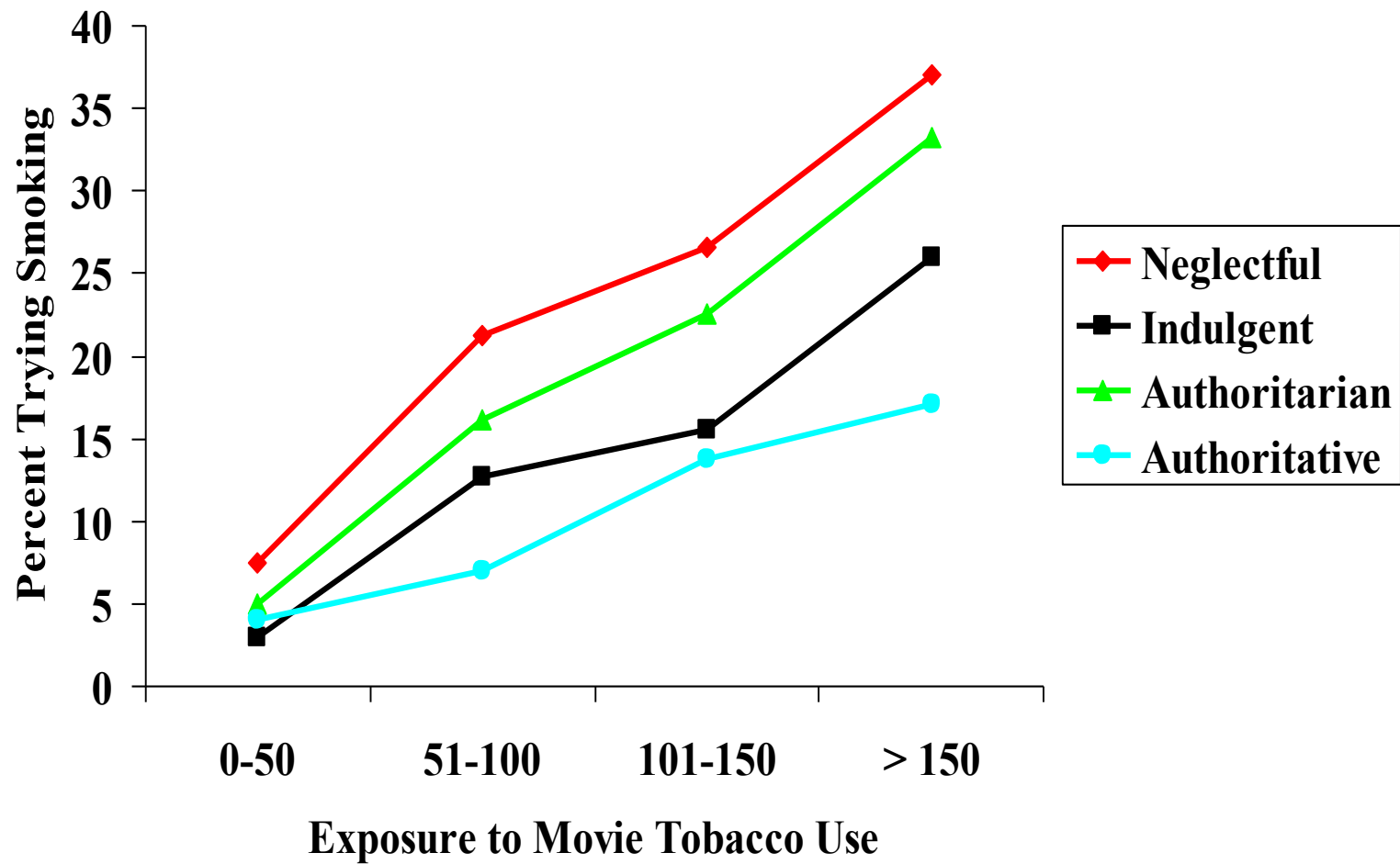
# Parenting Style

		<b>Demanding</b>	
		<b>No</b>	<b>Yes</b>
<b>Res</b>	<b>No</b>	<b>Neglectful</b>	<b>Authoritarian</b>
	<b>Yes</b>	<b>Indulgent</b>	<b>Authoritative</b>

# Parenting Style and Smoking



## By Parenting Status



# All Else Being Equal:

## Odds of Trying Cigarettes by Exposure to Movie Tobacco Use

	Odds Ratio			
	Crude	Adjusted for Socio- demographics (and school)	Adjusted for Socio- demographics & Other social influences	Adjusted for Socio- demographics & Other social influences & Characteristics of child/parenting
<b>Movie tobacco occurrences seen</b>				
<b>0-50</b>	Reference	Reference	Reference	Reference
<b>51-100</b>	3.1	2.5	1.8	1.9
<b>101-150</b>	5.6	4.2	2.6	2.5
<b>&gt;150</b>	9.0	6.5	3.0	2.4



# Conclusions

- Viewing tobacco use in movies is linked with
  - higher rates of smoking among adolescents
  - among never smokers:
    - more positive attitudes toward smoking
    - a higher risk of trying smoking later on
  - because the association is strong and the exposure high in the general population of adolescents, movie smoking accounts for about 1/3 of adolescent smoking



# The Solution

- Certify no payoffs
- Require strong anti-smoking ads
- Stop identifying tobacco brands
- Rate new smoking movies “R”



# The Solution

## ■ Certify No Pay-Offs

The producers should post a certificate in the credits at the end of the movie declaring that nobody on the production received anything of value (cash money, free cigarettes or other gifts, free publicity, interest-free loans or anything else) from anyone in exchange for using or displaying tobacco.

NO PERSON OR ENTITY INVOLVED IN THIS  
MOTION PICTURE ACCEPTED ANYTHING FROM ANY  
TOBACCO COMPANY, ITS AGENTS OR FRONTS.



# The Solution

- Require Strong Anti-Smoking Ads

Studios and theaters should require a genuinely strong anti-smoking ad (not one produced by a tobacco company) to run before any film with any tobacco presence, regardless of its MPAA rating.



# The Solution

## ■ Stop Identifying Tobacco Brands

There should be no tobacco brand identification nor the presence of tobacco brand imagery (such as billboards) in the background of any movie scene.



# The Solution

## ■ Rate New Smoking Movies "R"

Any film that shows or implies tobacco should be rated "R." The only exceptions should be when the presentation of tobacco clearly and unambiguously reflects the dangers and consequences of tobacco use or when it is necessary to represent accurately a real historical figure.



# To learn more and get involved: [www.SmokeFreeMovies.ucsf.edu](http://www.SmokeFreeMovies.ucsf.edu)

