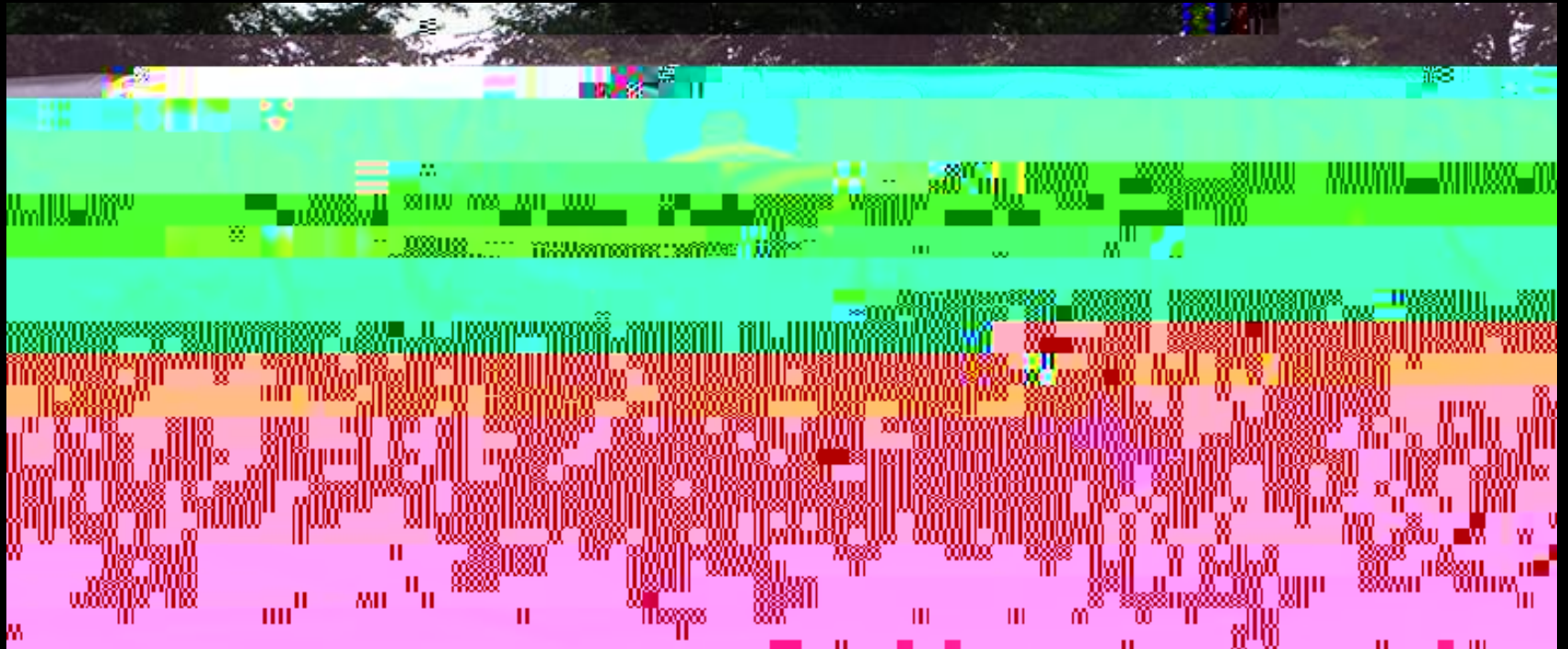




# Environmental Debate



# 12.1 The Economics of Pollution

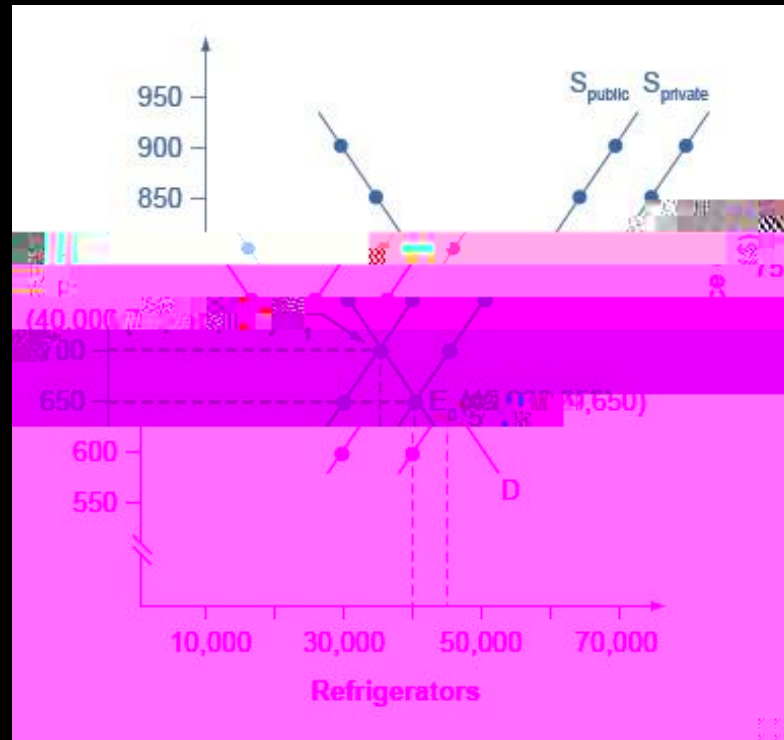


# Externalities



# Pollution as a Negative Externality

# Taking Social Costs into Account: A Supply Shift



# Market Failure





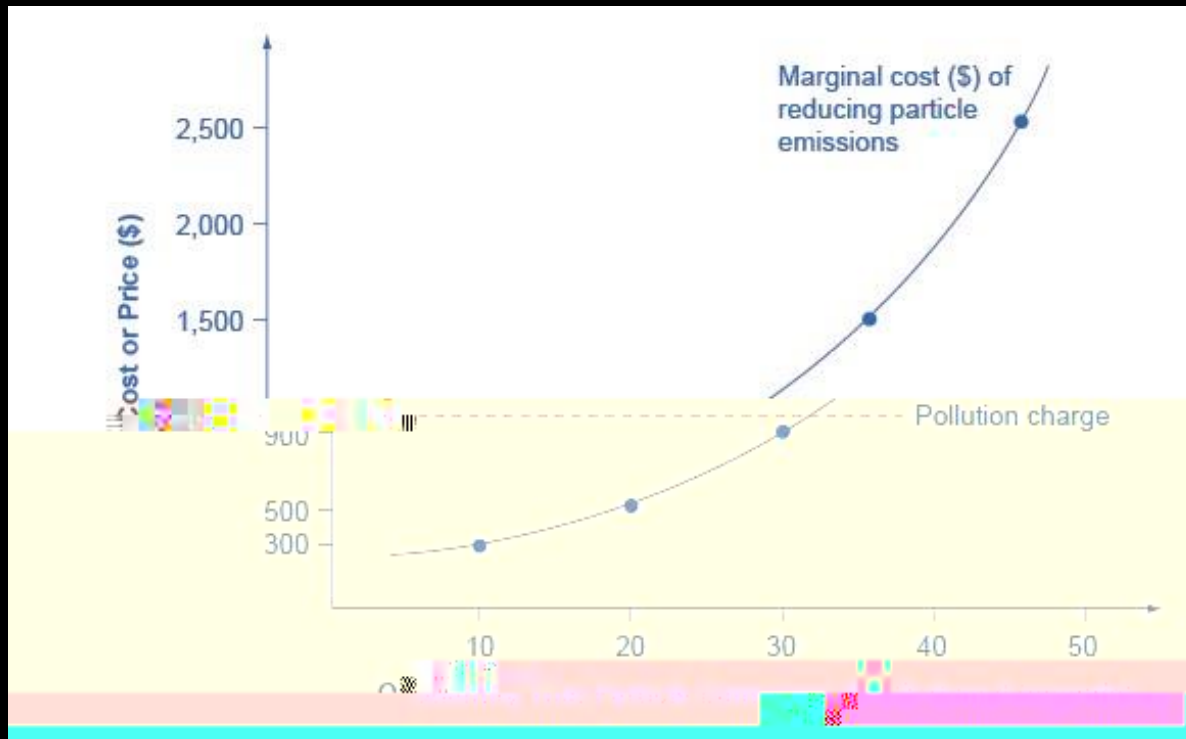


# Difficulties with command-and-control environmental regulation





# A Pollution Charge Example



# Marketable Permits



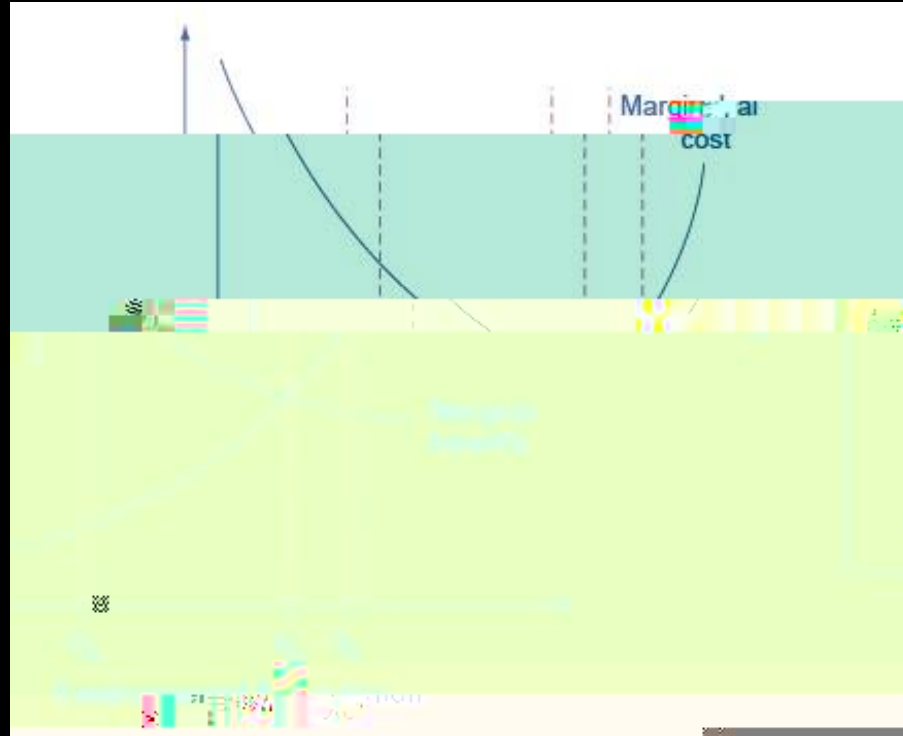
# 12.4 The Benefits and Costs of U.S. Environmental Laws



# Marginal Benefits and Marginal Costs



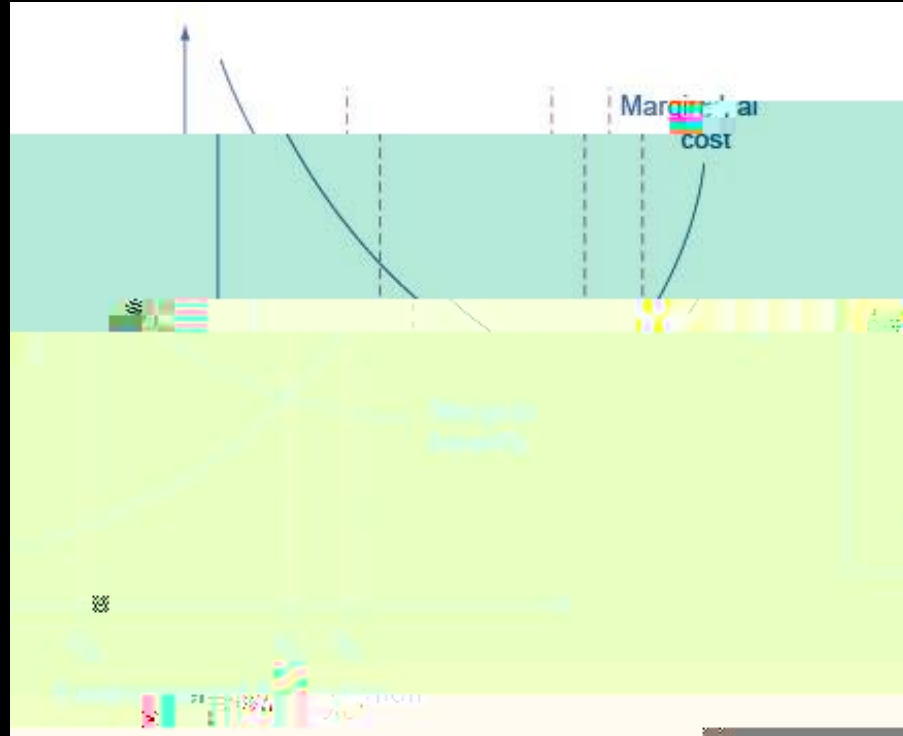
# Marginal Costs and Marginal Benefits of Environmental Protection





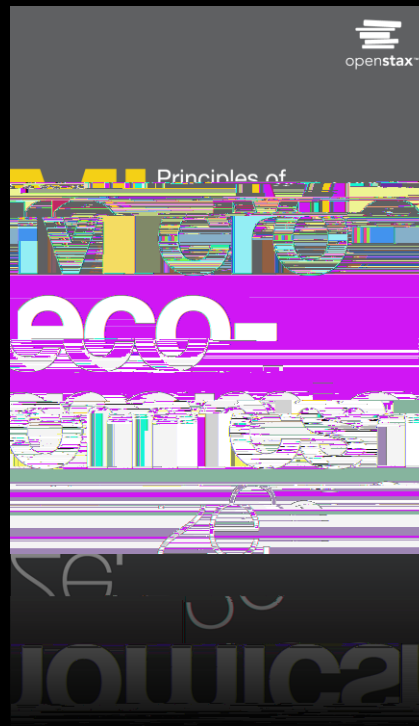


# Marginal Costs and Marginal Benefits of Environmental Protection, Continued



# PRINCIPLES OF MICROECONOMICS 2e

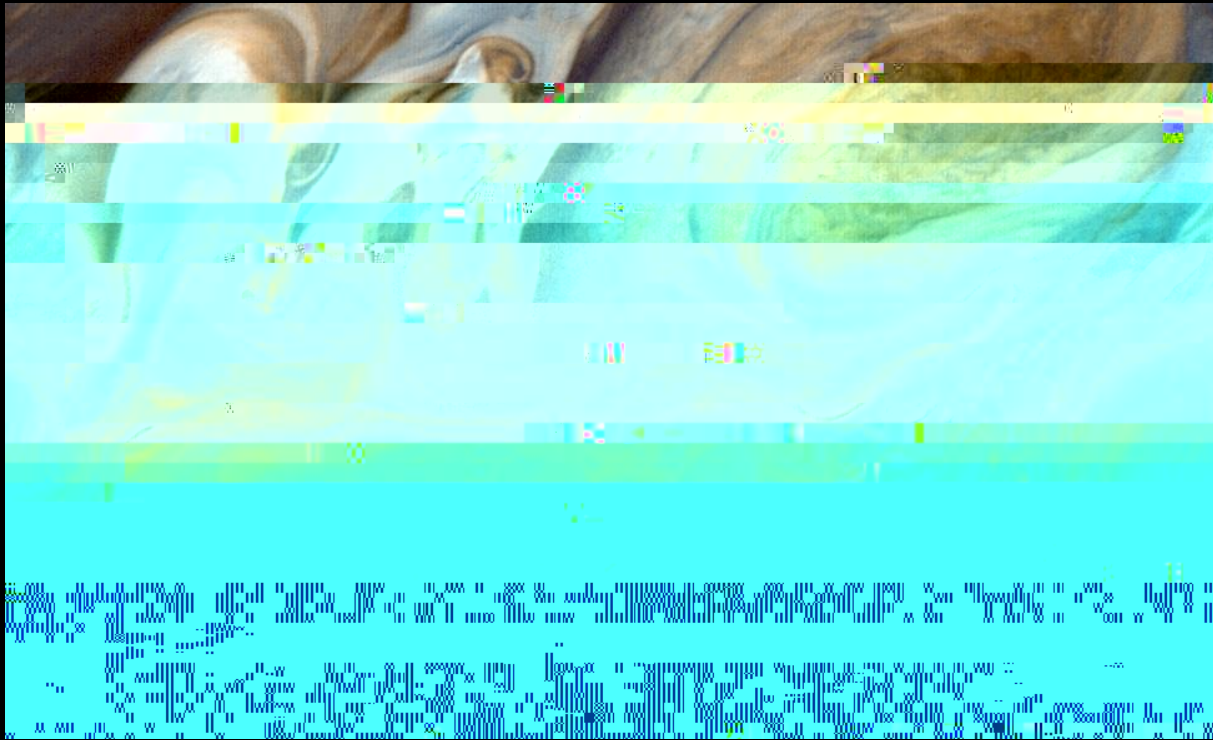
## Chapter 13 Positive Externalities and Public Goods



# CH.13 OUTLINE



# View from Voyager



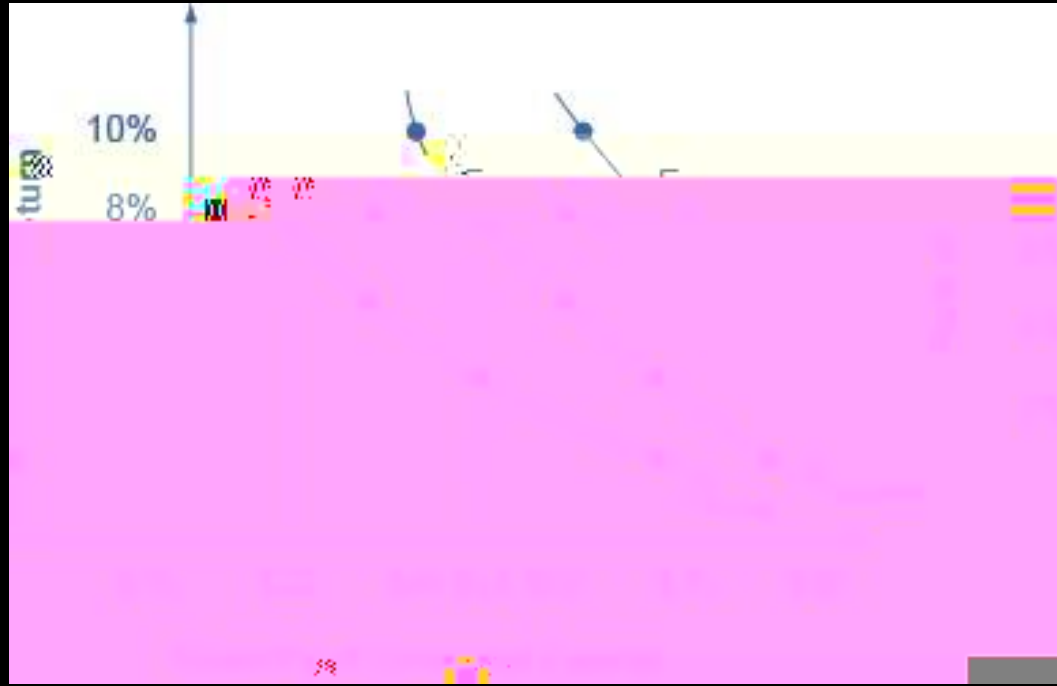
# 13.1 Why the Private Sector Underinvests in Innovation



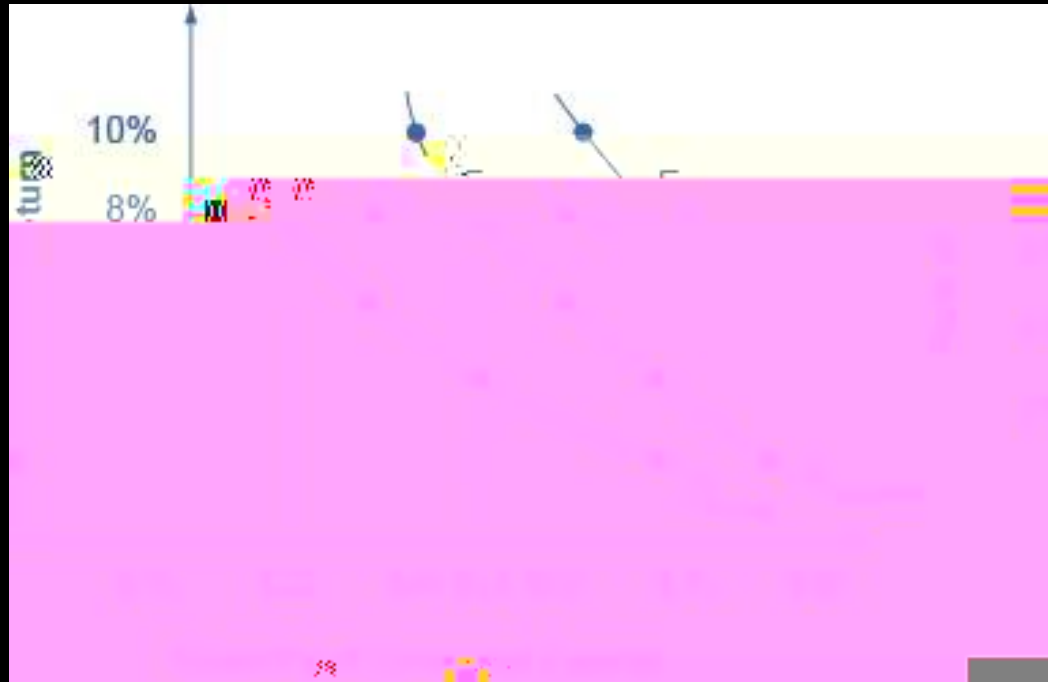
# The Positive Externalities of New Technology



# Positive Externalities and Technology



# Positive Externalities and Technology, Continued







# Society Gains When People Learn





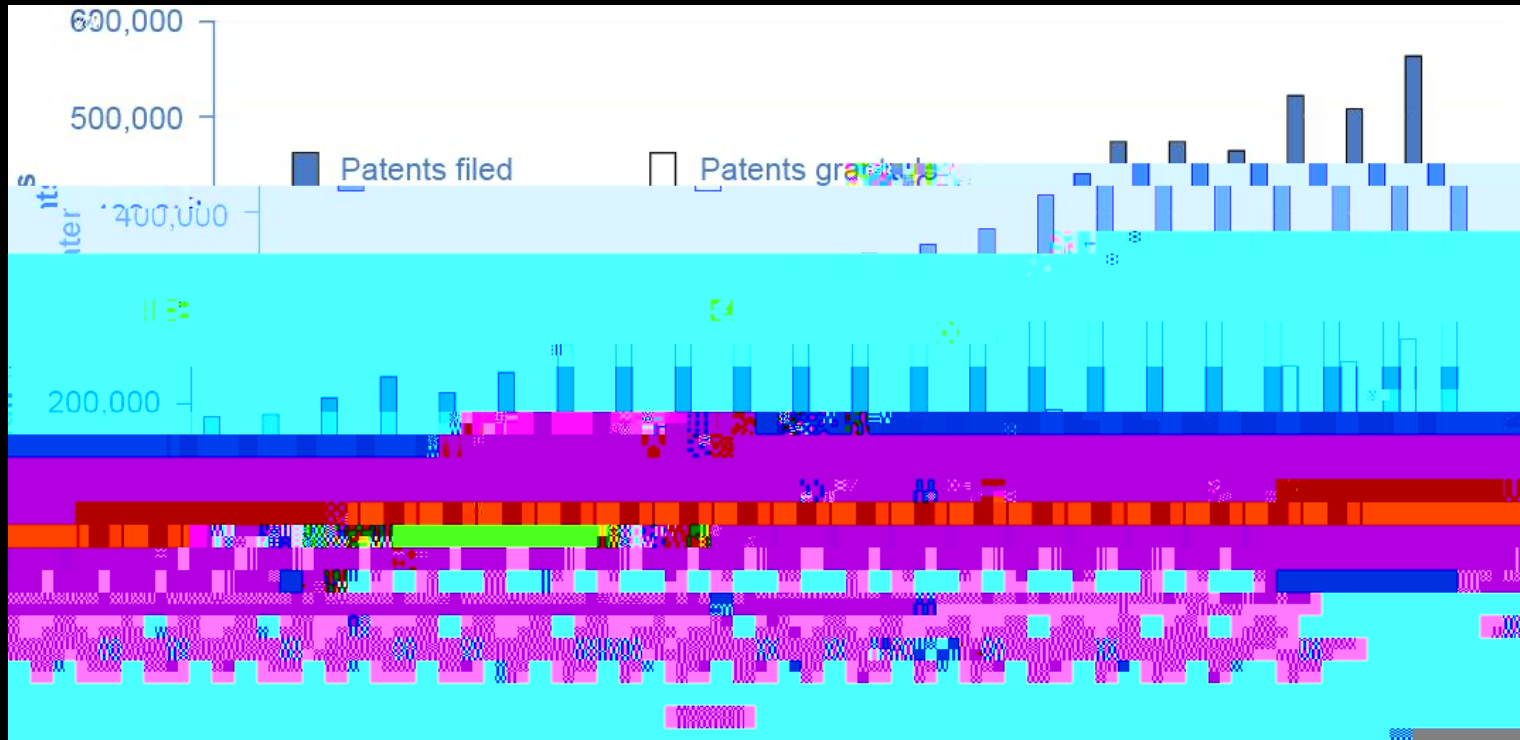




# 13.2 How Governments Can Encourage Innovation



# Patents Filed and Granted, 1981-2012



# Government Spending on Research and Development





# Tax Breaks for Research and Development



# Cooperative Research



## 13.3 Public Goods

# The Free Rider Problem of Public Goods



# The Role of Government in Paying for Public Goods





