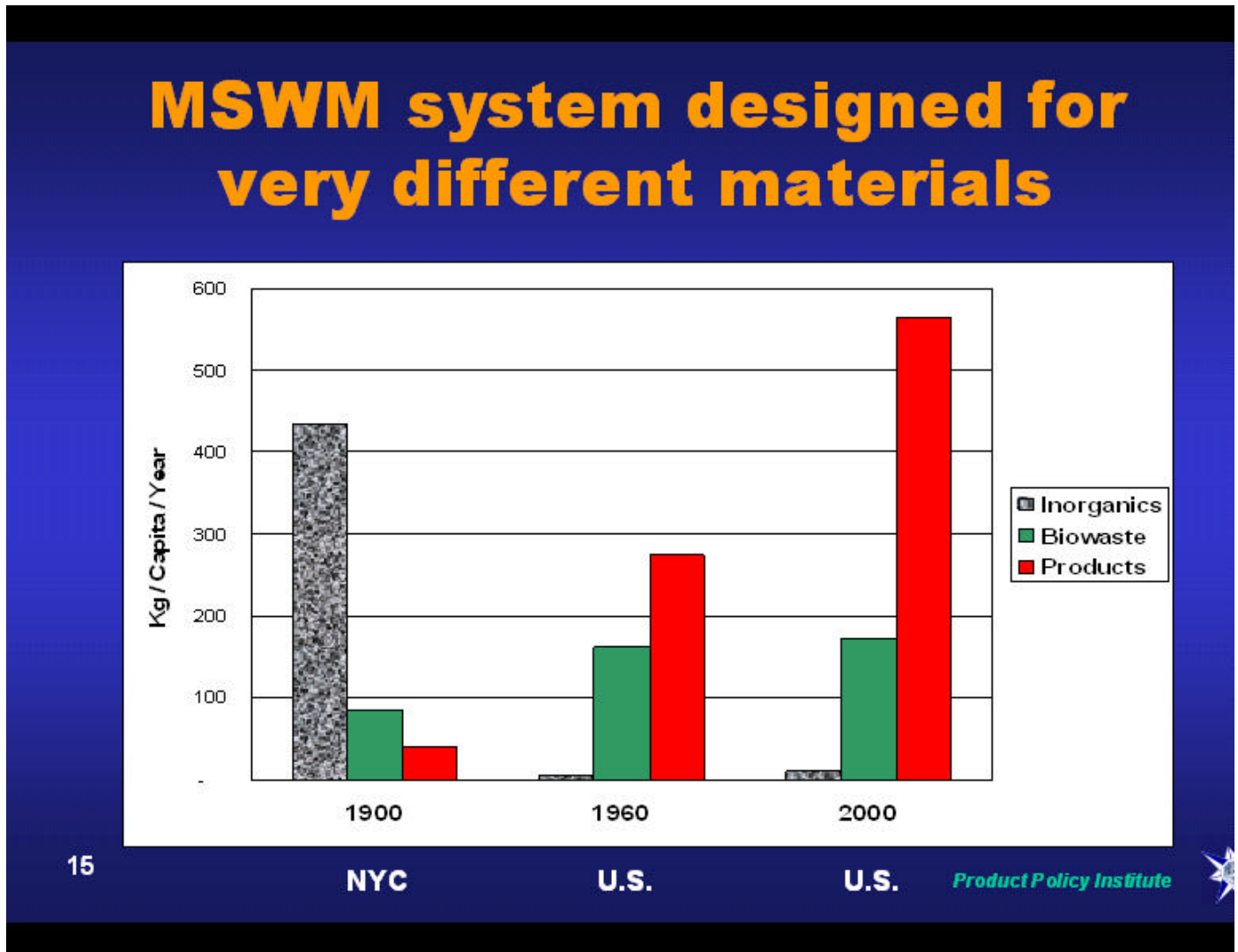


Attachment E: Changes In Municipal Solid Waste Volume and Composition

Figure 1: Changes in Per Capita Waste Disposal Volume and Composition



Notable trends in per capita municipal solid waste disposal:

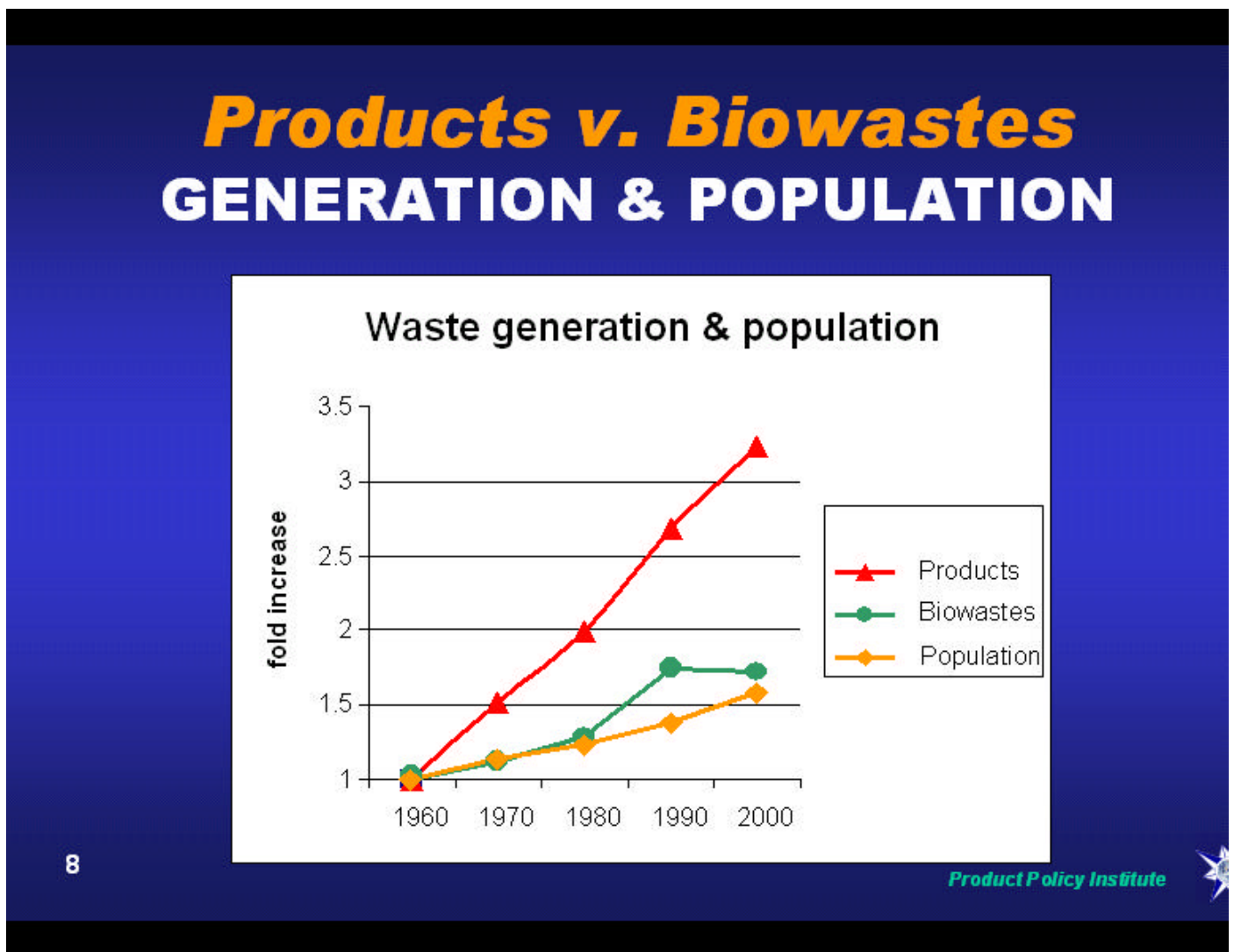
- Since 1960 per capita disposal of biowastes (food and yard trimmings) has increased less than 10%.
 - Most of the increase in biowaste generation has been offset by increases in diversion of yard trimmings from landfills to higher and better uses such as composting
- Since 1960 per capita disposal of product wastes (including packaging) has doubled
 - Product waste is now 75% of all municipal solid waste (MSW)
 - The putrescible (wet) garbage that MSW systems were set up to handle now comprise only 25% of what is disposed
 - Over time MSW systems have become the convenient dumping ground for an increasingly complex, disposable, and toxic stream of products and packaging

Product Waste Toxics Threaten Public Health

Landfills are the number one source of human-made methane, the second most important greenhouse gas, as well as the source of "leachate," a toxic liquid that most experts agree will

eventually seep into the groundwater under every landfill ever built. The last landfill to operate in Boulder County, CO was closed in 1992 and declared a Superfund site due to groundwater contamination of nearby drinking water. Since closing, the City of Boulder and the landfill owner have spent over \$14 million in groundwater and site clean-up activities. In 2005, groundwater contamination stalled expansion plans for Sonoma County's Central Landfill and required immediate commencement of costly shipping of waste out of the County. The eventual and inevitable leakage of landfills portend potential future legal and financial liabilities for local governments, garbage franchisees, and/or landfill owners for remediation activities, alternate drinking water sources, and increased costs for waste disposal in more remote areas and/or employing expensive capital-intensive strategies with their own environmental and health risks. Similarly, mass-burn incineration and other high temperature thermal processing technologies produce an array of toxic solid, liquid, and gaseous by-products and outputs, many of which threaten public health even at very low levels (e.g., mercury and other heavy metals).

Figure 2: Per Capita Waste Disposal



Notable Trends in waste disposal since 1960:

- US population has increased 160%
- Biowastes (food + yard trimmings) have increased 175%, slightly ahead of population
- Product waste has increased 320% - double the rate of population increase