

NAR Data Breakdowns 2008

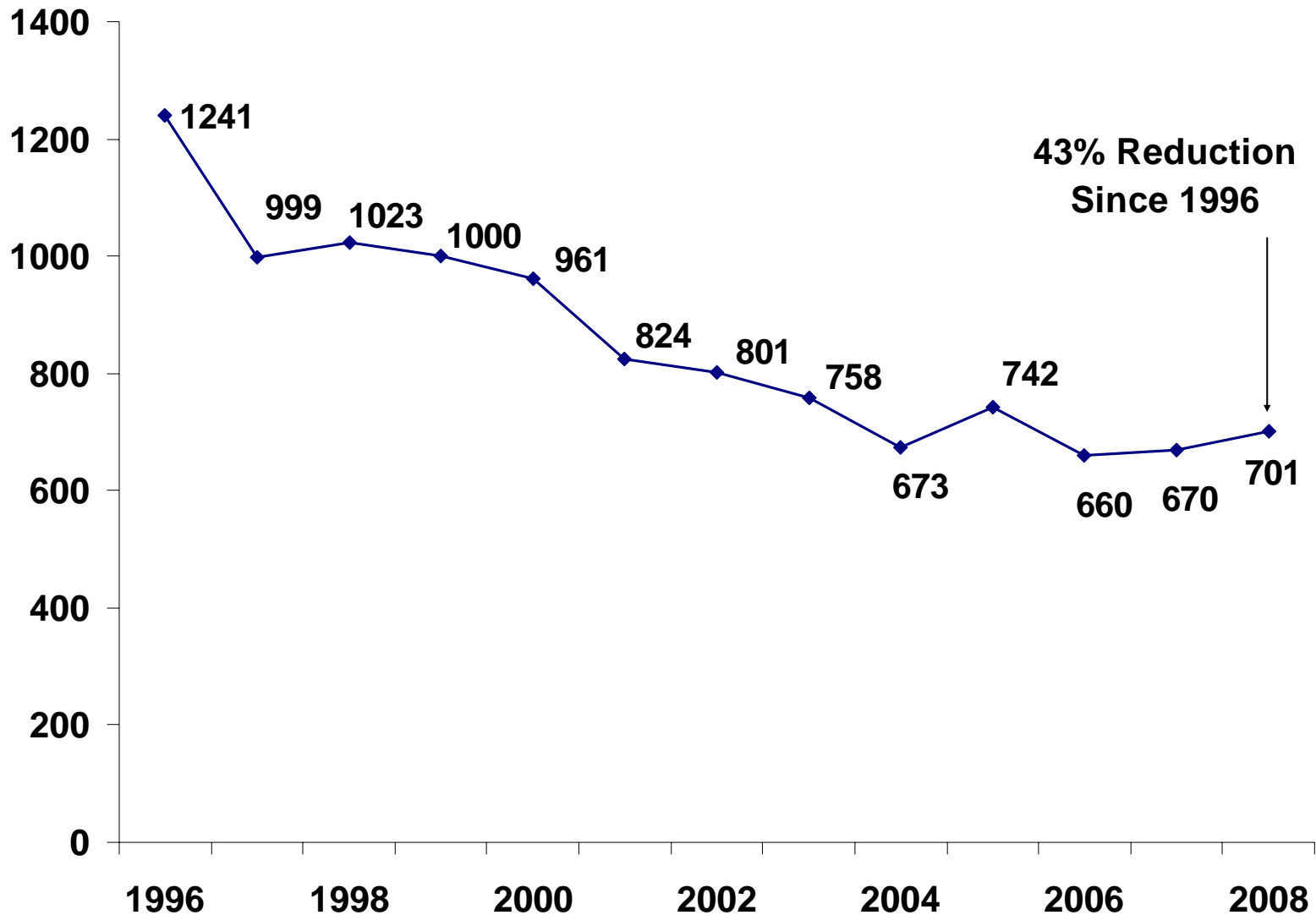
April 15, 2009

Source of data: AAR/BOE Database
& Annual Hazmat Reports

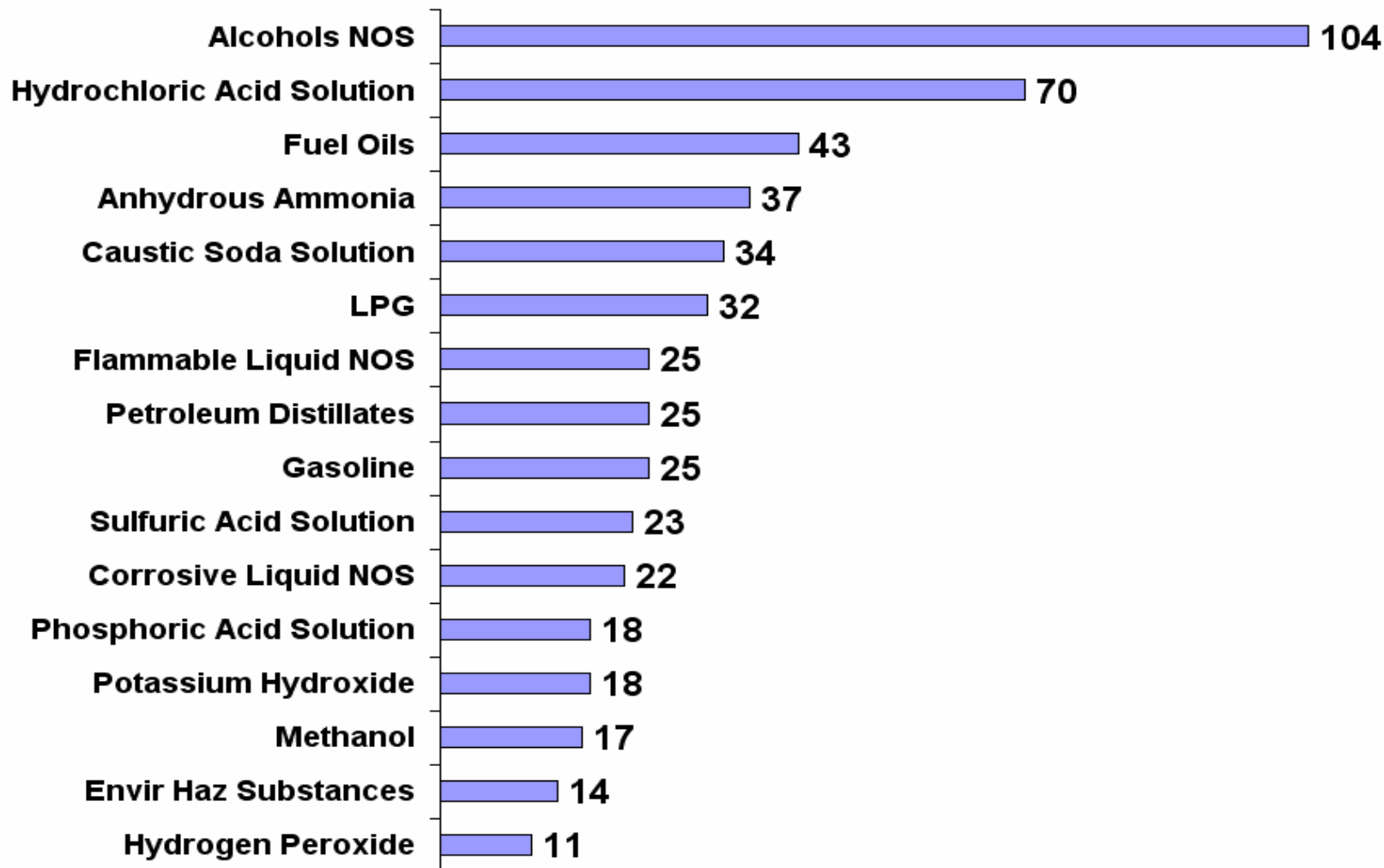
Todd Treichel
ttreichel@aar.org
<http://nar.aar.com>

NARs by Year

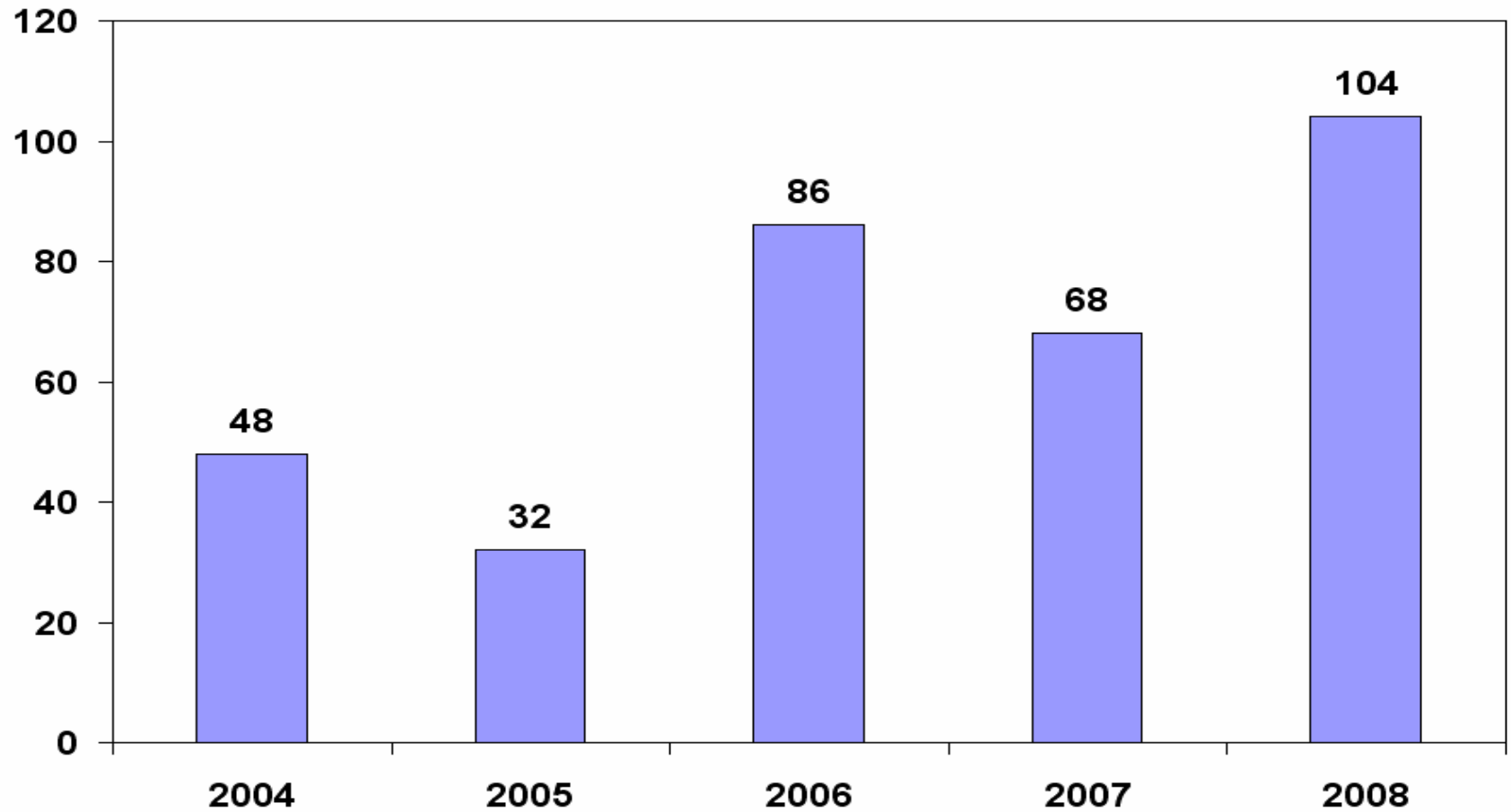
US & Canada



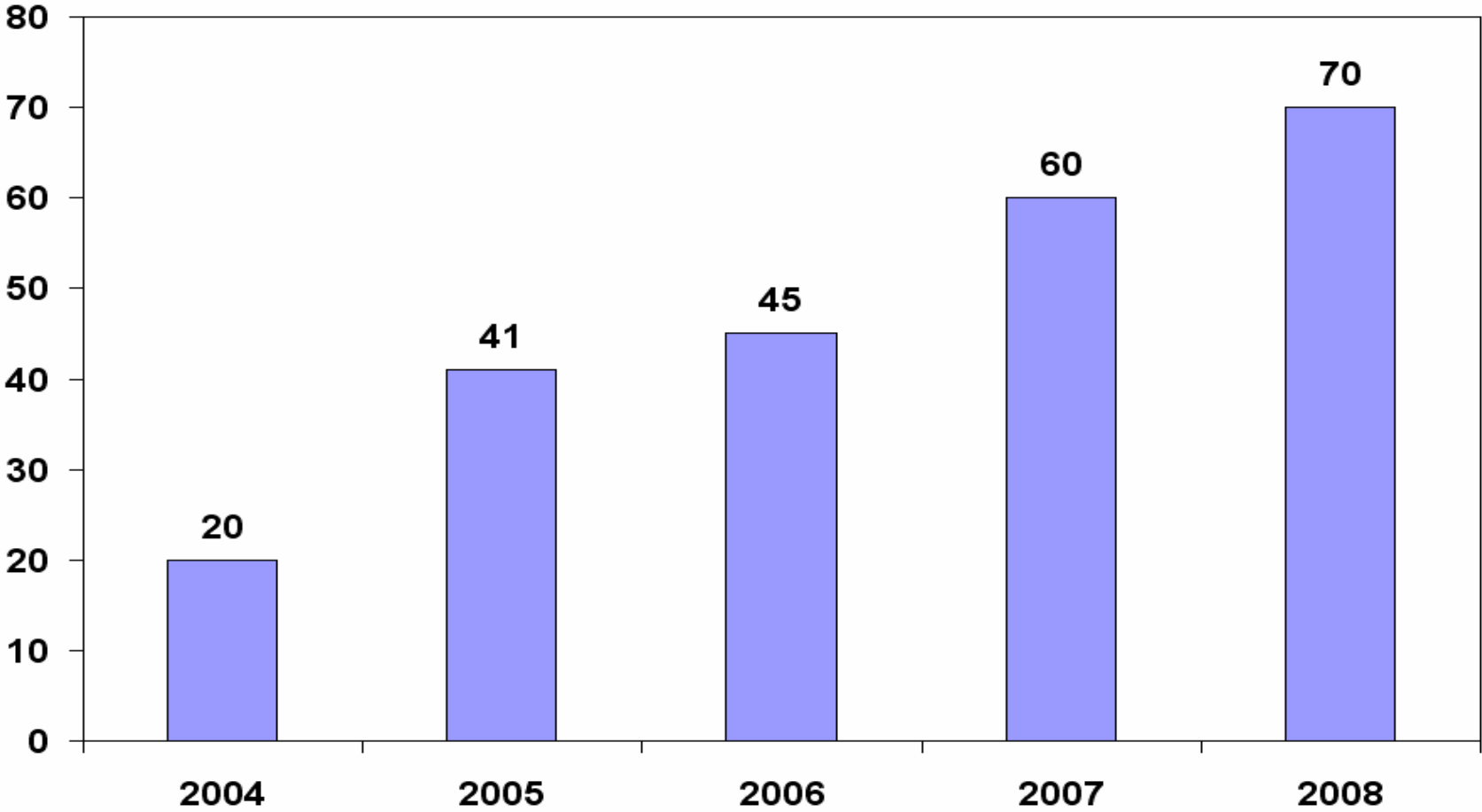
Top Commodities for NARs 2008



Alcohols NOS Trend

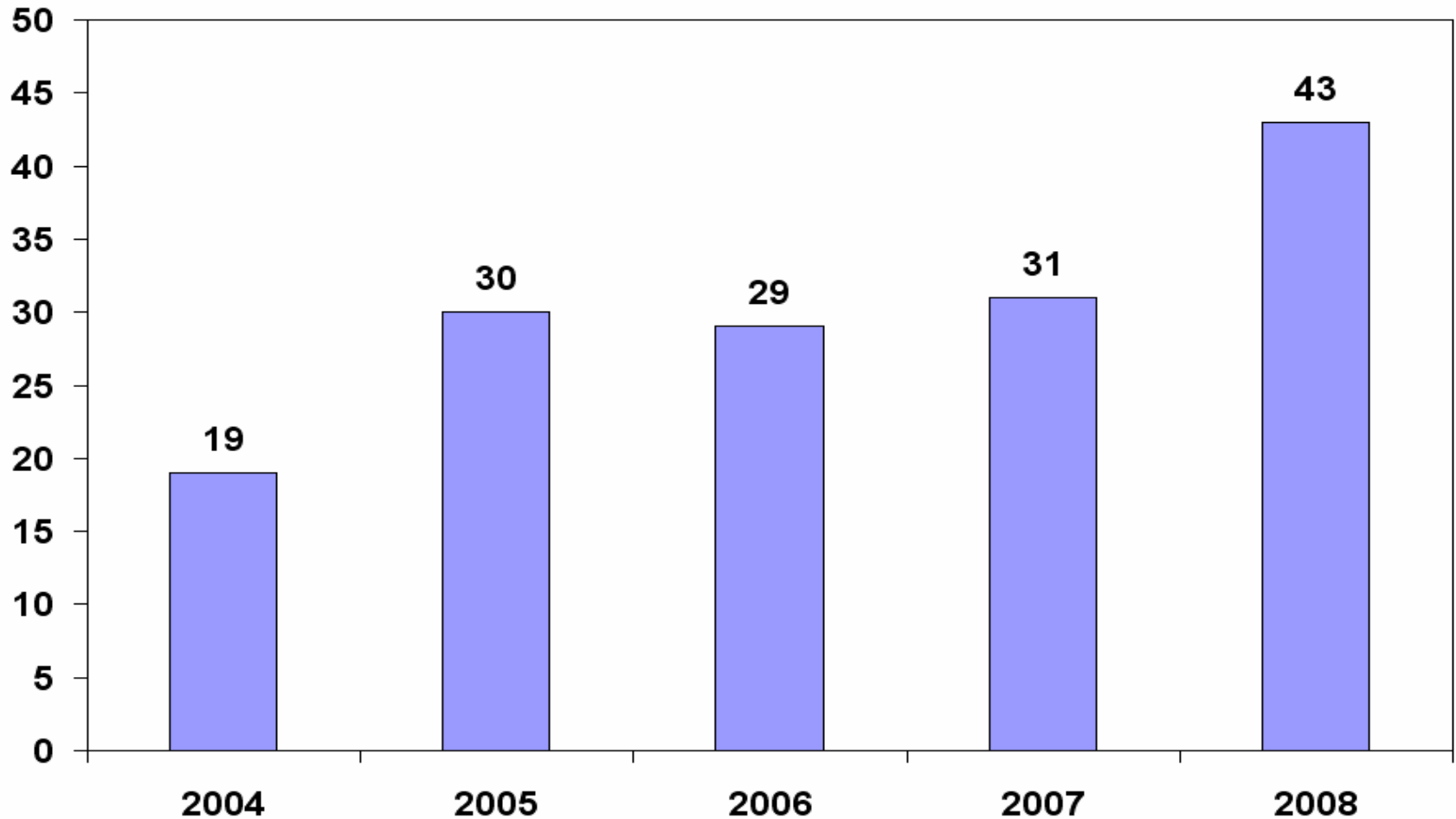


Hydrochloric Acid Solution Trend

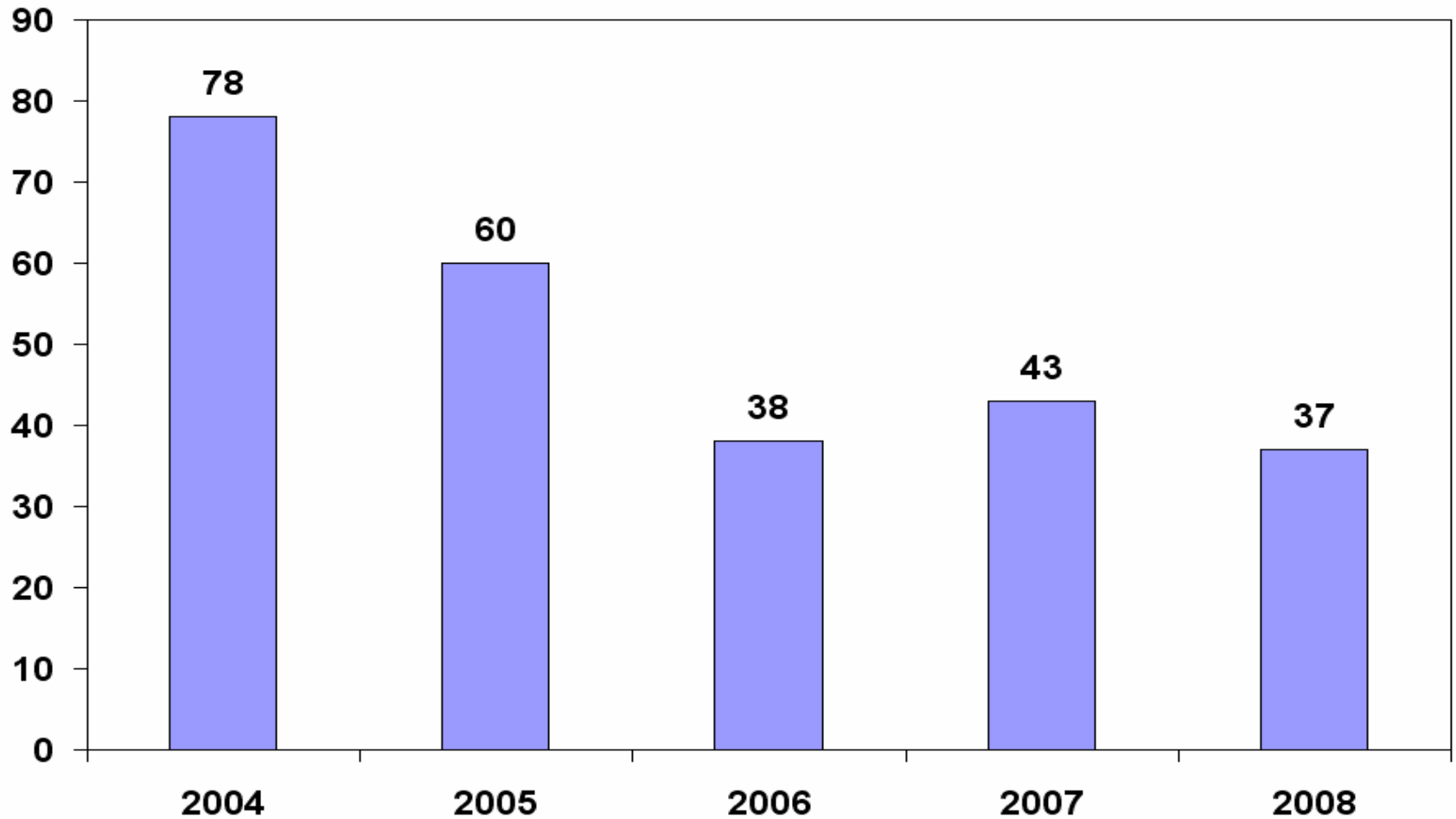


Fuel Oils Trend

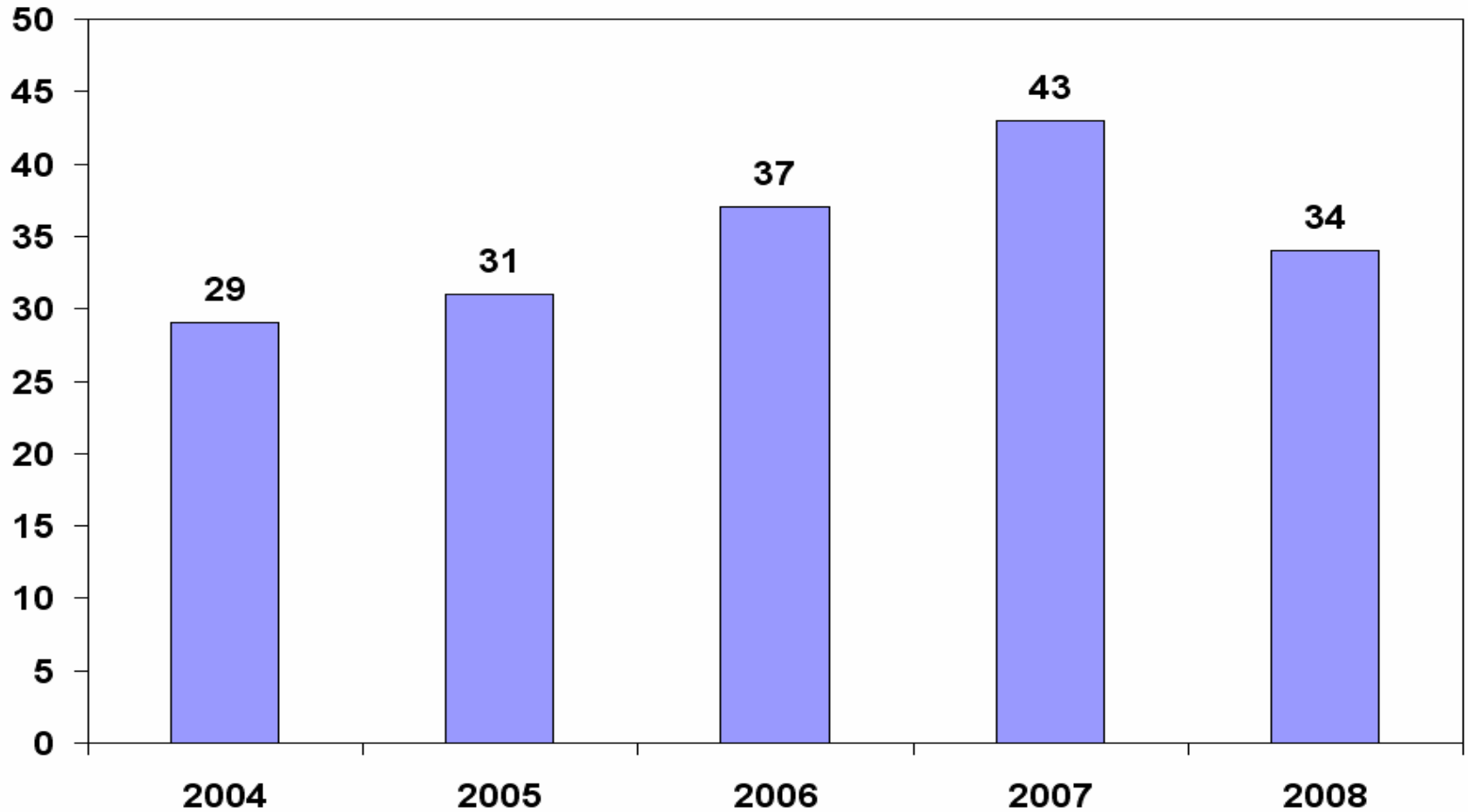
Includes Diesel Fuel, Aviation Fuel, Fuel Oil, Kerosene



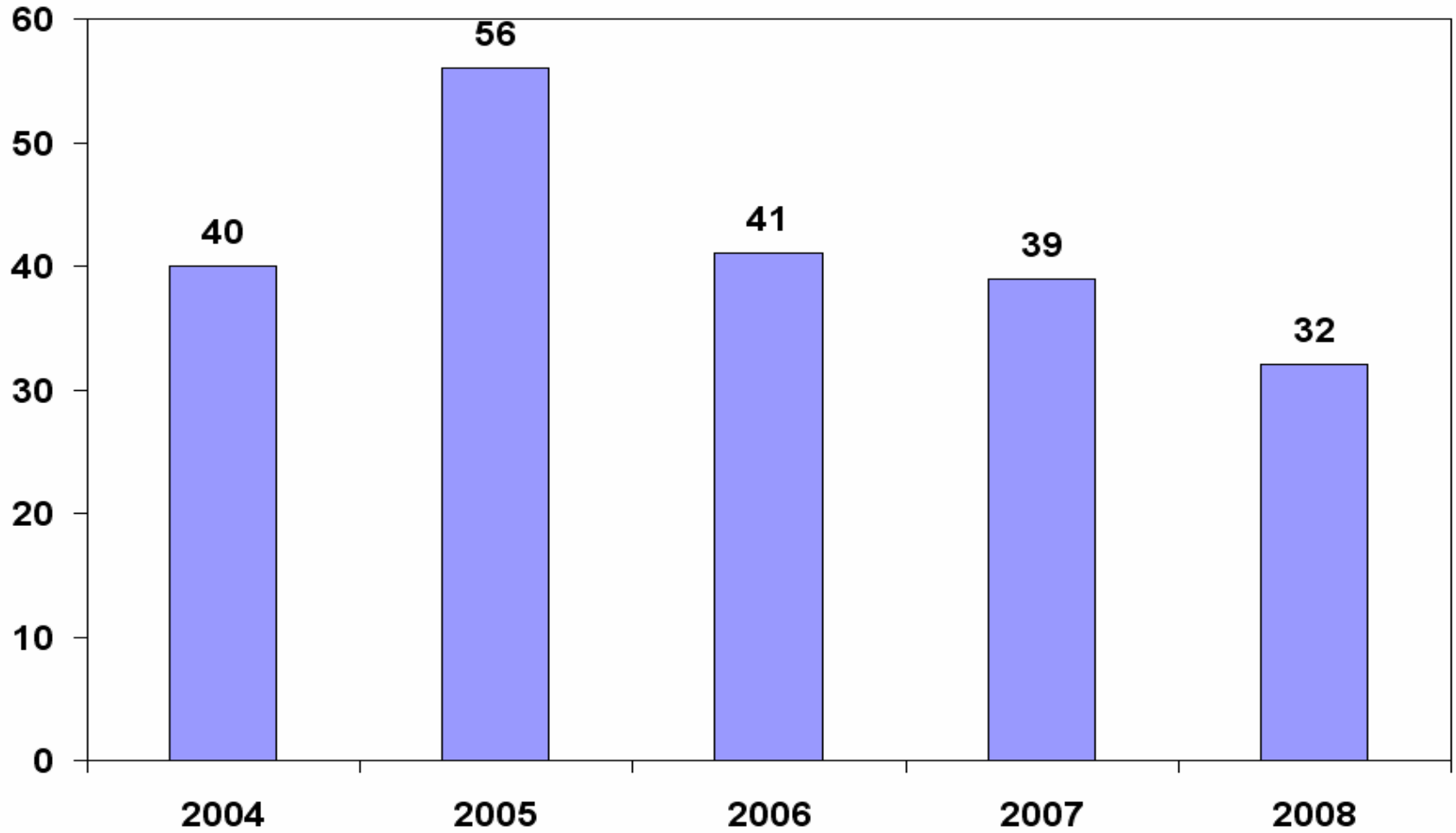
Anhydrous Ammonia Trend



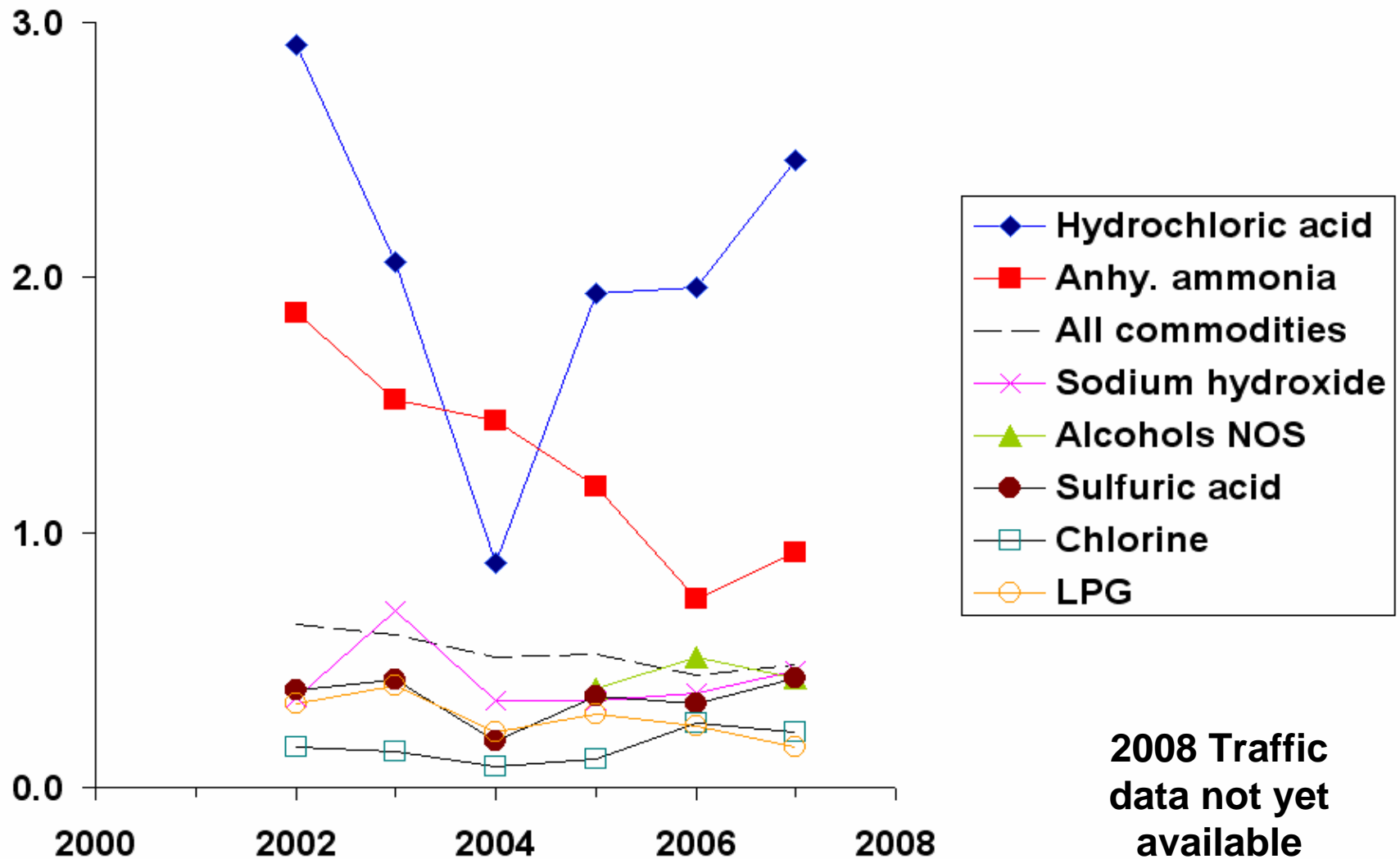
Sodium Hydroxide Solution Trend



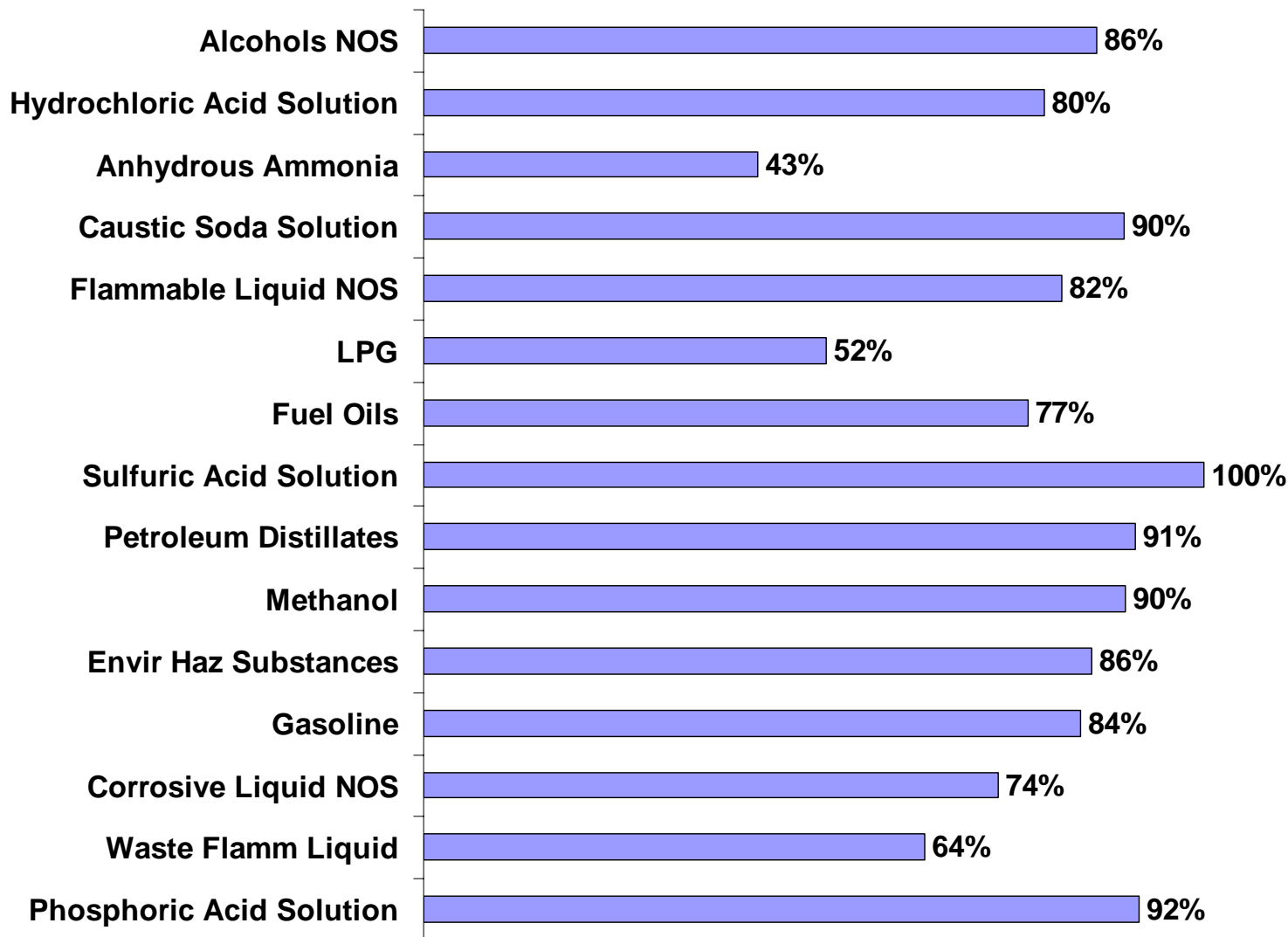
LPG Trend



NARs per 1,000 Originations Selected Commodities - 2007

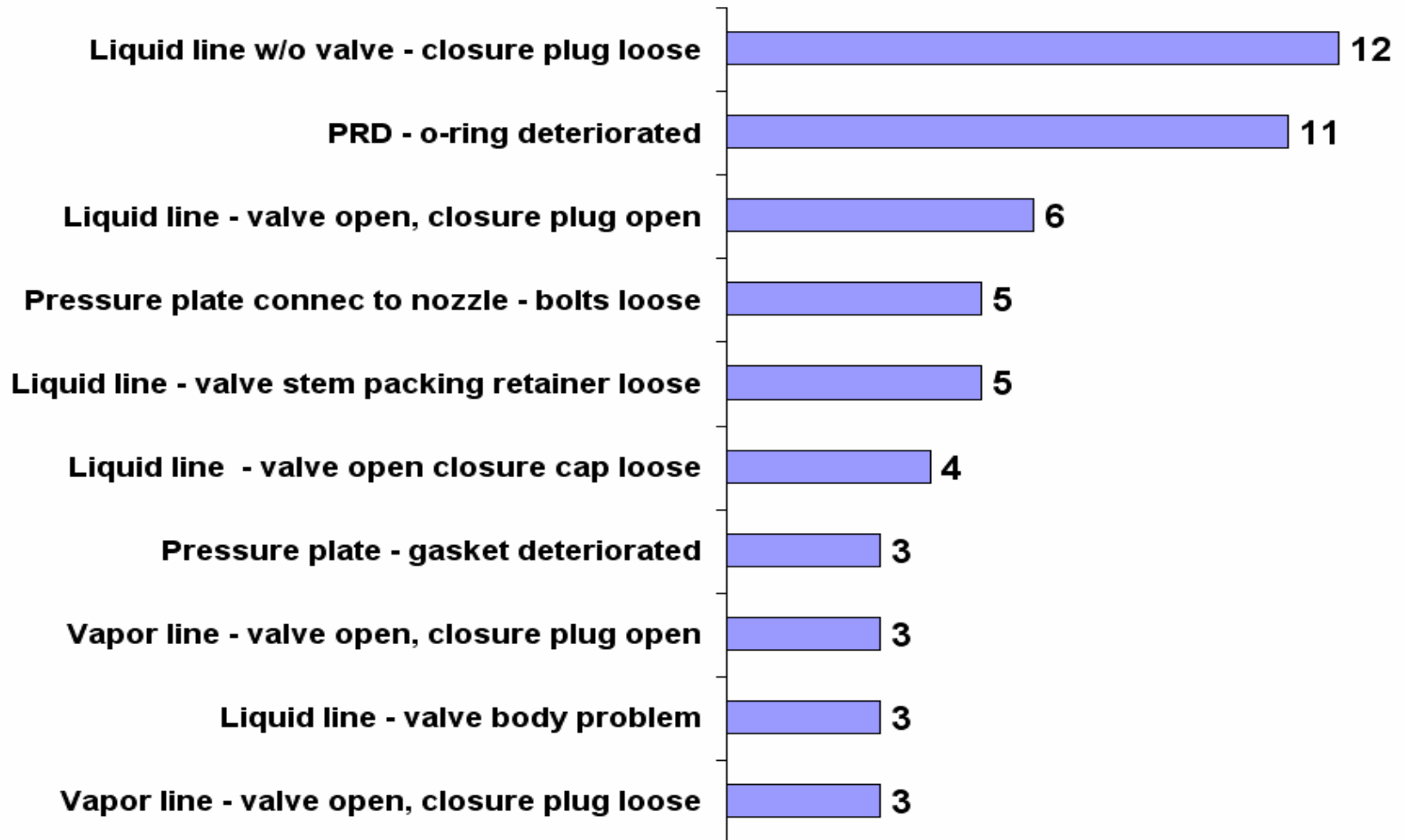


Percent of NARs Occurring on Loaded Trips - 2007

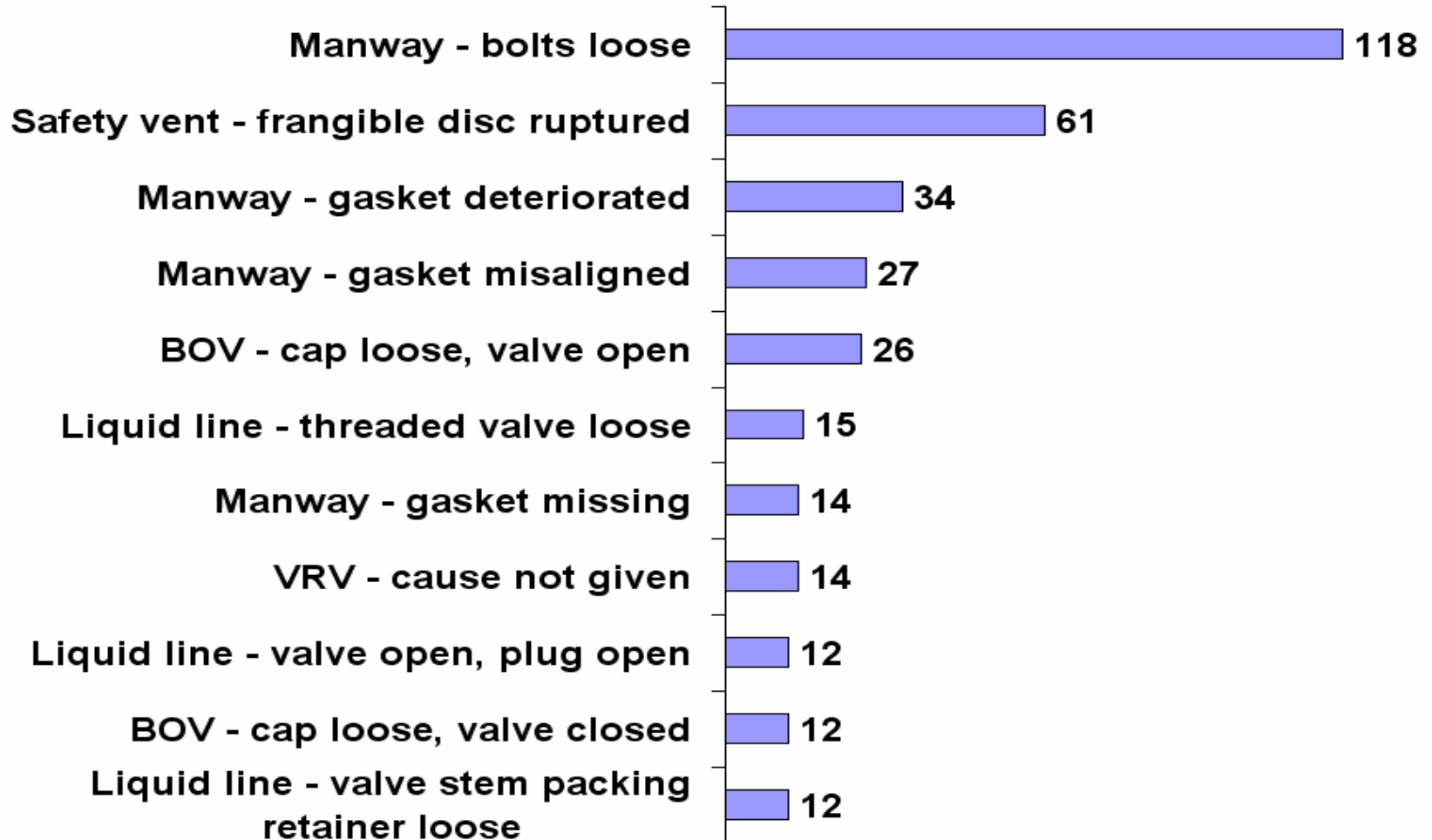


Top Specific Causes for Pressure Cars

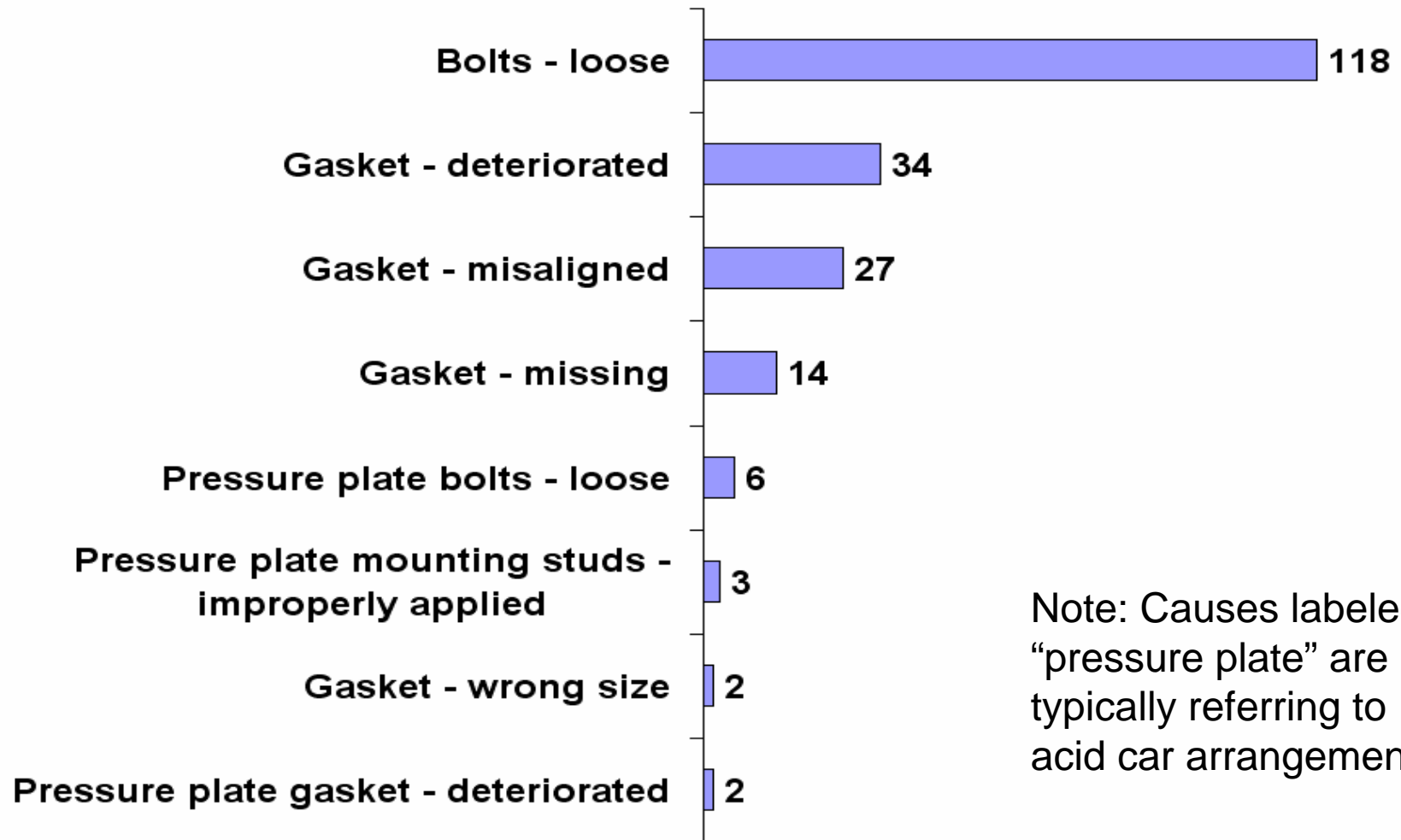
2008



Top Specific Causes for Nonpressure Cars 2008

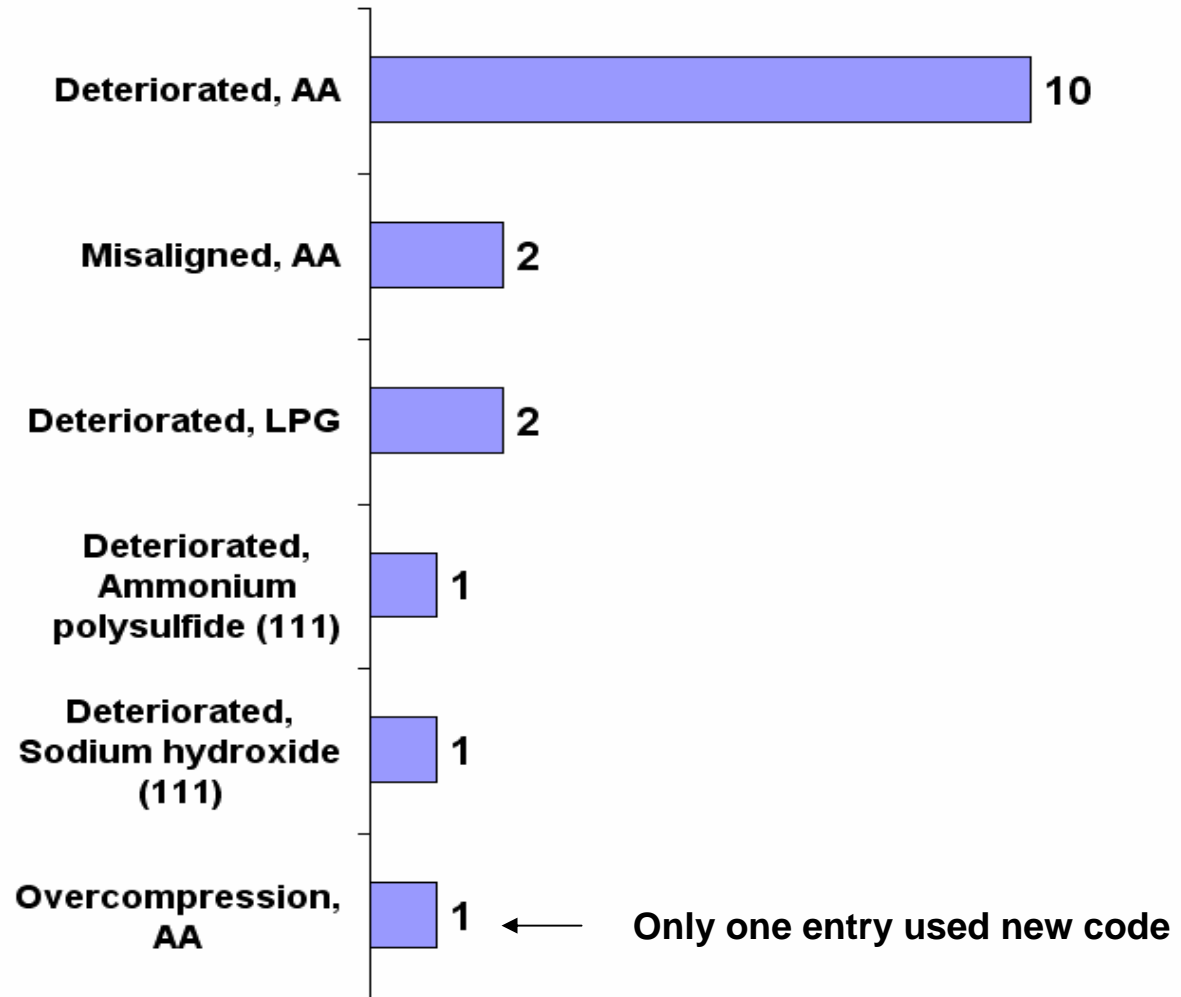


Manway Causes for Nonpressure Cars 2008

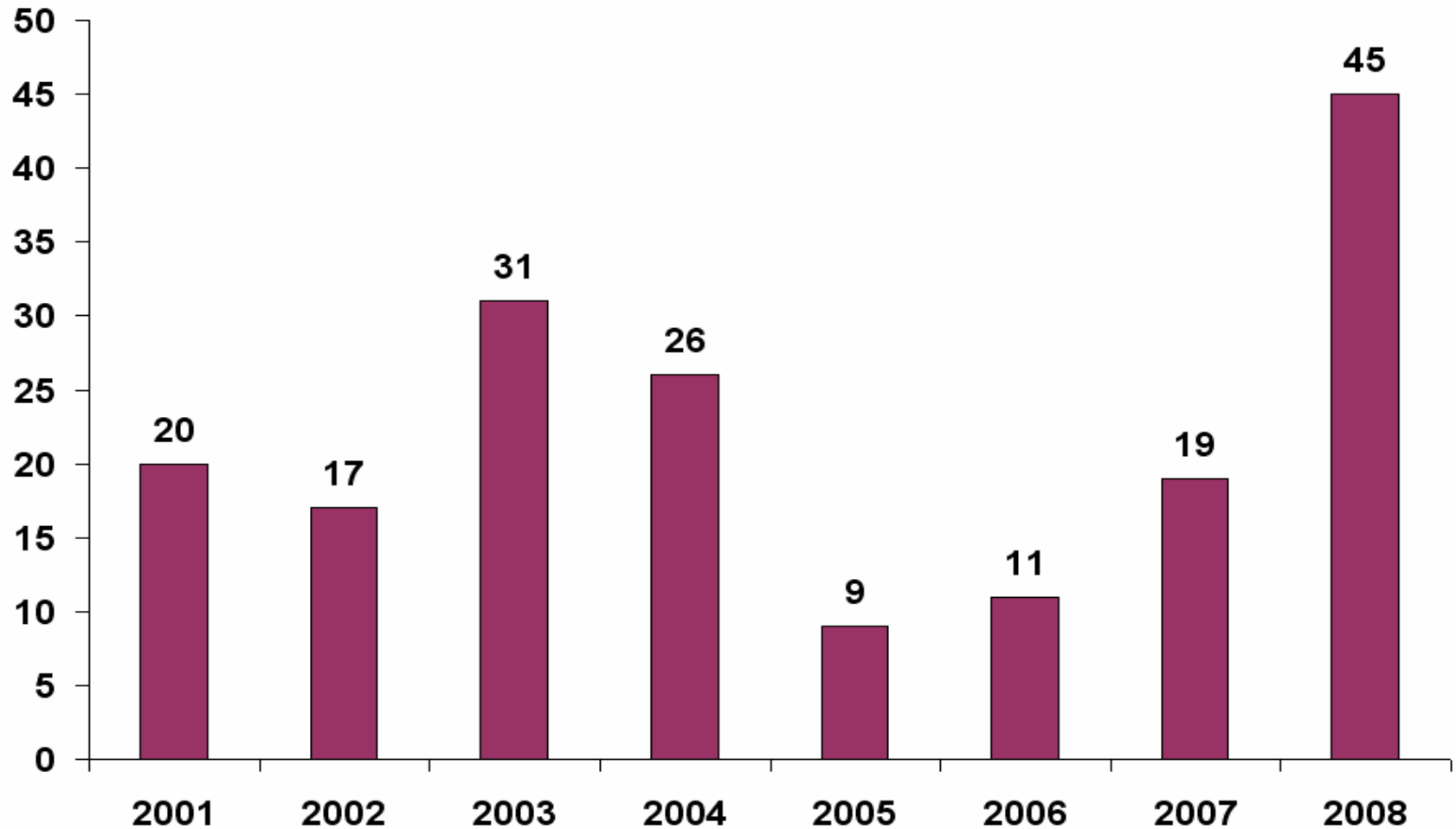


Note: Causes labeled “pressure plate” are typically referring to acid car arrangements

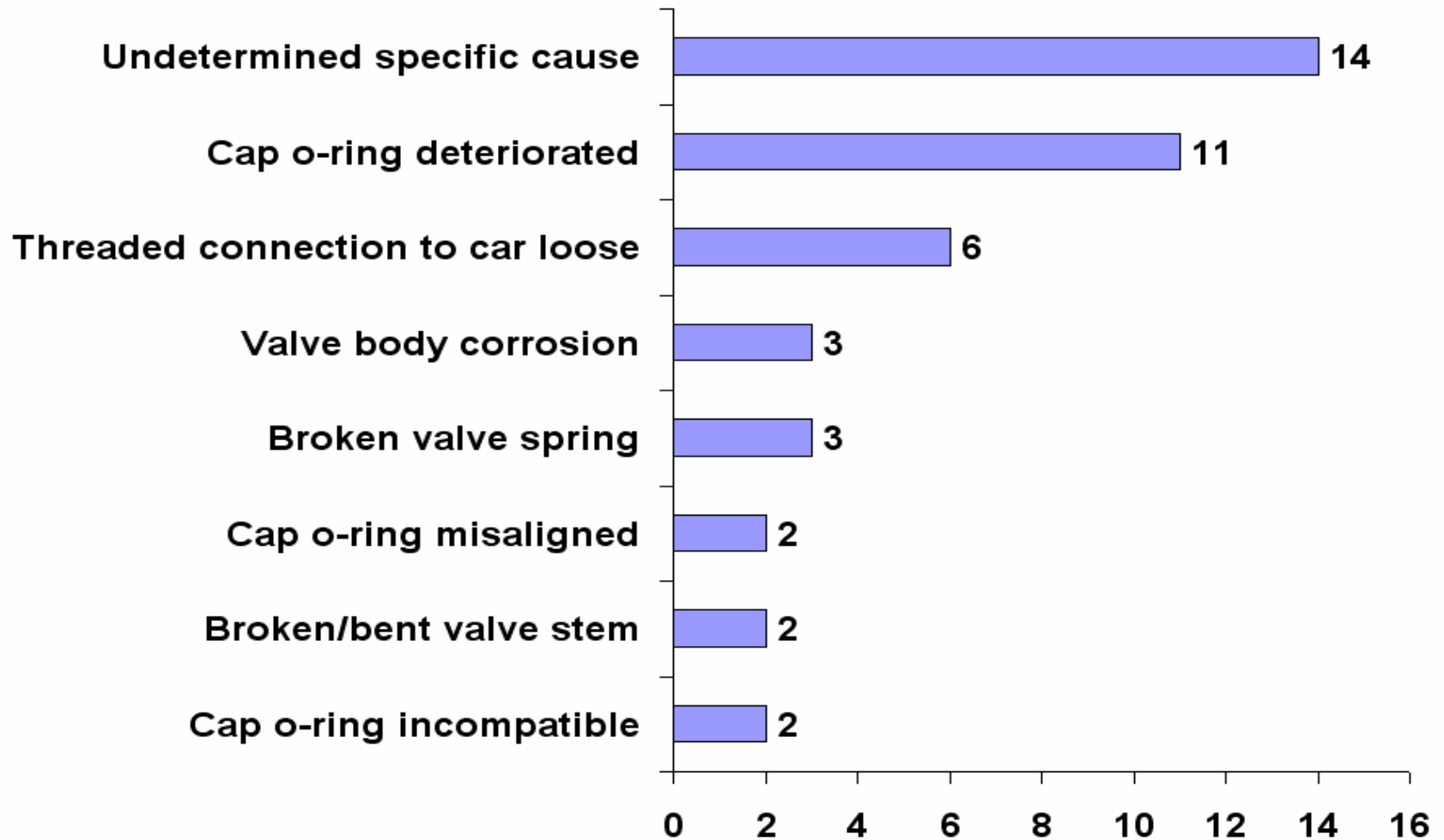
PRV O-ring NARs 2008



Vacuum Relief Valve NARs 2001- 2008

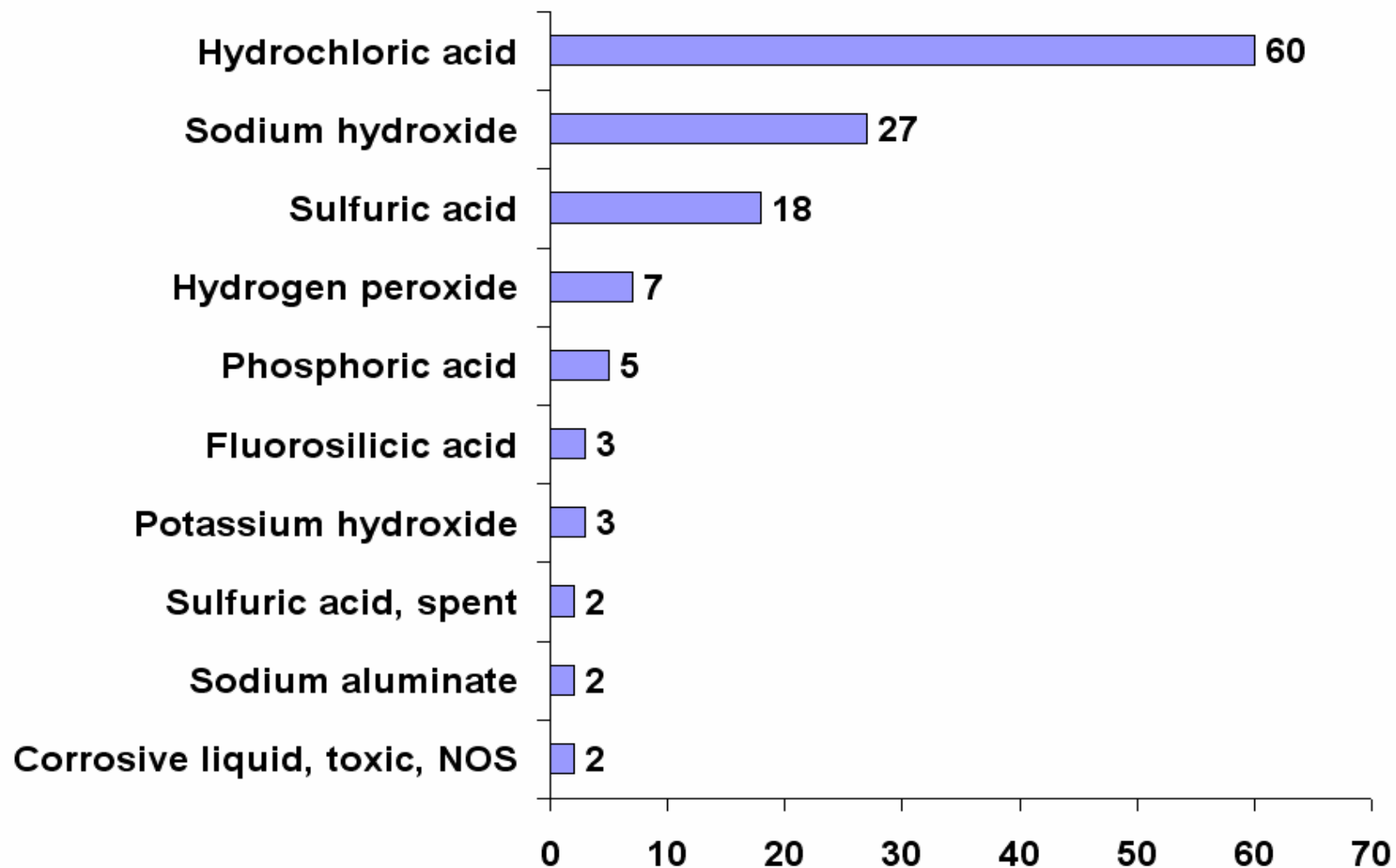


Vacuum Relief Valve NAR Causes 2008



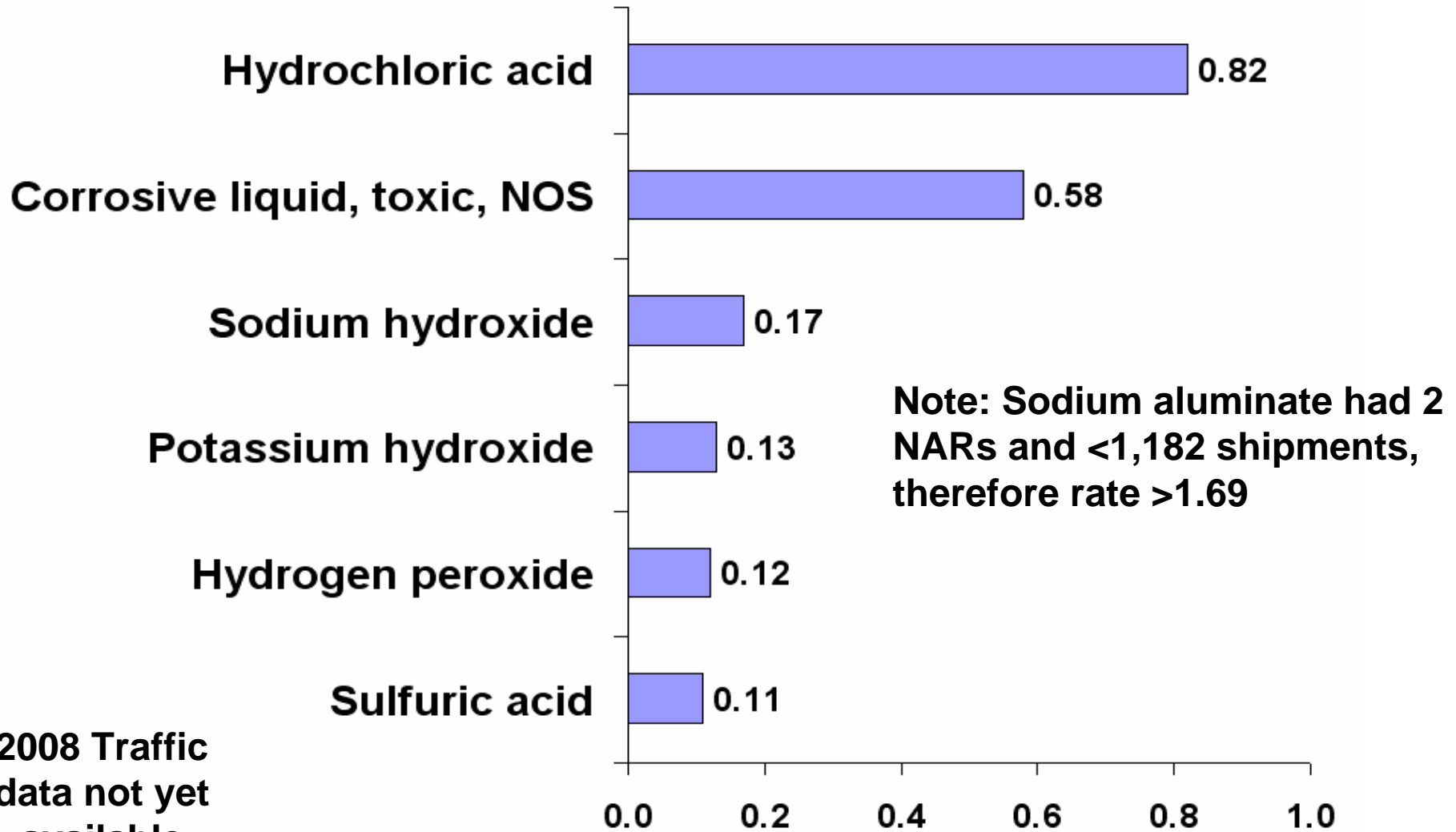
Frangible Disc NARs by Commodity

2007-2008



Frangible Disc NAR Rates per 1,000 Shipments

2007



2008 Traffic
data not yet
available

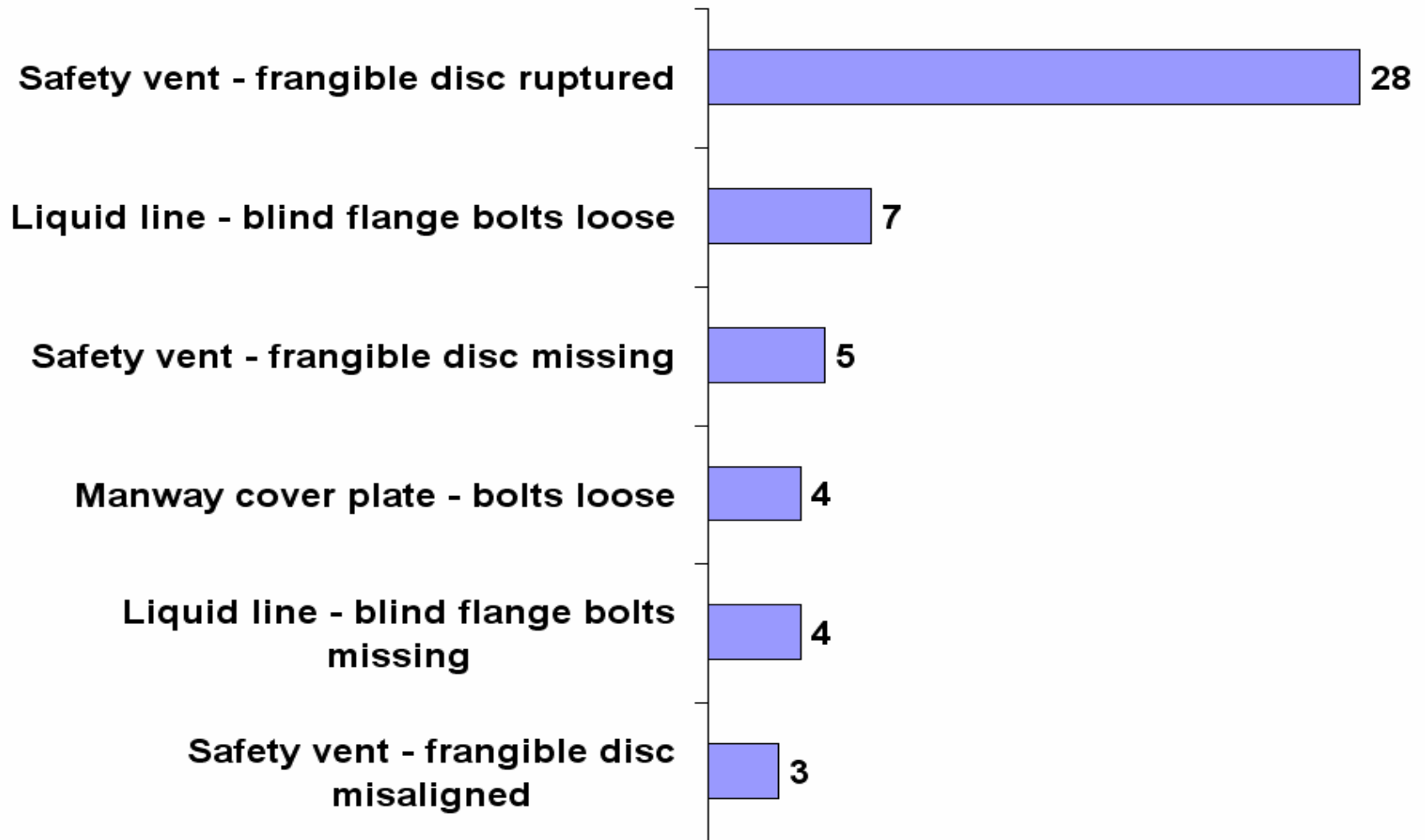
Burst Frangible Discs

Distance Between Origin and NAR

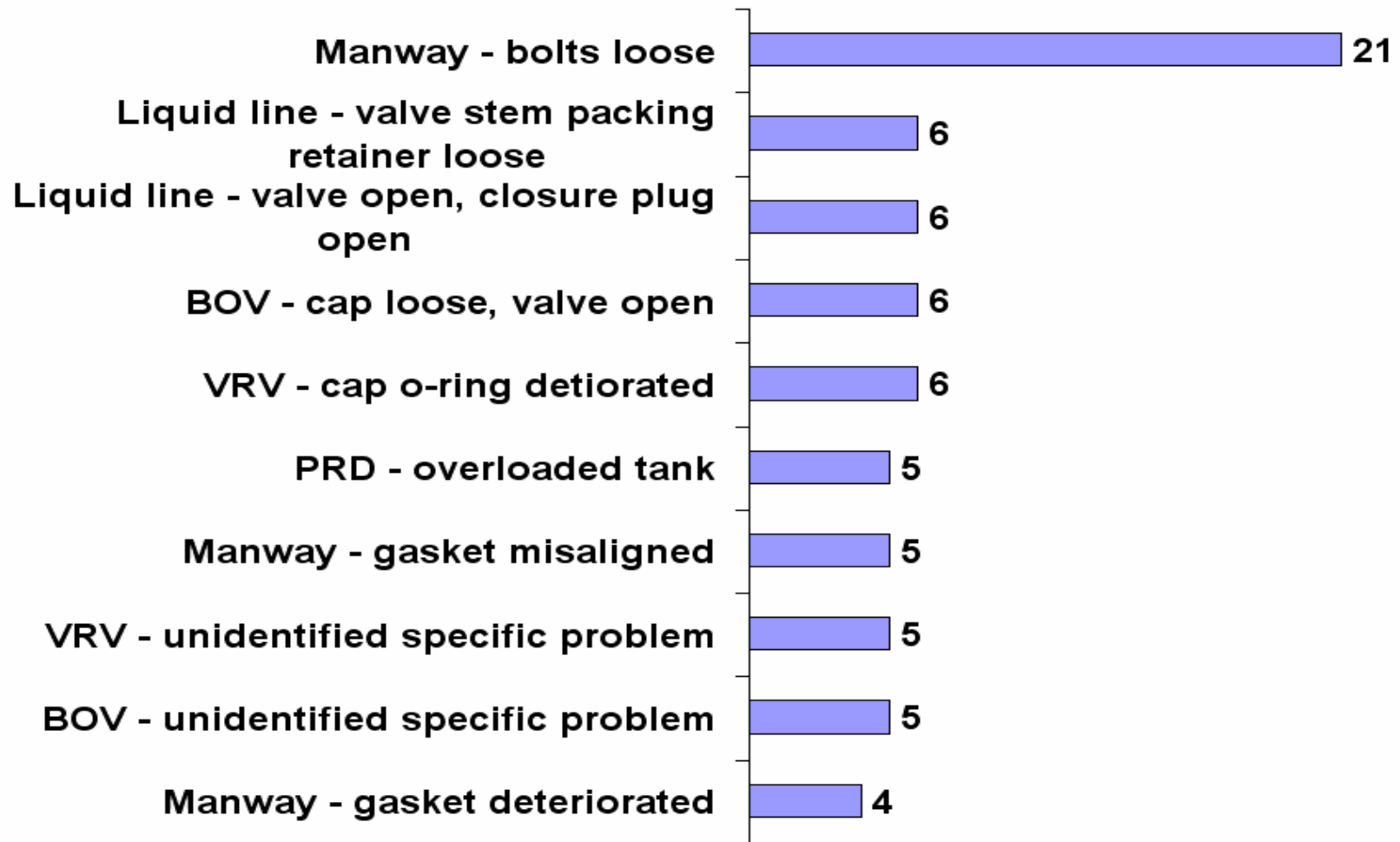
One Railroad, 2005-2008

	Average Distance	No.of NARs	High Distance	Low Distance
Hydrochloric acid	278	13	540	20
Sodium hydroxide	415	4	700	20
Hydrogen peroxide	935	2	1,140	730
Sulfuric acid	650	2	740	560
Potassium hydroxide	1,365	2	2,290	440
Phosphoric acid	350	1	350	350
<i>Overall</i>	<i>403</i>	<i>24</i>	<i>2,290</i>	<i>20</i>

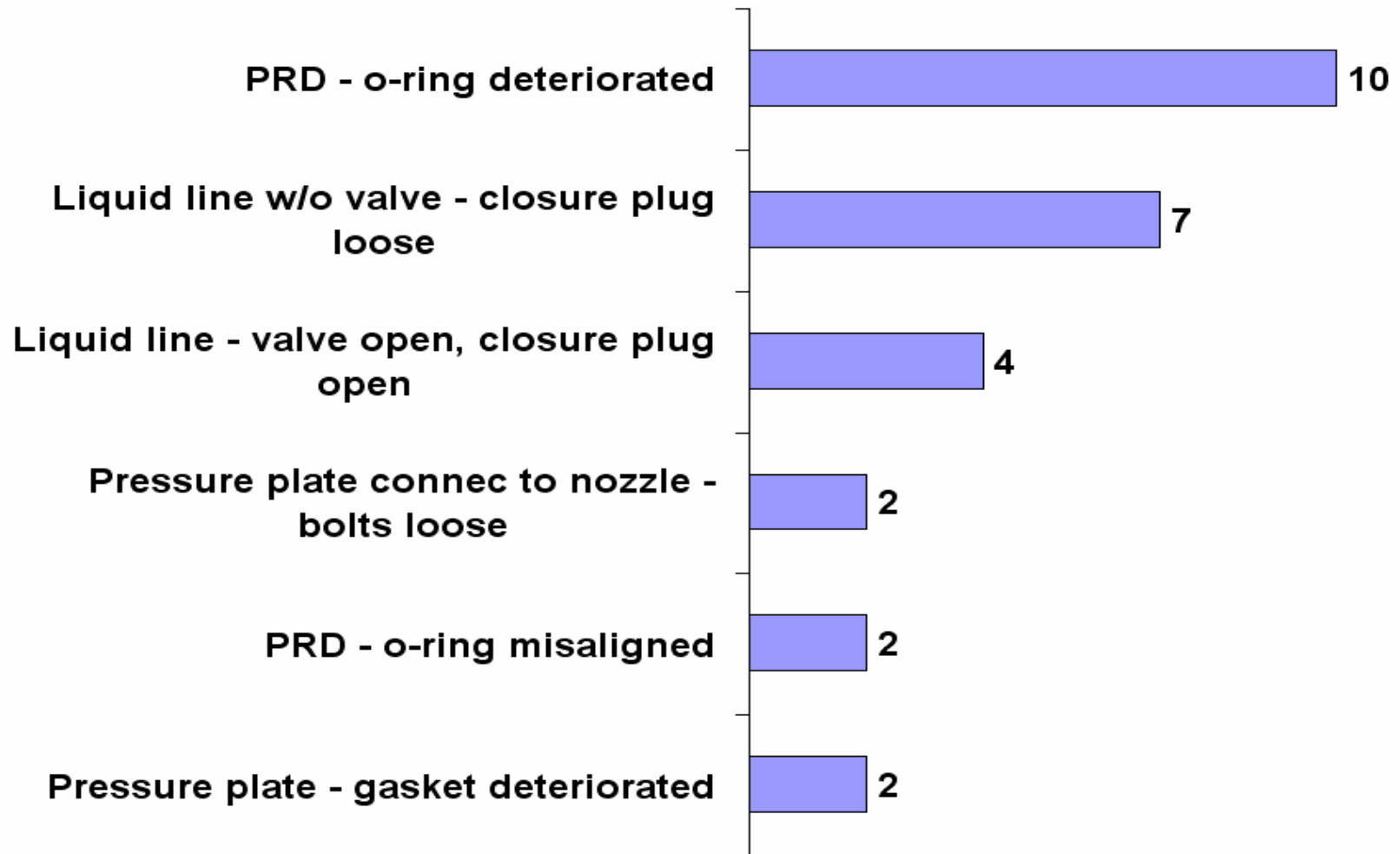
Top Specific Causes for Hydrochloric Acid Solution 2008



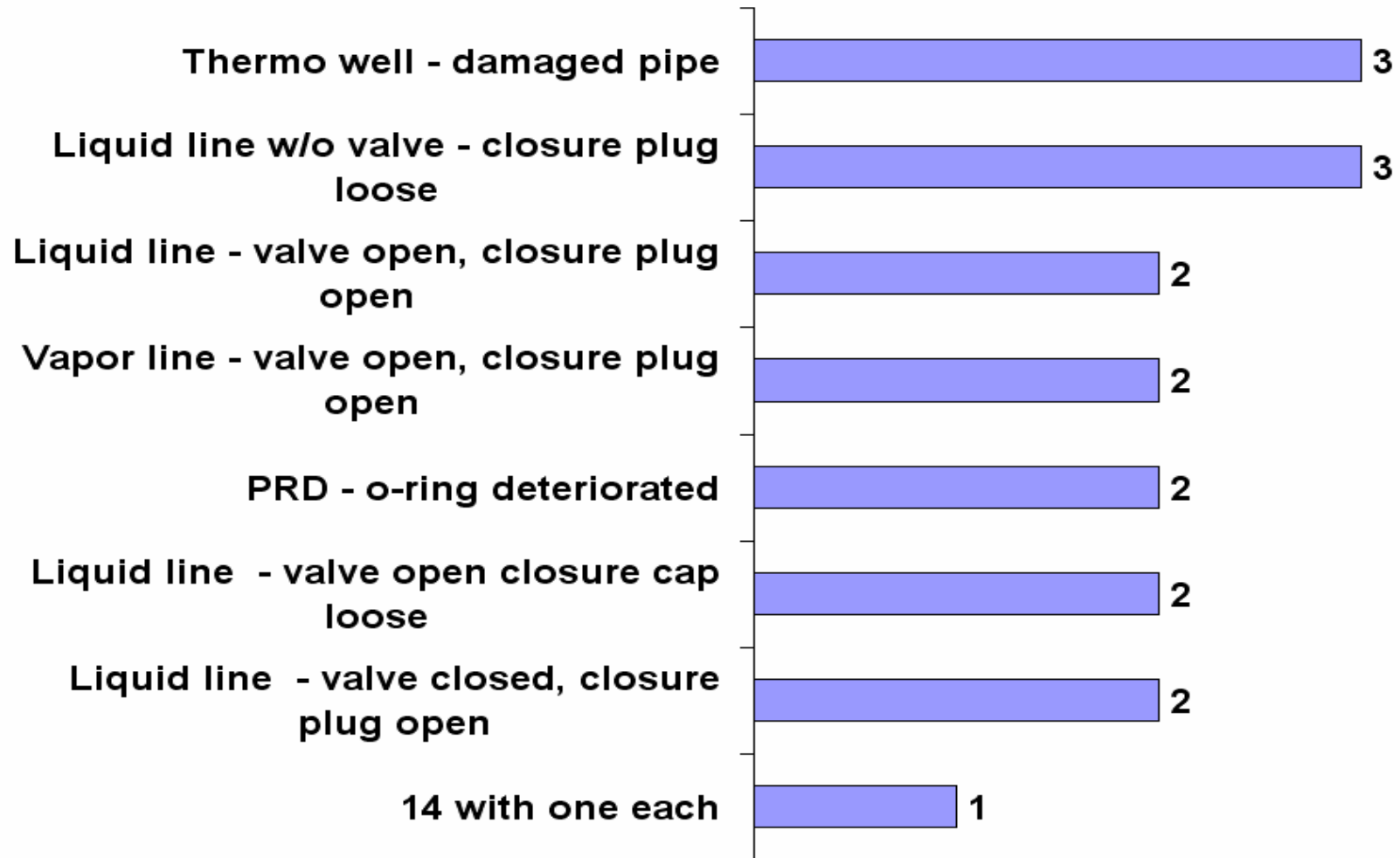
Top Specific Causes for Alcohols NOS 2008



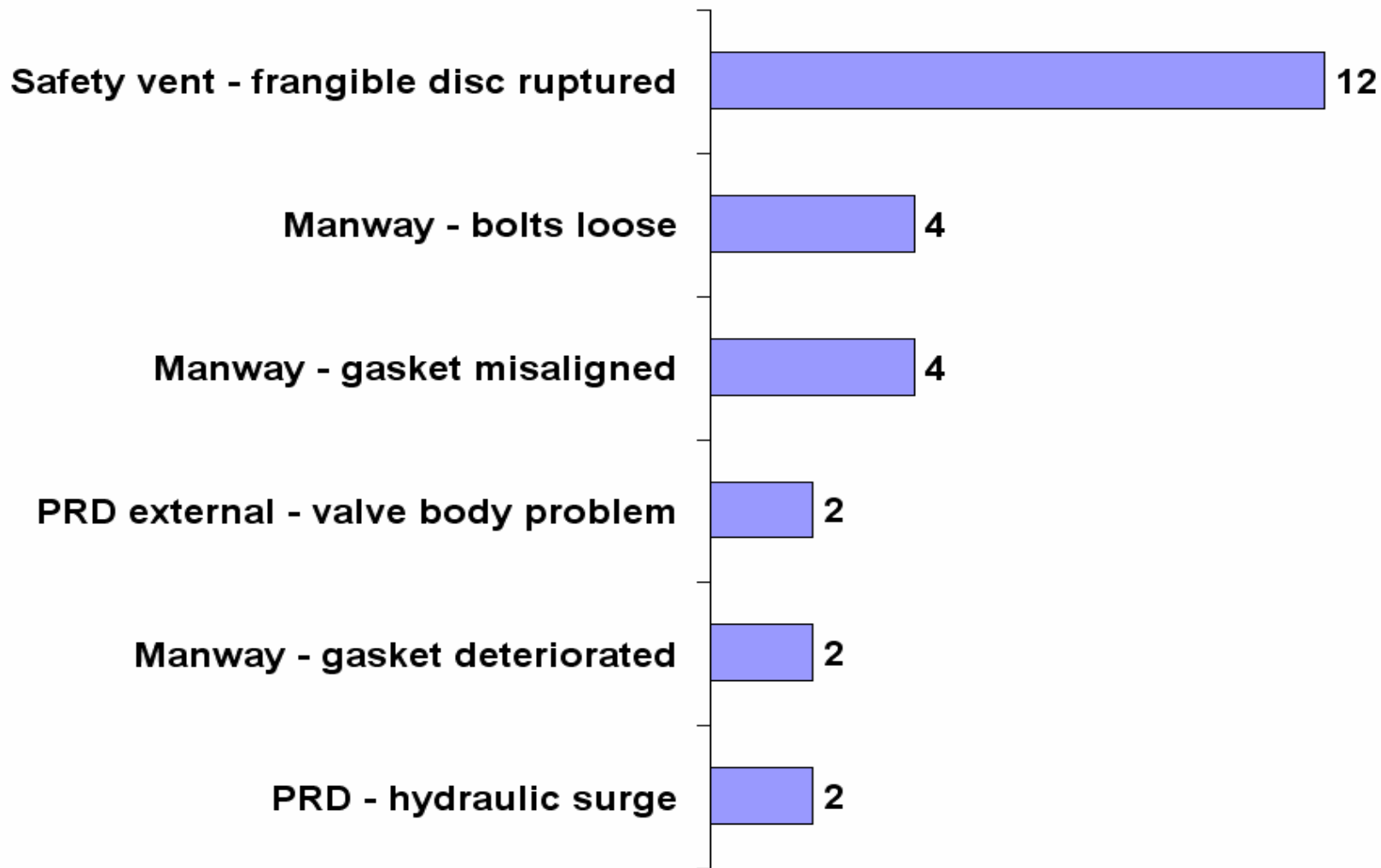
Top Specific Causes for Anhydrous Ammonia 2008



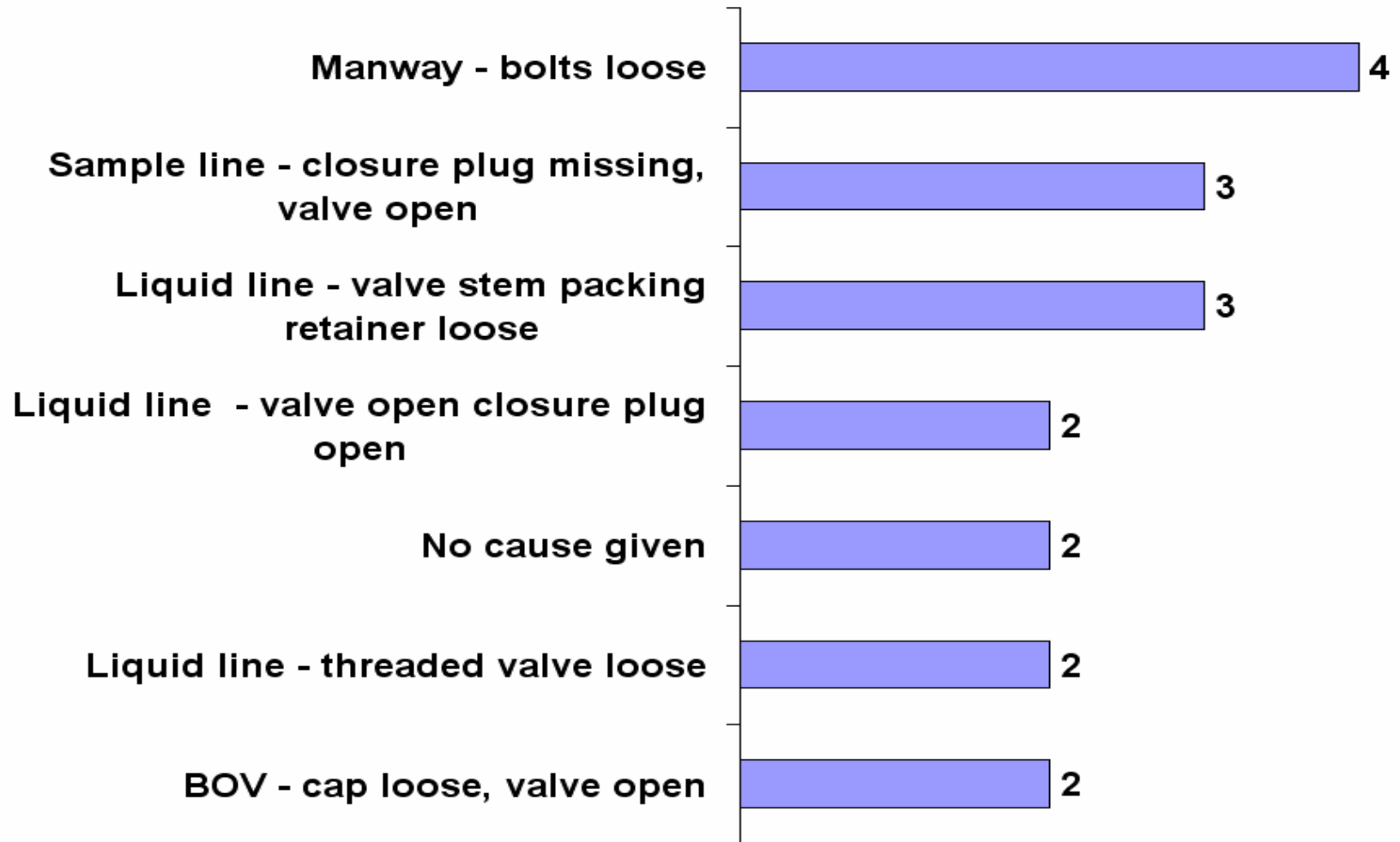
Top Specific Causes for Liquefied Petroleum Gases 2008



Top Specific Causes for Sodium Hydroxide Solution 2008



Top Specific Causes for Gasoline 2008



Top Specific Causes for Fuel Oils 2008

