

MEXICO *NOW*

Mexico's Aerospace Summit

Industry Analysis - Near Shore Manufacturing

Queretaro, Mexico

October 4-5, 2012



GLOBALIZATION, MEXICO & THE AERONAUTICAL INDUSTRY

QUERETARO

October 4, 2012

SERGIO L. ORNELAS

MEXICONOW EDITOR

10th

MEXICO *NOW*

Anniversary

MEXICONOW

BUSINESS • MAQUILADORAS • TRADE • LOCATION • ECONOMY

2013 EVENTS



A Mexico's Aerospace Industry Conference • B2B

INDUSTRY ANALYSIS • NEAR SHORE MANUFACTURING

Hamburg, Germany Paris, France Madrid, Spain Las Vegas, NV
February 18, 2013 February 20, 2013 February 22, 2013 May 23-24, 2013

Mexico's Manufacturing Supply Chain Summit

Conference • B2B • Plant Visits

El Paso, Texas
April 18-19, 2013



Logistics in Mexico Supply Chain - Costs - Productivity

MEXICO CITY
July 18, 2013



Mexico's Aerospace Summit

INDUSTRY ANALYSIS • NEAR SHORE MANUFACTURING

Conference • Exhibition • B2B • Plant Visits

October 3-4, 2013



MEXICO'S AUTO INDUSTRY CONFERENCE

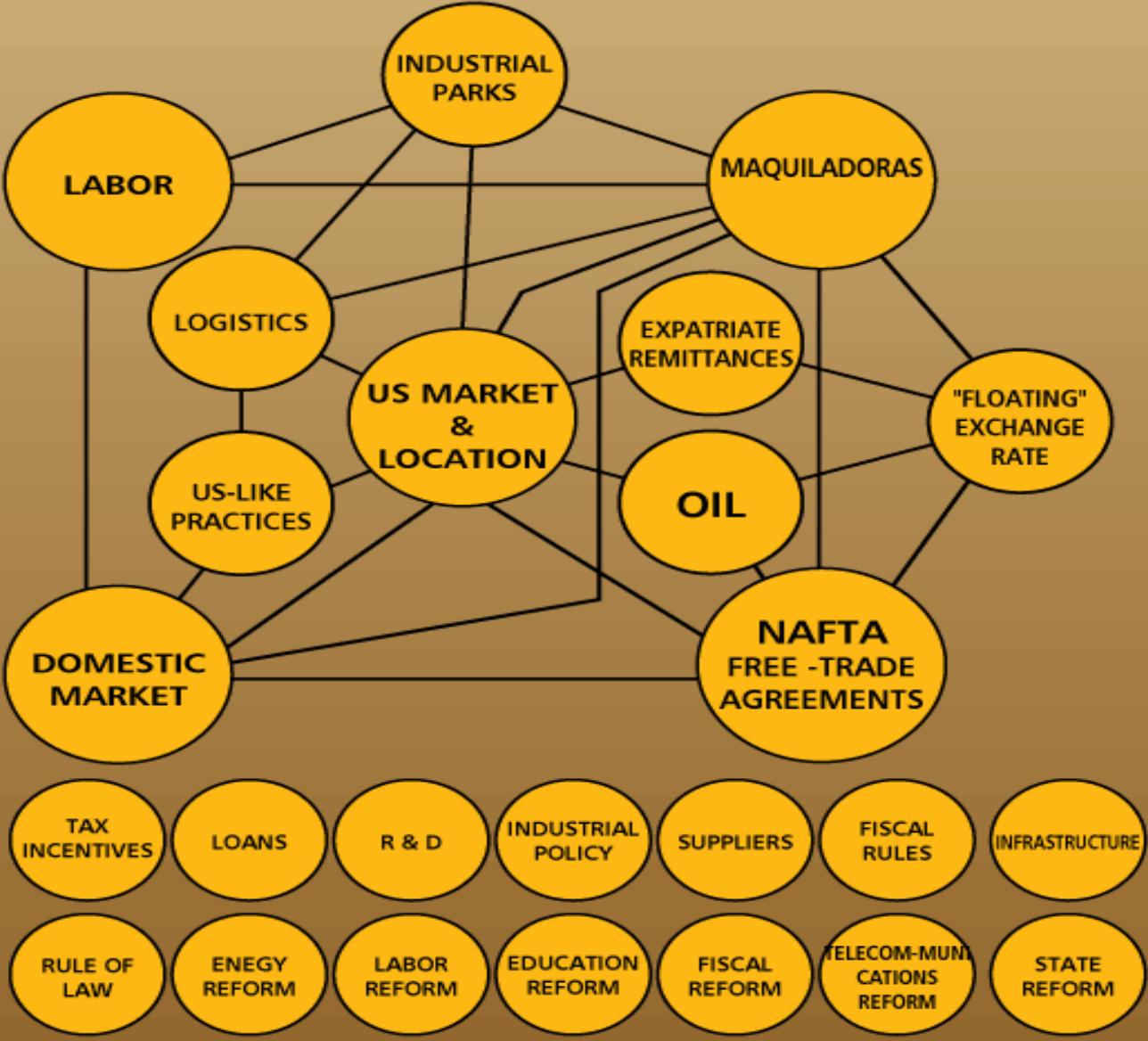
Industry Analysis • Opportunities for Suppliers

Conference • B2B • Plant Visits

December 5-6, 2013

www.mexico-now.com

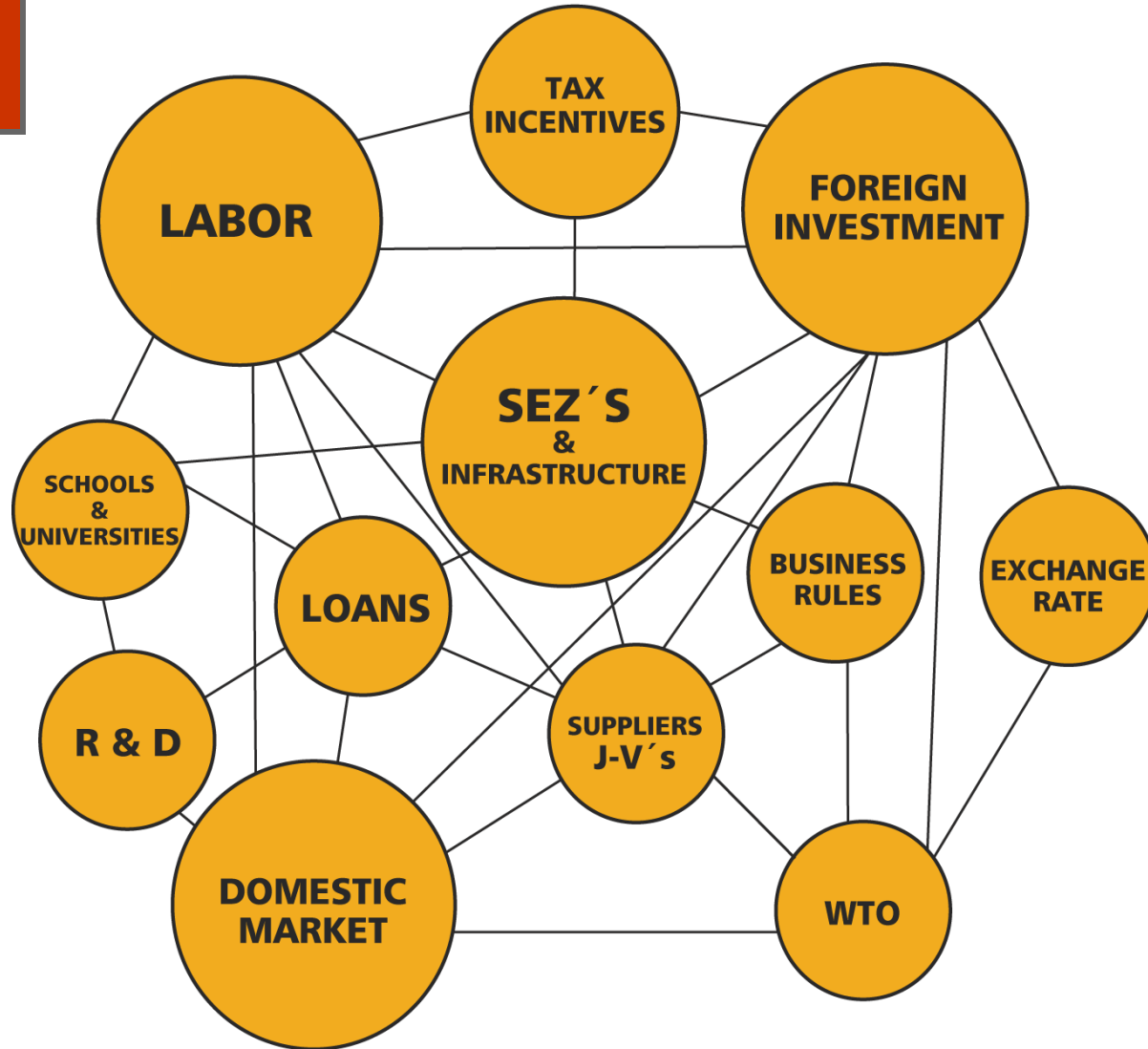
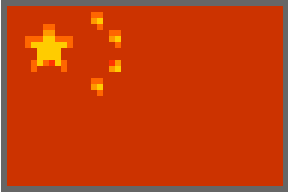
Toddler-Democracy in Open Market Economy



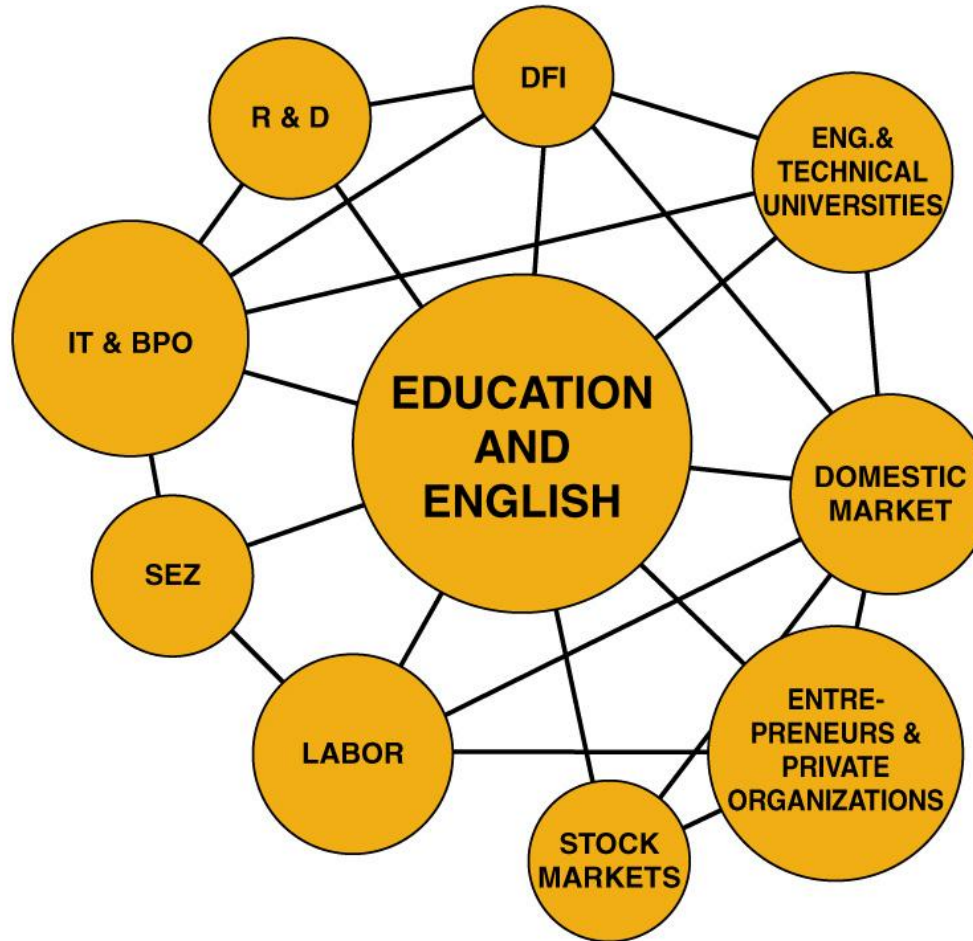
Source: MEXICONOW

China's Economic Development Strategy

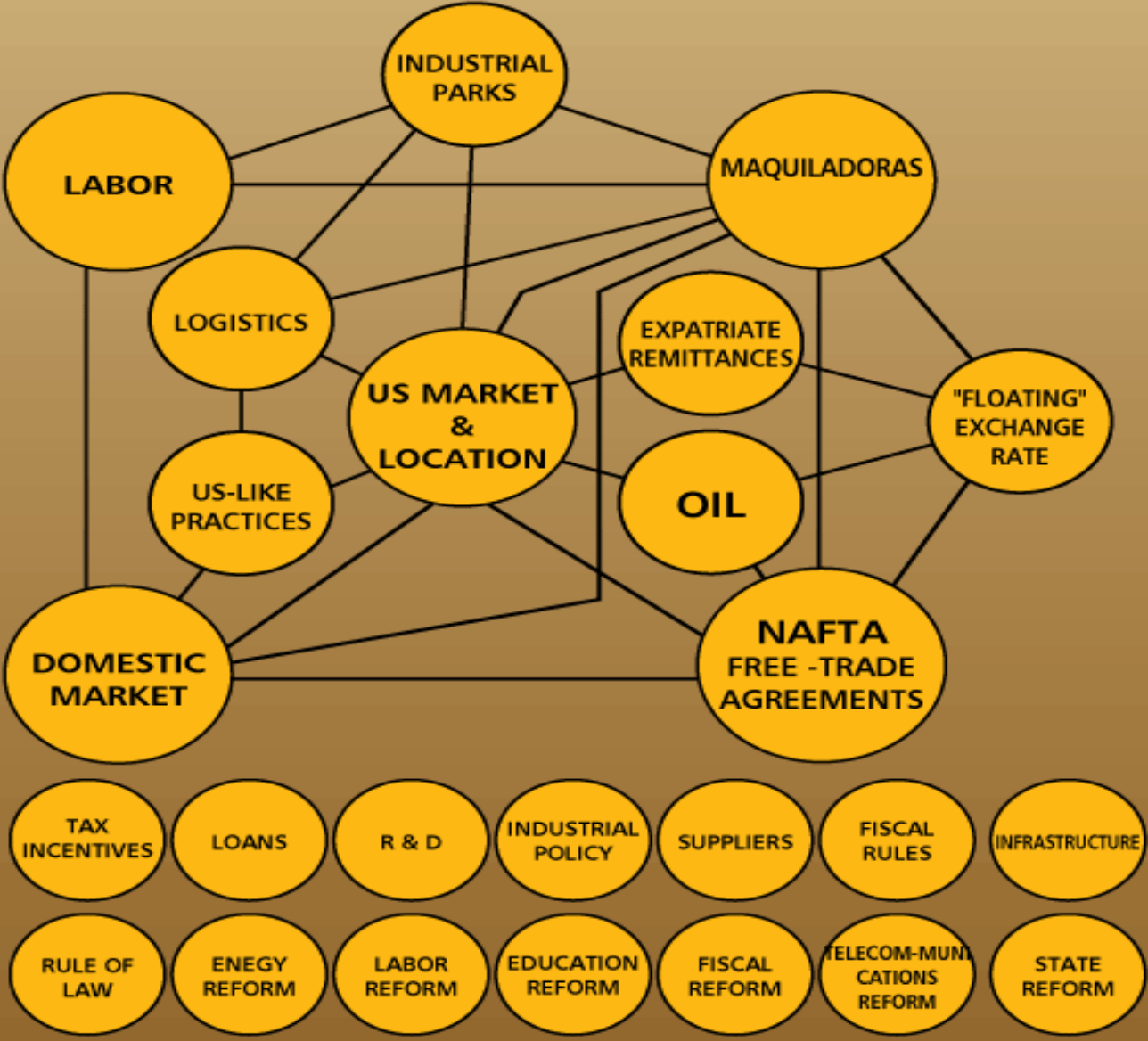
Social Market Economy



India Bottom-to-Top Protected Economy



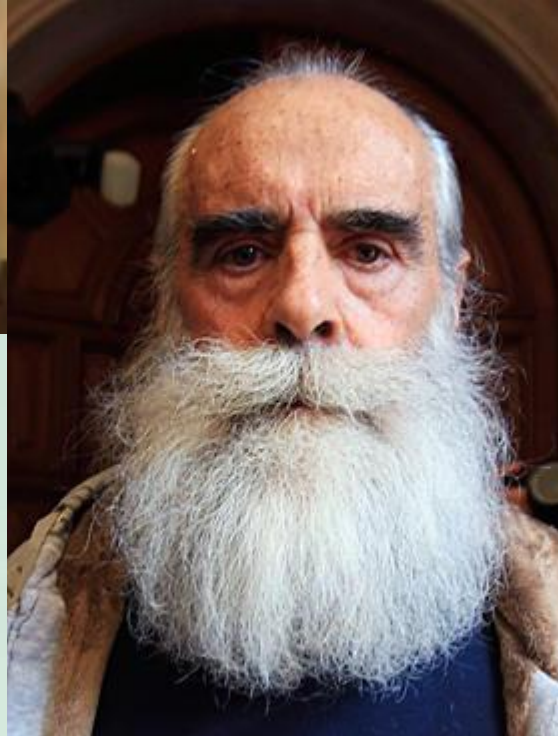
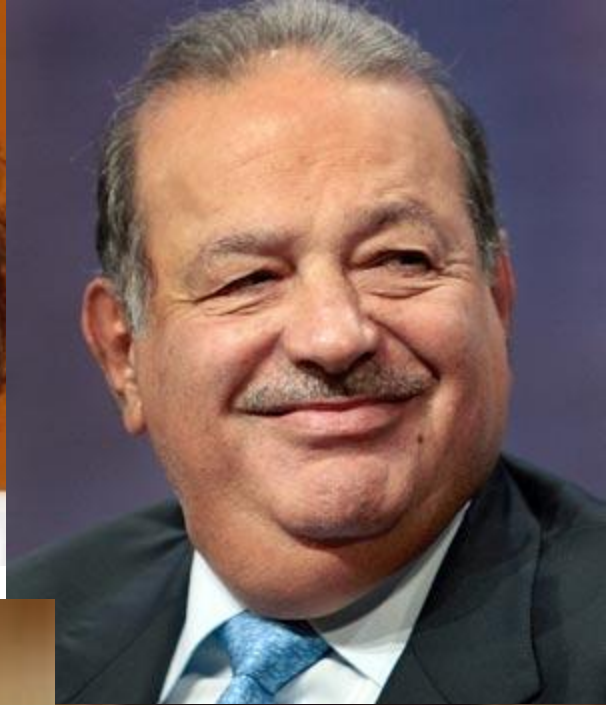
Toddler-Democracy in Open Market Economy



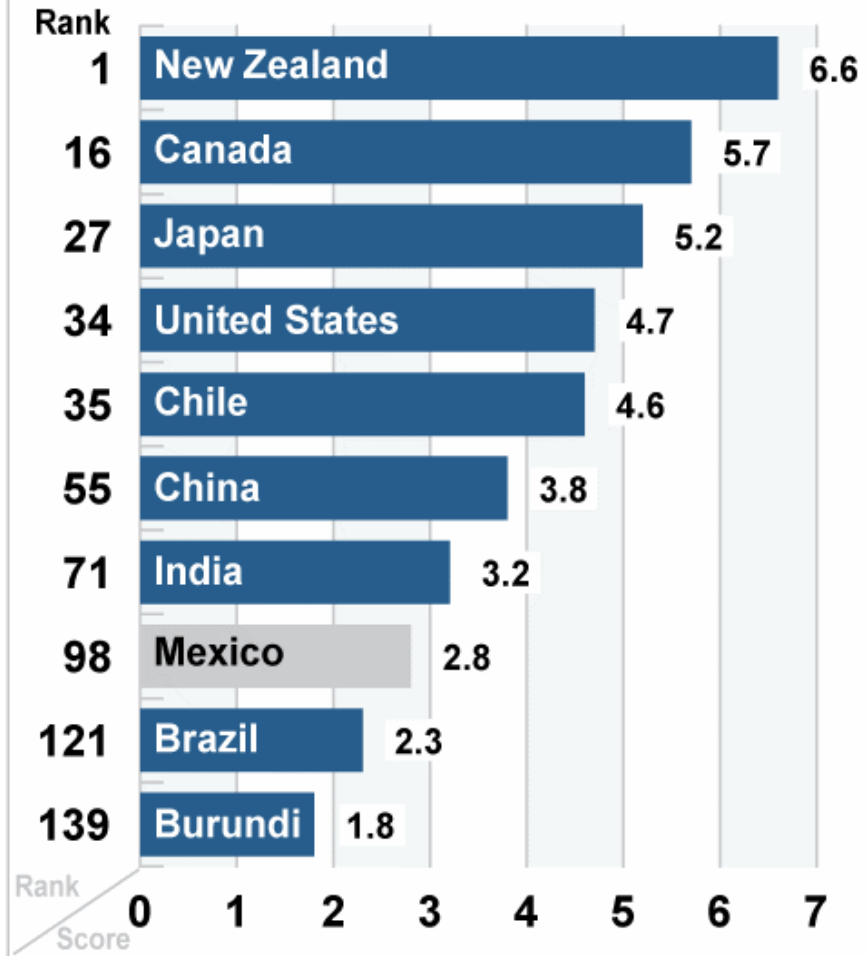
Source: MEXICONOW



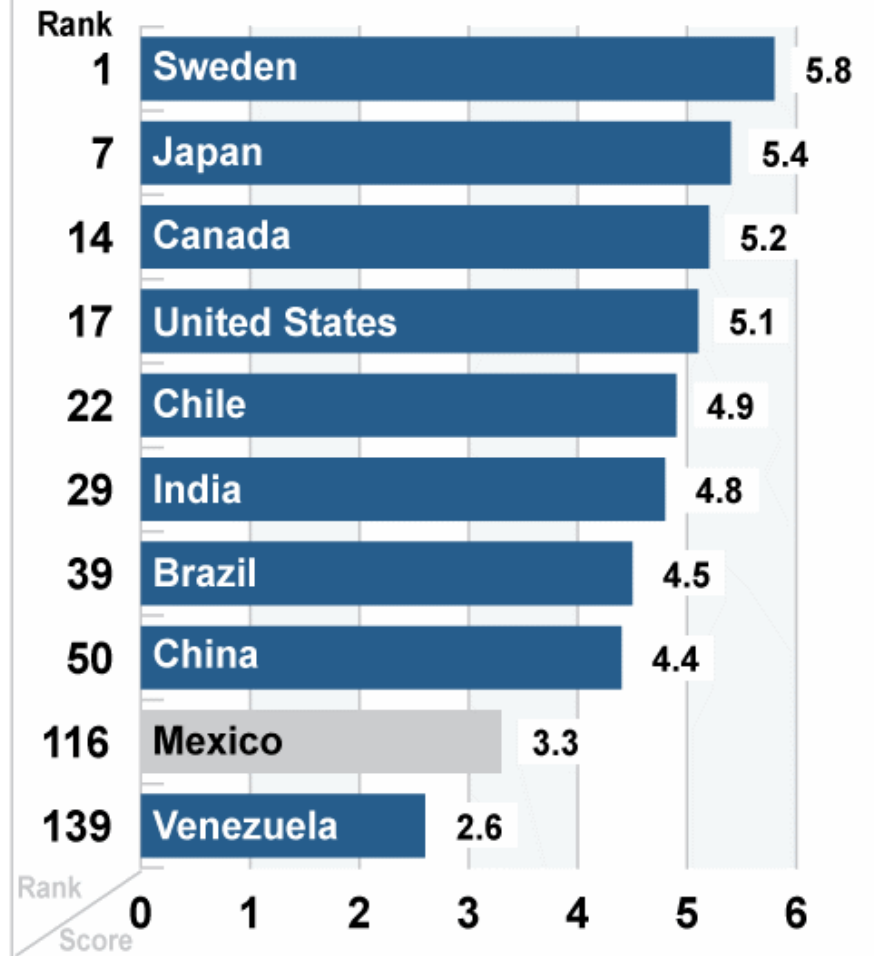
THE CULTURE OF FRANCHISING



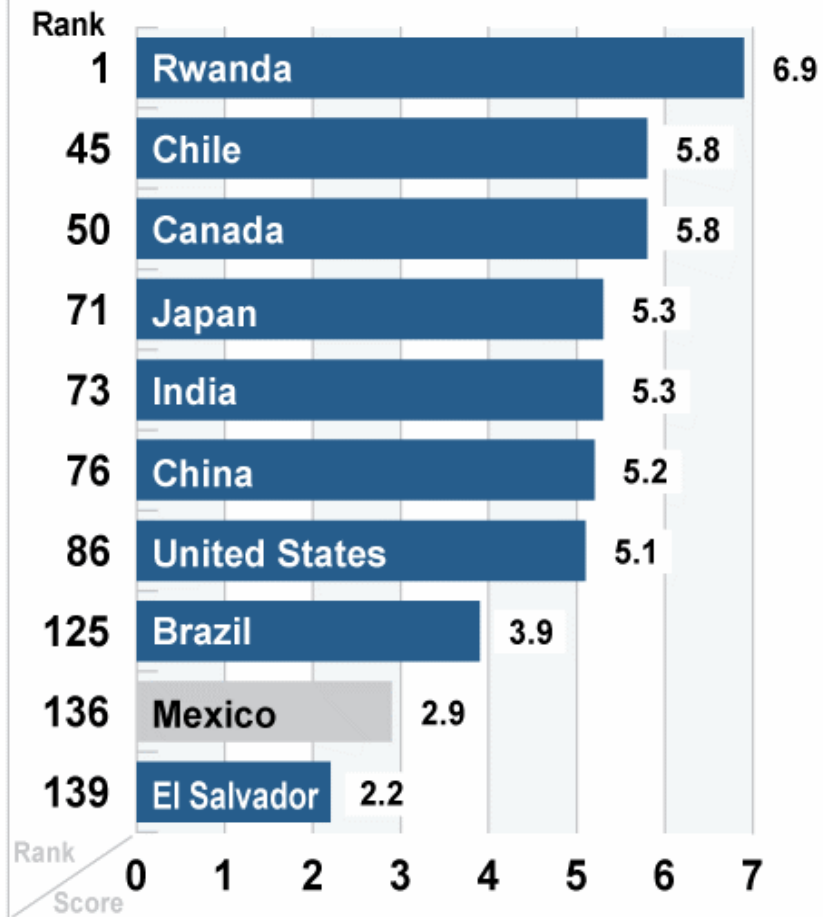
Diversion of Public Funds



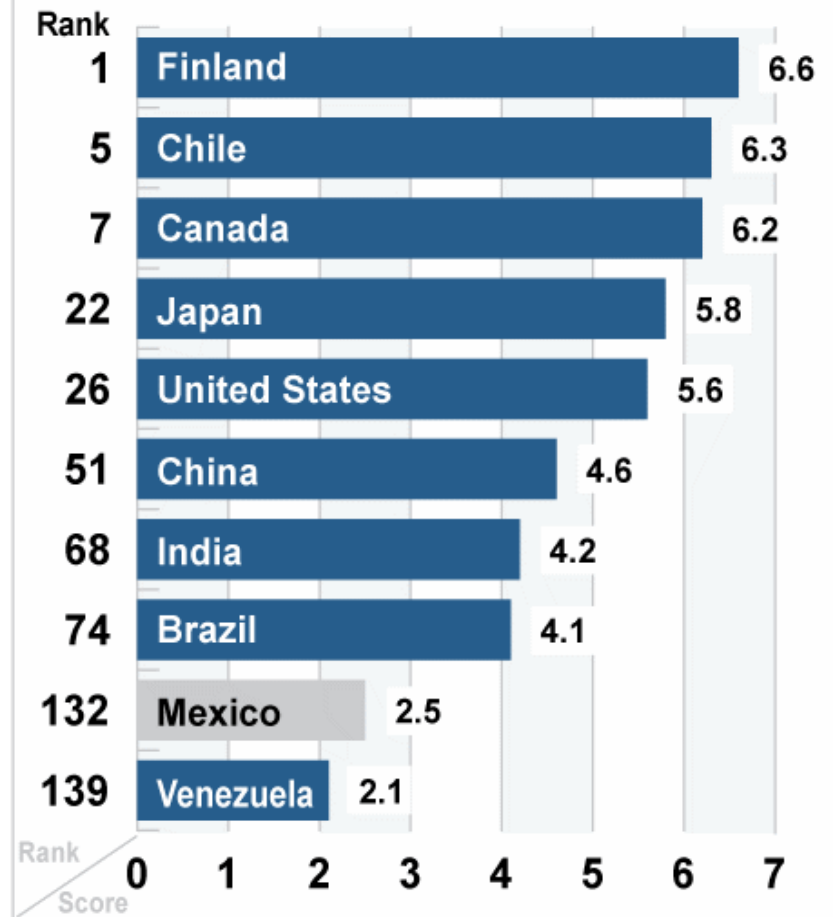
Effectiveness of Anti-Monopoly Policy



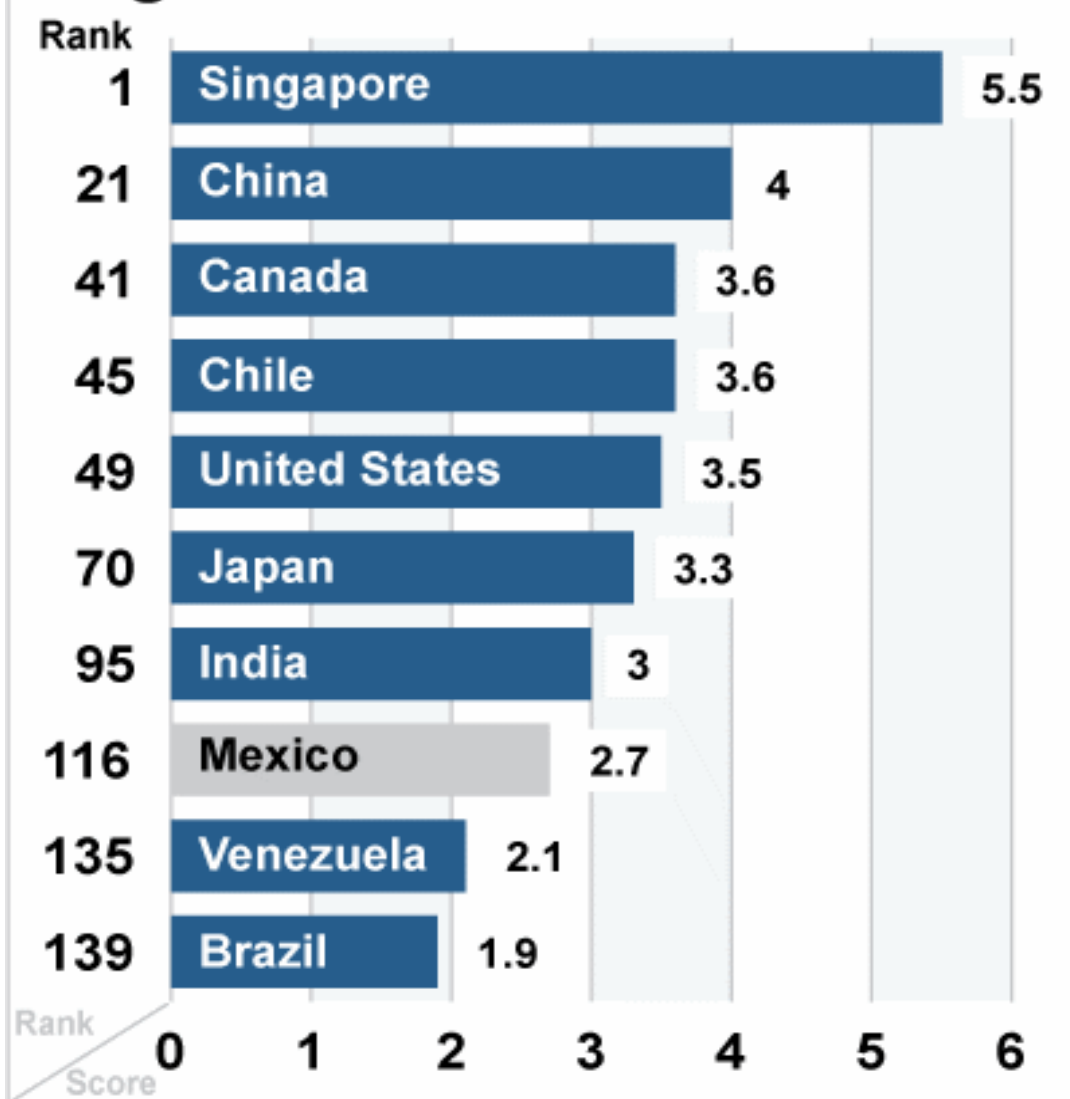
Organized Crime



Reliability of Police Services



Burden of Government Regulation



NATIONAL BESTSELLER



The World Is Flat

A BRIEF HISTORY OF
THE TWENTY-FIRST CENTURY

Thomas L. Friedman



FROM GLOBALIZATION TO REGIONALIZATION



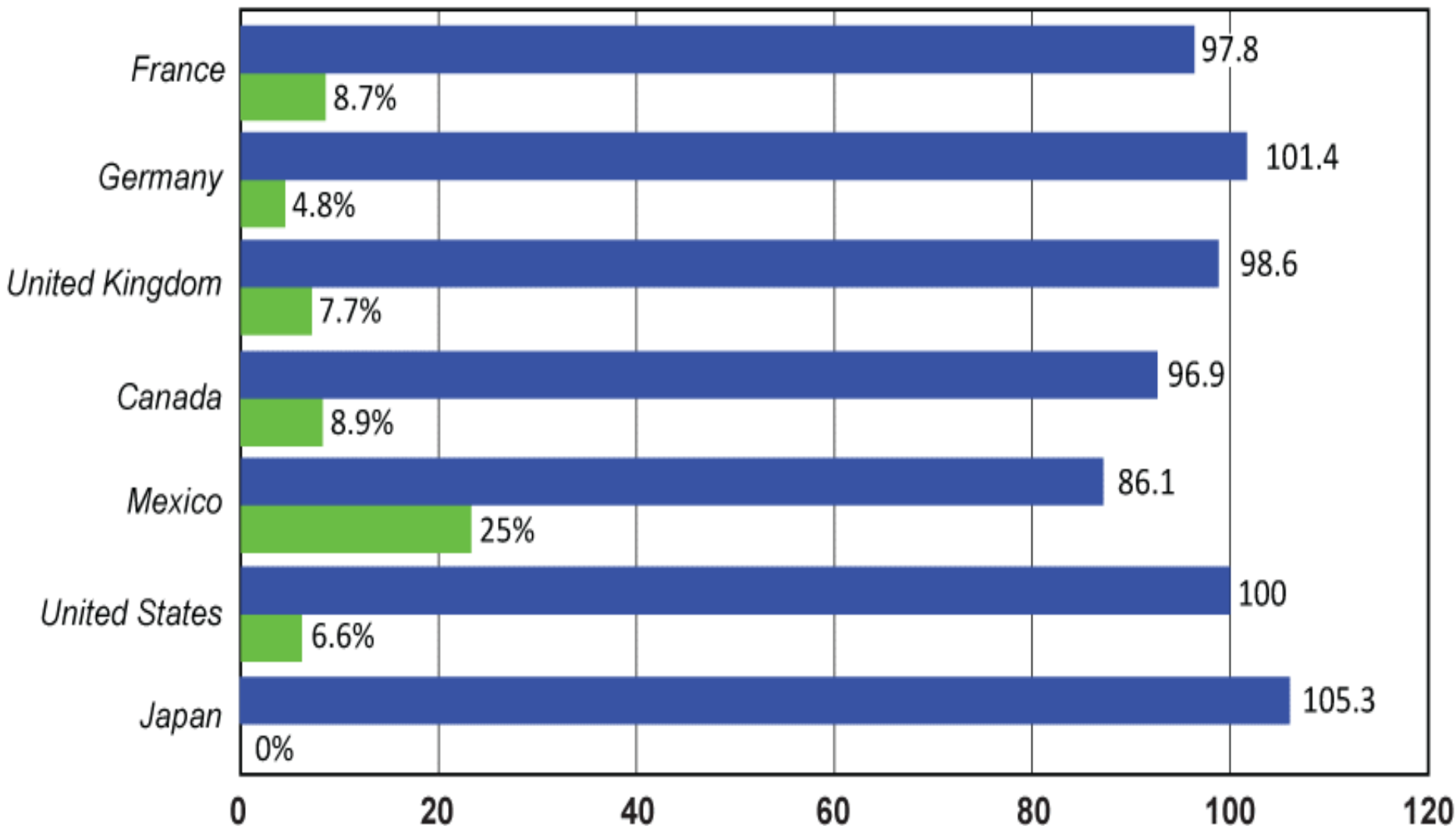
REGIONALIZATION



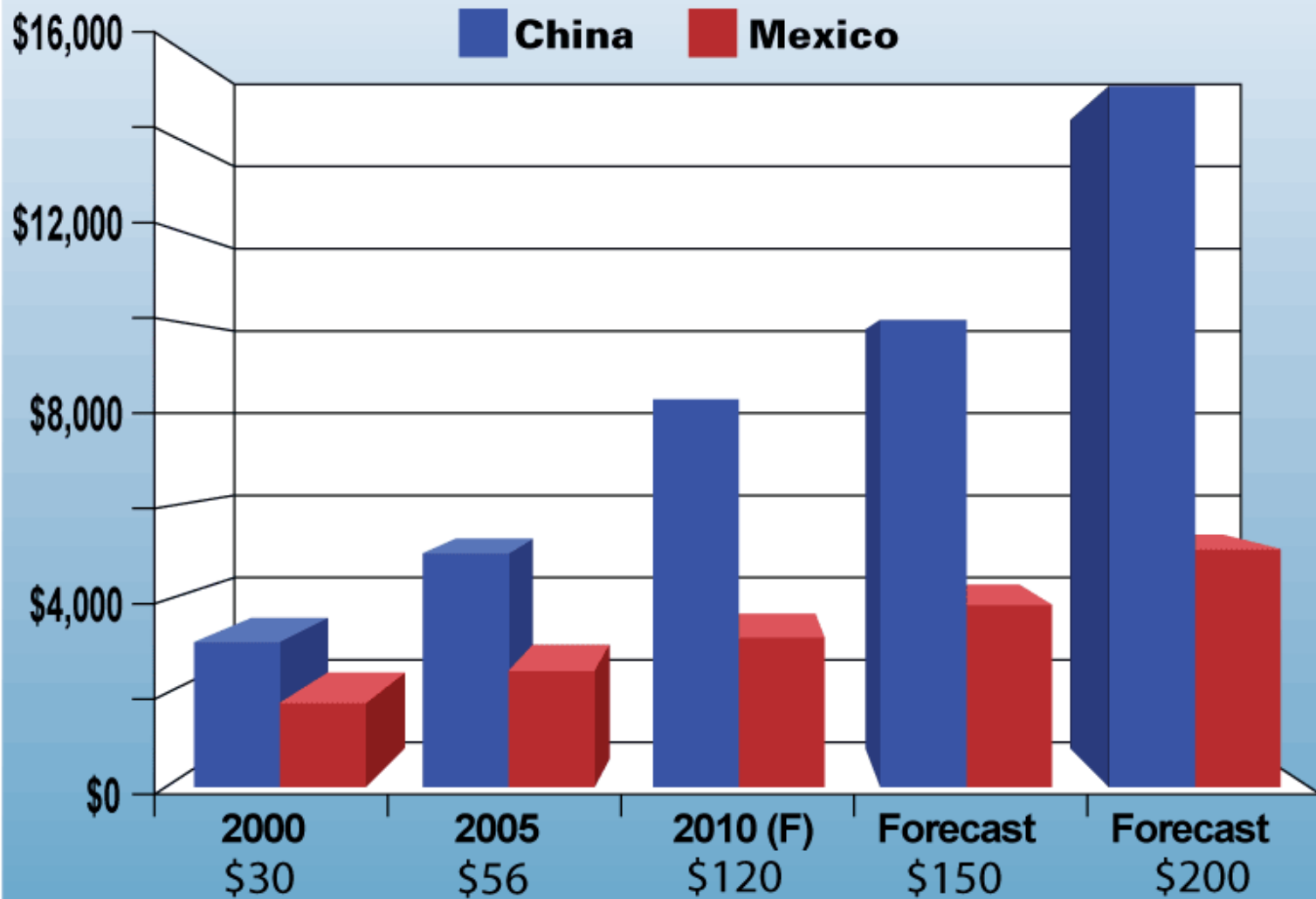
Aircraft Parts Manufacturing Costs - Index & Profits

International Results (US=100.0)

■ Index ■ Profit Before Income Taxes as a % of Revenue



The cost of shipping one 40-foot container to the U.S. East Coast from China vs. Mexico

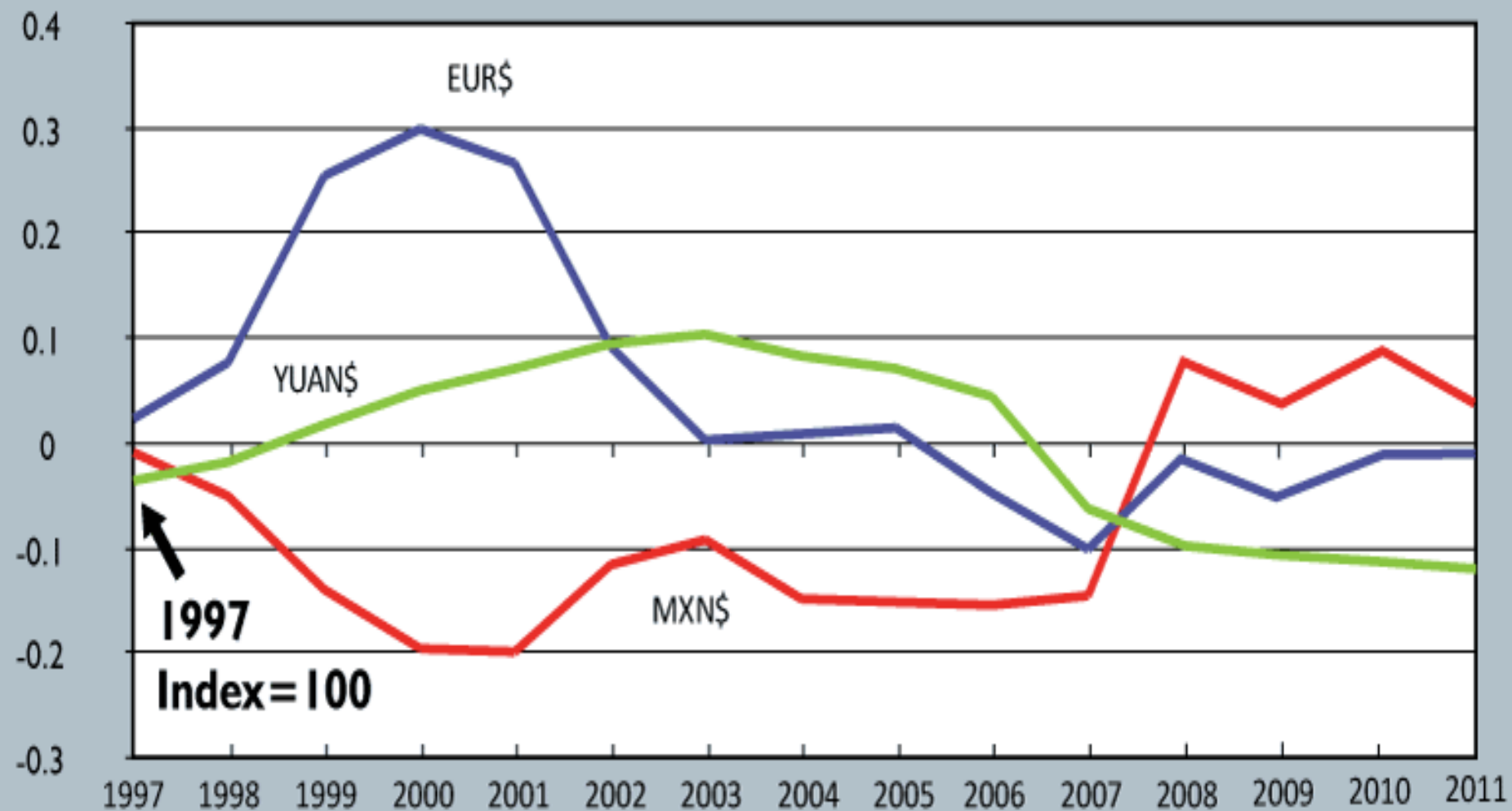


Source: CIBC

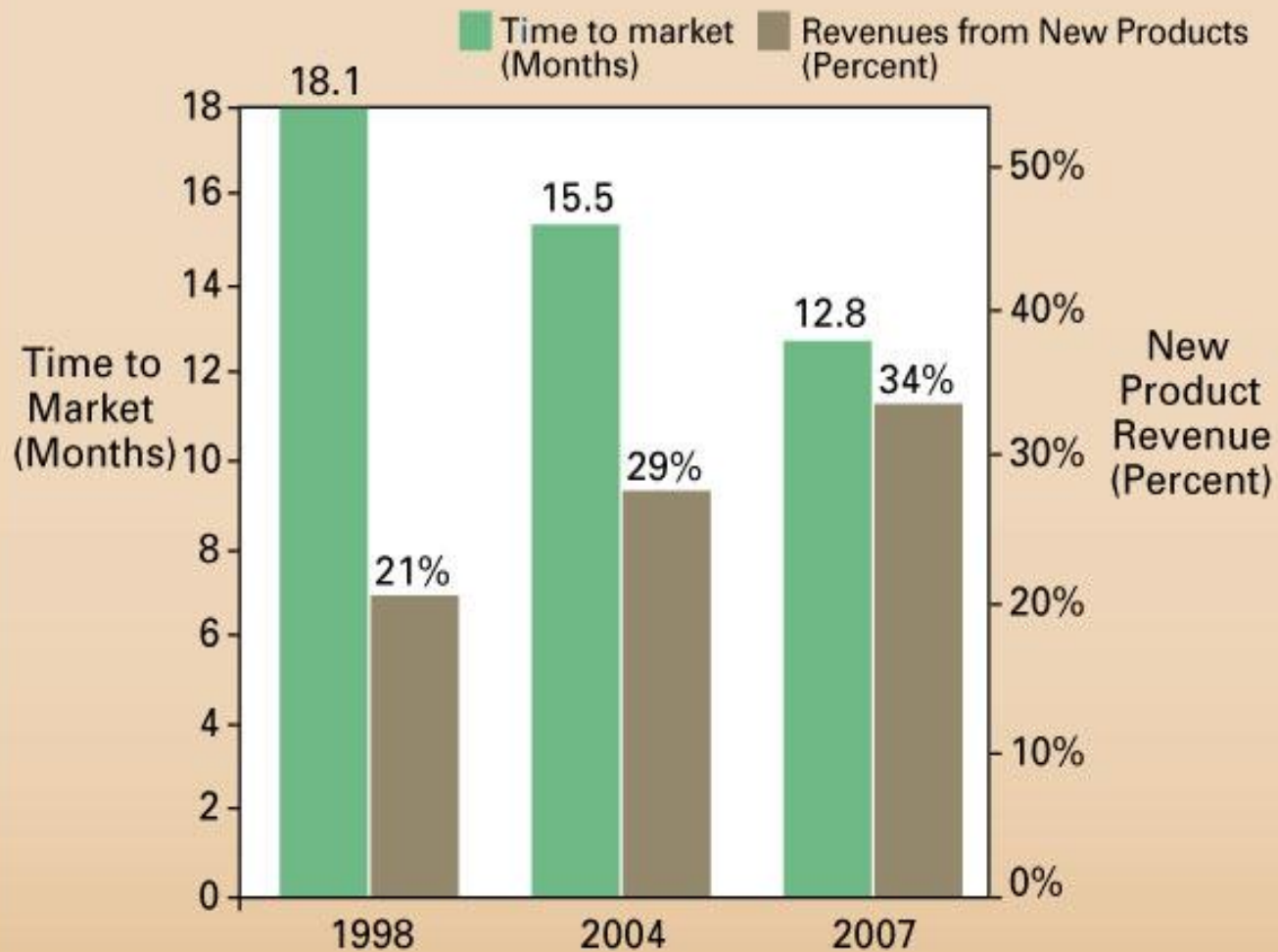
Average U.S. benchmark crude-oil price

How much does a USD\$ buy?

Index 1997-2011



The Twin Challenges of Innovation



Source: Deloitte Research

REGIONALIZATION



**THE WORLD
IS
ROUND**



PRODUCT – COUNTRY FIT



MEXICO

Product Characteristics

- Customized
- High Mix – Low Volume
- Technological Turnover
- JIT Products / short cycle
- Big - Heavy
- NAFTA-FTA Advantages
- IP Protection
- Domestic Market

Industry

- Aerospace
- Automotive
- Medical
- Software Development
- Design & Engineering
- Data Management
- Repair & Maintenance

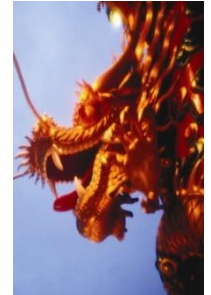
CHINA

Product Characteristics

- Commodity type
- Labor Intensive
- Low Cost of logistics
- Low mix- High Volume
- Domestic Market

Industry

- Footwear
- Toys
- Furniture
- Textile & Apparel
- Computers & Peripherals
- Small Appliances
- Automotive
- Information Technology



AERONAUTICS INDUSTRY

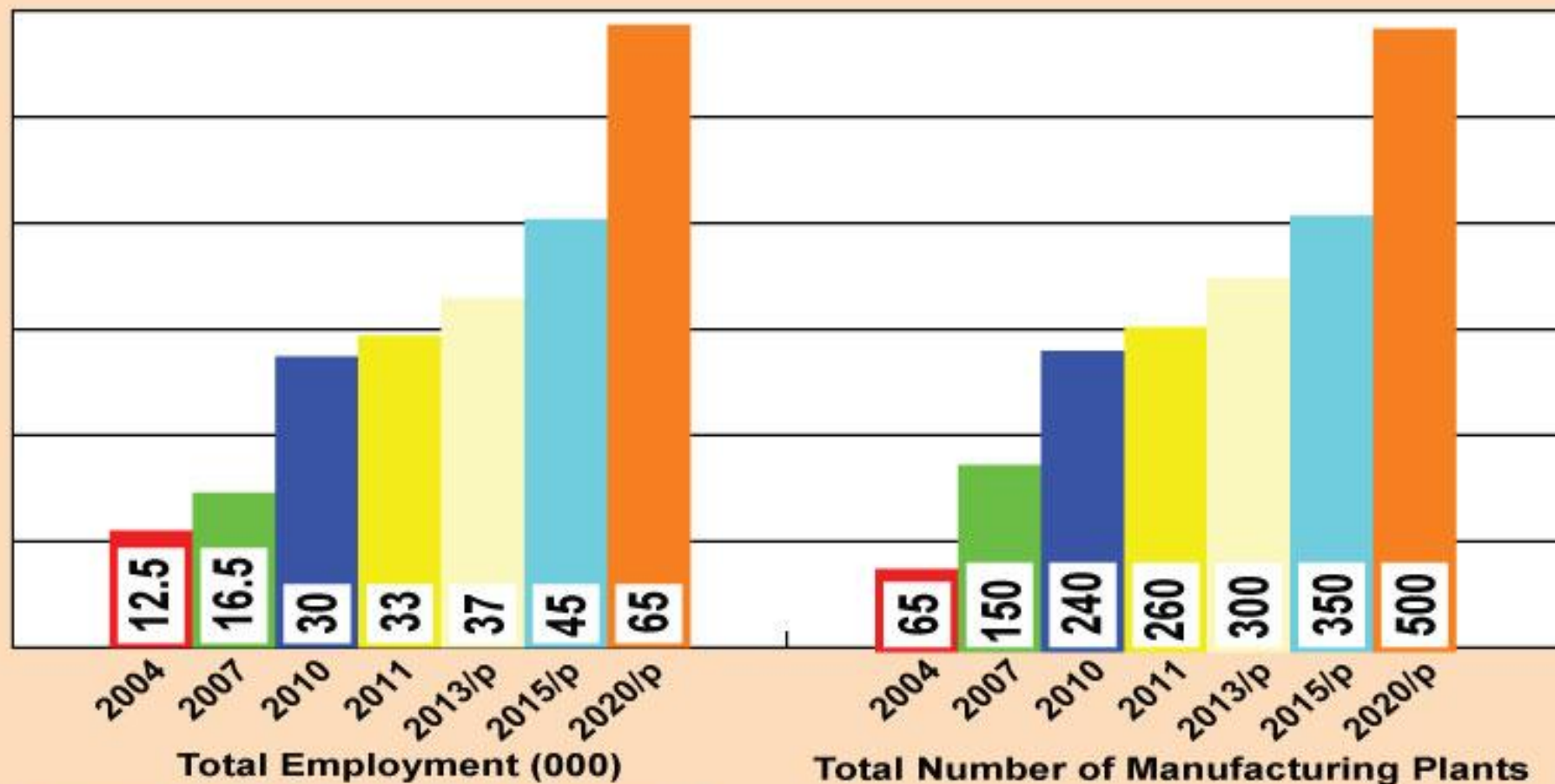
Mexico's Competitive Advantages



Source: MEXICONOW Research

Mexico's Aerospace Industry Performance Indicators

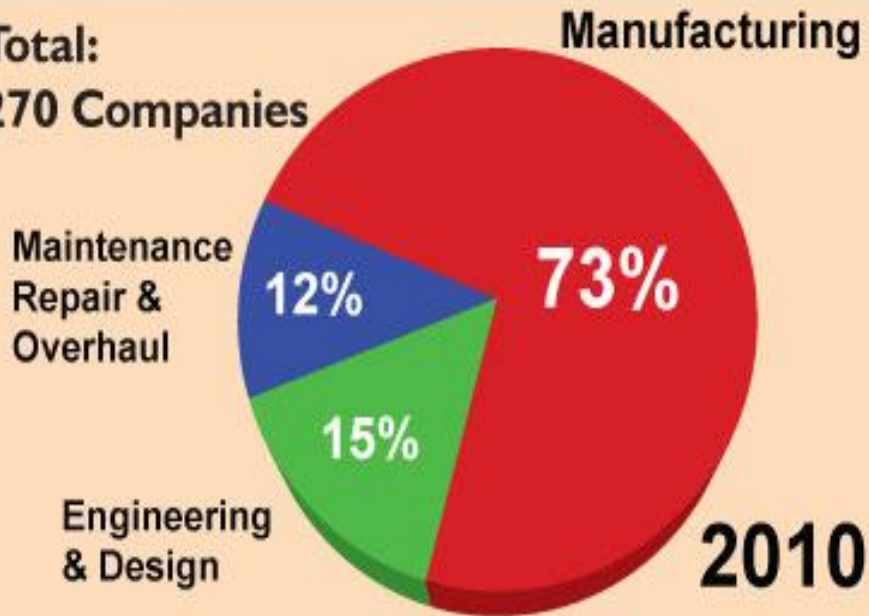
Employment and Manufacturing Plants



Source: MEXICONOW Research

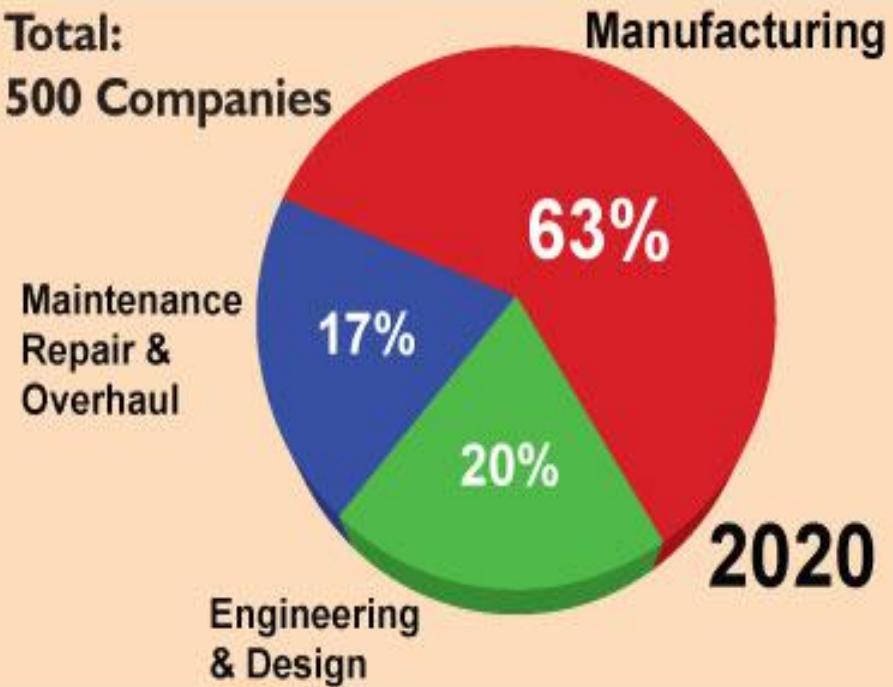
Aerospace Manufacturers in Mexico by Type

Total:
270 Companies



Source: MEXICONOW Research

Total:
500 Companies

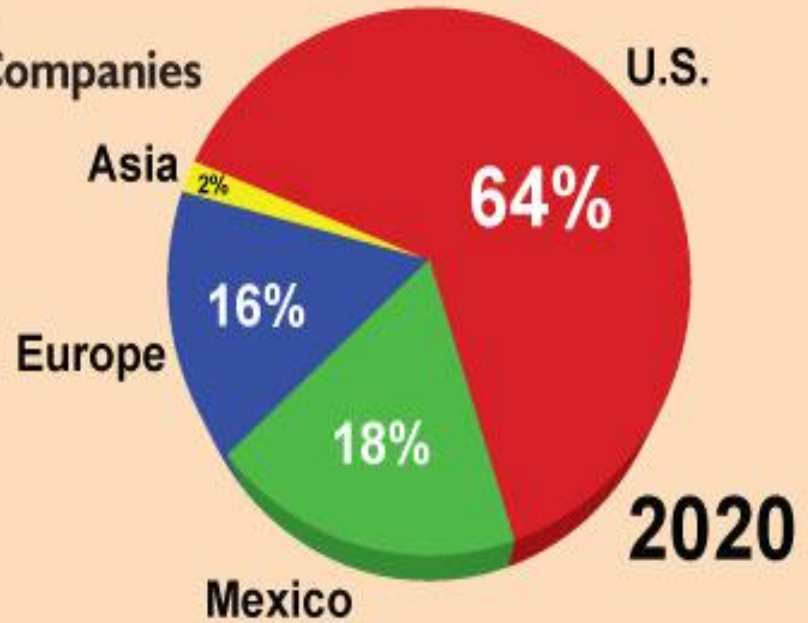


Aerospace Manufacturers in Mexico by Origin

Total:
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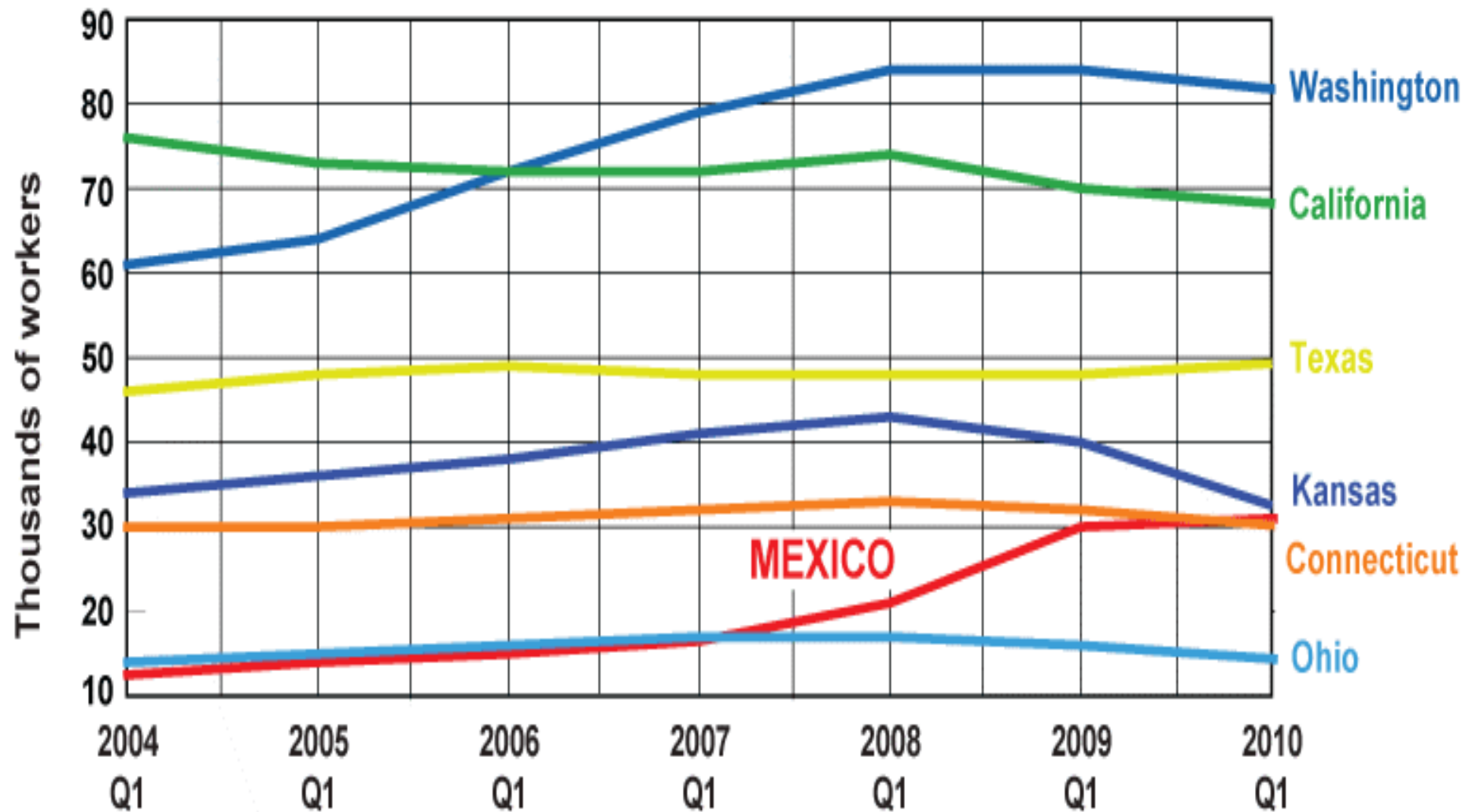


Total:
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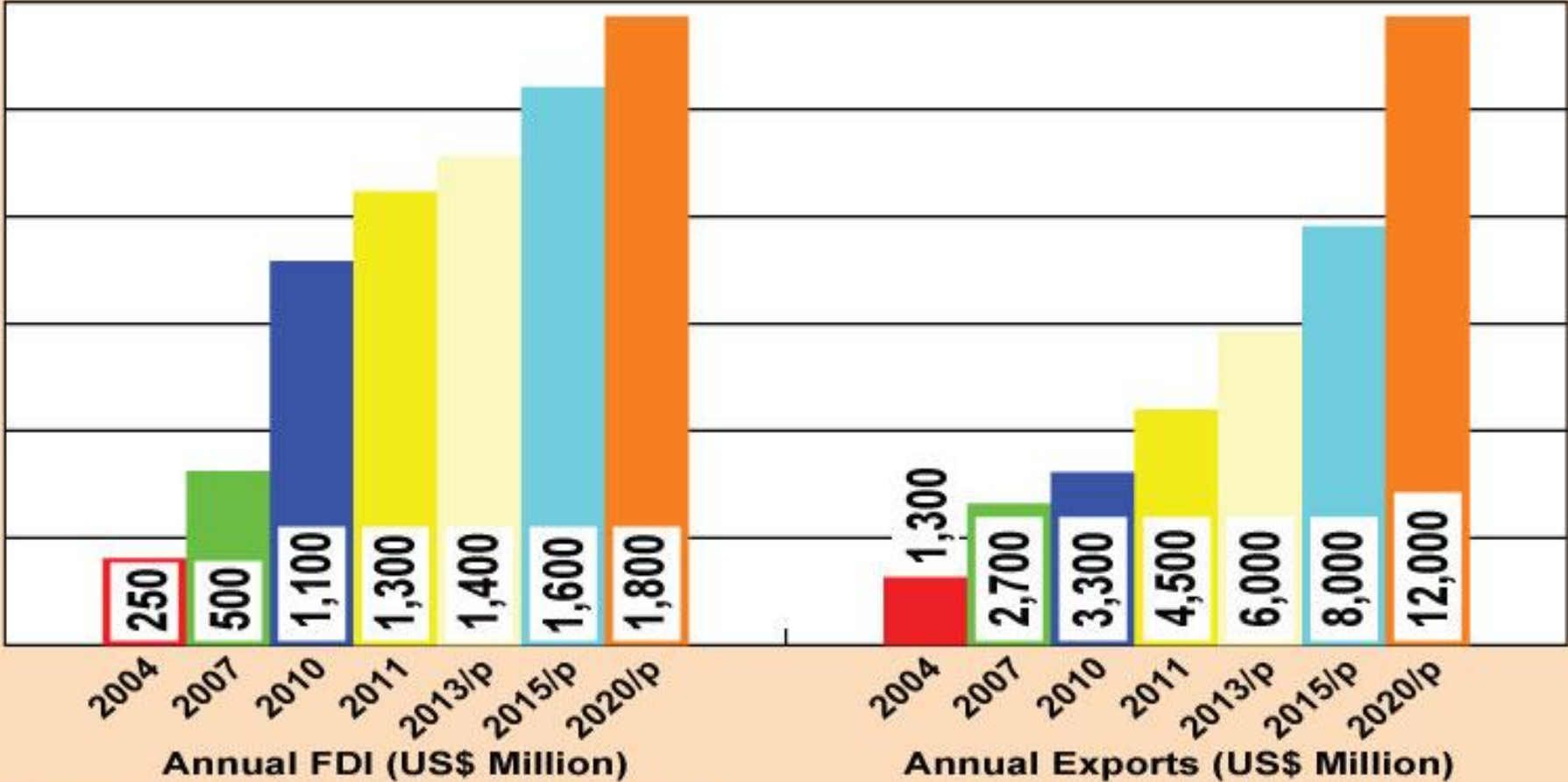
Source: MEXICONOW Research

Aerospace Workforce by State, by Quarter 2004-2010



Mexico's Aerospace Industry Performance Indicators

Annual FDI and Exports



Source: MEXICONOW Research

Mexico's Aeronautical Industry 2010

Baja California



Mexico's Aeronautical Industry 2010

Nuevo Leon

METALINSPEC, S.A. de C.V.

viakable

Herramental Monterrey

CORPORACION EG

HELICOPTERS

DONCASTERS

MONTERREY JET CENTER

TECMAQ S.R.L.

aztek technologies

TECNOLÓGICO DE MONTERREY.

EXOVO

EZI METALES

inelectra

Hamilton Sundstrand
A United Technologies Company

HEMAQ
Proyectos tecnológicos. Soluciones integradas.

grupo protexa

GE

FRISA AEROSPACE

DTM

Estampados Monterrey

Bodycote

MAQUINADOS PROGRAMADOS

AEROMASEL ENGINES

GRUPO LOMEX

ASERTEC

UANL
UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN

Honeywell



Mexico's Aeronautical Industry 2010

Queretaro

BOMBARDIER

ELIMCO

PRETTL
group

SAFRAN
Snecma

tecnum
Your Partner for Machining

SOES
Outsourcing Engineering Services

DISHON
LIMITED

CIATEQ

SAFRAN
Messier-Dowty

AERnova

ECERLE GRUPPE
IMMER EINE LÖSUNG

Clarion®



QET TECH
AEROSPACE
MAINTENANCE AND REPAIRS

MEGGITT
smart engineering for
extreme environments



CRIO
S.A. DE C.V.

**ESPECIALISTAS
EN TURBOPARTES,
S.A. DE C.V.**



GE IQ

CI DESI Centro de Ingeniería
y Desarrollo Industrial

www.cidesi.com



Mexico's Aeronautical Industry 2010

Sonora



Mexico's Aeronautical Industry 2010

Chihuahua



Mexico's Aeronautical Industry 2012

Sonora

AEROSPACE & DEFENSE

SARGENT Radiall ELISION PLNCOM

SIGMEX, INC. ITT BAE SYSTEMS Samedo

TE Belden Parker

BELDEN BAE SYSTEMS Samedo

Bodycote Benchmark

VERMILLION INCORPORATED Amphenol Aerospace PRECISION AEROSPACE

D.A.M. Industries ESCO AEROSTAR AEROSPACE DAHER

Williams International

U.S. Precision, Inc. PINNACLE AEROSPACE AEROCAST

Ducommun Incorporated CHEMRESEARCH Co., Inc.

Coahuila

PARKWAY

UNISON

BSC ALCOA

senior Aerospace SEI

Chihuahua

ZODIAC AEROSPACE HORDAM

SELECTED SWITCH CORP. J.E. Petsche Co.

Johnson Deerecraft MANOIR INDUSTRIES

JABIL Soisa

Honeywell Cambrian

Capsonic Group

AEROSAN TEXTRON

KAMAN FOKKER

Tamaulipas

porta.systems

RBC CINCH

NOVA/LINK FAT-N

CHROMALLOY

Kearfott Corporation

AMETEK

Nuevo Leon

METALINSPEC, S.A. DE C.V. viakable

Corporacion AG

ADP

DONCASTERS

TECMAQ

TECNOLOGICO DE MONTERREY

inelectra

HEMAQ

FRISA AEROSPACE

DTM

GRUPO LOMEX

ABERTEC

Honeywell

San Luis Potosi

Aeero TECHNOLOGIES

HITCHINER

BONANZA

GEN AEROSPACE

Baja California

Gulfstream TDI

HUTCHINSON

CHROMALLOY

Jonathan

Honeywell

COBHAM

Bourns

ZODIAC AEROSPACE

Rockwell Collins

Parker

AP Parpro

BCM

CPP

DELPHI

RIVER

NEX-TECH AEROSPACE

TATA TECHNOLOGIES

Esterline

ELM

Yucatan

SMP

POC Airfoils, LLC

Aguascalientes

TEXAS INSTRUMENTS

Puebla

ARITEX

Queretaro

BOMBARDIER

SAFRAN

tecnum

SAFRAN

GOES kuo

AERInnova

MEGGITT

CTMPRO UNAP

HEROUX DEVTEK

eucopter

Jalisco

GlobalVantage

AVNTK

ZOLTEK

FLEXTRONICS

ARITEX

Mexico City

EADS

TATA TECHNOLOGIES

SAFRAN

GIMA

kuo

NAVAIR

SAFRAN

HEROUX DEVTEK

AEROMEXICO

State of Mexico

CARPENTER ENICROE

Raytheon

ANSORGE

Avenia

Guanajuato

HUTCHINSON

Bodycote

Zacatecas

Triumph Group, Inc.

Guerrero

TURBINAS DE ZIHUATANEJO

MEXICONOW





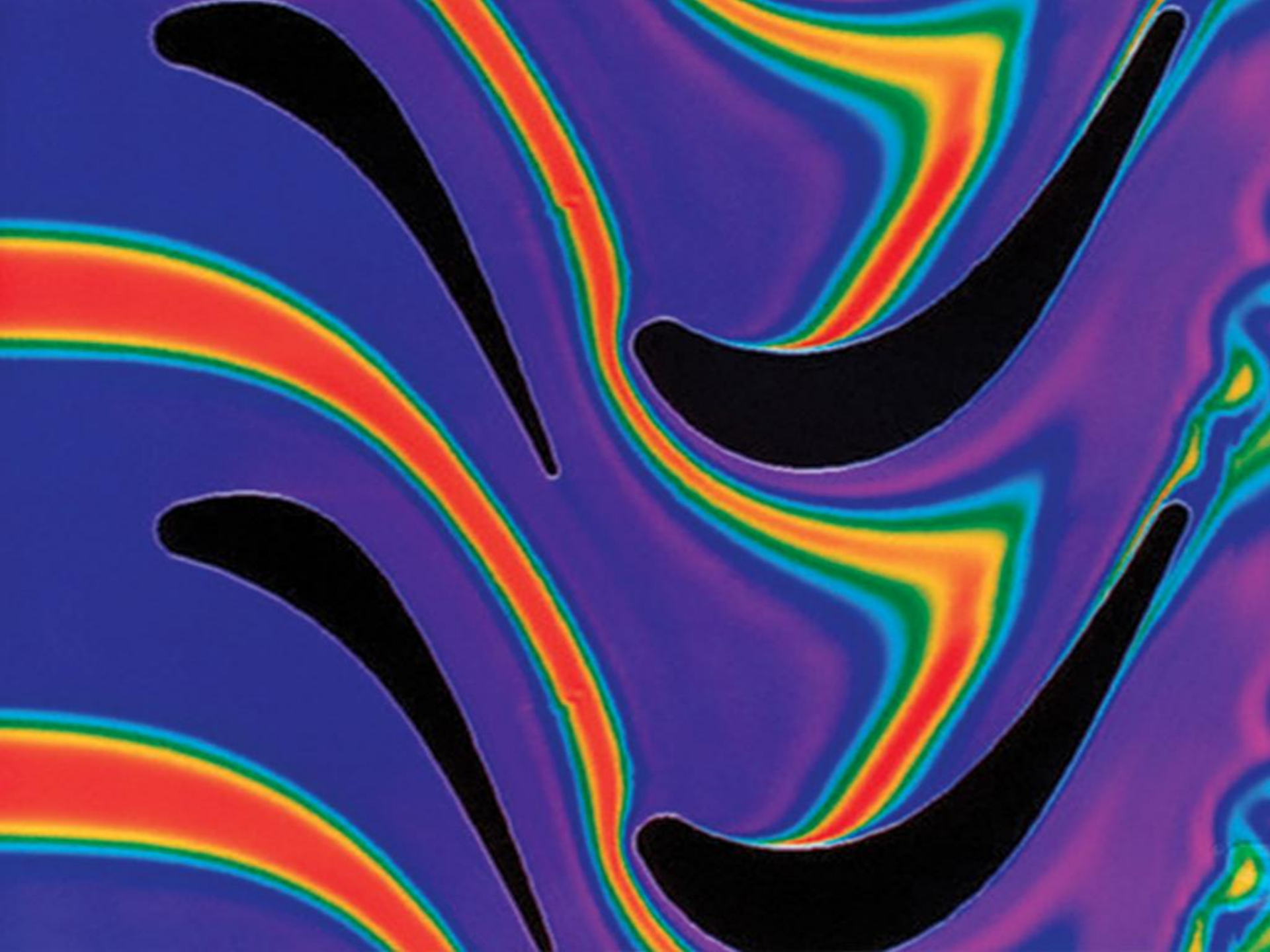
GLOBALIZATION, MEXICO & THE AERONAUTICAL INDUSTRY

QUERETARO

October 4, 2012

SERGIO L. ORNELAS

MEXICONOW EDITOR



Positive proof of global warming.



**18th
Century**

1900

1950

1970

1980

1990

2006



GLOBALIZATION, MEXICO & THE AERONAUTICAL INDUSTRY

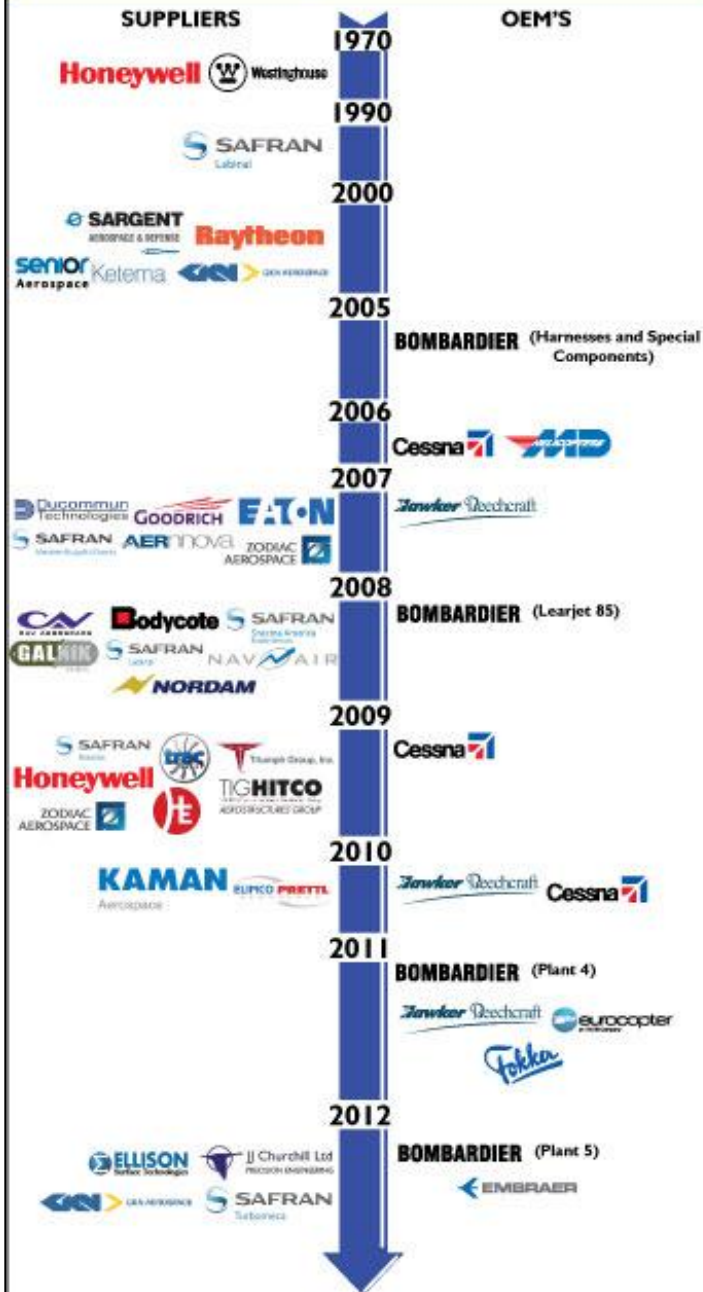
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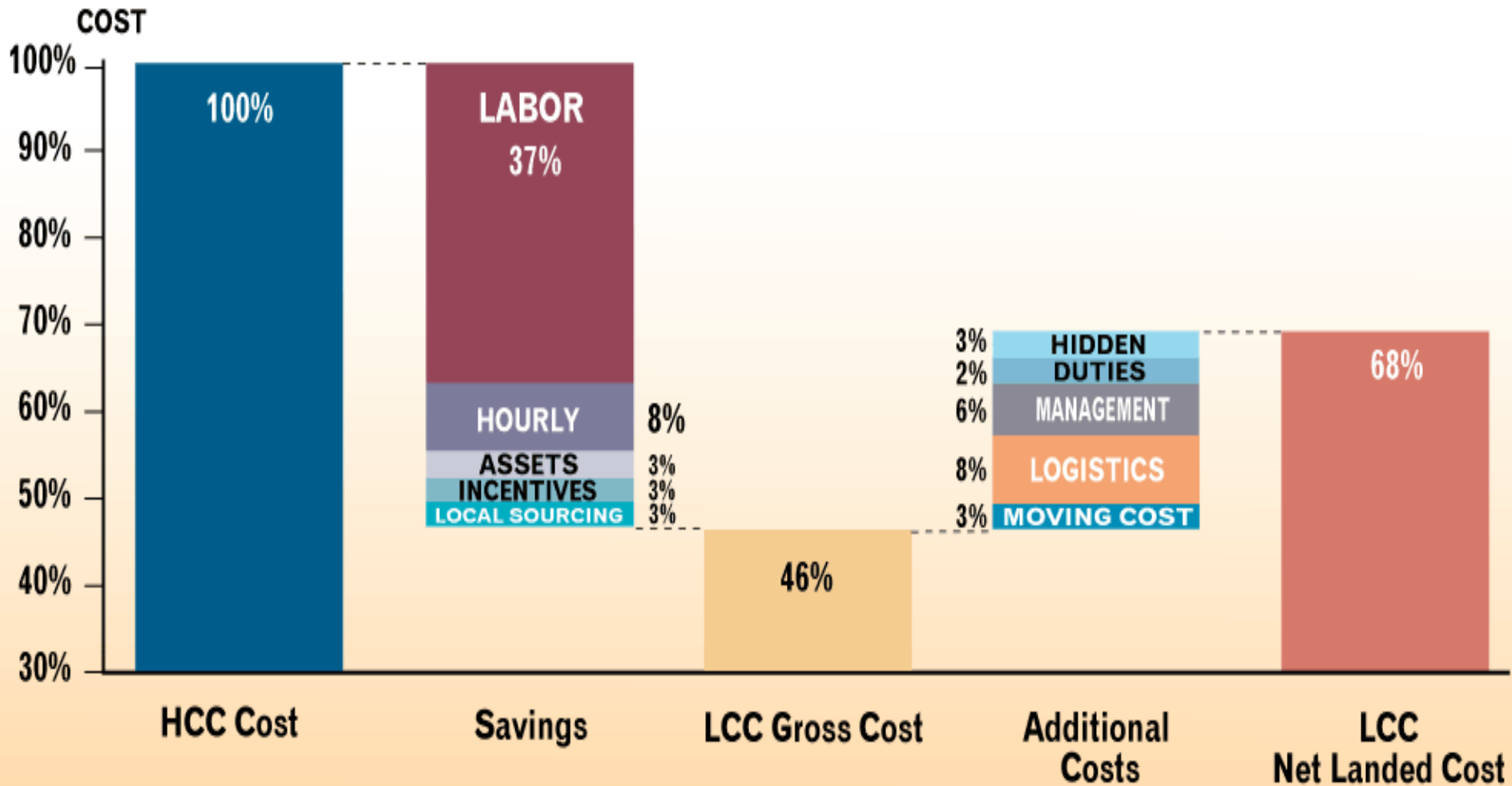
SERGIO L. ORNELAS

MEXICONOW EDITOR

Mexico's Aerospace Industry Main Projects Time-Line



Net Landed Manufacturing Cost (% of HCC Cost)



SOURCE: MEXICONOW Hypothetical case based on data of the Boston Consulting Group.

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