

US-China Barometer 2019

Long U.S.-China Institute
University of California, Irvine

The Long Institute annually publishes the US-China Barometer, a measure of perhaps the most important bilateral relationship in the world. The Barometer provides a multidimensional representation of the relationship based on a compilation of the most pertinent data. Political opinions are eschewed. Indeed, we would hope that objective metrics would influence political decisions rather than vice-versa.

We have endeavored to collect and present the data objectively by using mostly third-party sources such as the World Bank. Where both American and Chinese sources exist we have often discovered substantial discrepancies – a good example is in Foreign Direct Investment. In the future we will collaborate with our colleagues in China toward determining the best ways to manage such discrepancies.

We have also considered developing a summary statistic combining the various measures as a sort of index of the relationship that might be compared over the years. However, this effort is thwarted in two ways: First, the mathematical problem is not trivial – combining the numbers is a bit like comparing apples, oranges, and puppies. Second, important details are lost in a summary statistic. So we deliver the Barometer as a 27-slide power-point presentation with interpretive notes (see below each slide) and the data sets imbedded (right click then choose “edit data”). Users and viewers are most welcome to adapt the presentation to their own purposes. Just don’t change the data.

We expect and seek your criticism so that we might improve the Barometer in future years. Feel free to comment on our choice of metrics and our own biases that we have had trouble seeing. Please send your comments to John L. Graham at jgraham@uci.edu and/or Ben Leffel at bleffel@uci.edu.

John L. Graham & Ben Leffel

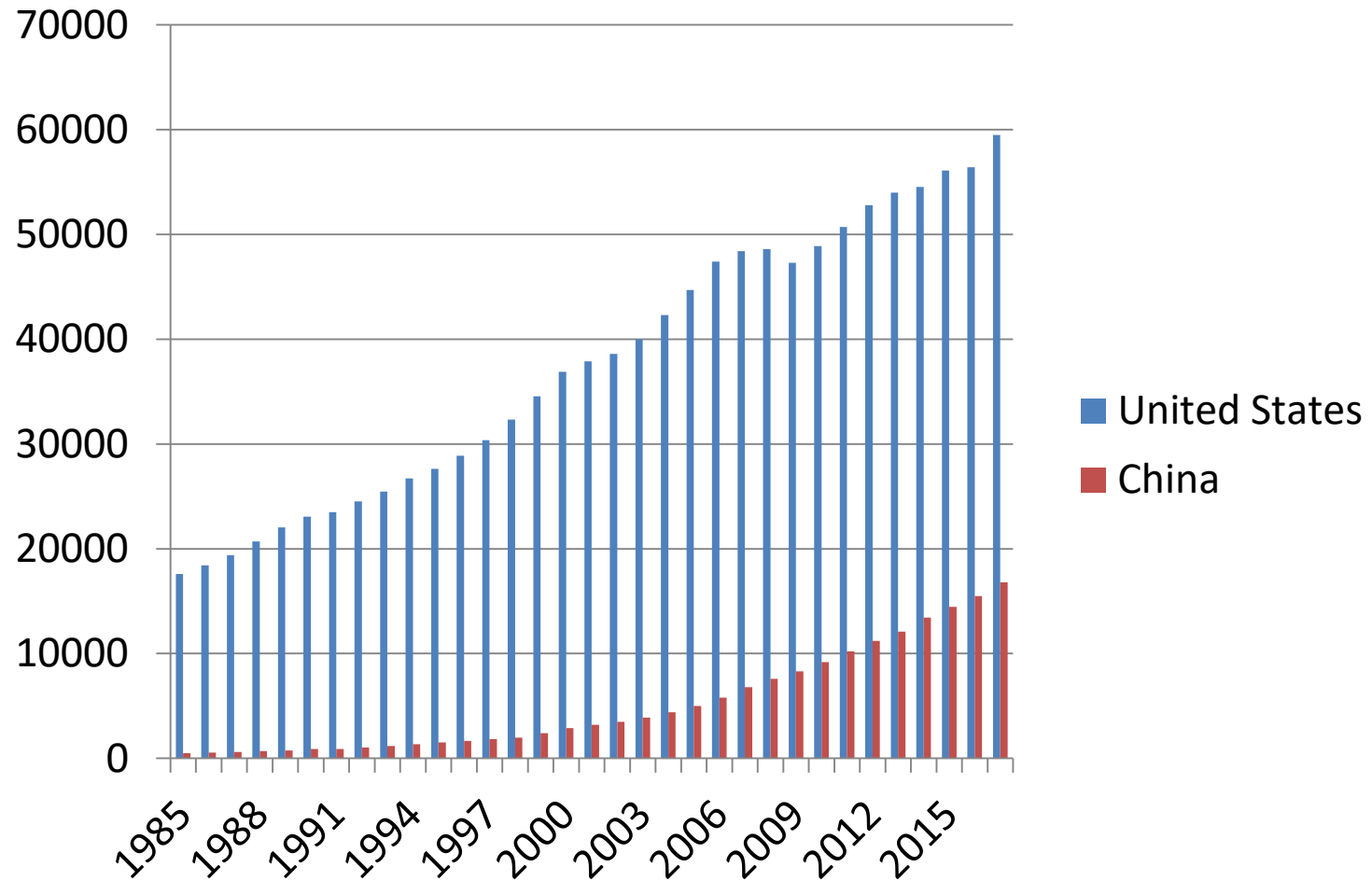
***To get an accurate picture of the world,
you have to count...we should follow the
trendlines, not the headlines.***

Steven Pinker, 2019

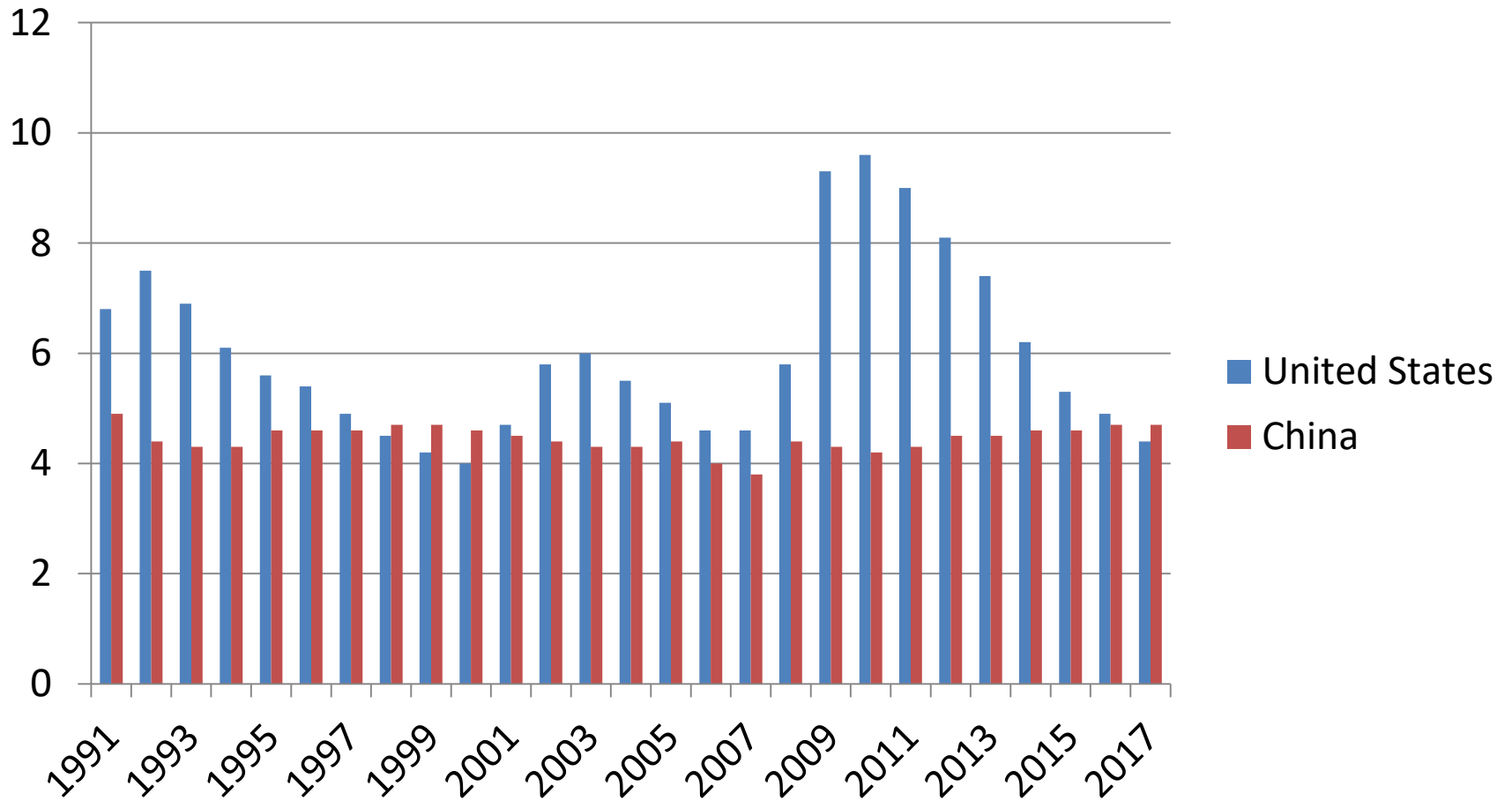
Differences

The presentation is divided into two sections. The first presents important differences across the two countries. The hope is that the differences will subside with the continued economic integration of the U.S. and China. We also look forward to improvements in both countries on all dimensions.

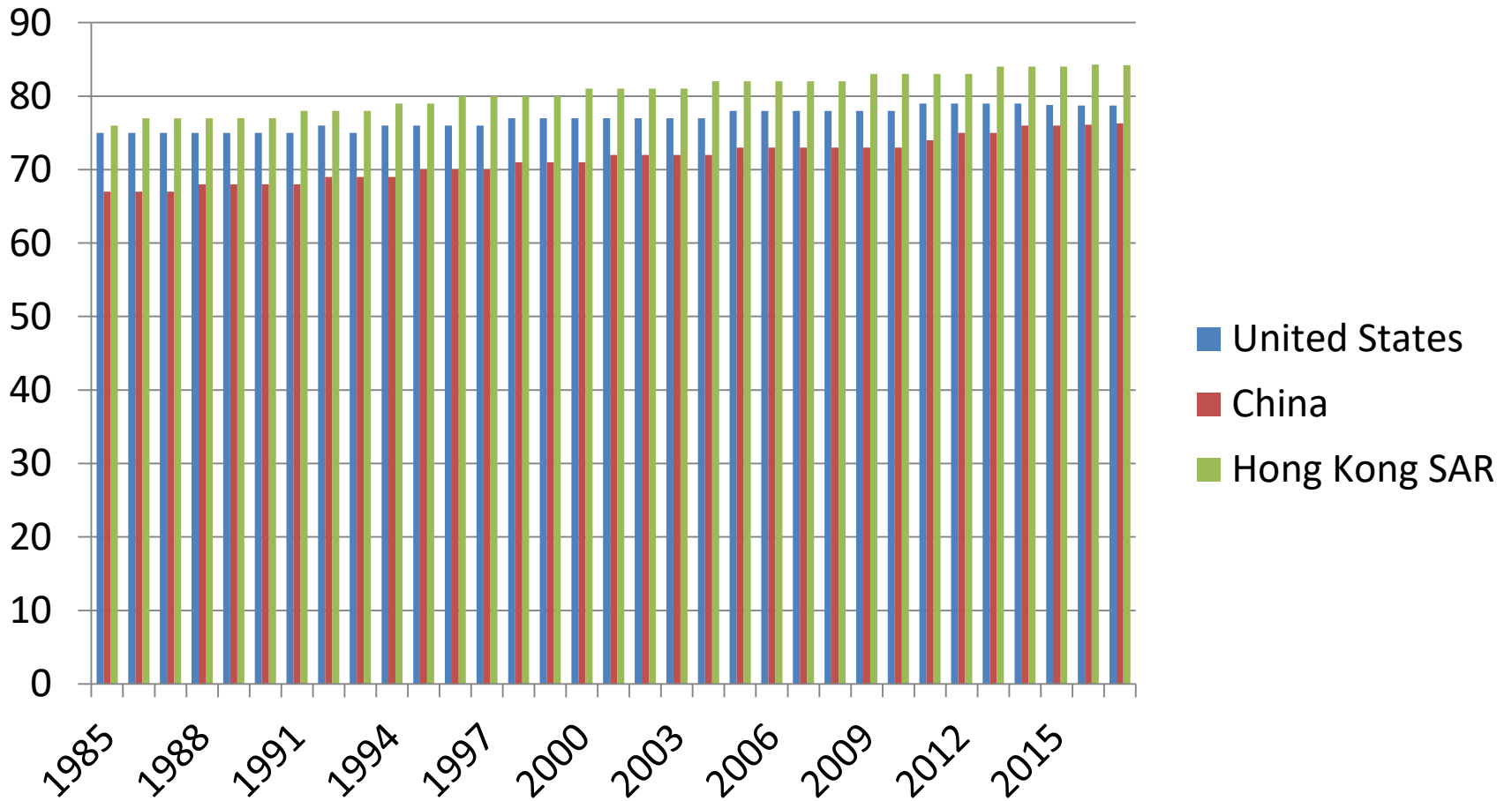
GDP per capita, PPP (current international \$)



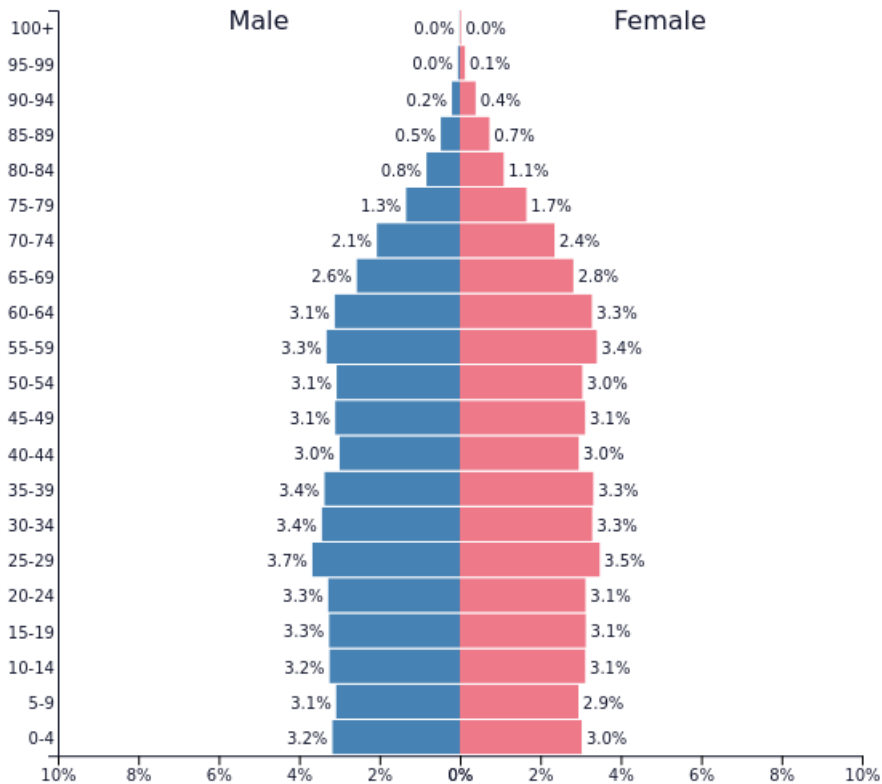
Unemployment rates (%)



Life expectancy at birth (years)

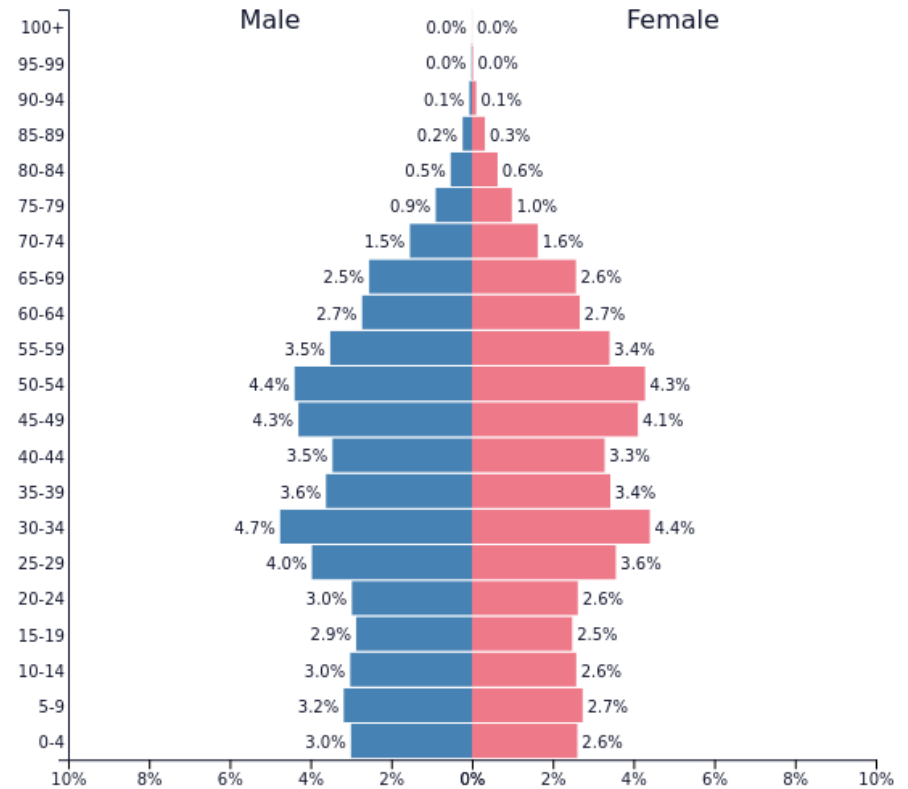


Demographic demons 2020



United States of America - 2020
Population: 333,545,529

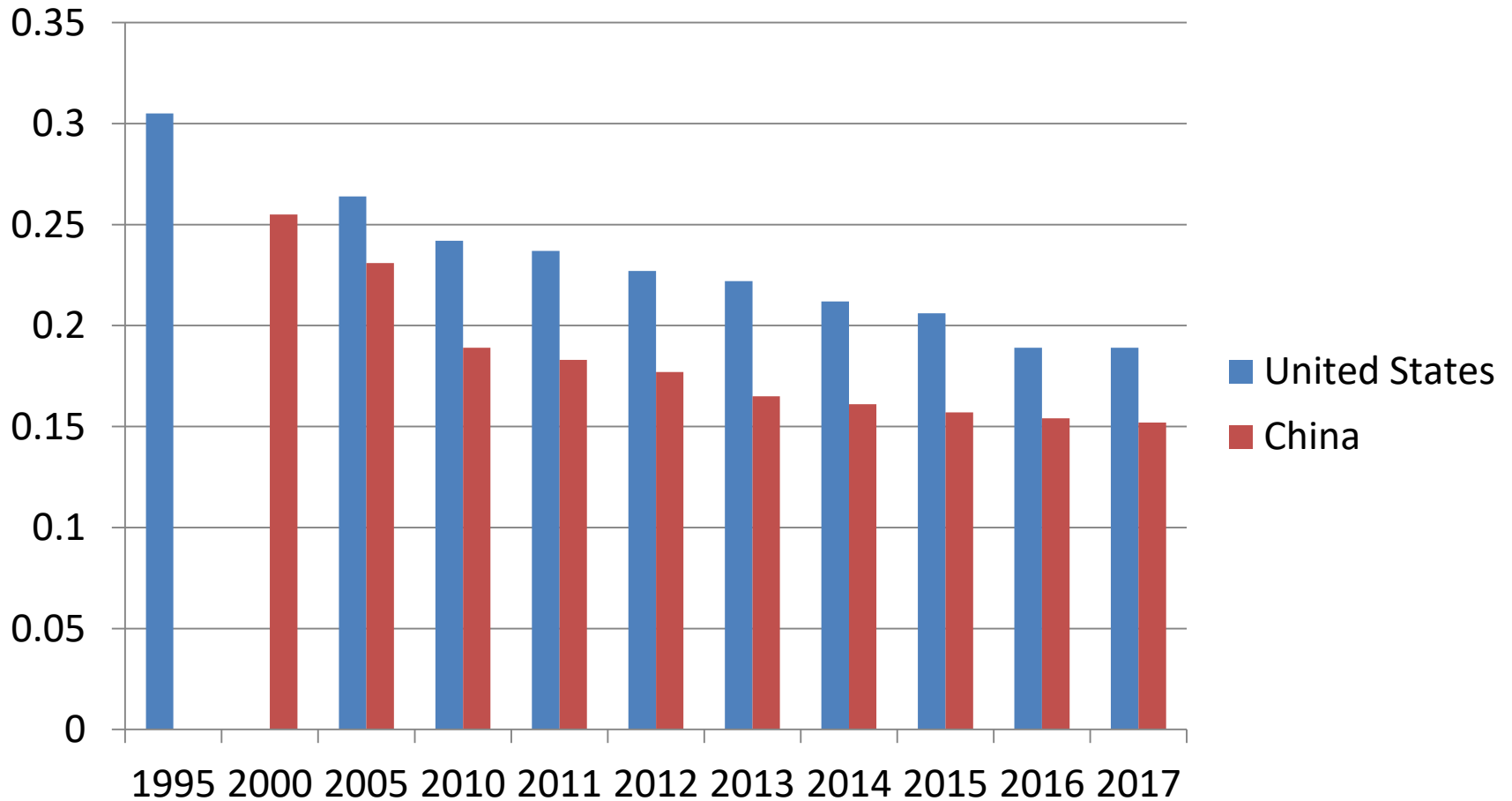
PopulationPyramid.net



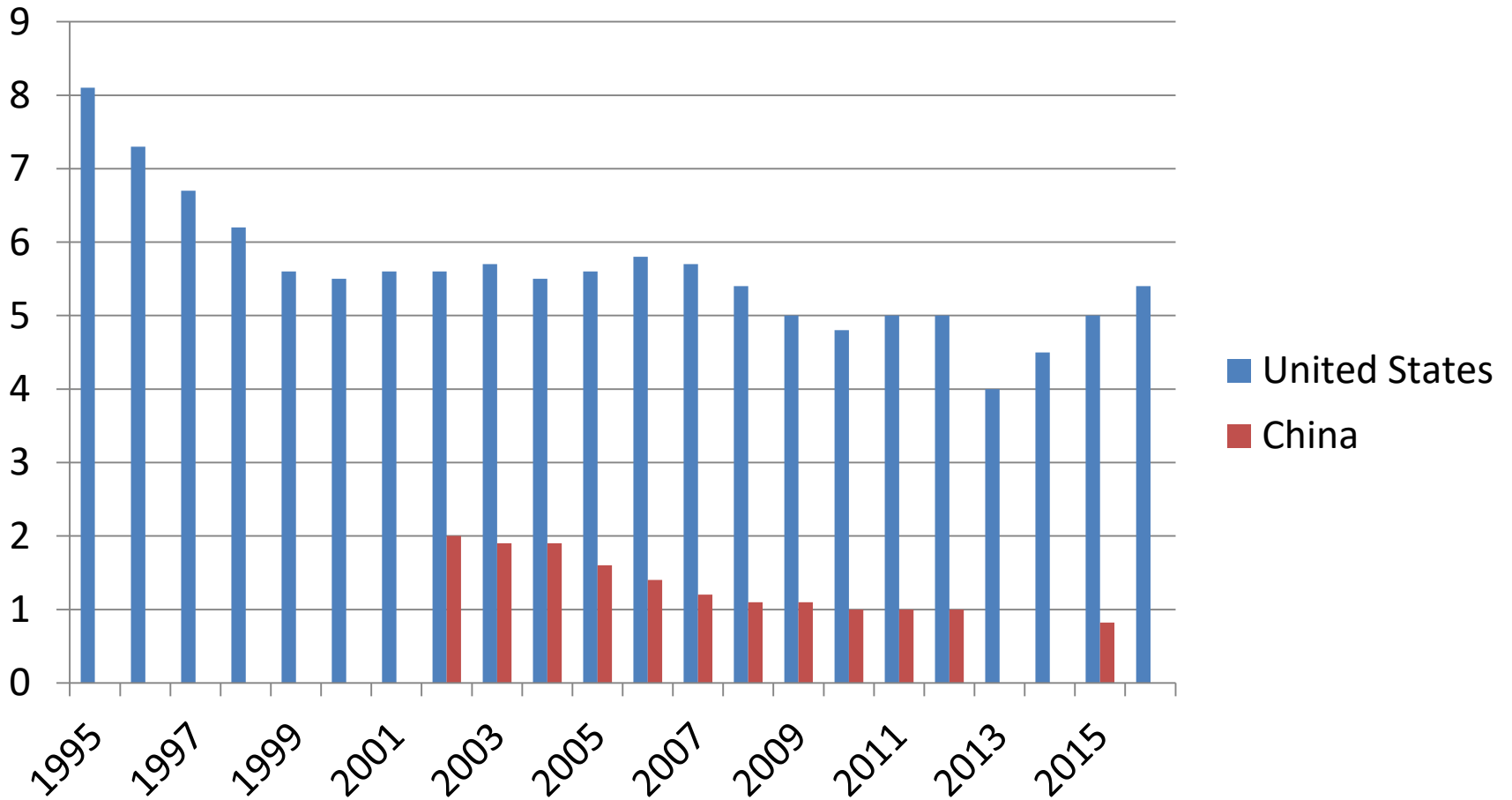
China - 2020
Population: 1,402,847,838

PopulationPyramid.net

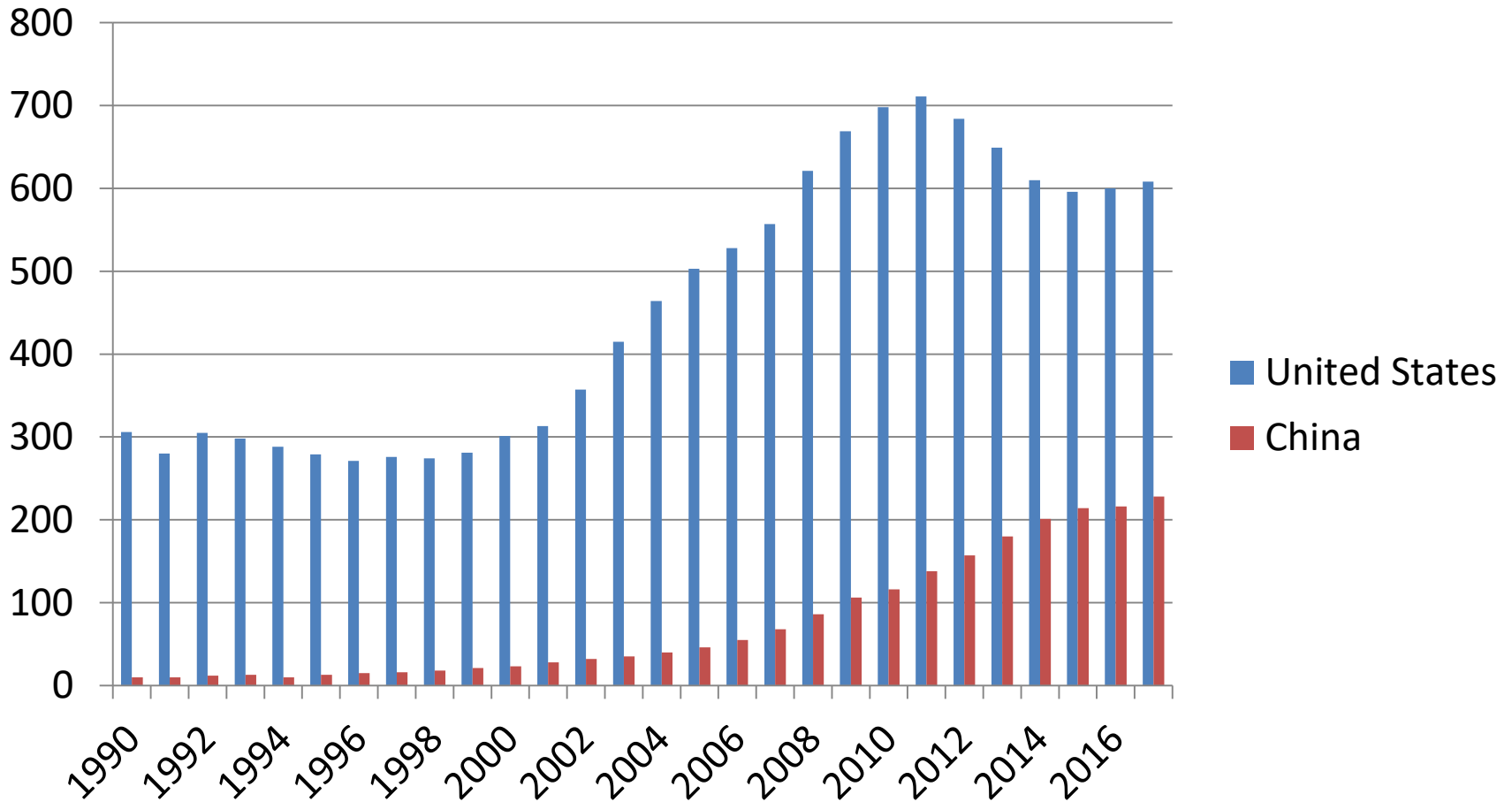
Gender inequality index (United Nations, 0.0 = equality)



Homicide rate (per 100,000)

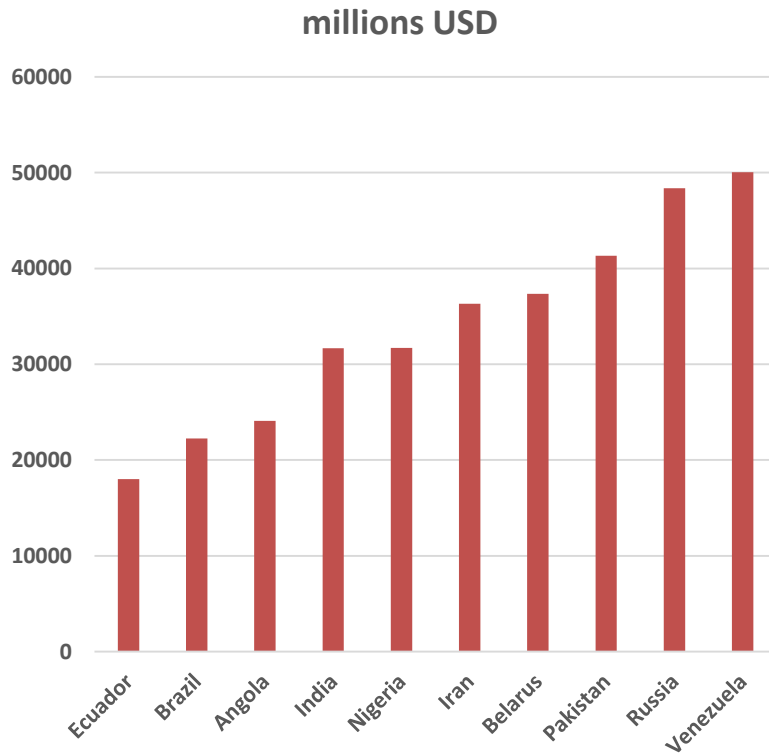


Military Spending (billions, current US\$)

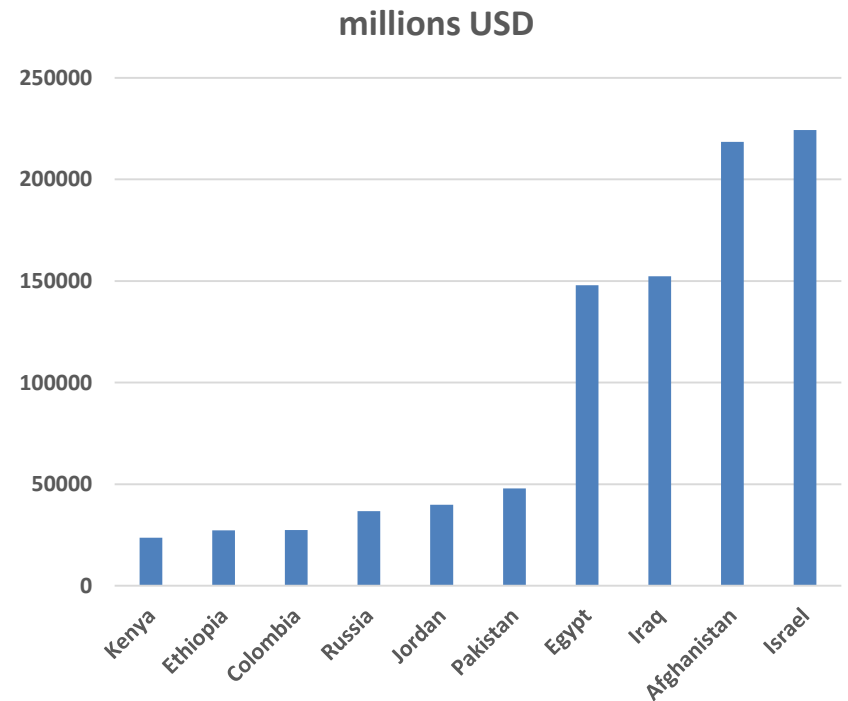


Foreign aid distribution 2000-2014 (different scales)

China

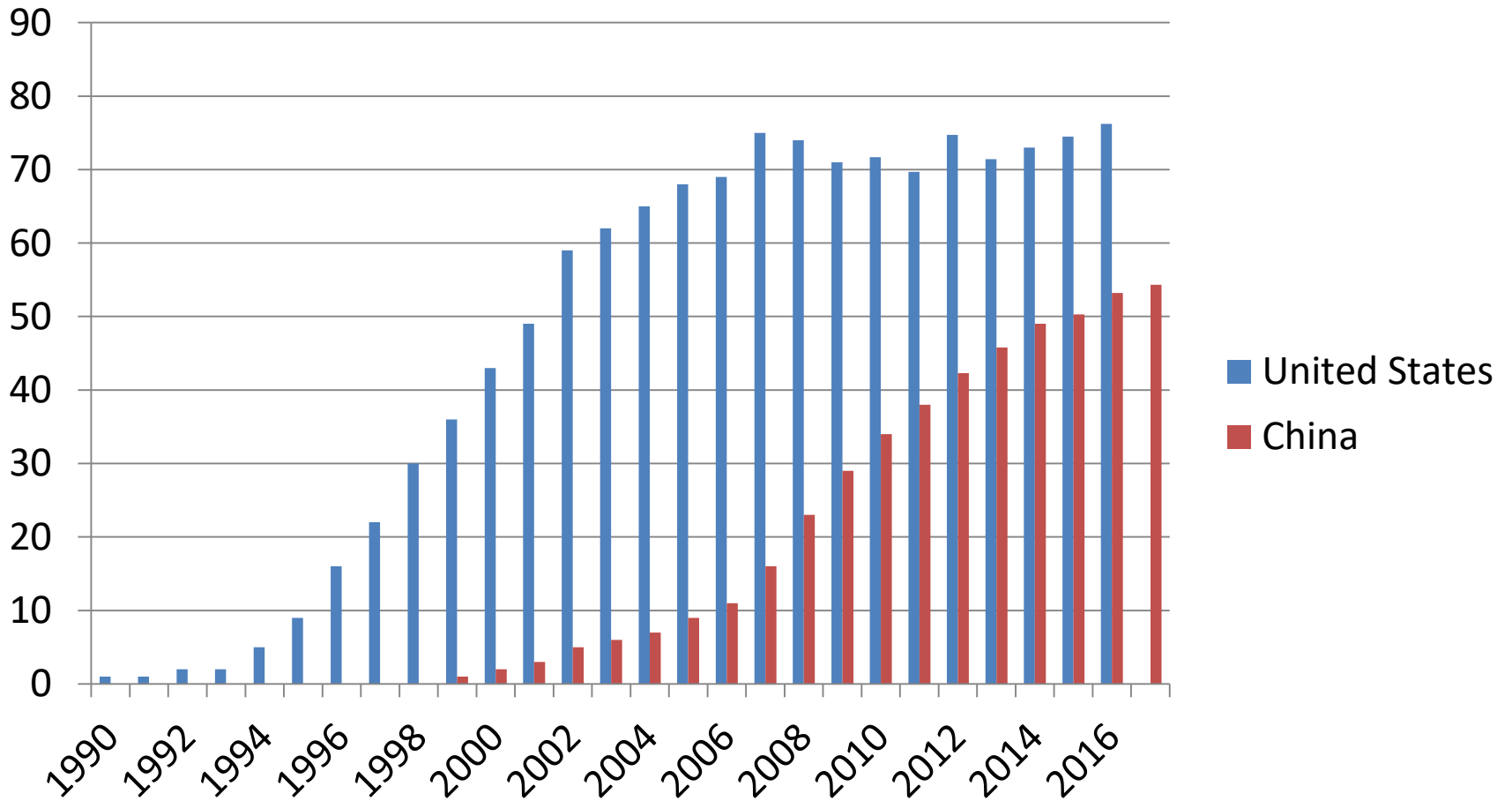


United States

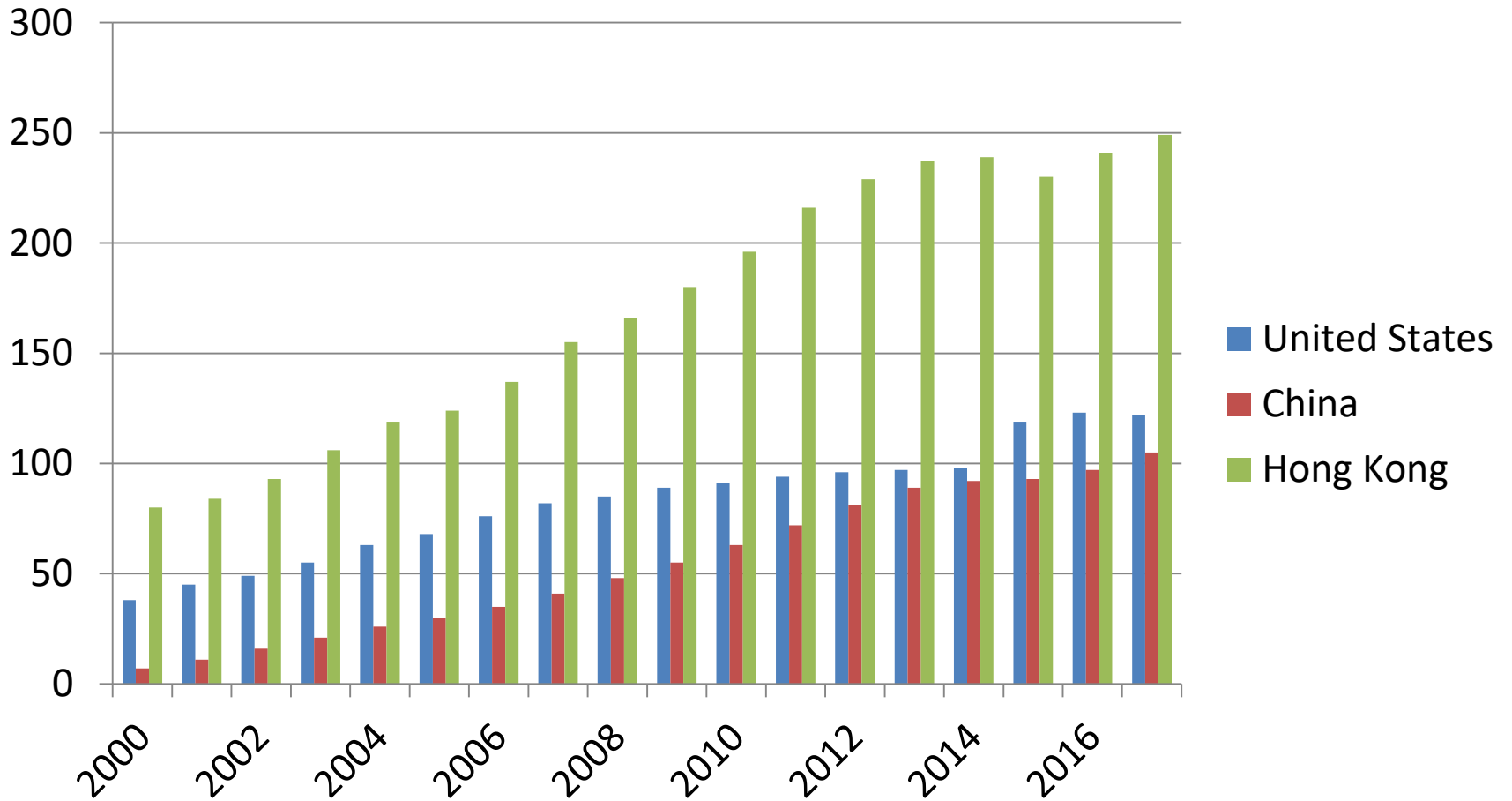


Source: AidData, William & Mary;
USAID

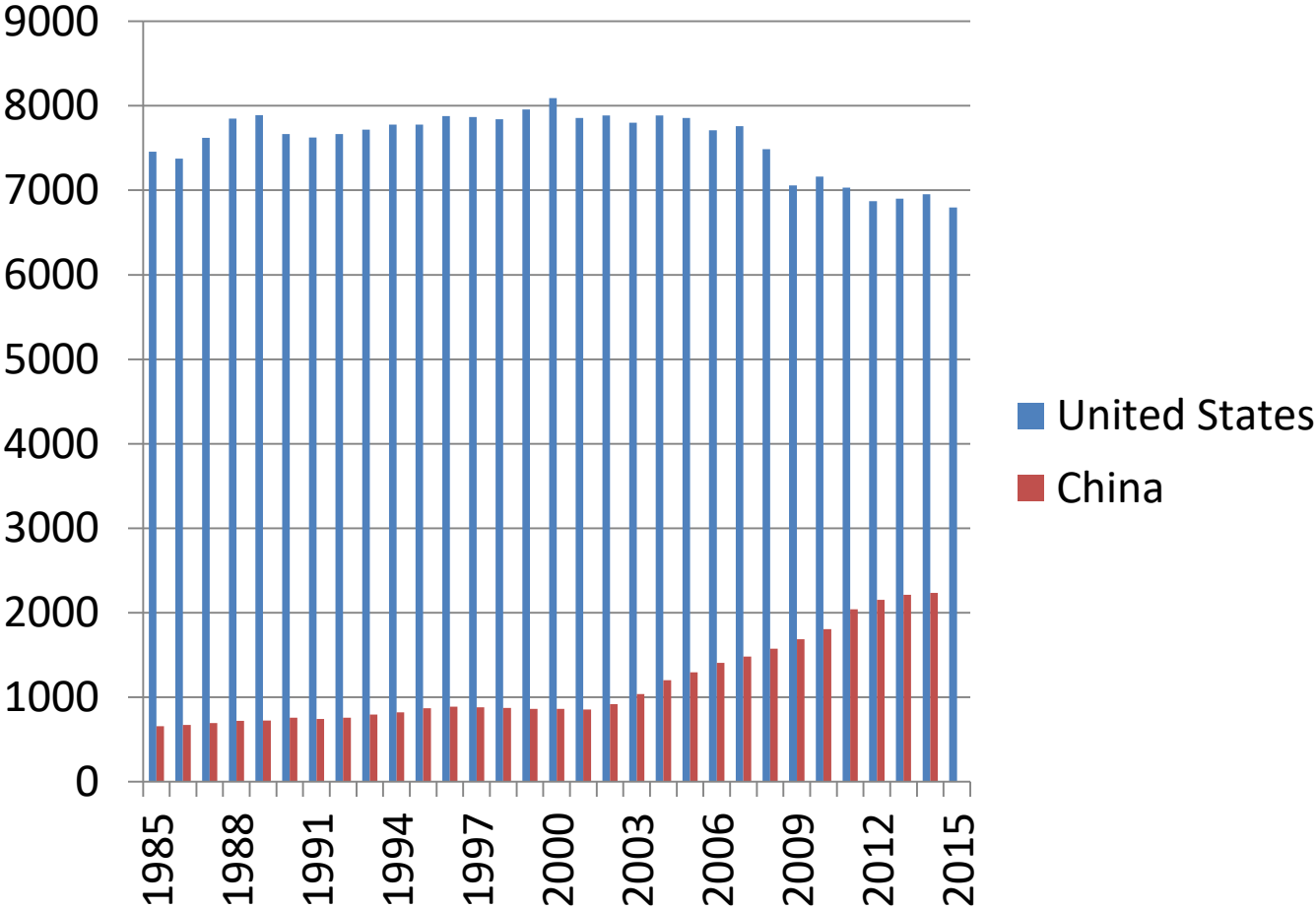
Internet users (%)



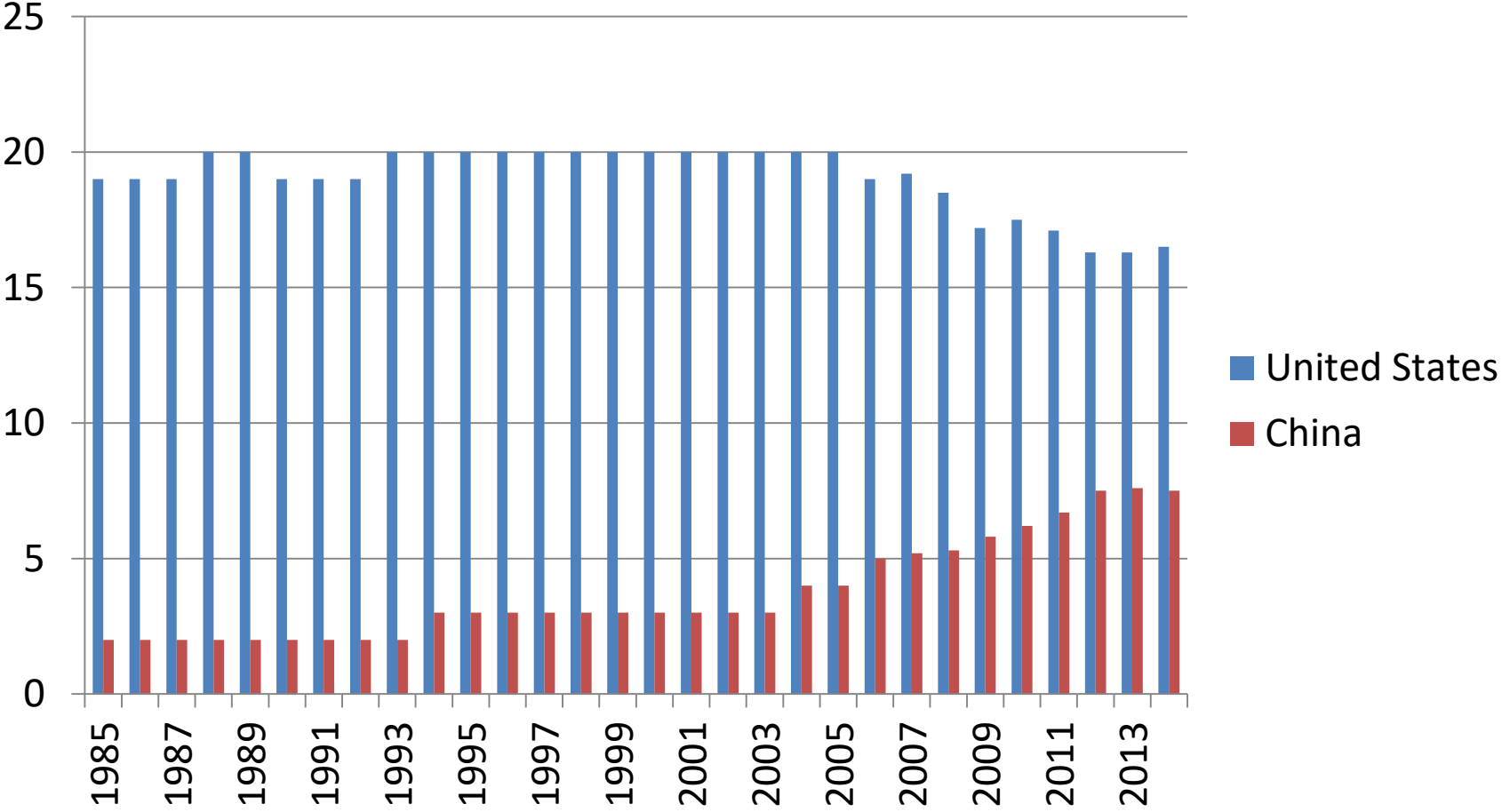
Mobile Phones (%)



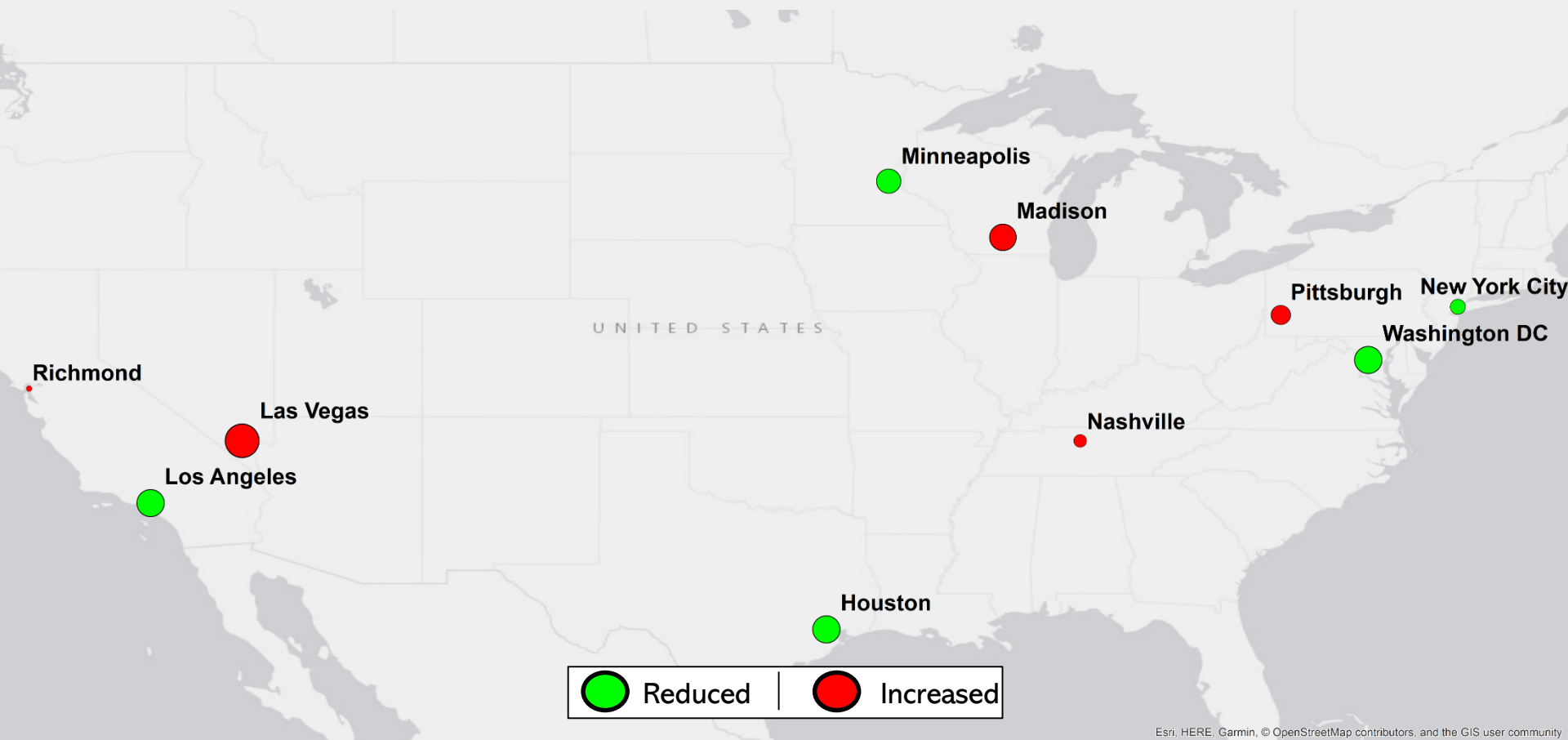
Energy use (kg of oil equivalent per capita)



CO₂ emissions (metric ton per capita)



Greenhouse gas reductions versus increases in 10 cities: United States (2005-2013)



Source: Benjamin Leffel, Dept. of Sociology, UC Irvine

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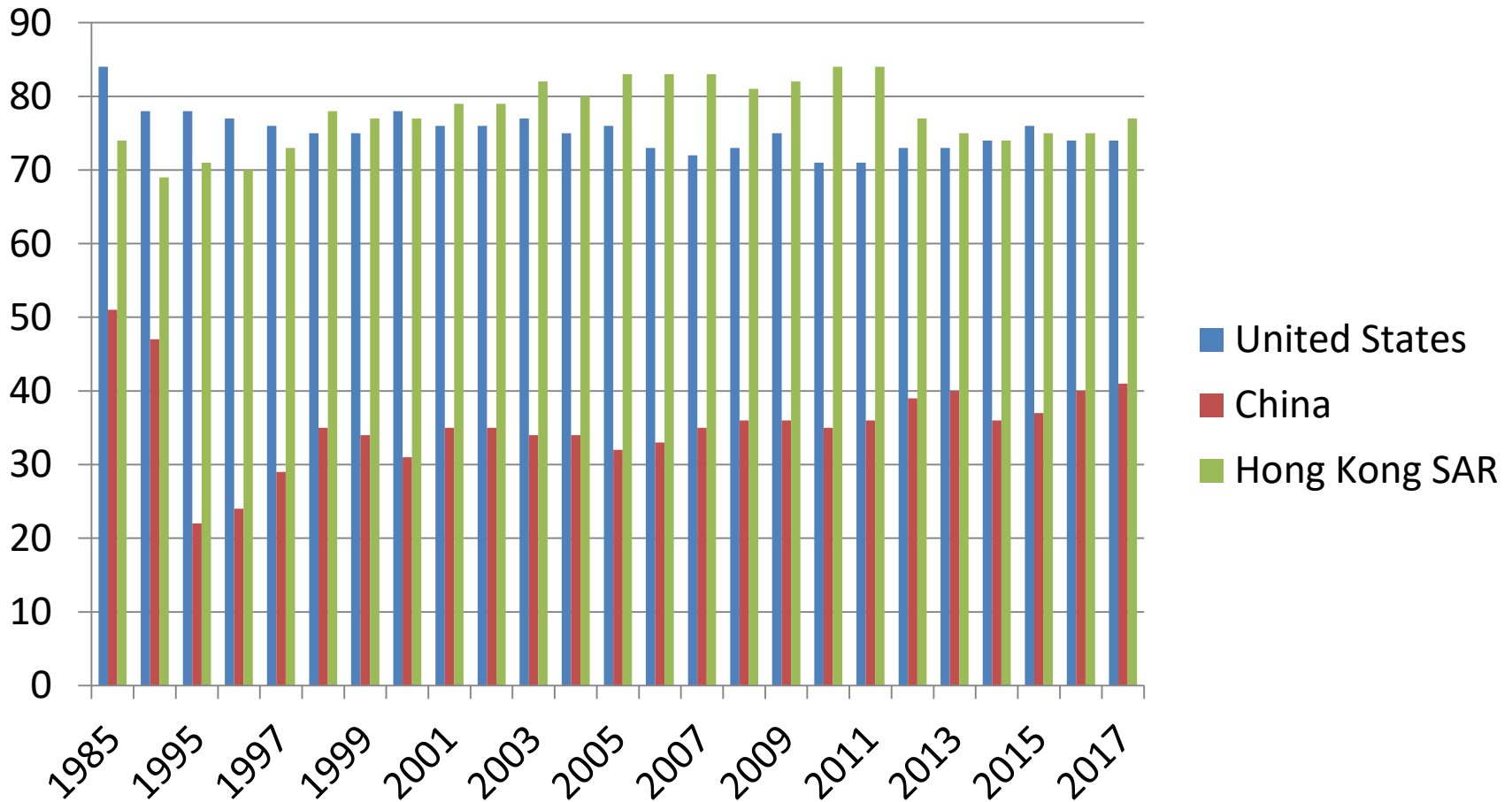
Changes in greenhouse gas emissions: 10 large Chinese cities (2005-2012)



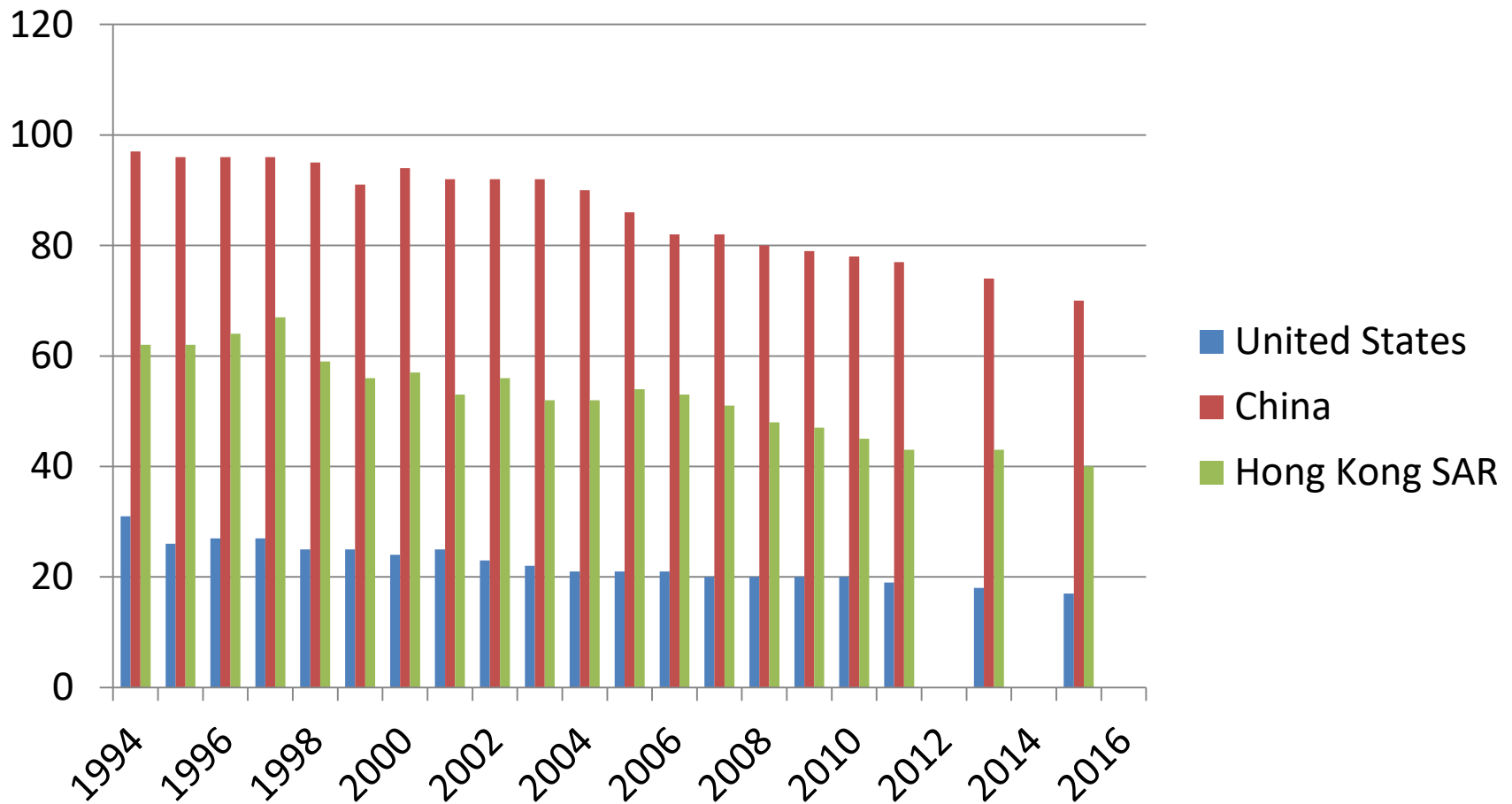
Source: Benjamin Leffel, Dept. of Sociology, UC Irvine

Corruption Perception Index

(higher scores mean bribery is less common)



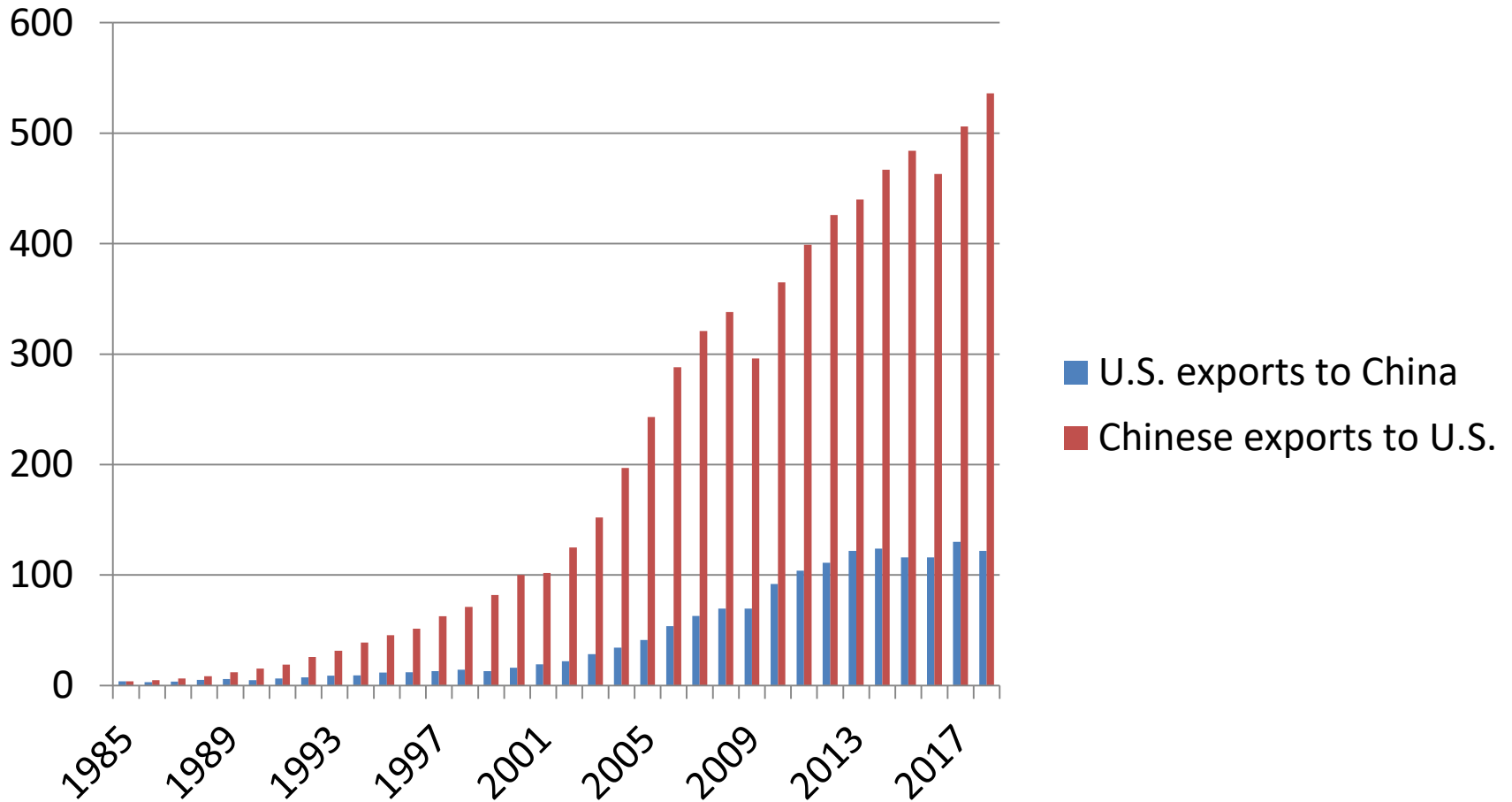
Piracy rates for computer software (% unlicensed use)



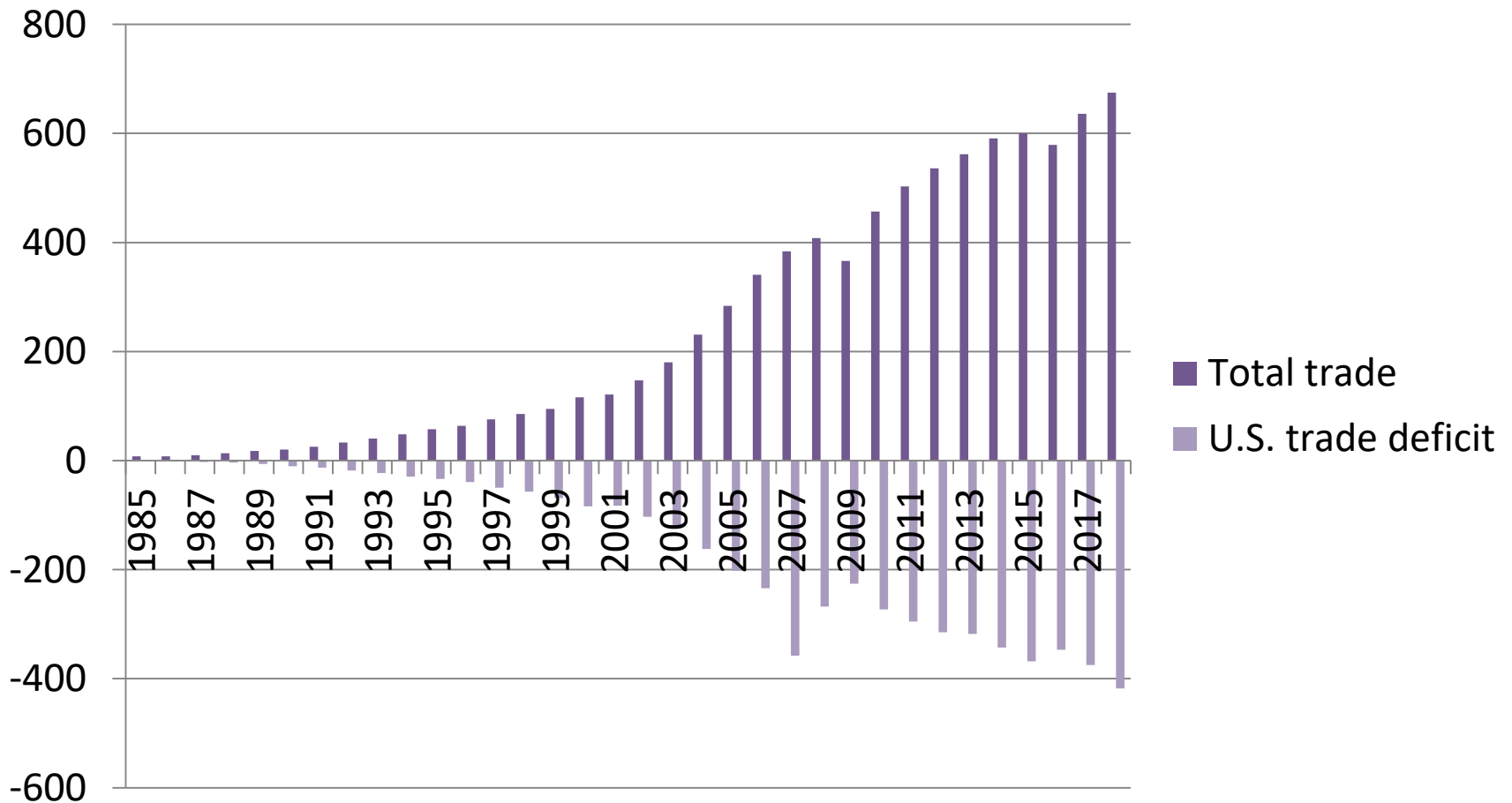
Interaction

The second group of slides presents measures of the mostly increasing interaction of the two countries. In many respects we see a strengthening of the bi-lateral relationship, but there is also disappointment in the latest data.

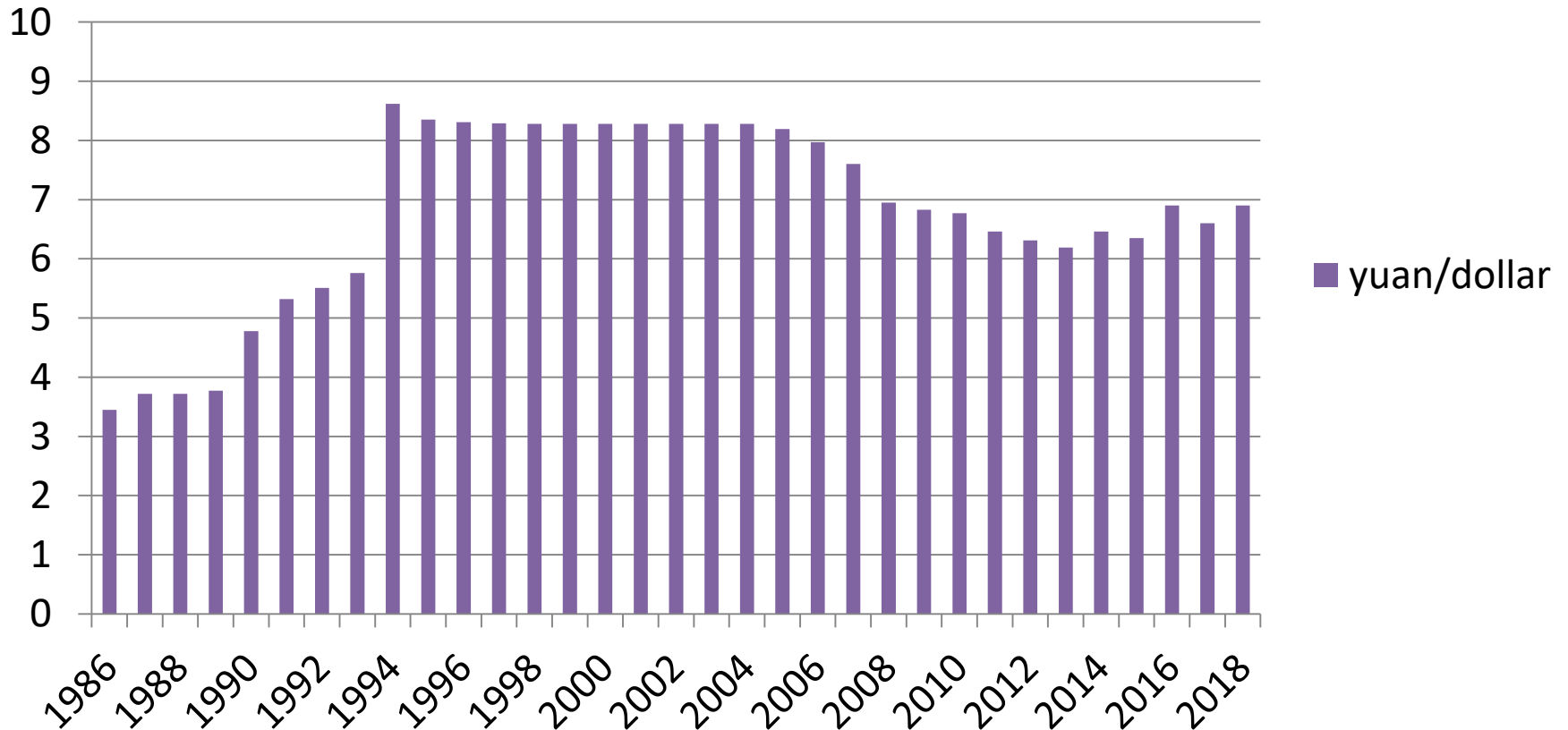
Trade in goods (\$ billion)



Total U.S.-China trade in goods and U.S. trade deficit in goods (\$ billion)

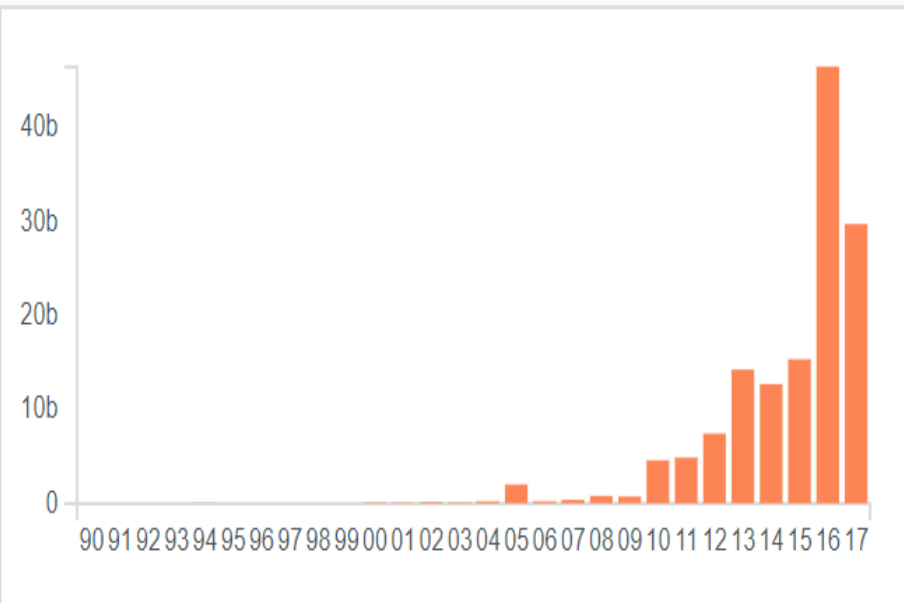


Historical currency exchange rate (yuan per one dollar)

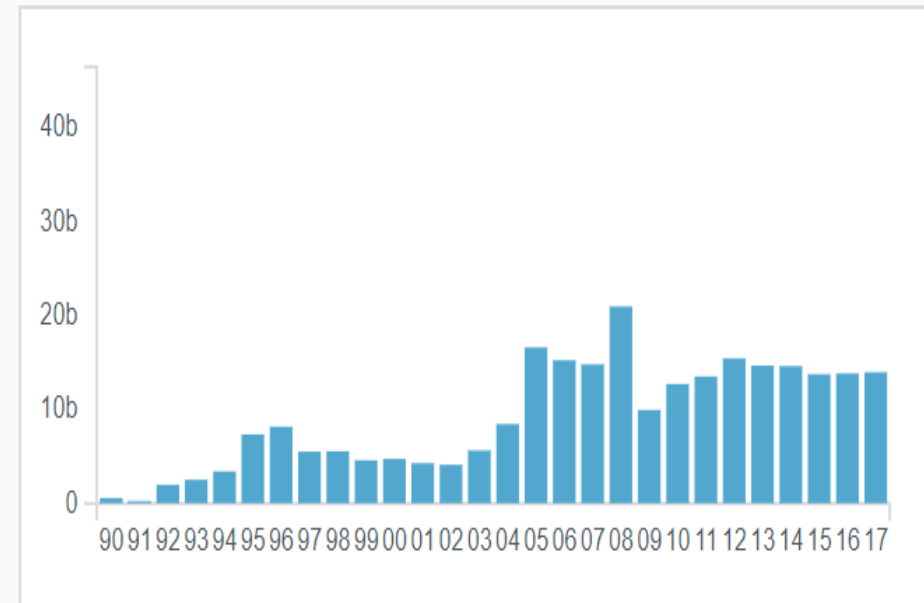


Exchange of direct investment

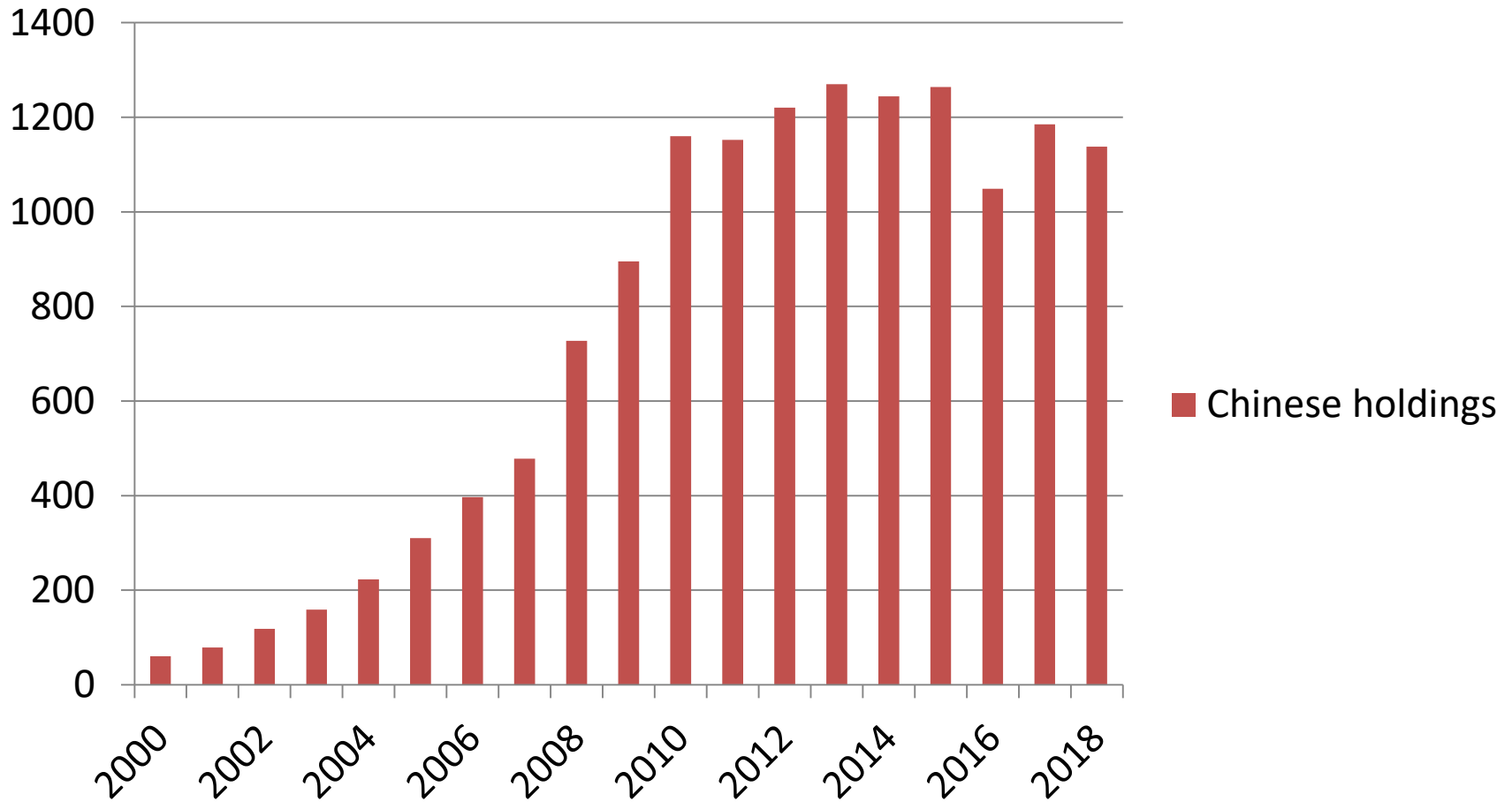
Chinese FDI in All US Industries from
1990-2017: \$139.81bn



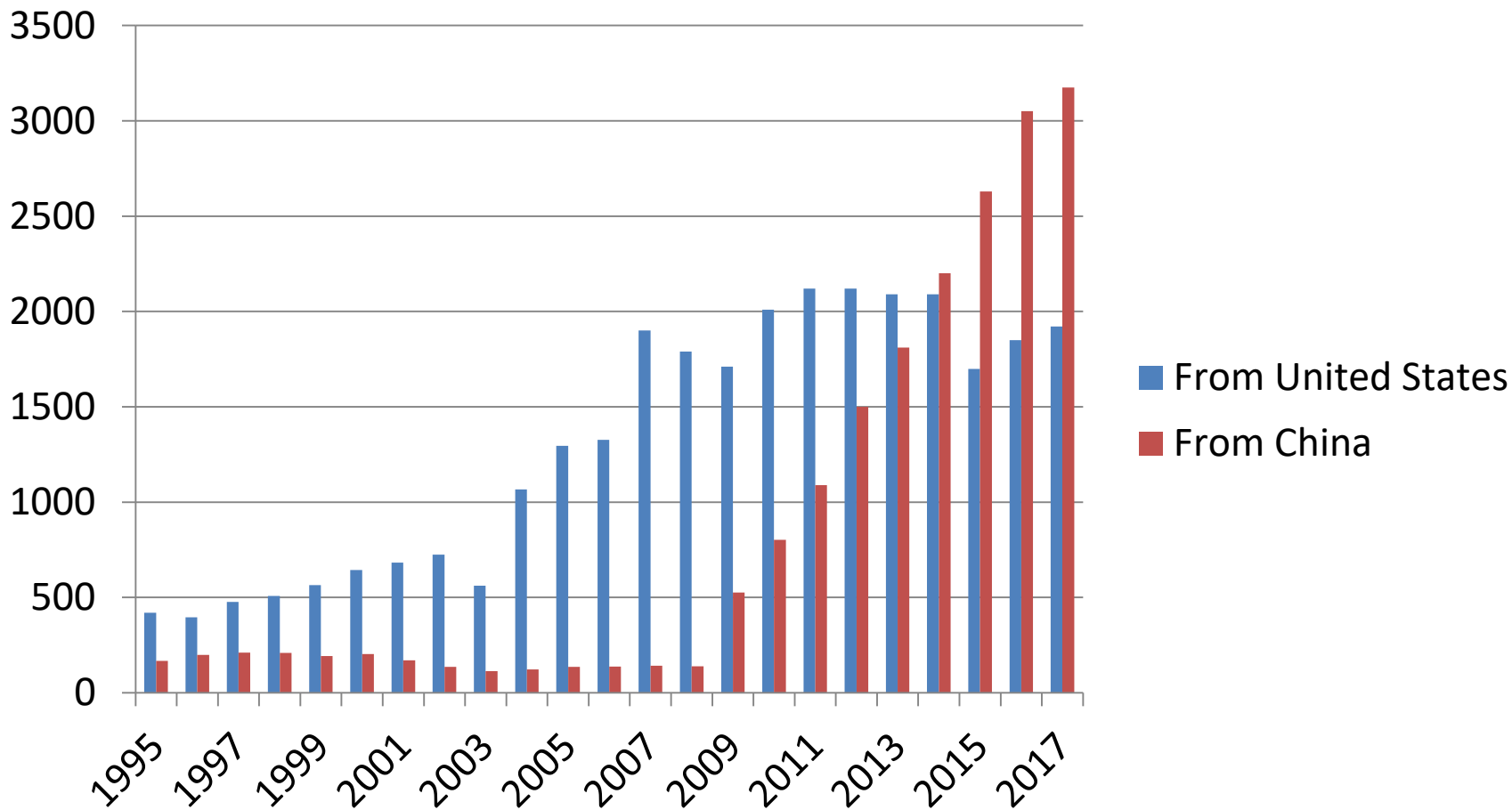
US FDI in All Chinese Industries from
1990-2017: \$256.49bn



Chinese holdings of U.S. treasuries (\$ billion)

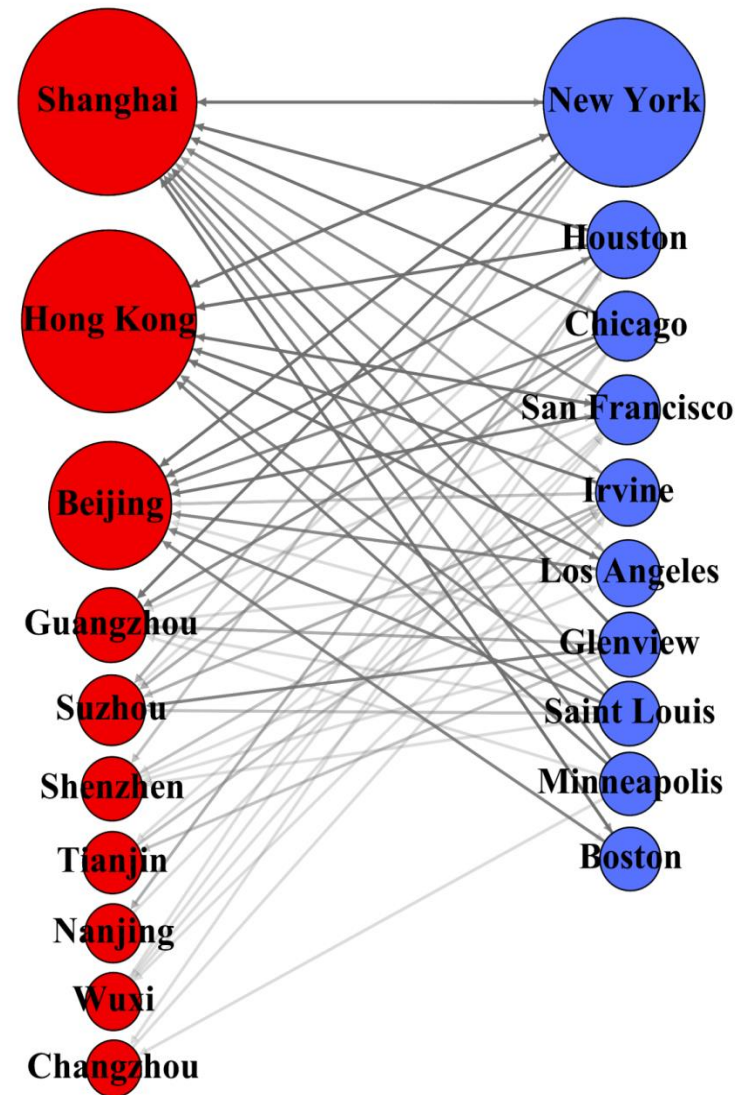


Travel between countries (thousands of passengers)

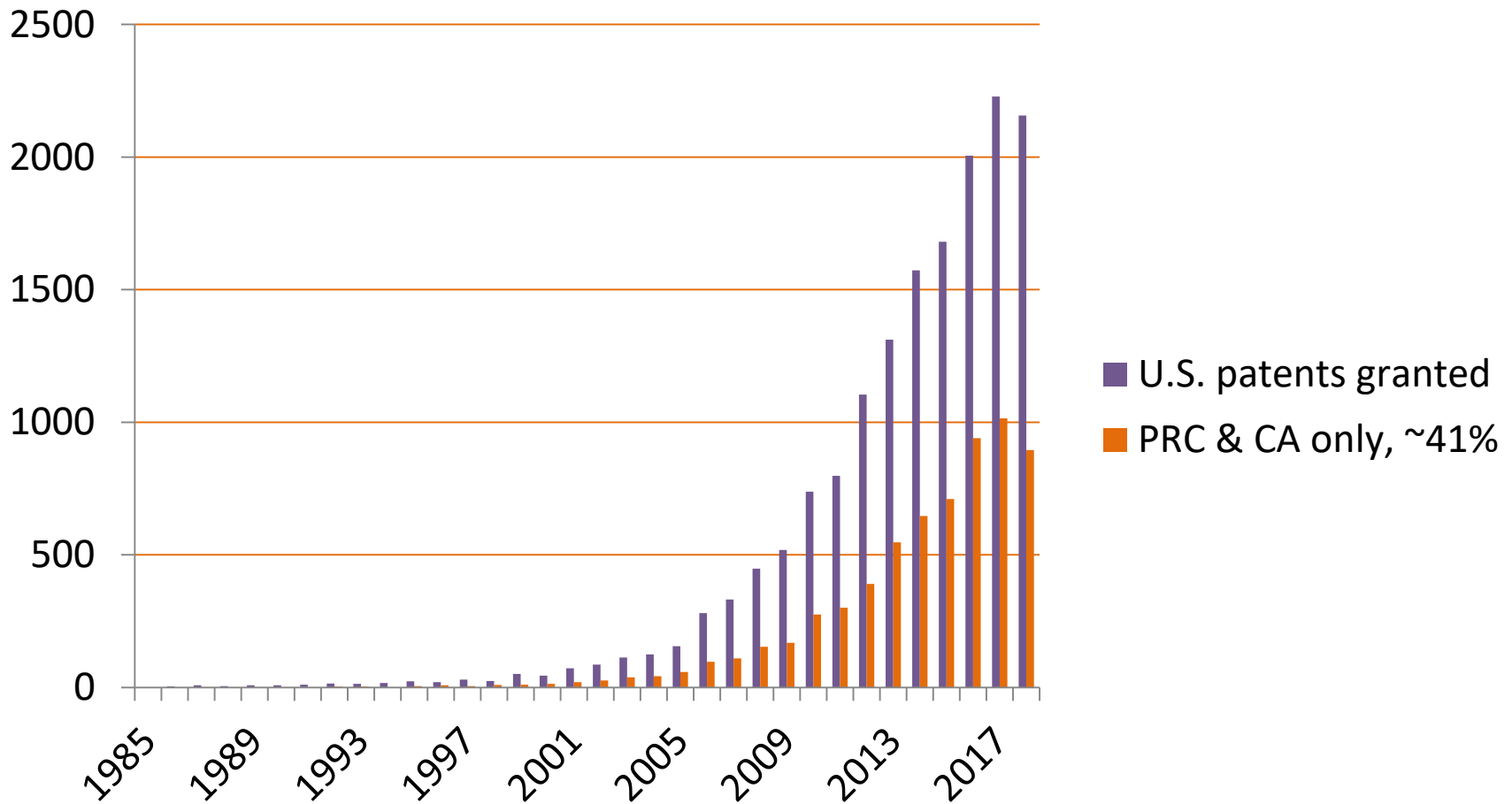


Top 10 gateway cities for bi-lateral commerce

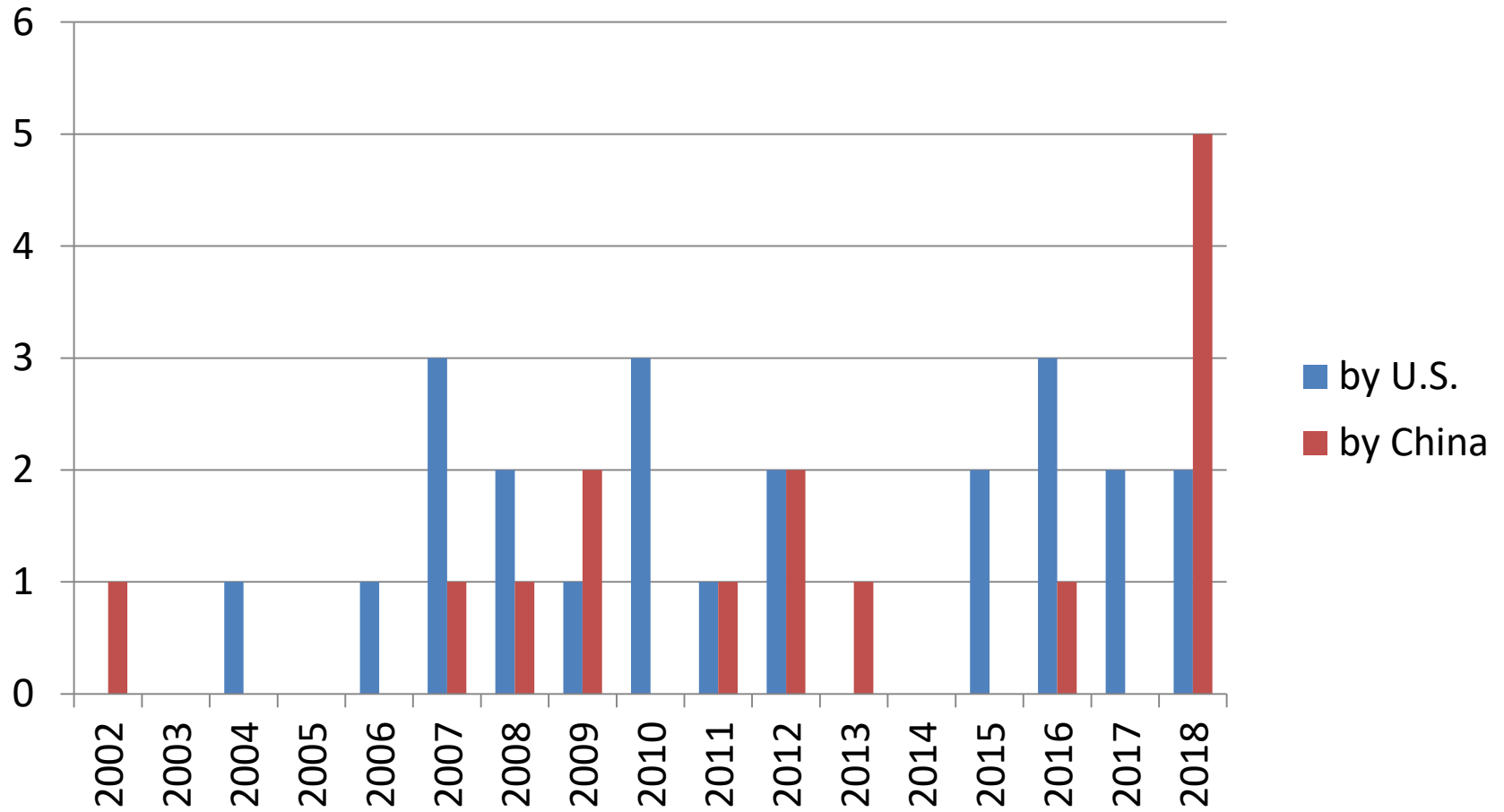
(trans-Pacific links between corporate HQs and their subsidiaries and branches)



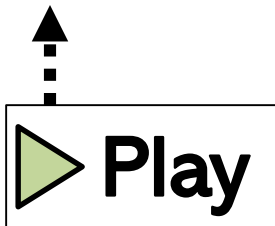
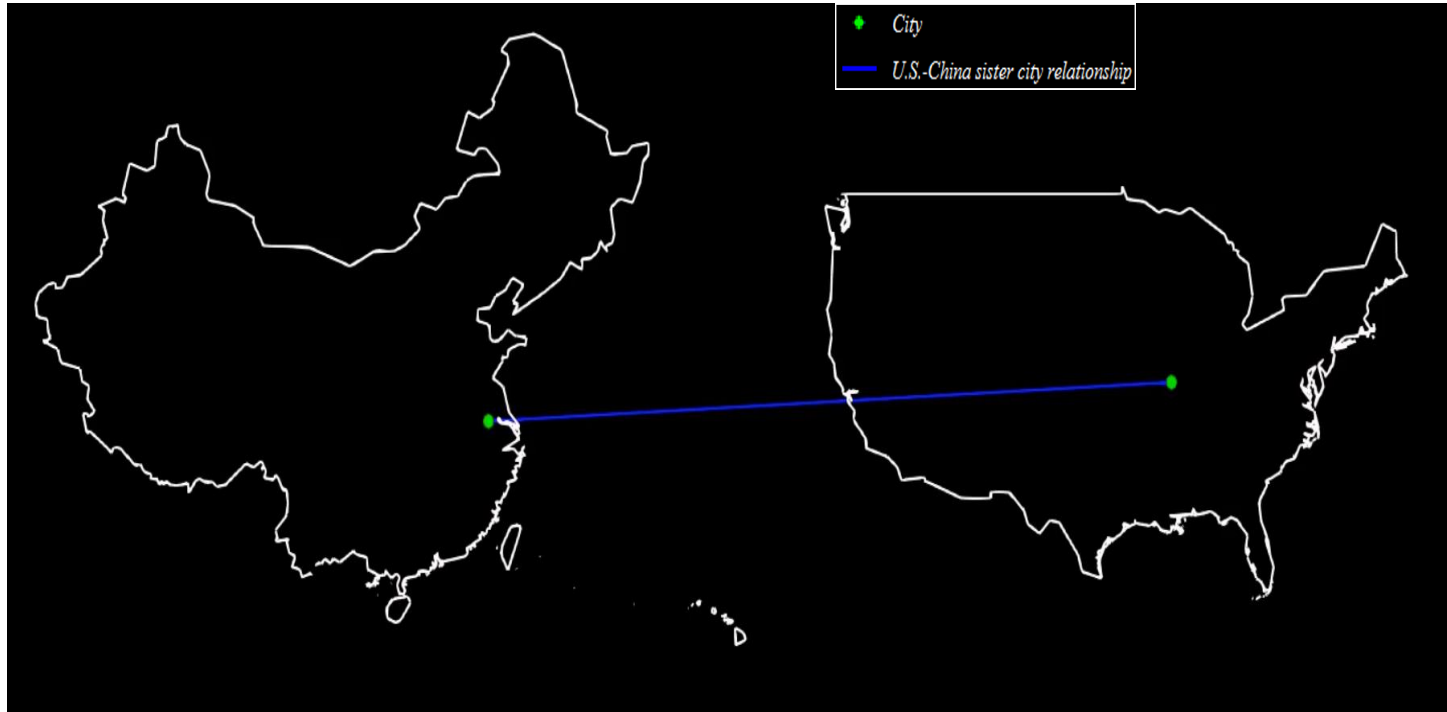
U.S. patents granted to invention teams that include both American and Chinese citizens



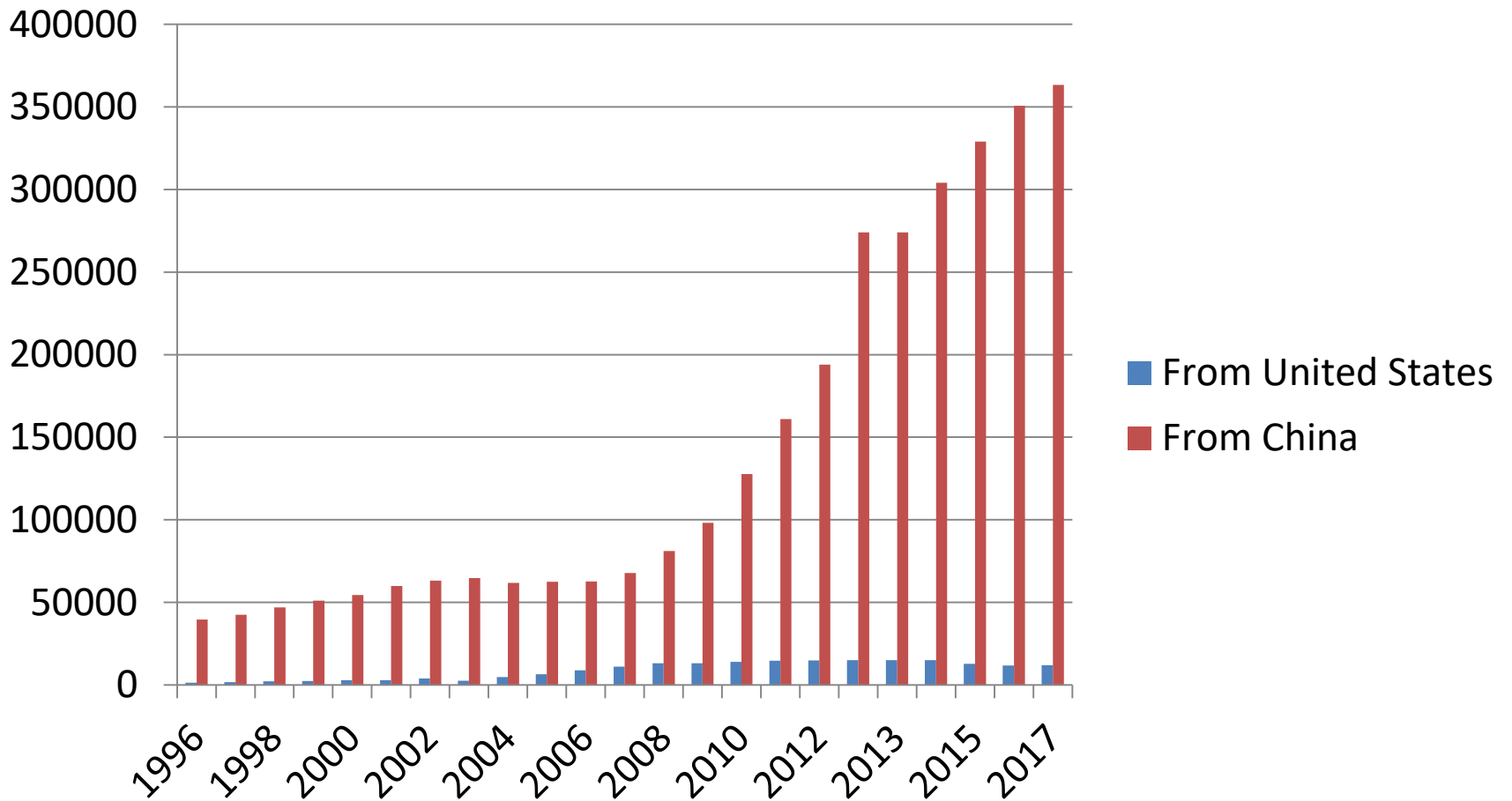
WTO complaints filed



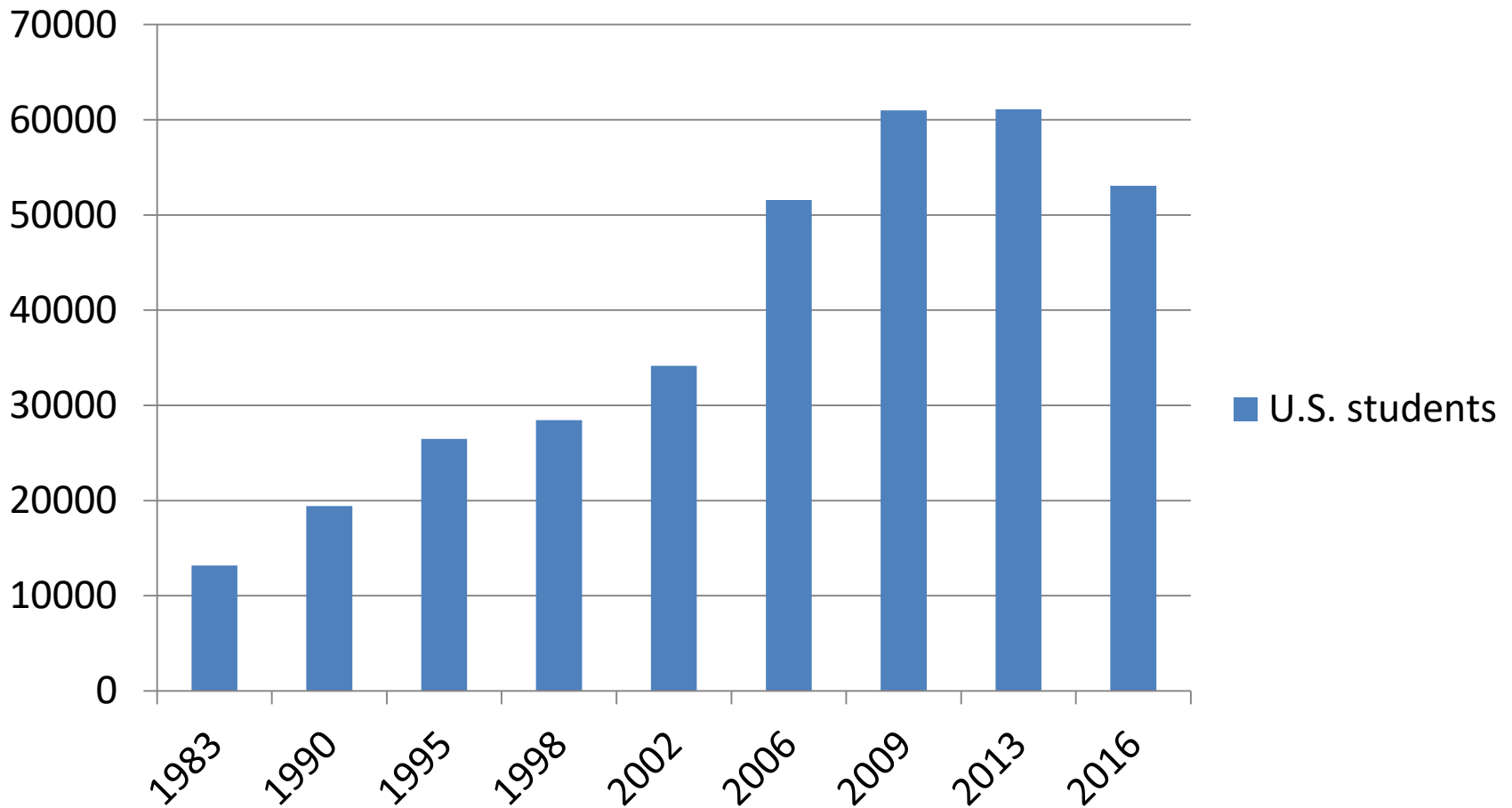
Animation of U.S.-China sister city formation, 1979-2009



Educational exchange students



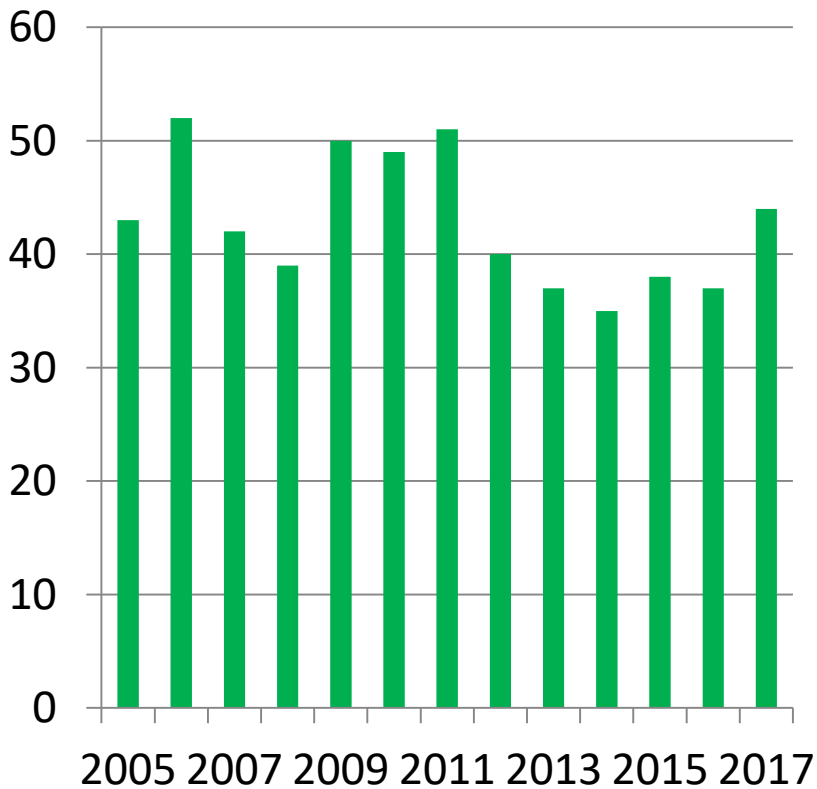
Chinese language training in higher education in U.S. (number of students)



Public opinion

(Pew Research Center 2019)

Americans' ratings of China,
% approving



Chinese ratings of America,
% approving

