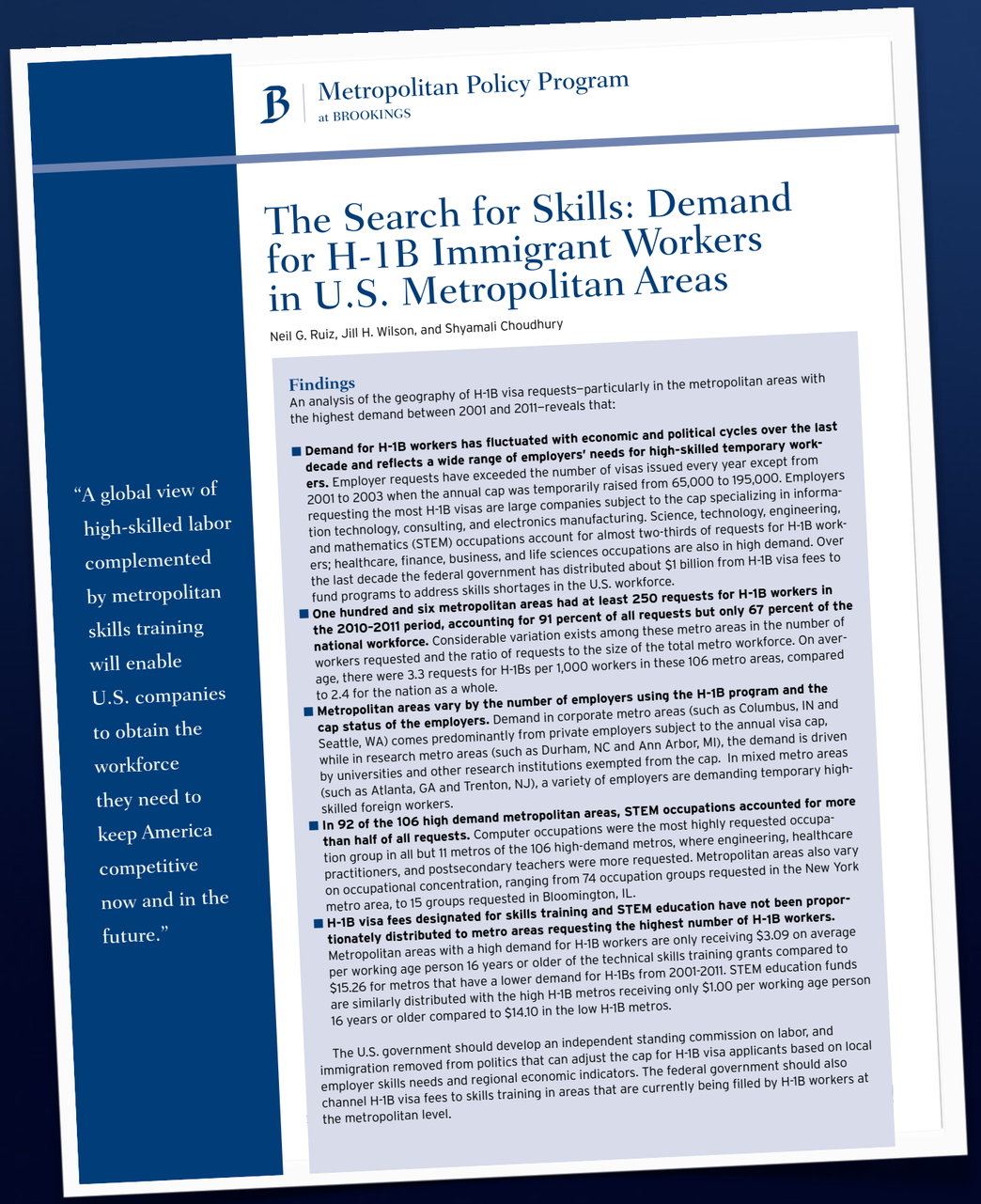
The Search for Skills

The Demand for H-1B Workers in U.S. Metros

Metropolitan Policy Program
at BROOKINGS

Washington, DC / July 18, 2012



Metropolitan Policy Program
at BROOKINGS

The Search for Skills: Demand for H-1B Immigrant Workers in U.S. Metropolitan Areas

Neil G. Ruiz, Jill H. Wilson, and Shyamali Choudhury

"A global view of high-skilled labor complemented by metropolitan skills training will enable U.S. companies to obtain the workforce they need to keep America competitive now and in the future."

Findings

An analysis of the geography of H-1B visa requests—particularly in the metropolitan areas with the highest demand between 2001 and 2011—reveals that:

- **Demand for H-1B workers has fluctuated with economic and political cycles over the last decade and reflects a wide range of employers' needs for high-skilled temporary workers.** Employer requests have exceeded the number of visas issued every year except from 2001 to 2003 when the annual cap was temporarily raised from 65,000 to 195,000. Employers requesting the most H-1B visas are large companies subject to the cap specializing in information technology, consulting, and electronics manufacturing. Science, technology, engineering, and mathematics (STEM) occupations account for almost two-thirds of requests for H-1B workers; healthcare, finance, business, and life sciences occupations are also in high demand. Over the last decade the federal government has distributed about $1 billion from H-1B visa fees to fund programs to address skills shortages in the U.S. workforce.
- **One hundred and six metropolitan areas had at least 250 requests for H-1B workers in the 2010-2011 period, accounting for 91 percent of all requests but only 67 percent of the national workforce.** Considerable variation exists among these metro areas in the number of workers requested and the ratio of requests to the size of the total metro workforce. On average, there were 3.3 requests for H-1Bs per 1,000 workers in these 106 metro areas, compared to 2.4 for the nation as a whole.
- **Metropolitan areas vary by the number of employers using the H-1B program and the cap status of the employers.** Demand in corporate metro areas (such as Columbus, IN and Seattle, WA) comes predominantly from private employers subject to the annual visa cap, while in research metro areas (such as Durham, NC and Ann Arbor, MI), the demand is driven by universities and other research institutions exempted from the cap. In mixed metro areas (such as Atlanta, GA and Trenton, NJ), a variety of employers are demanding temporary high-skilled foreign workers.
- **In 92 of the 106 high demand metropolitan areas, STEM occupations accounted for more than half of all requests.** Computer occupations were the most highly requested occupation group in all but 11 metros of the 106 high-demand metros, where engineering, healthcare practitioners, and postsecondary teachers were more requested. Metropolitan areas also vary on occupational concentration, ranging from 74 occupation groups requested in the New York metro area, to 15 groups requested in Bloomington, IL.
- **H-1B visa fees designated for skills training and STEM education have not been proportionately distributed to metro areas requesting the highest number of H-1B workers.** Metropolitan areas with a high demand for H-1B workers are only receiving $3.09 on average per working age person 16 years or older of the technical skills training grants compared to $15.26 for metros that have a lower demand for H-1Bs from 2001-2011. STEM education funds are similarly distributed with the high H-1B metros receiving only $1.00 per working age person 16 years or older compared to $14.10 in the low H-1B metros.

The U.S. government should develop an independent standing commission on labor, and immigration removed from politics that can adjust the cap for H-1B visa applicants based on local employer skills needs and regional economic indicators. The federal government should also channel H-1B visa fees to skills training in areas that are currently being filled by H-1B workers at the metropolitan level.

2+ million

employer requests for H-1B visas, 2001-2011

A skilled workforce provides the foundation for metropolitan areas to transition to the Next Economy

1 2 3

1 The H-1B Program connects US employers to high-skilled workers

1 2 3

2 Metros drive demand for H-1B workers

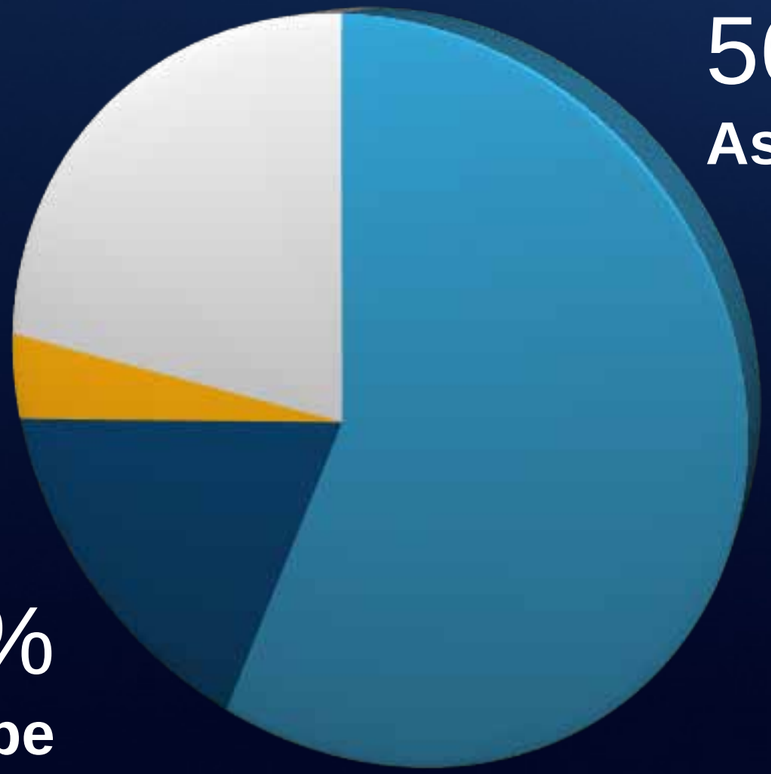
1 2 3

3 The US must match the supply of skilled workers to metro demand

1 2 3

1 The H-1B Program connects US employers to high-skilled workers

Share of Global Engineering BAs



56%
Asia

4%
United States

17%
Europe

Source: National Science Foundation, Science and Engineering Indicators (2012)

H-1B Visa Program

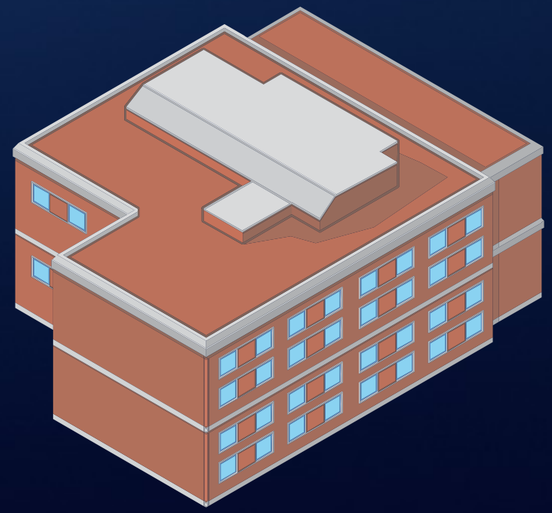
H-1B Visa Program: Dual Approach

1 Employers apply for high-skilled worker visas to meet demand for specialty occupations

H-1B Temporary Work Visas

Private Firms

Capped



Research, Non-Profit,
Government Organizations

Uncapped

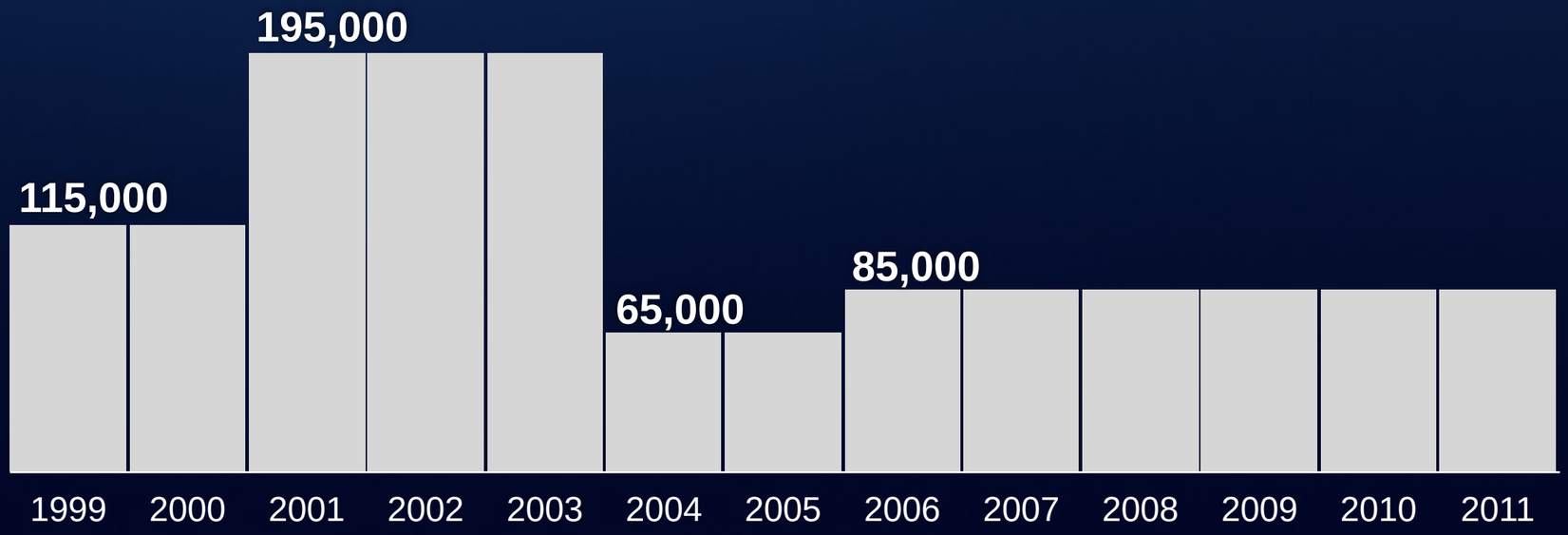
H-1B Temporary Work Visas

Private Firms

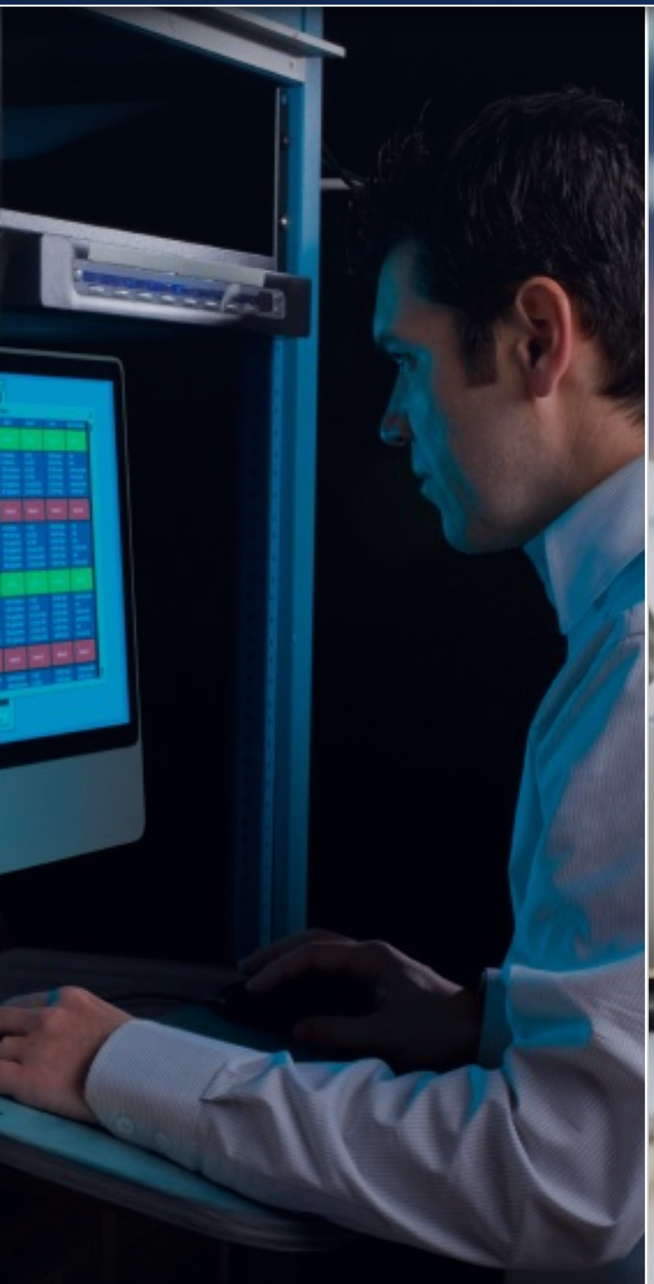
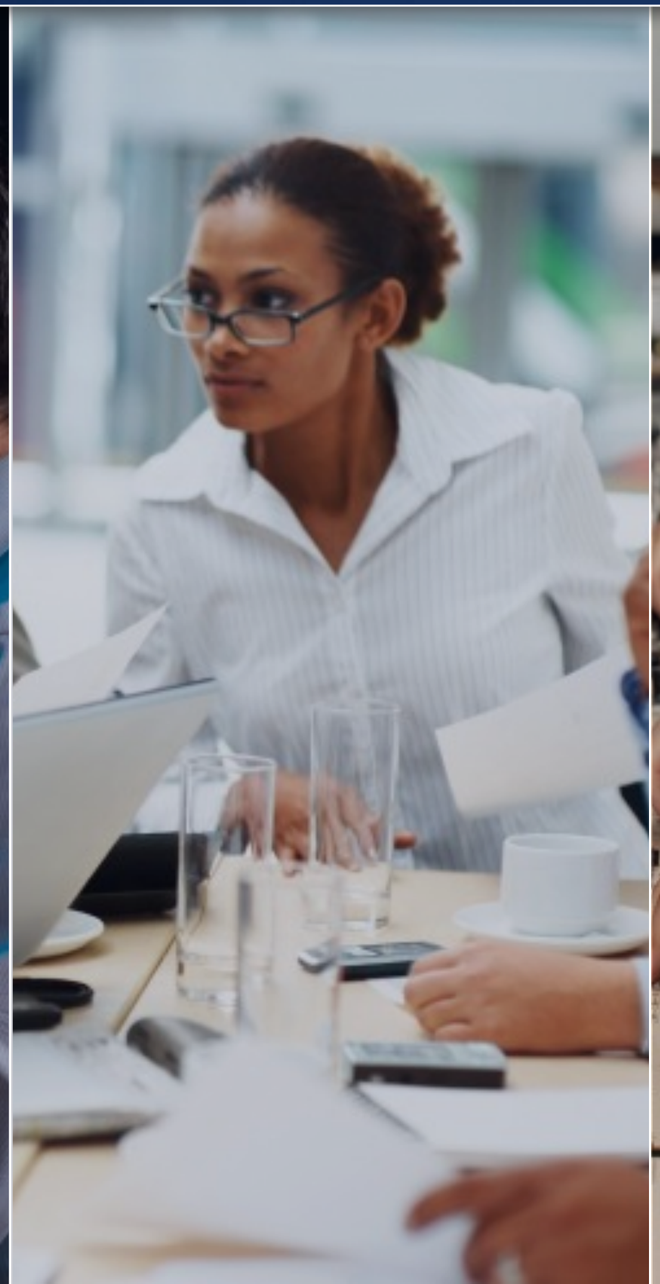
Capped

H-1B Cap

For Private Employers

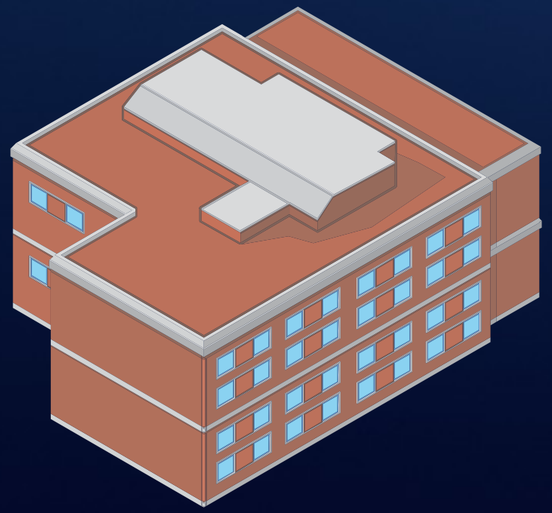


High-Demand Industries and Firms

High-Demand Industries and Firms

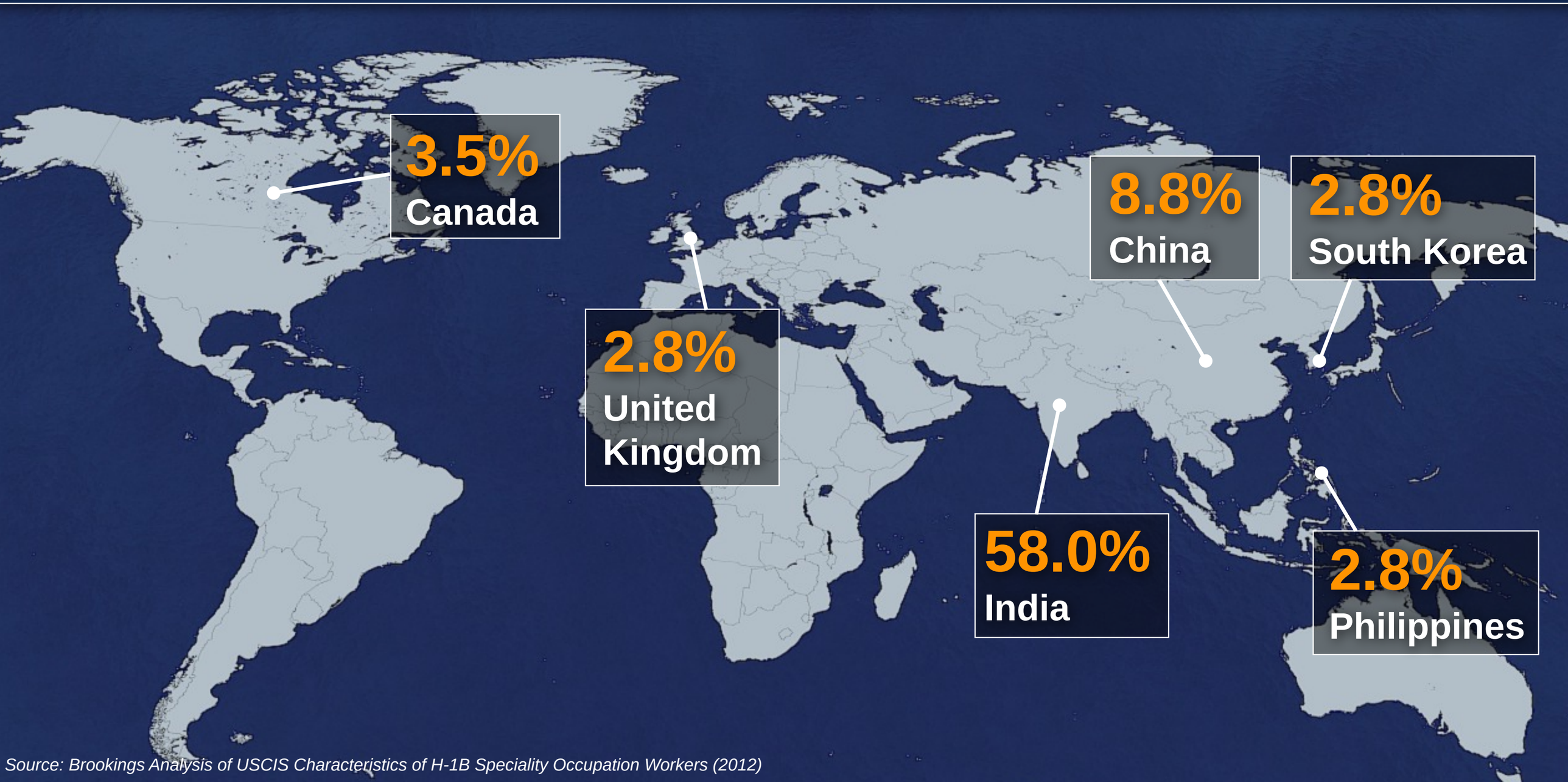
H-1B Temporary Work Visas



Research, Non-Profit,
Government Organizations
Uncapped

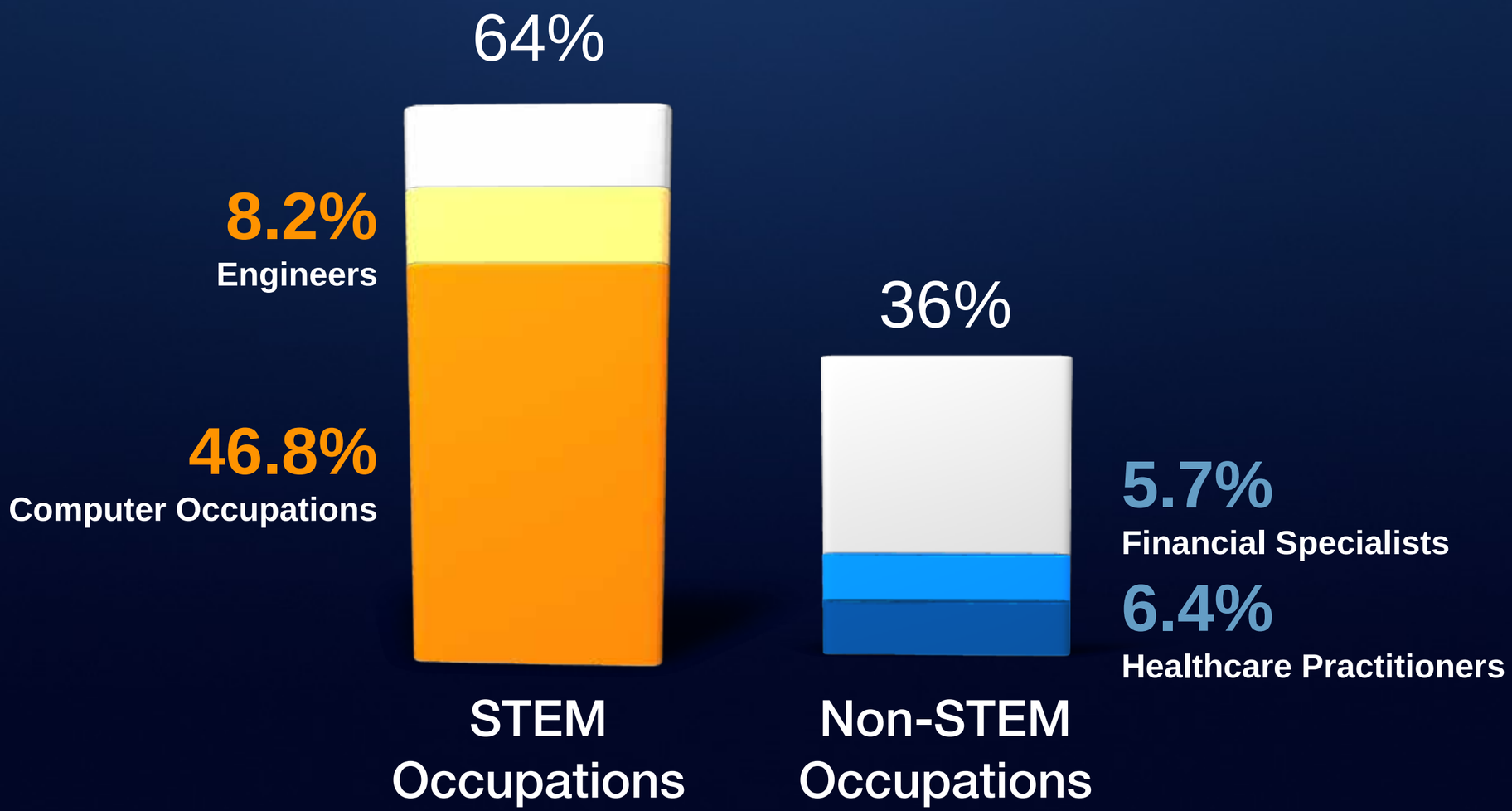
H-1B Temporary Work Visas

Origin Countries of H-1B Visa Recipients



Source: Brookings Analysis of USCIS Characteristics of H-1B Speciality Occupation Workers (2012)

Occupations of H-1B Visa Requests



Source: Brookings Analysis of Department of Labor Data (2010-2011)

H-1B Visa Program: Dual Approach

1. Employers apply for high-skilled worker visas to meet demand for specialty occupations

2. Revenues from visa fees are invested in US workforce skills development

H-1B Visa Program: Skills Training

$1 billion

technical skills training and STEM education, 2001-2011

Employment and Training Administration
Department of Labor

National Science Foundation

H-1B Visa Program: Skills Training

$628 million

technical skills training, 2001-2011

Employment and Training Administration
Department of Labor

National Science Foundation

H-1B Visa Program: Skills Training

$357 million

STEM education, 2001-2011

Employment and Training Administration
Department of Labor

National Science Foundation

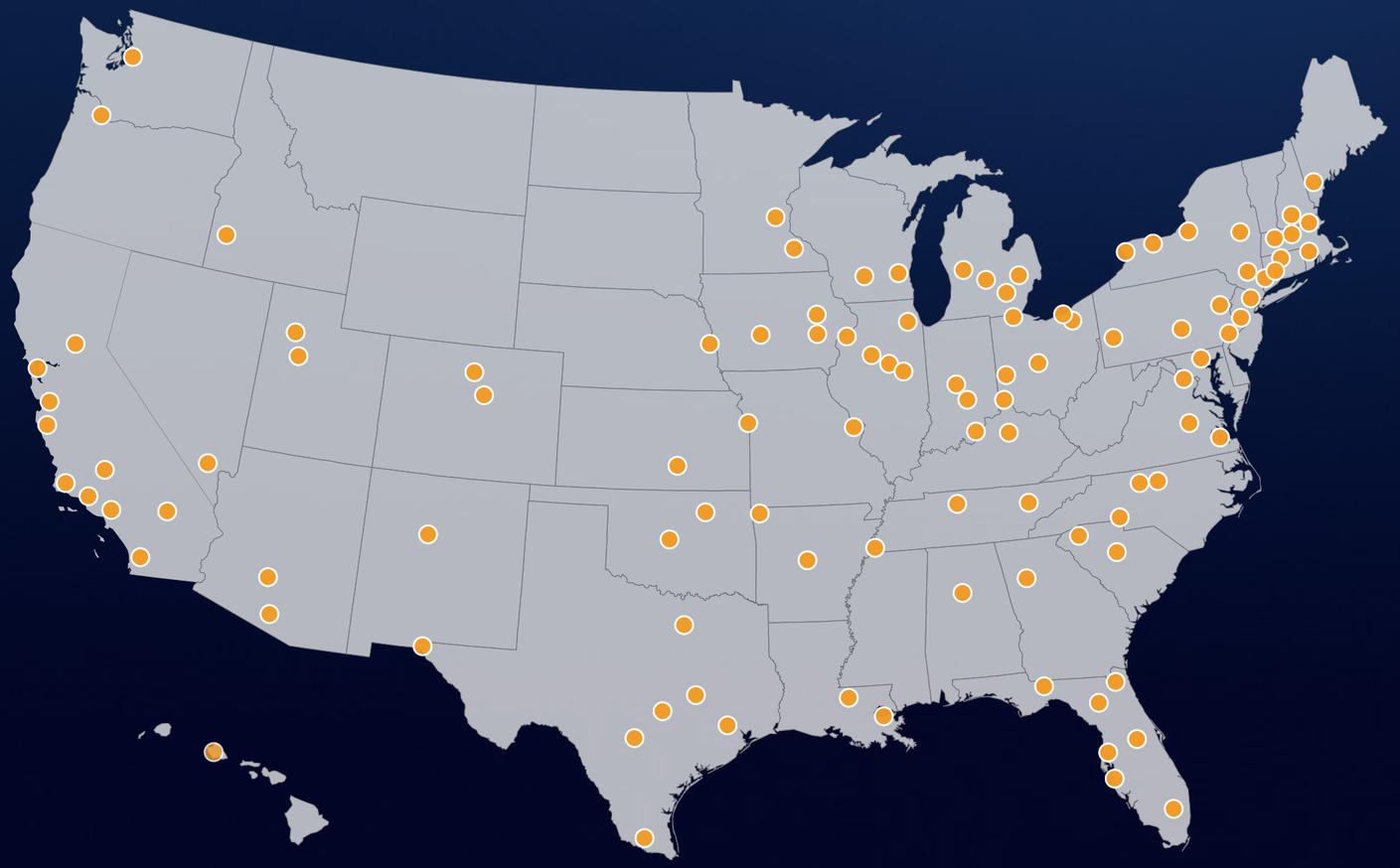
1 2 3

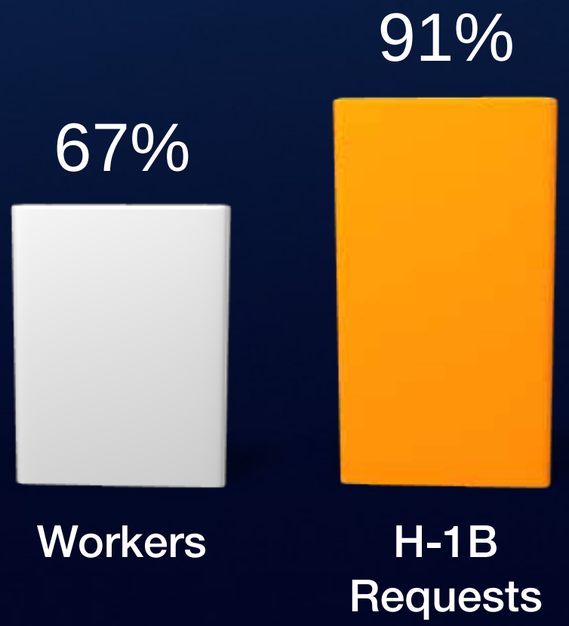
2 Metros drive demand for H-1B workers

Metros Concentrate H-1B Requests

High-Demand H-1B Metros

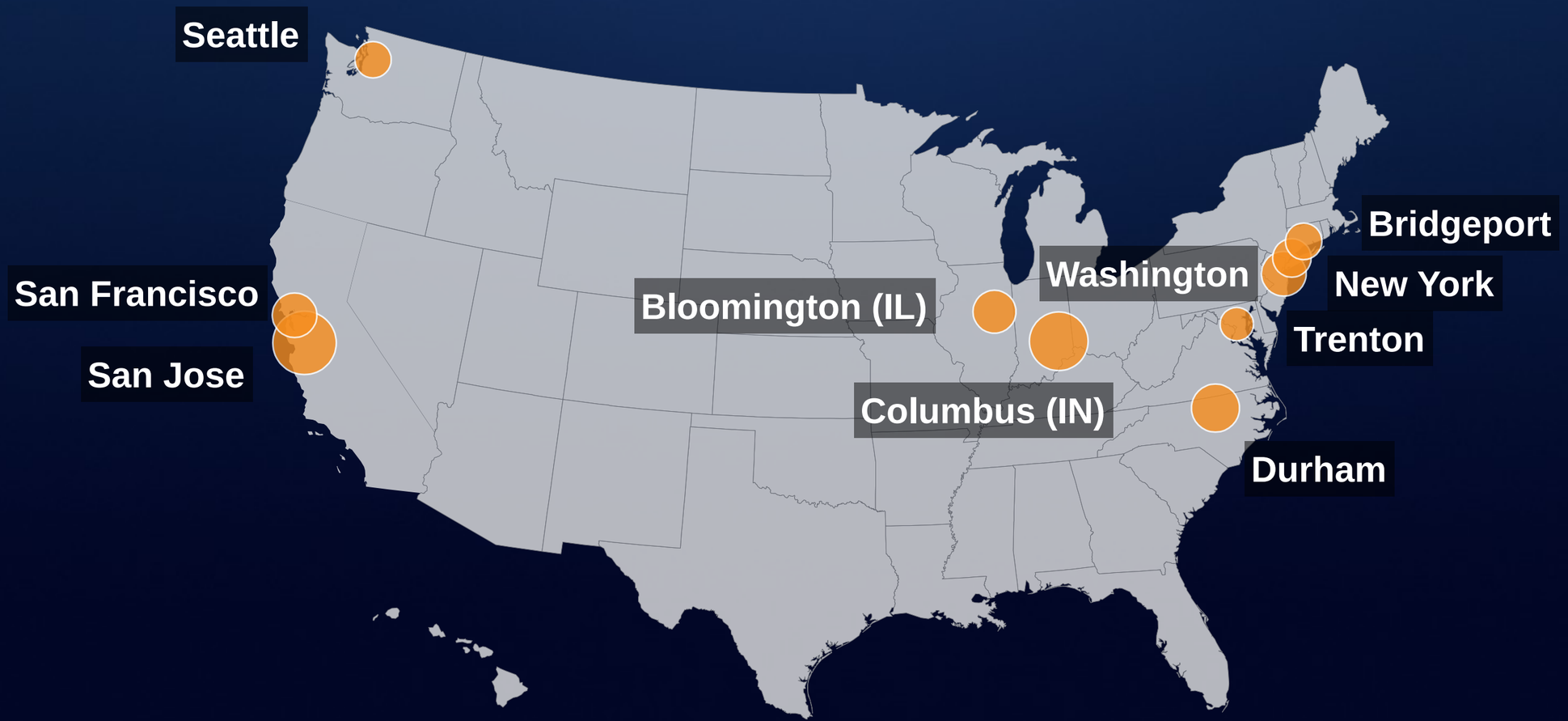
106 Metropolitan Areas





Metros With Greatest Number of H-1B Applications

Metros With Highest H-1B Intensity



Note: Intensity represents applications per 1,000 workers

Metro Profiles

Metro Profile

San Jose, CA

Applications

14,926
H-1B visa requests

17.1
H-1B intensity
requests per 1,000 workers

Top Employers Requesting H-1Bs

3%
Uncapped

Occupations

87%
STEM

Computer Occupations

Engineers

Business Operations Specialists

Metro Profile

New York, NY

Applications

52,921
H-1B visa requests

6.3
H-1B intensity
requests per 1,000 workers

Top Employers Requesting H-1Bs

6%
Uncapped

JPMorgan Chase & Co.
Goldman Sachs
TATA

Occupations

52%
STEM

Financial Specialists
Computer Occupations
Business Operations Specialists

Metro Profile

Columbus, IN

Applications

629
H-1B visa requests

14.6
H-1B intensity
requests per 1,000 workers

Top Employers Requesting H-1Bs

1%
Uncapped

Cummins

LHP Software

KPIT Infosystems Ltd.

Occupations

89%
STEM

Engineers

Computer Occupations

Metro Profile

Rochester, MN

Applications

278
H-1B visa requests

2.6
H-1B intensity
requests per 1,000 workers

Top Employers Requesting H-1Bs

71%
Uncapped

MAYO CLINIC

Occupations

58%
STEM

Life Scientists

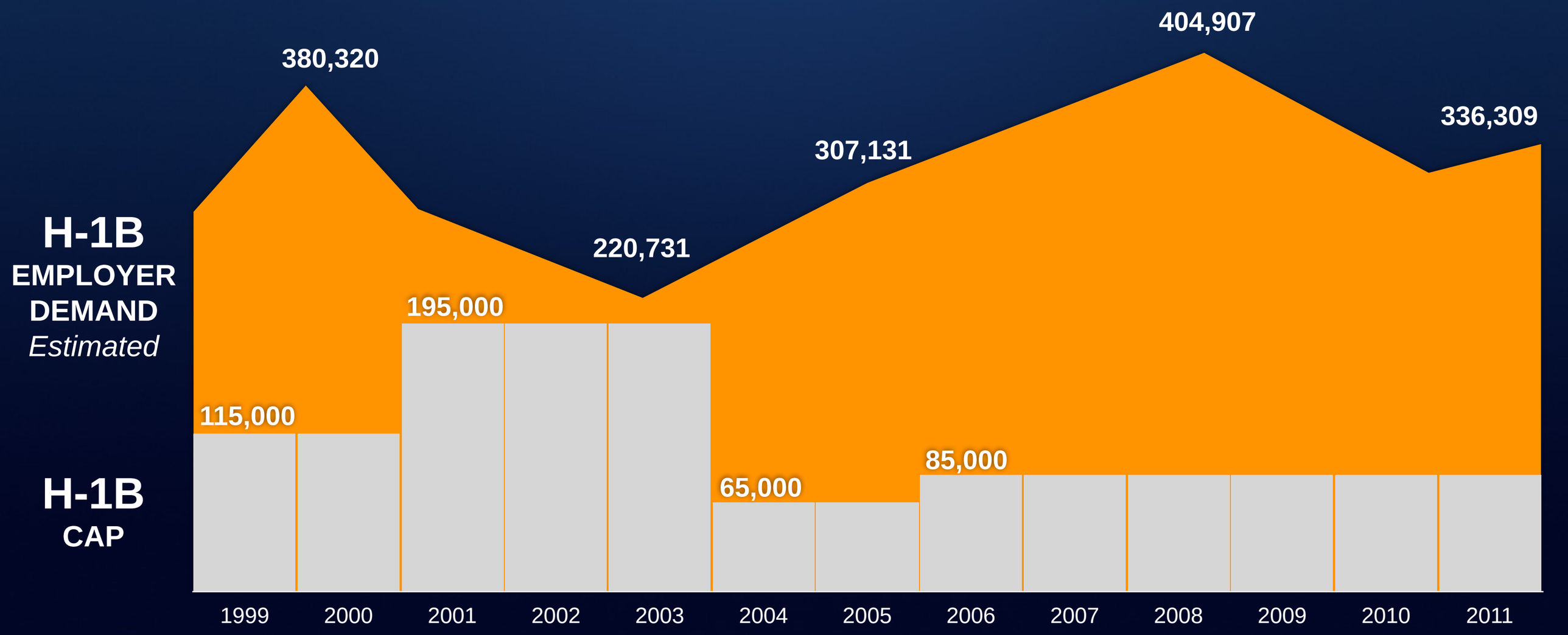
Health Practitioners

1 2 3

3 The US must match the supply of skilled workers to metro demand

Increasing responsiveness to fluctuations in H-1B demand

Increasing Responsiveness to Fluctuations in H-1B Demand



Standing Commission on Labor & Immigration

Standing Commission on Labor & Immigration
H-1B Panel

Bureau of Labor Statistics

Employment & Training Administration
Department of Labor

National Science Board
National Science Foundation

Business
Demography
Economics
Immigration
Experts

Business Research Organization

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Business
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Organization

Increasing responsiveness to fluctuations in H-1B demand

Matching skills training to metro needs

Matching Skills Training to Metro Needs

$628 million

technical skills training, 2001-2011

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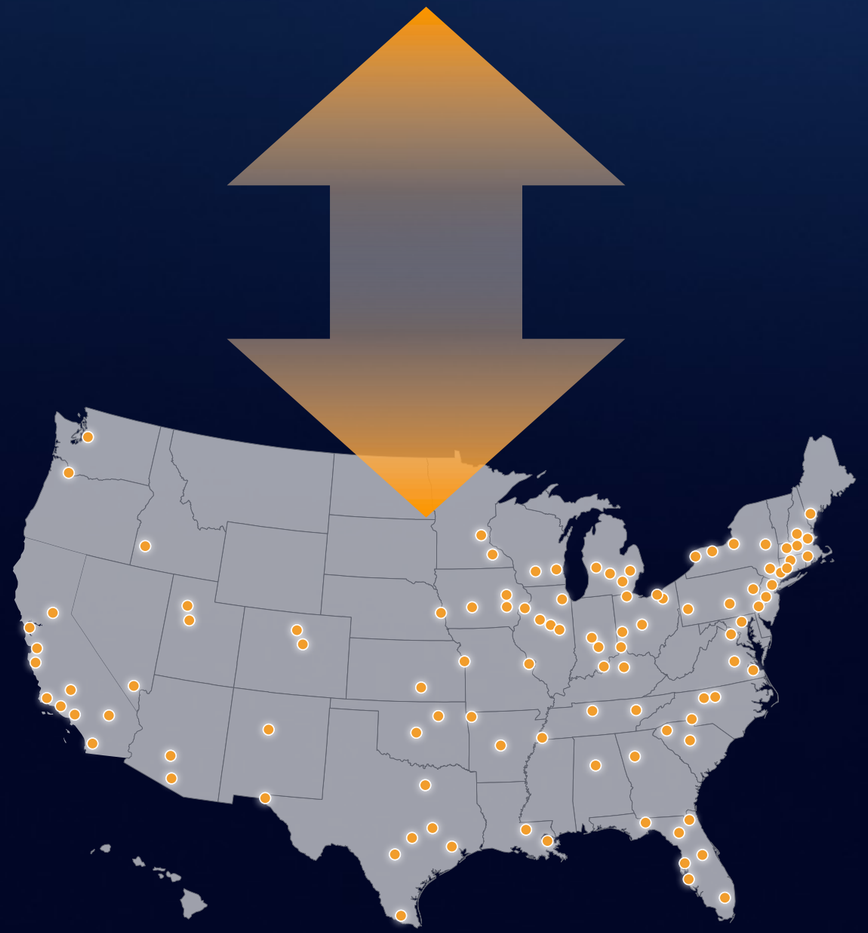
$628 million
technical skills training, 2001-2011

Matching Skills Training to Metro Needs

Employment & Training Administration
Department of Labor



Federal Government

Target skills training in high H-1B demand metros

Metro Leaders

Collaborate to apply for H-1B technical skill grants

Kansas Engineering Excellence Project

Wichita, KS

$5 million skills training grant

Wichita State University

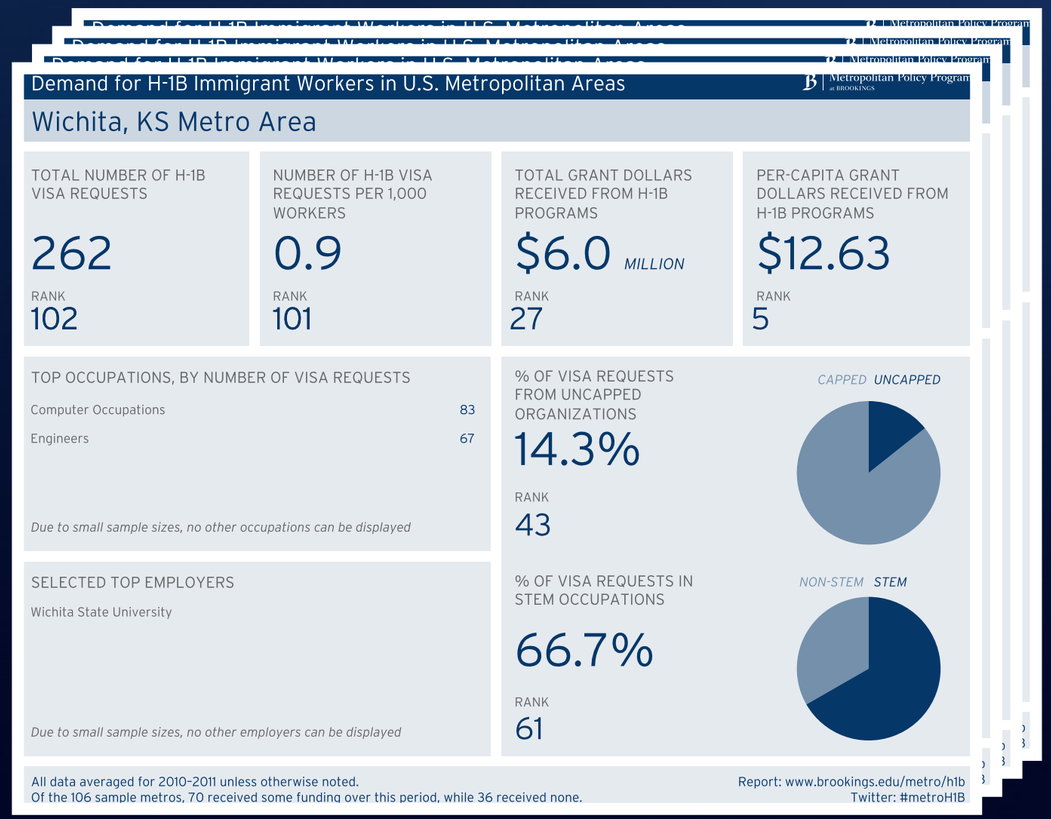
NIAR
National Institute for Aviation Research

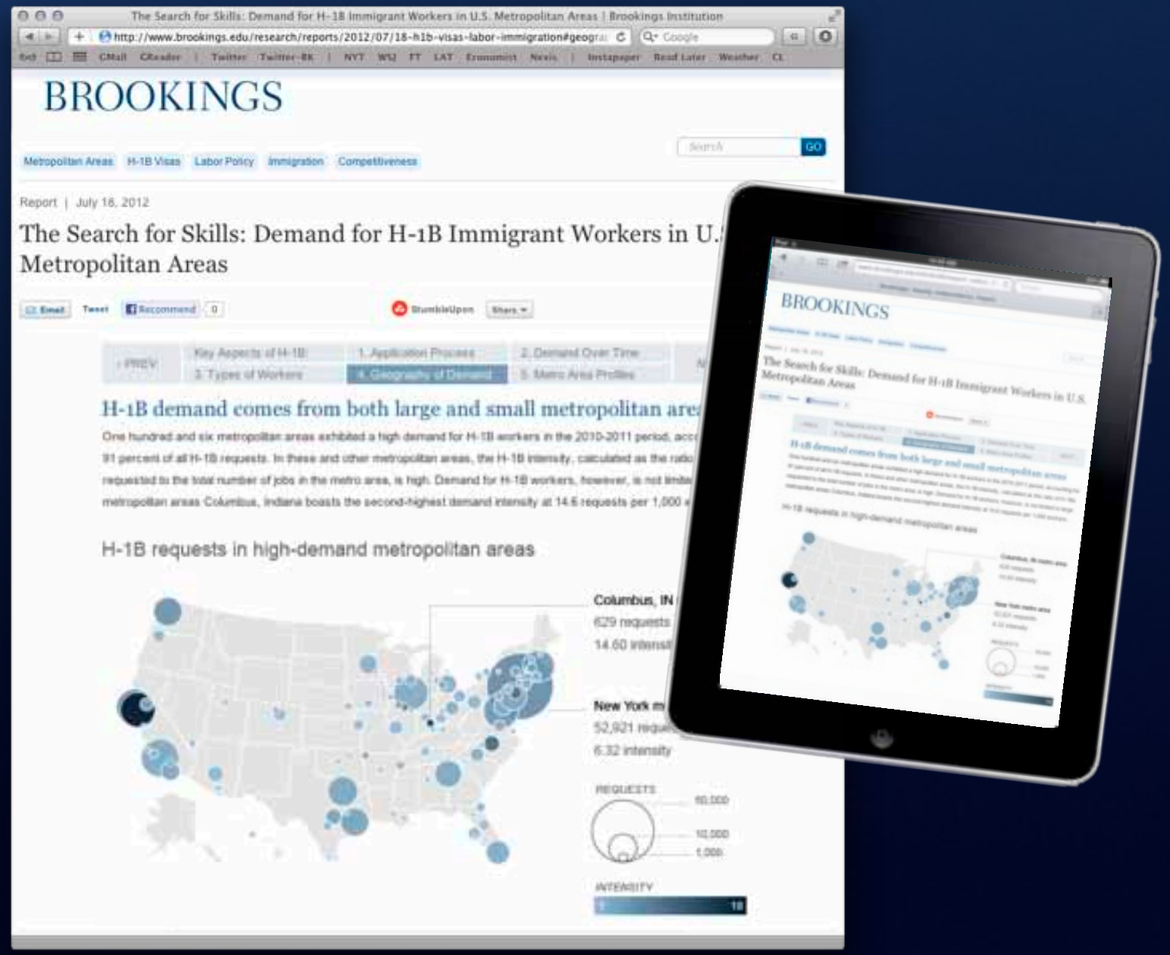
Workforce Alliance of South Central Kansas

Aligned to aviation and aerospace cluster

Metro H-1B Data Profiles

106 High-Demand Metros





www.brookings.edu/metro/h1b

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