

# Utility Patent Conferrals & STEM Educational Attainment in the United States

Data Visualization Portfolio

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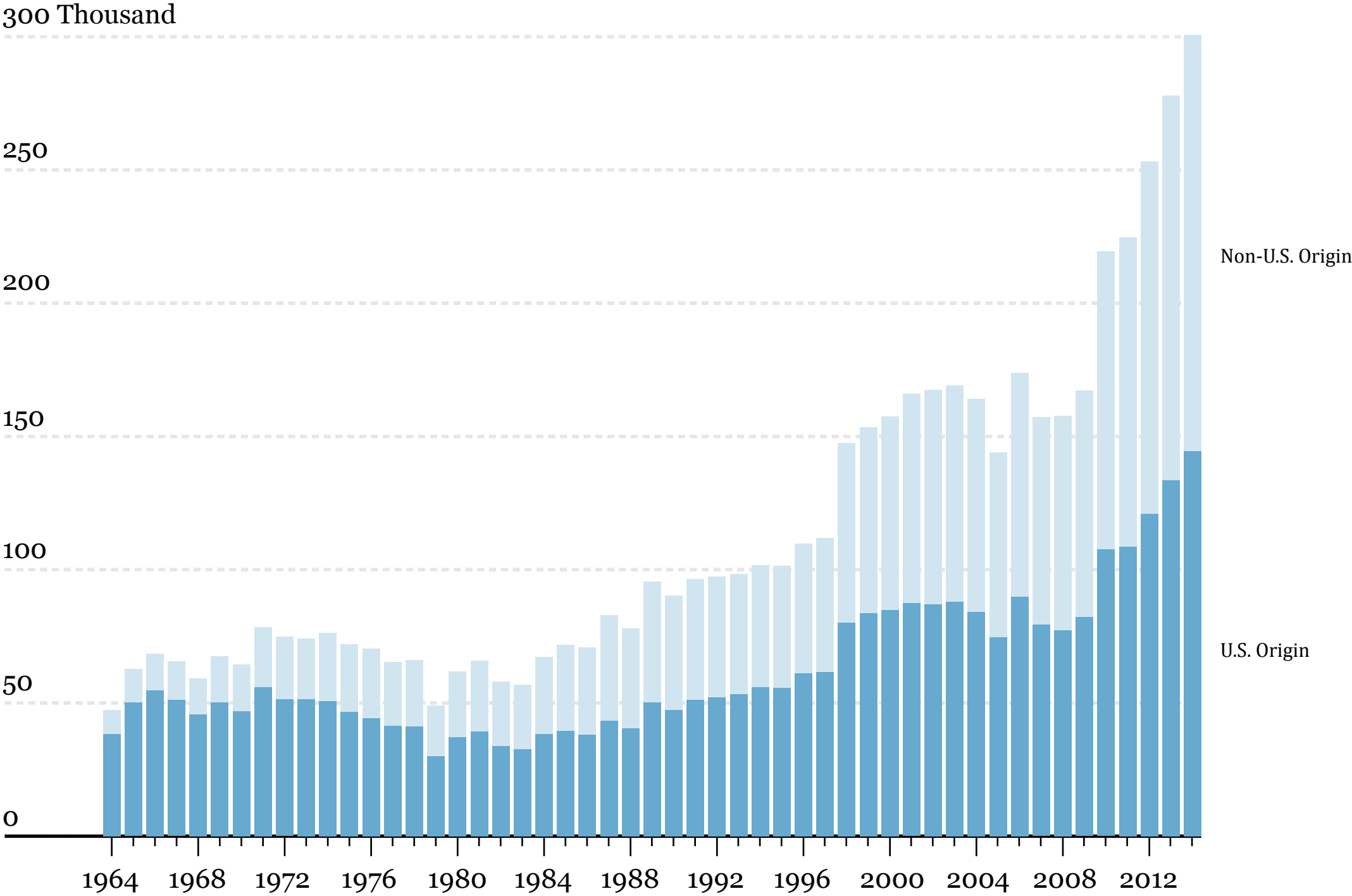
*GEORGETOWN UNIVERSITY*  
McCourt School of Public Policy



## **Utility Patent Conferrals**

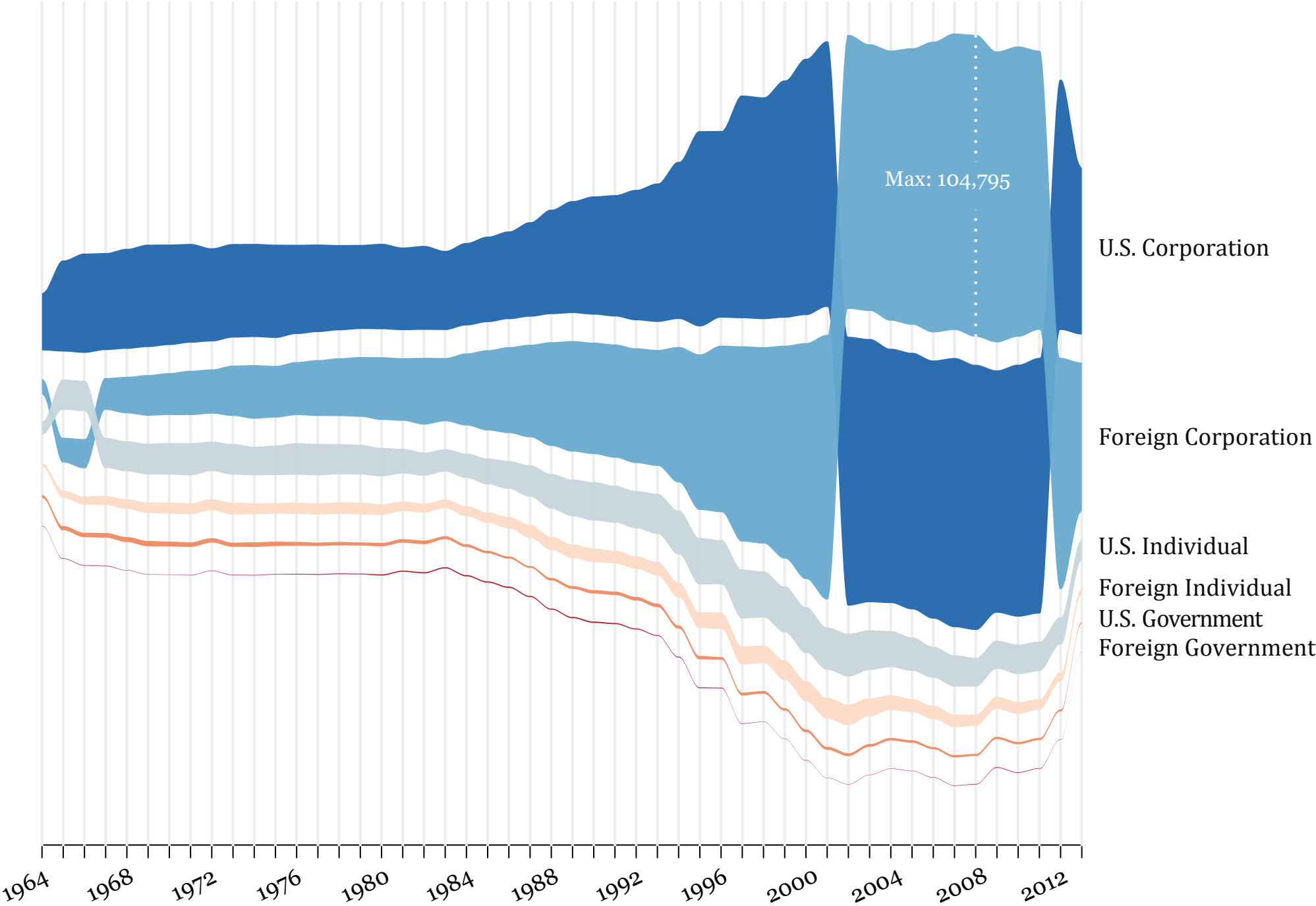
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# Number of U.S. Utility Patent Conferrals, by Country of Origin



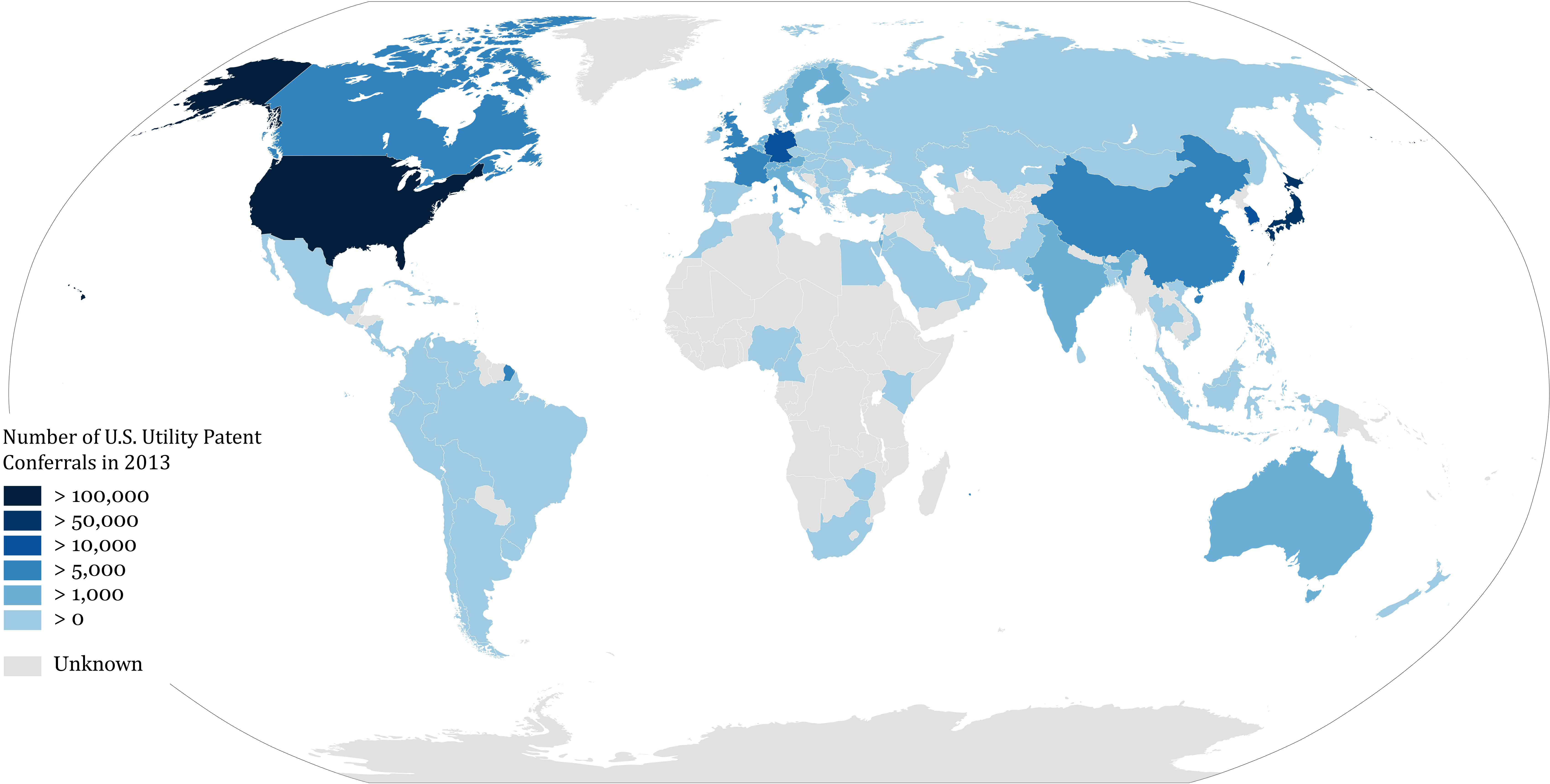
Source: U.S. Patent and Trademark Office

# US Utility Patent Conferrals, by Ownership

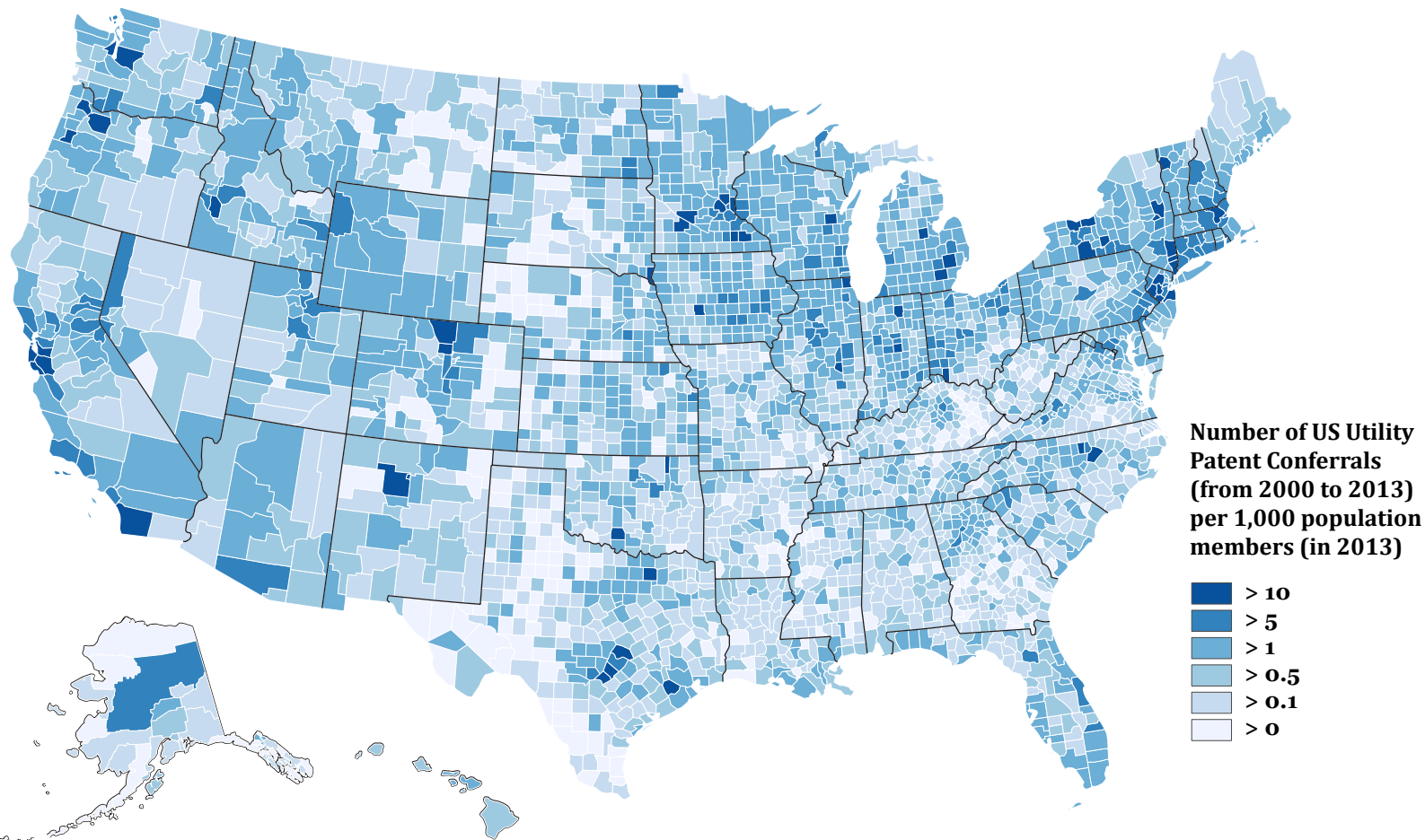


# U.S. Utility Patent Conferrals, by Country of Origin

Inventors from more than 110 countries and regions were conferred U.S. utility patents in 2013. Besides the U.S., Japan, Germany top the list in the U.S. utility patent conferrals.



# Utility Patent Conferrals per Capita, by County



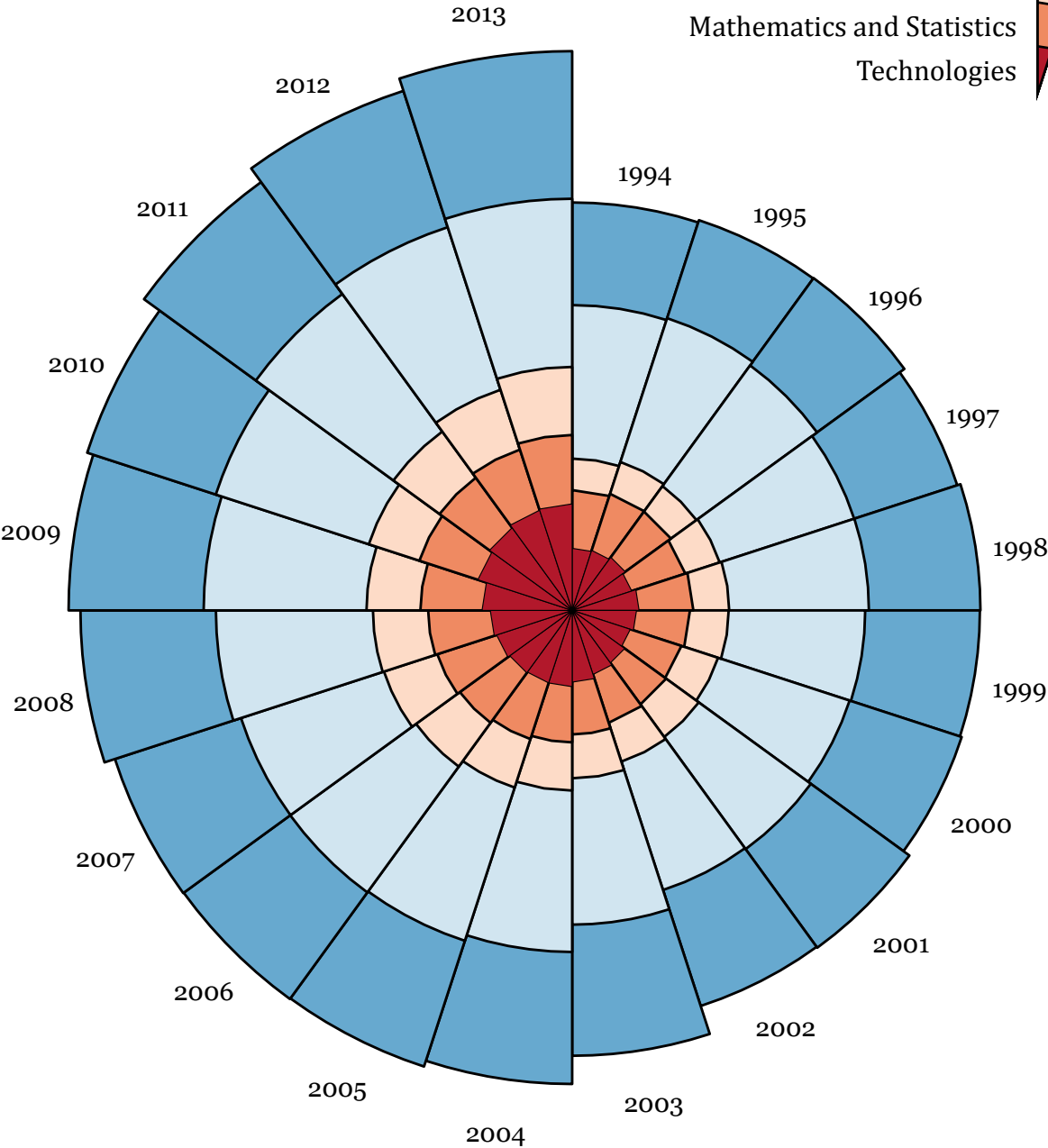
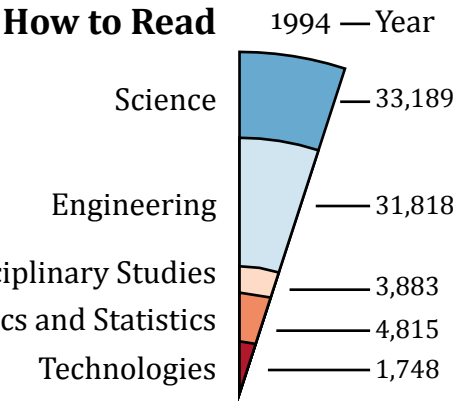
Source: U.S. Patent and Trademark Office



## **STEM Educational Attainment**

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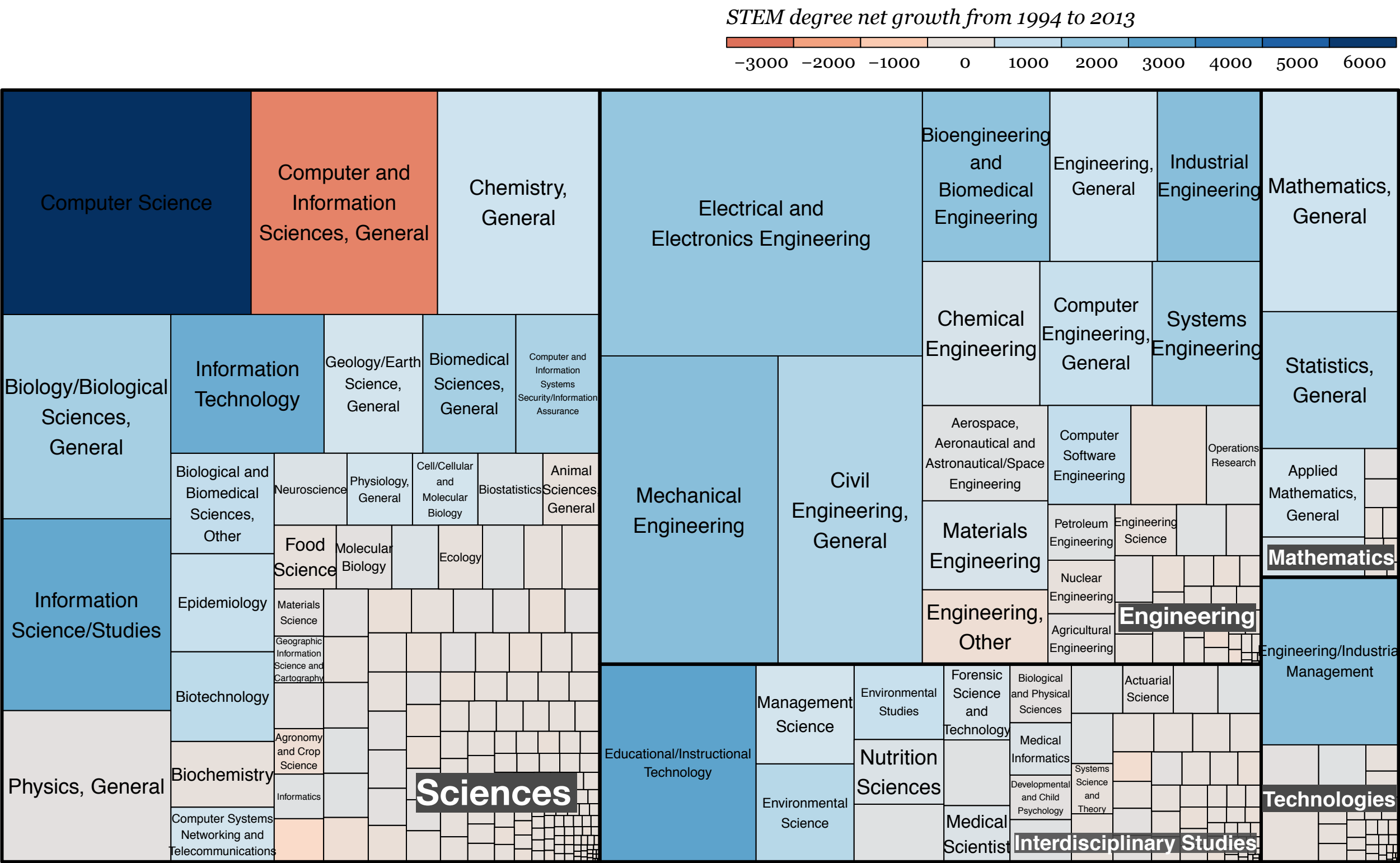
# Changes of the US STEM Graduate Degree Conferrals in Major Categories





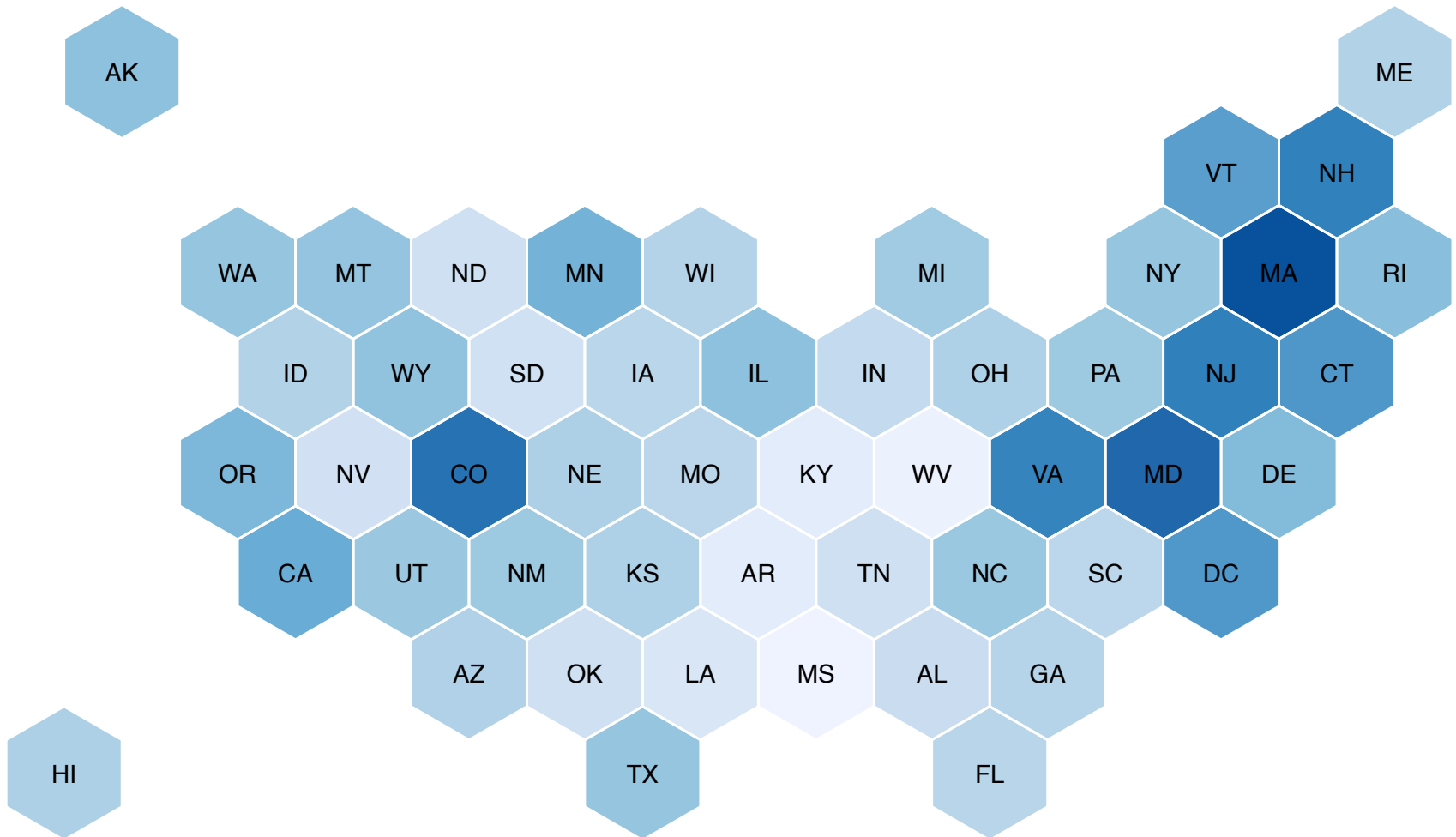
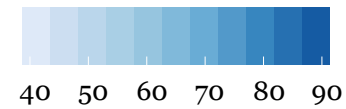
# STEM Graduate Degree Conferrals in the United States

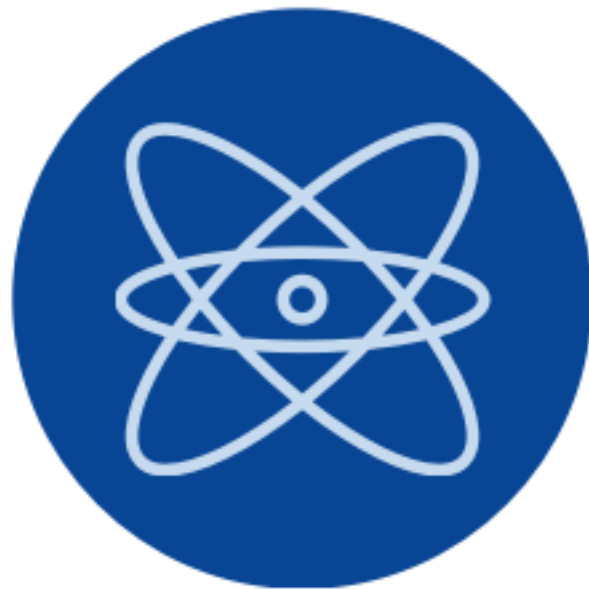
Each rectangle represents a STEM degree program, defined by the U.S. Immigration and Customs Enforcement. The size of rectangles reflects the number of graduate degree conferrals in 2013. The color of rectangles indicates the net growth in the number of STEM graduate degree conferrals from 1994 to 2013.



# STEM Educational Attainment

*Measured as the number of individuals with a STEM bachelor's degree per 1,000 population members aged 20 and above in 2013*

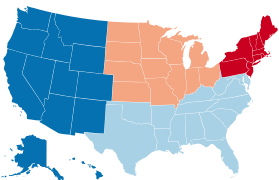




## **Other Factors**

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# Population Growth in the US, by Region



150 Million

120

South

90

West

Midwest

Northeast

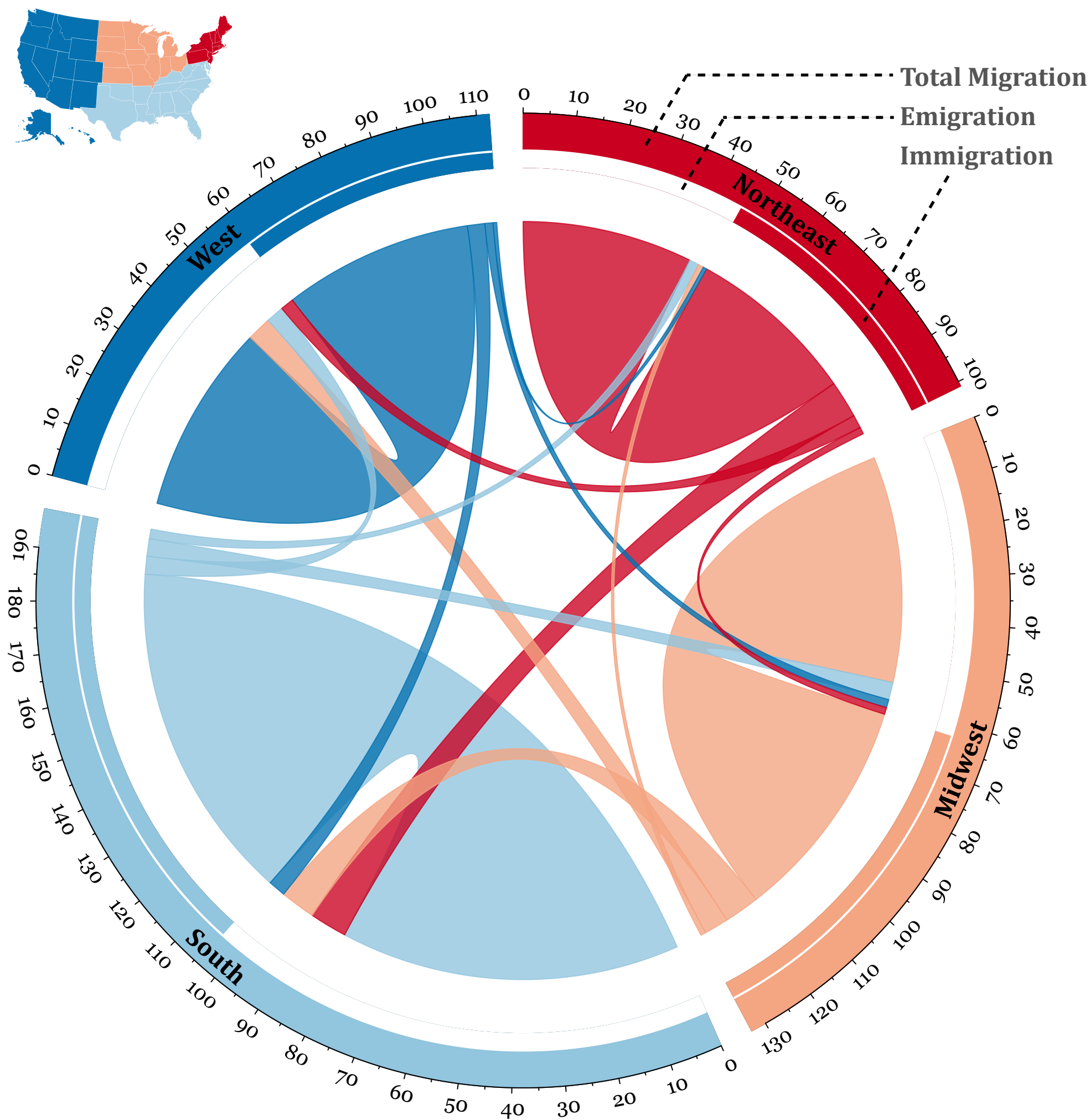
60

30

1994 1996 1998 2000 2002 2004 2006 2008 2010 2012

Source: American Community Survey

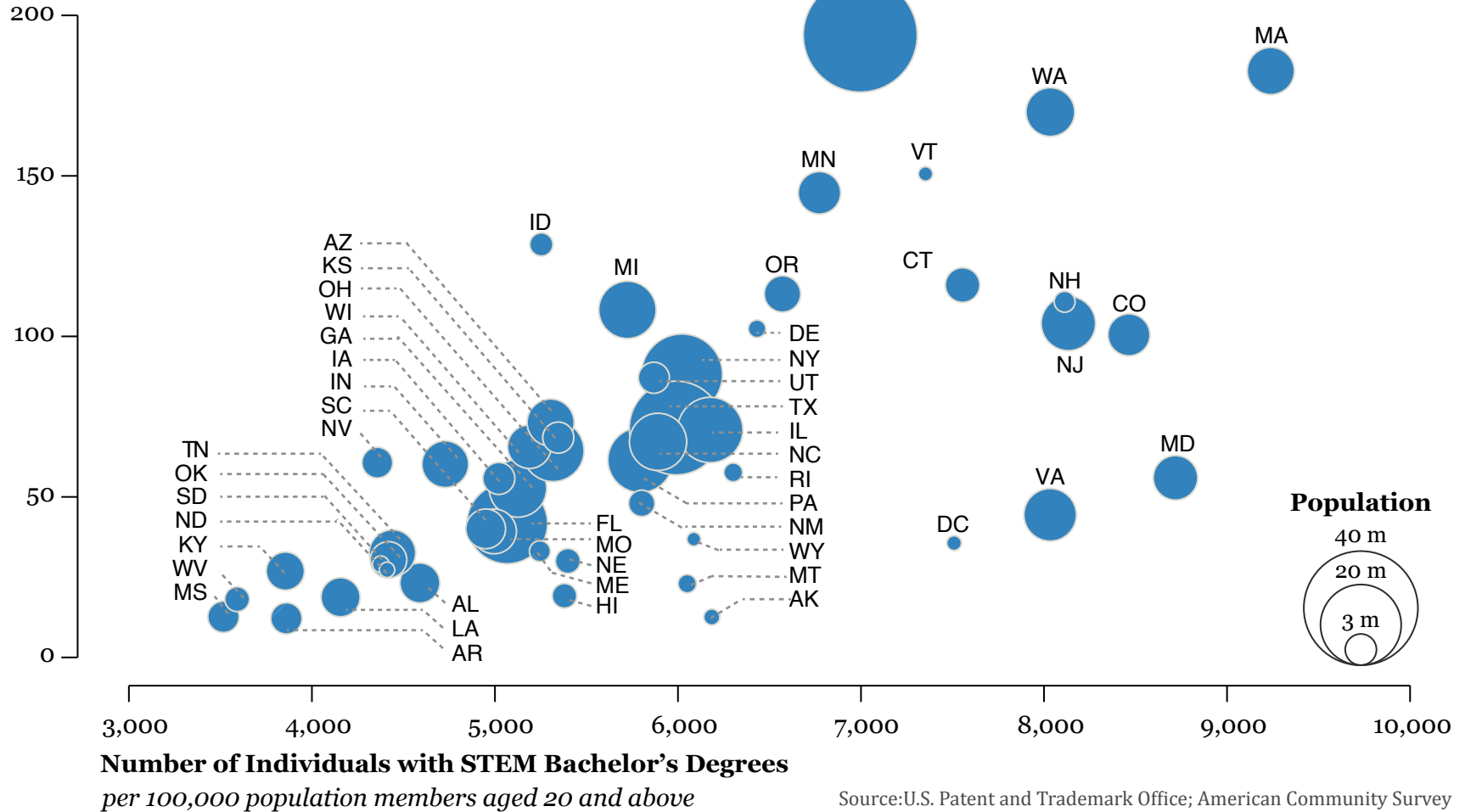
# Population Migration Flows in the US (2014)



# STEM Educational Attainment vs Utility Patent Conferrals in the US, 2013

## Utility Patent Conferrals

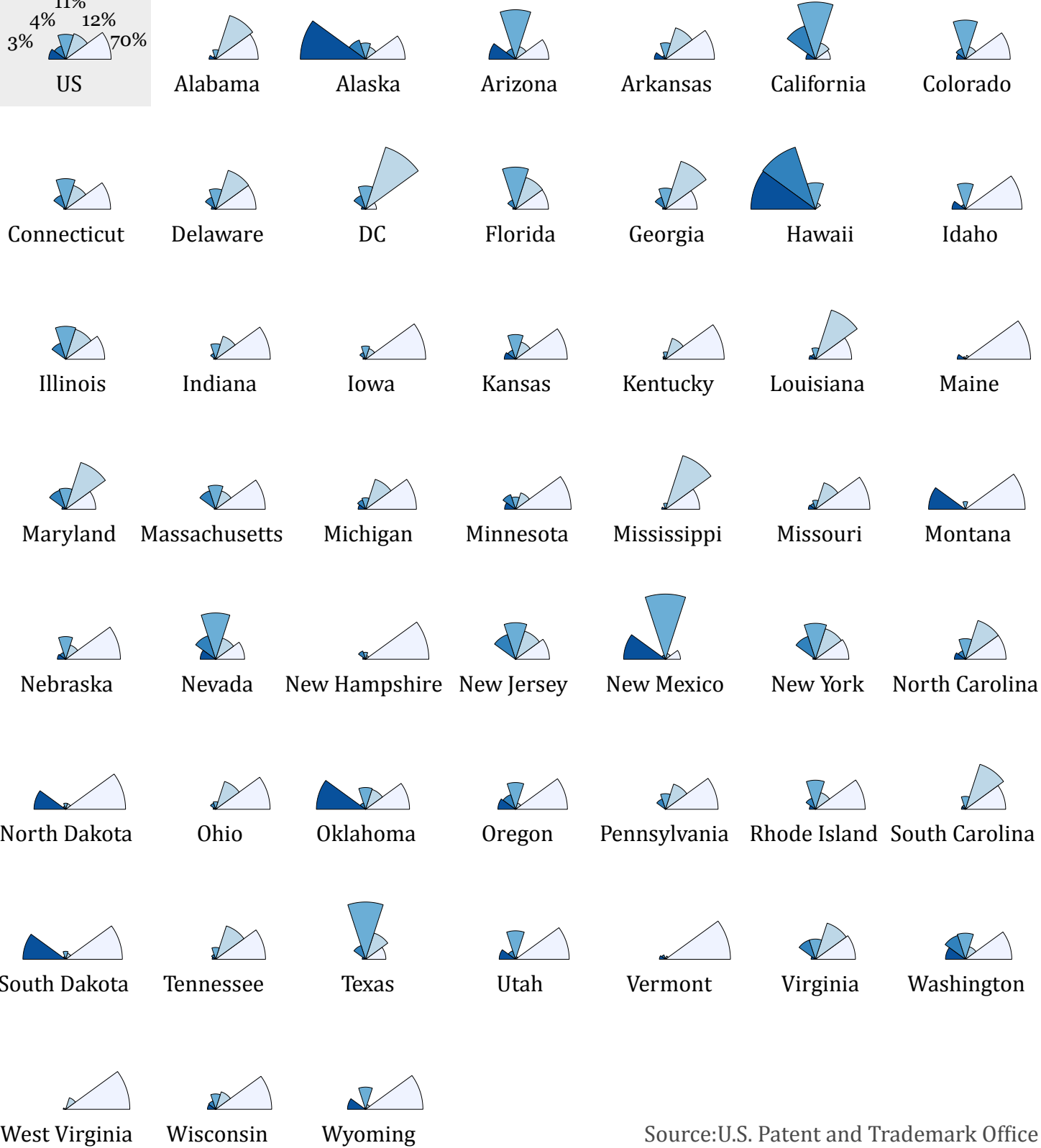
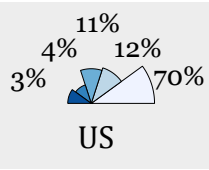
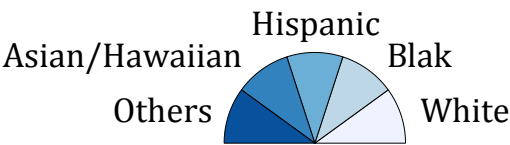
*per 100,000 labor force*



# Population Distribution by Race/Ethnicity in 2013

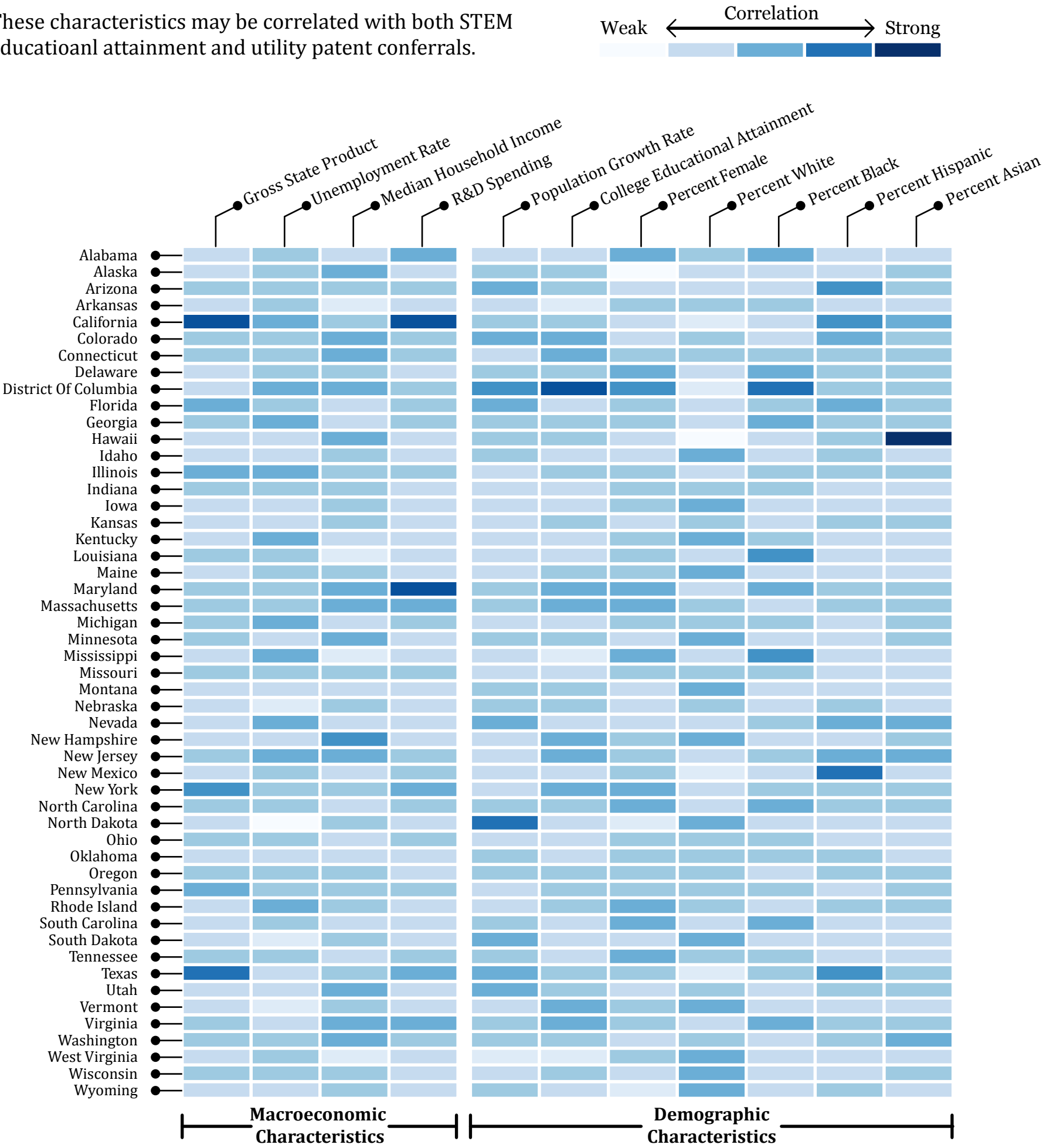
## How to Read

Larger slice areas indicate relatively higher share of the race/ethnicity group



# Macroeconomic and Demographic Characteristics in 2013

These characteristics may be correlated with both STEM education attainment and utility patent conferrals.

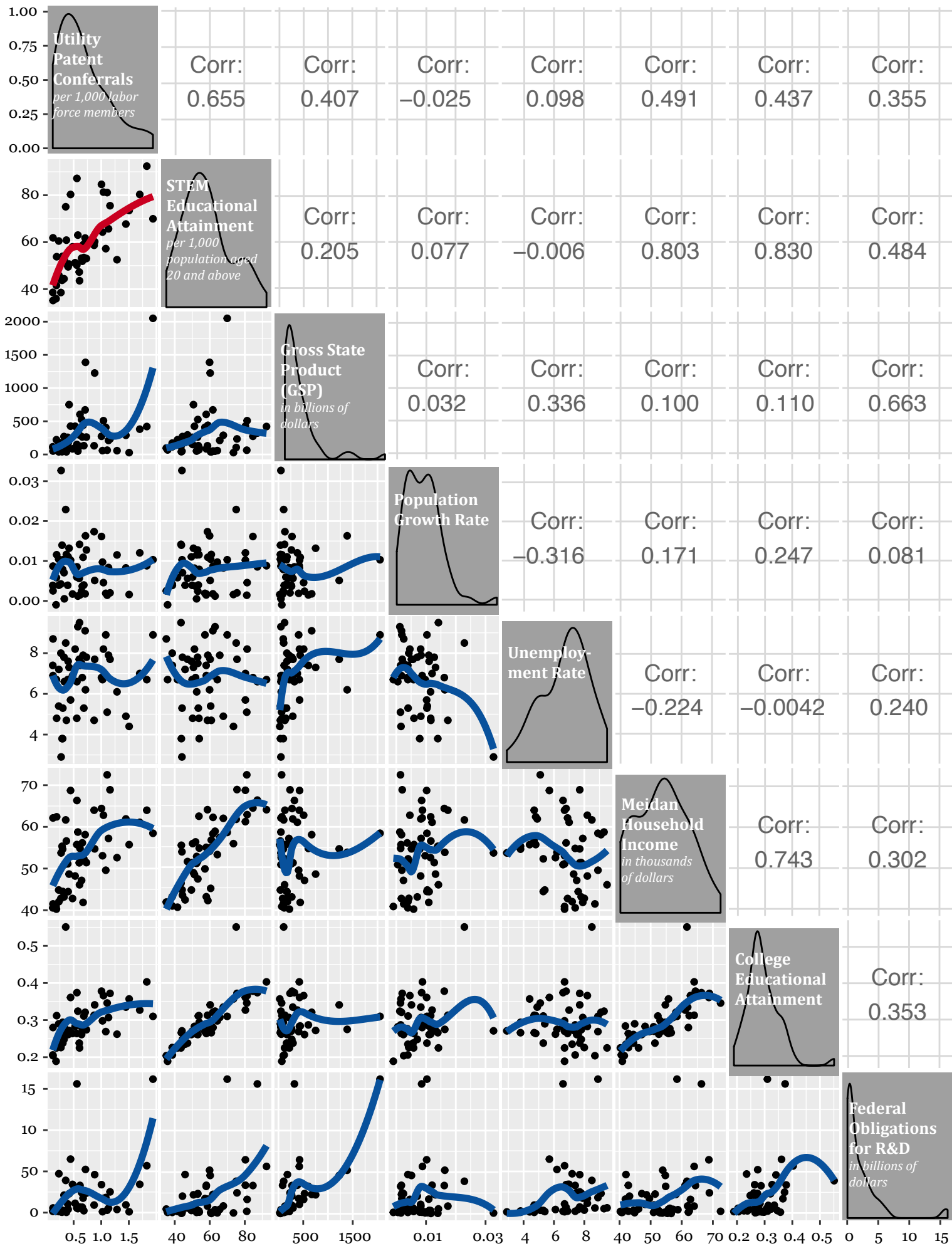


Source: U.S. Patent and Trademark Office | American Community Survey  
U.S. Census Bureau | National Science Foundation



# Correlation Matrix

Utility patent conferrals and STEM educational attainment are positively correlated. Some of the other variables are also correlated with utility patent conferrals and STEM educational attainment respectively.



# Predicting Utility Patent Conferrals per 1,000 Labor Force

Sample size = 1020

