

DEMOGRAPHIC INFLUENCES ON CONSTRUCTION CRAFT SHORTAGES IN THE U.S. AND CANADA

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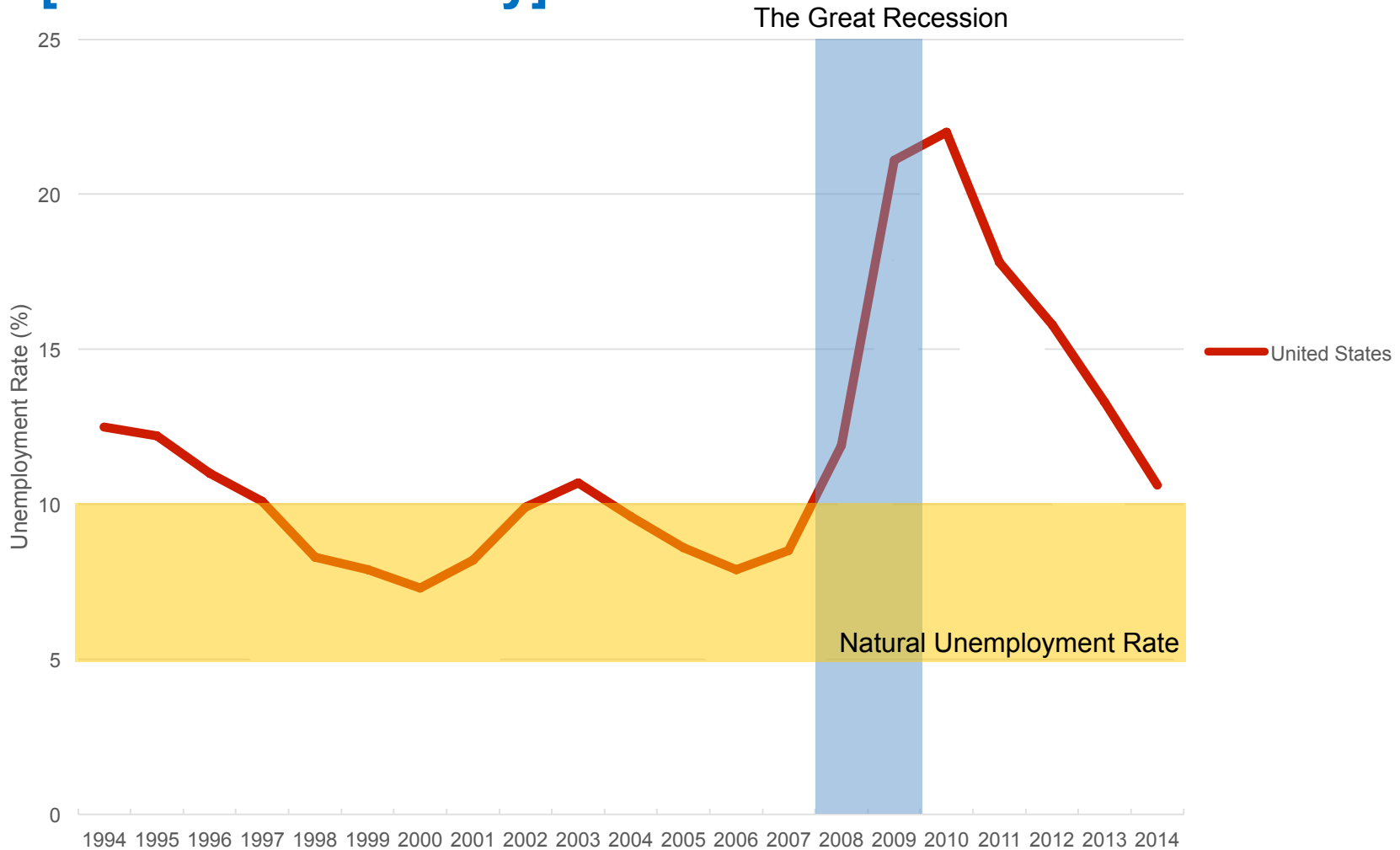
RT 318 Members

- **Kevin Blair** 
- **Scean Cherry** 
- **Kimberly Corley** 
- **Brandon Davis** 
- **Marco Giron** 
- **Steve Greene** 
- **Daniel Groves** 
- **Shaddy Hanna** 
- **Dean Hamrick** 
- **Don Jones** 
- **Mitch Lee** 
- **Chris Maxson** 
- **James MacDonald** 
- **Jennifer Sulak Brown** 
- **Jon Tate** 
- **Tim Taylor** 
- **Paul Goodrum** 
- **Mohammed Albattah** 
- **Hossein Karimi** 

Data Sources

- **Secondary (Raw) Data**
 1. National Opinion Research Center, University of Chicago, General Social Survey on Craft Job Satisfaction
 - **2,251 Craft Workers**
 2. U.S. Bureau of Labor Statistics
 - **Current Population Survey (CPS), 705,321 Craft Workers**
 3. Statistics Canada (Gov't)
 - **79,022 Craft Workers**
 4. National Craft Assessment and Certification Program
 - **381,729 Craft Workers**
 5. Associated Builders & Contractors Craft Championships Registrations
 - **156 Craft Workers**
 6. CII Benchmarking and Metrics Data
 - **68 projects**
- **Other Secondary (Aggregated)**
 7. U.S. Bureau of Labor Statistics
 - **Current Employment Statistics (CES)**
 8. Build Force Canada Data
 - **858,260 Craft Workers**
 9. Alpha Resources
 - **~20,000 Craft Workers (estimated)**
 10. Industrial Projects Report
 - **864 job advertisements (12 months)**
 11. U.S. Department of Education,
 - **High School Transcript Study**
 - **Digest of Education Statistics**
 12. Construction Users Roundtable
 - **Construction Labor Market Analyzer**
- **Primary Data**
 13. CII RT-318 Survey
 - **29 projects**

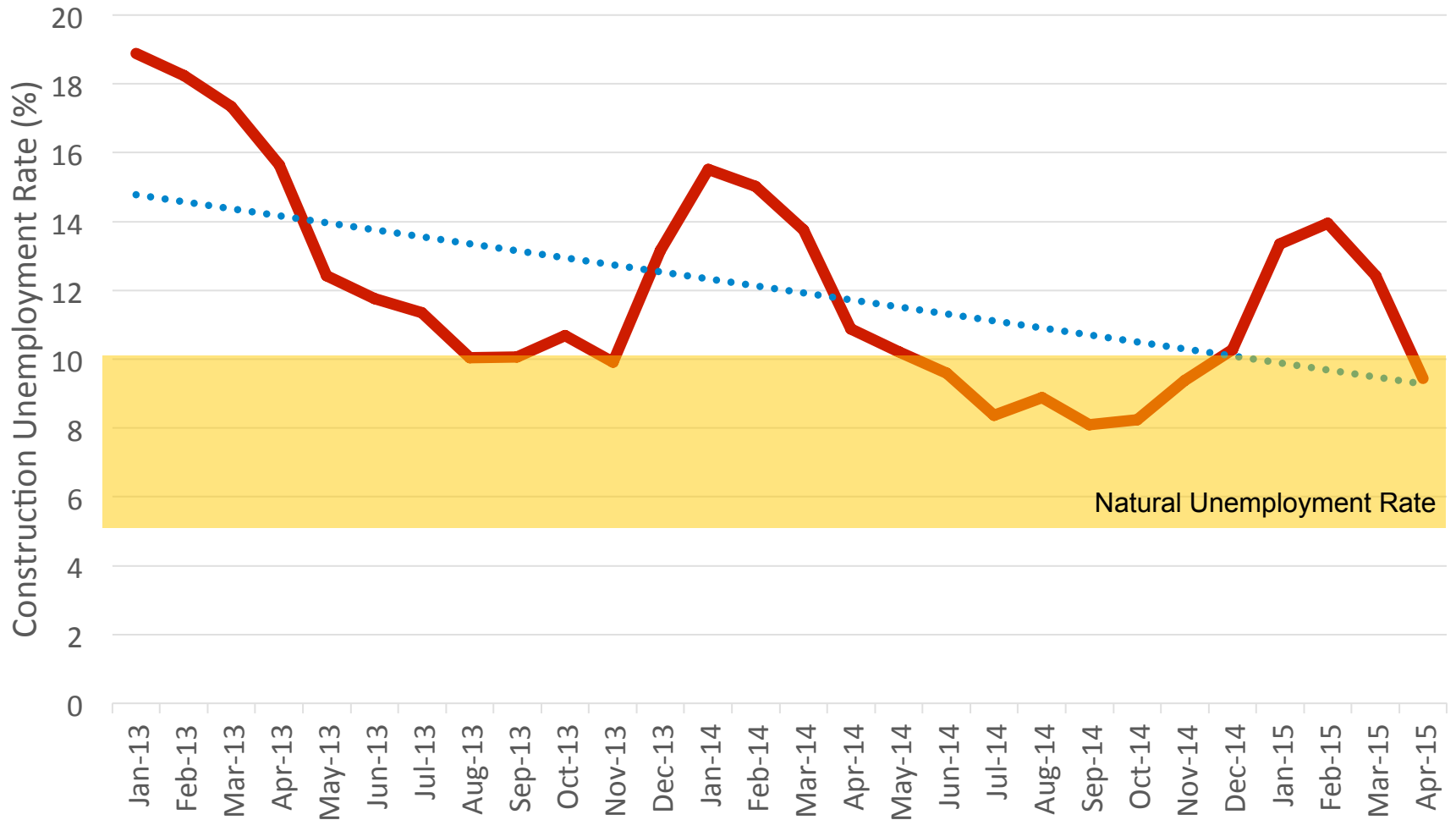
Actual Annual Unemployment Rate [Craft workers only]



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics

Actual Monthly Unemployment Rate

[Craft workers only] Jan 2013 - Apr 2015



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

Agenda

- Primary Structural Change in Craft Demographics
 - Age
 - Race and Immigration
 - Educational Attainment

Aging of the U.S. construction workforce is accelerating.



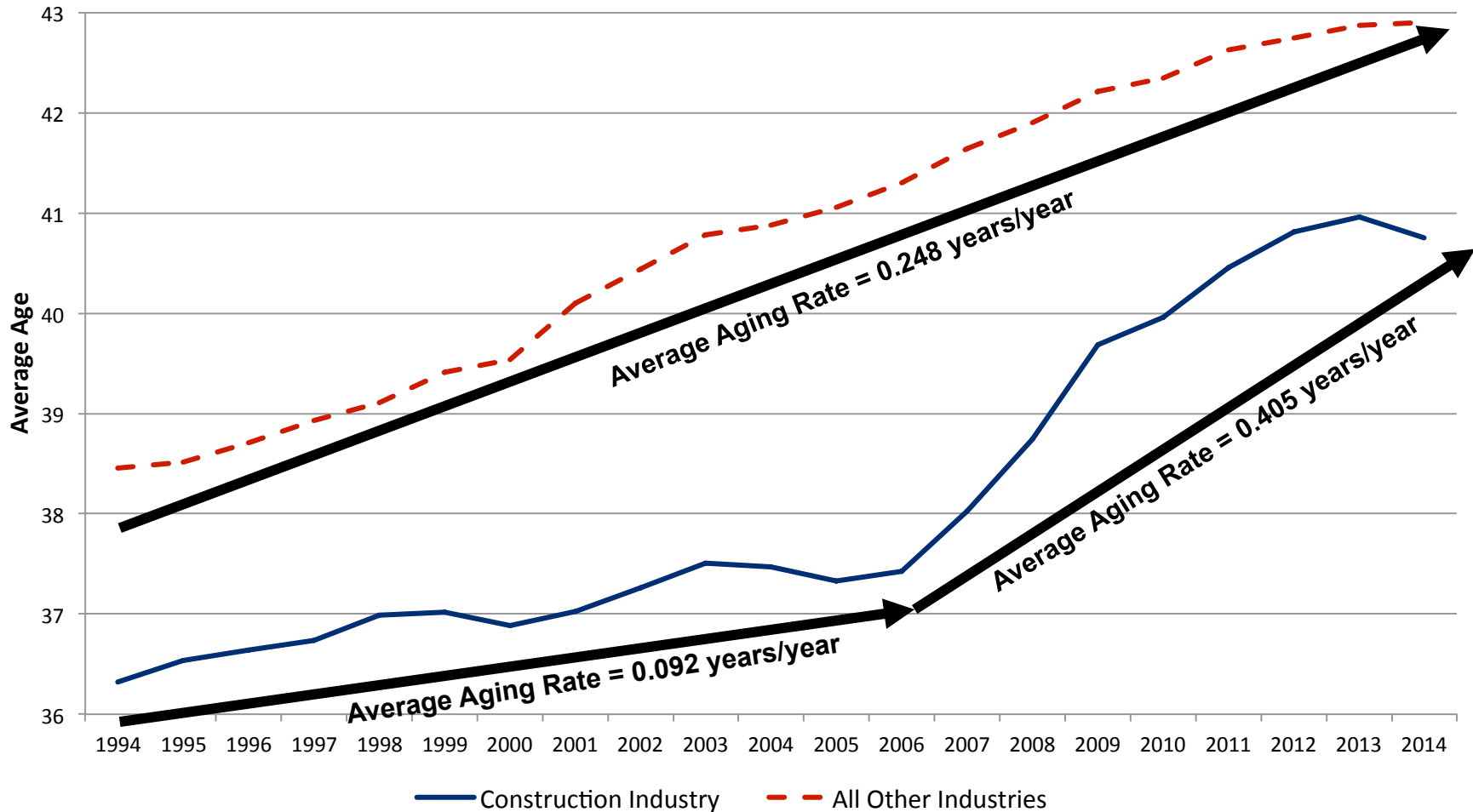
Construction Engineering
& Management
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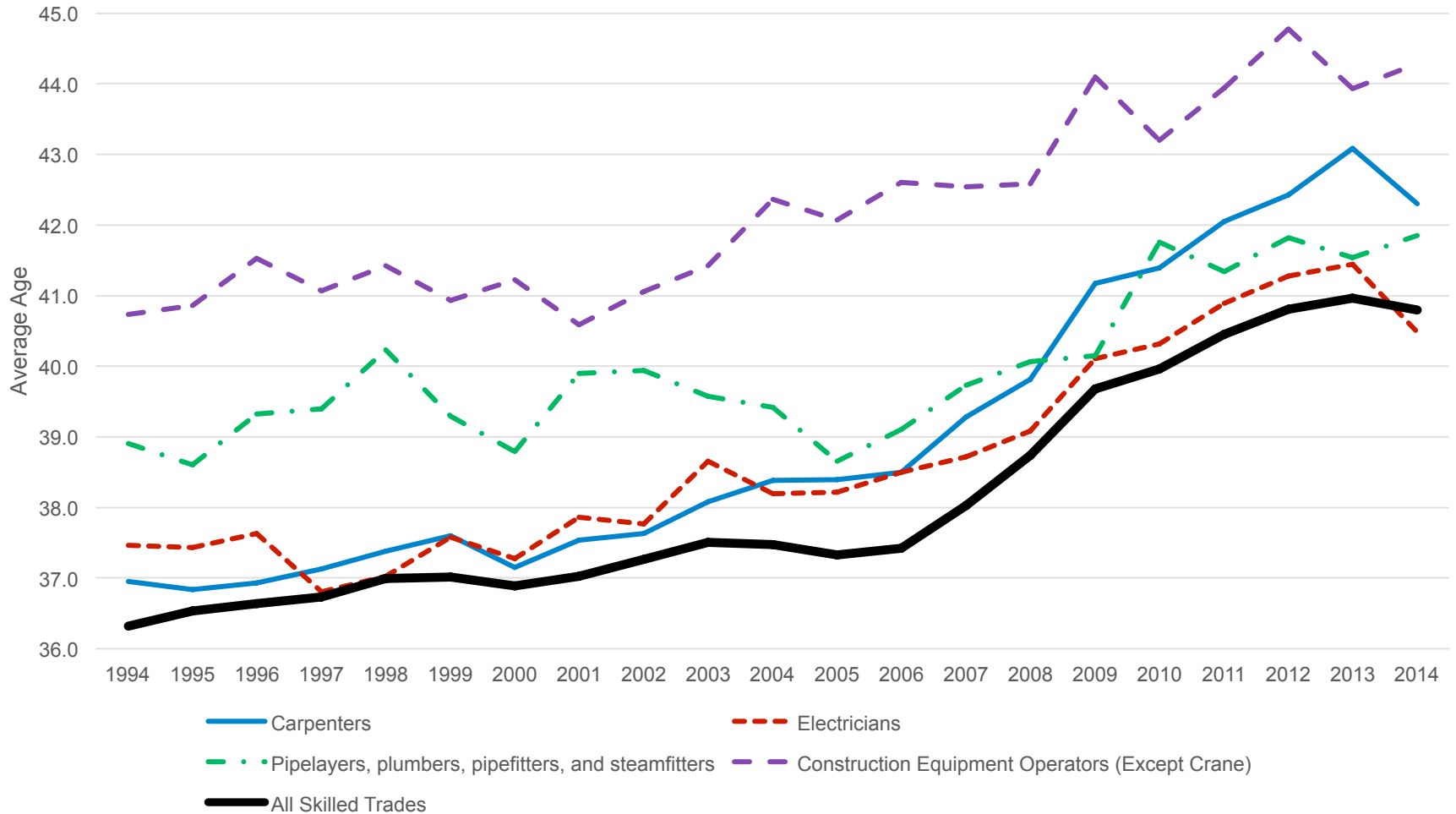
Average Age

Construction vs. All Other Industries



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

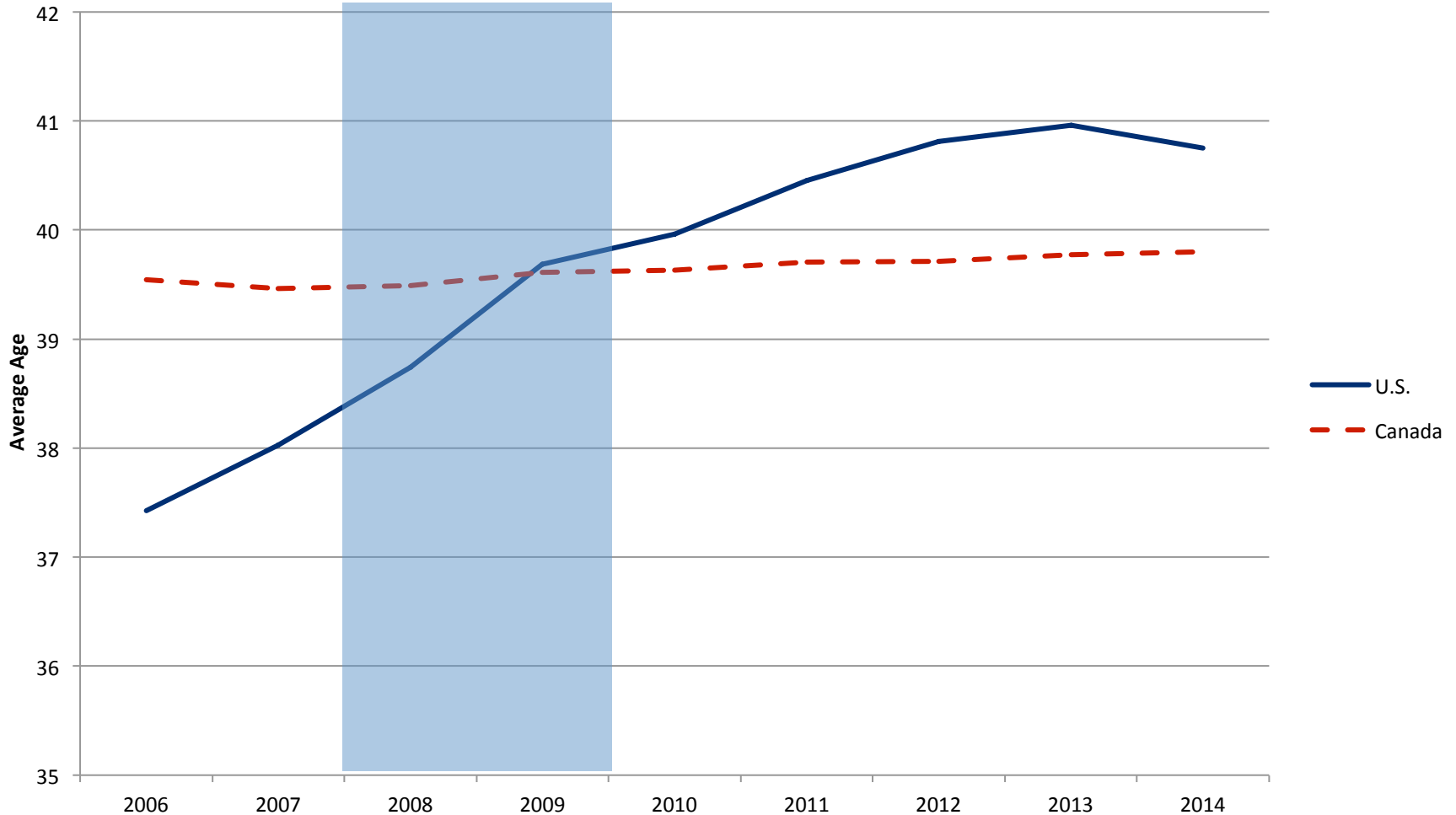
Average Age at Trades level



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

Construction Industry's Average Age

U.S. vs. Canada [Craft trades only]

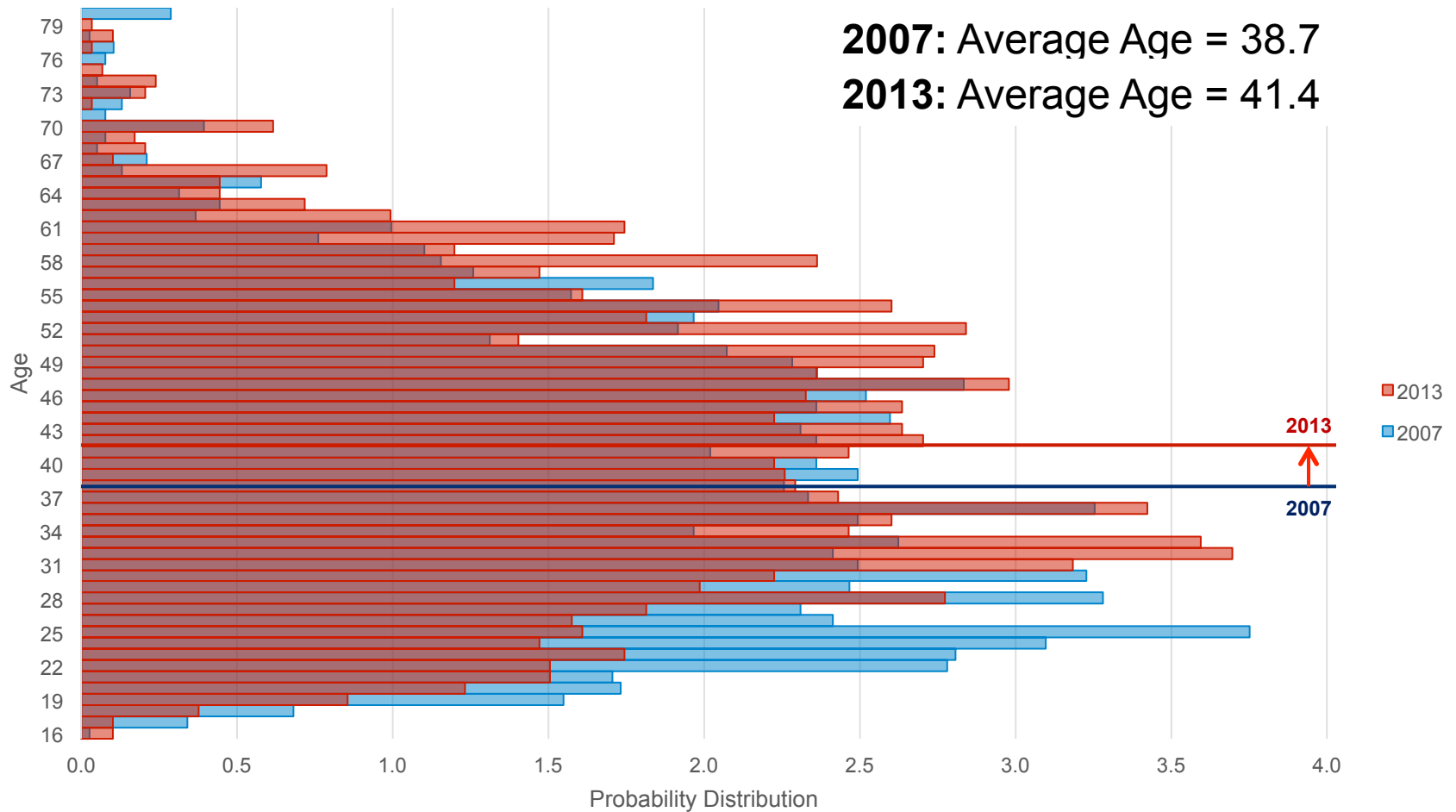


U.S. SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

CANADA SOURCE: Build Force Canada

Age Distribution: Electricians

2007 vs. 2013



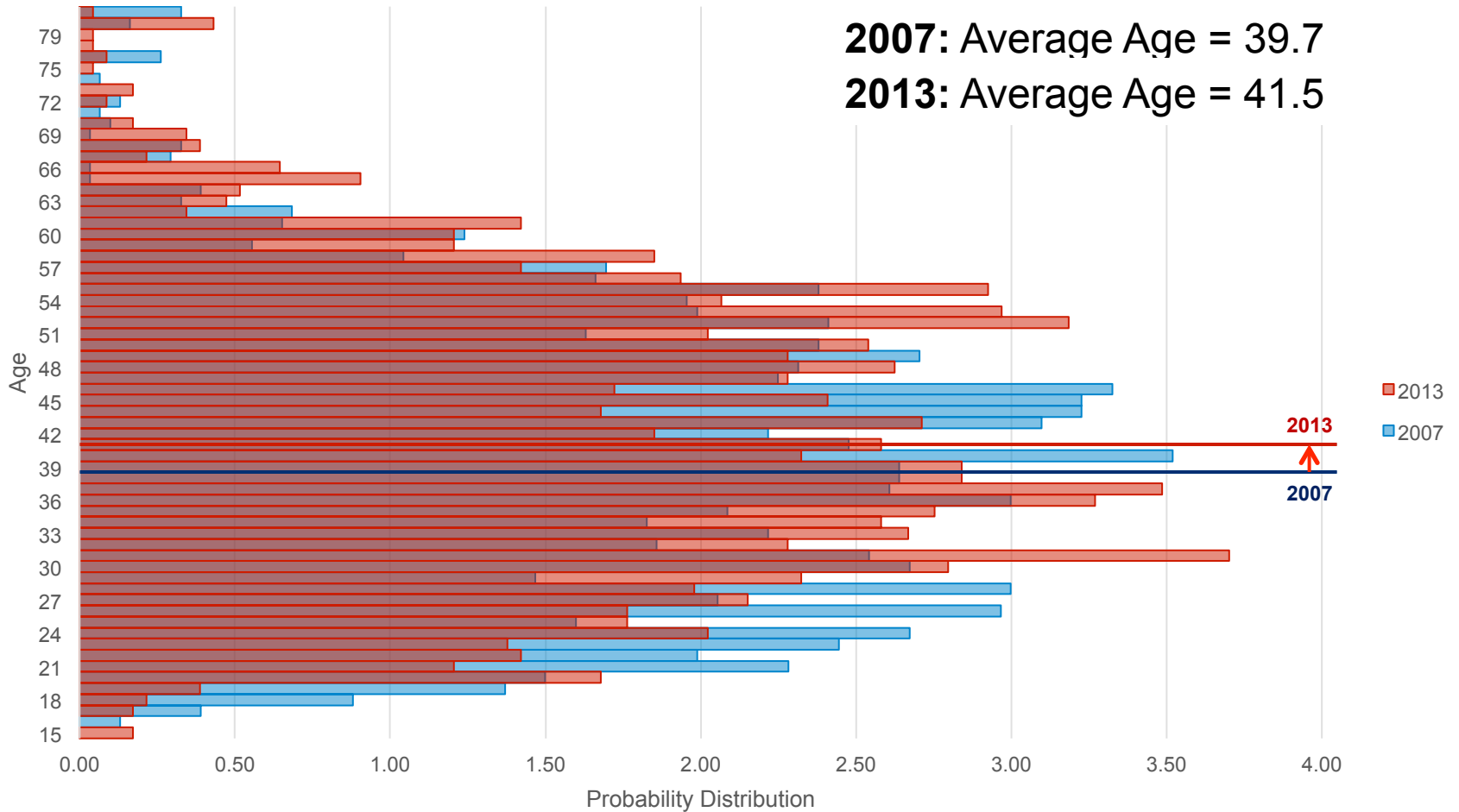
SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

Age Distribution: Pipefitters

2007 vs. 2013

2007: Average Age = 39.7

2013: Average Age = 41.5



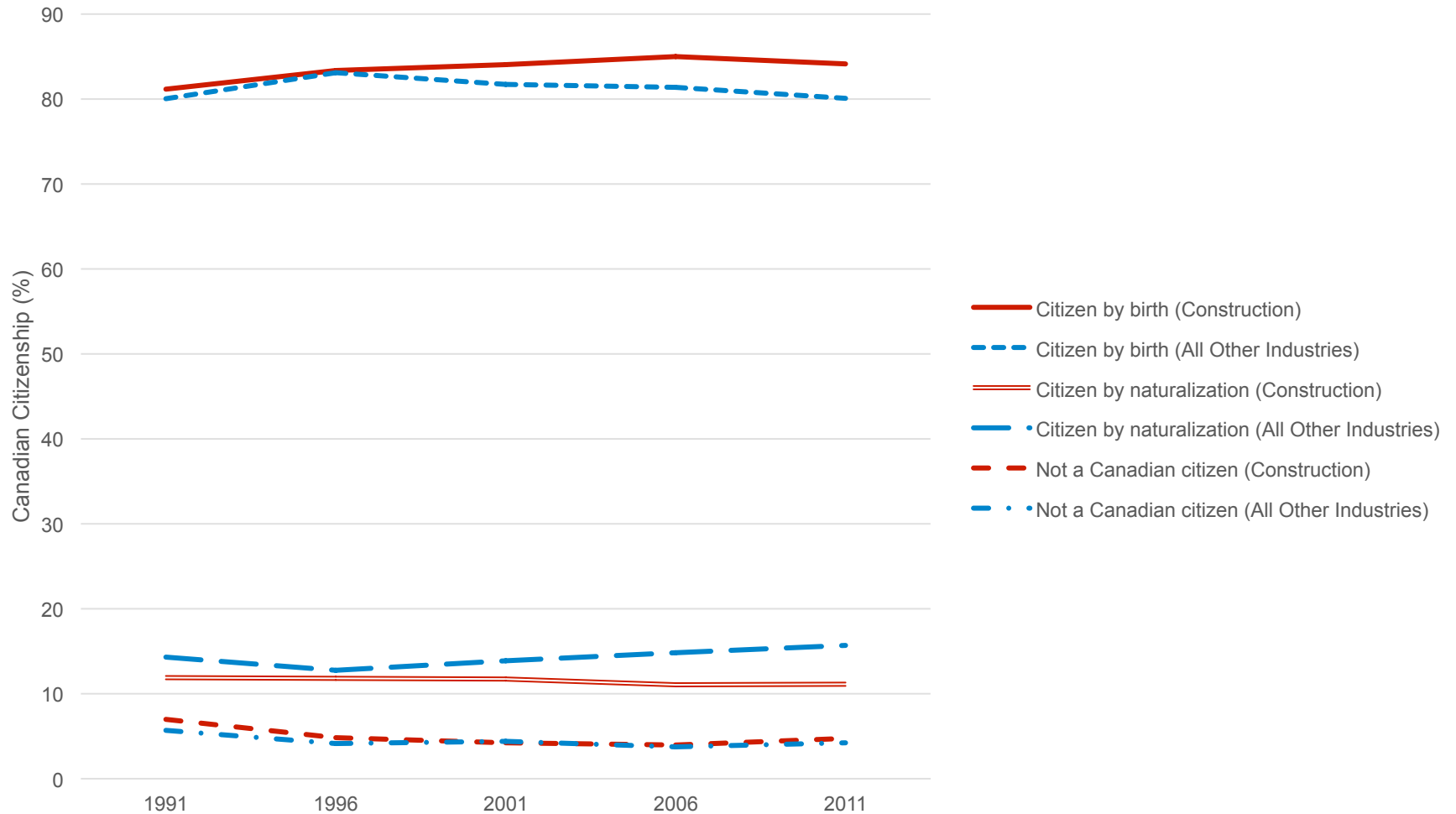
SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

Immigration and construction in the U.S. and Canada... short-term solutions?



Canadian Citizenship

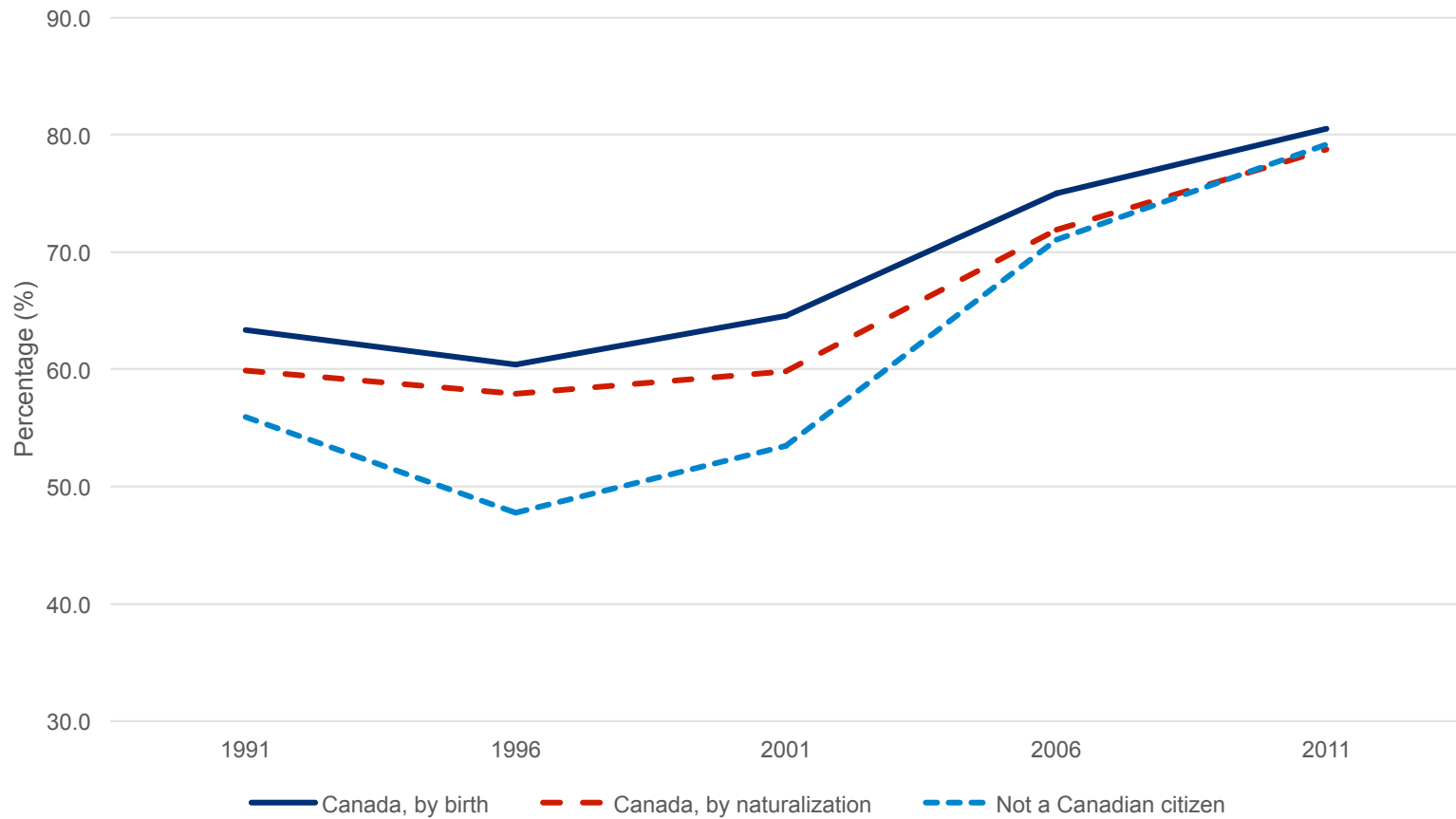
[Construction vs. All Other Industries]



SOURCE: Statistics Canada.

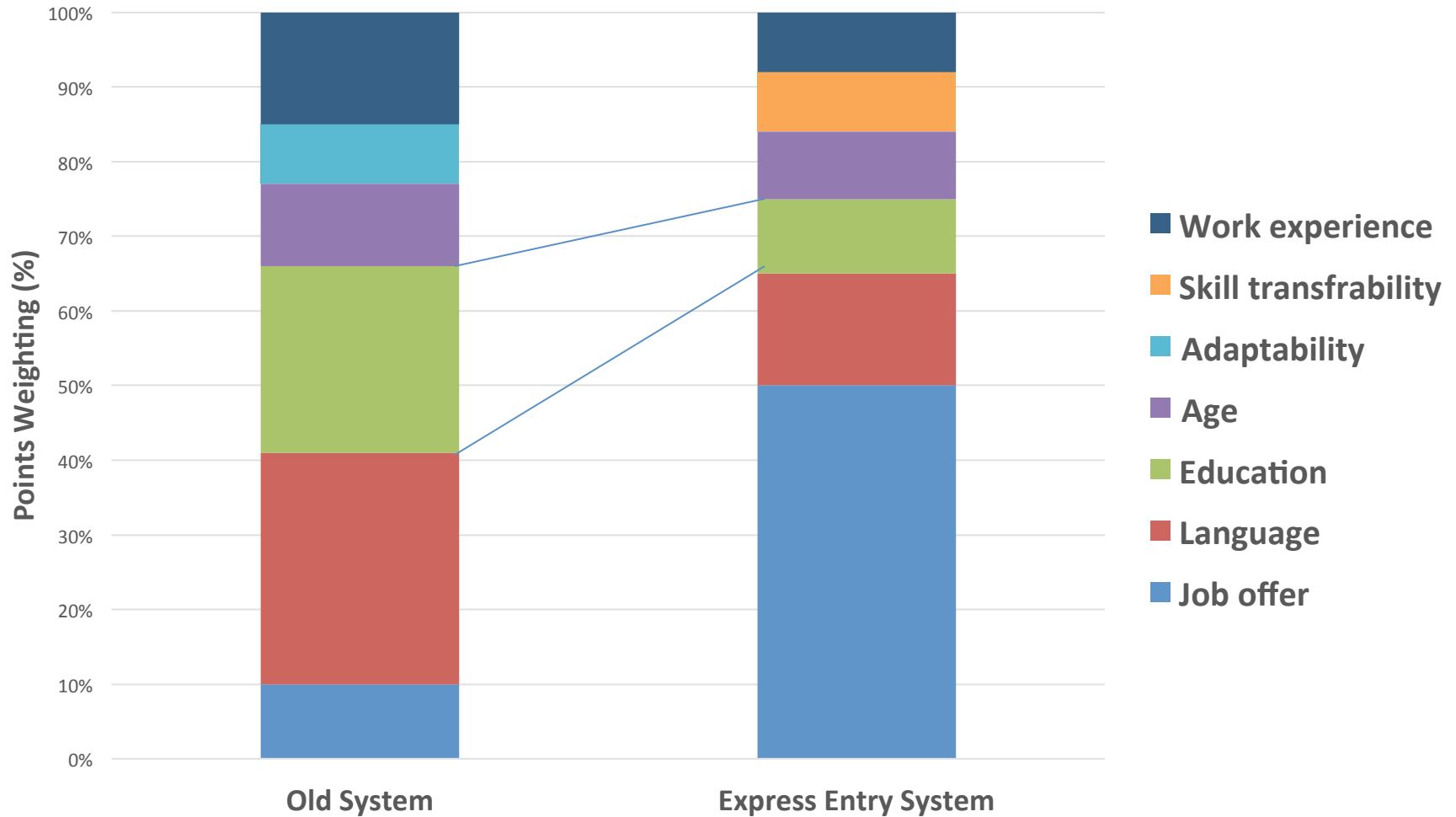
High School Graduates or Higher in Construction

[By Canadian Citizenship]



SOURCE: Statistics Canada.

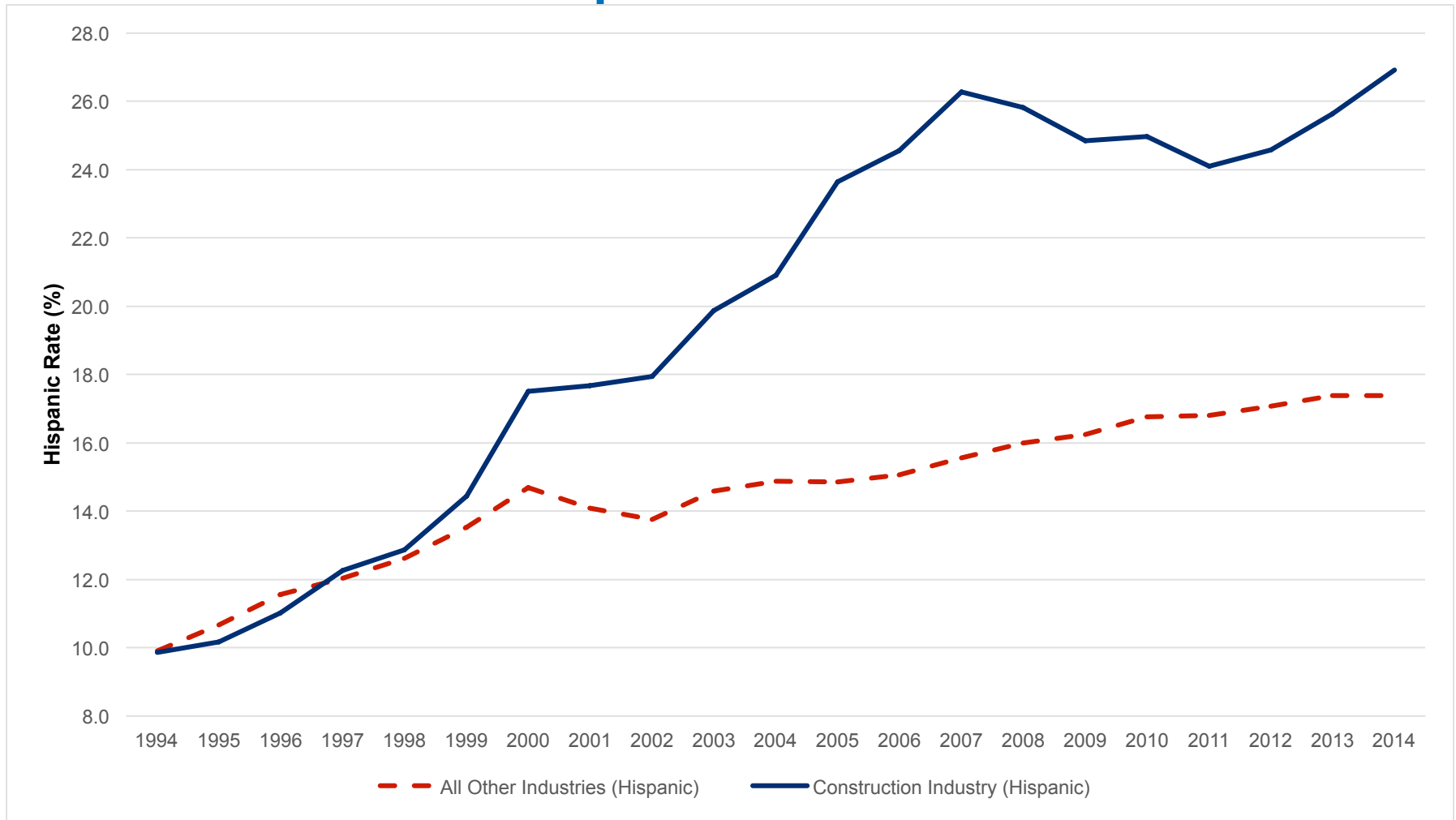
Skilled Workers Immigration System in Canada



SOURCE: Government of Canada.

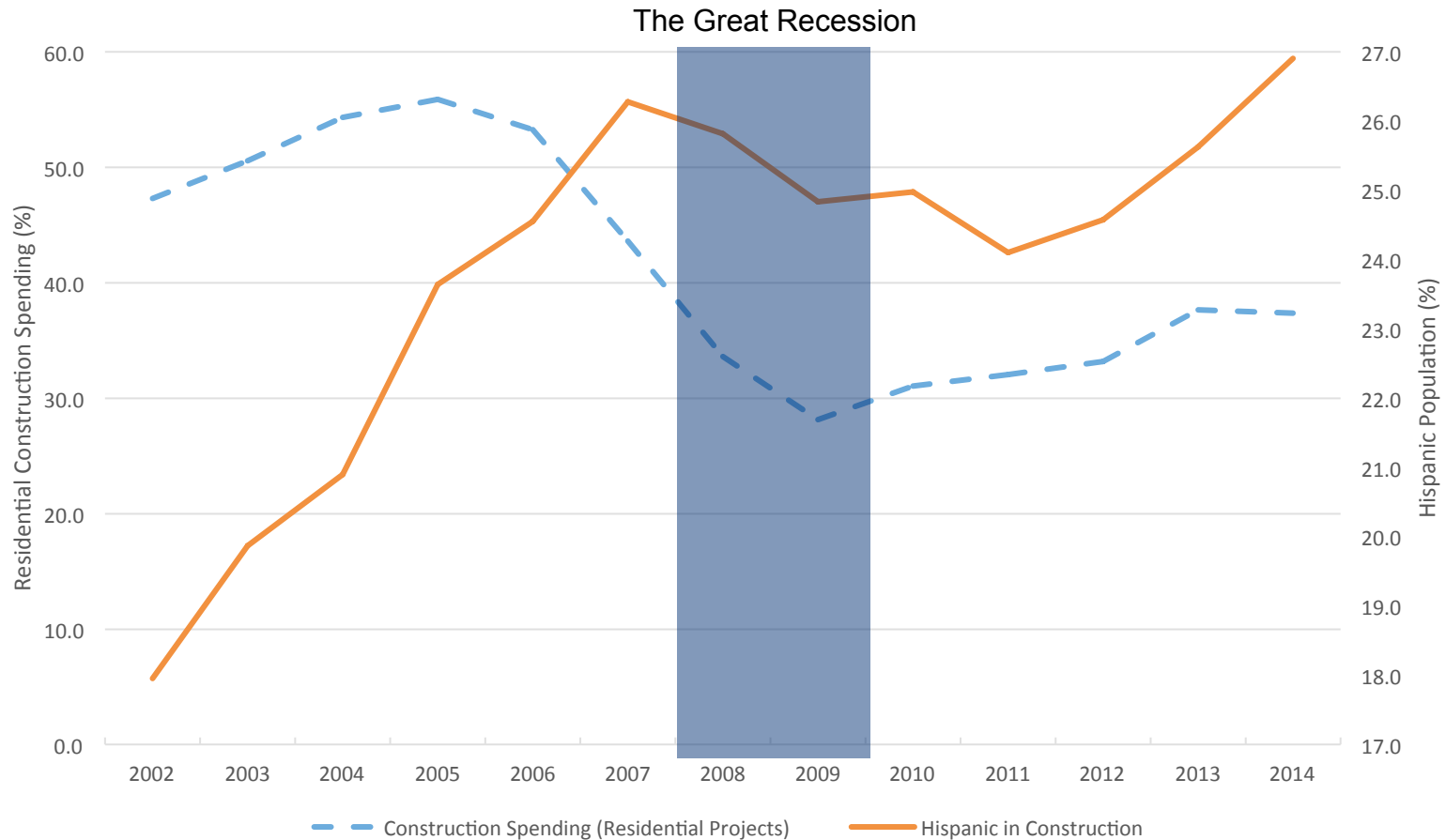
Construction vs. All Other Industries

Growth in the U.S. Hispanic workforce



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

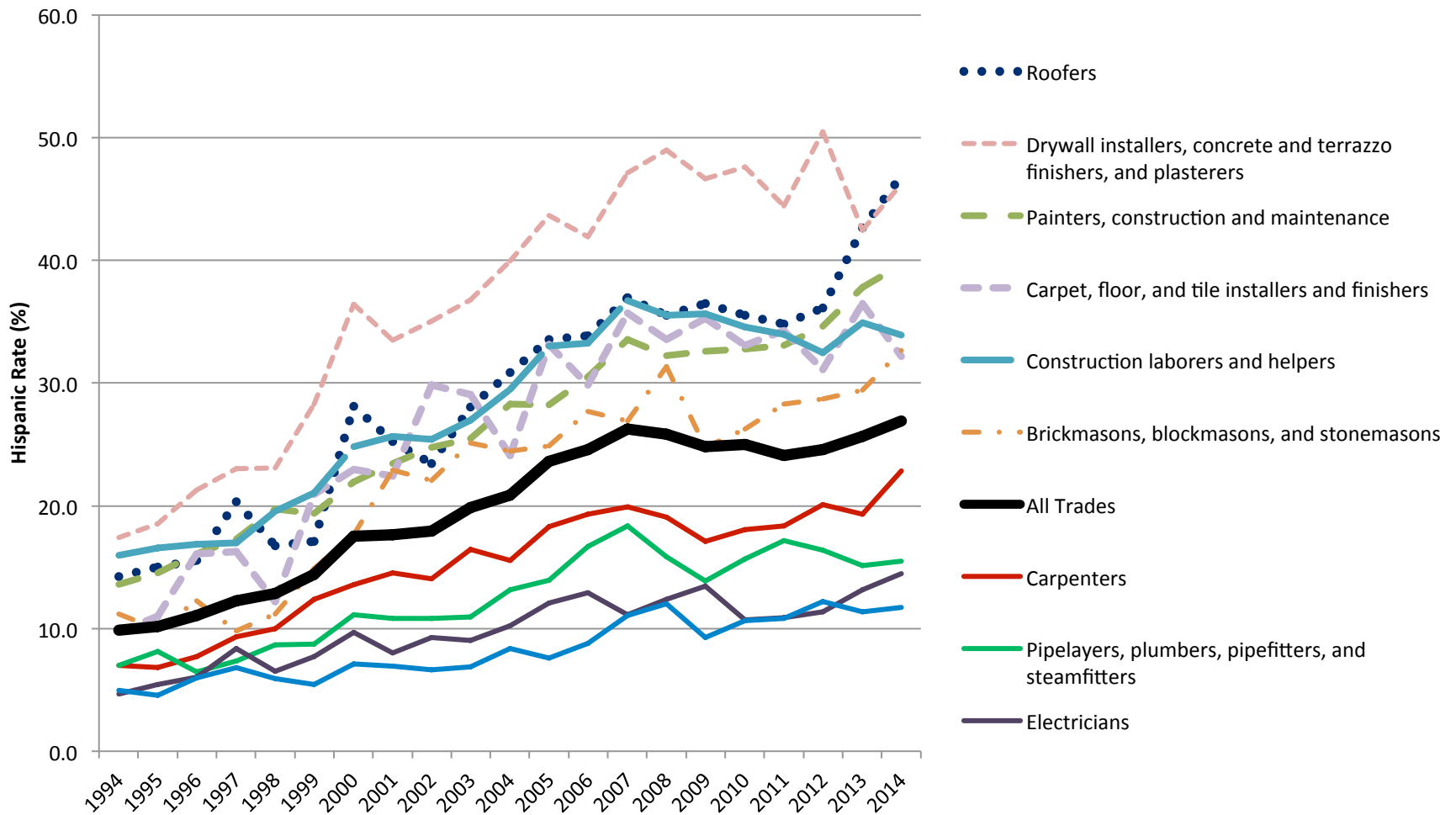
Hispanic Population vs. Residential Construction Spending



SOURCE: Construction Spending, U.S. Census Bureau.

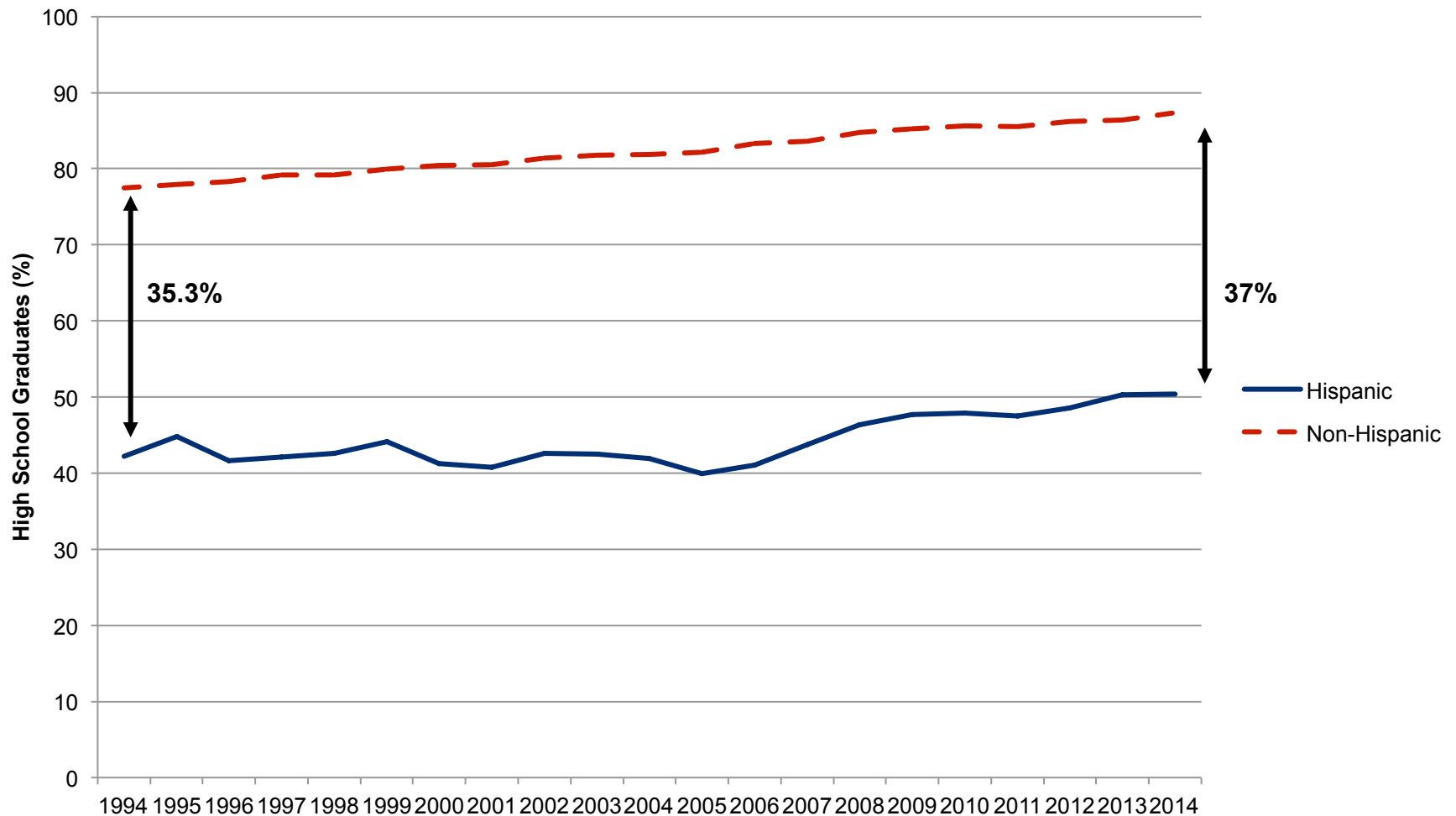
SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

Construction Hispanic at Trades level



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

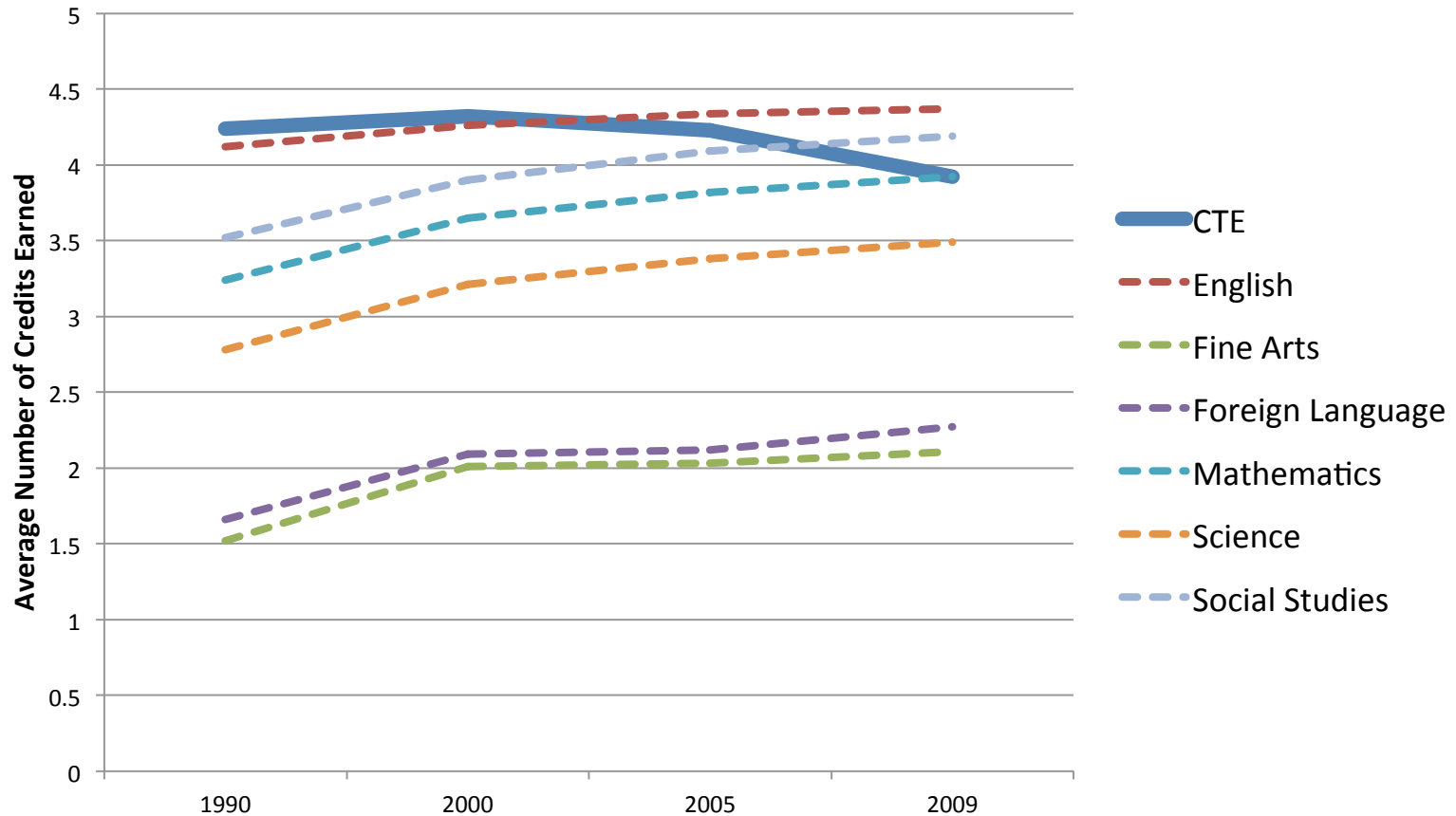
High School Graduates or Higher (Hispanic vs. Non-Hispanic)



SOURCE: Data Ferret – Current Population Survey, U.S. Bureau of Labor Statistics.

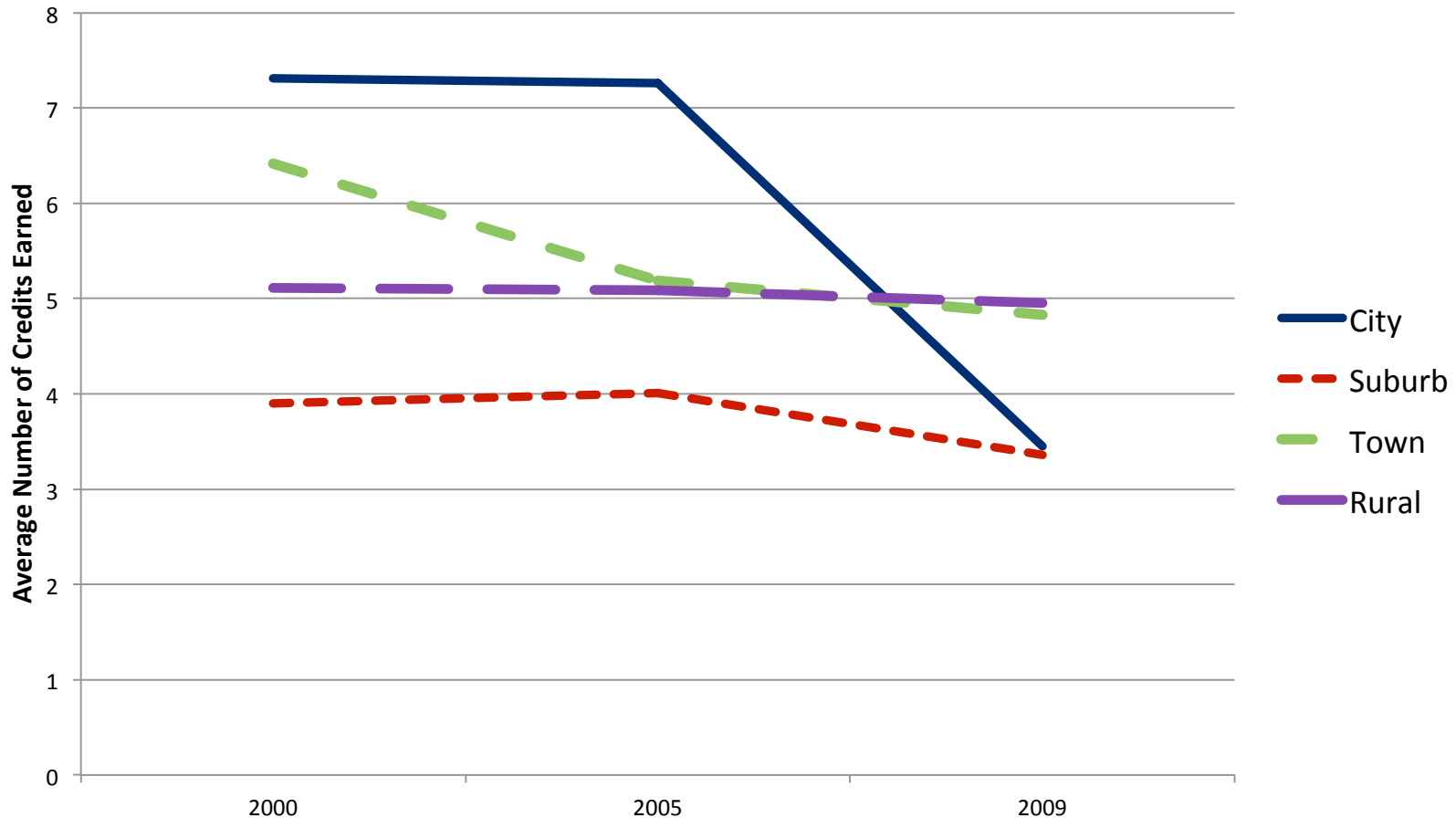
Recent challenges with U.S. career and technical education (AKA vocational programs).

Average Number of Credits Earned in Each Subject Area by Public High School Graduates. [1990 - 2009]



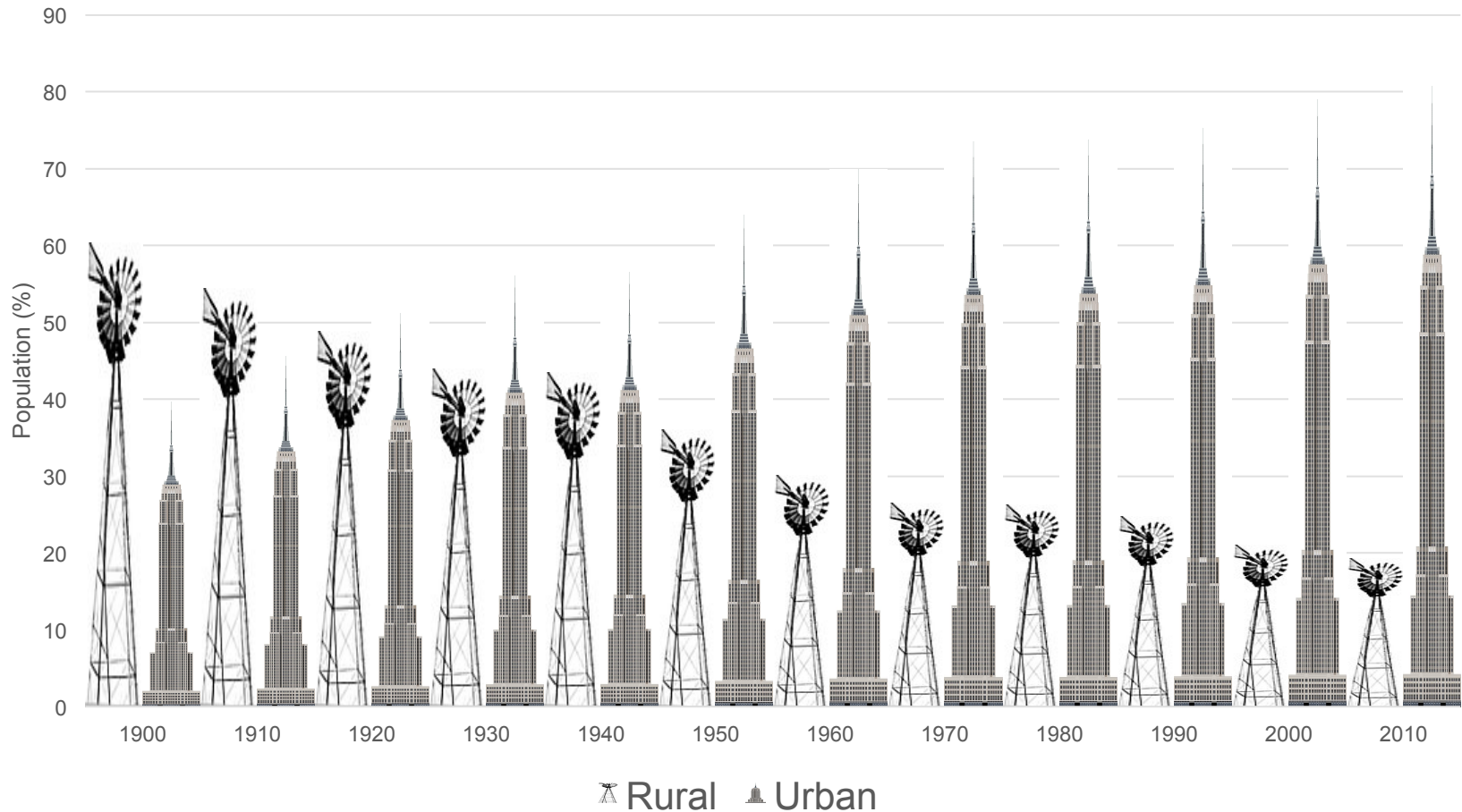
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 2000, 2005 and 2009 High School Transcript Study (HSTS).

Areas of Average Number of Credits Earned in Career and Technical Education by School Location [2000 - 2009]



SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 2000, 2005 and 2009 High School Transcript Study (HSTS).

US Rural and Urban Population [1900 – 2010]



SOURCE: U.S. Census Bureau, Decennial Censuses

Conclusion

- There is a “greying” of the U.S. workforce.
 - Implications on methods and safety
 - Canada appears more stable
- Significant differences in educational gap between Hispanic and non-Hispanic U.S. craft
 - Minimal difference between Canadian craft by immigration status
- Shifts in Career and Technical Educational programs and the geographic shifts in the U.S. may become hindrance to the U.S. craft