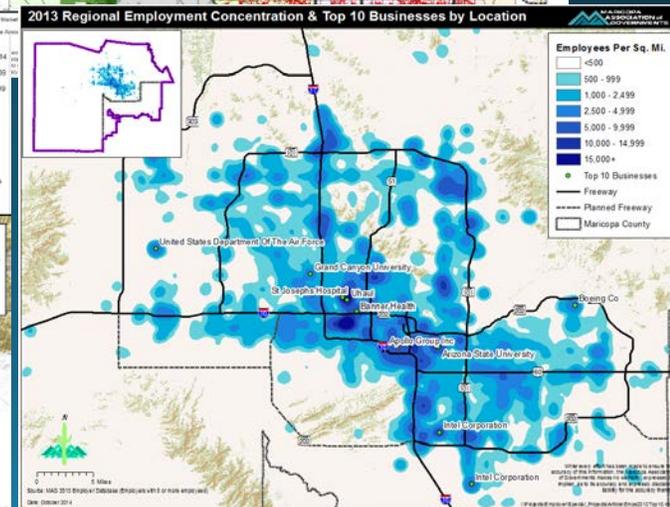
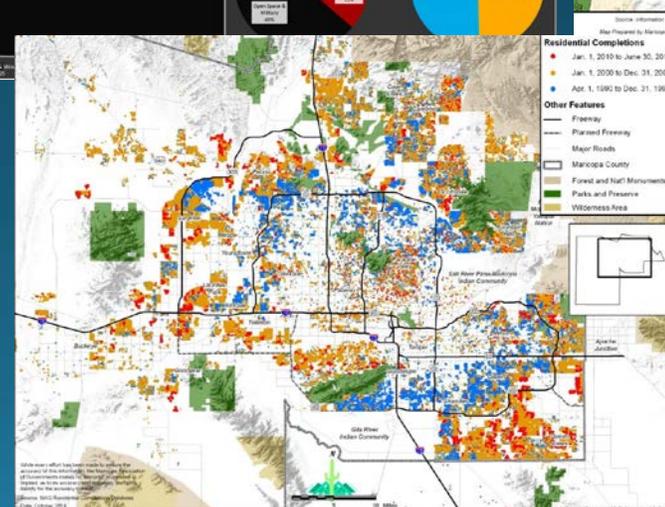
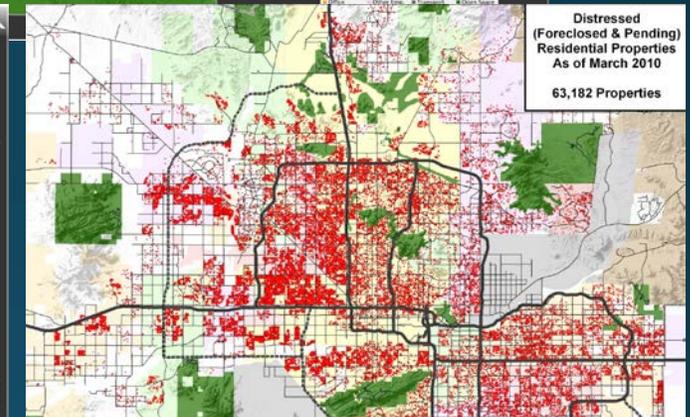
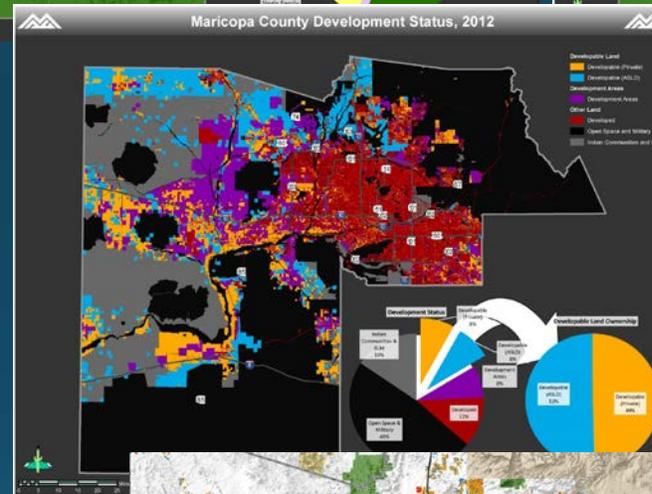
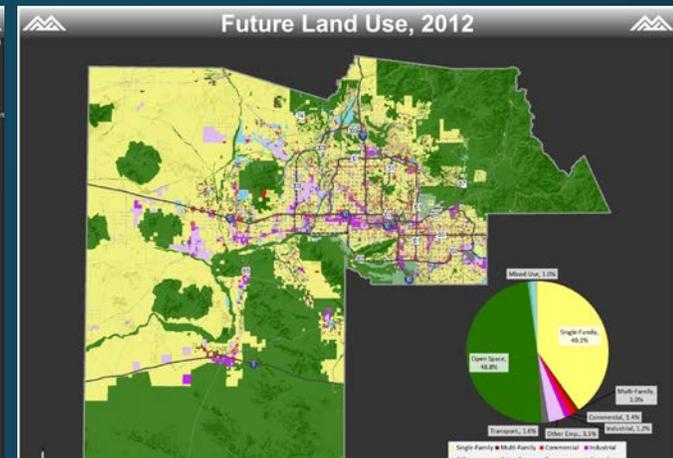
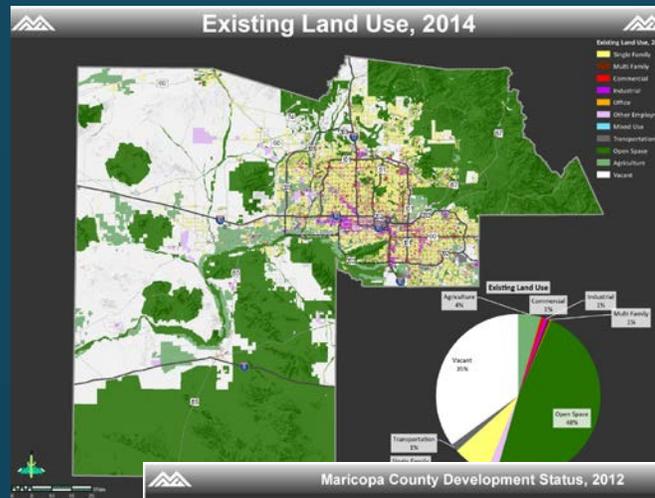


Beyond Data Collection and Projections

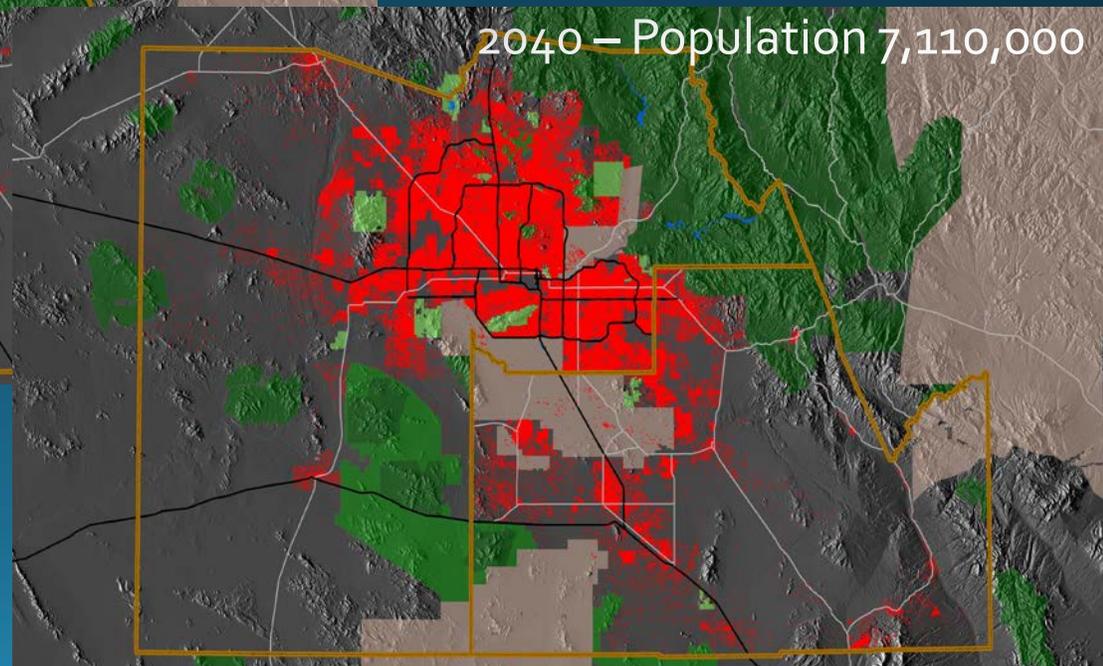
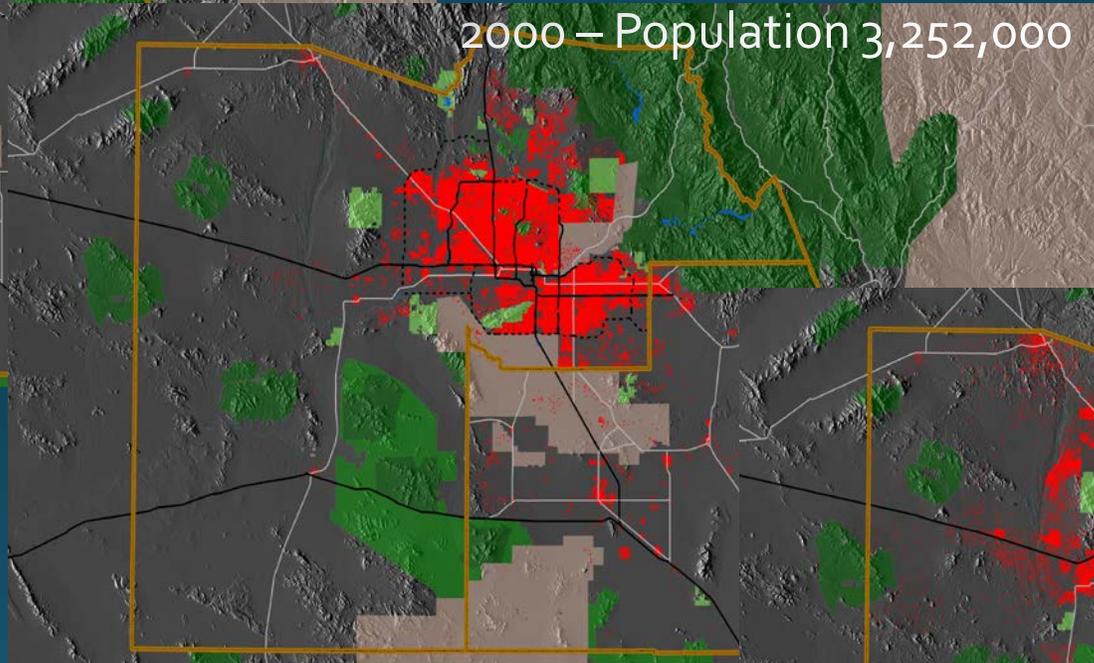
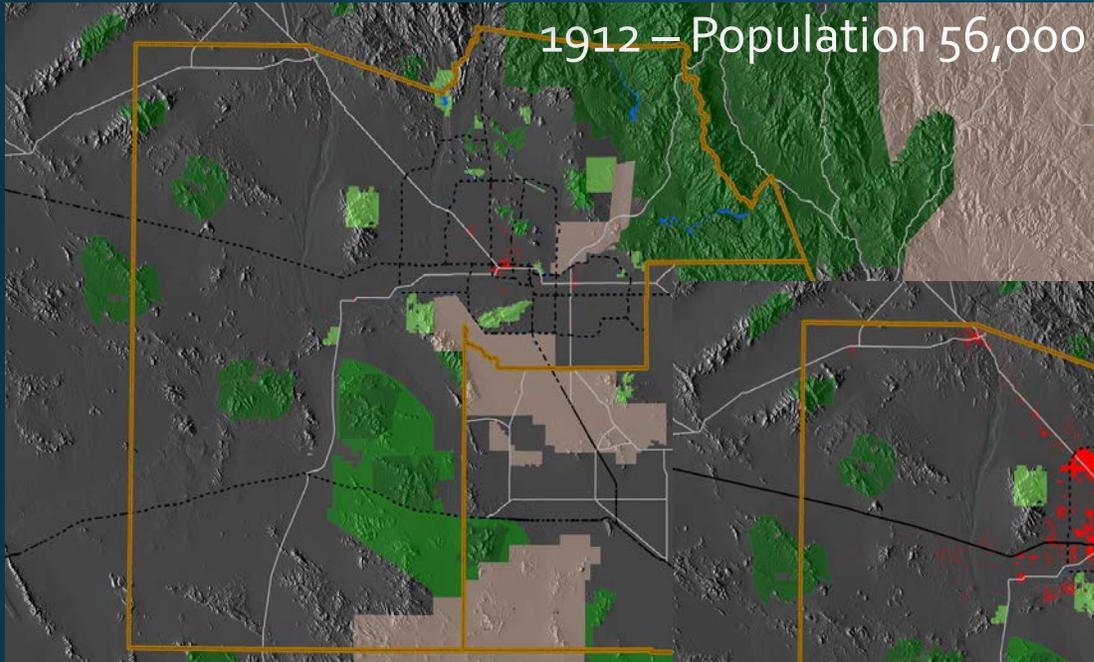
Experiments with Big Data

Data R Us

- Ongoing data maintenance:
 - Socioeconomic models
 - Transportation models
- Engaged only with Planning staff
 - Relevance?
 - What is in it for member agencies?
- Starting 2012
 - Visit Economic Development teams
 - Other public/private entities
 - Workforce
 - Education
 - Real Estate



Need to Think beyond projections!



Planners and ED Partnership Exchange



Beyond Maps

Demographic Viewer - Total Population

Maps Legend Reports Print Map Share Help

Maps

Choose a Map:

- Population
 - Total Population**
 - People per Sq Mi
 - % Minority Population
- Age
- Population by Race
- Population by Ethnicity
- Household Income
- Poverty
- Educational Attainment
- Housing

Advanced Map Options

Reports

Choose a report:

- County Summary
- City/Town Summary
- Council District Summary
- Supervisor District Summary
- Custom Summary
- Advanced Query

Legend

Total Population

Transparency Slider

- 0 - 1,096
- 1,096 - 1,666
- 1,666 - 2,378
- 2,378 - 3,864
- 3,864 - 7,293
- No Data

Data Source: Census 2010, by Block Group

Layers Options

Report Results for Phoenix

Summary Report Charts

Display chart legend

Export Report to PDF:

Population by Age*

Population by Race*

Population by Ethnicity*

Household Income^

Educational Attainment^

Housing Unit Occupancy*

Age Group	Population
Under 5	119,911
5 to 17	288,430
18 to 34	374,799
35 to 49	307,923
50 to 64	232,626
65 to 84	107,437
85 and over	14,506

Source: *Census 2010; ^American Community Survey 2009 - 2013

Advanced Query

Number of selected block groups: 1

Subject	Operation	Value
Seasonal Housing	Greater Than Or Equal To	100
Pop Age 35 to 49	Less Than Or Equal To	600

Additional Conditions (optional): AND

Additional Conditions (optional): NONE

Cancel Run Query Verify Query

Partners

- U.S. Census Bureau
- MAG Member Agencies
- MAG Population Technical Advisory Committee
- MAG Economic Development Committee
- Arizona COG/MPO Directors
- Virginia G. Piper Charitable Trust
- Read On Arizona
- Arizona Department of Education
- Arizona Department of Health Services
- Maricopa County Attorney's Office Victim Services Division
- Maricopa County Department of Air Quality
- Commercial and Residential Real Estate Groups



Nine Live Applications

<http://ims.azmag.gov>

- Ongoing Data Updates
- Constant User Feedback
- Hands-on training sessions
 - 381 attendees since Feb 2014
 - 18 events scheduled in 2016
 - 3 regional locations & user sites



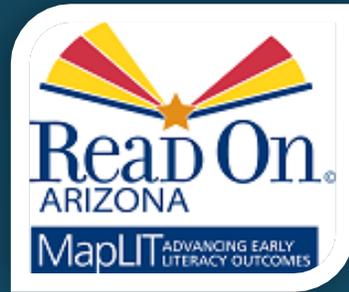
Demographic



Statewide



Employment



MapLIT



Land Use



Bikeways



Building Landmark
Inventory



Projections



Victim Services

Demonstration

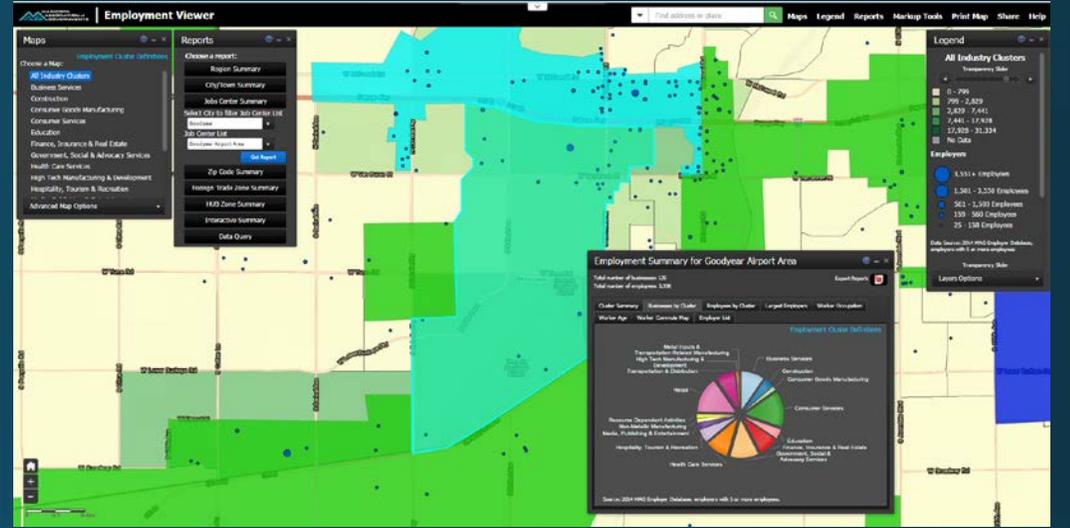
<http://ims.azmag.gov>



MAG Region Demographic Map Viewer

The Demographic Map Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing selected population and housing data. Explore data from Census 2010 and American Community Survey (ACS) 2009-2013.

[View Map](#)



Employment Viewer

Choose a report: Region Summary, City/Town Summary, MSA Center Summary, School City or State K-12 Center List, County Center List, Zip Code Summary, MSA Zone Summary, Interaction Summary, Data Query.

Employment Summary for Goodyear Airport Area

Total number of businesses: 125
Total number of employees: 5,276

Employment by Industry Cluster:

- 0 - 799
- 799 - 2,829
- 2,829 - 7,441
- 7,441 - 17,918
- 17,918 - 31,334
- No Data

Employees:

- 6,311+ Employees
- 1,541 - 2,329 Employees
- 543 - 1,500 Employees
- 159 - 560 Employees
- 25 - 158 Employees



MAG Region Demographic Map Viewer

The Demographic Map Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing selected population and housing data for the two counties in the MAG Region. Explore data from Census 2010 and American Community Survey (ACS) 2009-2013.

[View Map >](#)



State Demographic Map Viewer

The State Demographic Map Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing selected population and housing data for the entire State of Arizona. Explore data from Census 2010 and American Community Survey (ACS) 2009-2013.

[View Map >](#)



Employment Map Viewer

The Employment Map Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing selected employer data. Explore the 2013 Employer Database.

[View Map >](#)



Read On Arizona MapLIT Viewer

Maricopa Association of Governments is part of Read On Arizona's collaborative partnership that created MapLIT, an interactive mapping tool as a "one stop" resource to identify key data sets (census, school, health, family engagement) that impact early literacy outcomes in communities.

[View Map >](#)



Land Use Map Viewer

The Land Use Map Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing land use data. Explore the MAG 2012 Existing and Future Land Use datasets.

[View Map >](#)



Bikeways Map Viewer

The Bikeways Map Viewer is one of the Maricopa Association of Governments interactive mapping sites, showing locally-designated bicycle facilities data. Explore the MAG 2012 Bikeways datasets.

[View Map >](#)



Building Landmark Inventory Viewer

The Building Landmark Inventory Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing landmark data. Explore the MAG 2012 Building Landmark inventory datasets.

[View Map >](#)



Projections Map Viewer

The Projections Map Viewer is one of the Maricopa Association of Governments interactive mapping and analysis sites, showing socioeconomic projections data. Explore the MAG 2012 Socioeconomic Projections series dataset.

[View Map >](#)



Victim Services Map Viewer

The Victim Services Map Viewer is one of the Maricopa Association of Governments interactive mapping sites, showing victim advocate services data. Explore the MAG 2012 victim advocates services datasets.

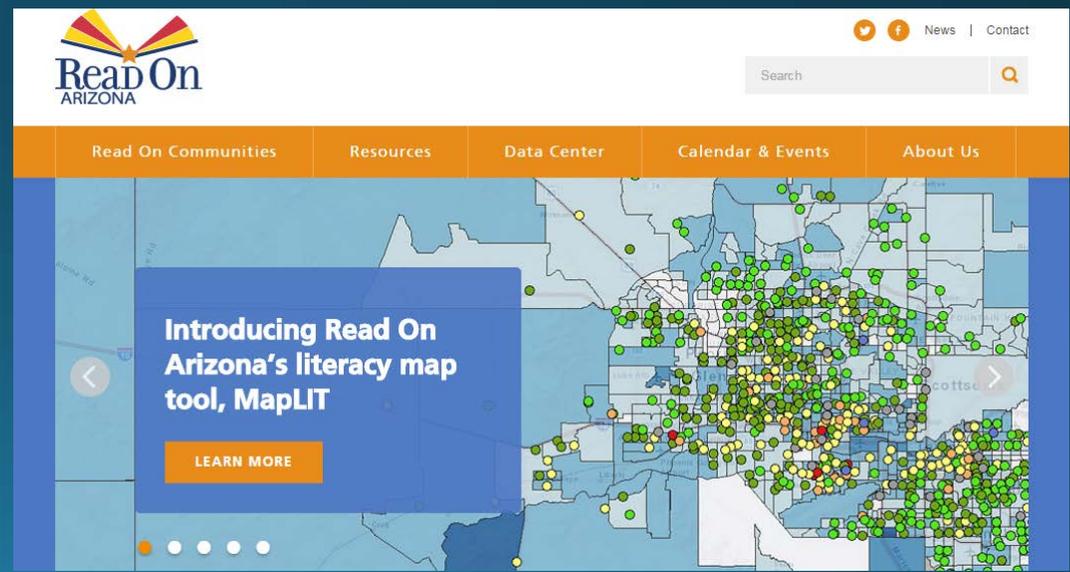
[View Map >](#)

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Read On ARIZONA

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Search

Read On Communities | Resources | Data Center | Calendar & Events | About Us

Introducing Read On Arizona's literacy map tool, MapLIT

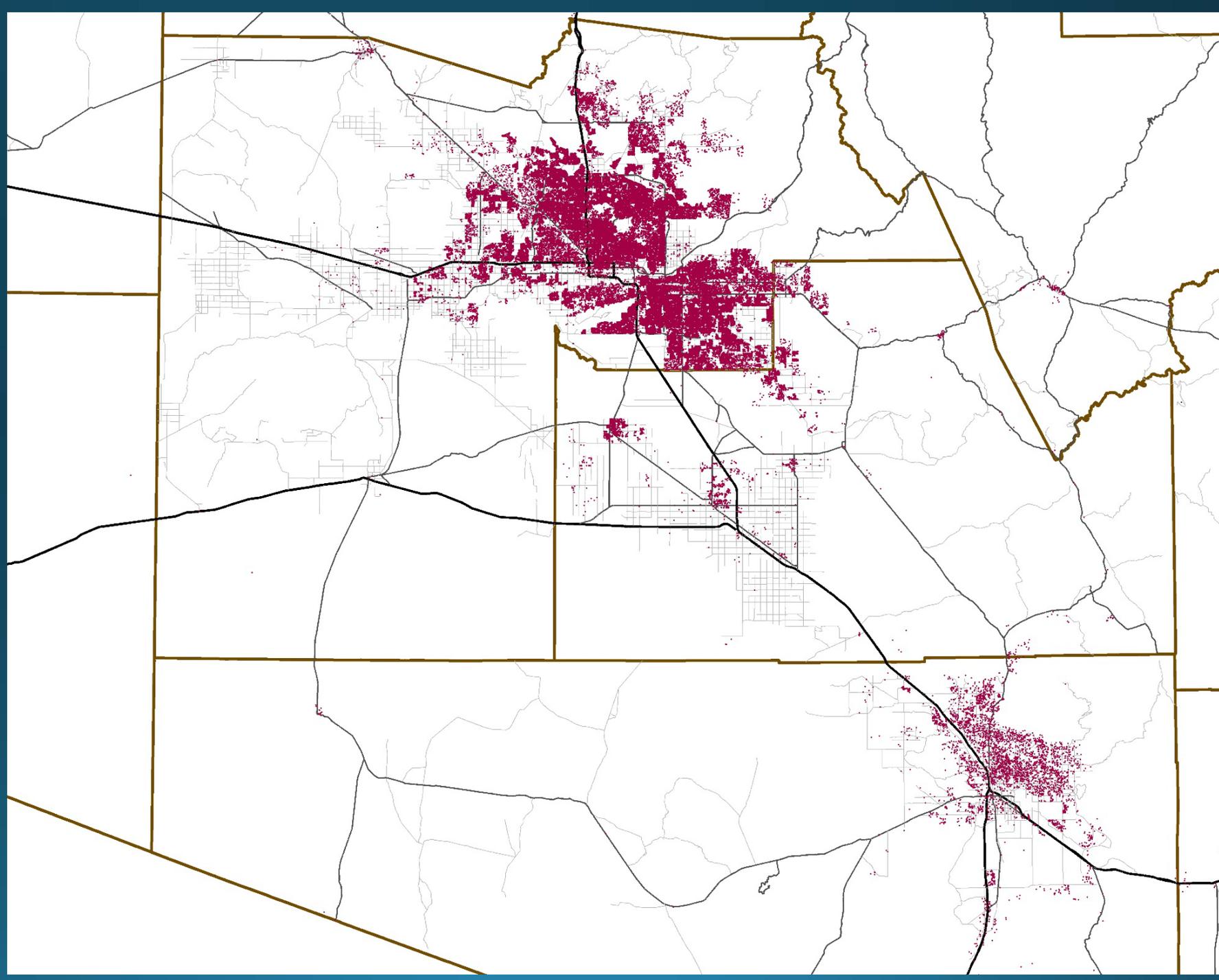
[LEARN MORE](#)

Labor Force Analytics

ASU Graduates 1980 – 2014

Total : 325,122
In AZ: 202,274 (62.2%)
In Phoenix: 176,587
In Tucson : 5,203

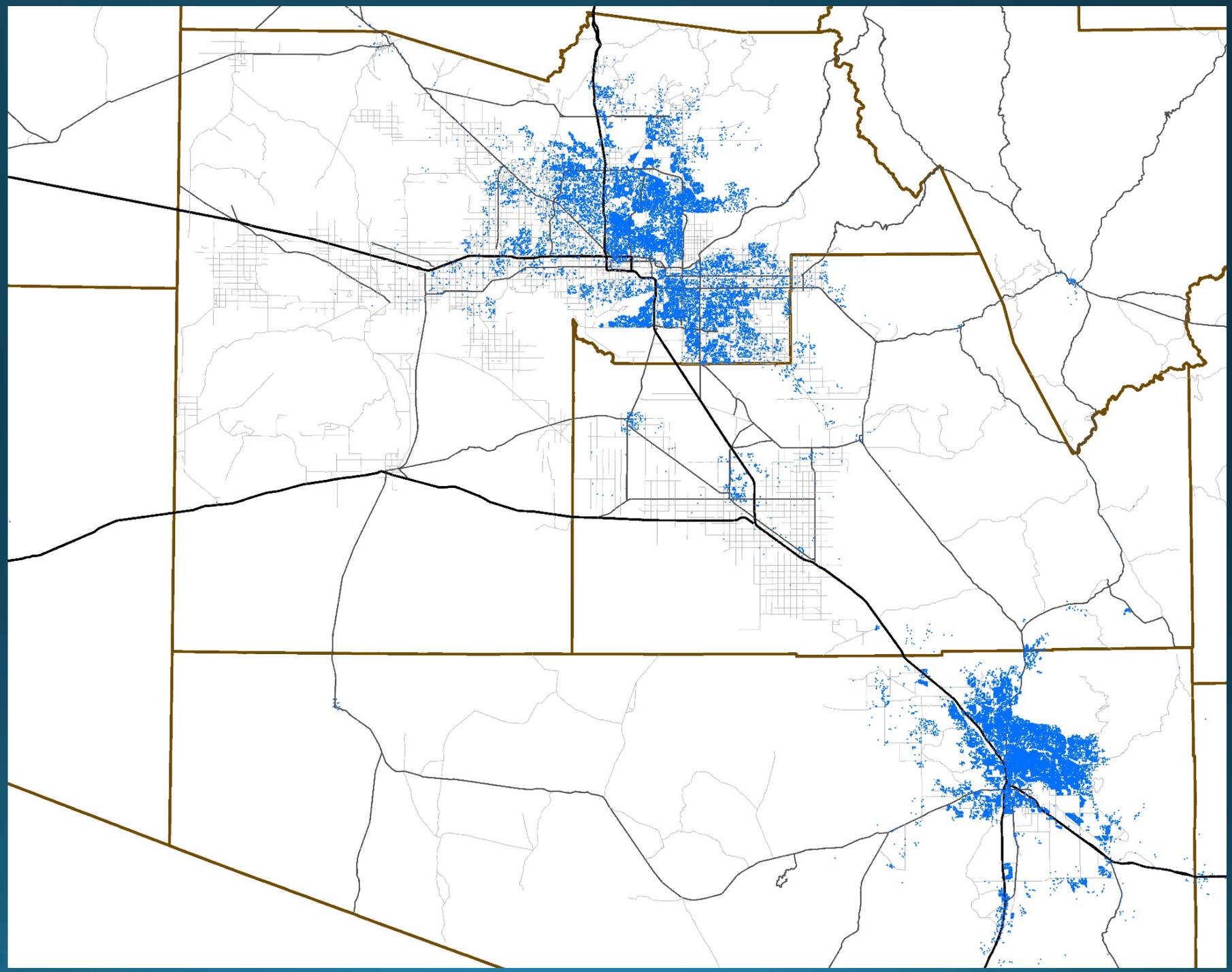
Since 2000: **69.1% in AZ**



U of A Graduates 1980 – 2014

Total : 167,661
In AZ: 84,362 (50.3%)
In Phoenix: 29,847
In Tucson : 45,973

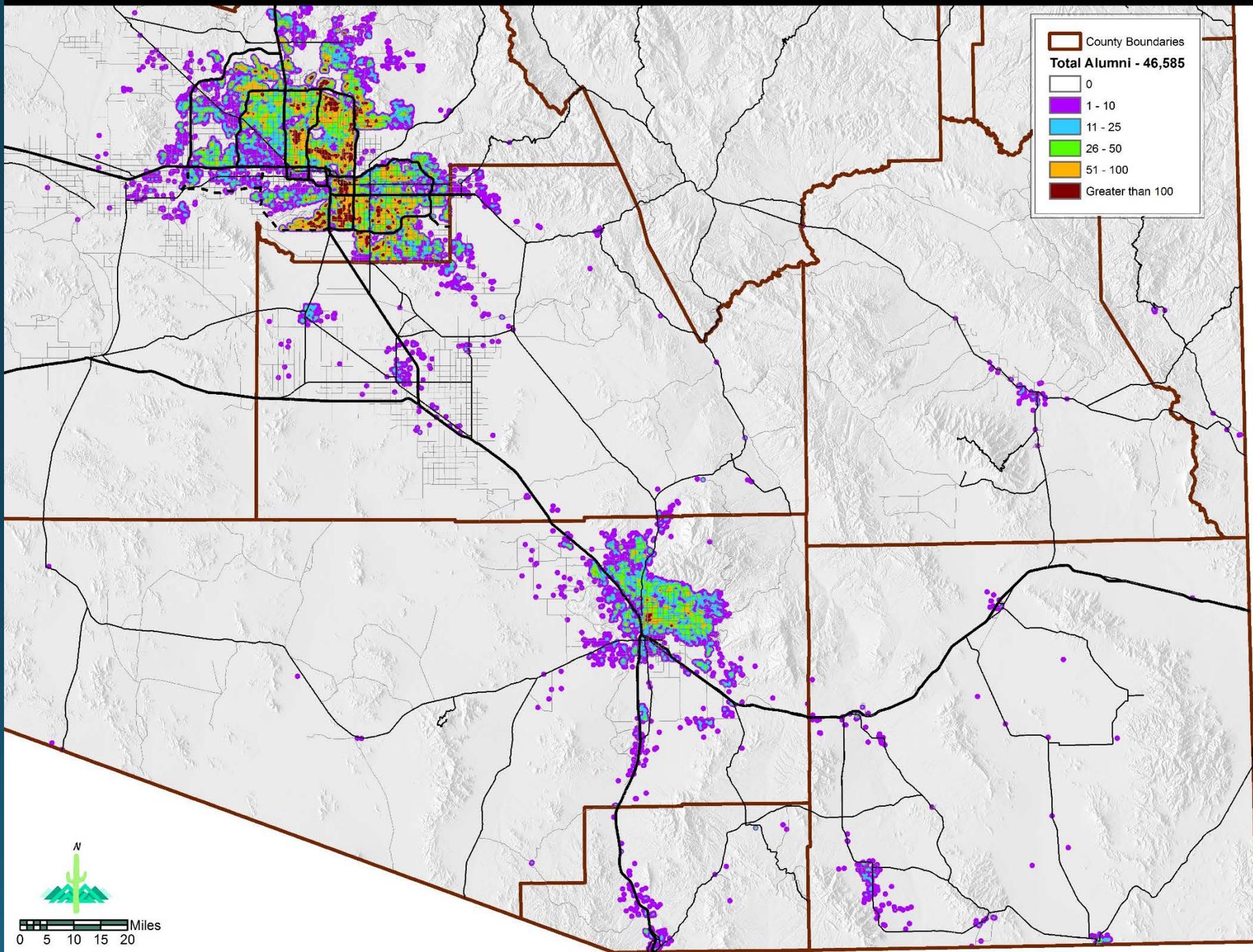
Since 2000: **56.3% in AZ**





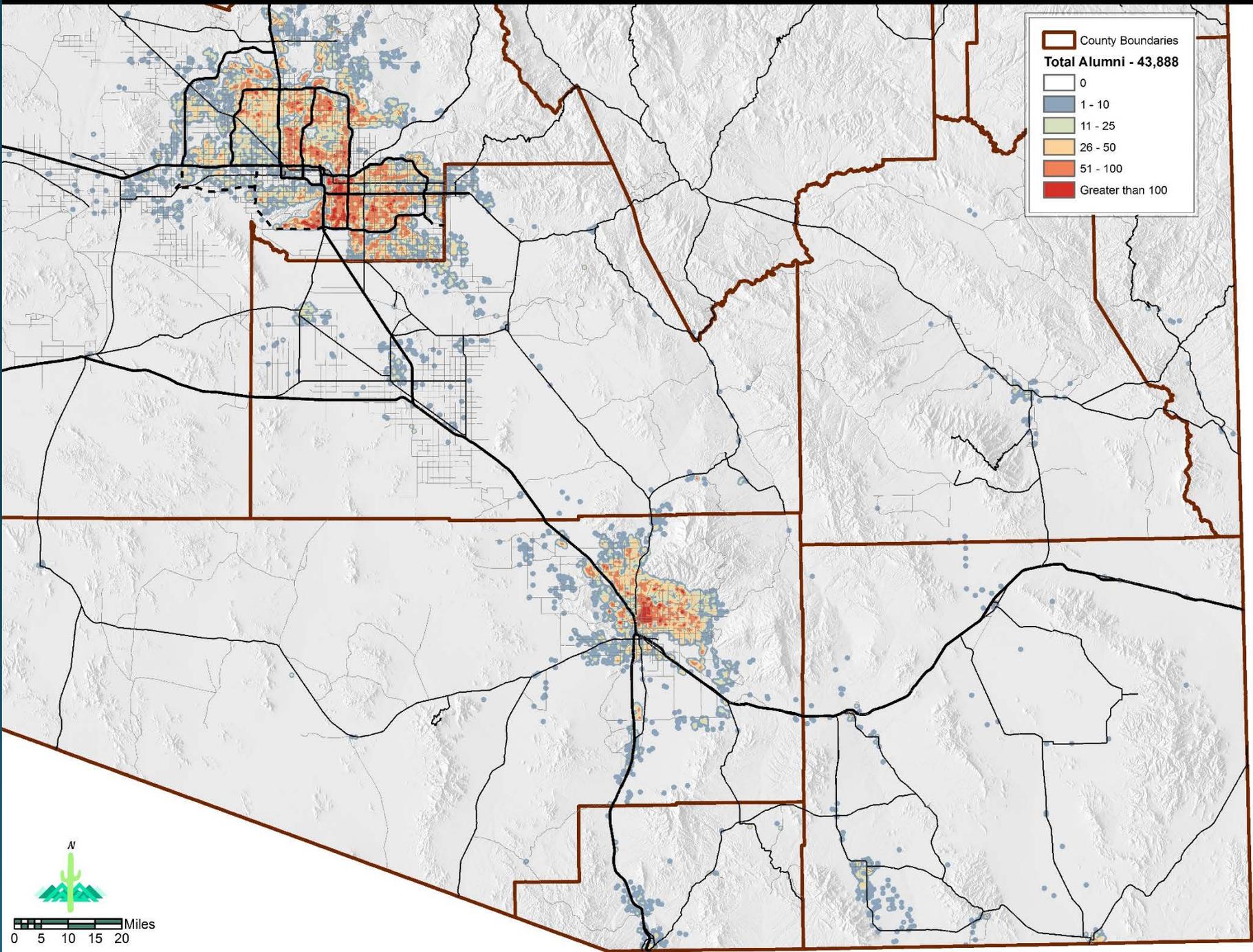
Business Alumni 46,585

PLACE	Alumni
Phoenix	13,167
Scottsdale	5,121
Chandler	3,705
Gilbert	3,409
Mesa	3,306
Tucson	3,170
Tempe	3,042
Peoria	1,492
Glendale	1,438
Catalina Foothills CDP	1,039
Balance Of Maricopa County	834
Casas Adobes CDP	623
Oro Valley	476
Paradise Valley	424
Surprise	405
Goodyear	367
Balance Of Pima County	345
Marana	336
Avondale	309
Queen Creek	279



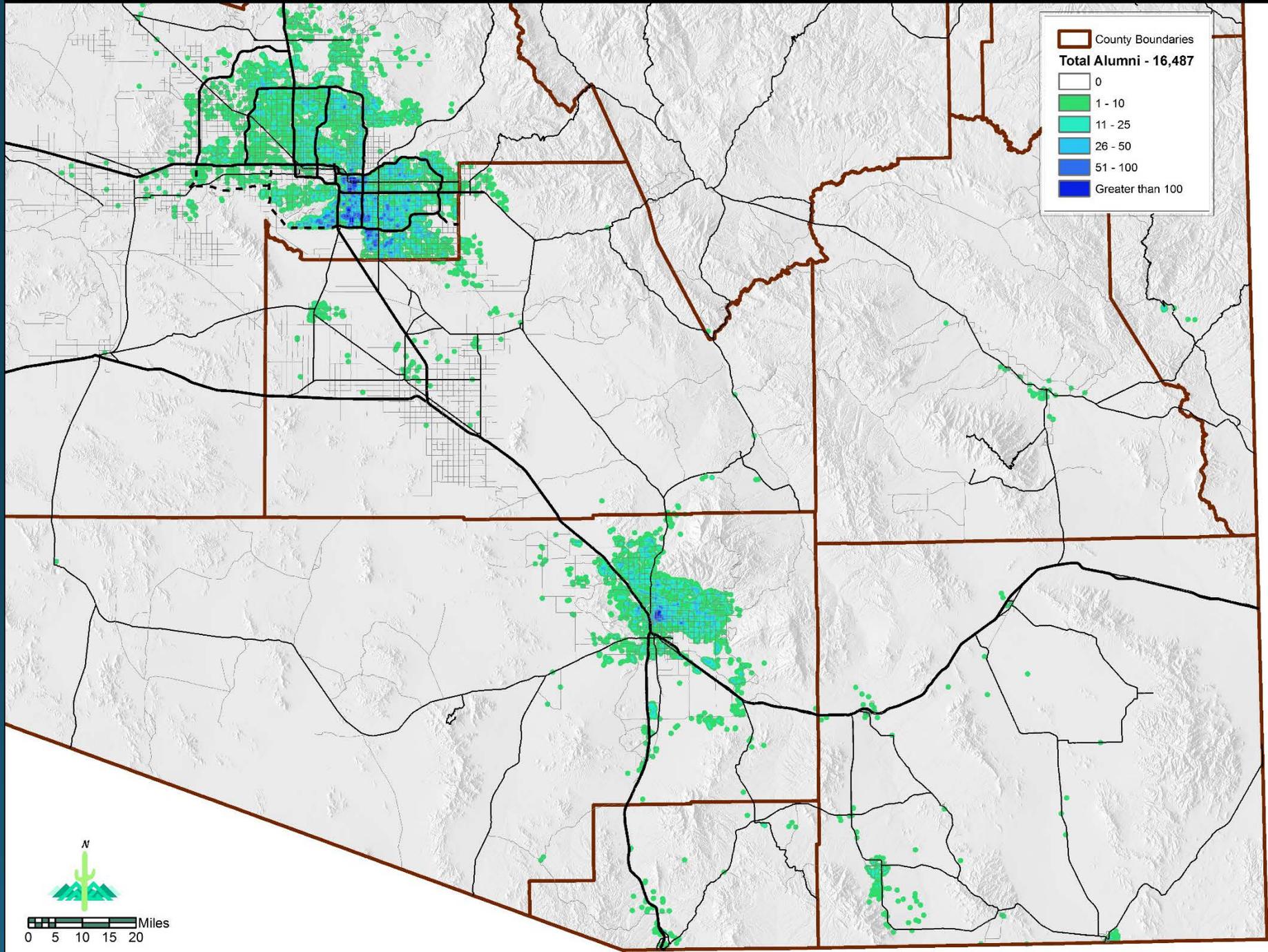
Medical Alumni 43,888

PLACE	Alumni
Phoenix	10,555
Tucson	5,227
Mesa	3,376
Scottsdale	3,110
Gilbert	2,894
Chandler	2,888
Tempe	2,492
Glendale	1,401
Catalina Foothills CDP	1,336
Peoria	1,223
Casas Adobes CDP	1,031
Balance Of Maricopa County	823
Balance Of Pima County	626
Oro Valley	577
Marana	454
Surprise	425
Tanque Verde CDP	357
Avondale	345
Goodyear	326
Paradise Valley	271



Engineering Alumni 16,487

PLACE	Alumni
Phoenix	3,086
Chandler	2,001
Tempe	1,894
Tucson	1,889
Mesa	1,340
Gilbert	1,175
Scottsdale	836
Catalina Foothills CDP	447
Glendale	351
Casas Adobes CDP	346
Balance Of Maricopa County	319
Peoria	283
Balance Of Pima County	251
Oro Valley	243
Marana	183
Tanque Verde CDP	155
Goodyear	103
Queen Creek	97
Sahuarita	88
Sierra Vista	86



Maricopa County Trip Reduction Program

- **Goal**

- Reduce single occupant vehicle (SOV) trips and/or miles
- **Annual commute survey of employer and school sites**
- Results of survey used to develop an annual plan

- **Uses**

- MAG Employer Database
- Valuable Analysis Benefits
 - Age and Occupation statistics
 - Commute patterns
 - Distance/location
 - Mode

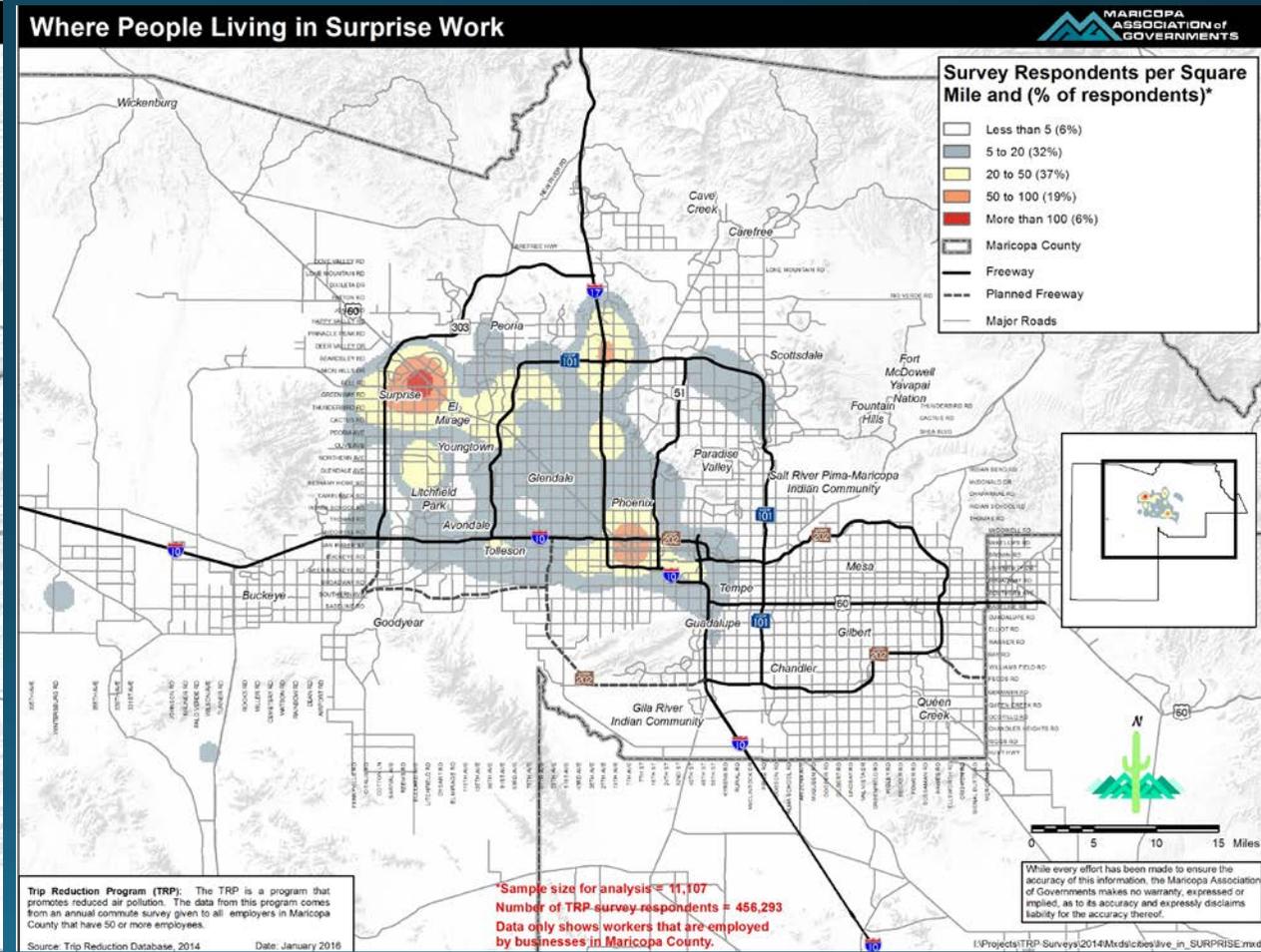
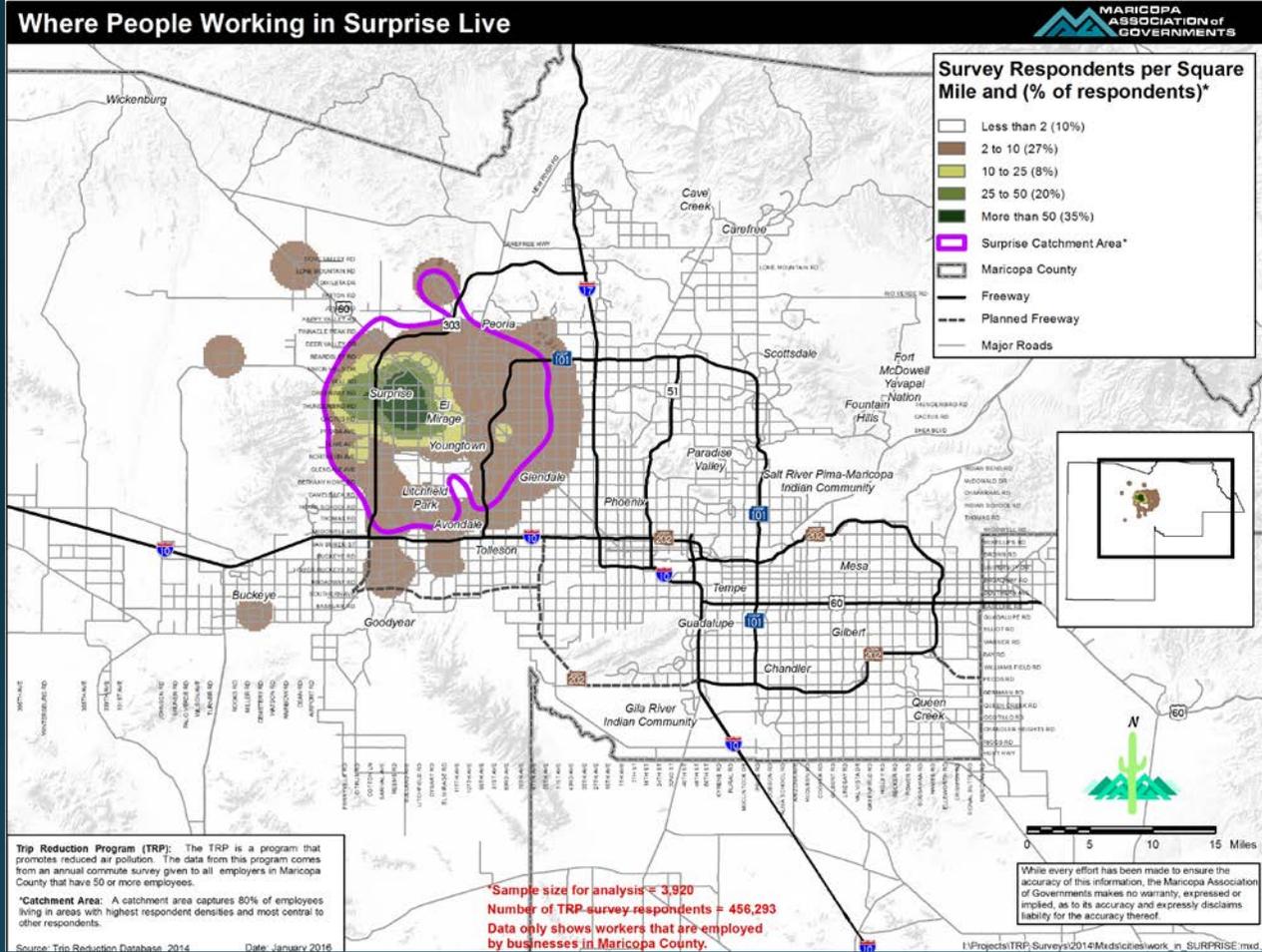
- **Limitation**

- Very small sample sizes in some areas
- **Only Includes Employers with 50+ Employees**



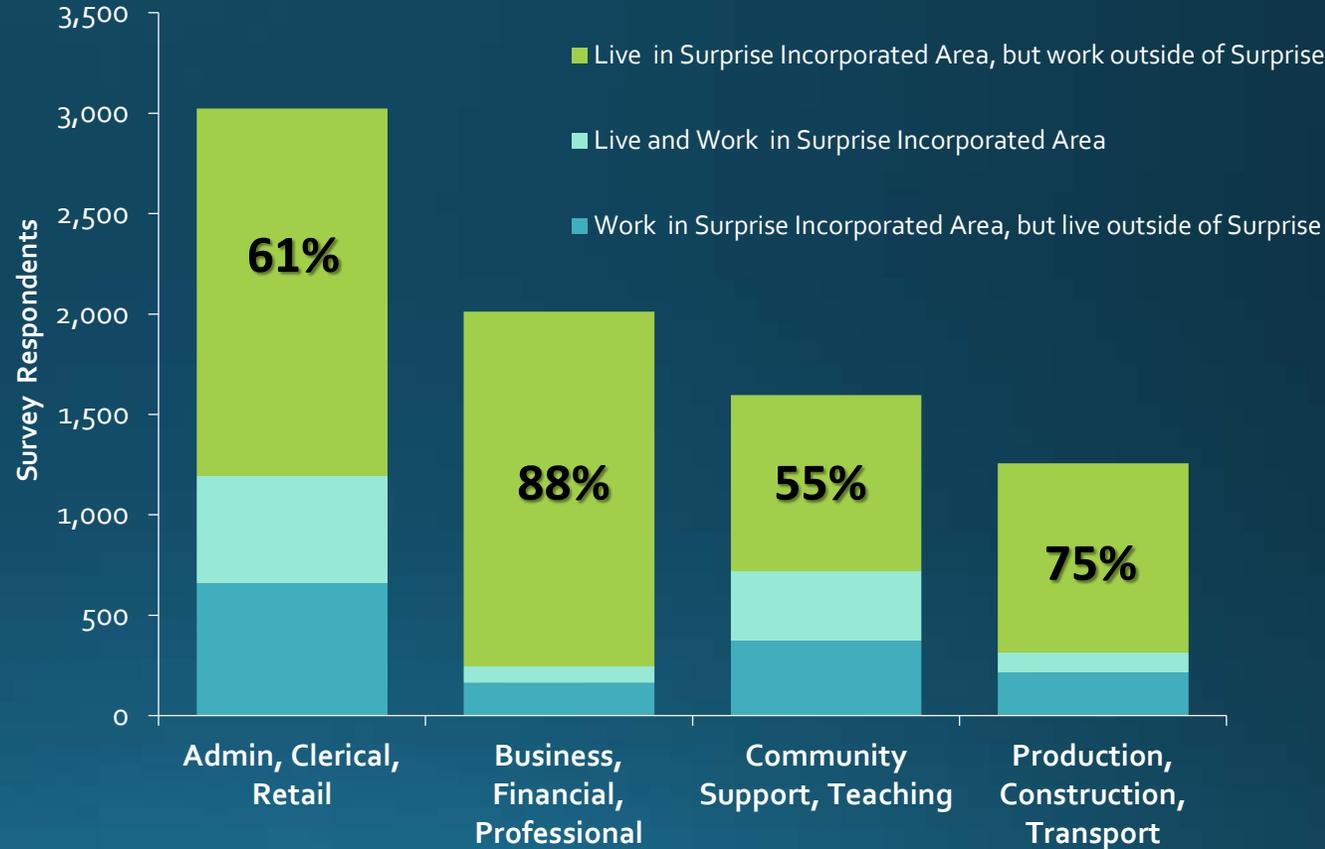
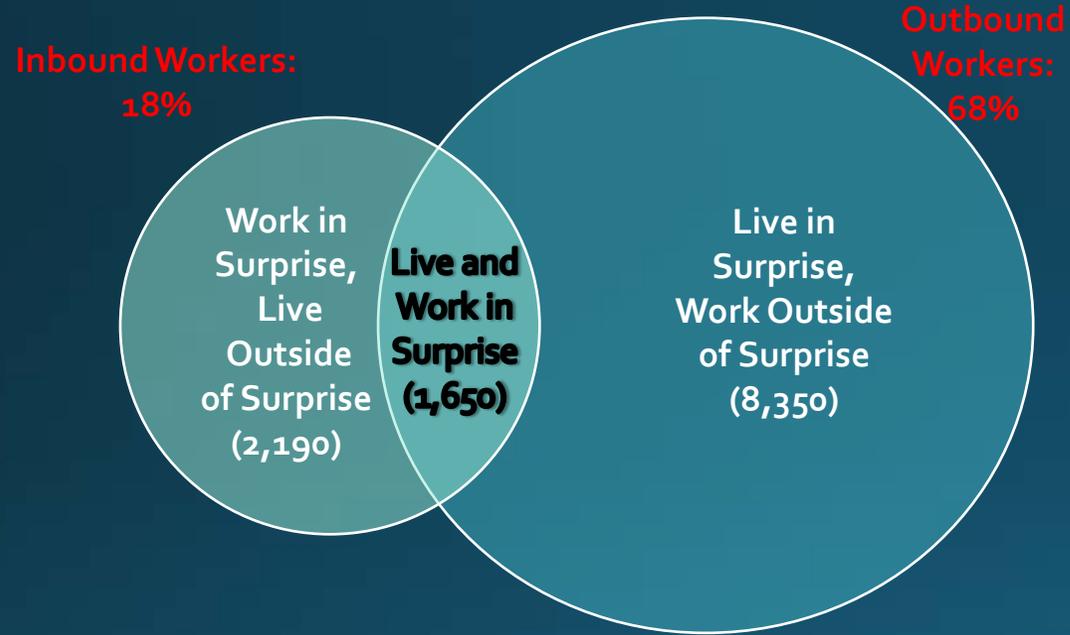
TRP Survey Size	2013	2014
# of Employers	3,159	3,200
# of Employees	502,500	478,337

Surprise Worker Commuting Patterns



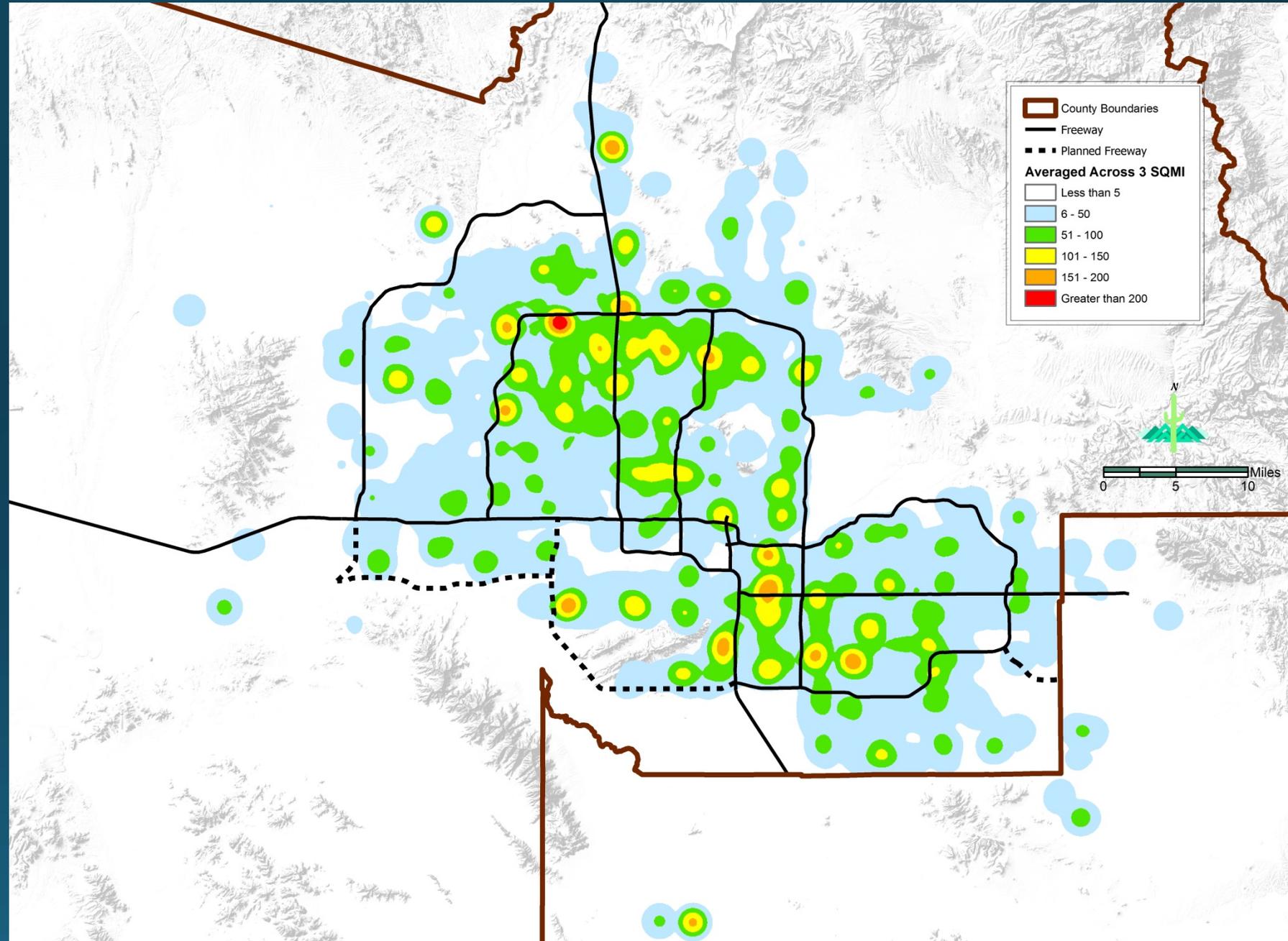
Surprise Worker Commuting Patterns

2012 Trip Reduction Program (TRP):
 12,190 Employees Surveyed Living or Working in Surprise



Source: 2012 Trip Reduction Survey (Employers with 50+ employees), Numbers rounded to nearest 10

Finance, Insurance, & Real Estate Industries



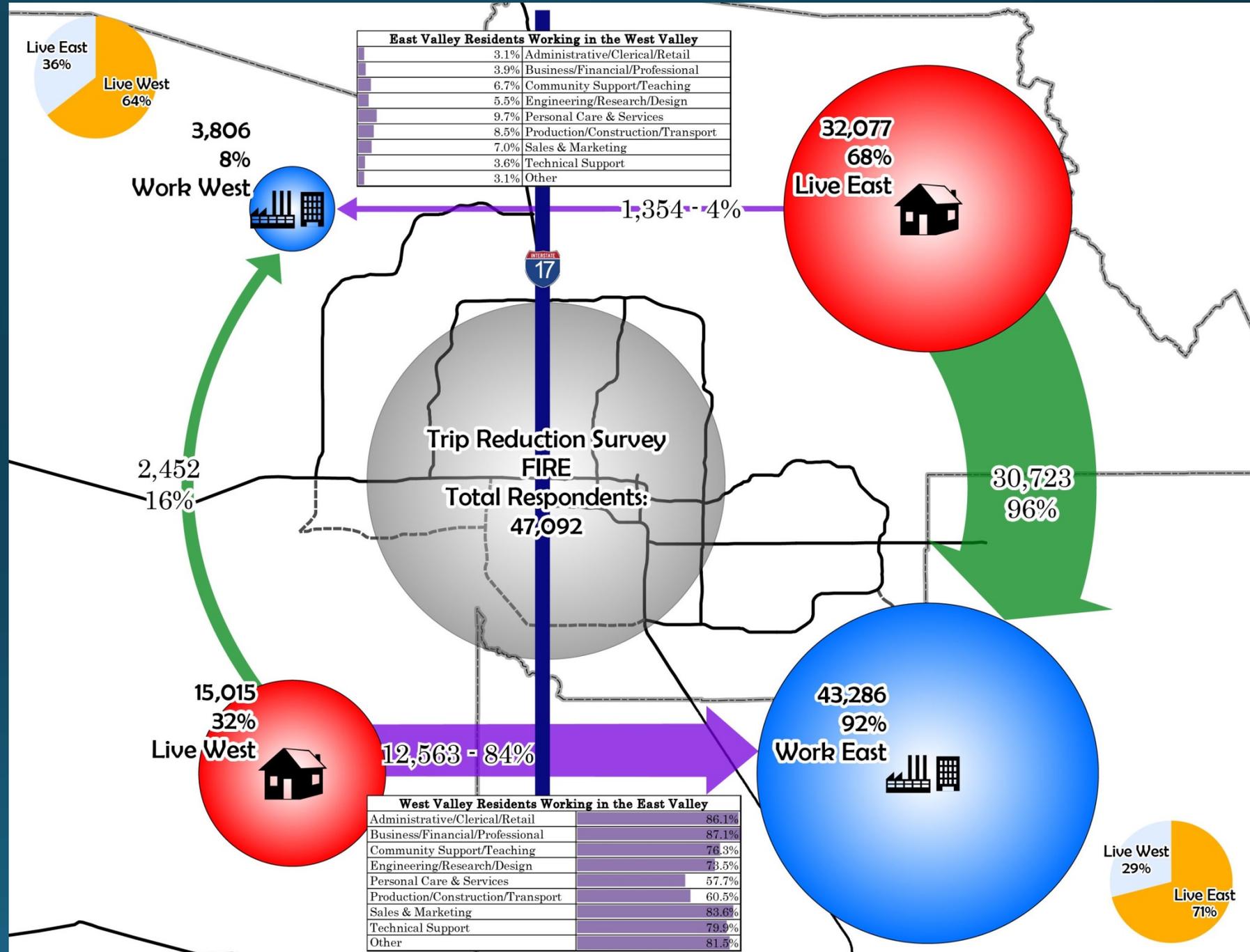
Finance, Insurance, & Real Estate Industries

Top West Valley Employers

American Express
AAA of Arizona
21st Century Insurance
Humana Inc.
Revana

Top East Valley Employers

Bank of America
Usaa Phoenix Office
Discover Financial Services
Charles Schwab Co Inc.
Vanguard





The Arizona International Connection

Arizona: International Owned Business Inventory

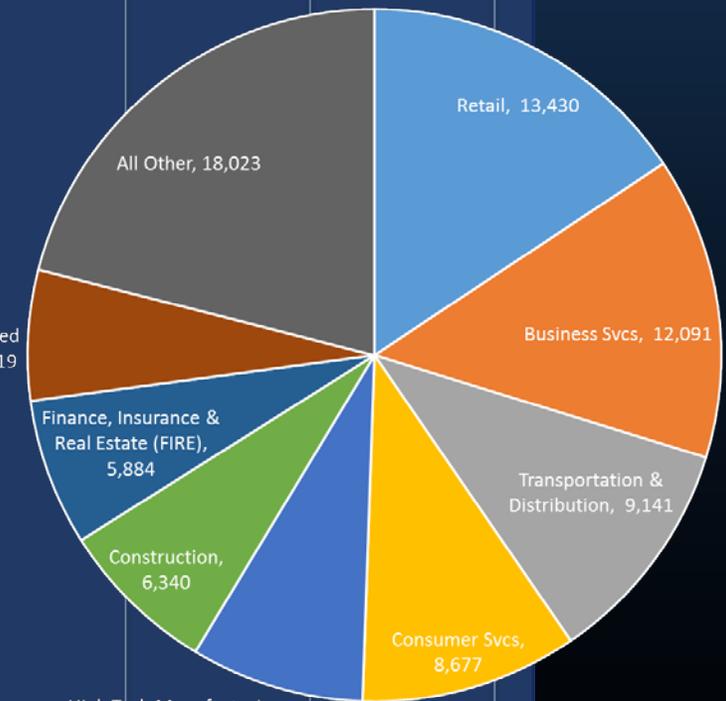
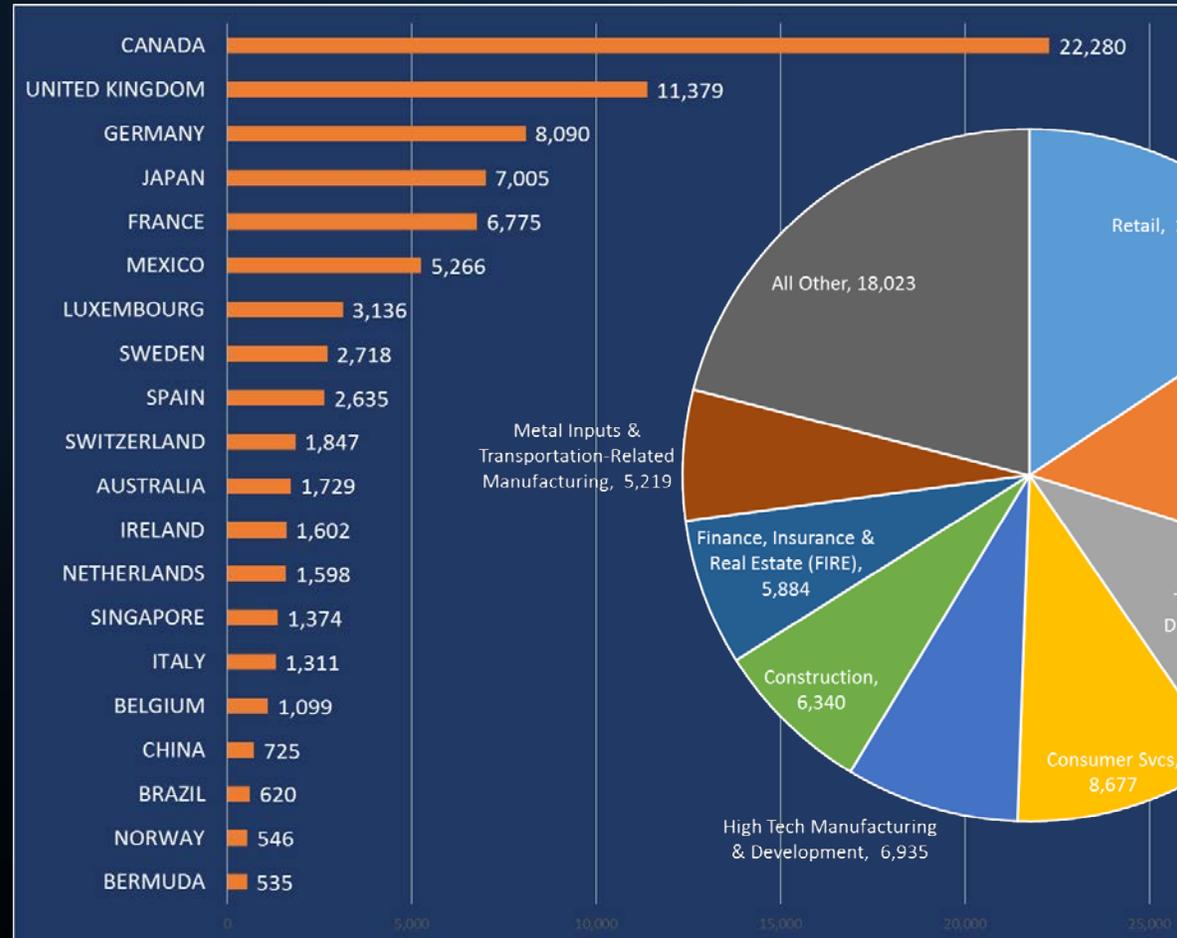
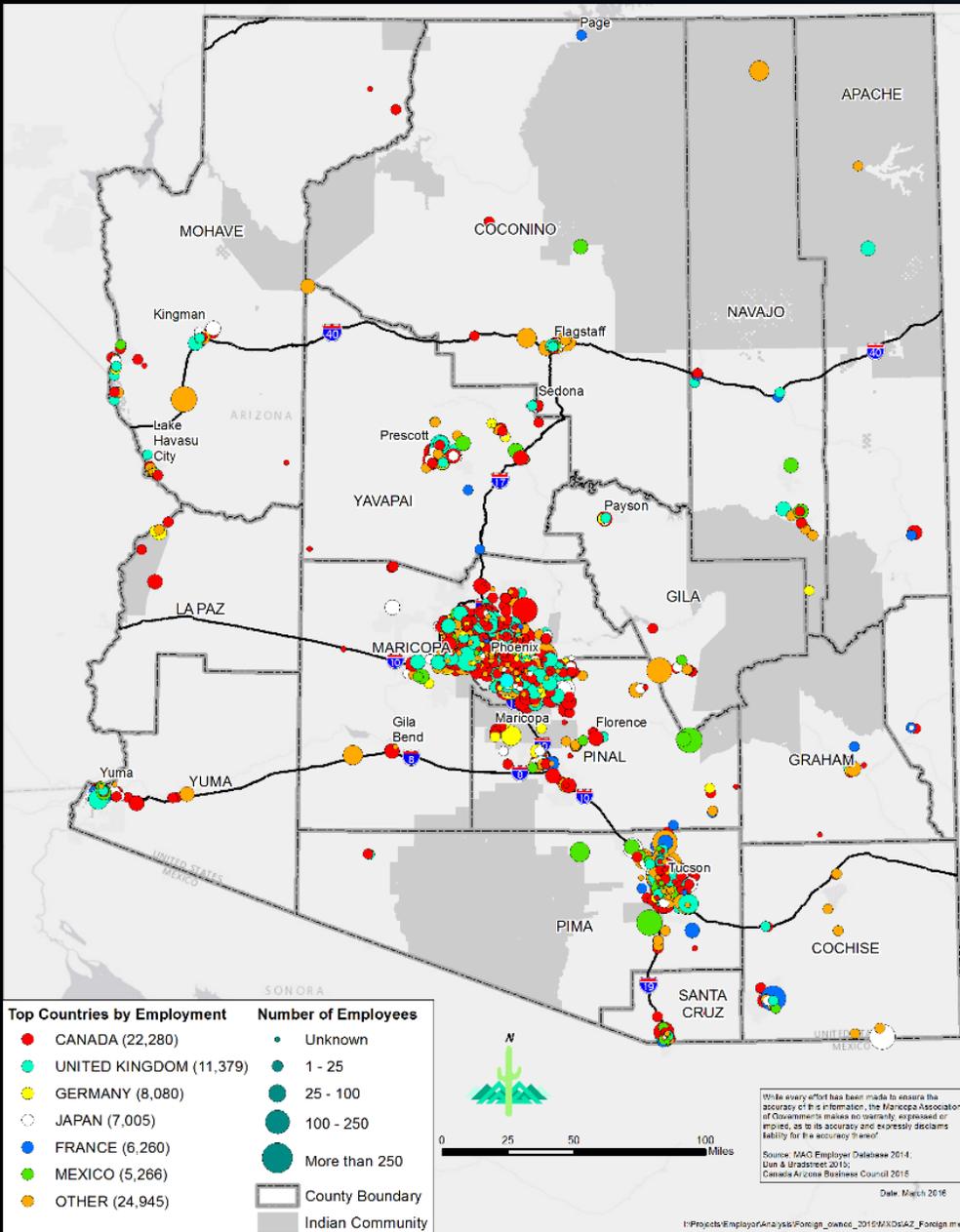
Countries : 50

Jobs: 85,740

Businesses: 996

Locations: 3,023

International Parent Companies: 687



Source: MAG; Dun & Bradstreet, 2015; CABC

Maricopa: International Owned Business Inventory

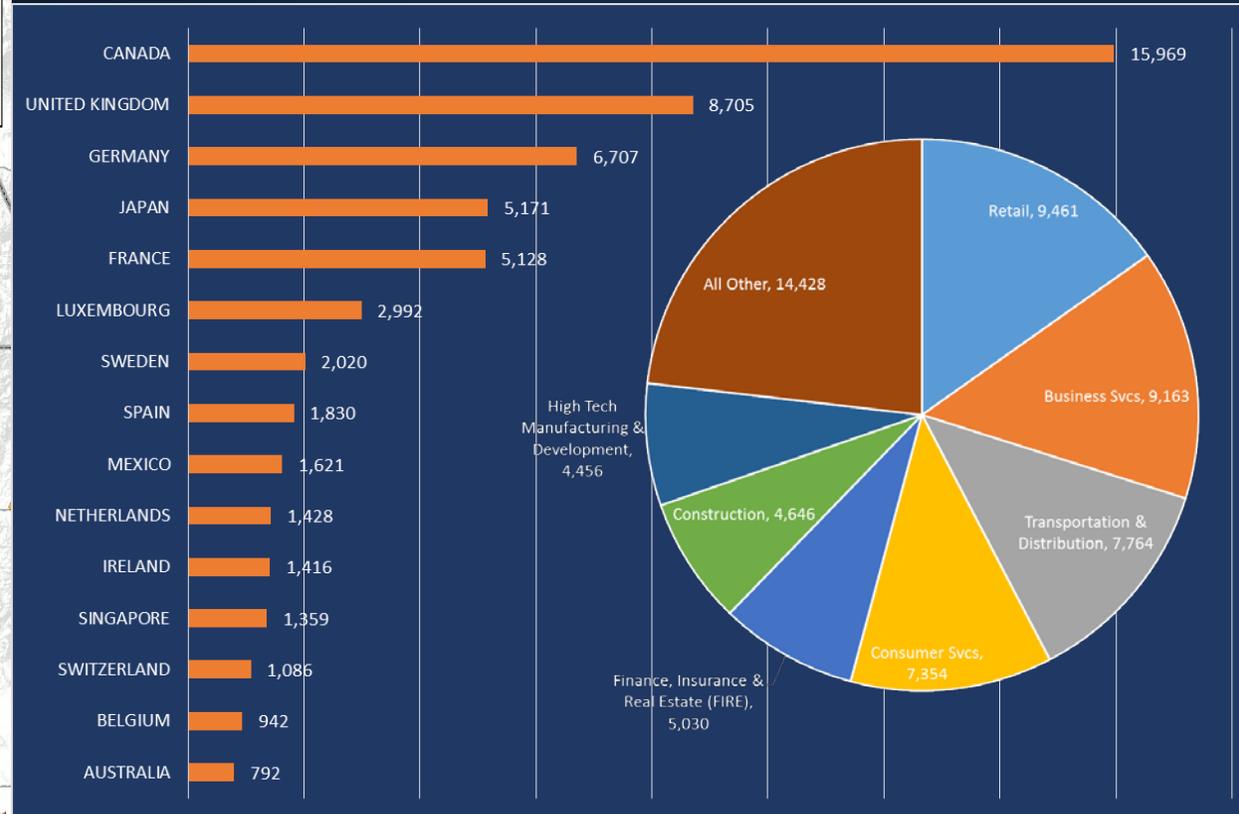
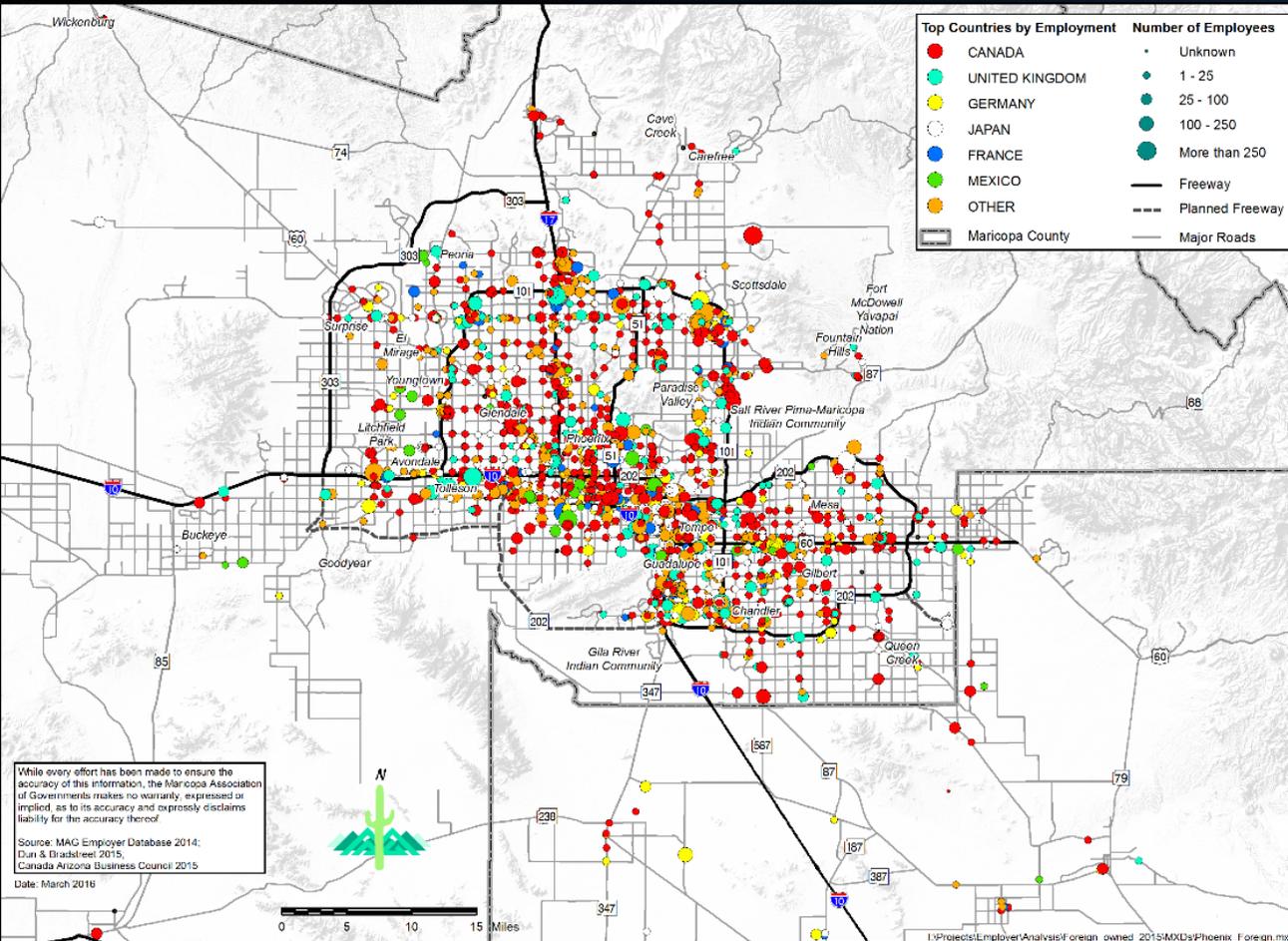
Countries : 46

Jobs: 61,777

Businesses: 814

Locations: 2,161

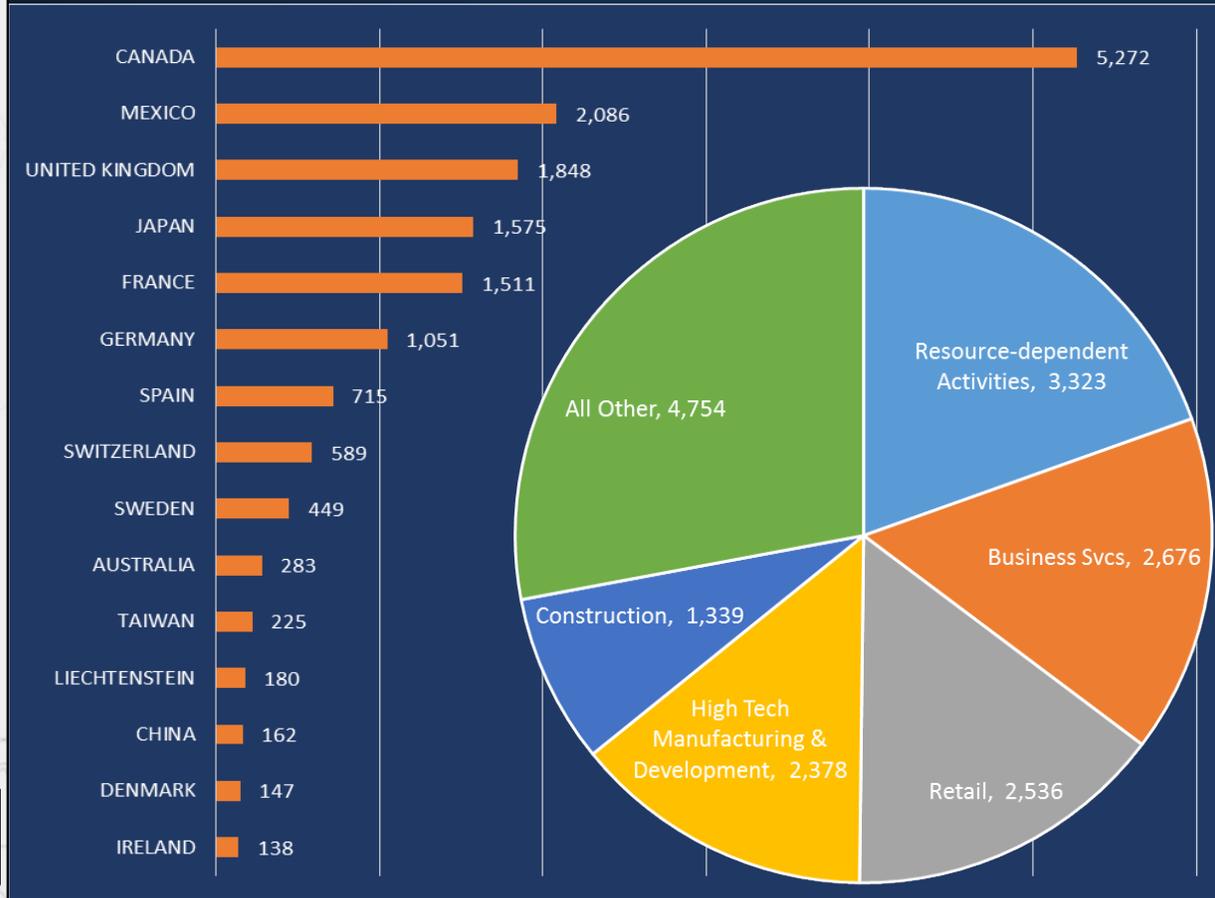
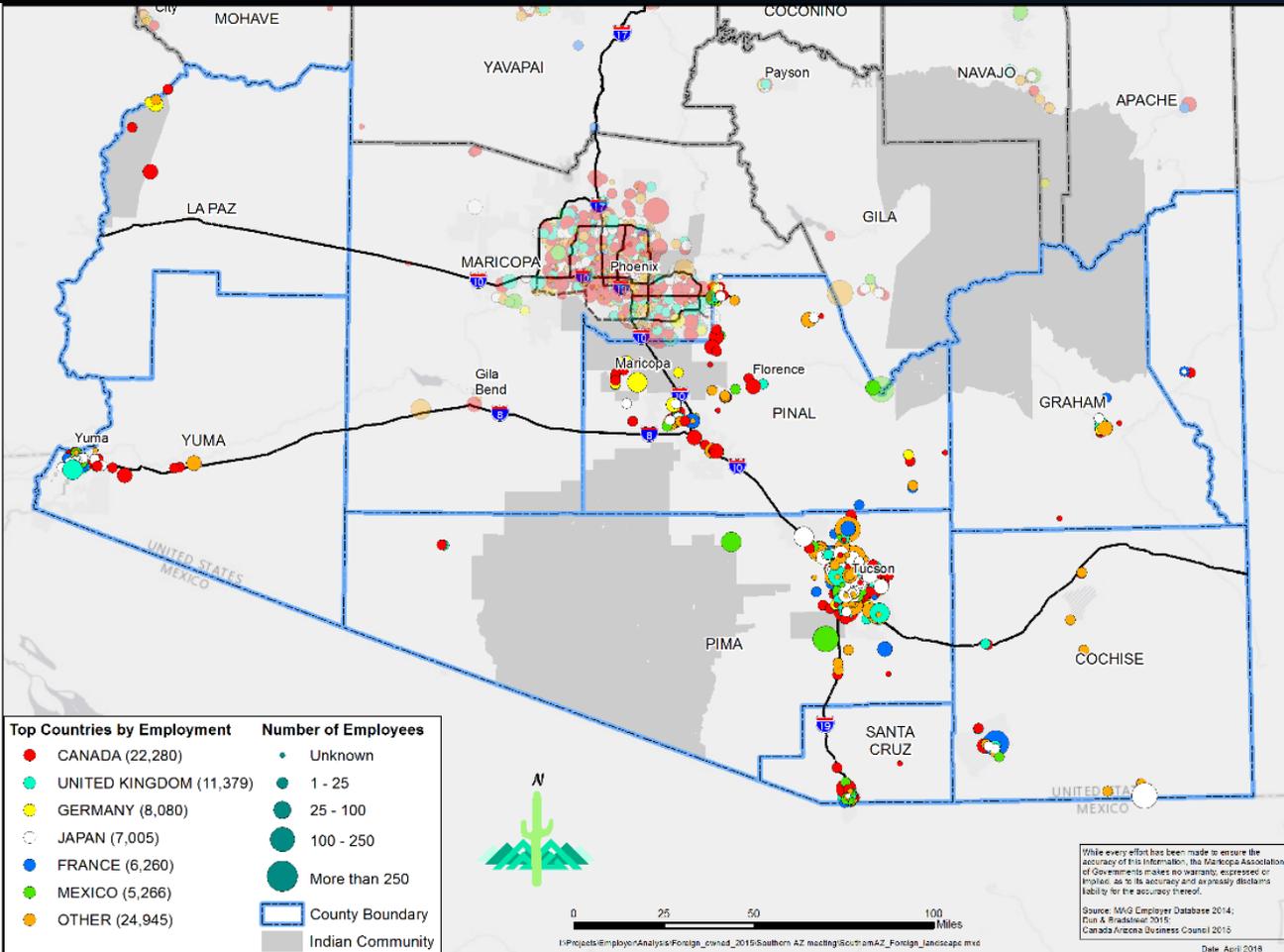
International Parent Companies: 570



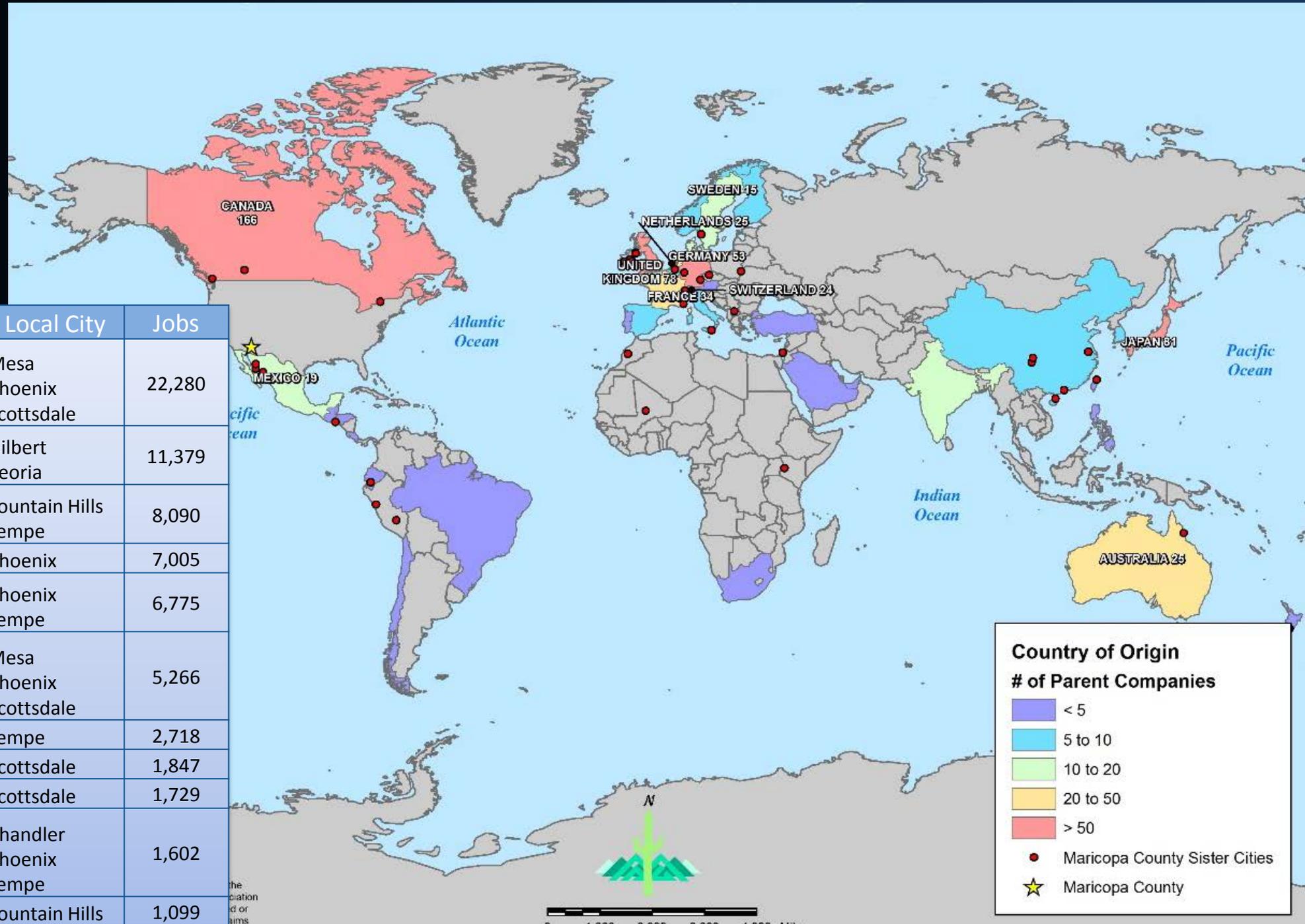
Source: MAG; Dun & Bradstreet, 2015; CAB

Southern Arizona: International Owned Business Inventory

Countries : 35
 Businesses: 273
 International Parent Companies: 219
 Jobs: 17,006
 Locations: 629



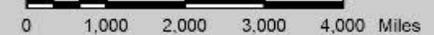
Sister Cities & Parent Companies Country of Origin



Sister City	Country	Local City	Jobs
Burnaby Calgary Kingston	Canada	Mesa Phoenix Scottsdale	22,280
Newtownabbey Ards	United Kingdom	Gilbert Peoria	11,379
Dierdorf Regensburg	Germany	Fountain Hills Tempe	8,090
Himeji	Japan	Phoenix	7,005
Grenoble Beaulieu-sur-Mer	France	Phoenix Tempe	6,775
Guaymas Hermosillo Álamos	Mexico	Mesa Phoenix Scottsdale	5,266
Trollhättan	Sweden	Tempe	2,718
Interlaken	Switzerland	Scottsdale	1,847
Cairns	Australia	Scottsdale	1,729
Tullamore Ennis Carlow	Ireland	Chandler Phoenix Tempe	1,602
Kasterlee	Belgium	Fountain Hills	1,099

liability for the accuracy thereof.

Date: September 2015



Country of Origin
of Parent Companies

- < 5
- 5 to 10
- 10 to 20
- 20 to 50
- > 50

- Maricopa County Sister Cities
- Maricopa County



The Canadian Connection



Housing Statistics : Canadian Impact

30 Percent of the 1.3 million residential properties in Maricopa County are owned as winter homes or by investors.



Of these **6.1 Percent** are internationally owned.

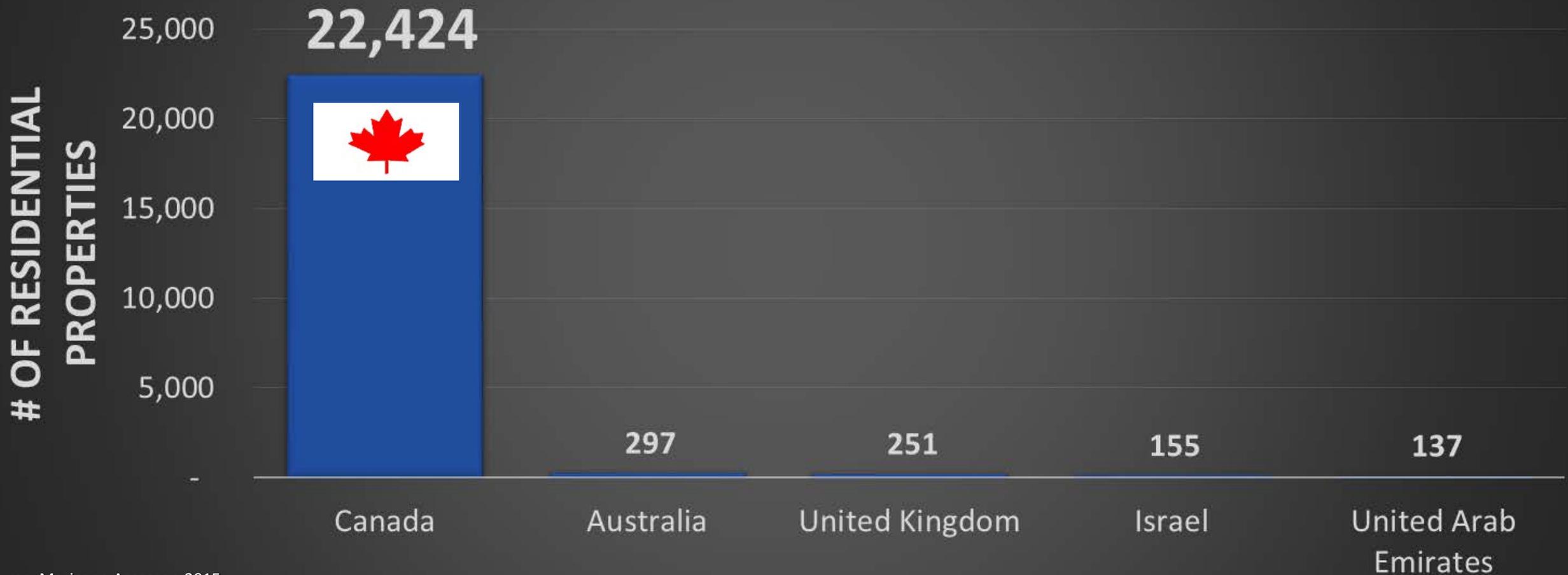


Canadian residents account for **94 Percent** of the internationally owned residential properties.

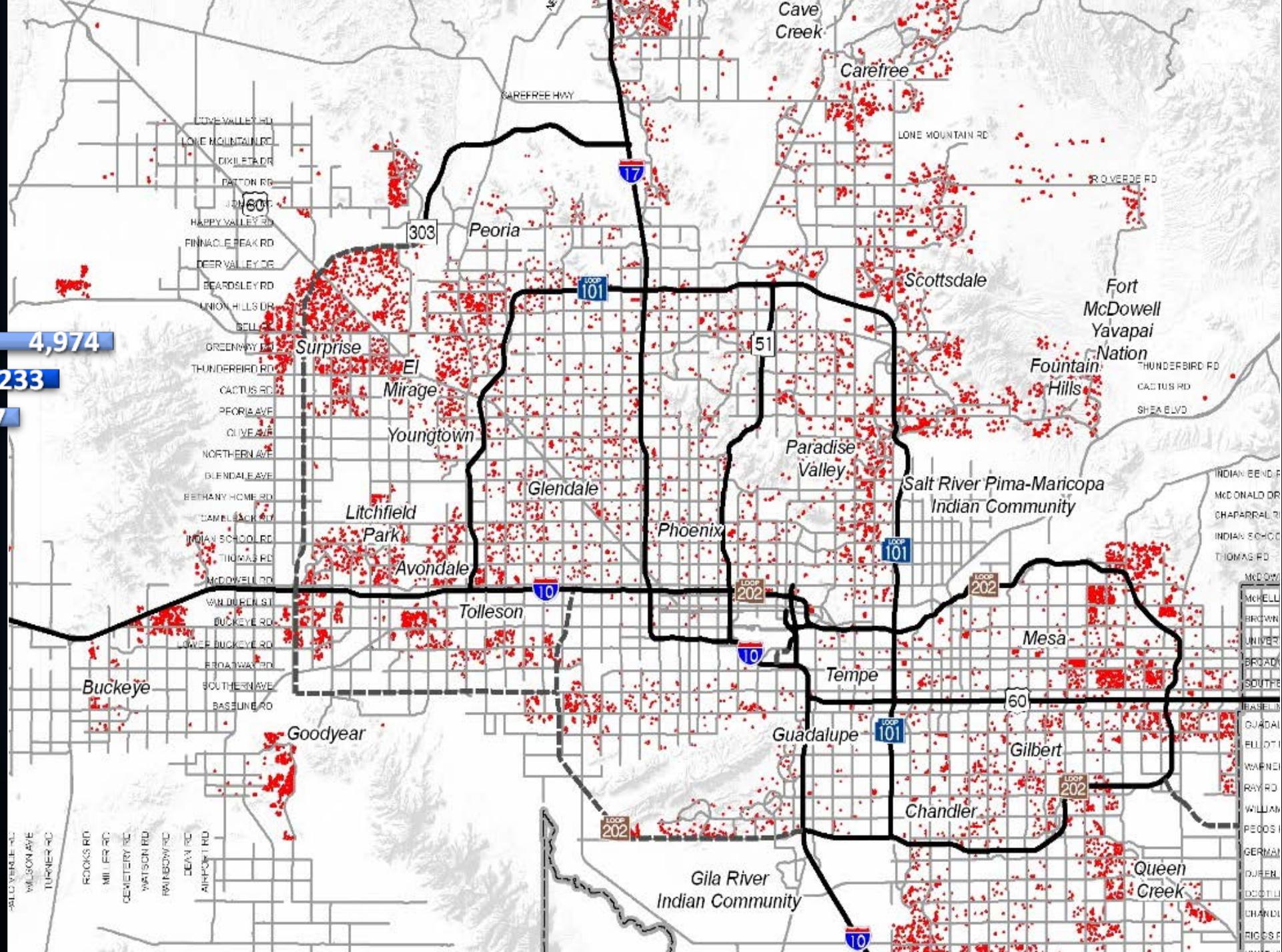
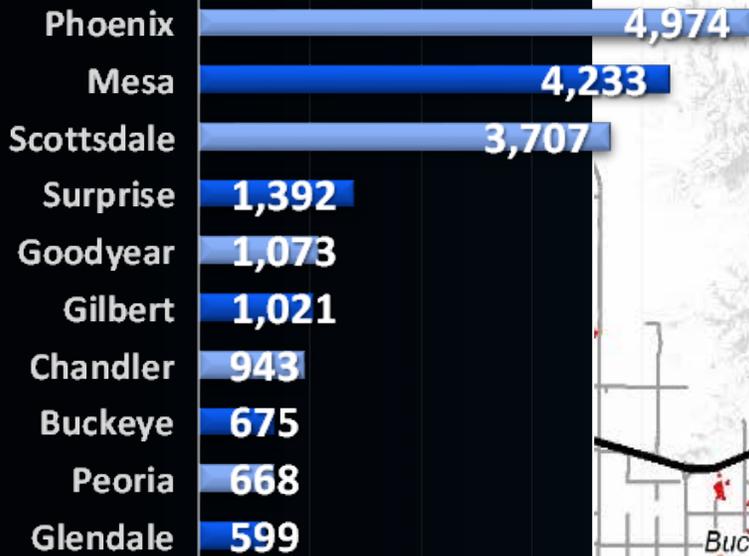
International Residential Property Ownership (Maricopa County, 2015)

2014: 21,848

Top 5 Countries



Housing Owned by Canadians: 2015

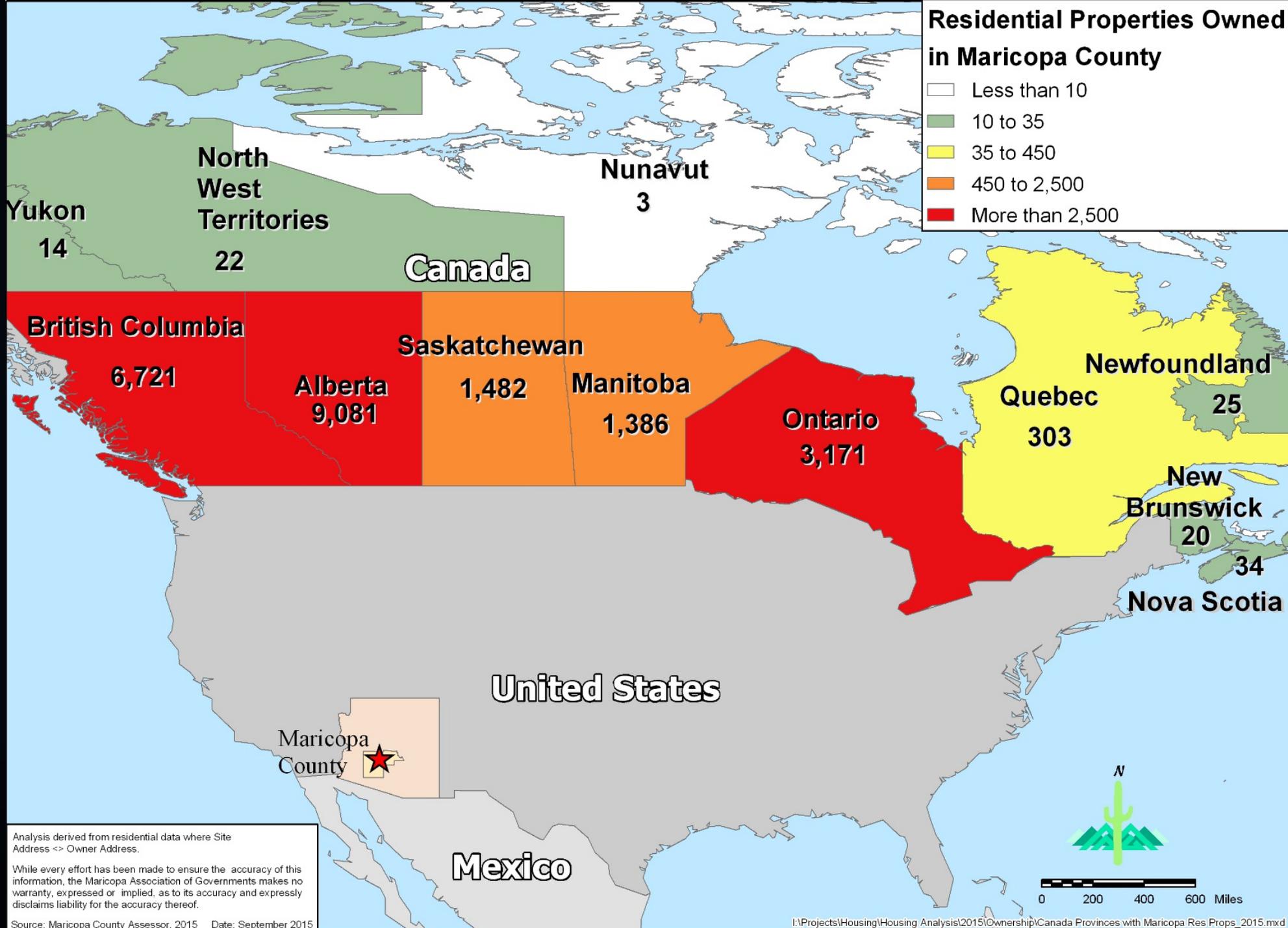


70 Percent Owned by Residents of Alberta and British Columbia

2014 to 2015 Changes

Ontario:
2,728 to 3,171 (16%)

Quebec:
427 to 303 (-29%)

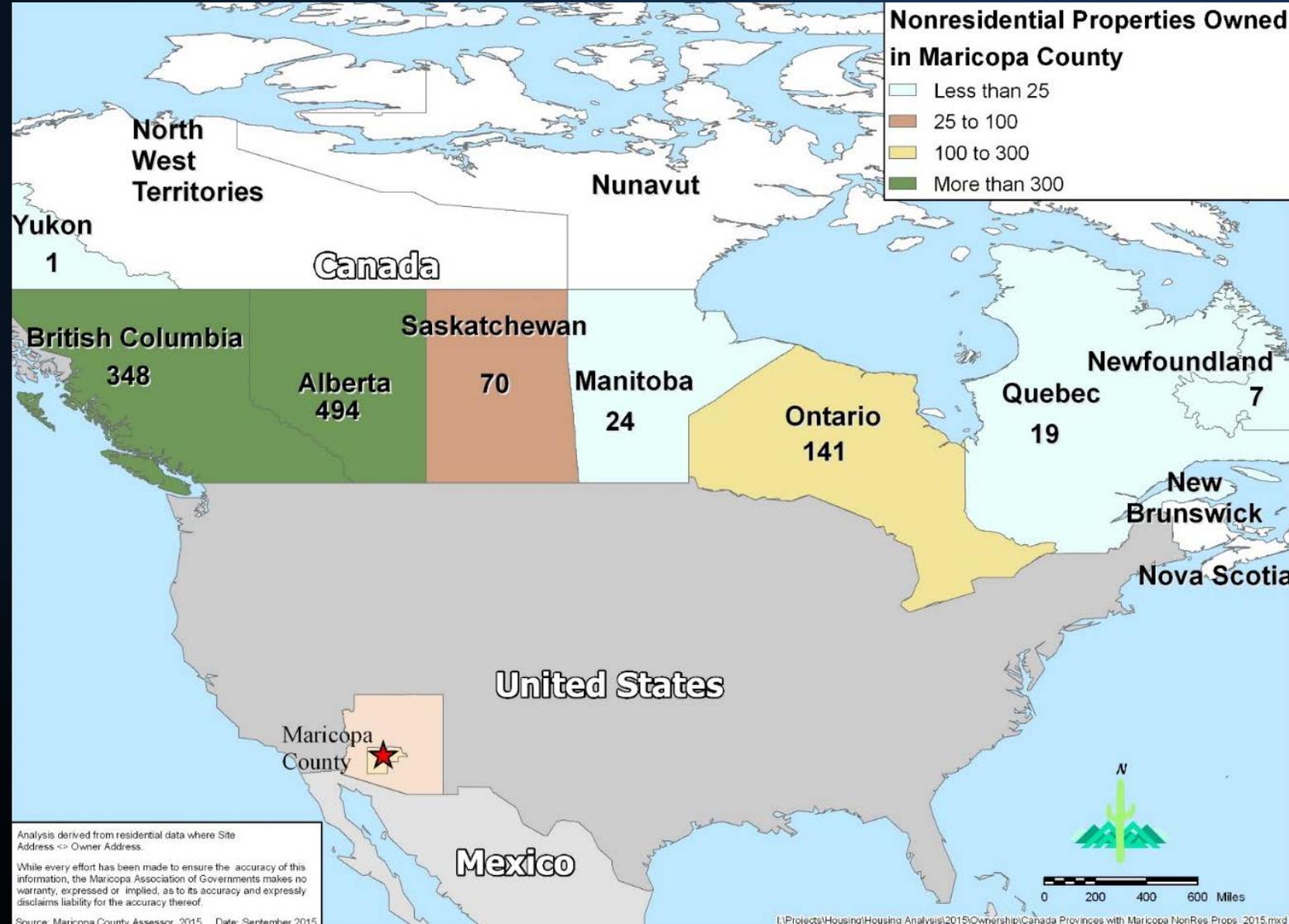


Analysis derived from residential data where Site Address <-> Owner Address.

While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

1,106 properties with over 5,000 acres Nonresidential Properties Owned by Canadians : 2015

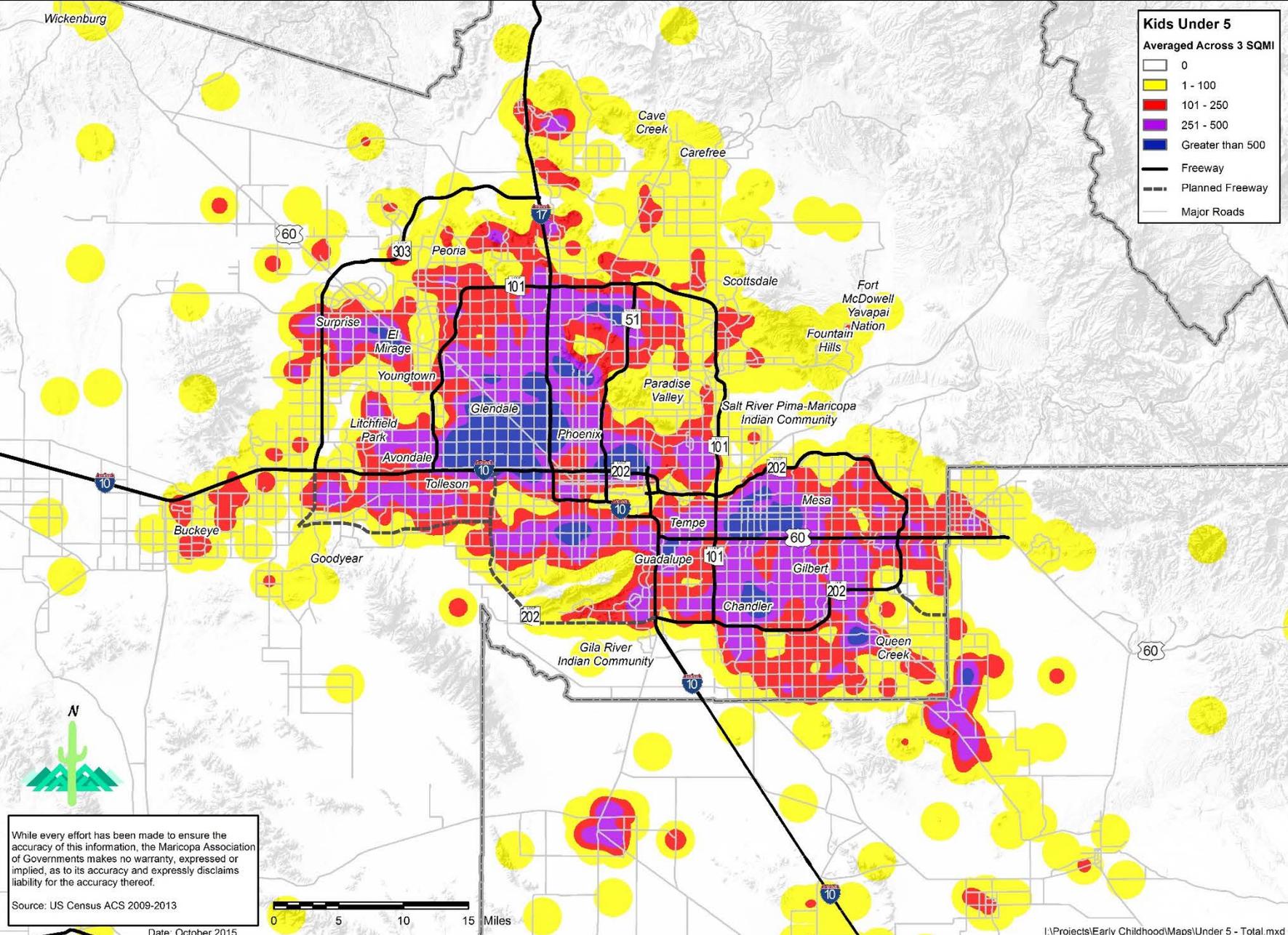
	Acres
Unincorporated	2,698
Buckeye	599
Goodyear	354
Peoria	318
Phoenix	258
Scottsdale	223
Avondale	169
Gila Bend	97
Surprise	71
Glendale	53



- Canada accounts for **83 Percent** of international owned nonresidential properties
- 76 Percent owned by Alberta and British Columbia Residents
- Avg. assessed Value/property **\$478,748**
- Alberta sold 1,039 properties since 2014

Child Care/Early Learning Pipeline

Concentration of Kids Under Age 5



Need:

Kids Under Age 5:
299, 434

7.2 % of Population

Source: US Census (ACS 2009-2013)

Likely Users of Child Care Facilities

- Employed Mothers :
 - 47.4% vs 32.8% all kids vs 15.5% not employed
 - Full Time – 52.4% vs 37.7% part time
 - Day Shift – 55.6% vs 34.4% nonday shift
- At or Above Poverty Line
 - 51.1% vs 35.6% below poverty line
- Child Age 3 to 4
 - 62.3% vs 41.8% age 1 to 2 vs 32.2% LT 1 year
- Non-Hispanic
 - 50.8% vs 36.2% Hispanic

Who's Minding the Kids? Child Care Arrangements: Spring 2011

Household Economic Studies

Lynda Laughlin
Issued April 2013
P70-135

INTRODUCTION

Parents in the labor force face numerous decisions when balancing their work and home life, including choosing the type of care to provide for their children while they work. Deciding which child care arrangement to use has become an increasingly important family issue as maternal employment has become the norm, rather than the exception. Child care arrangements and their costs are significant issues for parents, relatives, care providers, policy makers, and anyone concerned about children. This report, which is the latest in a series that dates back to 1985, describes the number and characteristics of children in different types of child care arrangements in the spring of 2011.¹ Additional historical data are also presented to provide a fuller picture of trends in child care usage in the United States.

Preschoolers and grade school-aged children require different types of care. While the primary

¹ The data in this report are from reference month four of the eighth wave of the 2008 panel of the Survey of Income and Program Participation (SIPP). Data for wave 8 were collected from January through April 2011. The population represented (the population universe) is the civilian noninstitutionalized population living in the United States.

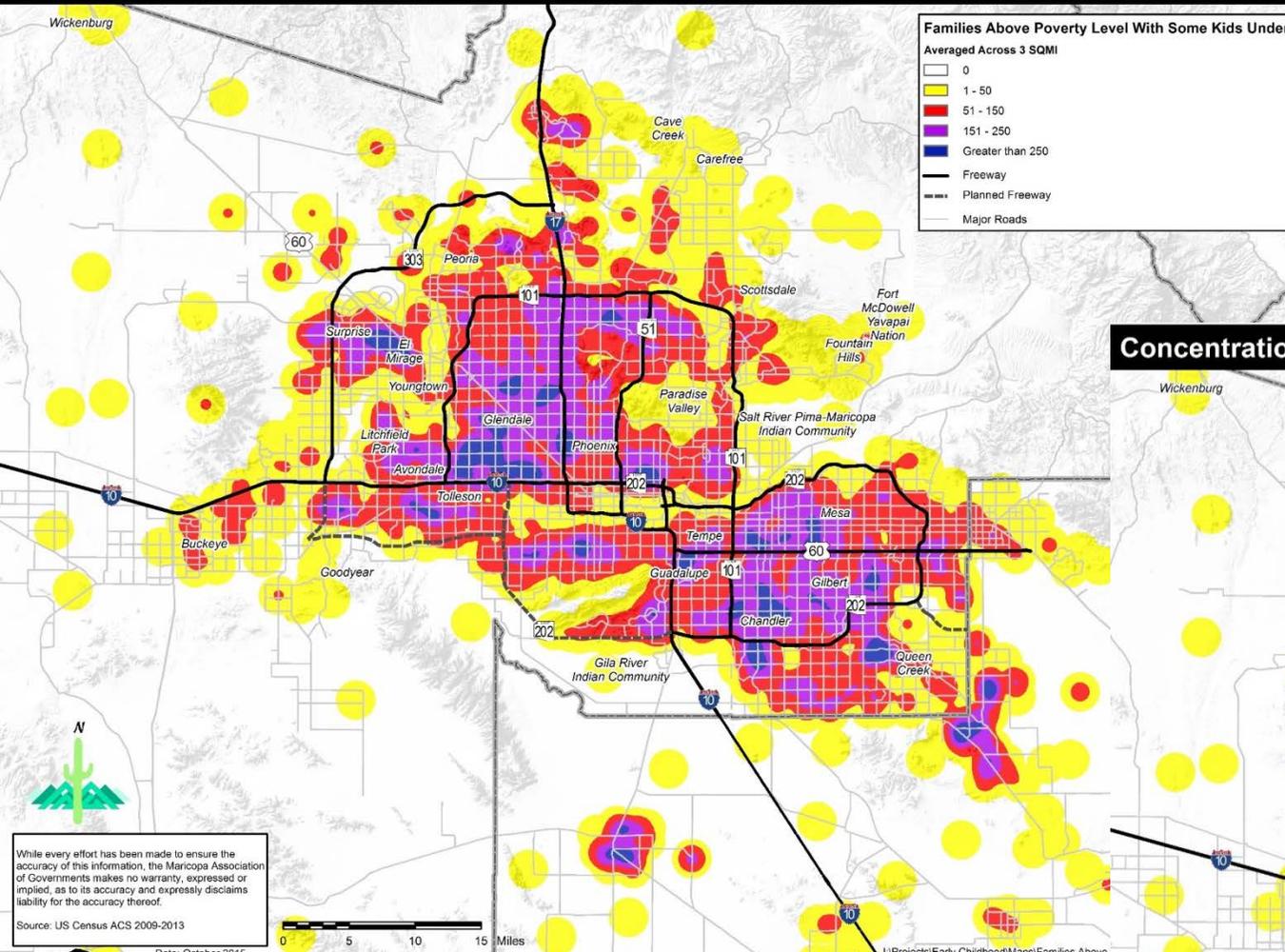
CHILD CARE DEFINITIONS

The universe of respondents in the SIPP child care module consists of adults who are the parents of children under 15 years old. In households where both parents are present the mother is the reference parent. Questions on child care arrangements for each child are asked of the *reference parent*. If the mother is not available for an interview, the father of the child can give proxy responses for her. In single-parent families, the resident parent is the reference parent. If neither parent is in the household, the guardian is the reference parent. Reference parents include biological, step- and adoptive parents, or other relatives/nonrelatives acting as a guardian in the absence of parents. In this report, unless otherwise noted, the term *parent* is used to refer to the reference parent.

Child care providers can be broadly classified as relatives or nonrelatives of children. *Relatives* include mothers, fathers, siblings, grandparents; *other relatives* are individuals such as aunts, uncles, and cousins. *Nonrelatives* include in-home babysitters, neighbors, friends, and other nonrelatives providing care in either the child's or the provider's home. Another subcategory of nonrelative care is *family day care providers* who care for two or more children outside of the child's home. *Organized child care facilities* include day care or child care centers, nursery schools, preschools, and Head Start programs. Kindergarten/grade school is also included in the organized care total for children 0 to 4 years of age. To present a more comprehensive view of the regular weekly experiences of children under 15 years old, this report also shows the incidence of children enrolled in school and enrichment activities (such as sports, lessons, clubs, and after- and before-school care programs), and the time children are in self-care situations. These latter arrangements may not actually be interpreted or reported by parents as child care arrangements and hence, should not be used as measures of child-related activities or compared with other estimates of children's daily activities in other Census Bureau reports on child well-being.* The child care questions are available on the Internet <www.census.gov/sipp/top_mod/2008/quests/2008w8tm.pdf>.

* For information on the number of children participating in extracurricular activities, regardless of their status as a child care arrangement, please refer to *A Child's Day: 2009 (Selected Indicators of Child Well-Being)* detailed tables, <www.census.gov/hhes/socdemo/children/data/sipp/well2009/tables.html>.

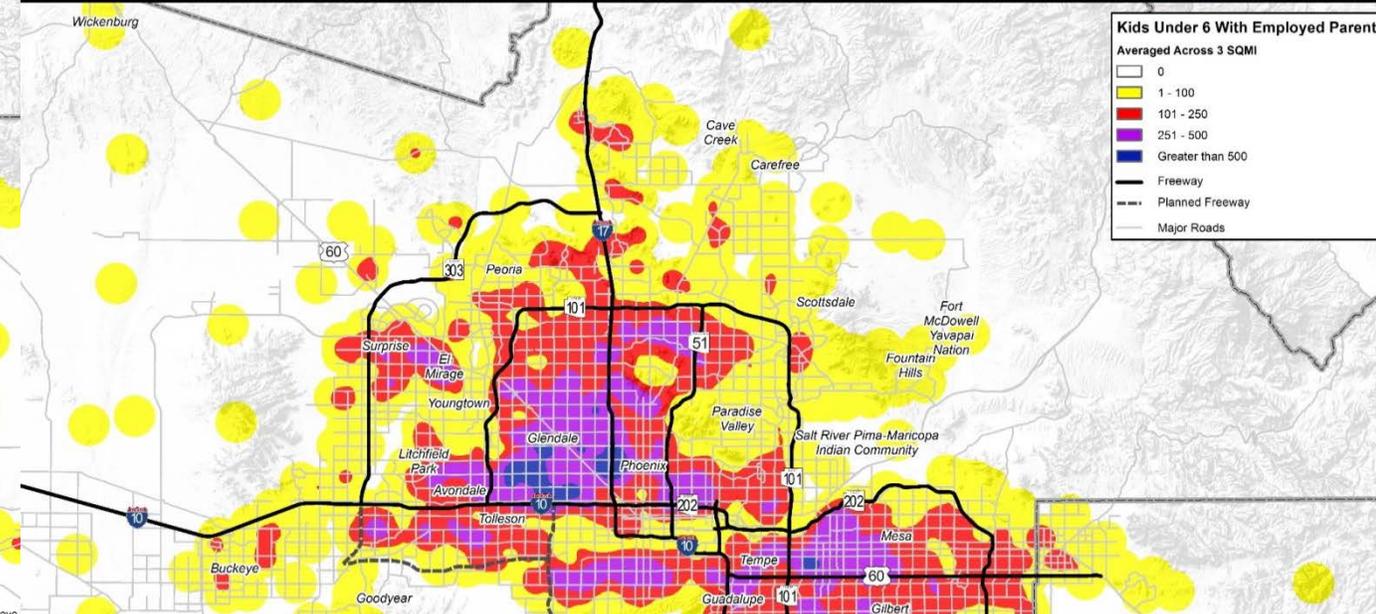
Concentration of Families Above Poverty Level With Some Kids Under Age 5



157,312 Families Above Poverty Level With Kids Under Age 5

Source: US Census (ACS 2009-2013)

Concentration of Kids Under Age 6 With Employed Parents

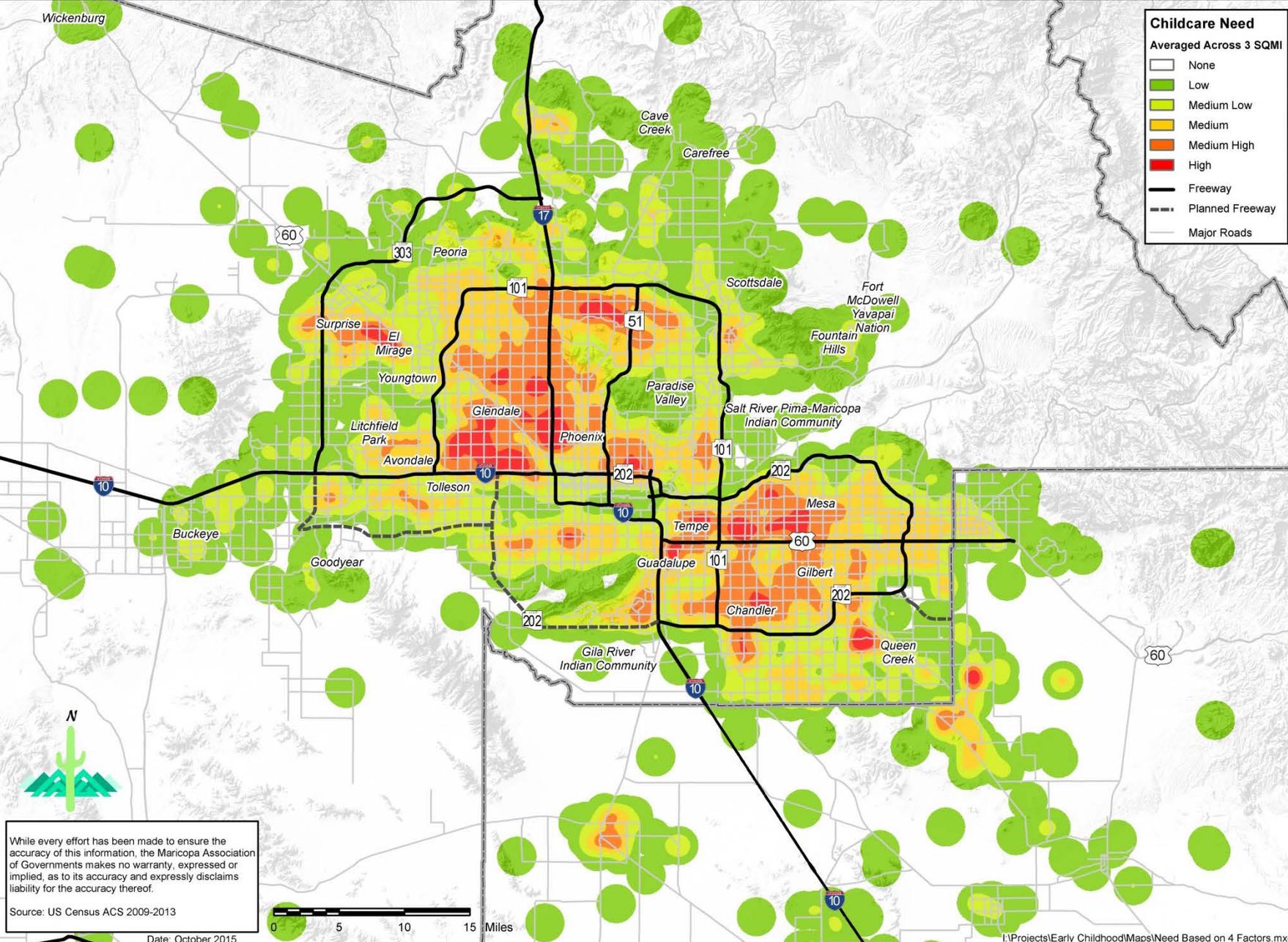


208,104 Kids Under Age 6 Parent(s) Working

59.6% of Kids Under Age 6

Source: US Census (ACS 2009-2013)

Concentration of Childcare Need Based on 4 Factors



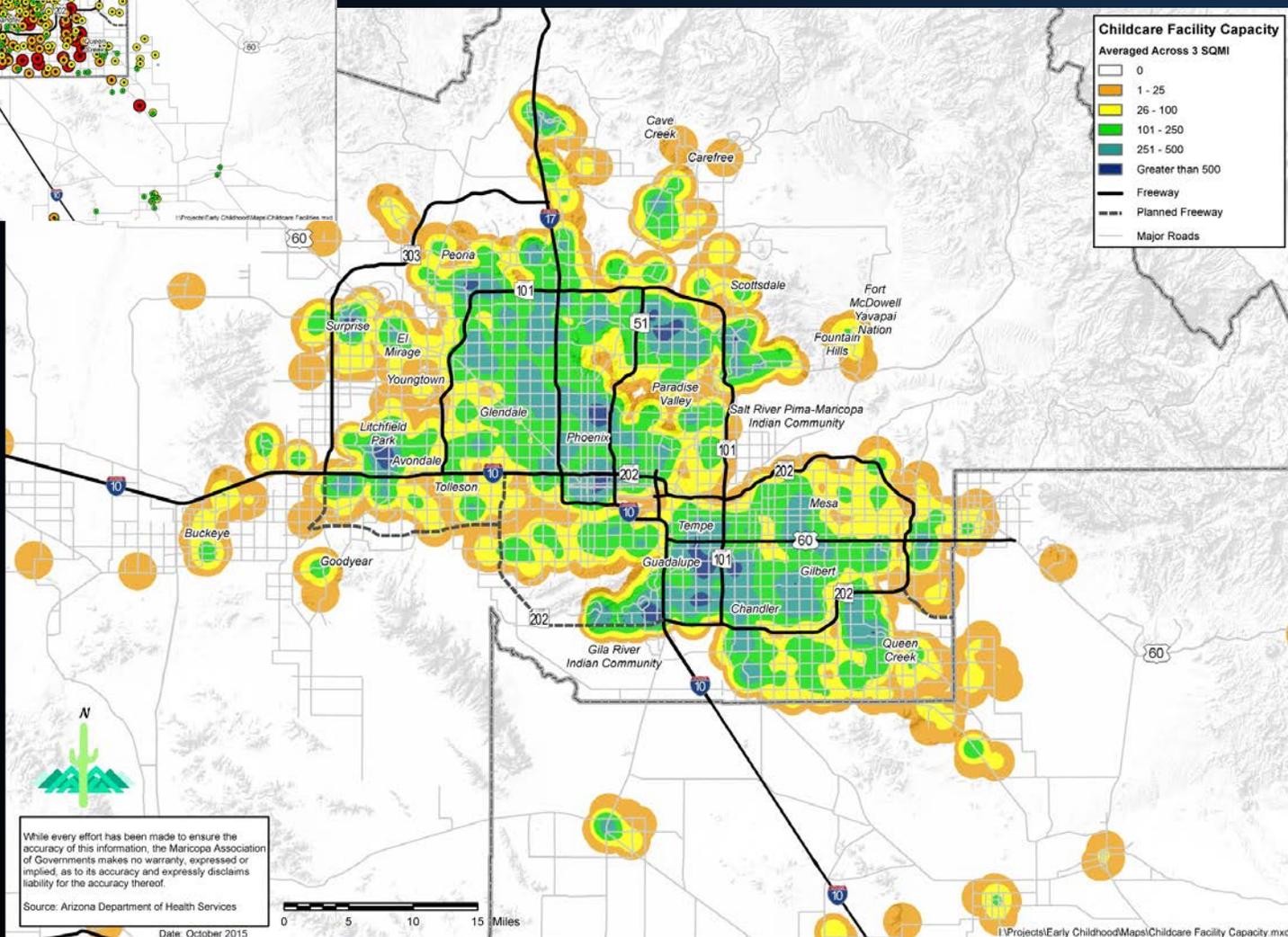
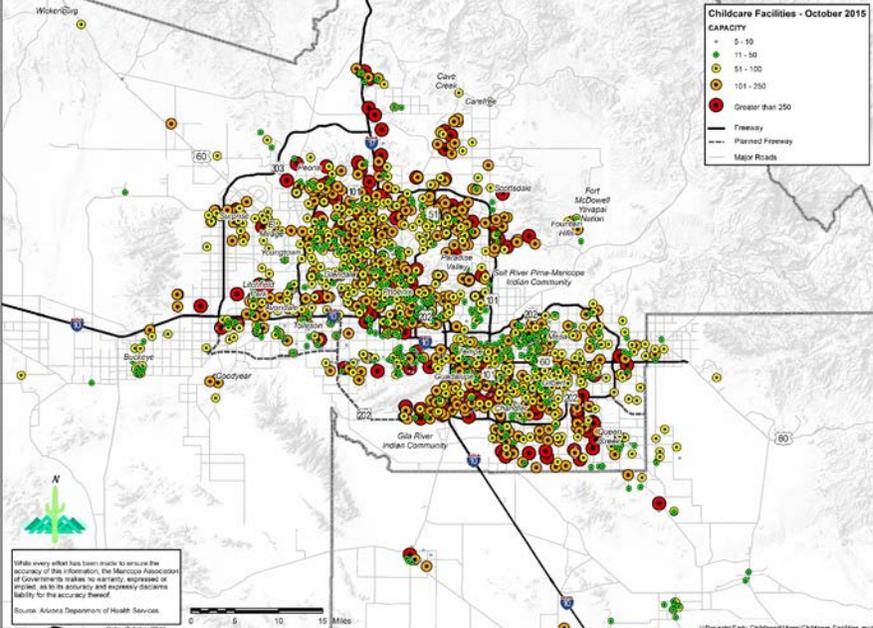
Combined Need (4 factors):

Kids Age 3 to 4

Non-Hispanic Population

Families Above Poverty Level With Kids Under Age 5

Kids Under Age 6 Parent(s) Working



Supply

Facilities: 1,591

Capacity: 172,576

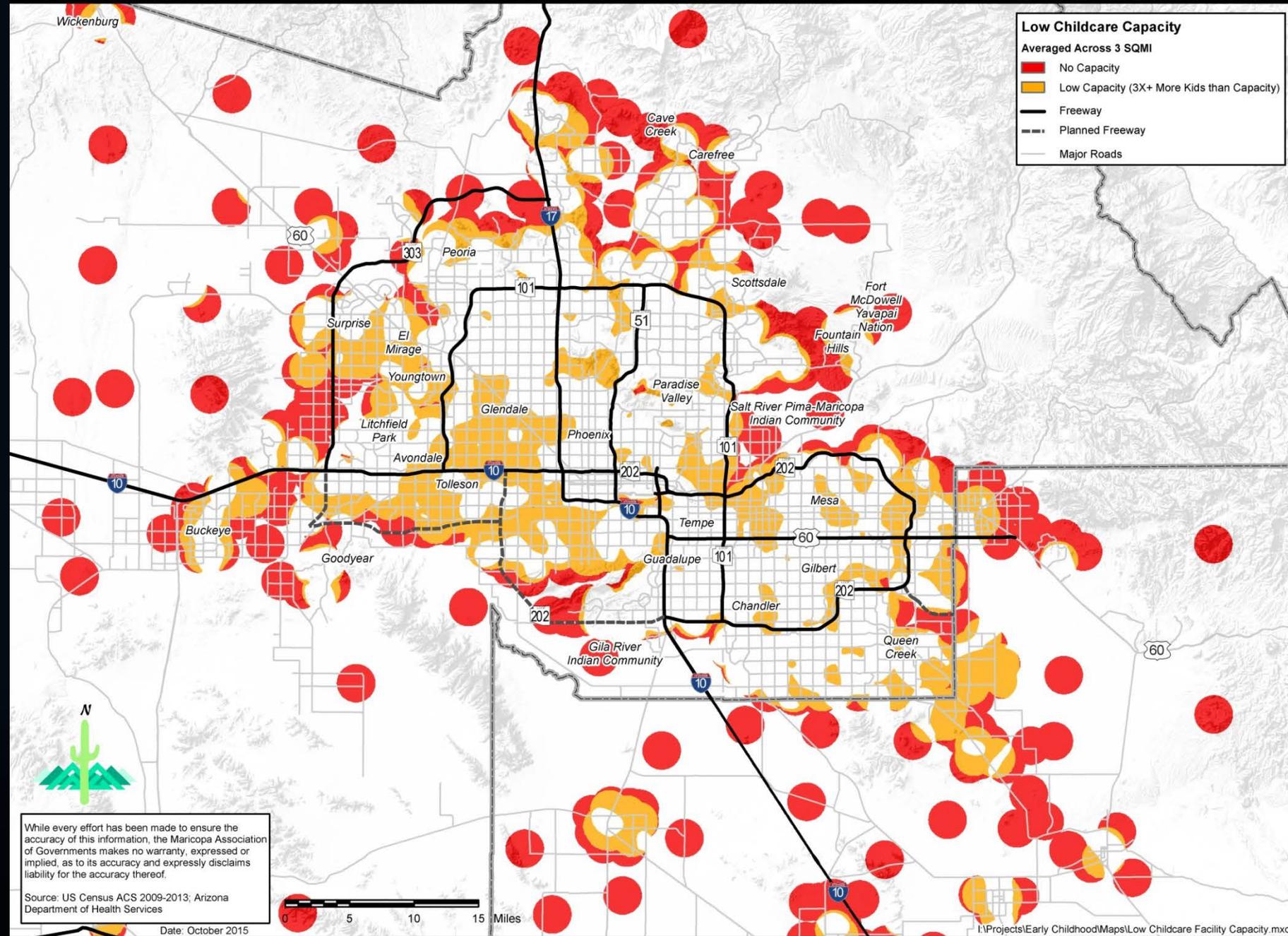
Source:
 Arizona Department of Health Services
 (License File 10/1/2015)

Concentration of Low Childcare Facility Capacity

Gaps

Lack of facility (3 miles)

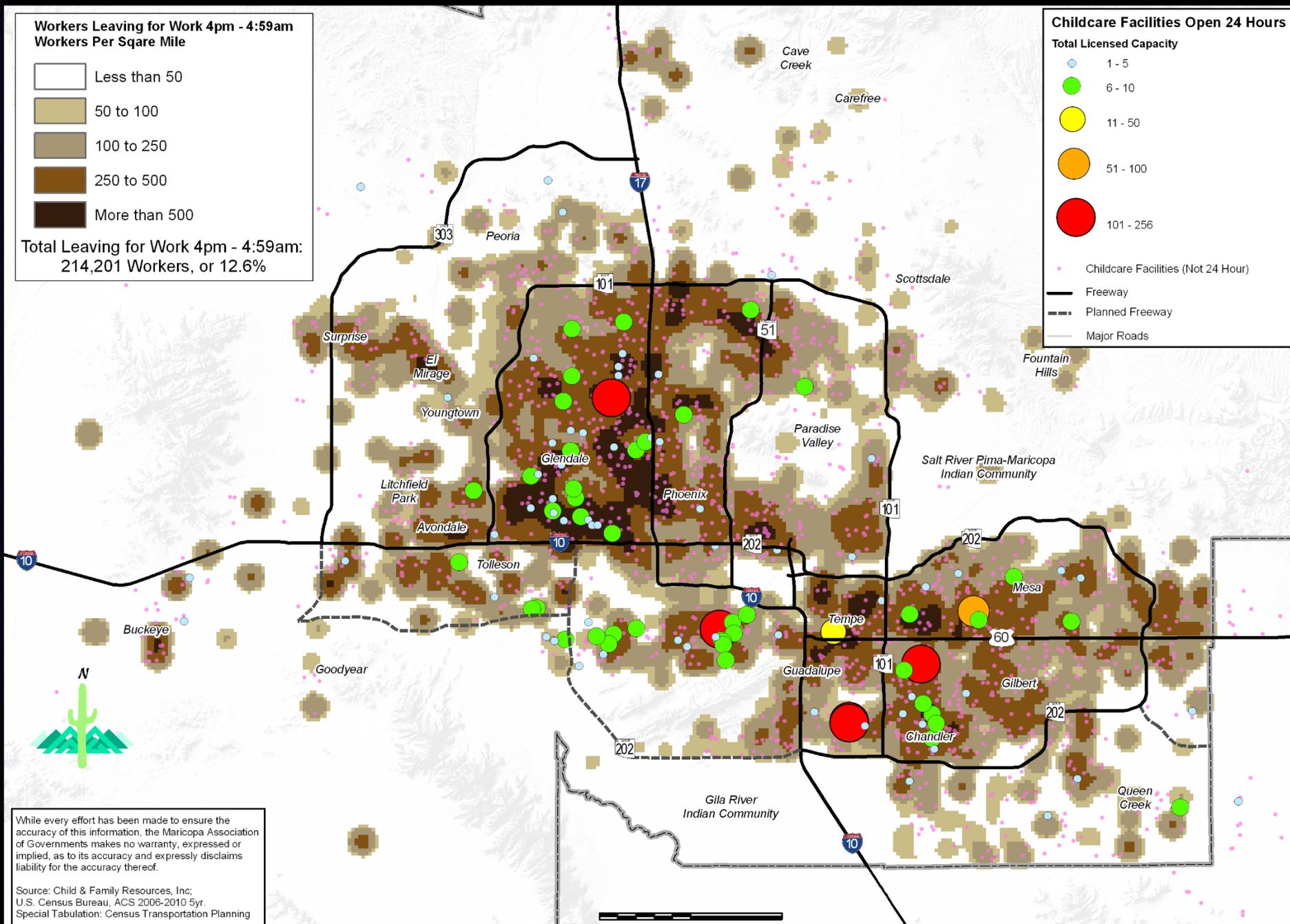
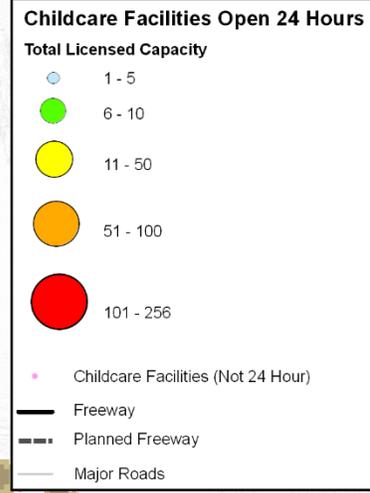
Low capacity (3X more kids)



Childcare Facility Capacity Open 24 Hours 7 Days a Week

Non-traditional work hours

12.6% work 4pm to 5am



While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

Source: Child & Family Resources, Inc;
 U.S. Census Bureau, ACS 2006-2010 5yr.
 Special Tabulation: Census Transportation Planning

Date: January 2016

Experiments with Big Data

Anubhav Bagley
Information Services Manager

(602) 254-6300
www.azmag.gov

