Demographic & Economic Forecast for four Sub-State Regions in Nevada

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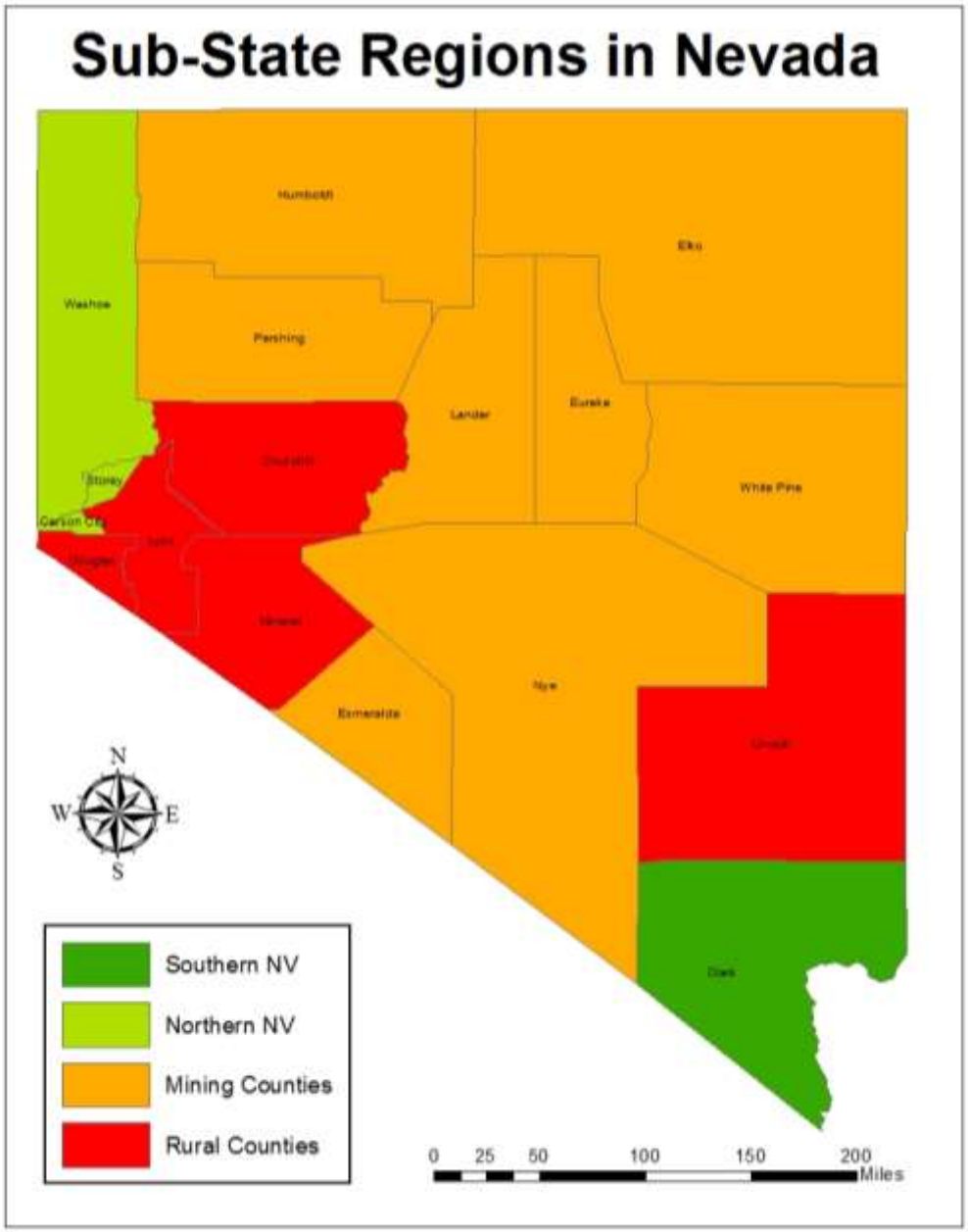
- Summary of Analysis
- Questions

- 2 Major Metropolitan Areas in NV
  - **Southern NV**: LV-Henderson
  - **Northern NV**: Carson City-Reno
- **Mining Counties**:
  - 8 Counties specialized in Mining
- **Rural Counties**:
  - 5 Counties

Sub-State Region	County
Sounthern NV	Clark
Nothern NV	Storey
Nothern NV	Washoe
Nothern NV	Carson City
Mining Counties	Elko
Mining Counties	Esmeralda
Mining Counties	Eureka
Mining Counties	Humboldt
Mining Counties	Lander
Mining Counties	Nye
Mining Counties	Pershing
Mining Counties	White Pine
Rural Counties	Churchill
Rural Counties	Douglas
Rural Counties	Lincoln
Rural Counties	Lyon
Rural Counties	Mineral



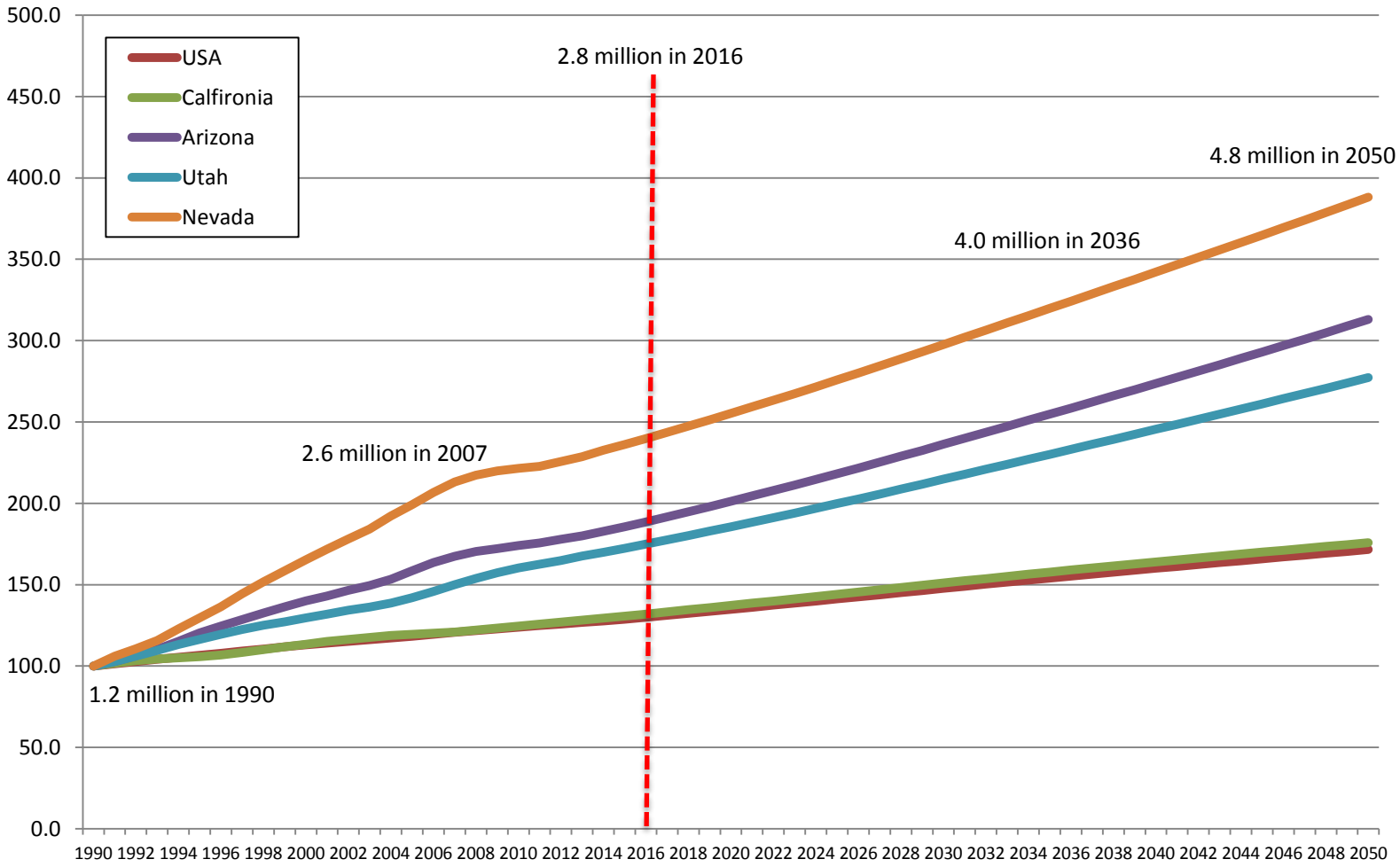
Two Major Metros in Nevada

- **Tourism Industry in Southern Nevada**
  - Largest Metro in Nevada
    - Las Vegas-Henderson-Paradise Metropolitan Statistical Area (Clark County)
  - Highly specialized in
    - 'Leisure & Hospitality' & 'Construction' industries
  - Approximately 73% of total population & jobs in Nevada (2015)
- **State Capital in Northern Nevada**
  - Two Metros:
    - Reno-Sparks MSA & Carson City MSA
  - Highly specialized in
    - 'TTU', 'Leisure & Hospitality', 'Construction' & 'Government'
  - Approximately 18% of total population & 19% of total jobs in Nevada (2015)

Two Non-Metro Regions in Nevada

- **Mining Counties in Nevada**
  - 8 Counties highly specialized in Mining industry
    - At least 10 times more specialized in Mining compared to US Avg.
    - More than 25% of TNF jobs in Mining or
    - More than 1,000 Mining jobs
  - Population share decreased from 7.2% in 1990 to 4.8% in 2015
  - TNF job share decreased from at 7.4% in 1990 to 4.5% in 2015
- **Rural Counties in Nevada**
  - 5 rural Counties: Four in Northern Nevada and one in Southern Nevada
  - Non-metro & Not specialized in Mining
  - Population share decreased from 6.3% in 1990 to 4.7% in 2015
  - TNF job share decreased from at 6.1% in 1990 to 4.6% in 2015

Population Growth of Nevada (1990-2050)



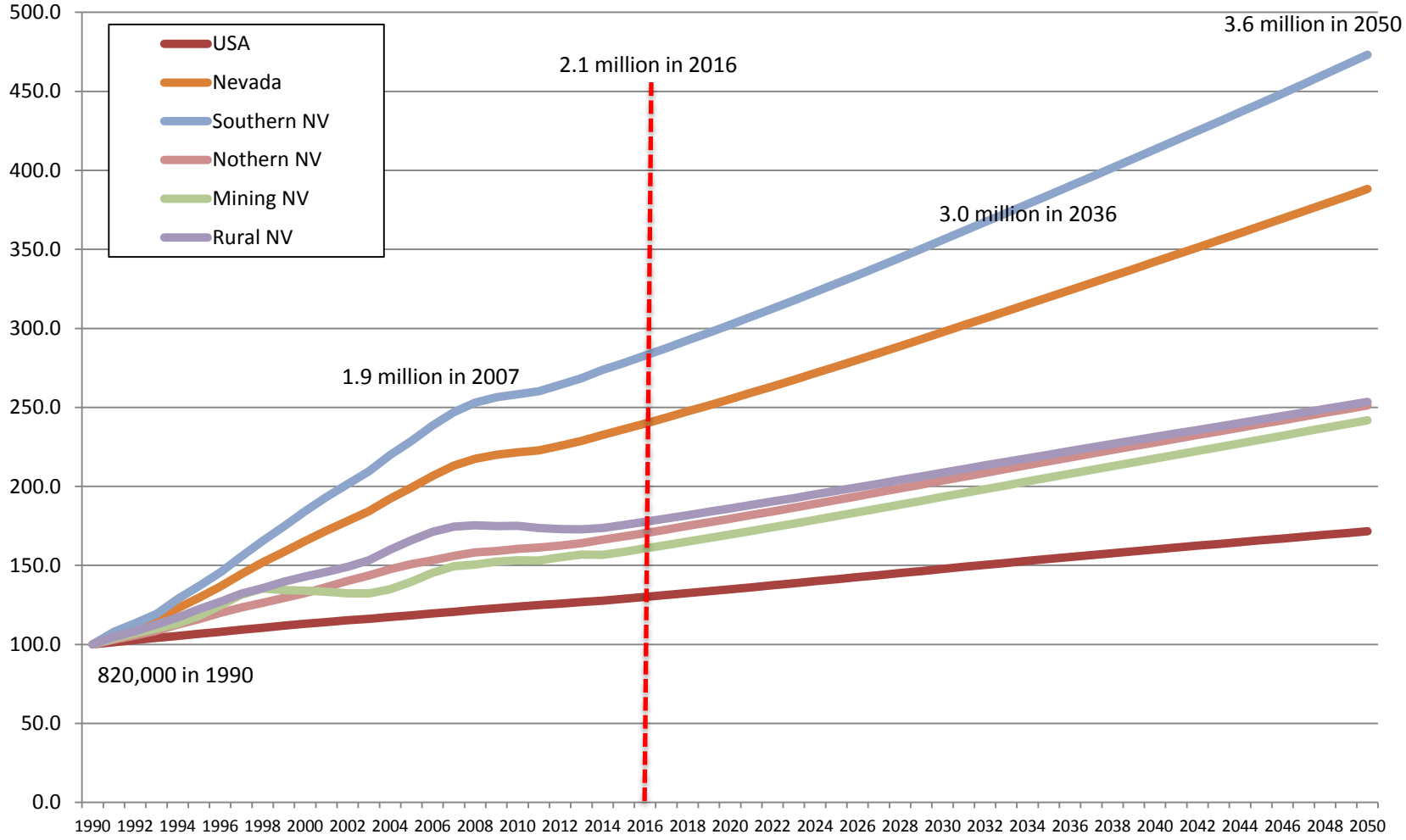
Fast Population Growth in Nevada

- **Fastest Population Growth Prior to Great Recession**
  - Nevada: fastest population growth (217.4%) from 1990 to 2008
  - Much faster than US Avg. at 121.8% & CA Avg. at 122.2%
  - Faster than regional competitors: 170.5% in Arizona & 153.8% in Utah
- **After Great Recession, growth continues**
  - But, at much slower annual growth rates

Region	Prior to Great Recession (1990-2007)	During Recession (2007-2010)	After Recession Recovery (2010-2016)	Recovery Accerleated (2016-2036)	Stabilized Growth (2036-2050)
USA	**1.22%**	**0.90%**	**0.82%**	**0.93%**	**0.75%**
Calfironia	1.24%	1.00%	0.98%	0.98%	0.76%
Arizona	3.97%	1.32%	1.40%	1.77%	1.51%
Utah	2.94%	2.27%	1.53%	1.58%	1.35%
Nevada	**6.65%**	**1.31%**	**1.38%**	**1.68%**	**1.41%**

  - No longer leading regional population growth, lagging behind
    - Utah (2008-16): ‘during recession’ & ‘after recession recovery’ periods
    - Arizona (2008-50) continues to growth faster than Nevada

Population Growth of Sub-State Regions in Nevada (1990-2050)



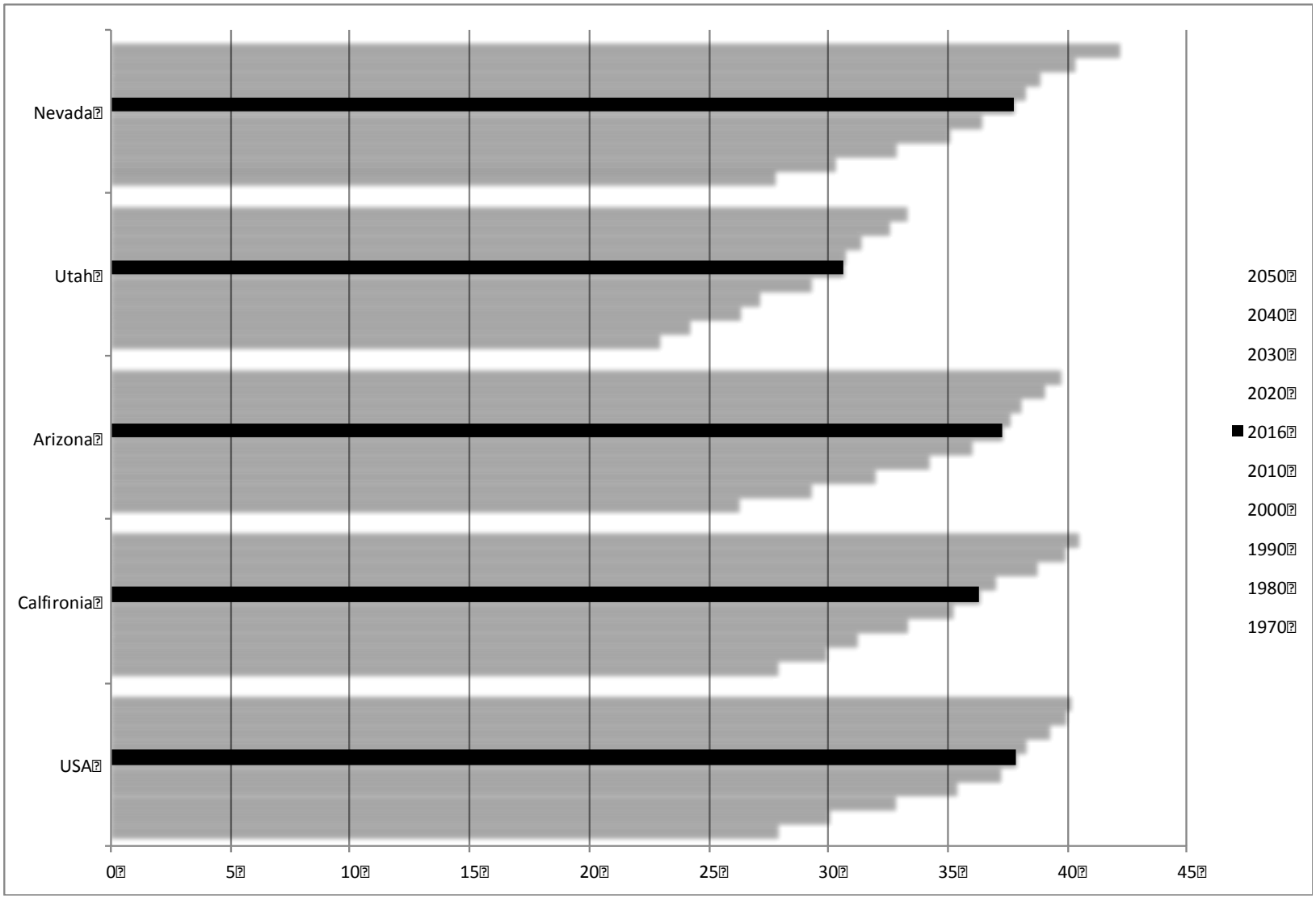
Population Growth among Sub-State Regions

- **Fastest Population Growth Prior to Great Recession in**
  - Sothern NV: fastest population growth (247.0%) from 1990 to 2008
  - Followed by Rural NV with 4.38% and Northern NV at 3.30%
- **Sluggish Population Growth during Great Recession in Mining NV & Rural NV**
- **After Great Recession, growth continues**
  - But, at much slower annual growth rates

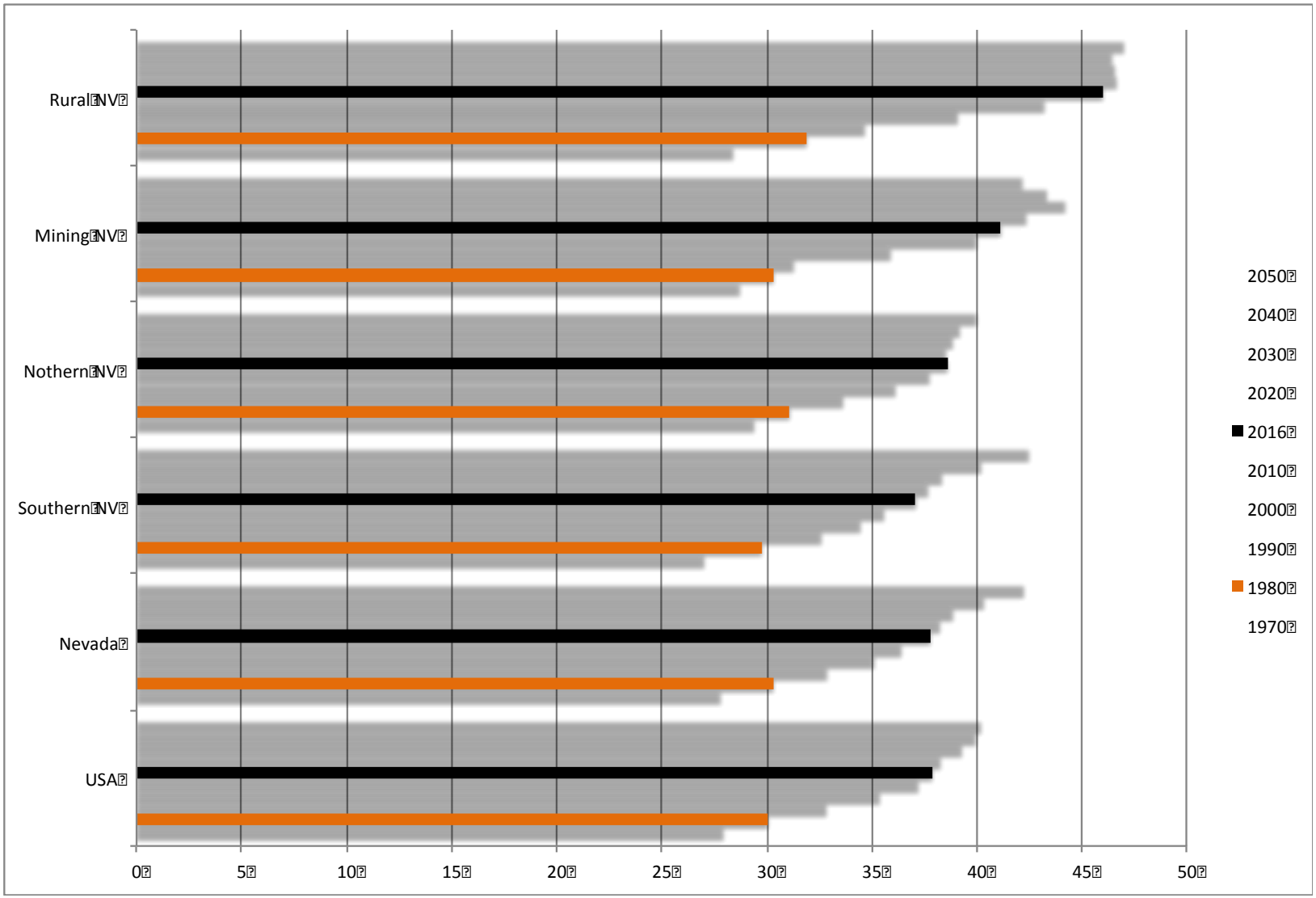
Region	Prior to Great Recession (1990-2007)	During Recession (2007-2010)	After Recession Recovery (2010-2016)	Recovery Accerleated (2016-2036)	Stabilized Growth (2036-2050)
USA	**1.22%**	**0.90%**	**0.82%**	**0.93%**	**0.75%**
Nevada	**6.65%**	**1.31%**	**1.38%**	**1.68%**	**1.41%**
Southern NV	**8.65%**	**1.52%**	**1.58%**	**1.81%**	**1.52%**
Nothern NV	3.30%	0.95%	1.04%	1.34%	1.08%
Mining NV	2.91%	0.82%	0.82%	1.40%	1.16%
Rural NV	**4.38%**	**0.11%**	**0.24%**	**1.20%**	**1.00%**

  - Southern NV still leads population growth, but growth gaps expect to decrease
  - After 2036, population growth expects to stabilize

Aging America & Grayer Nevada



Grayer Nevada led by Southern Nevada (2010-50)

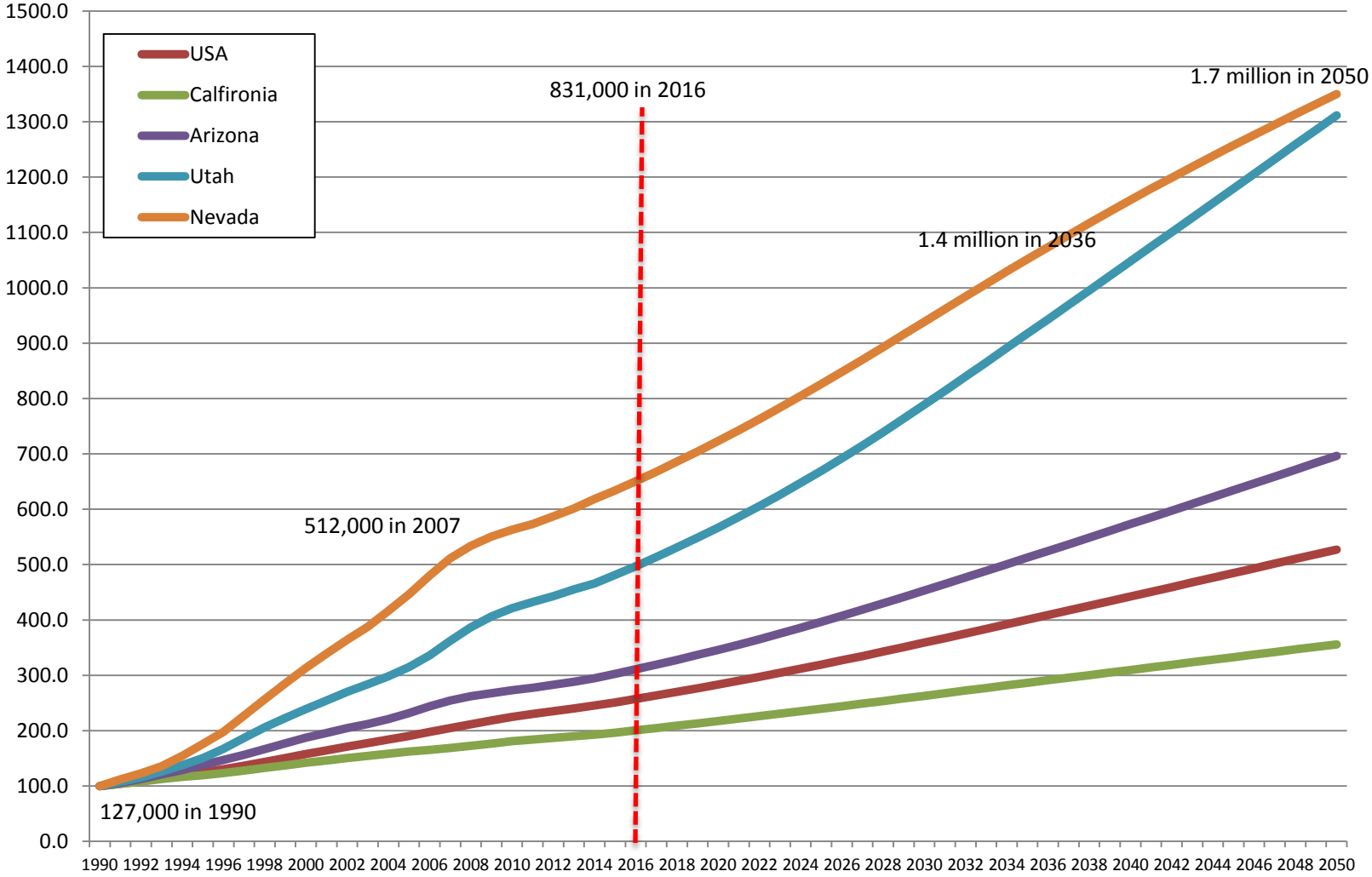


Aging Trend in Nevada

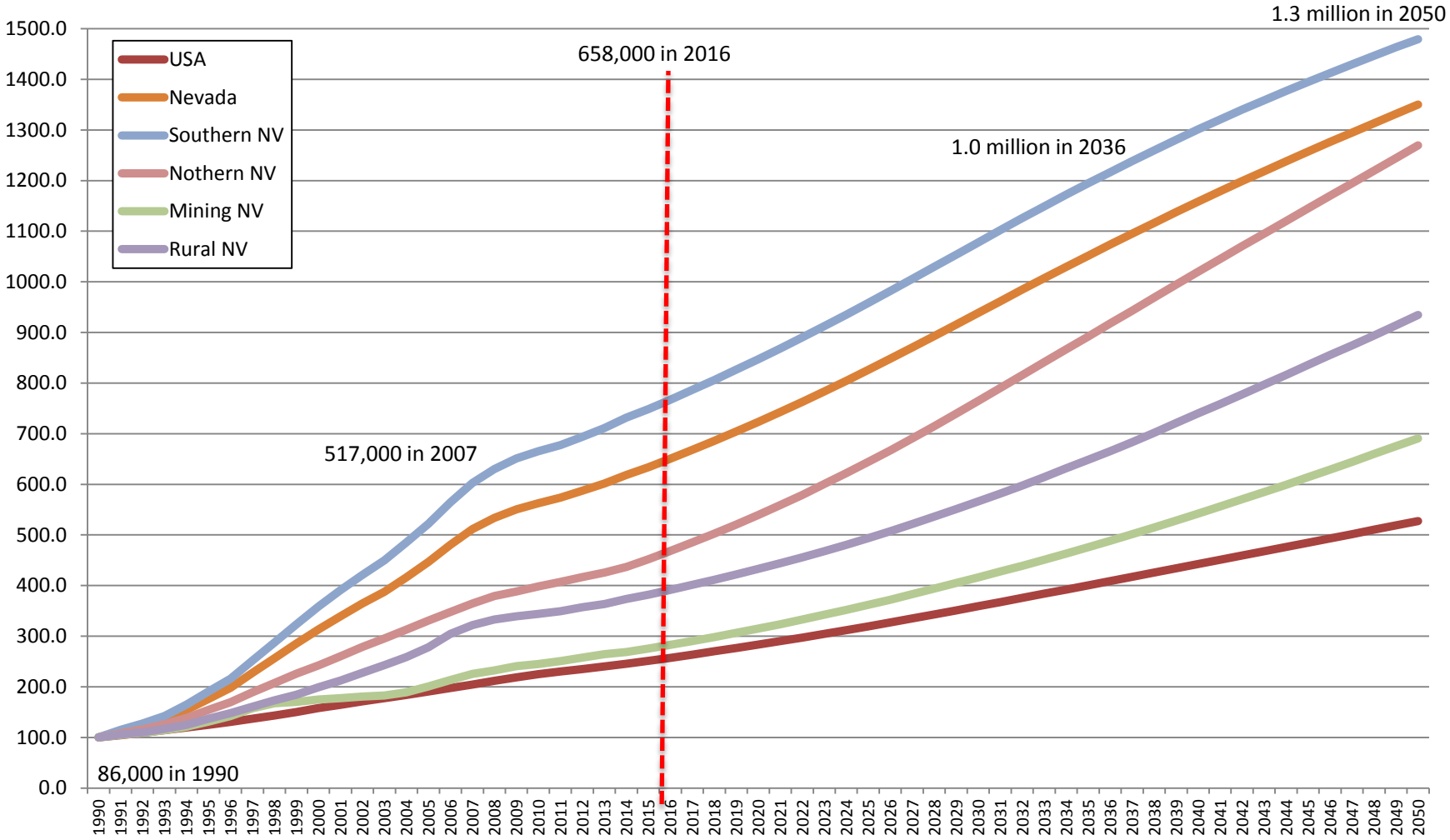
- **Median Age in Nevada higher than US Avg. by 2040**
  - Prior to 1990s: Nevada was older than US Avg.
  - After 1990s and until recently: Nevada slightly younger than US Avg.
  - Speed of aging in Nevada for the next 3 decades estimated to be faster
- **Historically, Aging in Nevada led by Non-metro Regions**
  - Especially, rapidly aging in Rural Nevada (1970-1990)
  - Fastest again in Mining Nevada (1990-2010)
  - Mining Nevada counties will get younger from 2030 to 2050, especially in
    - Eureka, Humboldt and Lander
    - Possibly explained by expanded labor demand from Mining industry
- **Contrasting Aging Patterns between Two Metro Regions (2010-50)**
  - Northern Nevada: slower aging pattern compared to state Avg.
  - Southern Nevada: much faster aging compared to state Avg.

  ➔ Aging for the next decades led by Southern Nevada from 2010 to 2050

Hispanic Pop. Growth of Nevada (1990-2050)



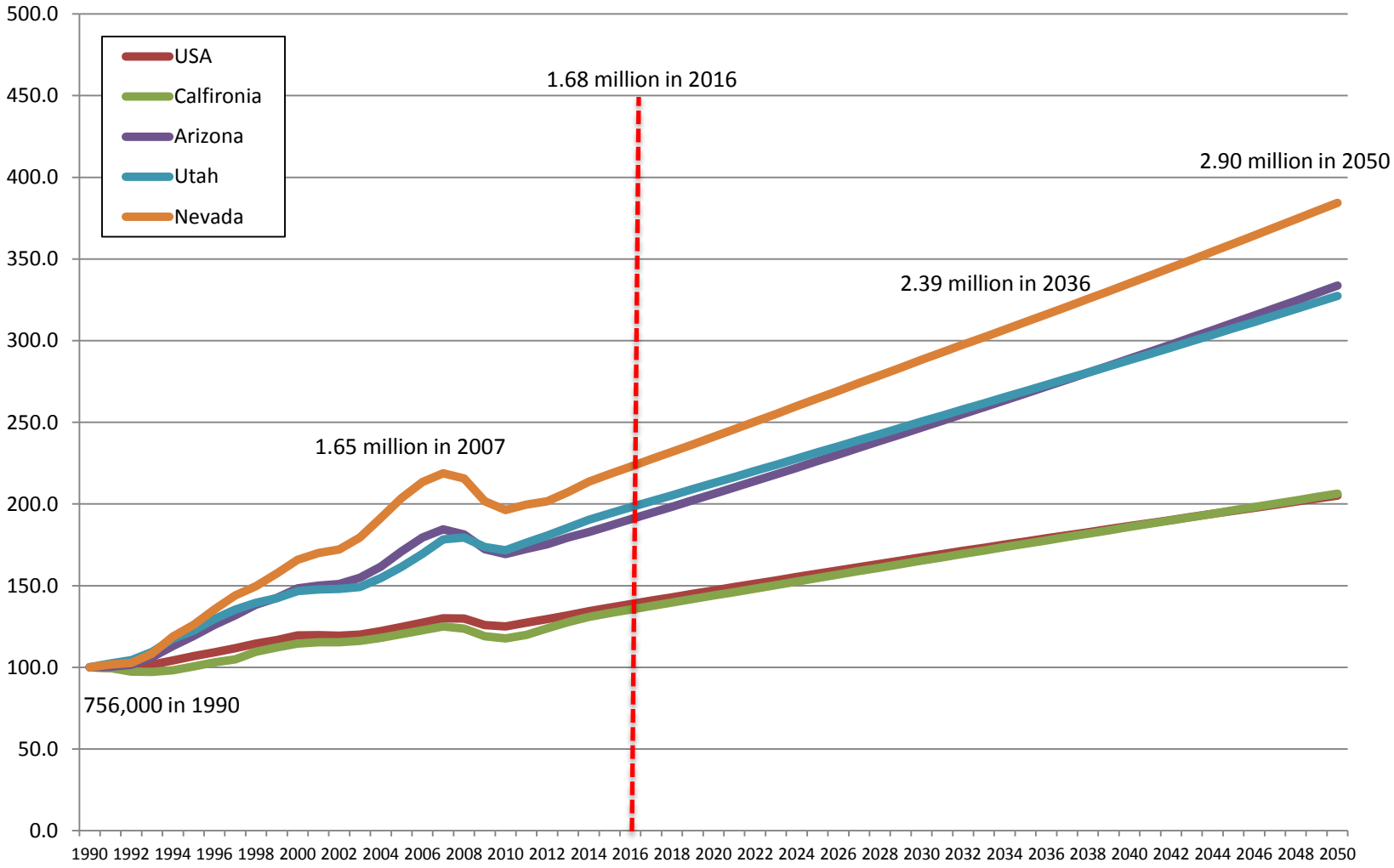
Hispanic Pop. Growth of Sub-State Regions in Nevada (1990-2050)



Skyrocketing Growth of Hispanics in Nevada

- **Fastest Growth of Hispanic Population in Region (1990-2016)**
  - Avg. growth of Hispanic in US: 257.3% (1990~2016)
  - Growth in Nevada: 650.7% (831,000 Hispanics, 2016)
  - Nevada's Hispanic population growth much faster than Utah, Arizona & California
- **Forecast for Hispanic Growth (2016-2050)**
  - Continue to maintain rapid growth in Nevada
  - Second fastest in the region: Utah reducing gap with Nevada
- **Growth of Hispanic among 4 Sub-State Regions**
  - Led by Southern Nevada, followed by Northern Nevada & Rural Nevada
  - Mining Nevada with similar growth pattern for US
- **Overall Population Growth in Nevada & in Southern Nevada**
  - Led by skyrocketing growth of population
    - ➔ Brownier Nevada

Employment Growth in Nevada (1990-2050)

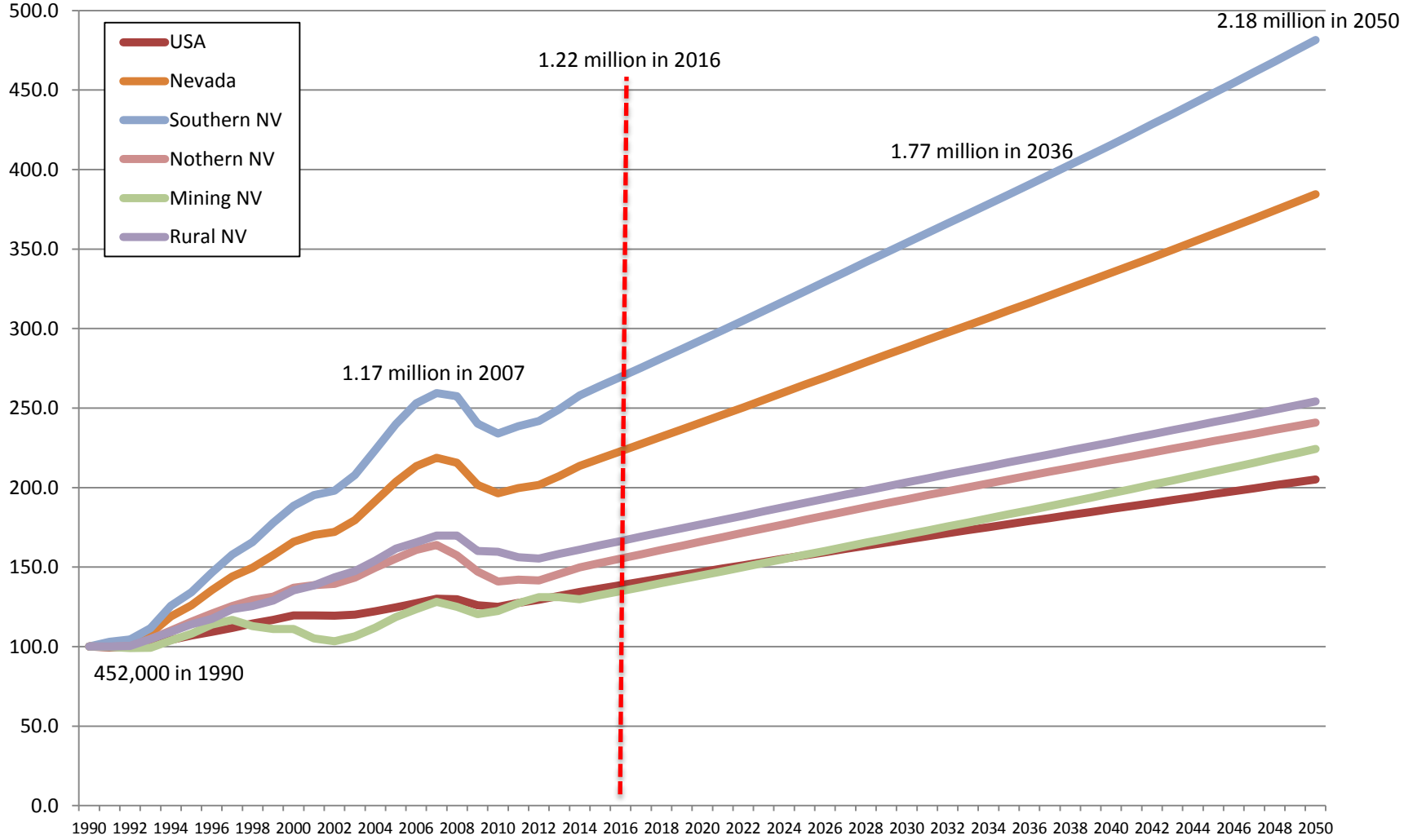


Total Employment Growth in Nevada

- **Employment Growth Trend Prior to Great Recession (1990-2007)**
  - Nevada's growth is the fastest: 218.8%
  - Higher than close neighbors: Arizona (184.5%) & Utah (178.3%)
  - Much faster than US Avg. (127.3%) & California (122.6%)
- **Huge Job Losses in Nevada during Great Recession (2007-2010)**
  - 10.2% of losses over 3-year period in Nevada, followed by 8.2% in Arizona
  - Much worse than US avg. (3.8%), Utah (3.7%) & California (5.9%)
- **After Recession, Job Recovery & Further Growth in Nevada (2010-2050)**
  - But, at much slower annual growth rates

Region	Prior to Great Recession (1990-2007)	During Recession (2007-2010)	After Recession Recovery (2010-2016)	Recovery Accerleated (2016-2036)	Stabilized Growth (2036-2050)
USA	**1.77%**	**-1.27%**	**1.81%**	**1.38%**	**1.05%**
Calfironia	1.47%	-1.96%	2.51%	1.49%	1.15%
Arizona	4.97%	-2.73%	2.09%	2.03%	1.62%
Utah	4.61%	-1.23%	2.54%	1.80%	1.43%
Nevada	**6.99%**	**-3.41%**	**2.25%**	**1.99%**	**1.54%**

Employment Growth of Sub-State Regions in Nevada (1990-2050)



Total Employment Growth among Sub-State Regions

- **Employment Growth Trend Prior to Great Recession (1990-2007)**
  - Fastest Southern Nevada's growth (259.4%) leading statewide growth
  - Much Higher than Rural NV (169.8%) & Northern NV (164.0%)
  - Mining NV (128.2%) suffered from sluggish job growth
- **Huge Job Losses in Nevada Metros during Great Recession (2007-2010)**
  - 14.0% of losses over 3-year period Northern NV & Southern NV (9.8%)
  - Job losses in non-Metro are less severe: Mining NV (4.5%) & Rural NV (5.9%)
- **After Recession, Job Recovery & Further Growth in Nevada (2010-2050)**
  - But, at much slower annual growth rates

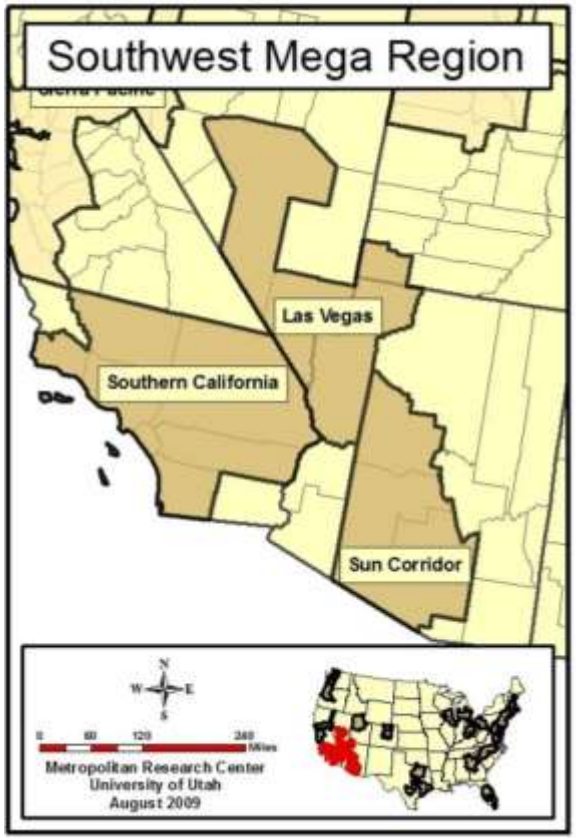
Region	Prior to Great Recession (1990-2007)	During Recession (2007-2010)	After Recession Recovery (2010-2016)	Recovery Accerleated (2016-2036)	Stabilized Growth (2036-2050)
USA	**1.77%**	**-1.27%**	**1.81%**	**1.38%**	**1.05%**
Nevada	**6.99%**	**-3.41%**	**2.25%**	**1.99%**	**1.54%**
Southern NV	**9.38%**	**-3.27%**	**2.54%**	**2.14%**	**1.66%**
Nothern NV	3.76%	-4.68%	1.71%	1.60%	1.15%
Mining NV	1.66%	-1.52%	1.71%	1.80%	1.48%
Rural NV	**4.10%**	**-1.98%**	**0.71%**	**1.49%**	**1.17%**

Specialized Industries in Nevada

- **Southern Nevada Region**
  - Leisure & Hospitality:
    - Las Vegas-Henderson-Paradise Metropolitan Statistical Area (Clark County)
  - Construction:
    - ‘Leisure & Hospitality’ & ‘Construction’ industries
  - Approximately 73% of total population & jobs in Nevada (2015)
- **Northern Nevada Region**
  - Trade, Transportation & Utilities:
    - Reno-Sparks MSA & Carson City MSA
  - Government:
    - ‘TTU’, ‘Leisure & Hospitality’, ‘Construction’ & ‘Government’
  - Leisure & Hospitality:
    - ‘TTU’, ‘Leisure & Hospitality’, ‘Construction’ & ‘Government’
  - Construction:
    - ‘TTU’, ‘Leisure & Hospitality’, ‘Construction’ & ‘Government’

Real Estate Market Demand Analysis

- **Las Vegas Metro in Southwest Mega Region**
  - Fastest growing mega region in the US
  - Three Metros in Southwest



- **Private Land Ownership in Southwest (2010)**

Megapolitan Area	Total Area (SQ Miles)	Estimate of Privately-Owned, Accessible (SQ Miles)	Share of Privately-Owned, Accessible Land (%)
Southern California	49,051	25,330	51.6%
Las Vegas	41,798	6,847	16.4%
Sun Corridor	31,885	8,187	25.7%
Total	122,733	40,365	32.9%

(Source: US Dept. of Interior)

  - Only 16.4% of accessible land in Las Vegas Metro owned by private
    - 51.6% for Southern California
    - 25.7% for Sun Corridor (Phoenix & Tucson Metros)

Real Estate Market Demand Analysis

- **Southwest Mega Region Housing Development Summary (2010-2026)**

Megapolitan Area	Units Supported 2010	Growth-Related Units, 2010-26	Units Replaced 2010-26	Total Units Built 2010-26	Percent of Units 2010
Southern California	8,043	1,570	669	2,239	27.8%
Las Vegas	1,000	412	152	564	56.4%
Sun Corridor	2,377	731	307	1,037	43.6%
Total	11,420	2,713	1,127	3,840	33.6%

(source: Nelson & Lang, 2011)

— Rapidly growing housing demands from 2010 to 2026 in Las Vegas

- **Southwest Mega Region Space-Occupying Job Growth (2016-2026)**

Megapolitan Area	2016	2021 (est.)	2026 (est.)	Change 2016-21	Change 2016-26	Percent Change 2016-21	Percent Change 2016-26
Southern Cal.	**12,731**	13,760	14,805	1,029	2,074	8.1%	16.3%
Las Vegas	**1,303**	1,445	1,595	142	292	10.9%	22.4%
Sun Corridor	**2,957**	3,265	3,588	309	631	10.4%	21.3%
Total	**16,991**	18,471	19,988	1,480	2,997	8.7%	17.6%
Las Vegas MSA*	**1,152**	1,276	1,406	124	254	10.8%	22.1%

** Las Vegas MSA is a single county area (Clark Co.) that consists the core part of Las Vegas Megapolitan Area.*

— Space-occupying job growth for next 10-year period: 22.1% for Southern Nevada

Major Nonresidential Development Trend

- **If Las Vegas MSA has same vacancy rate as Southwest Region (2016-2026)**

Type of Use	2016	2021 (est.)	2026 (est.)	5-Year Growth (2016-21)	5-Year Growth (2021-26)	10-Year Growth (2016-26)	5-Year % Growth (2016-21)	5-Year % Growth (2021-26)	10-Year % Growth (2016-26)	Vacancy Rate (2016)	Vacancy Rate (2021 & 2026)
Industrial	**119,988**	128,584	133,474	8,596	4,890	**13,486**	7.2%	3.8%	**11.2%**	6.7%	**7.8%**
Office	**43,873**	48,376	53,531	4,504	5,155	**9,658**	10.3%	10.7%	**22.0%**	18.4%	**17.8%**
Retail	**59,723**	65,388	72,044	5,665	6,656	**12,321**	9.5%	10.2%	**20.6%**	10.6%	**8.8%**
Medical	**7,199**	8,144	9,201	945	1,057	**2,002**	13.1%	13.0%	**27.8%**	17.3%	**17.3%**
Total*	**230,783**	250,493	268,250	19,710	17,757	**37,467**	8.5%	7.1%	**16.2%**	10.2%	**10.4%**

** Total does not include hotel space. (source: CBRE Market View Report, 2015 and 2016)*

— 16.2% of growth in space demand

— Medical, Office and Retail with over 20% growth from 2016 to 2026

- **If Las Vegas MSA holds constant vacancy rate of 2015 (2016-2026)**

Type of Use	2016	2021 (est.)	2026 (est.)	5-Year Growth (2016-21)	5-Year Growth (2021-26)	10-Year Growth (2016-26)	5-Year % Growth (2016-21)	5-Year % Growth (2021-26)	10-Year % Growth (2016-26)	Vacancy Rate (2016)	Vacancy Rate (2021 & 2026)
Industrial	**119,988**	127,036	131,867	7,048	4,831	**11,879**	5.9%	3.8%	**9.9%**	6.7%	**6.7%**
Office	**43,873**	48,718	53,909	4,846	5,191	**10,037**	11.0%	10.7%	**22.9%**	18.4%	**18.4%**
Retail	**59,723**	65,388	72,044	5,665	6,656	**12,321**	9.5%	10.2%	**20.6%**	10.6%	**10.6%**
Medical	**7,199**	8,144	9,201	945	1,057	**2,002**	13.1%	13.0%	**27.8%**	17.3%	**17.3%**
Total*	**230,783**	249,287	267,022	18,504	17,735	**36,239**	8.0%	7.1%	**15.7%**	10.2%	**10.5%**

** Total does not include hotel space. (source: CBRE Market View Report, 2015 and 2016)*

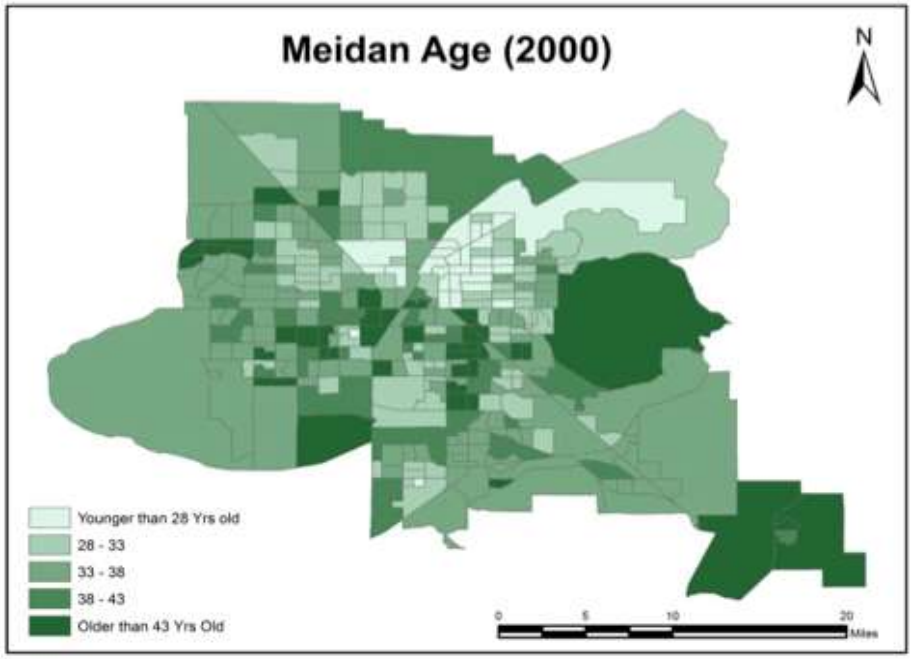
— 15.7% of growth in space demand

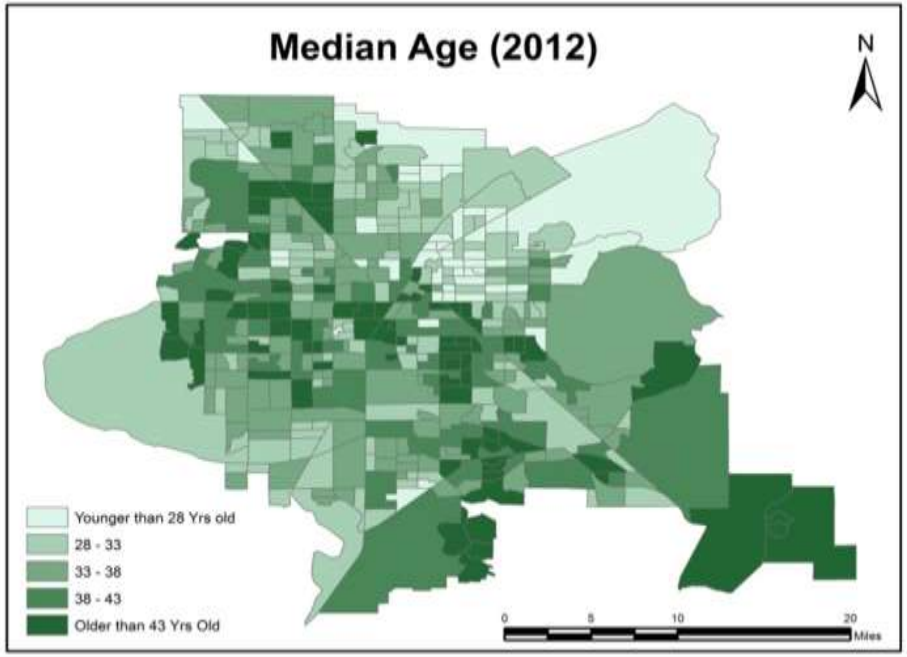
Spatial Analysis for Socioeconomic Trend

- **Mapping Spatial Distribution of Socioeconomic Variables**
  - Scale of Analysis
    - Spatial scale: Urbanized Areas within Clark County at Census Tract Level
    - Temporal scale: 3 discrete time periods (2000, 2010, 2012)
  - Data Source:
    - American Community Survey of U.S. Census
    - UNLV Center for Business & Economic Research
  - Variables
    - Household Size
    - Age & Race
    - Education Attainment
    - Income Distribution
    - Commuting Pattern

Spatial Distribution of Median Age

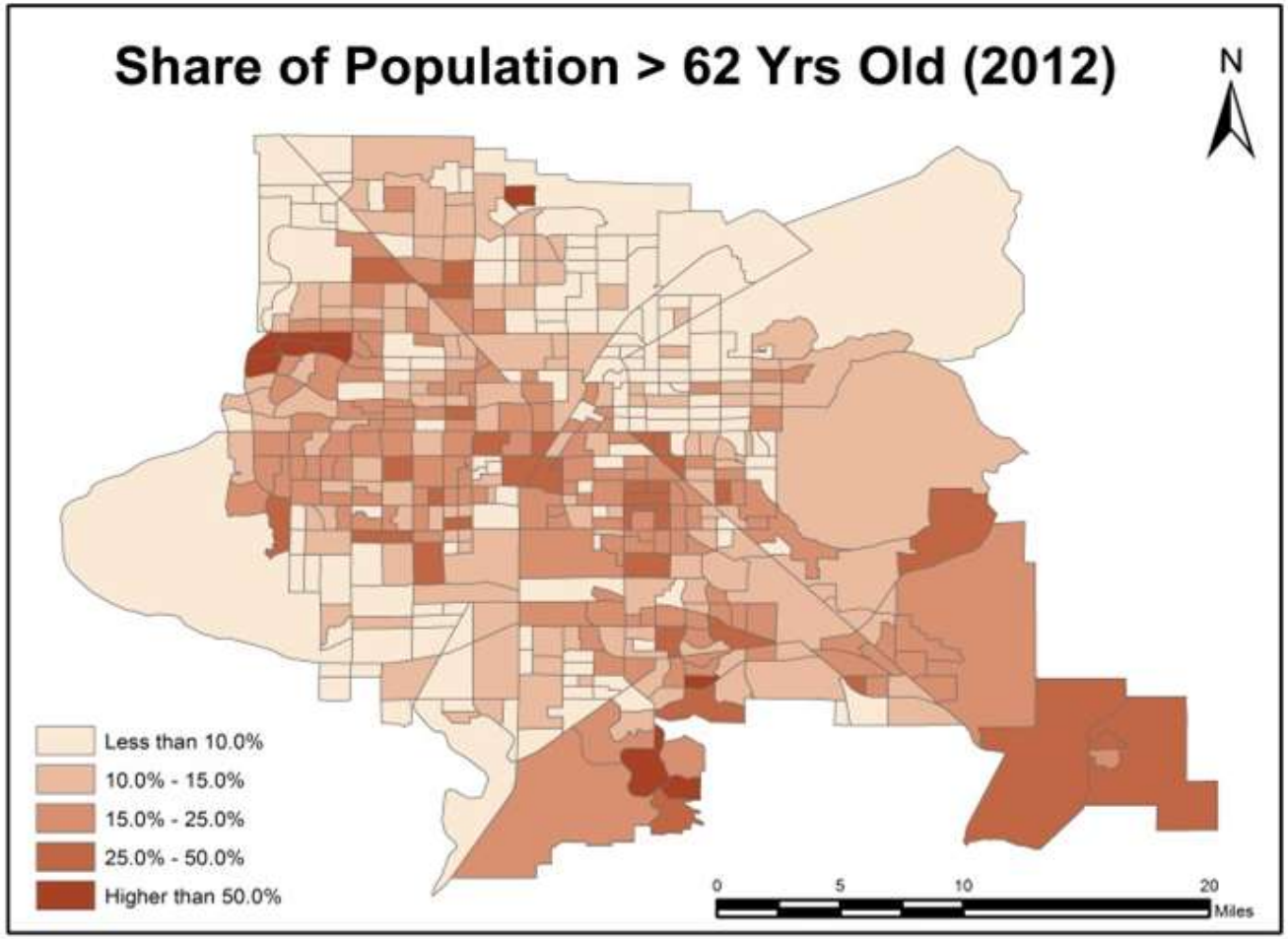
- **Concentration of Younger Cohorts**
  - Younger population concentrated in northeastern part of CC, mainly Sunrise and North Las Vegas
  - Older mainly in Boulder City, Henderson and Summerlin





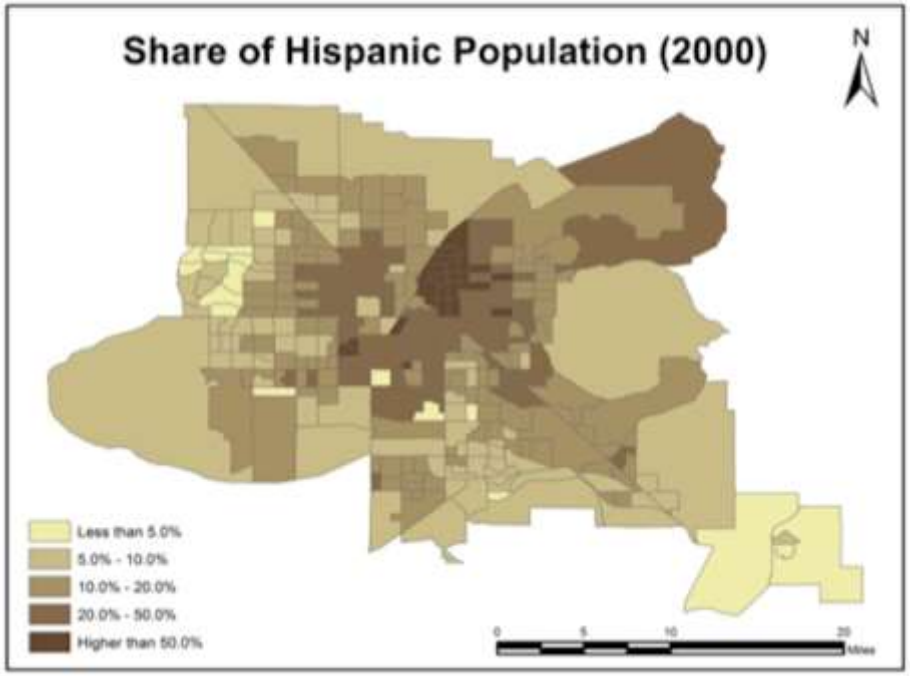
Spatial Distribution of Elderly Population

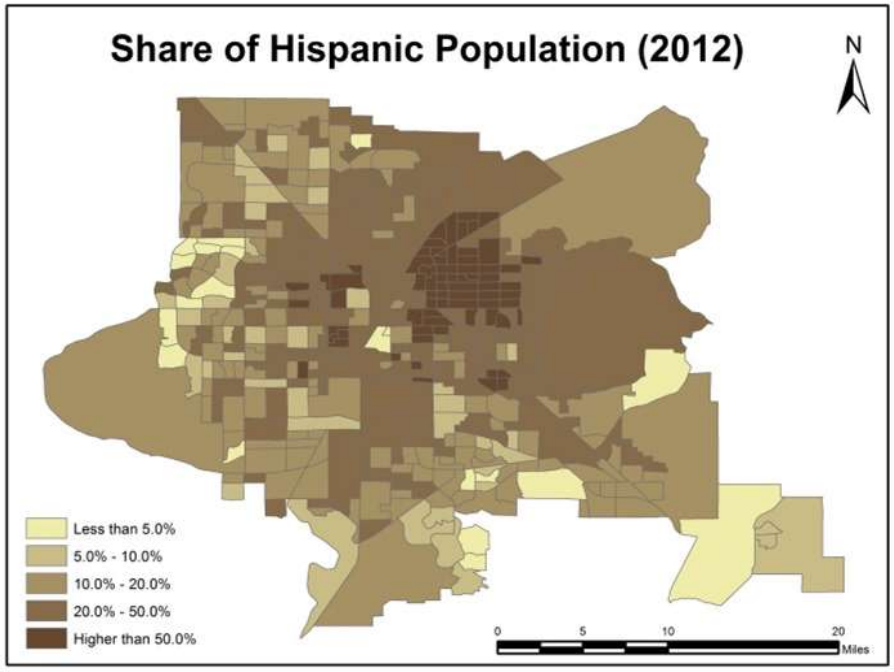
- **Concentration of Older Cohorts**



Spatial Distribution of Race

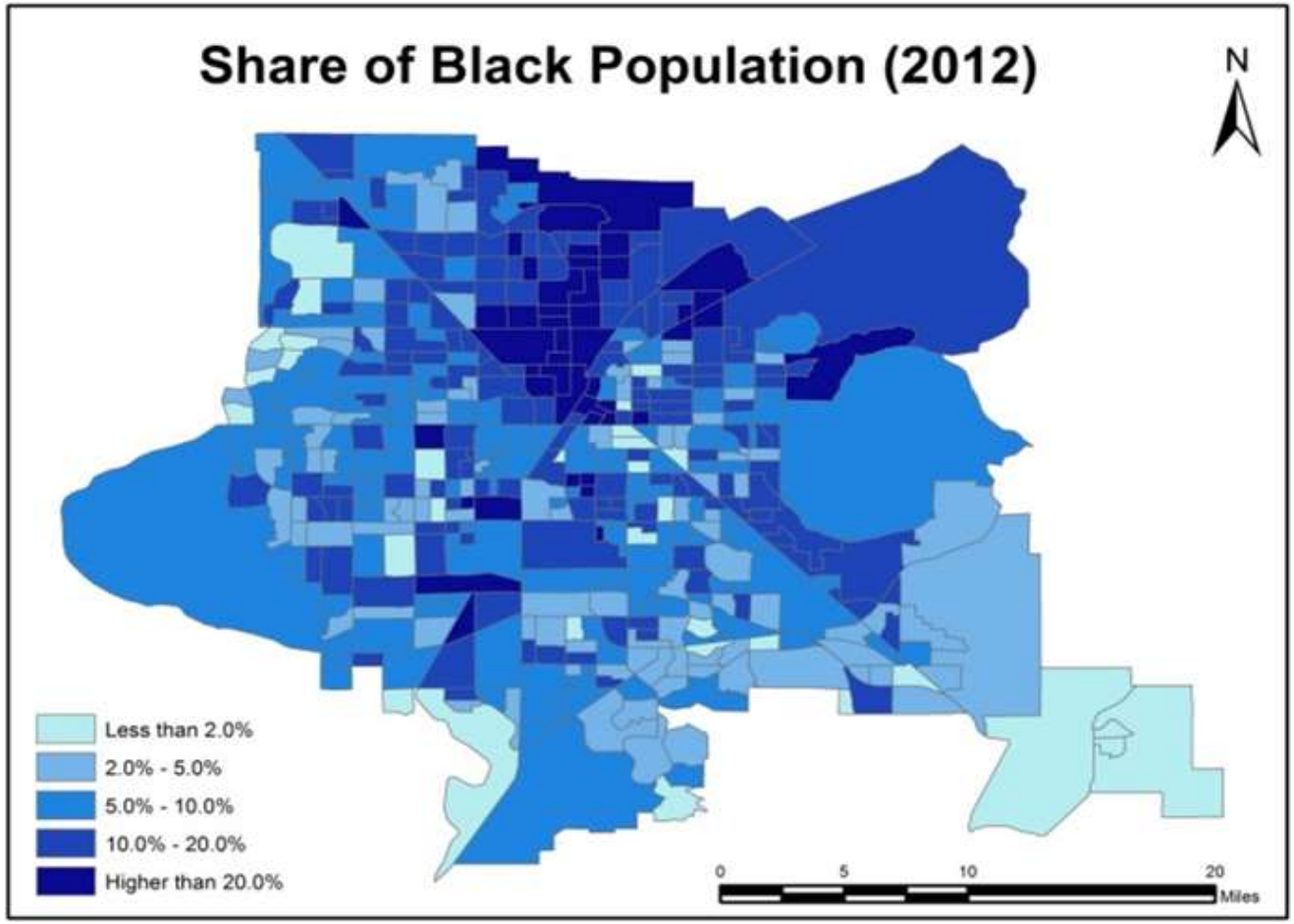
- **Concentration of Hispanic Population**
  - African American: from 9.2% to 10.5% (2000, 2012)
  - Hispanic: 22.2% to 29.5% (2000, 2012)





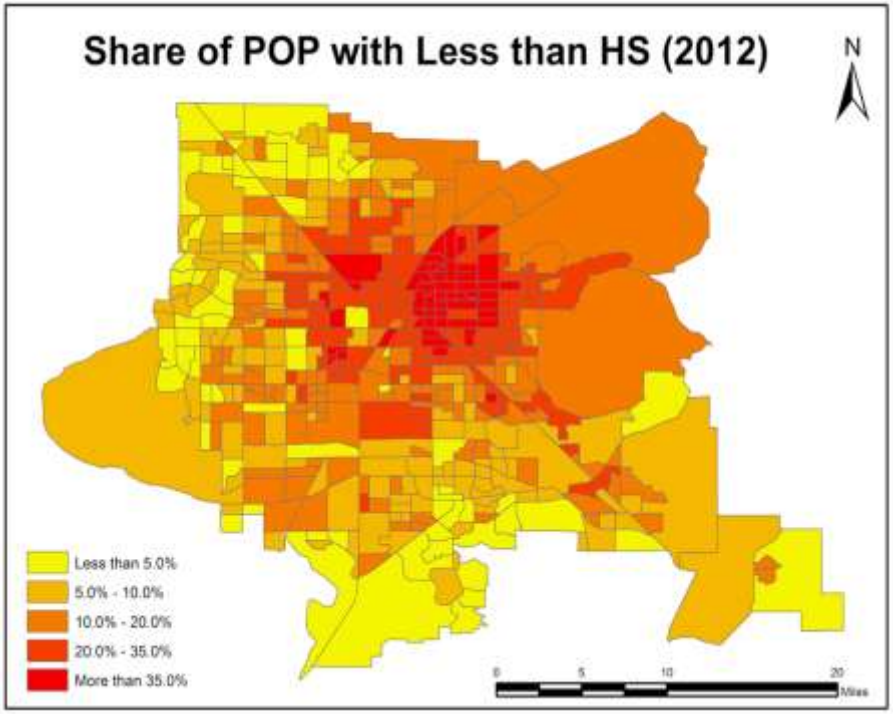
Spatial Distribution of Race

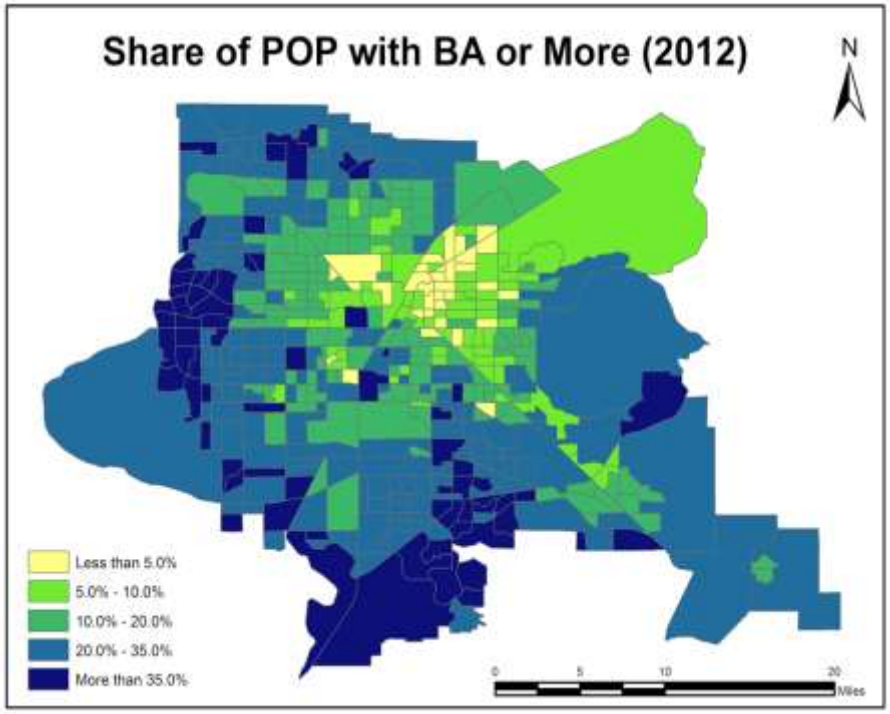
- **Concentration of African American Population**



Spatial Distribution of Education Attainment

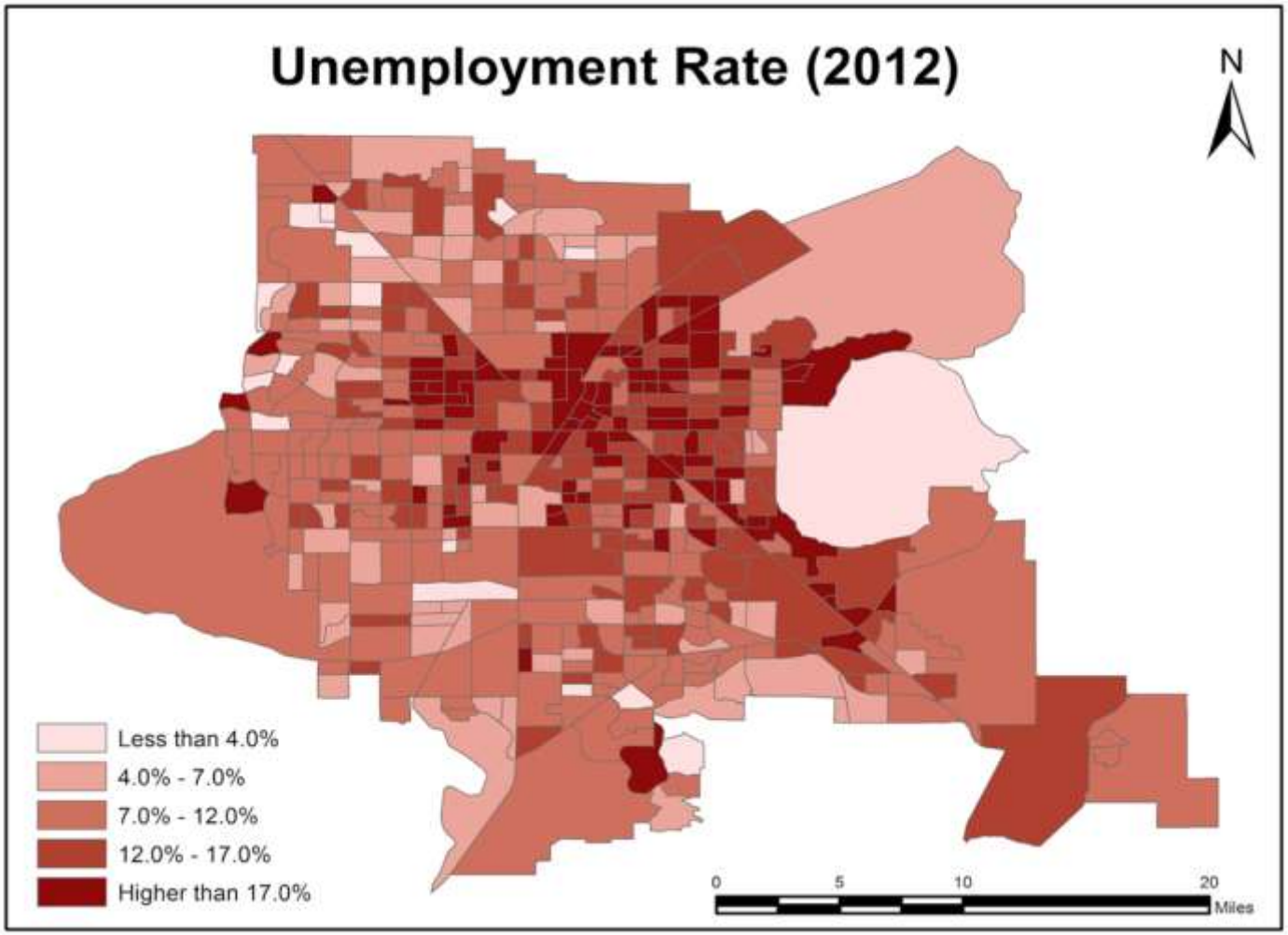
- **Concentration of Education Attainment**
  - Northeast: Low attainment ➔ 1 in 3 did not complete high school
  - Anthem, Green Valley, & Summerlin: high attainment
    ➔ 1 in 3 has at least BA college college





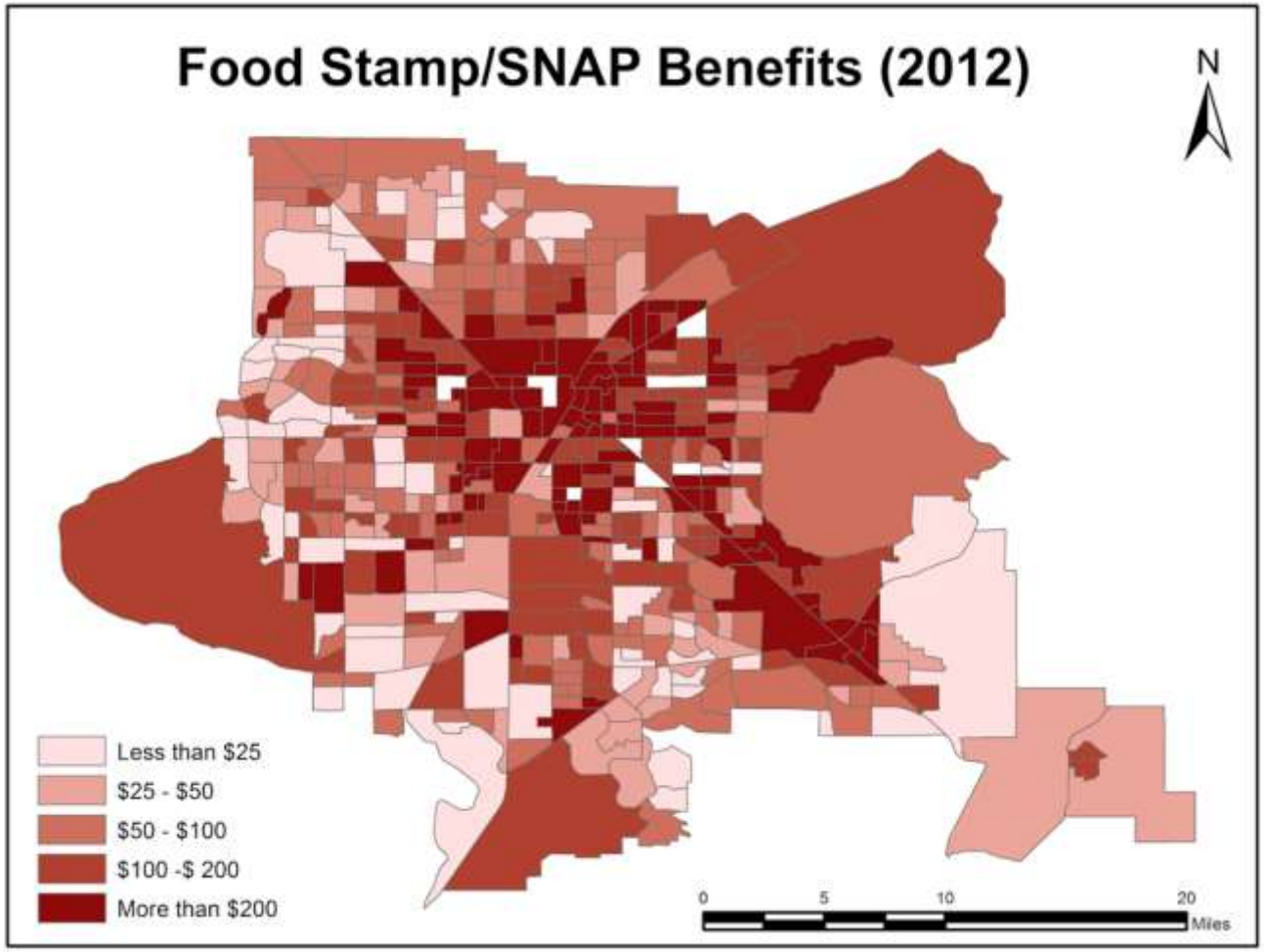
Spatial Distribution of Unemployment

- **High in Northeast, City of North Las Vegas & Downtown**



Spatial Distribution of Poverty

- **High in Northeast, City of North Las Vegas & Downtown**



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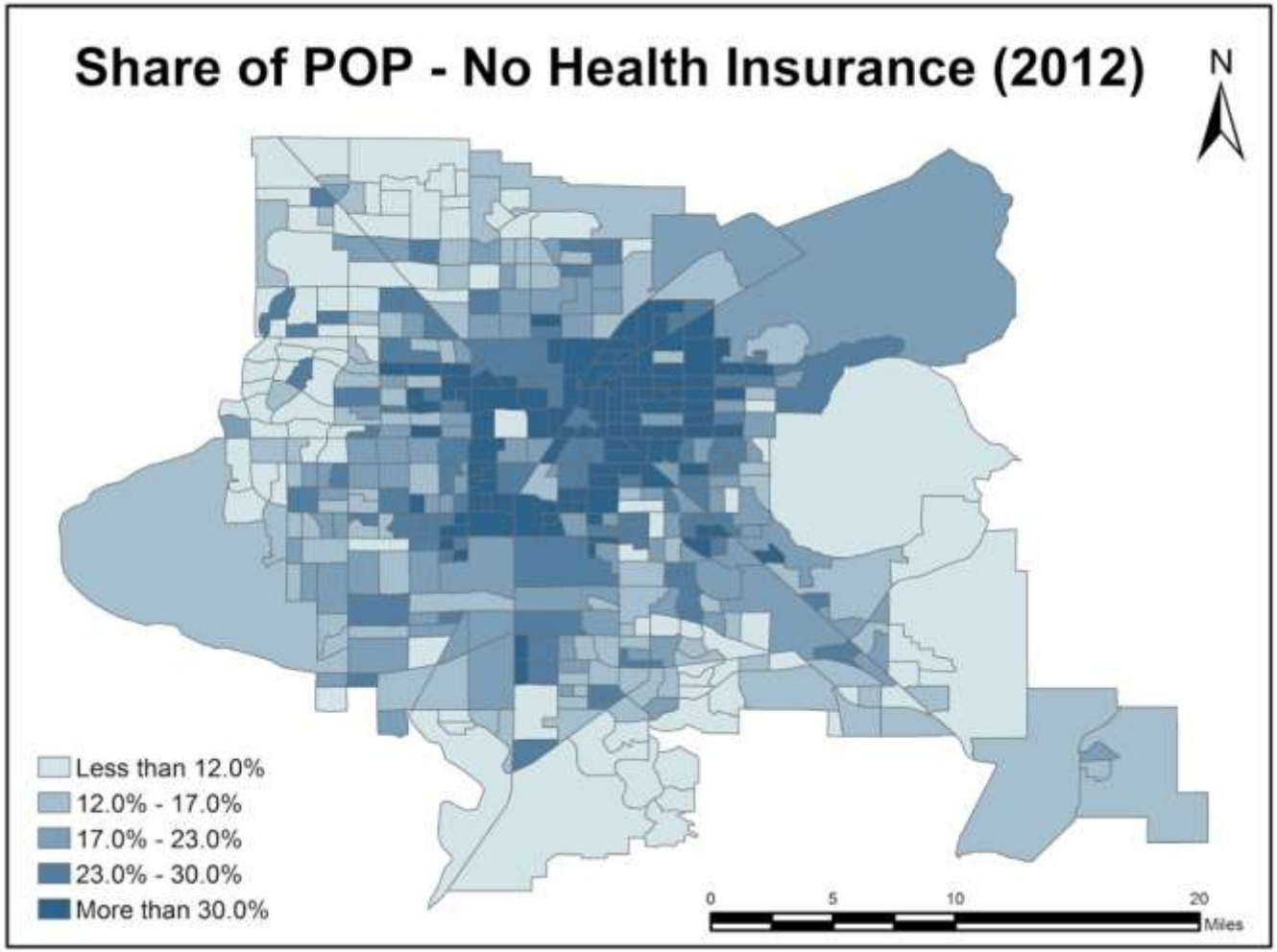
- **Population with no Health Insurance**



Summary of Analysis (1)

- **Population Growth in Nevada Continues**
  - At a much slower pattern in Nevada than 1990s and 2000s
  - Southern Nevada continues to lead the growth for the next two decades
  - After 2040, population growth will stabilize
- **Demographic Shift in Nevada**
  - National trend on 'Grayer' and 'Brownier'
  - More noticeable in Nevada, mainly led by Southern Nevada
- **Four Sub-State Regions's Population Growth**
  - Diversified in terms of industrial structures
  - Southern Nevada leads growth, but all regions show faster growth than US
- **Employment Growth**
  - Similar pattern with population growth
  - Mining Nevada will have faster job growth than all other sub-state regions

Summary of Analysis (2)

- **Real Estate Market in Southern Nevada**
  - Shortage of space supply facing
    - Increasing housing demand
    - Fast growth of space-occupying industries
  - Approximately, 16% of growth in demand estimated
    - Medical, Office and Retail spaces
    - Additional space needed with growing manufacturing in two metros
- **Spatial Analysis of Socioeconomic Trend**
  - Spatio-temporal analysis to describe change in spatial distribution
  - Demographic and economic variables
  - Census Tract level analysis clearly indicate hotspots within a metro
  - Policy implications can be developed and discussed

Question and Discussion

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