

# ADVANCED TECHNOLOGY AND INFORMATION

- Advanced and Flexible Manufacturing Cluster Analysis
- Aerospace Cluster Analysis
- Information Technology Cluster Analysis
- Robotics and Automation Cluster Analysis

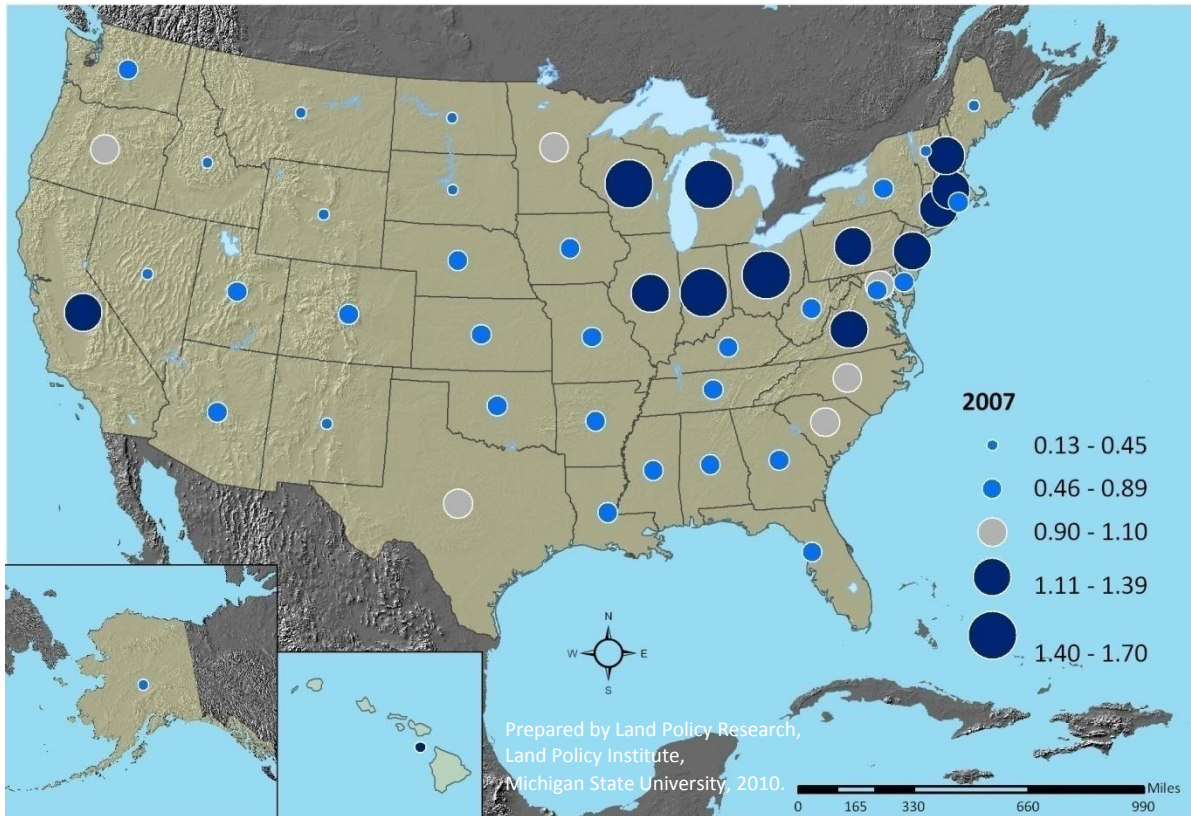


# Advanced and Flexible Manufacturing Cluster Analysis

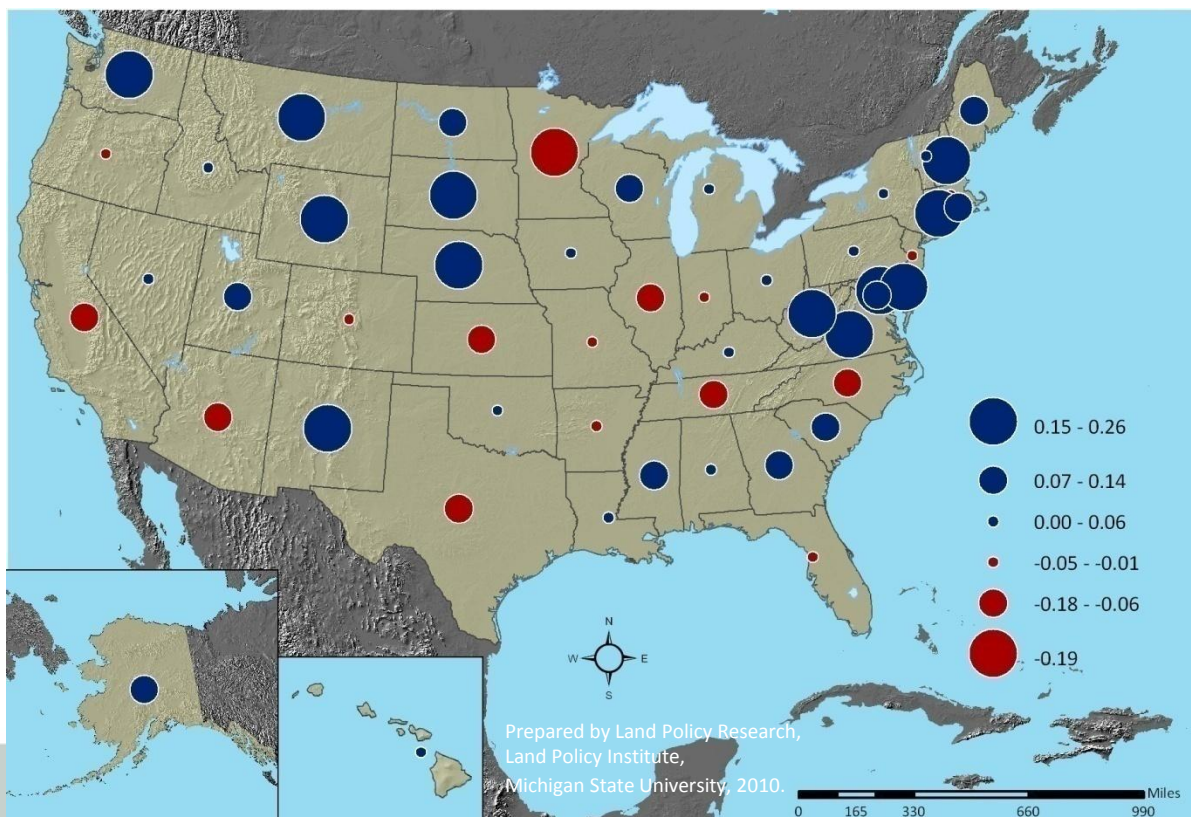
This cluster includes manufacturing providers varying from polymers and injection molding to advanced materials and electronic manufacturing (for a complete specification see Appendix 1). The manufacture of small run high value products is becoming more prevalent in today's economy and transitioning Michigan's manufacturers into this mode could provide new global opportunities.



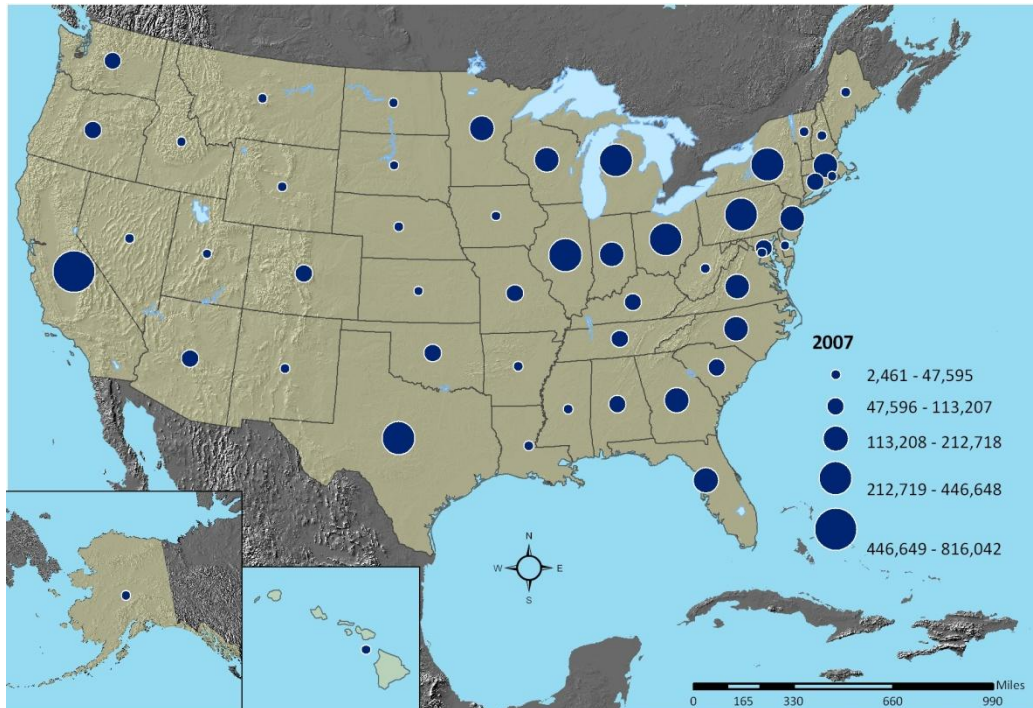
## National Location Quotient



## Change in Location Quotient 2003-2007

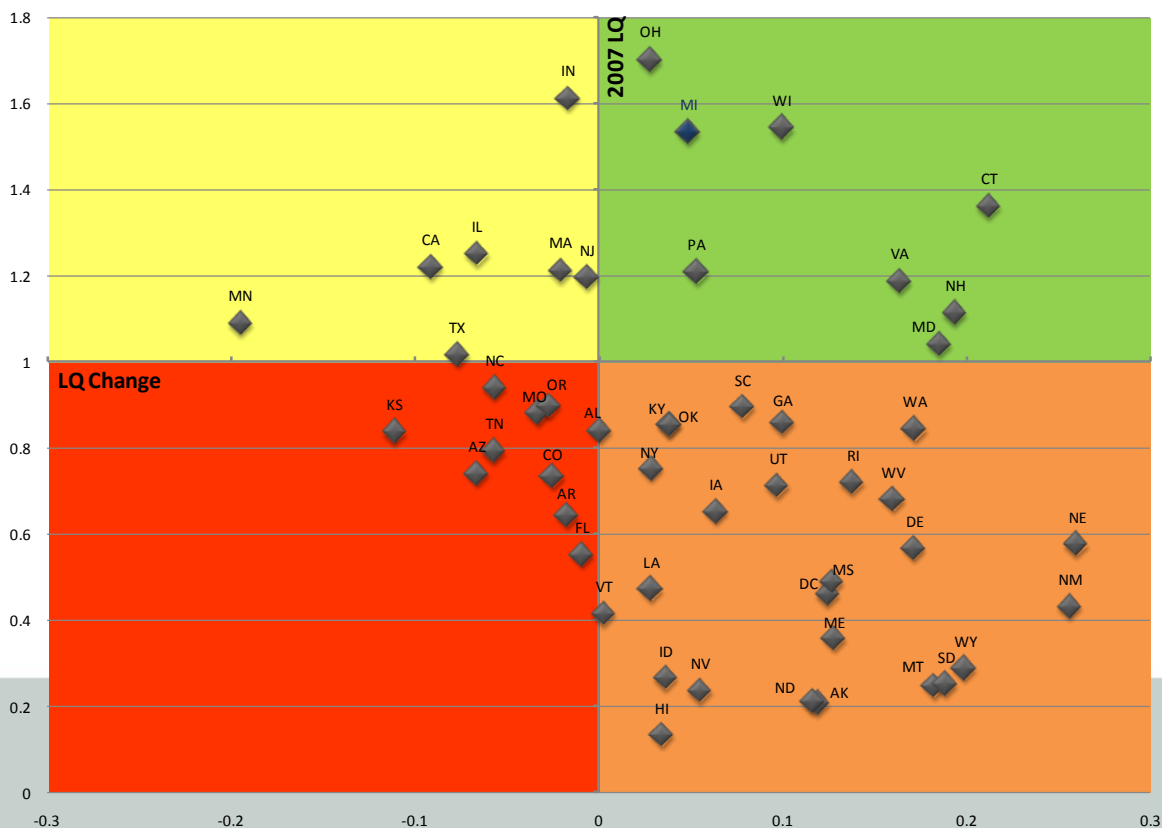


## National Employment Distribution



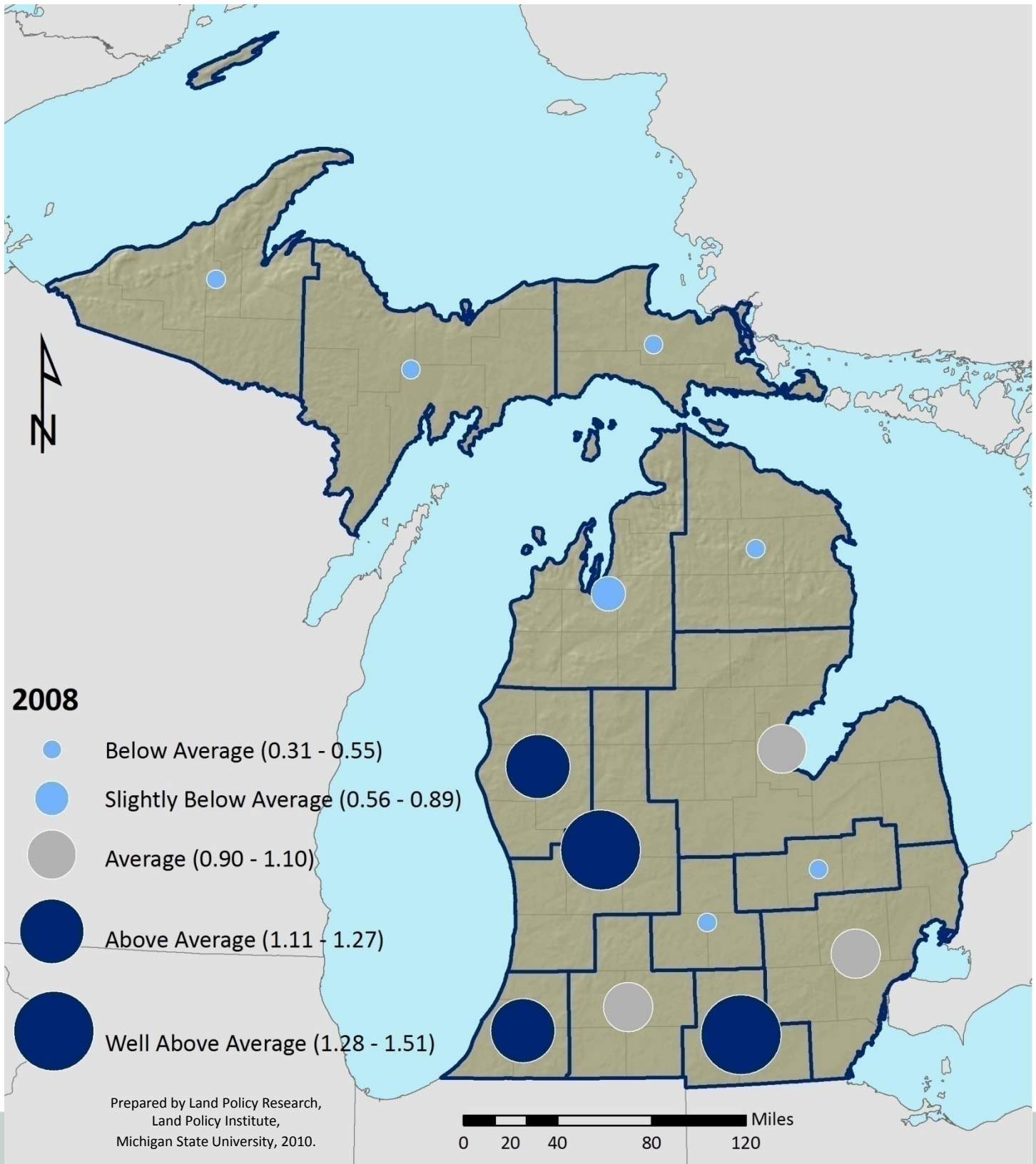
## 50 State Location Quotient Distribution

Advanced Manufacturing State LQ Graph

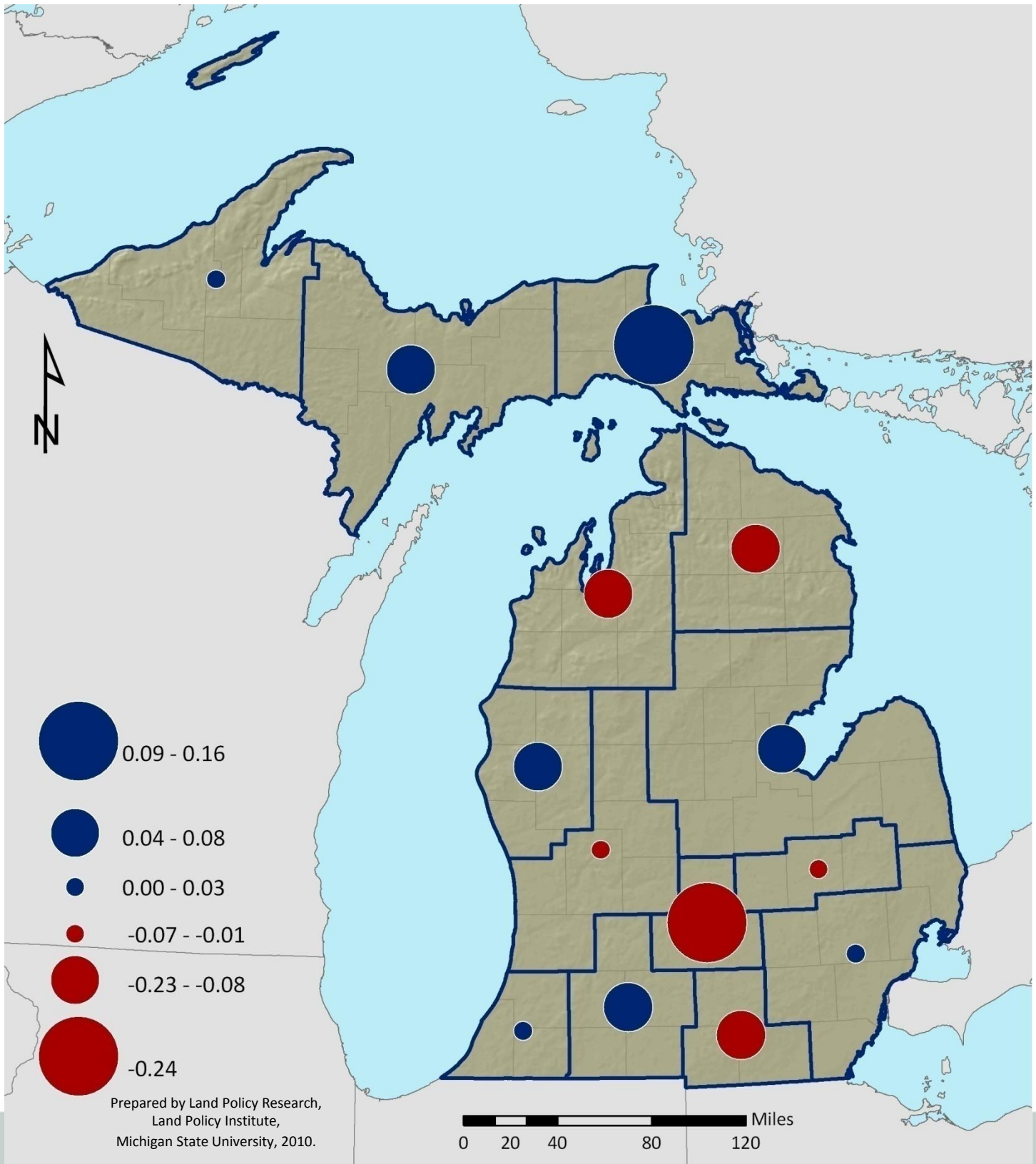




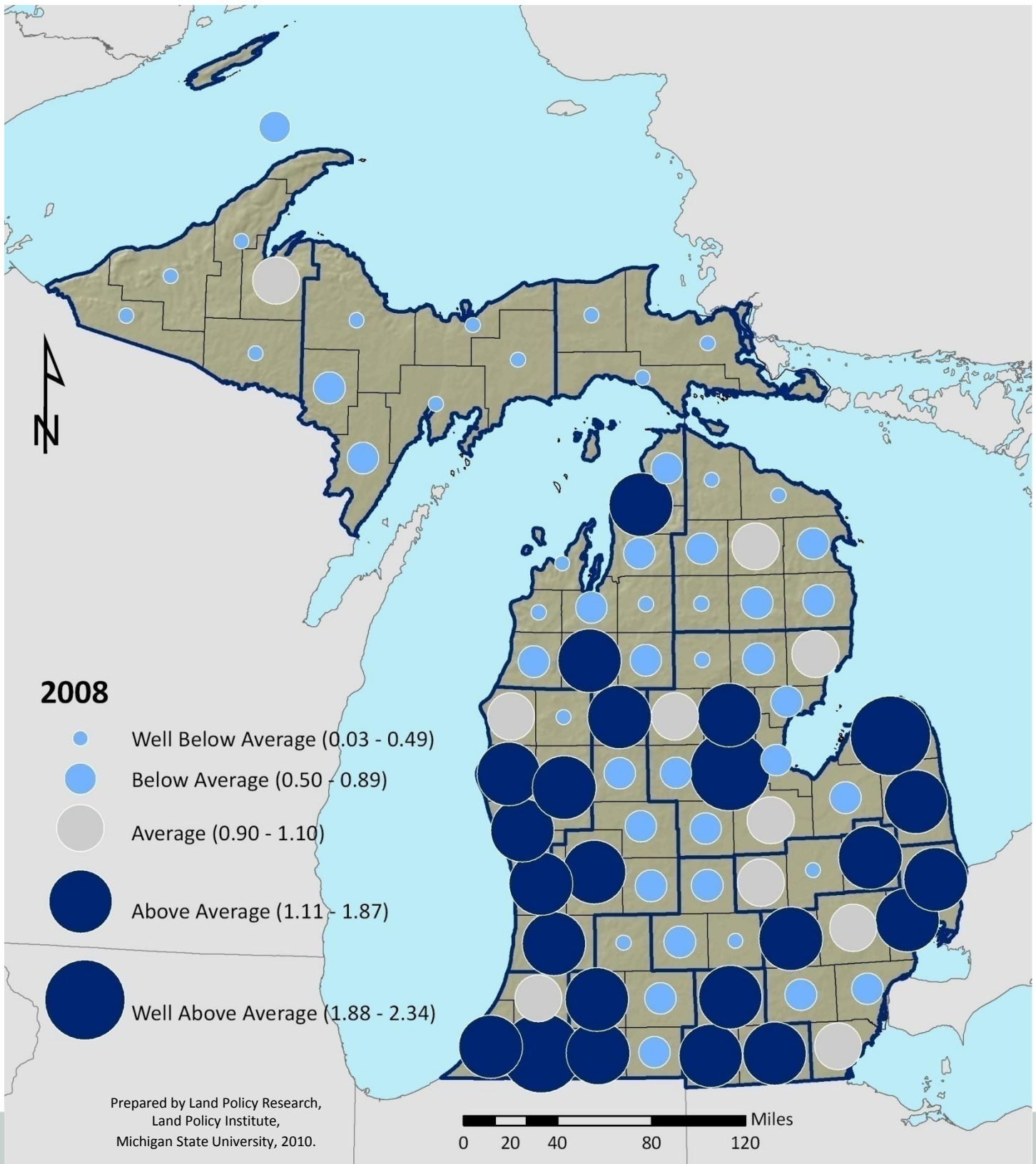
## Regional Location Quotient Distribution



## Change in Regional Location Quotient Distribution 2002-2008

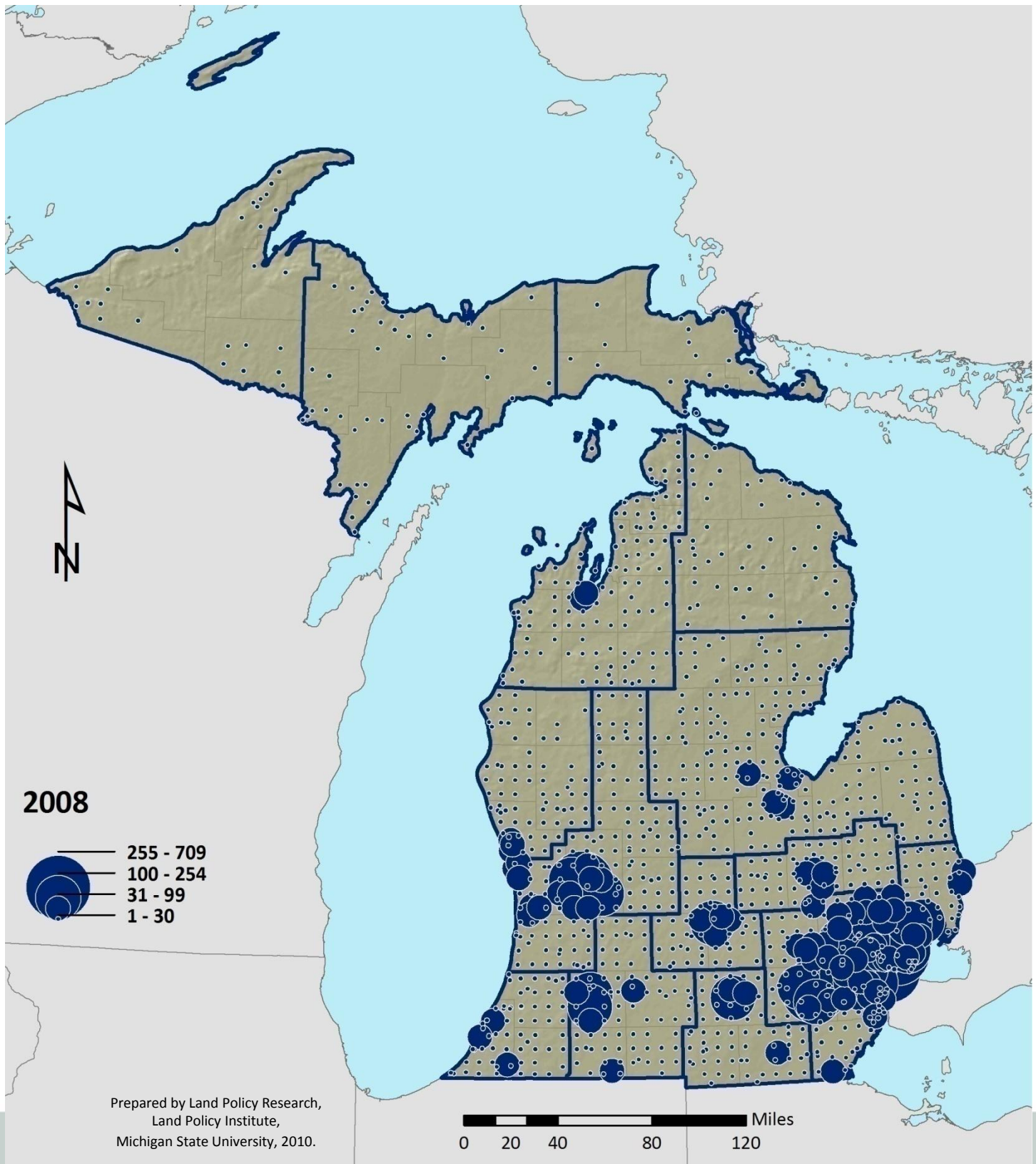


## County Location Quotient Distribution



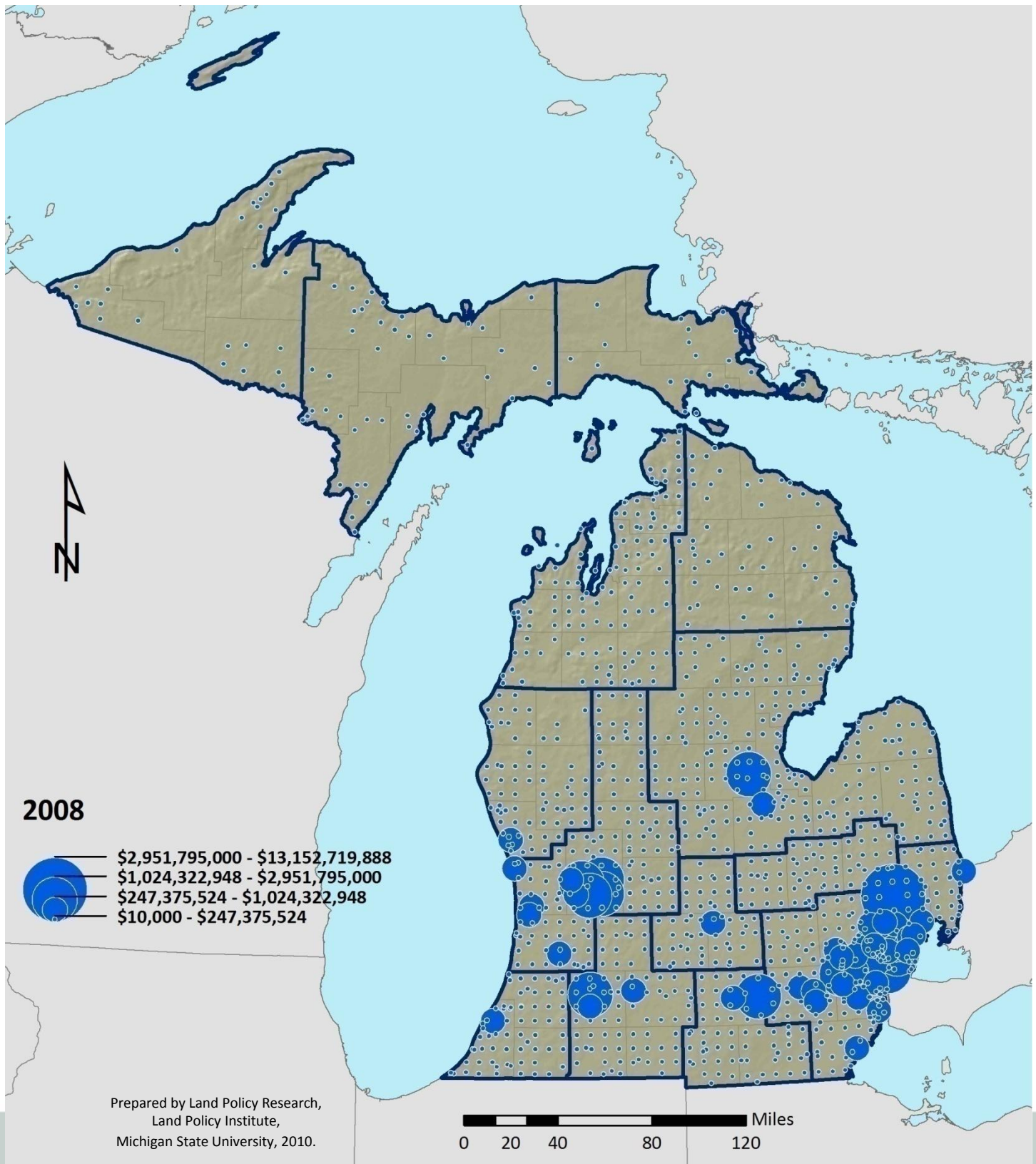


## Establishments Statewide

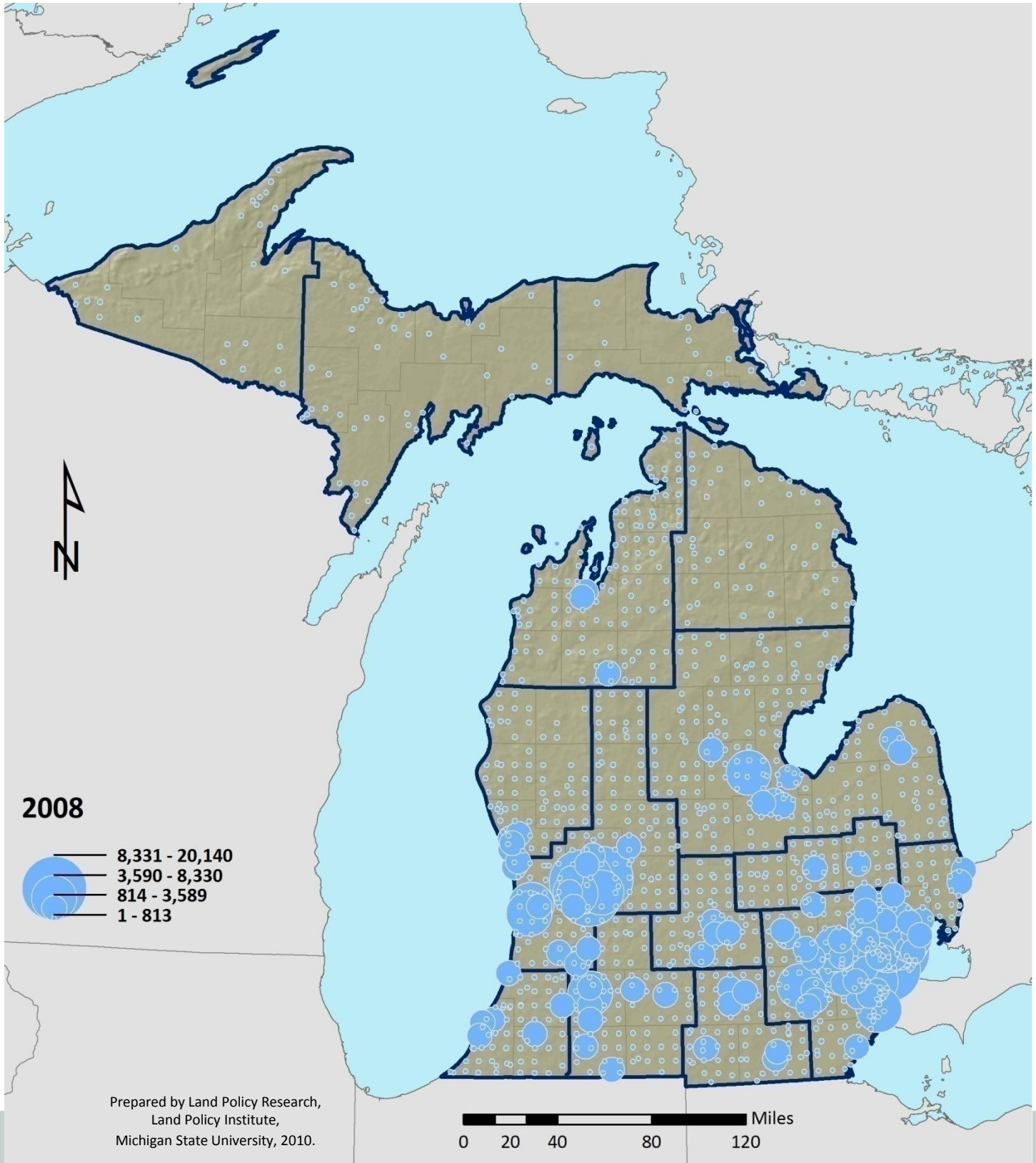




## Sales Statewide



## Employment Statewide



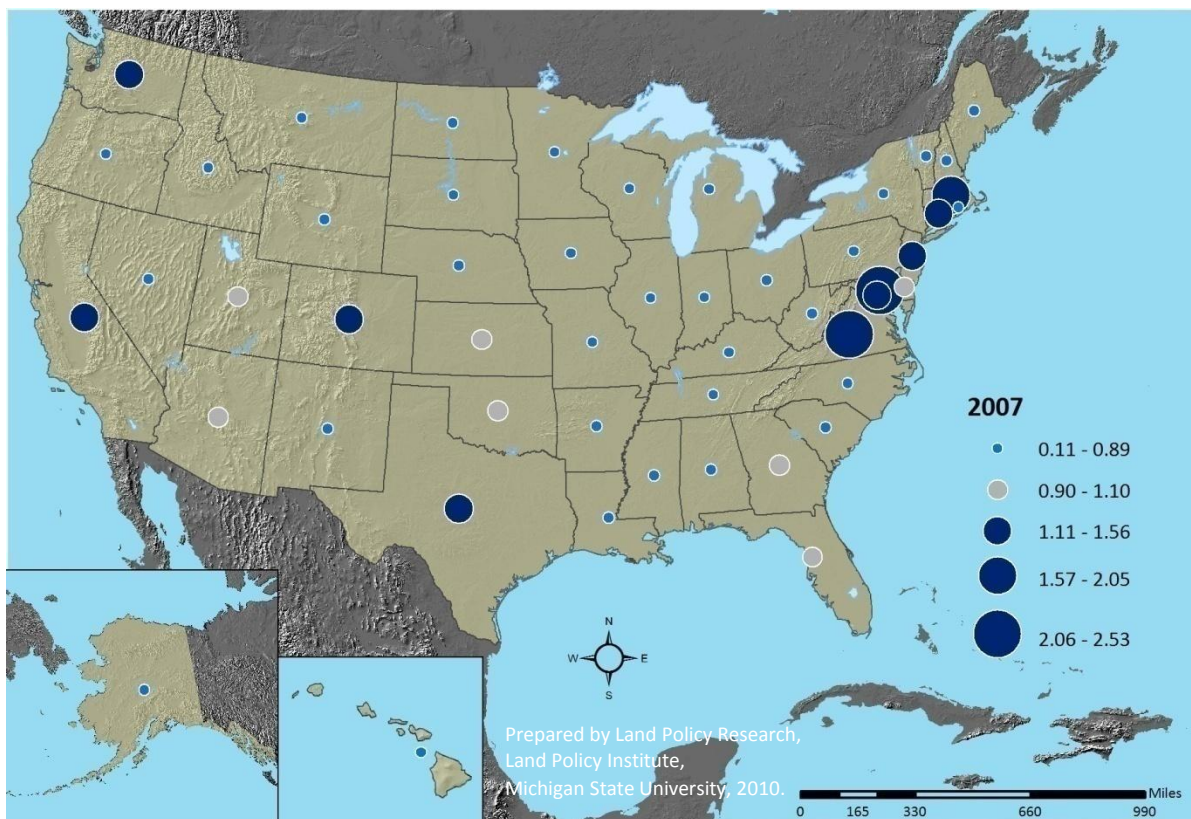
# Aerospace Cluster Analysis

This cluster includes parts manufacture, satellite communications, computer systems control etc. (for a complete specification see Appendix 1). While not a traditional anchor point for Michigan's economy, there are signs of growing demand in this sector, and that coupled with growing demand overseas may present an opportunity.

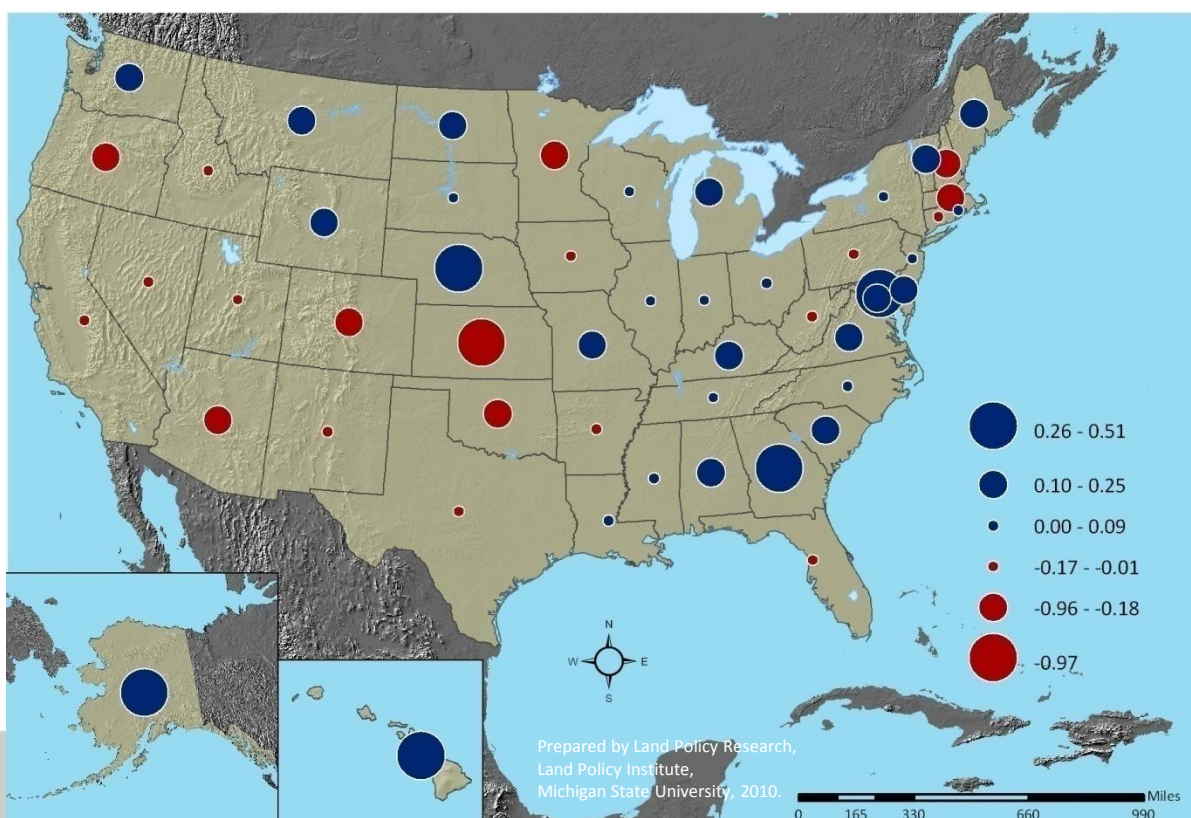




# National Location Quotient



## Change in Location Quotient 2003-2007





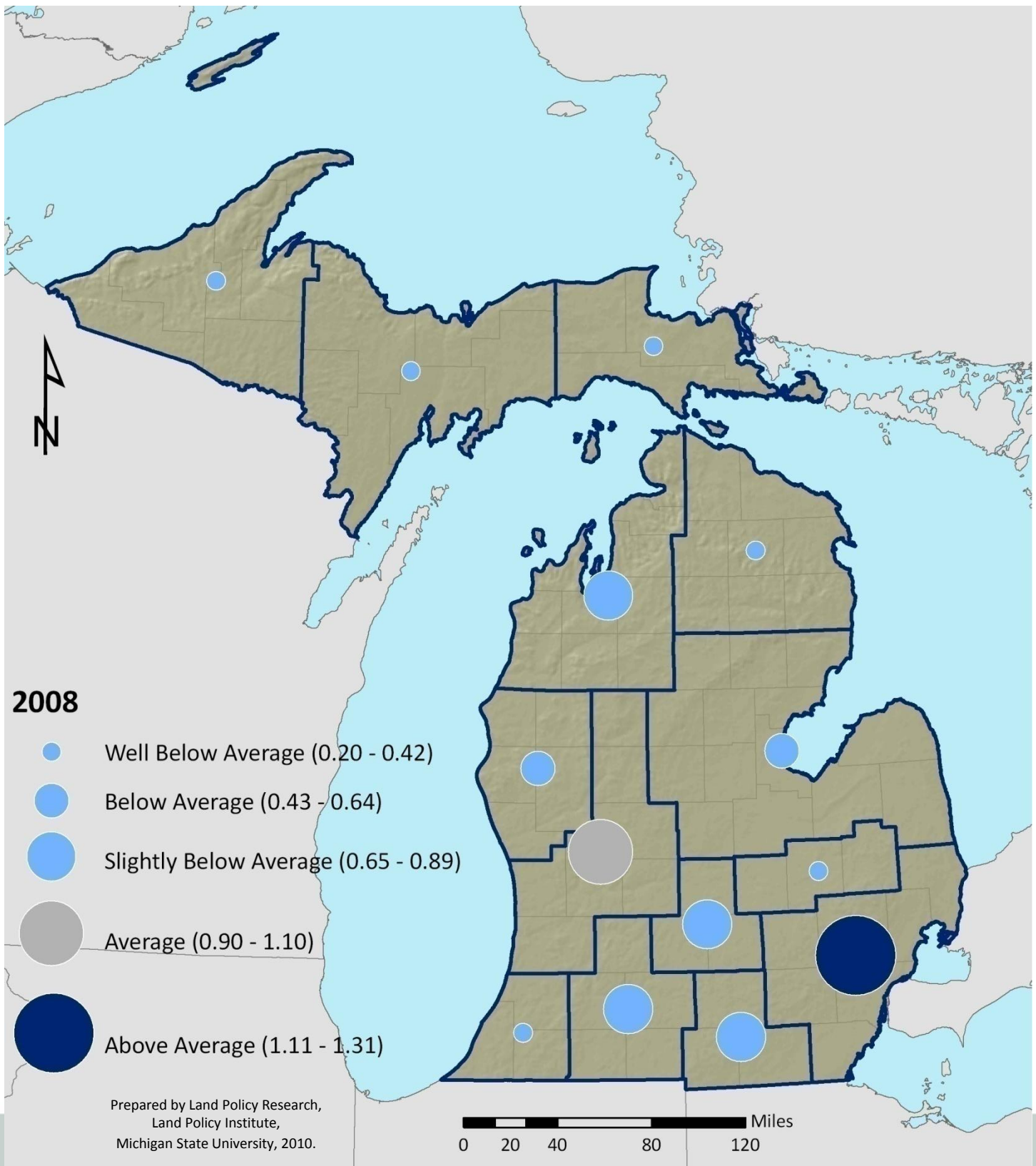


**LQ Change**

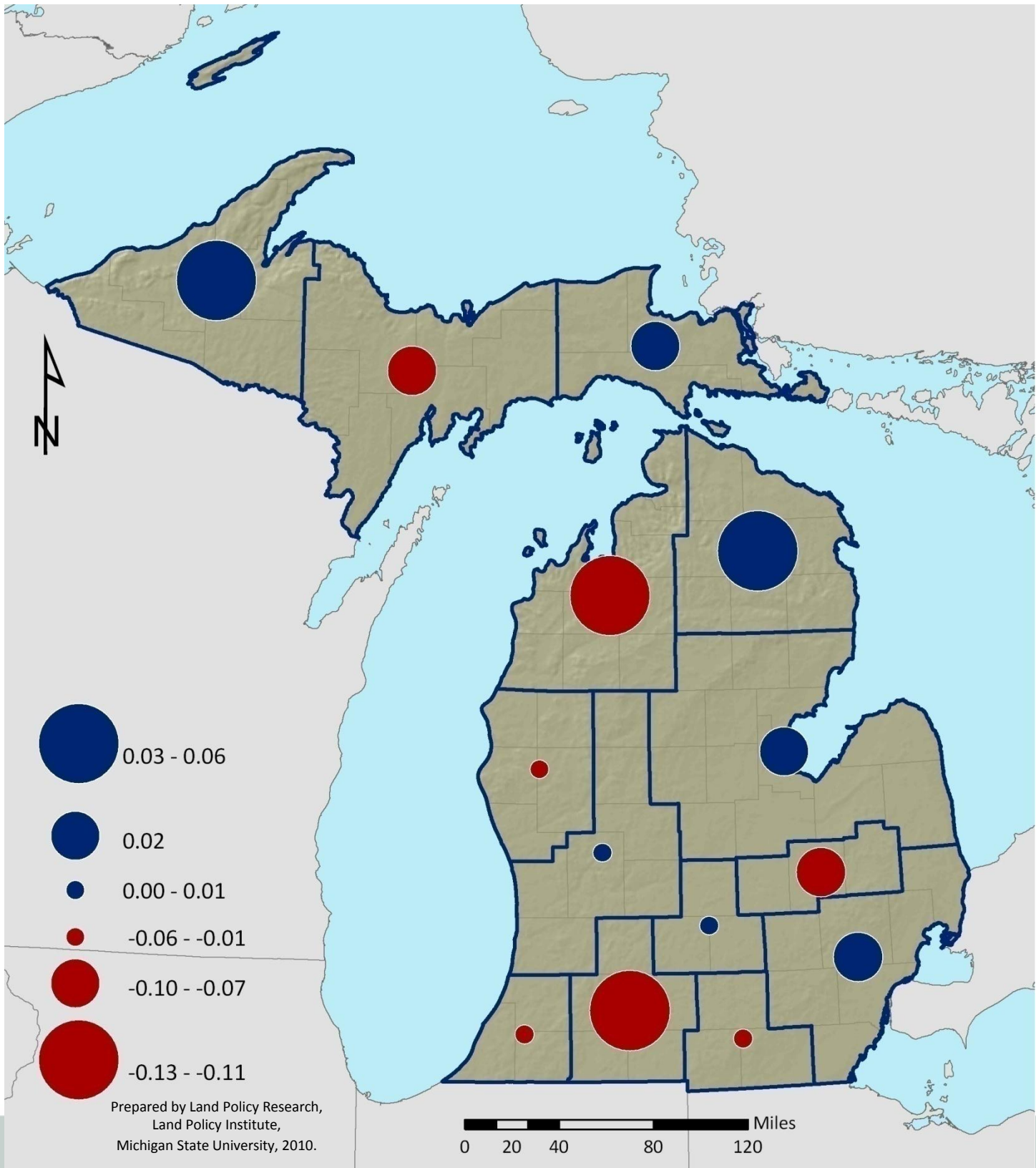
**2007 LQ**

State	2007 LQ (X)	LQ Change (Y)
VA	0.15	2.55
MD	0.30	2.45
MA	-0.35	1.65
CA	-0.05	1.55
CT	-0.10	1.45
NJ	0.10	1.45
DC	0.15	1.35
WA	0.20	1.35
GA	0.30	1.05
TX	-0.05	1.15
CO	-0.20	1.30
AZ	-0.20	1.05
OK	-0.15	1.00
UT	-0.05	0.95
FL	0.00	0.90
KS	-1.00	0.90
MN	-0.45	0.75
NH	-0.20	0.80
OR	-0.15	0.70
PA	-0.05	0.75
NY	0.05	0.80
IL	0.10	0.85
DE	0.15	0.85
AT	0.20	0.85
NE	0.50	0.85
AK	0.35	0.70
HI	0.30	0.60
VT	0.25	0.55
SC	0.15	0.55
NC	0.10	0.55
RI	0.05	0.55
IN	0.05	0.55
MI	0.10	0.55
MO	0.15	0.55
WV	-0.05	0.20
IA	0.00	0.20
ND	0.10	0.20
WY	0.20	0.20
SD	0.00	0.10
MS	0.05	0.10
TN	0.05	0.10
LA	0.05	0.10
ME	0.10	0.10
MT	0.15	0.10
WY	0.20	0.10
WV	-0.05	0.30
AR	-0.10	0.30
NM	-0.05	0.40
NV	0.00	0.30
ID	0.05	0.30
WI	0.05	0.40
OH	0.10	0.40
NY	0.05	0.50
IN	0.05	0.60
RI	0.05	0.60
NC	0.10	0.60
MI	0.10	0.70
MO	0.15	0.70
AT	0.20	0.70
DE	0.15	0.80
IL	0.10	0.80
VA	0.15	0.80
MD	0.30	0.80
GA	0.30	0.80
NE	0.50	0.80
AK	0.35	0.70
HI	0.30	0.60
VT	0.25	0.55
SC	0.15	0.55
NC	0.10	0.55
RI	0.05	0.55
IN	0.05	0.55
MI	0.10	0.55
MO	0.15	0.55
AT	0.20	0.55
DE	0.15	0.80
IL	0.10	0.80
VA	0.15	0.80
MD	0.30	0.80
GA	0.30	0.80
NE	0.50	0.80
AK	0.35	0.70
HI	0.30	0.60
VT	0.25	0.55
SC	0.15	0.55
NC	0.10	0.55
RI	0.05	0.55
IN	0.05	0.55
MI	0.10	0.55
MO	0.15	0.55
AT	0.20	0.55
DE	0.15	0.80
IL	0.10	0.80
VA	0.15	0.80
MD	0.30	0.80
GA	0.30	0.80
NE	0.50	0.80
AK	0.35	0.70
HI	0.30	0.60
VT	0.25	0.55
SC	0.15	0.55
NC	0.10	0.55
RI	0.05	0.55
IN	0.05	0.55
MI	0.10	0.55
MO	0.15	0.55
AT	0.20	0.55
DE	0.15	0.80
IL	0.10	0.80
VA	0.15	0.80
MD	0.30	0.80
GA	0.30	0.80
NE	0.50	0.80
AK	0.35	0.70
HI	0.30	0.60
VT	0.25	0.55
SC	0.15	0.55
NC	0.10	0.55
RI	0.05	0.55
IN	0.05	0.55
MI	0.10	0.55
MO	0.15	0.55
AT	0.20	0.55
DE	0.15	0.80
IL	0.10	0.80
VA	0.15	0.80
MD	0.30	0.80
GA	0.30	0.80
NE	0.50	0.80
AK	0.35	0.70
HI	0.30	0.60
VT	0.25	0.55
SC	0.15	0.55

# Regional Location Quotient Distribution

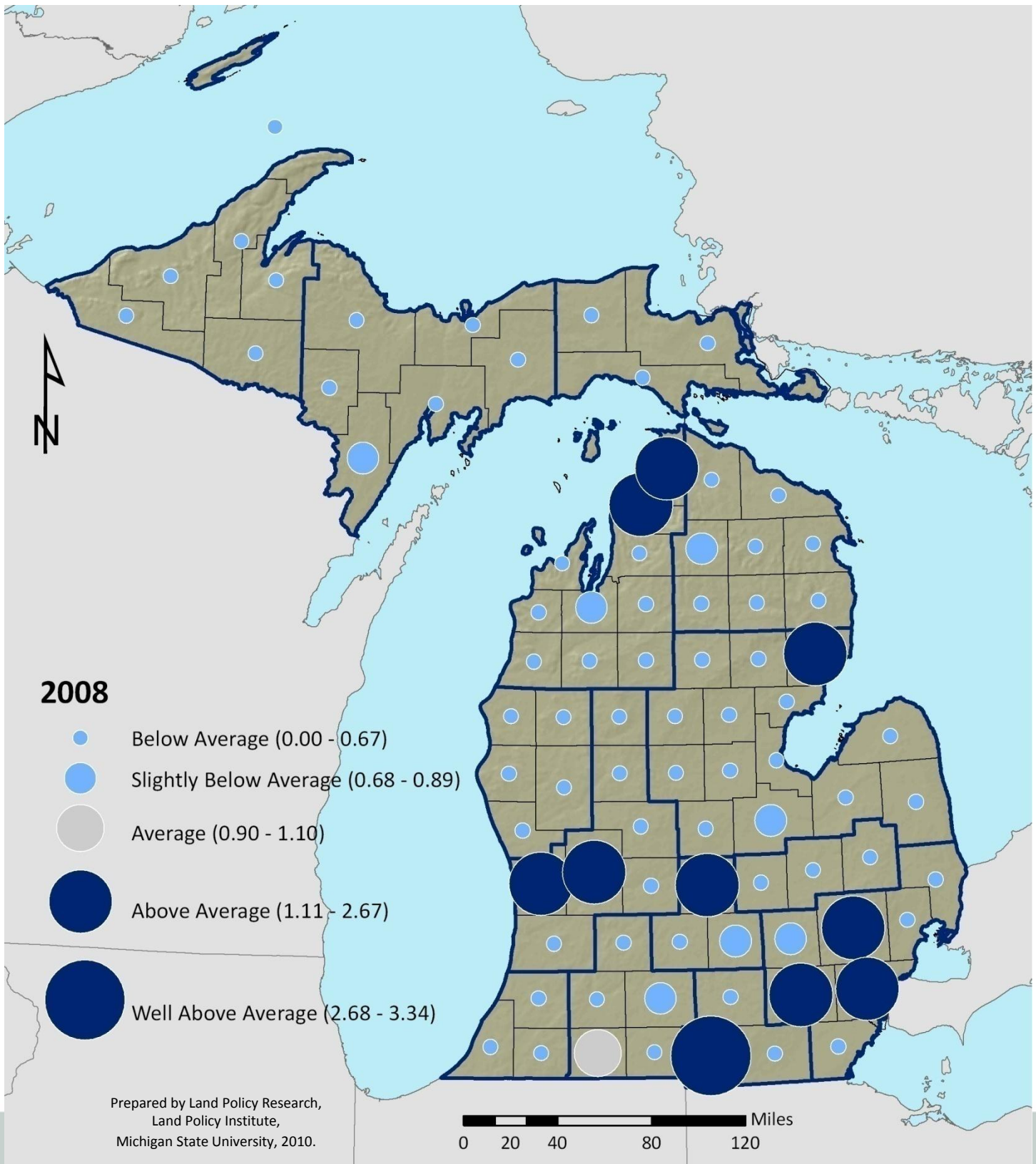


# Change in Regional Location Quotient Distribution 2002-2008



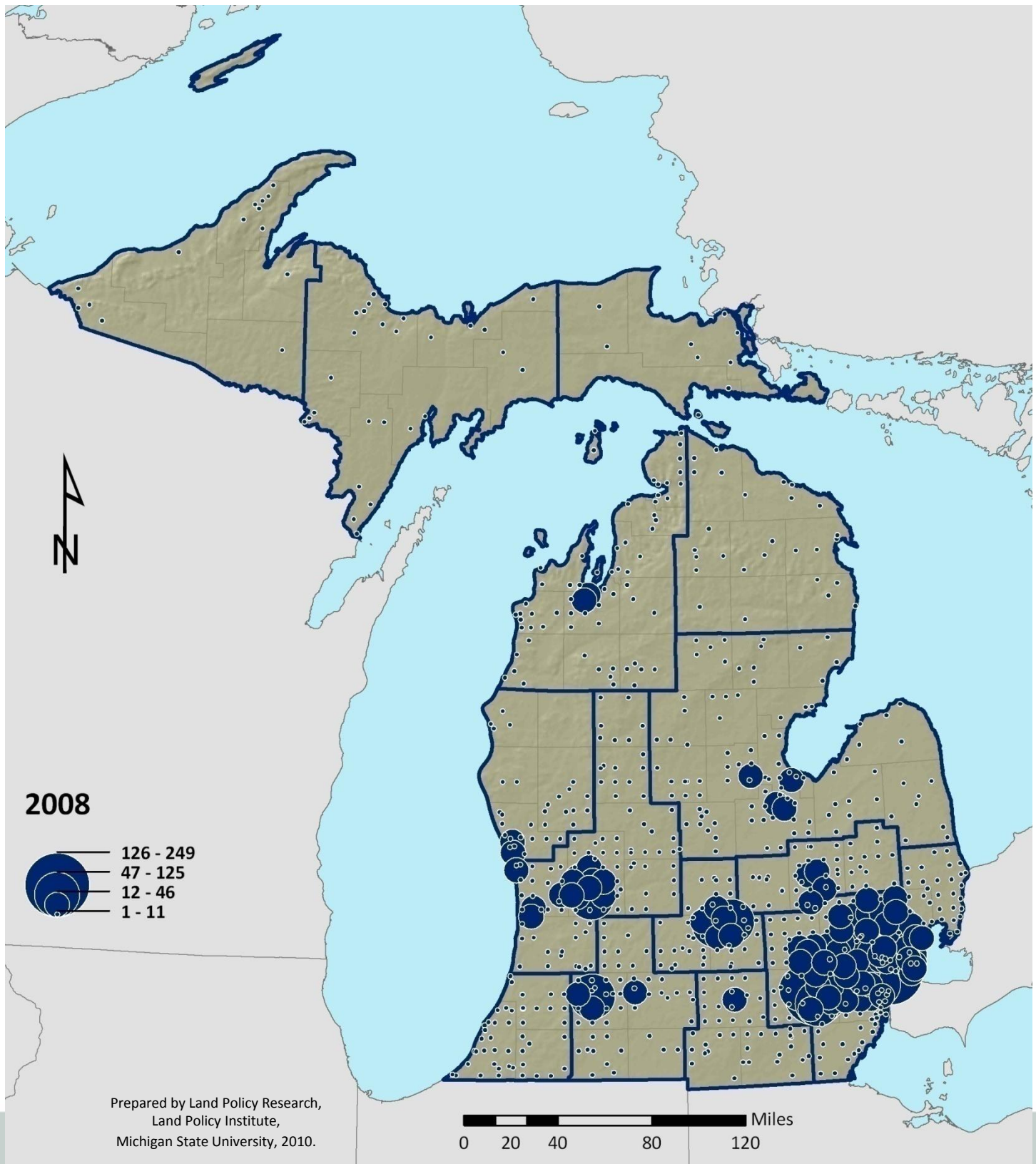


# County Location Quotient Distribution

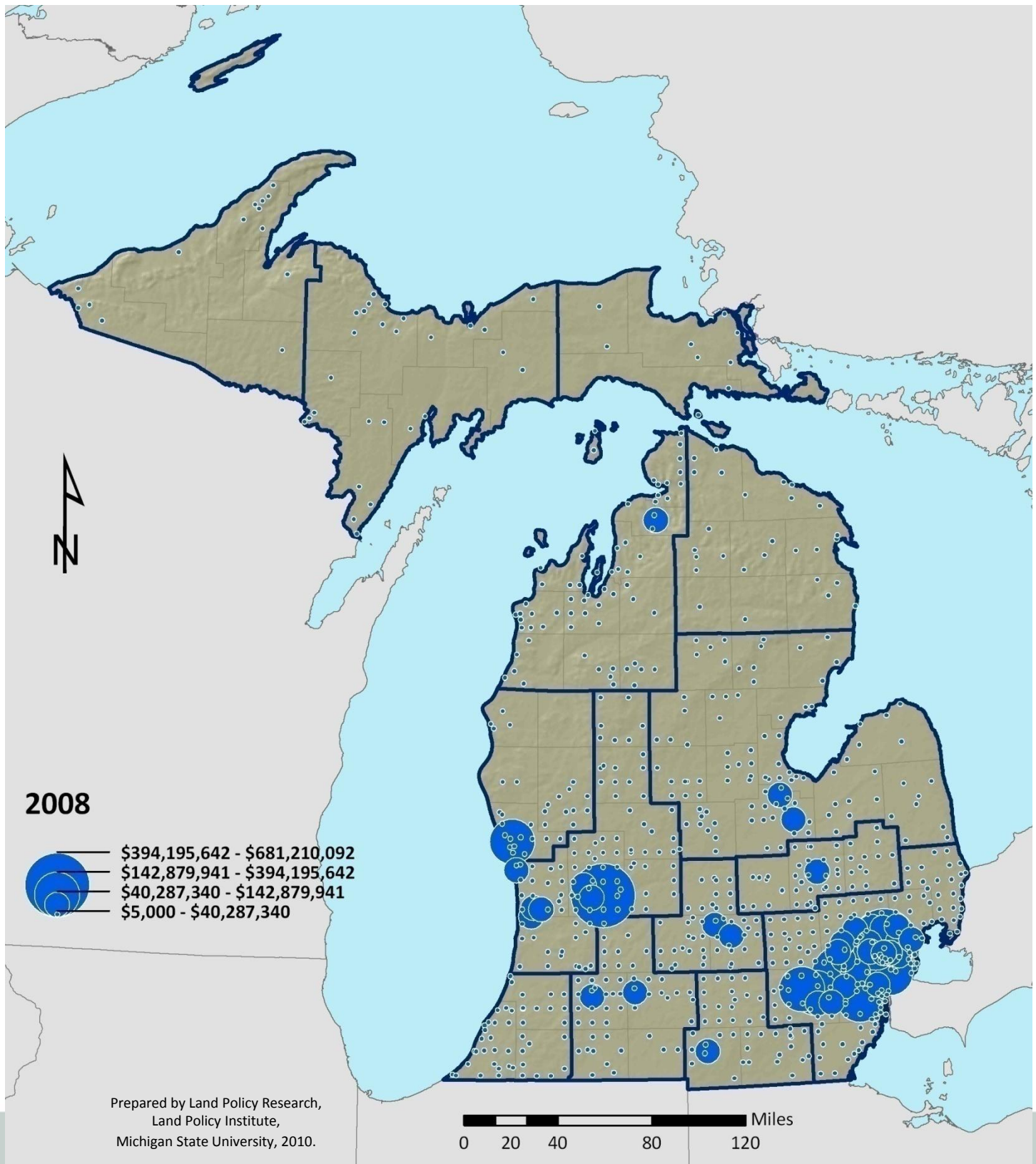




# Establishments Statewide

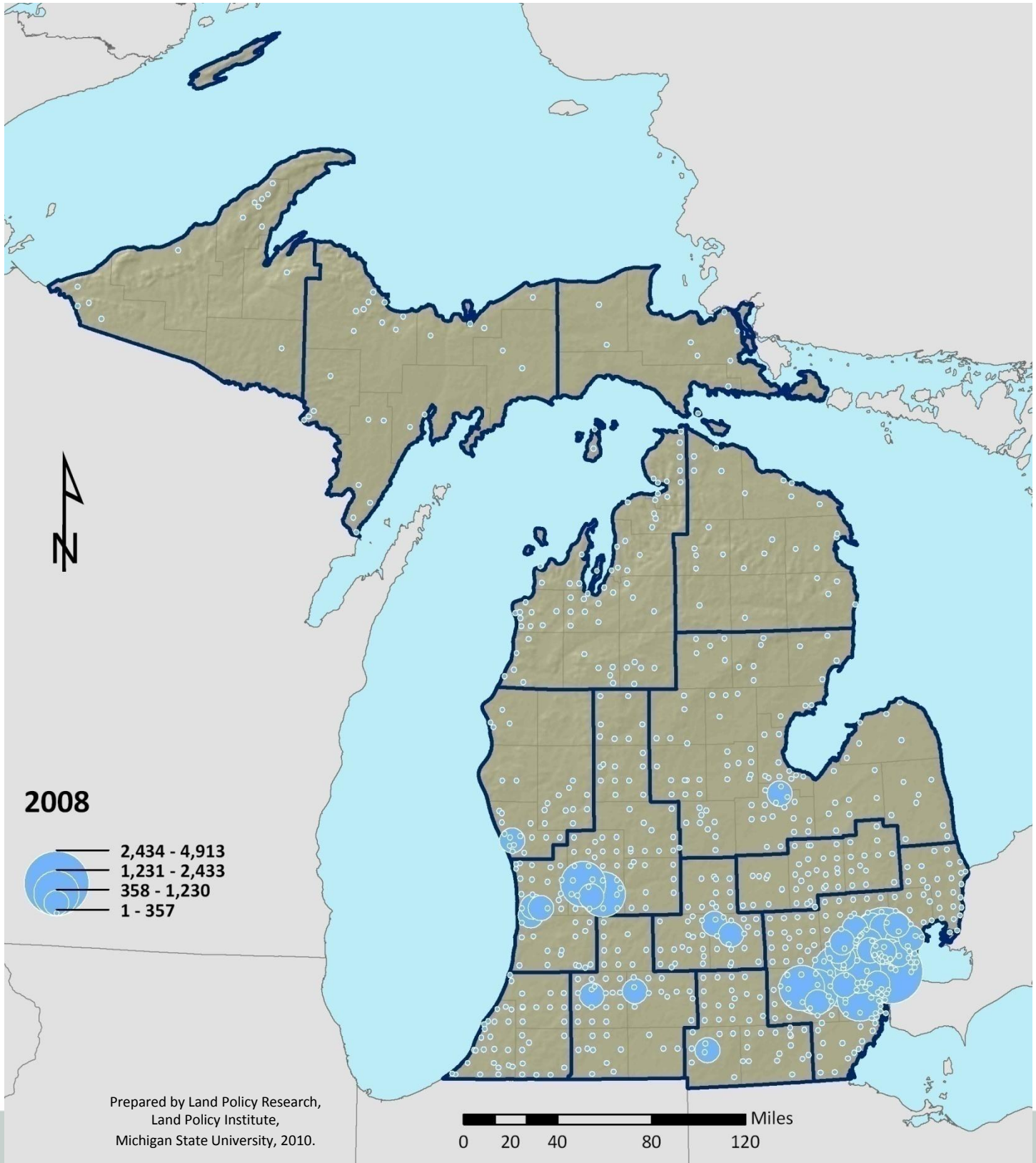


# Sales Statewide





# Employment Statewide



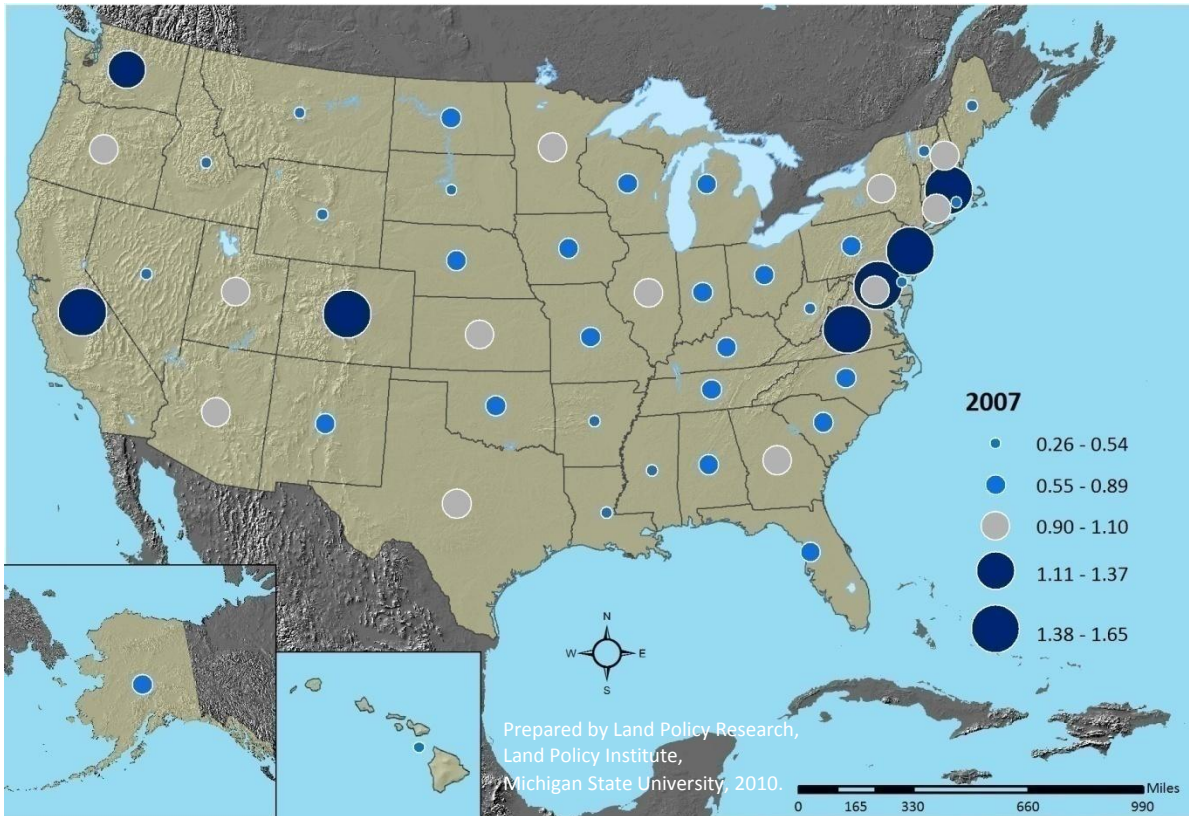
# Information Technology Cluster Analysis

This cluster includes industries such as broadband providers, web design and hosting, hardware manufacture service and support etc. (for a complete specification see Appendix 1). While not a traditional anchor point for Michigan's economy there are signs of strong current demand in this sector, and that coupled with growing demand nationally and globally may present an opportunity.

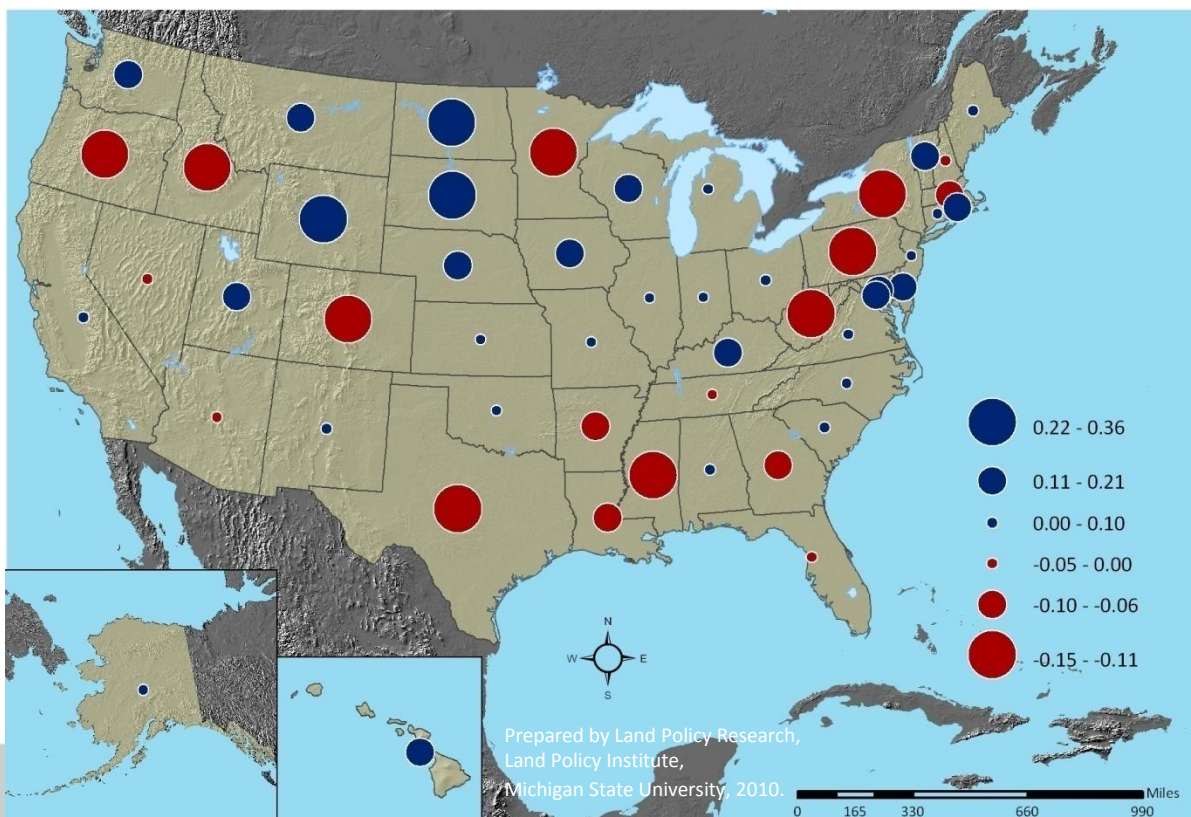




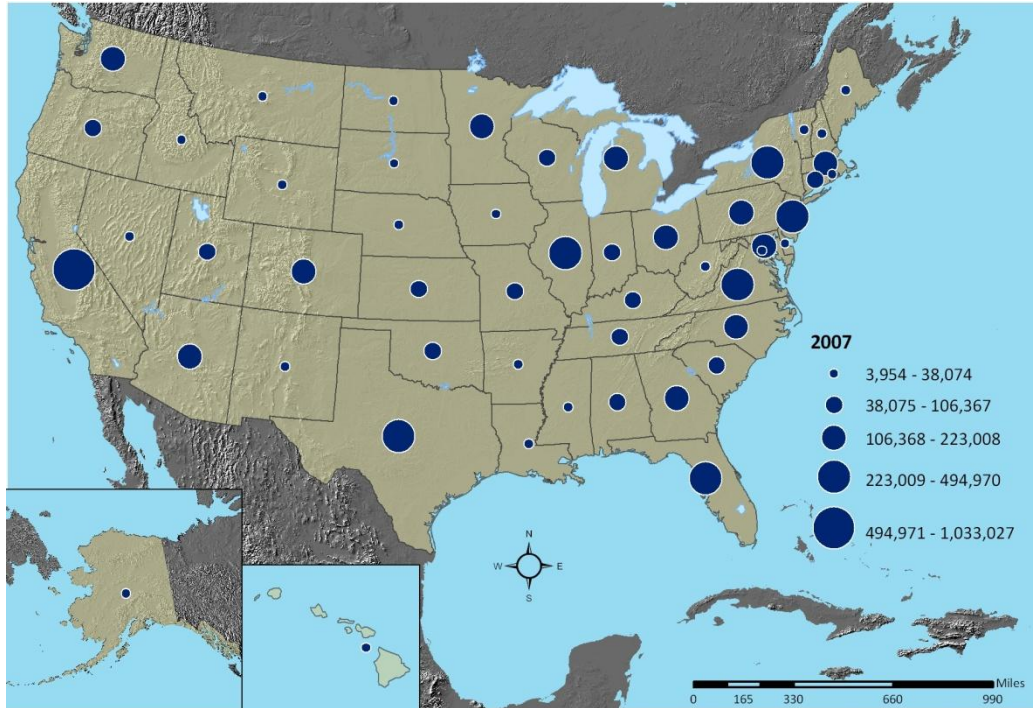
## National Location Quotient



## Change in Location Quotient 2003-2007

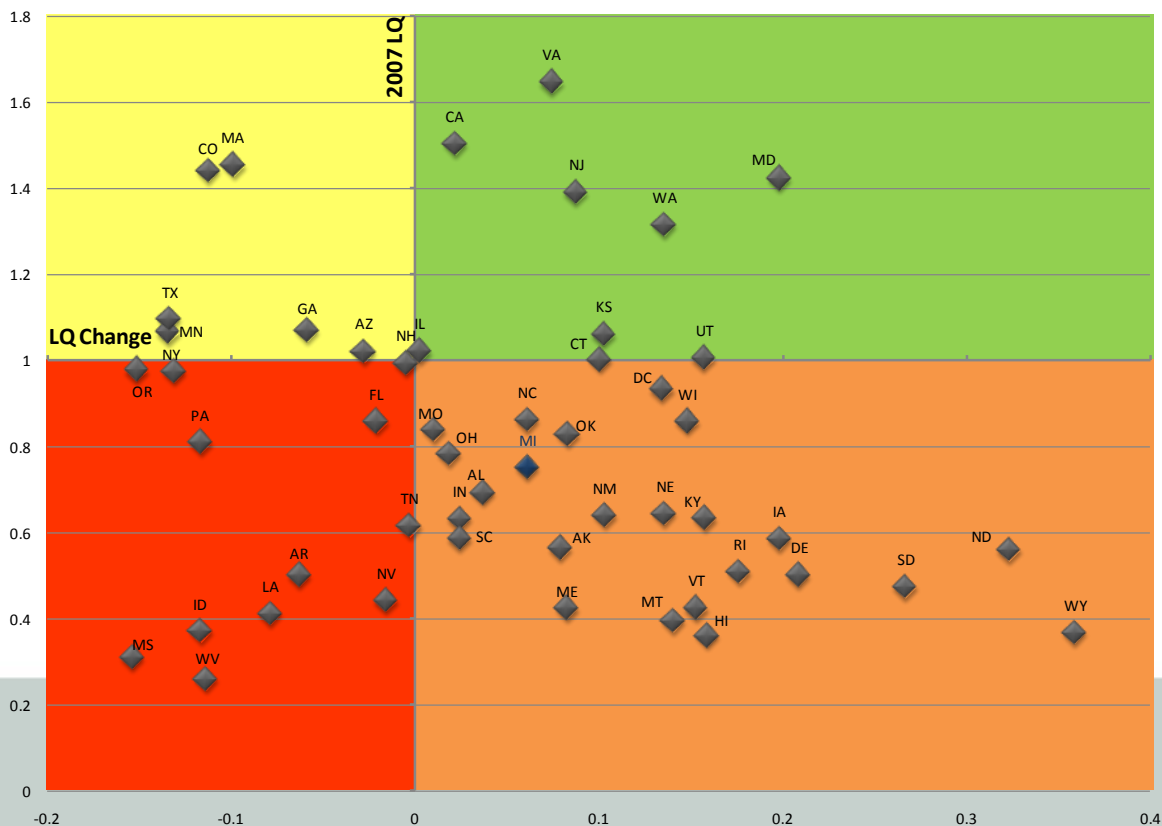


## National Employment Distribution



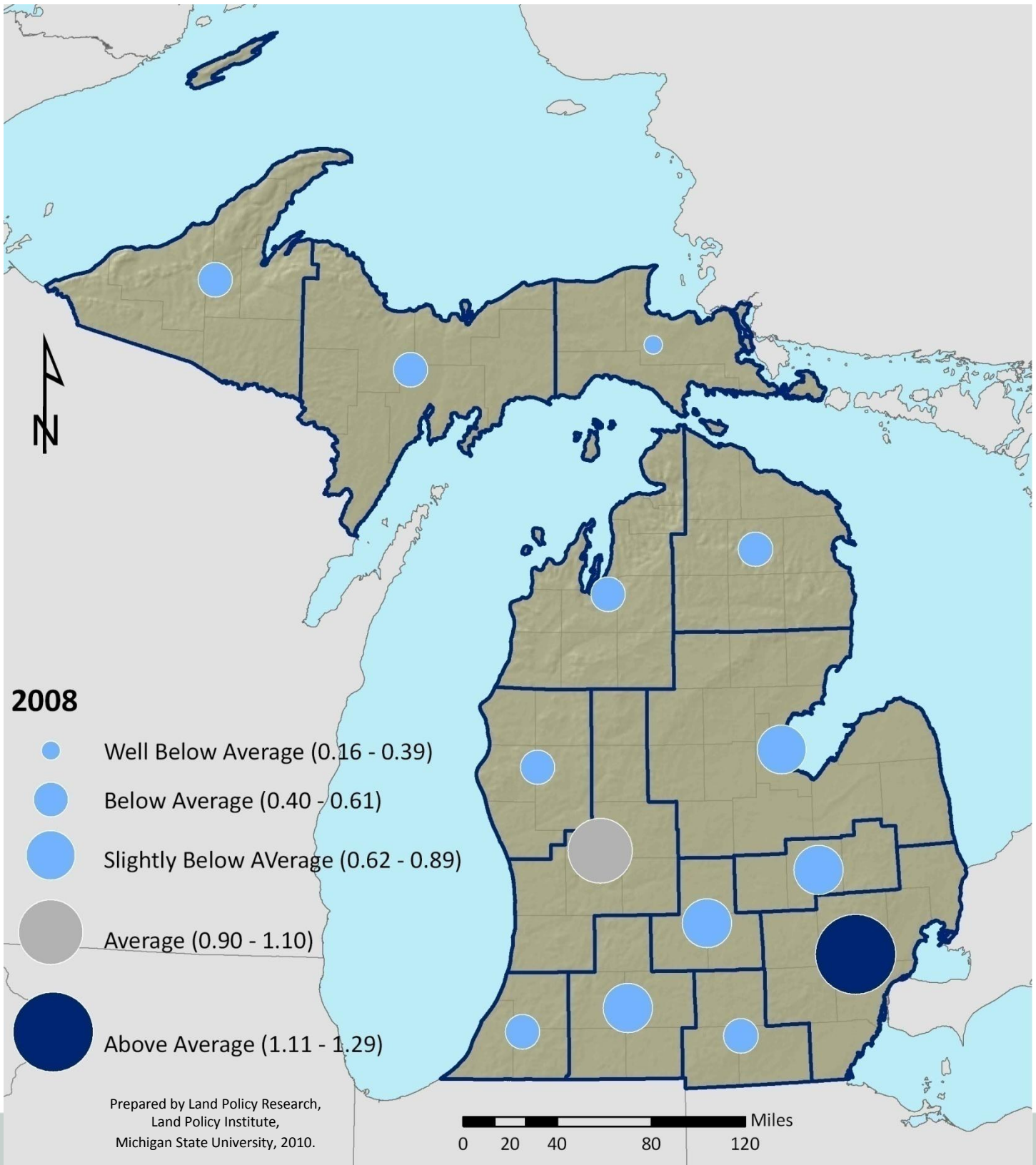
## 50 State Location Quotient Distribution

Information Technology State LQ Chart



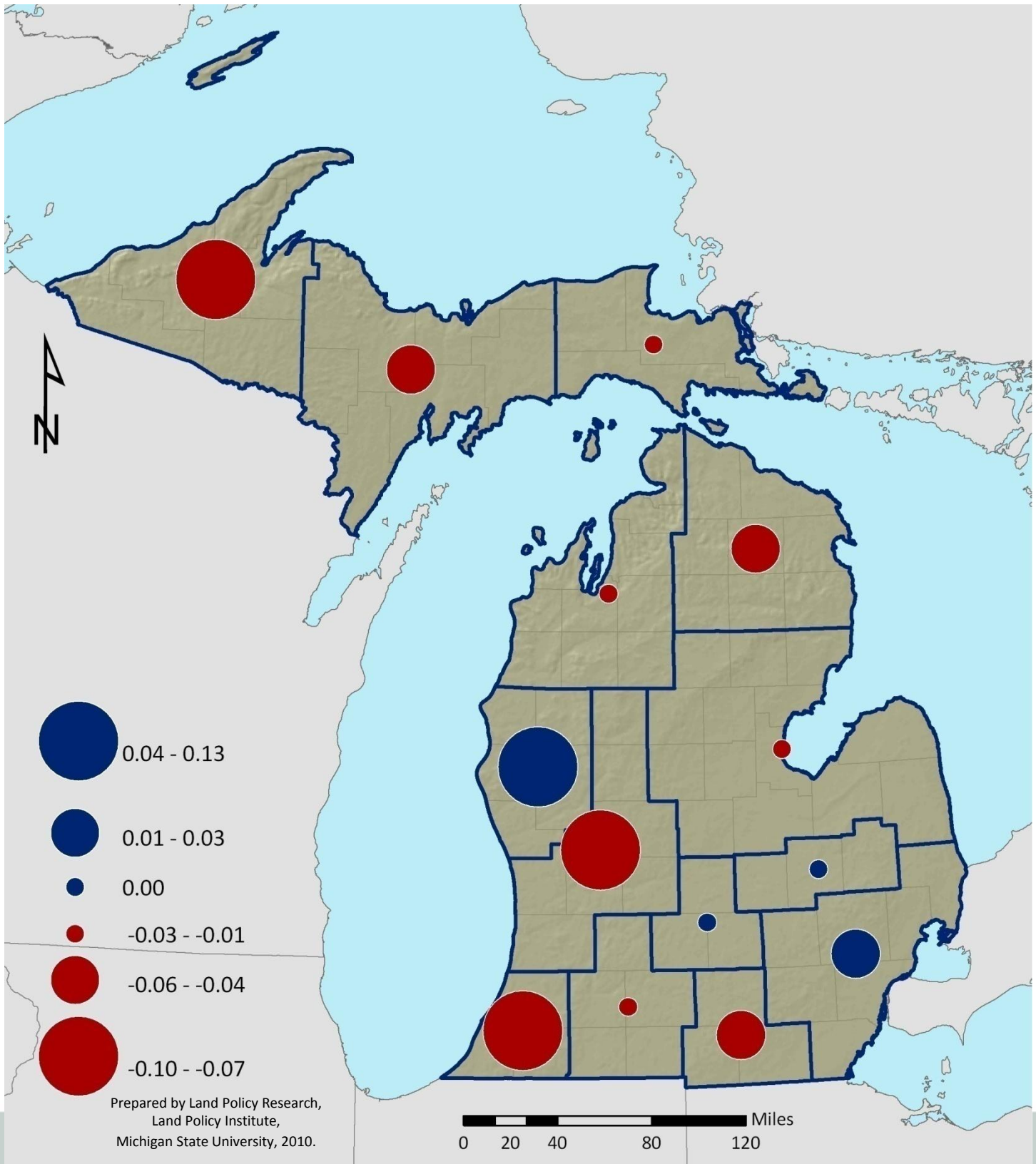


## Regional Location Quotient Distribution

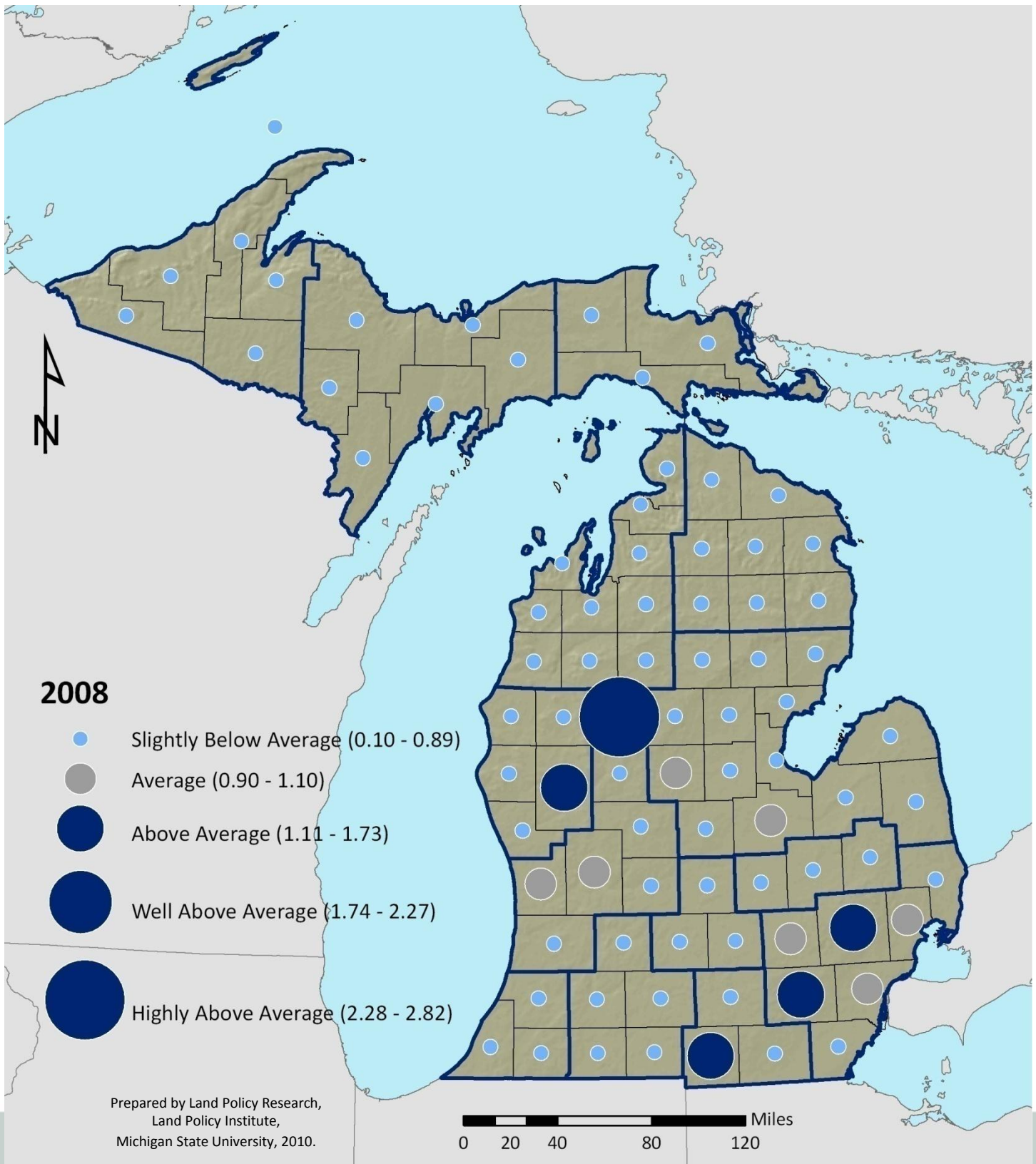




## Change in Regional Location Quotient Distribution 2002-2008

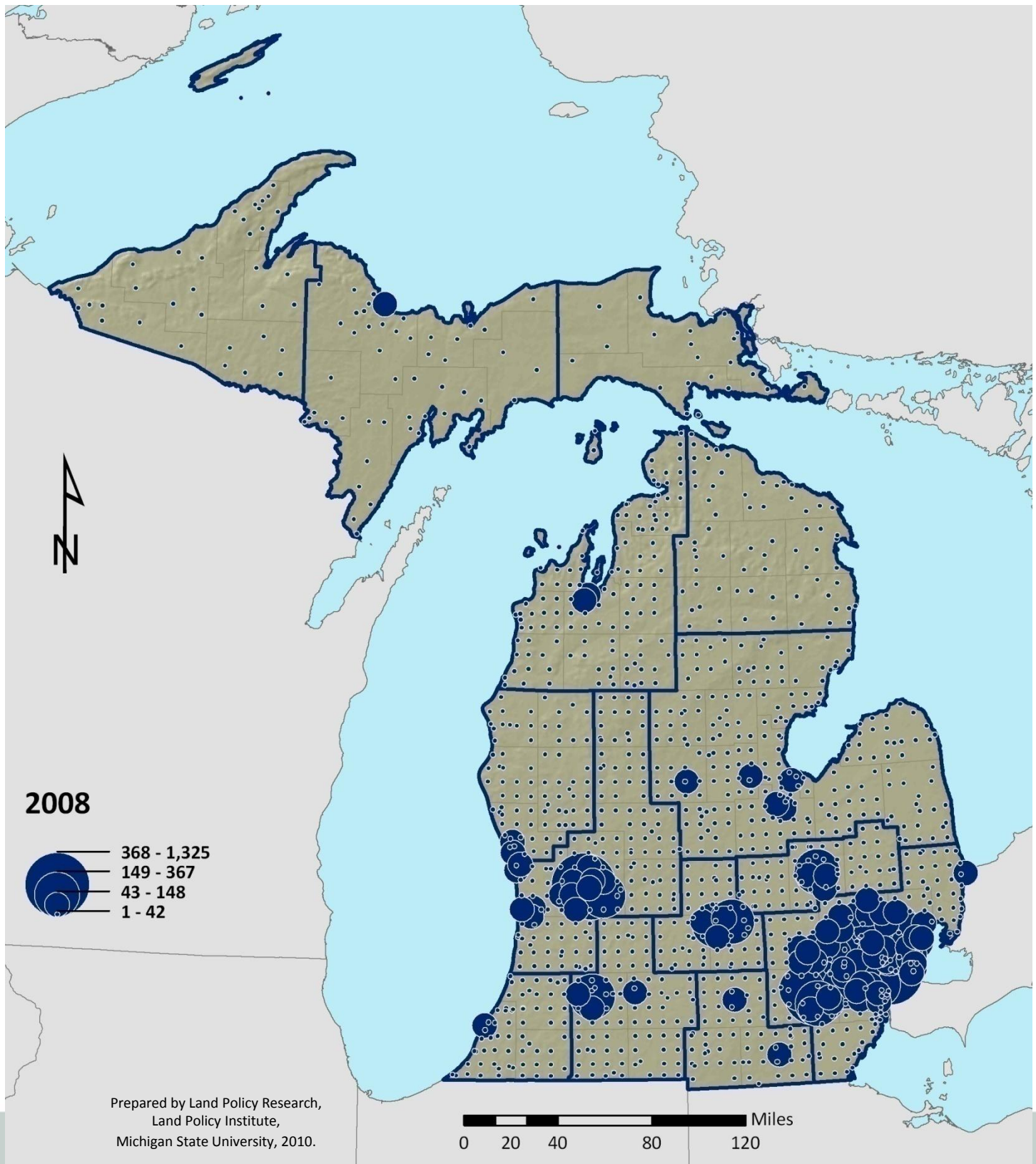


## County Location Quotient Distribution



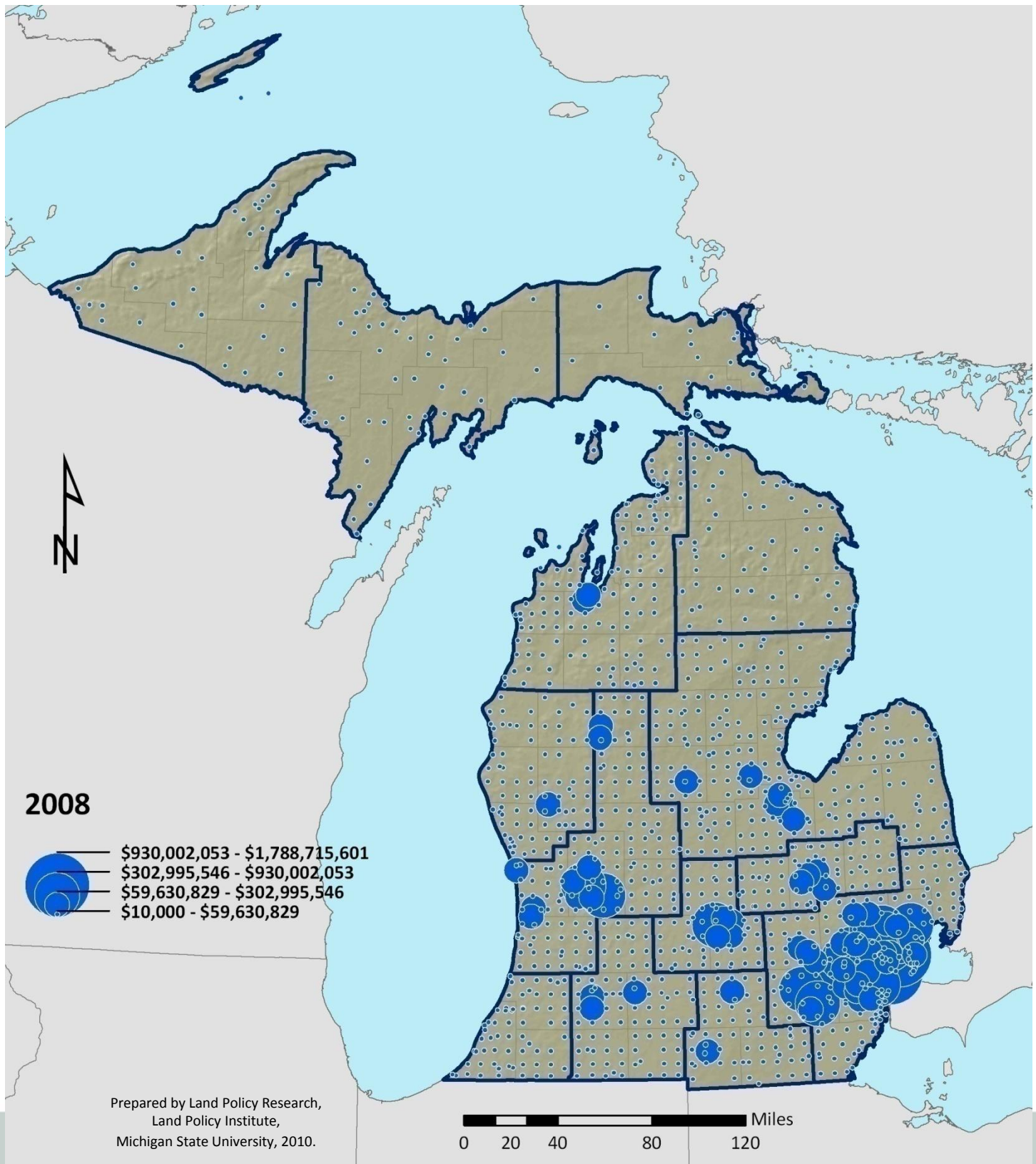


## Establishments Statewide

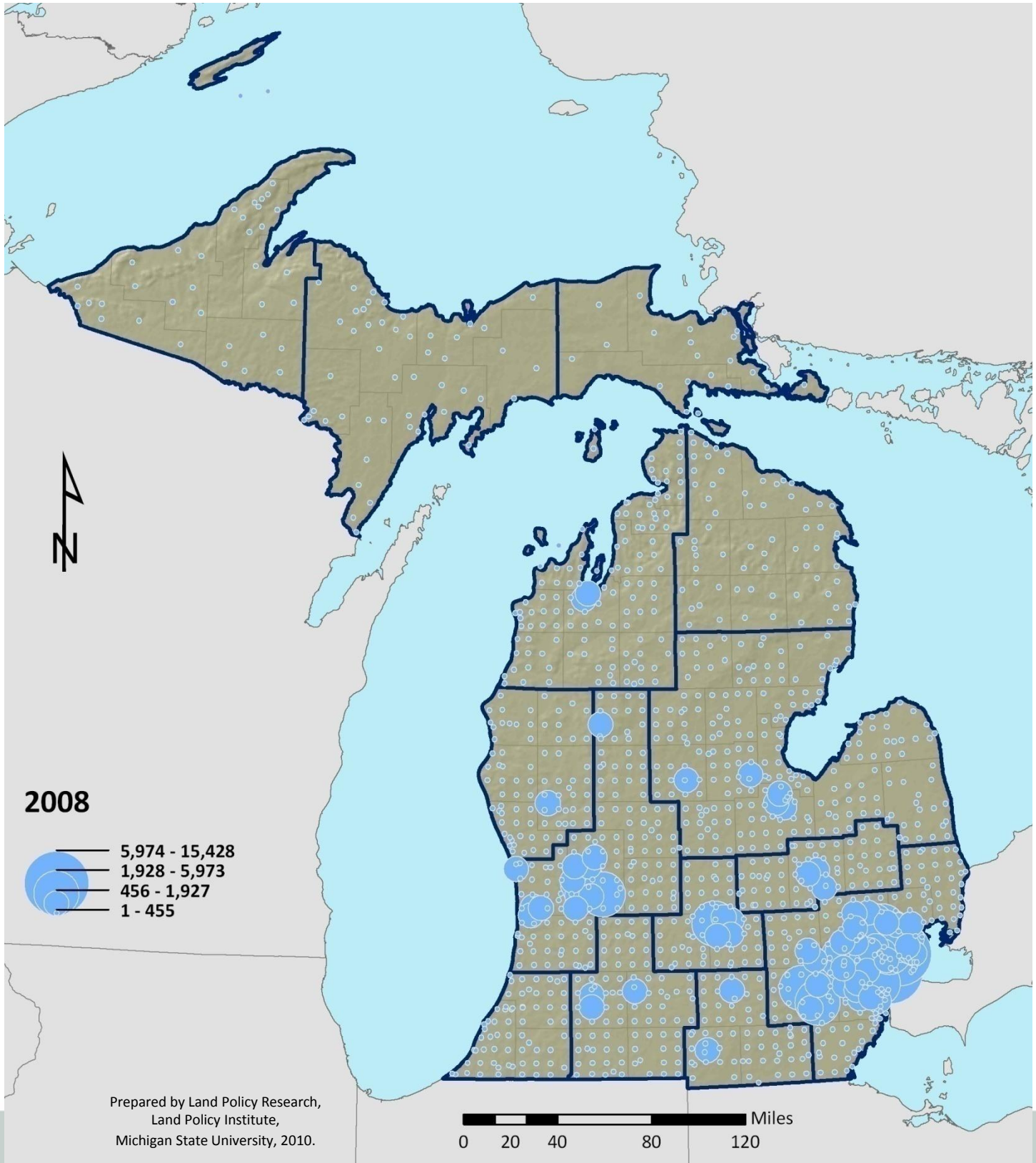




## Sales Statewide



## Employment Statewide



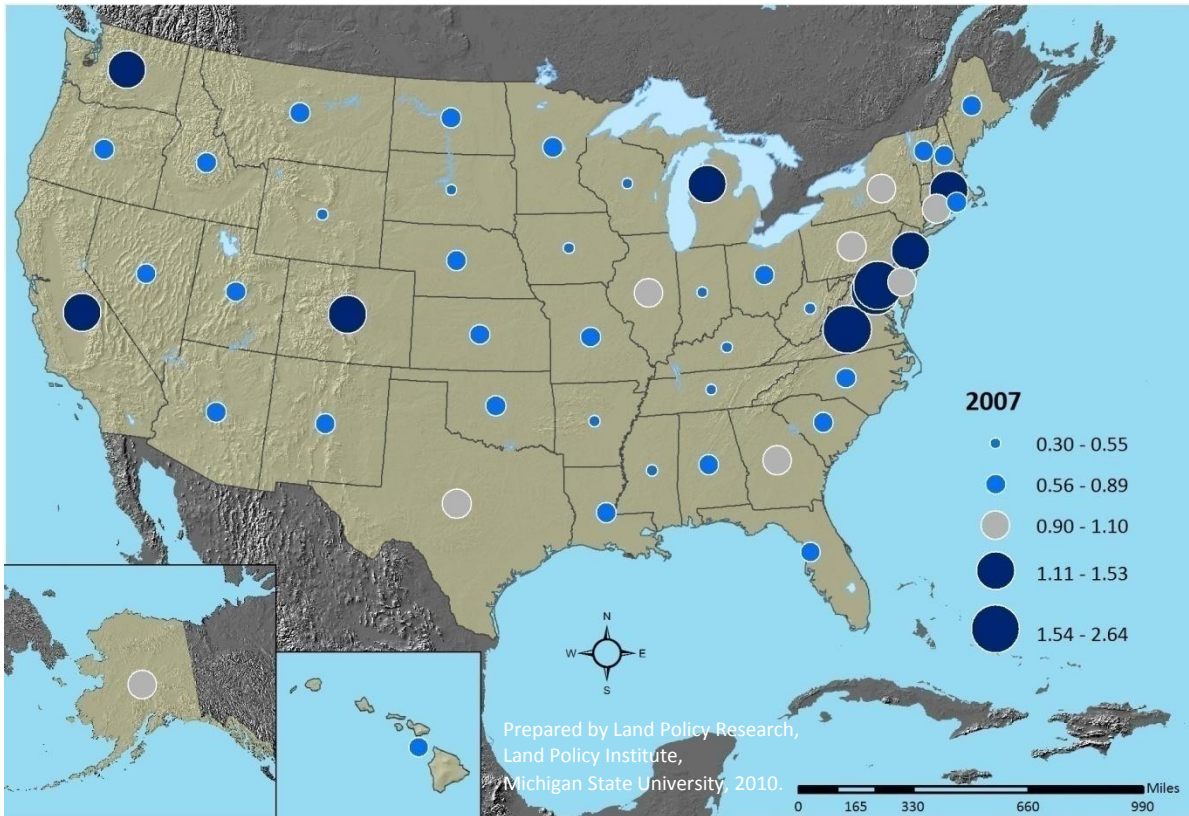
# Robotics and Automation Cluster Analysis

This cluster includes the industries manufacturing robotics, programming, automation design, maintenance, etc. (for a complete specification see Appendix 1). The auto industry was the original impetus for this cluster and the transfer of these developed technologies to other industries where productivity gains could be substantial presents opportunities in this cluster.

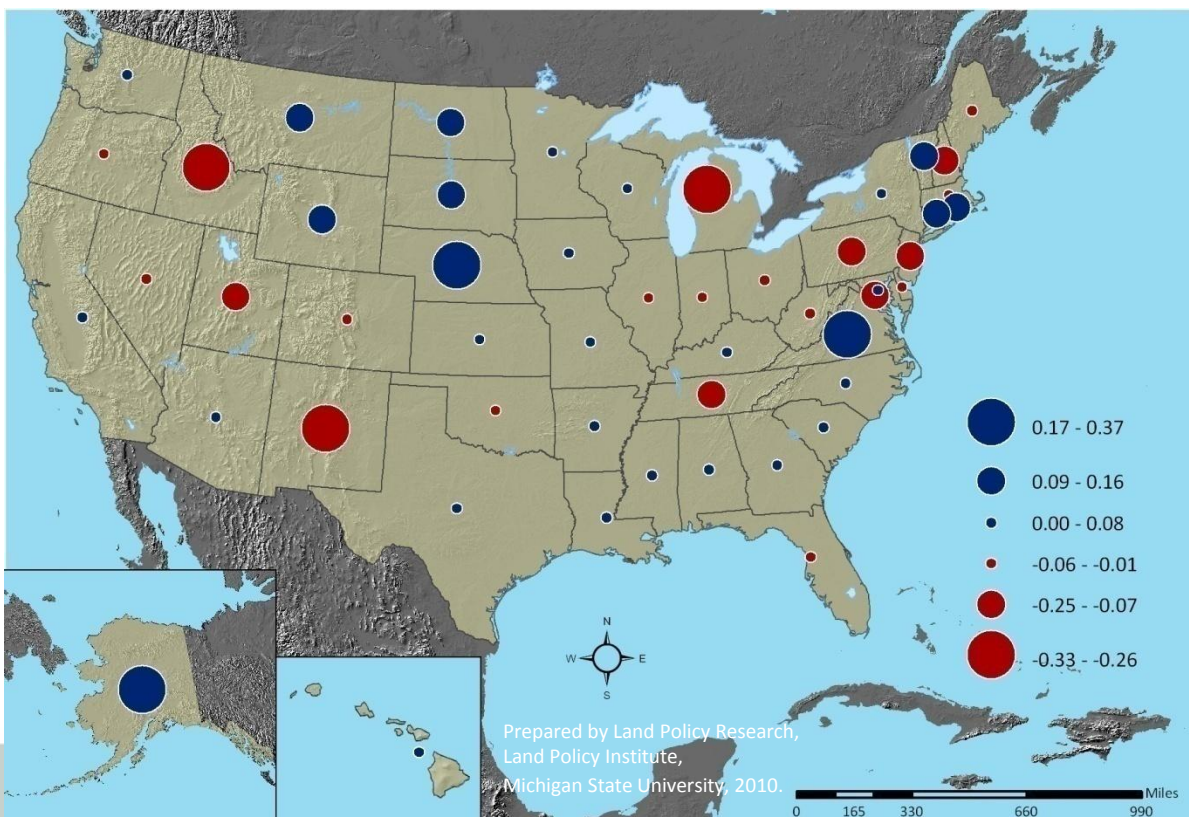




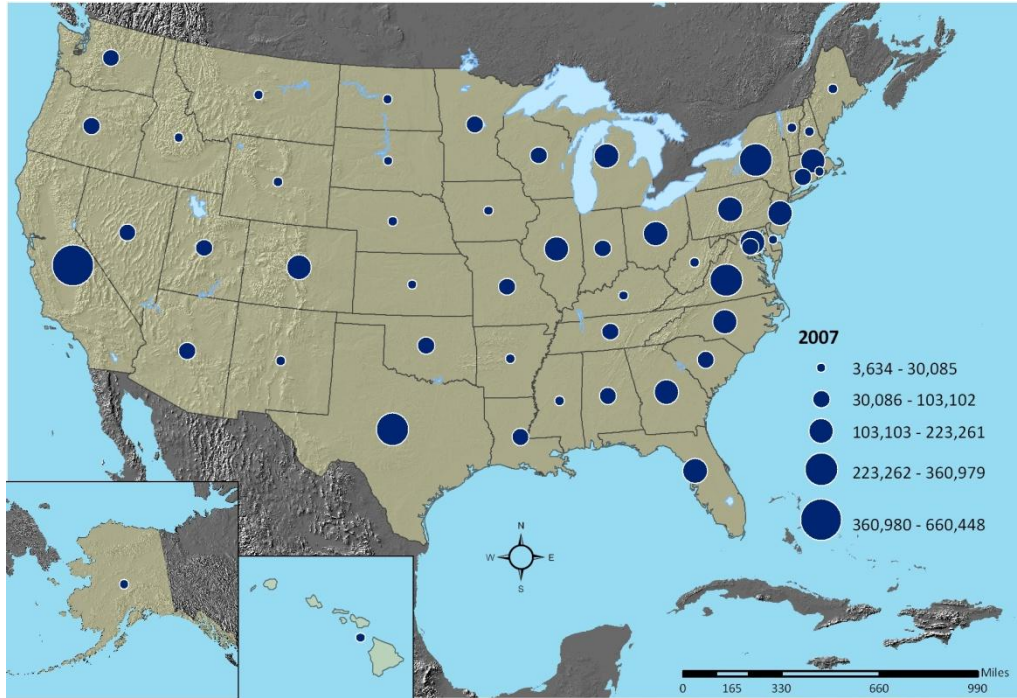
## National Location Quotient



## Change in Location Quotient 2003-2007

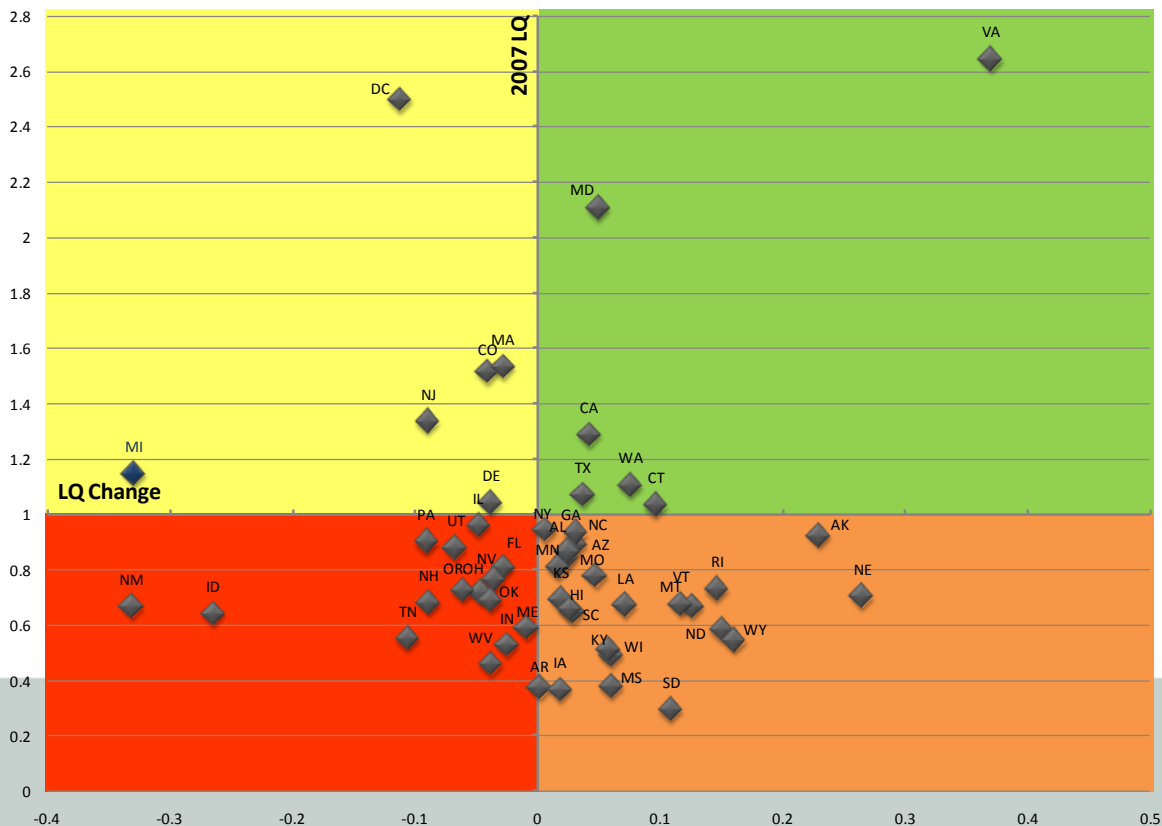


## National Employment Distribution



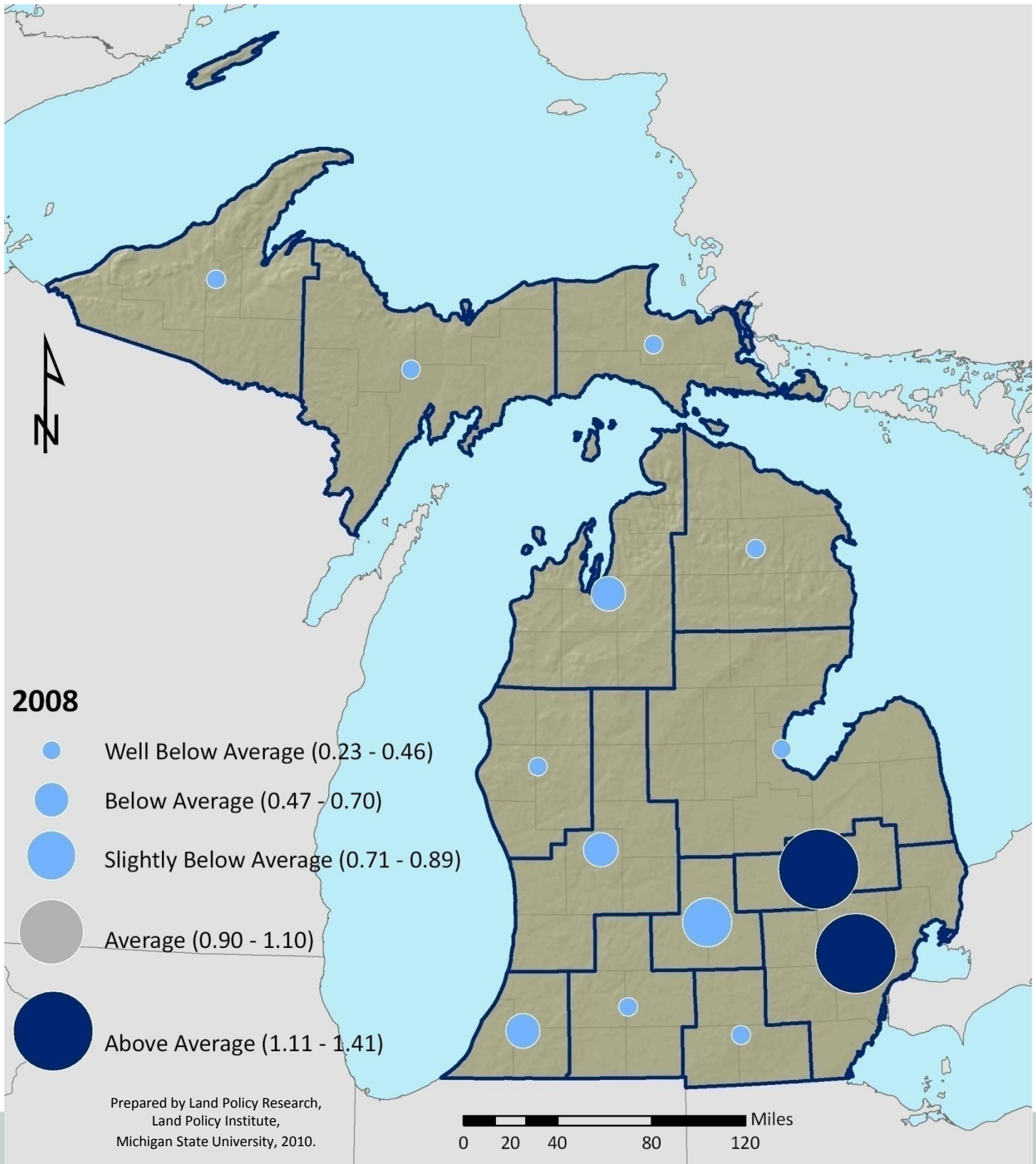
## 50 State Location Quotient Distribution

Robotics and Automation State LQ Chart



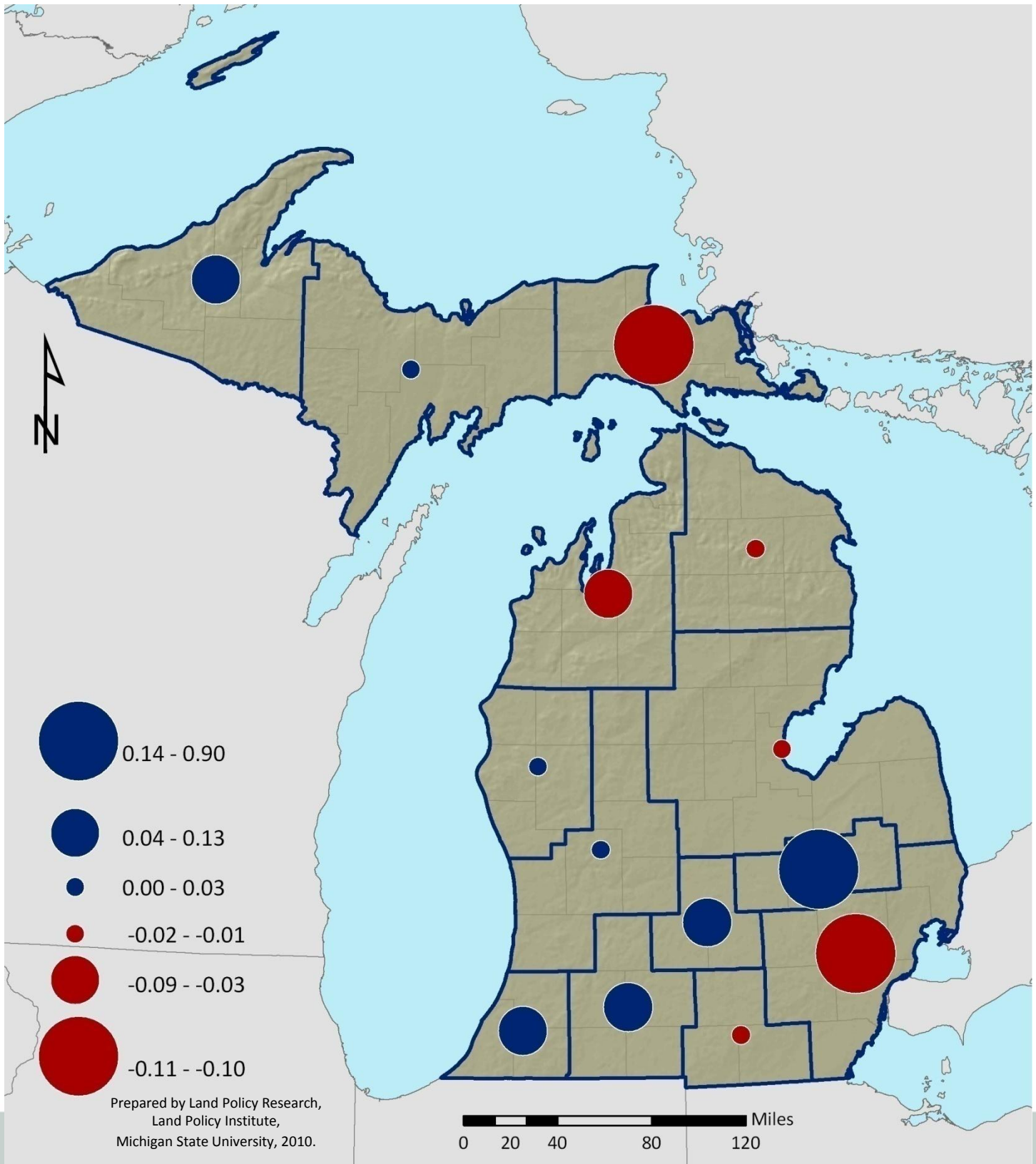


## Regional Location Quotient Distribution

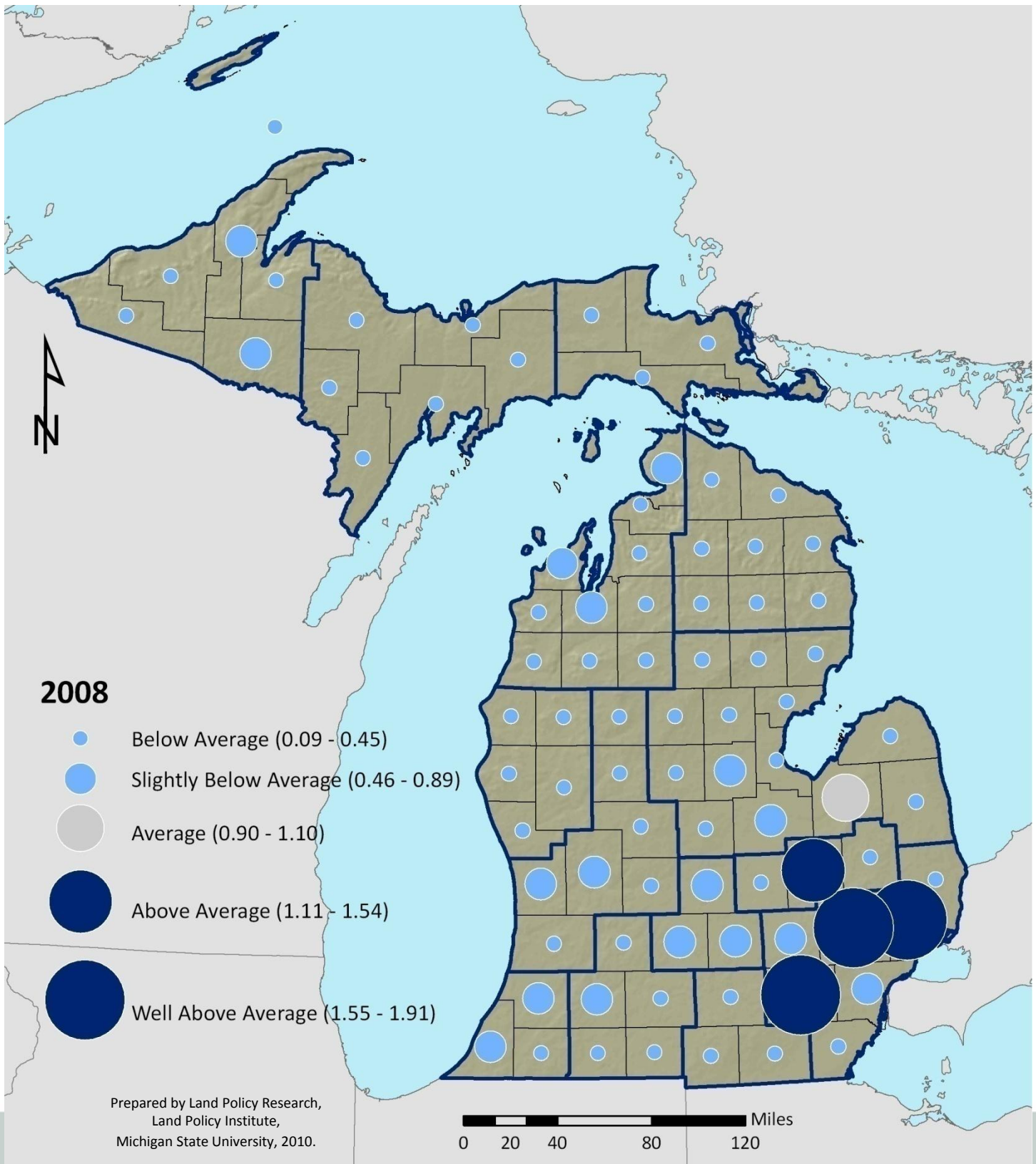




## Change in Regional Location Quotient Distribution 2002-2008

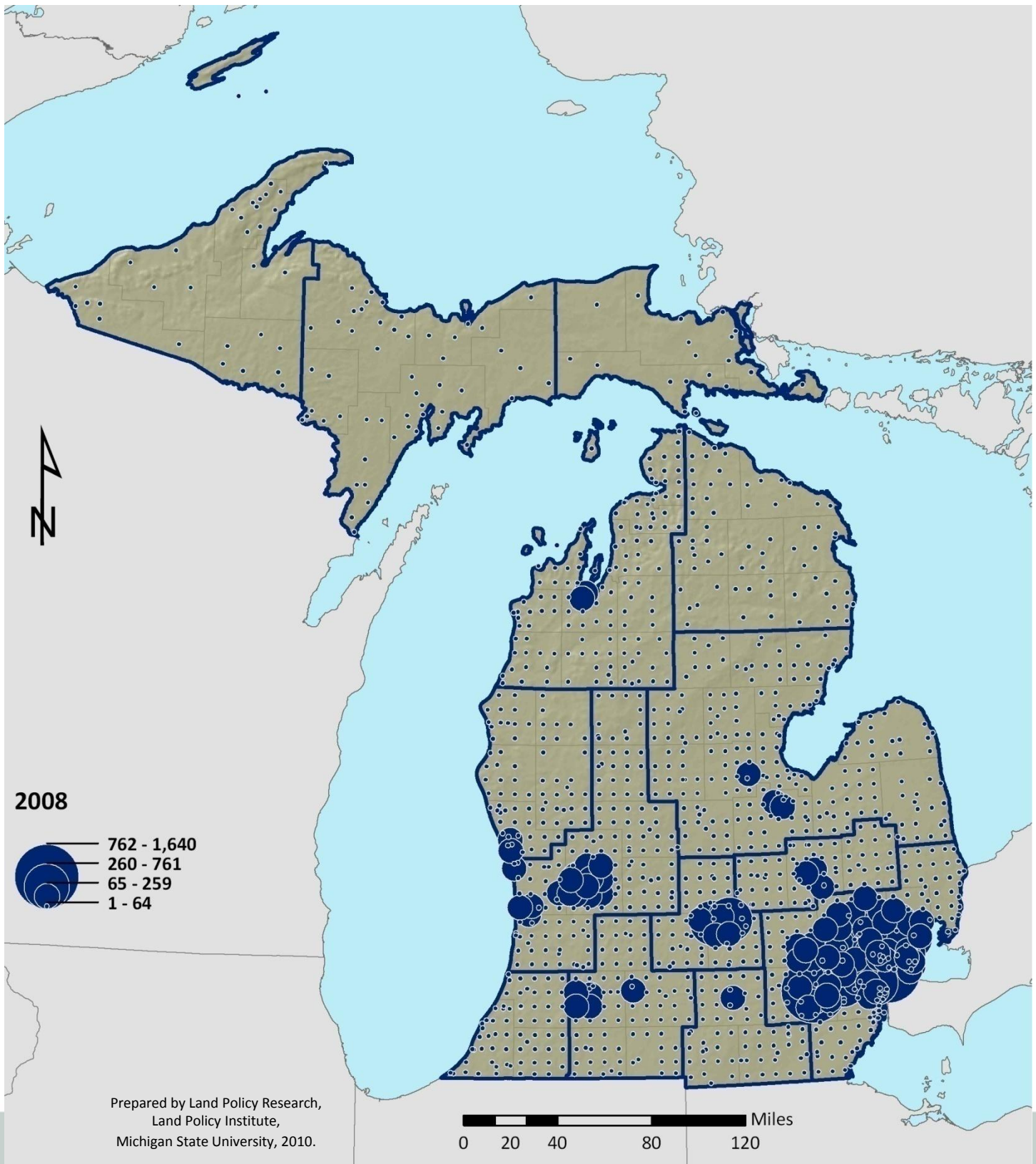


## County Location Quotient Distribution



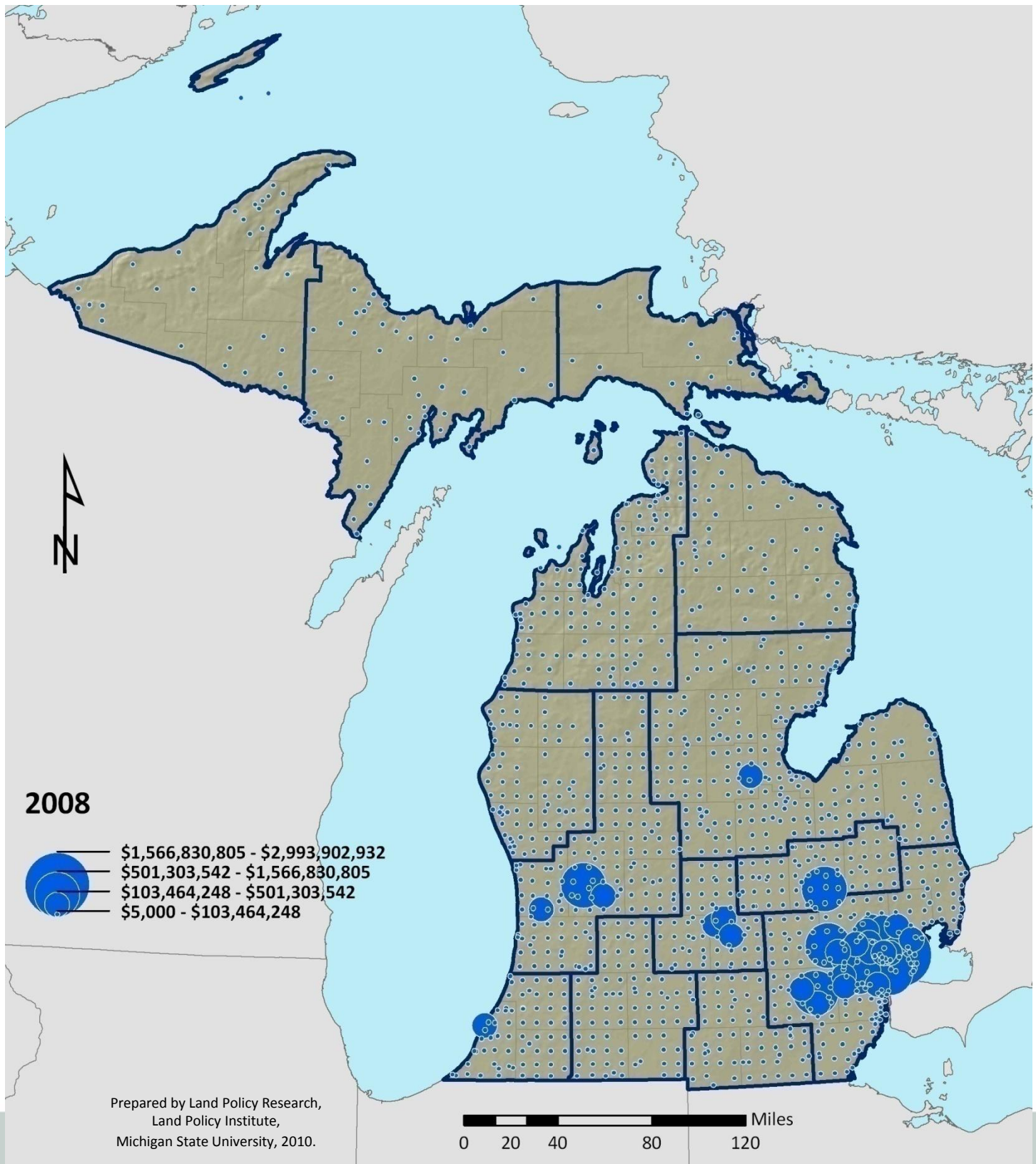


## Establishments Statewide





## Sales Statewide



## Employment Statewide

