



# Examining the State Level Impact of Extension's Actions in Community and Economic Development

MICHAEL JOHN DOUGHERTY

2015 NACDEP CONFERENCE

# Study Background & Rationale



- ▶ Extension has been formally involved in community and economic development for almost half a century.
- ▶ The professionalization of this work occurred in the 1960s (Ayers et al., 2005) as programs arose in “community resource development” (University of Maine, n.d.).
- ▶ Presently, community and economic development is one of six major areas for Extension work (USDA, 2014).

# Study Background & Rationale

- ▶ The Extension professional literature on development-related activities can be divided into two tracks.
- ▶ One is a general discussions of purpose of or capacity for such efforts (e.g., Davidson, 1975; Weber, 1987; Urbanowitz and Wilcox, 2013).
- ▶ The other is an examination of the technical processes or tools used in such an undertaking (e.g., Lloyd, 1995; Barta and Woods, 2002; Sharp et al., 2011).

# Study Background & Rationale



- ▶ General evaluations of development-related Extension programming appear to be non-existent
- ▶ Early suggestions for evaluation focused on local or programmatic level (Henderson and Bond, 1966).
- ▶ Evaluations discussions have continued to focus on the local or programmatic level at the present time (e.g. Conglose, 2000; Estrada, 2005; Bowen-Ellzey et al., 2013).

# Study Background & Rationale



- ▶ It is readily apparent Extension's efforts in community development and economic development have made impacts at the local level.
- ▶ However, there has been scant investigations into whether these efforts combine to have a substantial impact at the state level.
- ▶ This is important because it is at that level that policy – and funding – decisions primarily are made.

# Study Background & Rationale

- ▶ This exploratory research seeks to examine the state-level impact of Extension programming in Community Development and Economic Development.
- ▶ The hypothesis is that states with more active Extension programming in Community Development and Economic Development will have fared better than other states (where Extension has been less active).
- ▶ Perform tests by comparing conditions in the states.

# Study Process

- ▶ Responses (Dependent Variables)
  - ▶ Population Change 2010-2013
  - ▶ MMHI 2013 and MMHI Change 2010-2013
  - ▶ Poverty Rate 2013 and Poverty Rate Change 2010-2013
  - ▶ Establishments Per Capita 2013 and Establishments PC Change 2010-2013
  - ▶ Employment Per Capita 2013 and Employment PC Change 2010-2013
  - ▶ Annual Payroll Per Capita 2013 and Annual Payroll PC Change 2010-2013
  - ▶ Unemployment Rate 2013 and Unemployment Rate Change 2010-2013
- ▶ Focus on Indicators to Link to CD or ED Efforts
- ▶ Used in Studies with County-Level Unit of Analysis

# Study Process

- ▶ Factors (Independent Variables):

- Priority of CRED-Related Activity

- ▶ 21 states appeared to be a Primary Activity or Major Area
    - ▶ 18 states appeared to be a Secondary Activity or Minor Area
    - ▶ 11 states appeared to be a Limited Activity or Not an Area
  - ▶ Source: Current (2015) Website Review



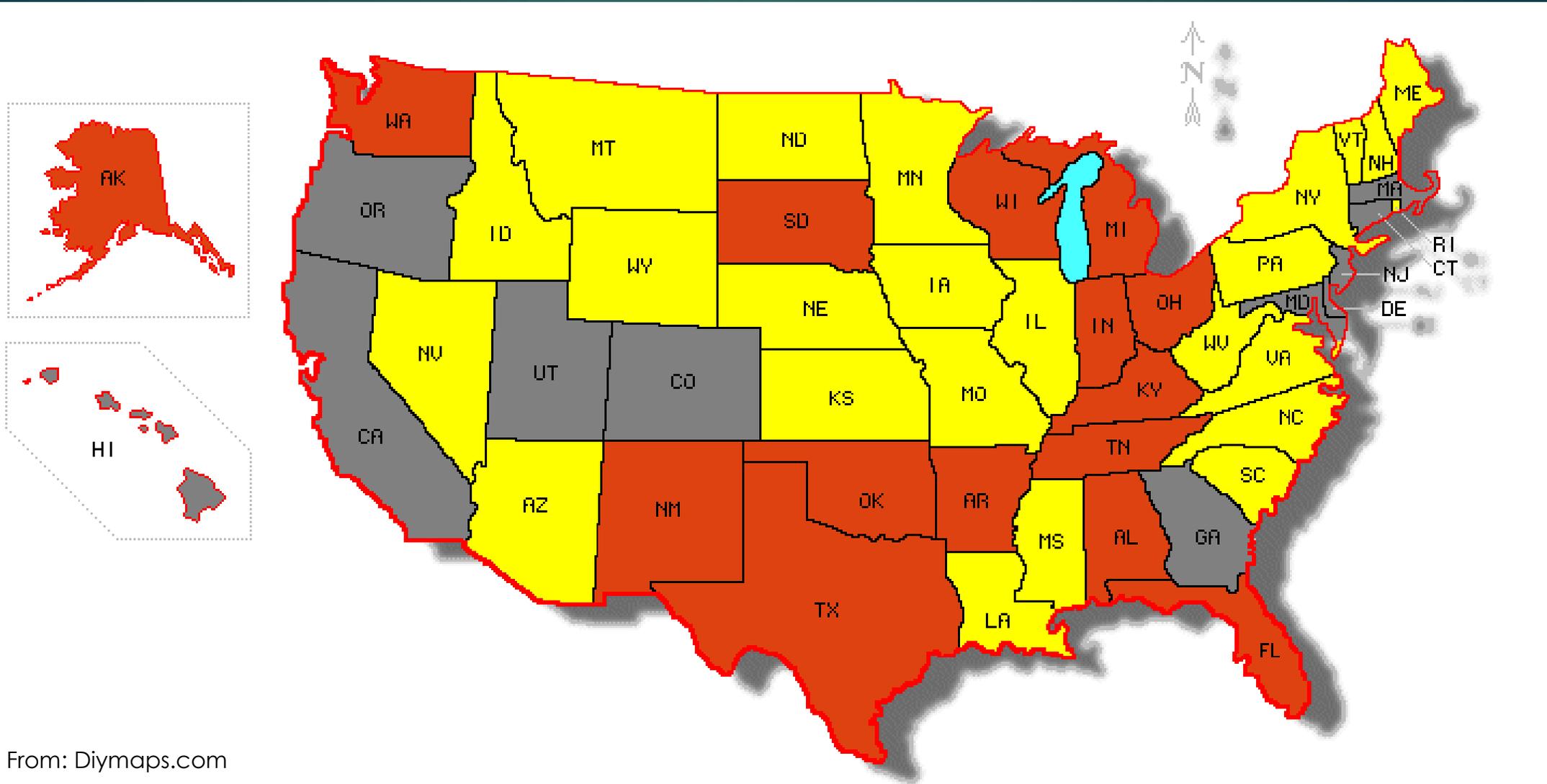
# Study Process

- ▶ Factors (Independent Variables):

- Focus of CRED-Related Activity

- ▶ 26 states appeared to Focus more on Community Development
    - ▶ 13 states appeared to Focus more on Economic Development
    - ▶ 11 states appeared to have Neither (too limited an activity)
  - ▶ Source: Current (2015) Website Review

# Study Process: Focus (CD or ED)



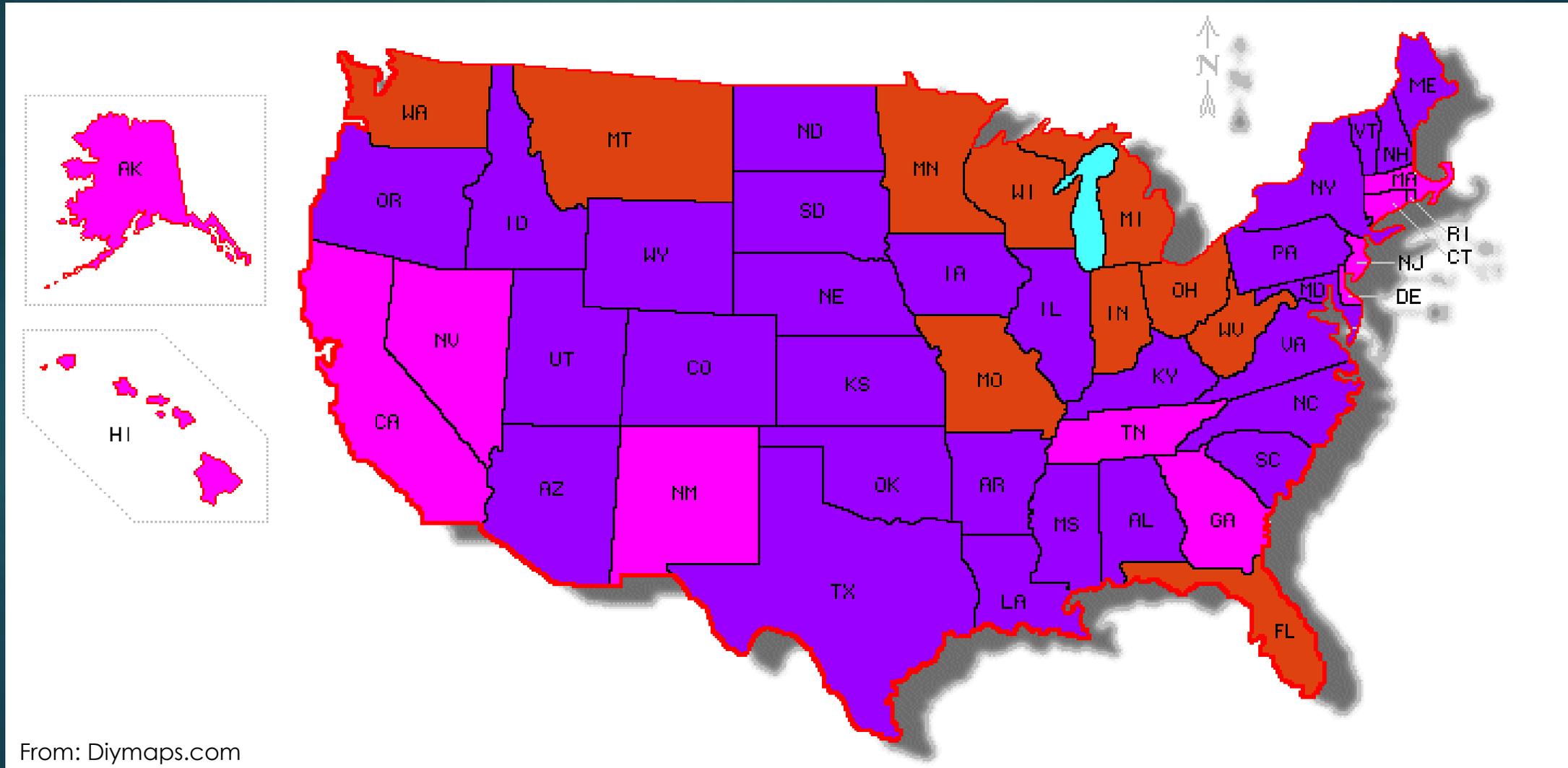
# Study Process

- ▶ Factors (Independent Variables):

- NACDEP Membership

- ▶ 10 States classified as Large to Very Large (8 or more Members)
    - ▶ 28 States classified as Small to Medium (2 to 7 Members)
    - ▶ 12 States classified as None to Very Limited (0 to 1 Members)
  - ▶ Source: 2013 Membership Roster

# Study Process: NACDEP Members



From: Diymaps.com

# Study Process

- ▶ Analysis of Variance
  - ▶ Examines Differences between Groups of Data
  - ▶ Used One-way ANOVA with 95% Confidence Interval
  - ▶ Three Sets of Analysis: Each Factor compared to 13 Responses
- ▶ Software: Minitab 16

# Analysis with Expected Results

- ▶ States with NACDEP Members (more than Limited) had lower Unemployment Rate
- ▶  $p=0.036$
- ▶  $R^2(\text{adj}) = 9.52\%$ 
  - ▶ No/Limited Membership = 7.63 % unemployment
  - ▶ Small Membership = 6.29 % unemployment
  - ▶ Medium/Large Membership = 6.89 % unemployment

# Analysis with Expected Results

- ▶ States with Many NACDEP members (8 or more) had Greater Change in Unemployment Rate
- ▶  $p = 0.014$
- ▶  $R^2(\text{adj}) = 12.98\%$ 
  - ▶ No/Limited Membership = -20.13 % change
  - ▶ Small Membership = -21.79 % change
  - ▶ Medium/Large Membership = -28.16 % change

# Analysis with Unanticipated Results

- ▶ States where CRED-related Activities are any Priority (Primary or Secondary) had a Lower MMHI
- ▶  $p = 0.001$
- ▶  $R^2(\text{adj}) = 21.01\%$ 
  - ▶ Not a Priority = \$59,819
  - ▶ Secondary Priority = \$50,525
  - ▶ Primary Priority = \$50,400

# Analysis with Unanticipated Results

- ▶ States where CRED-related Activities are any Priority (Primary or Secondary) had a Lower Payroll Per Capita
- ▶  $p = 0.025$
- ▶  $R^2(\text{adj}) = 10.86\%$ 
  - ▶ Not a Priority = \$19,197
  - ▶ Secondary Priority = \$16,006
  - ▶ Primary Priority = \$15,946

# Analysis with Unanticipated Results

- ▶ States with Focused Activities in Community Development or Economic Development had a Lower MMHI
- ▶  $p = 0.001$
- ▶  $R^2(\text{adj}) = 23.46\%$ 
  - ▶ Limited Activity = \$59,819
  - ▶ CD-Focused Activity = \$51,542
  - ▶ ED-Focused Activity = \$48,723

# Analysis with Unanticipated Results

- ▶ States with Focused Activities in Community Development or Economic Development had Lower Payroll Per Capita
- ▶  $p = 0.018$
- ▶  $R^2(\text{adj}) = 12.20\%$ 
  - ▶ Limited Activity = \$19,197
  - ▶ CD-Focused Activity = \$16,330
  - ▶ ED-Focused Activity = \$15,404

# Discussion

- ▶ The Results – the Expected and Unanticipated – both may be saying the same thing: that Extension works in Community Development and Economic Development in places where it is needed (and needed more).
- ▶ Lower Unemployment Rate and Greater Unemployment Rate Change (Reduction) vis-à-vis higher NACDEP membership shows how programming is directed and is helping in those places where jobs are needed the most.

# Discussion

- ▶ Lower Income (MMHI) vis-à-vis Priority Area or Focus Area shows that those states where Extension working on development-related issues have greater needs
  - in this case the need to overcome an income deficit.
- ▶ Lower Payroll Per Capita vis-à-vis Priority Area or Focus Area shows that those states where Extension working on development-related issues have greater needs
  - in this case the need to overcome a payroll deficit.

# Cautions on the Study

- ▶ Snapshot in Time
  - ▶ Fluid Process
  - ▶ Impacts Take Time
  
- ▶ Structure of Factors
  - ▶ Analysis of Websites (Date, Process, Definitions)
  - ▶ Changes in Extension (Operations, Structure)
  - ▶ NACDEP Membership Fluctuations

# Cautions on the Study

- ▶ Response Variables
  - ▶ Selected Based on Experience with Local Entities
  - ▶ Extension Framework Indicators Could be Used
- ▶ Exploratory Nature
  - ▶ First Step to Start Conversation
  - ▶ Findings Represent Beginning of Process, Not an End
  - ▶ Unclear if Unit of Analysis Change Appropriate

# Conclusions

- ▶ There appears to be at least some limited support for the hypothesis that Extension Work in Community Development and Economic Development can make a difference at a macro-level.
- ▶ There appears to be some evidence that Extension Work in Community Development and Economic Development is being done where it is needed most – masking at least some of its overall impact.
- ▶ Additional research is needed for clarification.