ECONOMIC DIVERSIFICATION AND DEVELOPMENT AMONG COUNTY GOVERNMENTS IN APPALACHIA

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ABSTRACT

Economic development has been a concern for the Appalachian region since the decline of coal, timber, and agriculture. Recent efforts to diversify the Appalachian economy away from natural resource extraction by all levels of government and regional development organizations have lead to mixed results. This study looked at economic development efforts in among the most diversified and least diversified counties in the Appalachian Regional Commission service area. The study surveyed county administrators from these two groups in the areas of industrial recruitment/retention, development networks, and development policies/environment. In general, there were few statistically significant differences between the groups within the three areas of research interest.

Keywords: economic development, rural studies

International Journal of Economic Development
Volume 11, Number 1 pp. 54-77, 2017

INTRODUCTION

The economy of Appalachia has gone through turbulent times over the past couple of decades. With the rise and fall of staple industries such as mining, forestry, and agriculture; communities and workers suffer the most. In particular, the 'Great Recession' may have hammered the final nail in the coffin for many industries in the region. Obviously, Appalachia was not the only region to be hit dramatically by the recession. Industries such as agriculture, manufacturing, and construction were affected throughout the country. However, the Appalachia region tends to be negatively affected more and to receive less growth in industry in comparison with the remainder of the country (ARC, 2014).

One reason Appalachia lags behind the rest of the nation is the lack of economic diversity. Many communities in the region have relied heavily on one industry such as mining or forestry. Politicians and public administrators in Washington, state capitals, and local governments throughout Appalachia have recognized this problem. As a result, the Appalachian Regional Commission, state-based organizations such as Shaping Our Appalachian Region, and local community development organizations have been working on solutions to diversify the region's economy.

This study investigates the economic policy differences between Appalachian counties with a diversified economy and those without. This study combined 2013 county-level employment data for all 420 counties in the Appalachian Regional Commission into a Hefindahl-Hirschman Index in order to measure each county's level of diversity. A survey was sent to the Chief Administrative Officer of the counties in the top and bottom ten percent of the index, asking questions regarding their target industries for recruitment, investigate the economic development policies they use, and review the organizations they collaborate with to develop their economy.

The hypothesis for all three areas was that there would be a statistically significant difference in answers between administrators from diversified counties and less-diversified counties. However, the results showed very little difference between these two types of counties within the three areas of study. Therefore, we conclude that all counties are essentially using the same playbook no matter the current level of diversification. This should worry economic development professionals and community leaders because, as we know, the Appalachian region is diverse and no policies or activities are "one size fits all."

The next section outlines the current literature on the three areas of interest in this study -- economic diversity, economic development incentives, and economic development networks. The methodology and discussion sections of this paper outline the research conducted. Finally, conclusions are drawn from the results and future research is proposed.

LITERATURE REVIEW

Economic Diversity

Since Conroy (1972, 1975) applied Markowitz's Portfolio Theory to economic development, it has furthered our understanding of the importance of diversifying local economies among different industries. At its premise, local economies are viewed as if they are an individual's investment portfolio. The purpose of applying Portfolio Theory to local economics is to balance economic activities in the area (Board & Sutcliffe, 1991).

For long-term stable growth, an investment portfolio contains different investments, ranging from safe but slow growth items such as bonds to unstable but rapid growth assets such as stocks from emerging markets. The idea is that over time, shocks that happen in the market impact the portfolio and investments and bonds will provide a floor of wealth when markets are down, whereas when the market is booming, risky investments will provide large returns.

The principles of a personal investment portfolio apply to a local economy. Over the long run, local economies want to have a mix of industries providing employment in order to sustain themselves during economic shocks that might cause one industry to decline, while others remain stable or grow (Sharpe, 1970; Markowitz, 1991). All too often, the economies in many Appalachian counties rely on coal and when the commodity price drops below a certain price it is no longer viable for the coal firm to operate and workers are laid off. However, when the price is high, there are more jobs than workers available within the community.

Within the regional studies and economic development literature there are many examples of how Portfolio Theory applies. When studied nationally and among a few states, Lande (1994) found that there was a trade-off between instability and growth. This means that when local economies bet heavily on a few industries, they were at the mercy of those industries. Additionally, when Wagner and Deller (1998) studied regional economies in all 50 states, they found a correlation between higher diversity that lead to higher levels of stability and growth. Metropolitan/urban areas with a diversified economy have shown greater economic stability over the long run versus areas without diversity (Malizia & Ke, 1993; Spelman, 2006). In both of these studies, communities with diversified economies experienced lower unemployment and higher employment stability.

However, urban communities are not the only areas to benefit from having a diversified economy. England

(2006) found diversified urban and rural communities to be more economically stable and able to return to equilibrium quicker. Some rural communities have been trying to diversify for decades and that attempt may be a potential reason for the growth of industrial parks and business recruitment (Johansen & Fuguitt, 1984; Shaw & Rubin, 1986; Ottensmeyer, Humphery, & Erickson, 1987; Matlock, Woodhouse, & Peterson, 1987).

Economic Development Incentives

Achieving economic diversity can only happen with economic development policies that encourage diversification. Local economic development policies revolve around at least one of two fundamental goals, recruit new businesses and/or grow existing businesses. Most local governments target specific companies and firms with tax abatements, tax increment finance, and/or the development of industrial parks (Betz et al., 2012). However, there are a number of policy alternatives available for local economic development. The International City/County Management Association 2014 Economic Development Survey lists sixteen different incentives ranging from tax abatements to employee screening and training.

In general, rural governments may lack the tax base and financial resources to offer a company the same number of incentives as compared to their urban counterparts (Dewees, Lobao, & Swanson, 2003; Lobao & Kraybill, 2005). Reese, Larnell, and Sands (2010) found that popular incentives like tax abatements were less likely to be offered to a company when the community was struggling economically. Overall, the literature shows that popular, capital intensive incentives may not be an option for rural governments.

Rural governments still offer some incentives, possibly with the help of the state and/or federal government in order to stay competitive. Several factors do contribute to incentive selection. One factor is the interjurisdictional competition local governments face within a region as each try to provide more incentives to a company than their neighbor (Peterson, 1981; Glaeser, Kolko, & Saiz, 2001). Another factor contributing to economic development selection is the community political climate. Betz et al. (2012) found counties governed by Republicans were more likely to use incentives. Finally, engagement within the community plays an important part. Johansen and Fuguitt (1984) found that the creation of a citizen-led committee on economic development for recruiting new industries was a leading activity for cities. Research also showed that effective and efficient economic development incentives were heavily scrutinized during the policy making process by local citizens (Bartik, 2005).

Economic Development Network

The environment and network from which local governments operate are other important elements for economic development. The literature in this area points to two major components, the business climate within the community and a network of organizations working together on economic development activities.

The business climate of a community reflects their attitude towards economic growth and development. Specifically, it is a community's willingness to adopt policies that create economic change, encourage entrepreneurship, and develop institutional capacity (Shaffer et al., 2006). The business climate can impact a local government's recruitment strategy, the types of incentives provided to businesses, and the choice of partner organizations in the development process (Ellis & Rogers, 2000).

More than 90% of county governments in the United States participate in economic development and provide funding, expertise, and play a political role in the process (NACo, 2014). One study found that county governments interacted significantly with city governments and the local Chambers of Commerce during the economic development process (Wilson, 2015). Additionally, business recruitment and retention efforts are strengthened when local development organizations are part of a county government's economic development network (Green et al., 2002). In total, economic development research finds that networks are an important part of economic development and when those networks have many and strong ties, business recruitment and retention is enhanced.

METHODS

There has been a long-standing debate on how to measure economic diversity (Siegel, Johnson, & Alwang, 1995; Wagner & Deller, 1998). Some studies used a location quotient to measure local employment or income as it related to national averages (Harmston, 1983). Input-output models have been used in order to capture the interdependence of industries within the economy (Miller & Blair, 2009). Finally, portfolio variance has been used as a measure of diversity (Conroy, 1974, 1975; Brewer & Moomaw, 1985, 1986; Wundt, 1992).

To measure economic diversity in this study, an entropy index was applied. The index shows how concentrated an industry is as it relates to other industries within an economy. There were two reasons why an entropy index, specifically a Herfidahl-Hirschman Index (HHI), was used. First, the index provides a good reference point for the current variety of industrial sectors. Second, it is one of the most widely used measurements of industrial concentration in regional sciences (Siegel, Johnson, & Alwang, 1995).

In order to identify the most and least diversified Appalachian counties, a HHI was created for all 420 counties. Employment data for each of the top-level 20 North American Industrial Classification System (NAICS) codes was collected for every county. The employment data came from the 2014 Bureau of Labor Statistics' County Employment and Wages Survey.

Once the HHI was calculated, a survey was sent via mail and email to the Chief Administrative Officer of the top and bottom ten percent of diversified counties in Appalachia. This resulted in 84 surveys being administered. The survey contained nine questions, eight of which were used in this study to cover three research topics: industry focus on recruitment, actors in the economic development network, and economic development incentives/policies.

Table 1
Number of Counties in Study Based on State

State	# of Top Diversified Counties	# of Bottom Diversified Counties
Alabama	1	5
Georgia	6	4
Kentucky	2	10
Maryland	1	0
Mississippi	2	4
New York	1	0
North Carolina	5	3
Ohio	5	2
Pennsylvania	6	4
South Carolina	0	0
Tennessee	5	5
Virginia	5	1
West Virginia	3	4
Total	**42**	**42**

Questions 1 and 2 queried respondents on what industries they have tried to recruit/develop in the past five years and the industries they want to recruit/develop in the next five years. The answers were derived from the industrial codes in the NAICS. Question 3 dealt with the actors within the economic development network and questions 6 and 7 asked respondents about the current economic development climate in the community. The answers for these questions were developed from Wilson (2015) and important factors in site selection, respectively. Finally, question 5 asked respondents about the economic development incentives and policies used when recruiting or retaining businesses. Question 5's answers were developed based on the 2014 ICMA Economic Development Survey.

Table 2
Types of Survey Questions

Question Number	Topic	Type of Question	Source
1	Industrial Focus	Multiple Choice	NAICS
2	Industrial Focus	Multiple Choice	NAICS
3	Network	Multiple Choice	Wilson (2015)
5	Incentives/Environment	Multiple Choice	ICMA (2014)
6	Incentives/Environment	Multiple Choice	Own Source
7	Incentives/Environment	Multiple Choice	Own Source

The survey responses were entered into SPSS and a Fisher's Exact Test was used to compare the answers of each group. Fisher's Exact Test p-value, rather than a Pearson's Chi-Square p-value was used because of the study's small sample size. While Fisher is more conservative in its level of significance than Pearson, it is still widely accepted in situations with a small sample size.

Based on previous research, it was hypothesized that there would be a statistically significant difference of answers between the two groups of counties. While the literature found on economic development and diversity was on non-Appalachian economies, this study assumed the same principles and conclusions could be applied. The reason for this assumption was that rural and urban communities existed among the 420 ARC counties, and therefore it was presumed that the sample was representative of the rest of the country.

RESULTS

The response rate for this study was 29.8%, of which there were 10 responses from the most diversified counties and 15 from the least diversified counties. The survey responses analyzed three general areas: industrial recruitment, economic development network, and economic development incentives/environment. The rest of this section outlines the results of these three areas of research interest.

Industrial Recruitment

Questions regarding industrial recruitment targets were asked of county officials. The first question asked which of the 19 NAICS industries counties tried to pursue in the past five years. All but two industries did not have a statistically significant relationship between counties of high and low economic diversity. The two industries that showed a statistically significant relationship were the Arts, Entertainment, and Recreation, and Accommodation and Food Services. The Fisher Exact Test p-value was .049 and .007, respectively.

Table 3
Industrial Recruitment In Past 5 Years

Industry	High Diversity	Low Diversity	Fisher's Score
Agriculture, Forestry, Fishing and Hunting	4 (40%)	7 (46.7%)	1.000
Mining, Quarrying, and Oil and Gas Extraction	0	3 (20%)	.250
Utilities	2 (20%)	0	.150
Construction	2 (20%)	0	.150
Manufacturing	7 (70%)	14 (93.3%)	.267
Wholesale Trade	2 (20%)	1 (6.7%)	.543
Retail Trade	6 (60%)	6 (40%)	.428
Transportation and Warehousing	5 (50%)	4 (26.7%)	.397
Informational Technology	5 (50%)	4 (26.7%)	.397
Finance and Insurance	2 (20%)	1 (6.7%)	.543
Real Estate and Leasing	2 (20%)	2 (13.3%)	1.000
Professional, Scientific, and Technical Services	3 (30%)	5 (33.3%)	1.000
Management of Companies and Enterprises	1 (10%)	2 (13.3%)	1.000
Administrative and Support and Waste Management and Remediation Services	1 (10%)	0	.400
Educational Services	3 (30%)	1 (6.7%)	.267
Health Care and Social Assistance	5 (50%)	3 (20%)	.194
Arts, Entertainment, and Recreation	**7 (70%)**	**4 (26.7%)**	**.049***
Accommodation and Food Services	**6 (60%)**	**1 (6.7%)**	**.007****
Public Administration	1 (10%)	1 (6.7%)	1.000

**p<.05, **p<.01, ***p<.001*

County officials were asked what industries would be their target for recruitment/development in the next five years. Their focus shifted significantly from the previous five years. The only industry showing a significant difference between counties with high diversity and low diversity was the transportation and warehousing sector.

Table 4
Industrial Recruitment In The Next 5 Years

Industry	High Diversity	Low Diversity	Fisher's Score
Agriculture, Forestry, Fishing and Hunting	4 (40%)	5 (33.3%)	1.000
Mining, Quarrying, and Oil and Gas Extraction	0	3 (20%)	.250
Utilities	1 (10%)	1 (6.7%)	1.000
Construction	2 (20%)	0	.150
Manufacturing	7 (70%)	13 (86.7%)	.358
Wholesale Trade	2 (20%)	1 (6.7%)	1.000
Retail Trade	7 (70%)	8 (53.3%)	.678
Transportation and Warehousing	**5 (50%)**	**1 (6.7%)**	**.023***
Informational Technology	6 (60%)	5 (33.3%)	.241
Finance and Insurance	2 (20%)	0	.150
Real Estate and Leasing	1 (10%)	2 (13.3%)	1.000
Professional, Scientific, and Technical Services	3 (30%)	5 (33.3%)	1.000
Management of Companies and Enterprises	0	1 (6.7%)	1.000
Administrative and Support and Waste Management and Remediation Services	1 (10%)	1 (6.7%)	1.000
Educational Services	2 (20%)	2 (13.3%)	1.000
Health Care and Social Assistance	5 (50%)	7 (46.7%)	1.000
Arts, Entertainment, and Recreation	6 (60%)	4 (26.7%)	.122
Accommodation and Food Services	7 (70%)	5 (33.3%)	.111
Public Administration	0	0	-

$^*p<.05$, $^{**}p<.01$, $^{***}p<.001$

Overall, there were very few differences between counties with different levels of diversity. On the other hand, it appears as though all counties are shifting their industrial recruitment/development focus away from industries pursued in the past five years to new industries in the next five years.

Economic Development Network

County officials were asked about the actors that engage with their government on economic development activities. Across the board, there were no statistically significant differences between the two categories of counties. The majority of county administrators identified the Chambers of Commerce, Regional Development Organizations, Private Businesses, and City Government as active participants in local economic development planning.

Table 5
Actors Participating in Economic Development Activities

Actor	High Diversity	Low Diversity	Fisher's Score
City Government	6 (60%)	13 (86.7%)	.175
State Government	6 (60%)	9 (60%)	1.000
Federal Government	3 (30%)	4 (26.7%)	1.000
Private Businesses	8 (80%)	11 (73.3%)	1.000
Chamber of Commerce	9 (90%)	12 (80%)	.626
Regional Development Organizations	8 (80%)	11 (73.7%)	1.000
Non-Profit Organizations	3 (30%)	4 (26.7%)	1.000
Utility Companies	5 (50%)	7 (46.7%)	1.000
Universities and Colleges	5 (50%)	9 (60%)	.697
Citizen Organizations/Committees	3 (40%)	4 (26.7%)	1.000

Economic Development Incentives and Environment

Three of the twelve economic development incentives were utilized by more than half of all counties. These were Infrastructure Improvements, Employee Training Assistance, and Tax Abatements. Only Utility

Rate Reduction had a statistically significant difference when the two groups of counties were compared. Among the highly diversified counties, 40% used this Utility Rate Reduction incentive compared to zero in the counties with little diversity.

Table 6
Incentives Used for Economic Development

Incentive	High Diversity	Low Diversity	Fisher's Score
One Stop Shop for Permits	0	2 (13.3%)	.500
Tax Abatements	4 (40%)	11 (73.3%)	.122
Tax Credits	5 (50%)	6 (40%)	.697
Tax Increment Financing	1 (10%)	3 (20%)	.626
Infrastructure Improvements	6 (60%)	10 (66.7%)	1.000
Land Subsidies	4 (40%)	7 (46.7%)	1.000
Building Subsidies	2 (20%)	5 (33.3%)	.659
Grants	6 (60%)	12 (80%)	.378
Utility Rate Reduction	**4 (40%)**	**0**	**.017***
Relocation Assistance	1 (10%)	1 (7.1%)	1.000
Employee Training	7 (70%)	9 (60%)	.691
Small Business Development Center	4 (40%)	5 (33.3%)	1.000

**p<.05, **p<.01, ***p<.001*

County officials were asked about the perceived strengths (Table 7) and weaknesses (Table 8) of their county. The responses to both questions yielded no statistically significant difference between the two types of counties. In general, most officials held a positive view of their county. However, the majority of respondents in each category felt the number of shovel ready sites was a weakness. Additionally, the current infrastructure and access to business capital were concerns for officials in counties with high diversity.

Table 7
Community Strengths

Topic	High Diversity	Low Diversity	Fisher's Score
Educated/Trained Workforce	6 (60%)	6 (40%)	.428
Infrastructure	5 (50%)	6 (40%)	.697
Access to Natural Resources	7 (70%)	11 (73.3%)	1.000
Quality of Healthcare	5 (50%)	9 (60%)	.697
Shovel Ready Sites	2 (20%)	6 (40%)	.402
Access to Business Capital	0	5 (33.3%)	.061
Tax Rates	7 (70%)	10 (66.7%)	1.000
Local Regulatory Climate	8 (80%)	9 (60%)	.402
State Regulatory Climate	4 (40%)	4 (26.7%)	.667
Local Political Climate	5 (50%)	8 (53.3%)	1.000
Quality of Life	9 (90%)	12 (80%)	.626
Crime Rate	4 (40%)	9 (60%)	.428

**p<.05, **p<.01, ***p<.001*

Table 8
Community Weaknesses

Topic	High Diversity	Low Diversity	Fisher's Score
Educated/Trained Workforce	3 (30%)	9 (60%)	.226
Infrastructure	6 (60%)	6 (40%)	.428
Access to Natural Resources	0	1 (6.7%)	1.000
Quality of Healthcare	2 (20%)	1 (6.7%)	.543
Shovel Ready Sites	8 (80%)	8 (53.3%)	.229
Access to Business Capital	5 (50%)	4 (26.7%)	.397
Tax Rates	0	2 (13.3%)	.500
Local Regulatory Climate	0	1 (6.7%)	1.000
State Regulatory Climate	3 (30%)	1 (6.7%)	.267
Local Political Climate	1 (10%)	0	.400
Quality of Life	0	1 (6.7%)	1.000
Crime Rate	0	1 (6.7%)	1.000

$*p<.05$, $**p<.01$, $***p<.001$

Among the three research questions there were few points of statistically significant difference between counties of high and low economic diversity. The next section provides a discussion of the results and potential reasons as to why there are so few differences between the two types of counties.

DISCUSSION

Overall, there were few points of statistical significance between counties with a high level of diversity and those at the bottom of the scale. The two groups of counties were consistently similar among all three-research questions.

Industrial Recruitment

In the area of industrial recruitment, there was very little change in the list of industries that counties were pursuing in the past five years and in those that were itemized as the targets in the next five years with the exception of the arts, accommodations, and warehousing industries. In the previous five years there was a statistically significant difference between the counties in pursing arts and accommodations industries. However, when asked about the next five years, the statistically significant difference was eliminated for those two industries and warehousing became a point of difference. According to the results, the number of highly diversified counties did not significantly change from one period to another; instead, a significant number of counties with low diversity stopped recruiting warehousing jobs and some focused on arts and accommodations; thus bringing the number of counties with low diversity in line with the number of highly diversified counties pursuing arts and accommodations.

Over the past few years there have been efforts to transform rural Appalachian counties into tourist destinations because of their natural and cultural capital. There have been success stories of Appalachian communities becoming tourist destinations such as Berea, Kentucky and Asheville, North Carolina. County officials in the communities with only a few industries providing jobs probably see tourism as the easiest path to economic diversity considering the lack of development, infrastructure, and available land for heavy industry.

On the other hand, warehousing is becoming a reduced target for some less diverse counties. Two main reasons for this decline are a lack of attributes to encourage this industry's development or the county has achieved the level of development desired for that industry. If counties stopped recruiting because of the latter then they may pursue other industries in order to diversify their economy more. If they stopped recruiting because of the former it may be due to two principles of supply chain management: access to population centers and/or connected to a critical transportation network. While there are some population centers and a few major transportation arteries in Appalachia, most communities do not have these requirements.

Economic Development Network

Among county governments and their economic development network there were no statistically significant differences between the two categories of counties. Just as in previous research private companies, Chambers of Commerce, city government, regional development organizations, and universities/colleges were in the network. Private companies and Chambers of Commerce are the usual actors of economic development because of their desire to see growth that benefits their organizations. Due to overlapping jurisdictions, city governments are active in economic development planning and sometimes contribute resources towards industrial parks and infrastructure improvement projects. Regional development organizations have become an important source of resources and technical assistance for county governments because of their connection between state and local governments. Finally, universities and colleges are important to many county governments because they are a source of major employment in the area, provide technical assistance for development, and/or own significant portions of land in the community.

Economic Development Incentives and Environment

When county officials were asked about the incentives used to recruit and retain businesses, several policies had a high response rate. Tax abatements gained popularity among local governments and were considered an important economic development tool (Sands et al., 2006). Therefore, it was not surprising that most counties in this study used a tax abatement policy.

Two of the policies with the highest response rate included infrastructure improvements and employee training assistance. While tax abatements and tax credits would be considered policies for 'smokestack chasing,' these two policies were more along the lines of the 'third-wave' of economic development (Bradshaw & Blakely, 1999). These policies indicate county governments focus on developing their community rather than incentivizing firms to locate in their area.

To the question of whether or not there was a difference in economic development policy between high and low diversified counties, there was only one policy that fit this criterion. Utility rate reduction had a statistically significant difference between the two types of counties with highly diversified counties using the policy and less diversified counties not using the policy at all. The difference is interesting because there was not a difference between the two groups when it came to utility companies participating in the economic development process.

The perceived strengths and weaknesses of their economic environment did not yield any statistically significant differences. However, the majority of respondents from diverse counties said an educated and trained workforce was a strength, whereas a majority of less diverse county respondents said it was a weakness. Two areas where there was consistency between both groups were on access to natural resources and shovel ready sites. The majority of respondents in both groups identified having access to natural resources as a strength in economic development. This is understandable as the region has a long history of resource extraction as a main source of development. On the other hand, the majority of respondents said they had a lack of shovel ready sites for development.

Those two responses are telling of where development in Appalachia has been and its current status. County officials still see natural resources as a strength for economic development, an area that has been important to the region for generations. On the other hand, officials do not see themselves in a position to recruit manufacturing to the region.

CONCLUSION

This study found very little difference between diversified and less diversified counties in industrial recruitment, the economic development network, and economic development policies. This may be the result of two reasons. First, there may not be a significant difference of development between the most and least diversified counties in Appalachia. This may lead to a research bias because it is difficult to inquire about a difference between counties when none exists. Second, less diversified counties may have started implementing policies similar to counties with a more diversified economy. Therefore, over time, there is not a significant difference.

The purpose of this study was to gain a better understanding of how economically different county governments approached economic development. While this study took a broad approach to understanding this issue, a much more narrow focus needs to be applied in future research. First, it is important to understand the difference in economic development practices between Appalachian and non-Appalachian counties. This will show if the region is different in comparison to economically similar areas outside the region and thus pursues different economic development practices. Second, studying the correlation between industrial recruitment and economic development incentives may give insight as to how some Appalachian counties are successful in their pursuit of economic diversification while others are less successful. This may be important for future economic development practitioners in the Appalachian region and provide guidance for future development.

REFERENCES

Appalachian Regional Commission. (2014). *Economic diversity in Appalachia.* Washington, DC: ARC

Bartik, T. J. (2005). Solving the problems of economic development incentives. *Growth and Change*, *36*(2), 139-166.

Betz, M. R., Partridge, M. D., Kraybill, D. S., & Lobao, L. (2012). Why do localities provide economic development incentives? Geographic competition, political constituencies, and government capacity. *Growth and Change*, *43*(3), 361-391.

Board, J., & Sutcliffe, C. (1991). Risk and income tradeoffs in regional policy: A portfolio theoretic approach. *Journal of Regional Science*, *31*(2), 191-210.

Bradshaw, T. K., & Blakely, E. J. (1999). What are "third-wave" state economic development efforts? From incentives to industrial policy. *Economic Development Quarterly*, *13*(3), 229-244.

Brewer, H. L., & Moomaw, R. L. (1985). A note on population size, industrial diversification, and regional economic instability. *Urban Studies*, *22*(4), 349-354.

Brewer, H. L., & Moomaw, R. L. (1986). Regional economic instability and industrial diversification in the US: Comment. *Land Economics*, *62*(4), 412-415.

Conroy, M. E. (1974). Alternative strategies for regional industrial diversification. *Journal of Regional Science*, *14*(1), 31-46.

Conroy, M. E. (1975). The concept and measurement of regional industrial diversification. *Southern Economic Journal, 41*(3), 492-505.

Dewees, S., Lobao, L., & Swanson, L. E. (2003). Local economic development in an age of devolution: The question of rural localities. *Rural Sociology*, *68*(2), 182-206.

Ellis, S., & Rogers, C. (2000). Local economic development as a prisoners' dilemma: the role of business climate. *The Review of Regional Studies*, *30*(3), 315.

England, S. (2006). Long run equilibrium: convergence within an urban and rural regional economy. *Humanomics*, *22*(4), 205-222.

Glaeser, E. L., Kolko, J., & Saiz, A. (2001). Consumer city. *Journal of economic geography*, *1*(1), 27-50.

Green, G. P., Haines, A., Dunn, A., & Sullivan, D. M. (2002). The role of local development organizations in rural America. *Rural Sociology*, *67*(3), 394-415.

Harmston, F. K. (1983). *The community as an economic system*. Ames, IA: Iowa State University Press.

Johansen, H. E., & Fuguitt, G. V. (1984). *The changing rural village in America: Demographic and economic trends since 1950.* Cambridge, MA: Ballinger.

Lande, P. S. (1994). Regional industrial structure and economic growth and instability. *Journal of Regional Science*, *34*(3), 343-360.

Lobao, L., & Kraybill, D. S. (2005). The emerging roles of county governments in metropolitan and nonmetropolitan areas: findings from a national survey. *Economic Development Quarterly*, *19*(3), 245-259.

Malizia, E. E., & Ke, S. (1993). The influence of economic diversity on unemployment and stability. *Journal of Regional Science*, *33*(2), 221-235.

Markowitz, H. M. (1991). Foundations of portfolio theory. *The Journal of Finance*, *46*(2), 469-477.

Matlock, L. M., Woodhouse, L. R., & Peterson, D. D. (1987). *The State of the Small City: A Survey of the Nation's Cities and Towns under 50,000*. Washington, DC: National League of Cities.

Miller, R. E., & Blair, P. D. (2009). *Input-output analysis: foundations and extensions*. Cambridge University Press.

National Association of Counties. (2014). *Strong Economies, Resilient Counties.* Washington, DC: NACo.

Ottensmeyer, E. J., Humphrey, C. R., & Erickson, R. A. (1987). Local industrial development groups: Perspectives and profiles. *Review of Policy Research*, *6*(3), 569-583.

Peterson, P. E. (1981). *City limits*. Chicago, IL: University of Chicago Press.

Reese, L. A., Larnell, T. B., & Sands, G. (2010). Patterns of Tax Abatement Policy: Lessons From the Outliers?. *The American Review of Public Administration*, *40*(3), 261-283.

Sands, G., Reese, L. A., & Khan, H. L. (2006). Implementing tax abatements in Michigan: A study of best practices. *Economic Development Quarterly*, *20*(1), 44-58.

Shaffer, R., Deller, S., & Marcouiller, D. (2006). Rethinking community economic development. *Economic Development Quarterly*, *20*(1), 59-74.

Sharpe, W. F. (1970). *Portfolio theory and capital markets*. McGraw-Hill College.

Shaw, L., & Rubin, S. (1986). *Broadening the base of economic development: New approaches for rural areas.* Chapel Hill, NC: MDC, Inc.

Siegel, P. B., Johnson, T. G., & Alwang, J. (1995). Regional economic diversity and diversification. *Growth and Change*, *26*(2), 261-284.

Spelman, W. (2006). Growth, stability, and the urban portfolio. *Economic Development Quarterly*, *20*(4), 299-316.

Wagner, J. E., & Deller, S. C. (1998). Measuring the effects of economic diversity on growth and stability. *Land Economics, 74*(4), 541-556.

Wilson, D. H. E. (2015). Network collaboration in economic development: who participates? *Community Development*, *46*(1), 56-66.

Wundt, B. D. (1992). Reevaluating alternative measures of industrial diversity as indicators of regional cyclical variations. *The Review of Regional Studies*, *22*(1), 59.

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