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Cluster Study

By Mel Layne, GAVEA 9/2009

Introduction: An industry cluster study identified over 12,000 businesses in the North LA County and the East Kern Region by North American Industrial Classification System (NAICS) for each sector. The study was completed to not only help enhance business to business collaboration within aerospace, its supply chain, and ancillary local businesses, but to give GAVEA business sector information for marketing in supply chain attraction while fostering synergy collaboration between related industries.

The study identified manufacturing businesses with NAICS codes beginning in the two digit manufacturing codes of 31-33; 217 manufacturing businesses in North Los Angeles County and 77 in East Kern were identified which is a cluster in the broadest sense. However, other industries in other NAICS's codes could be part of a supply chain for aerospace, etc. To identify these related businesses would require more funds and time to determine clusters outside of the manufacturing/aerospace NAICS code classification.

Obviously, by increasing supply chain purchasing within the region through fostering cooperation and synergies, leakage of supply chain purchases outside the region could be lessened. By completing an additional study the leakage could be quantified which would assist in saving economies for future marketing.

To foster business to business purchasing within the region GAVEA has developed an interactive "Business Directory" of all businesses within the region which will be accessible on the website at www.aveconomy.org allowing for enhanced ability to search for like-businesses or other supply chain businesses. GAVEA's main mission, as agreed by our city partners, is working primarily to attract industrial businesses because of the multiplying effect of creating higher paying indirect and induced jobs. For the purpose of marketing the region to Site Selectors, Corporate Real Estate Agents, and Relocating Businesses, a separate user friendly website searchable tab will be isolated on the website for industrial NAICS codes 31-33 only.

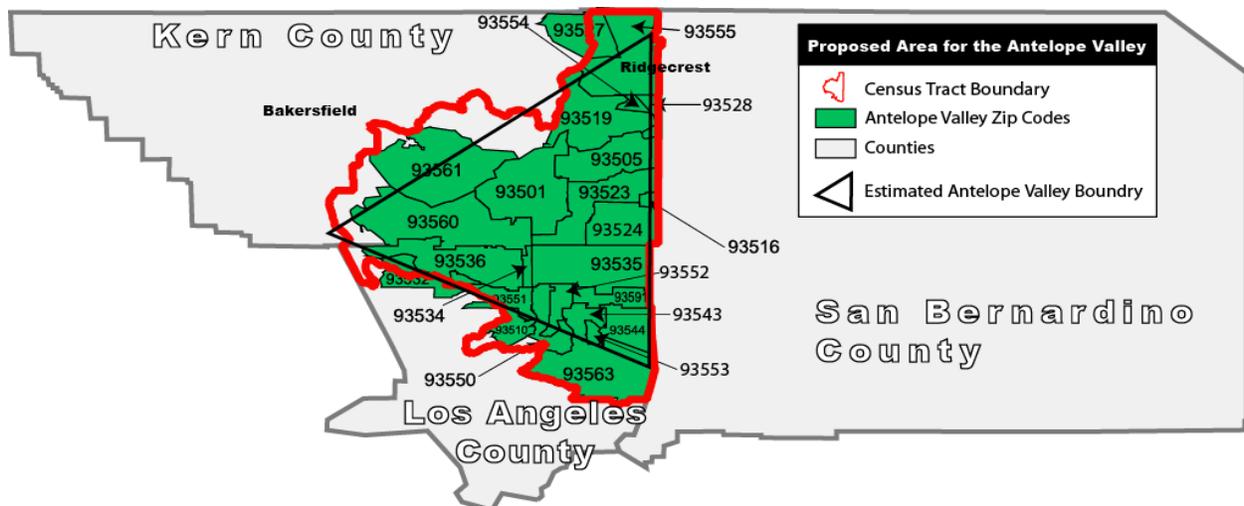
Purpose: The purpose of this study is to delineate the clusters in general by two digit NAICS codes; and, to outline the methodology for a more comprehensive study where clusters may have overlapping synergies and characteristics between clusters.

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Future Action: GAVEA has identified a company that has access to proprietary information with the knowledge to identify overlapping clusters, emerging clusters, and business to business dollar leakage out of the area.

Cluster Definition: ¹An industry cluster is defined as a grouping of related industries and institutions in an area or region. The industries are inter-linked and connected in many different ways. Some industries in the cluster will be suppliers to others; some will be buyers from others; some will share labor or resources. The important thing about a cluster is that the industries within the cluster are economically linked, they both collaborate and compete and are, to some degree, dependent upon each other; and ideally, they take advantage of synergies.

Area Description: For purposes of this study the area, North LA County and the East Kern Region, was identified by zip code and census tract as outlined in the map below:



Cluster development means that Local Economic Development (LED) initiatives are concentrated on encouraging and supporting inter-firm collaboration between government and educational institution with development and support in targeted industrial sectors. Doing business with government, education, and cities can be

¹ World Bank Definition www.worldbank.com

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sophisticated requiring additional skills by local businesses, GAVEA will assist in the development of strategies by organizations which are competent in educating businesses how to access this huge and lucrative market. Sectors targeted should be limited to those with the most local economic development potential. Business clusters may provide a more targeted approach to improving economic development activity by leveraging resources in the direction of greatest potential return. Cluster strategies would normally include the standard approaches. Possible strategies include:

Developing broker and network agencies

GAVEA would encourage local businesses, engaged in the same cluster, to meet together to enable local business development opportunities. The network could jointly market their goods and then start inter-trading with each other, building synergies.

Supporting joint research

Research and development is highlighted by the local university coalition as being the cornerstone of attraction and sustainability to secure state support for a local University. Institutions of higher learning can undertake research that benefit all in the cluster.

Developing cluster-focused public procurement and local purchasing agreements

The public sector is often the largest buyer in a city but it is often difficult for small businesses, in a cluster or not, to bid for large government contracts. GAVEA could assist in ways as mentioned above to help assist local business in the procurement of goods locally and assist in developing that cluster from contracting to warehousing, transportation, etc.

Providing cluster specific information:

One of the most effective ways of developing a cluster is to gather information about businesses and institutional support systems in the cluster and then produce it so that it can be shared. Thereafter, with a small amount of effort, supplier linkages can be developed. These do not need to be sophisticated.

Developing cluster related marketing efforts:

Once a cluster has been identified and it starts developing, there are opportunities to promote it and attract supporting investment as well as promoting business opportunities externally for cluster members.

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Developing demand-led skills and education training programs:

The key outcome of business networking will be the training necessary to meet certain skills across a given sector. Understanding the skill needs is key to working with local educators to facilitate training and education. If a number of businesses in a particular cluster express a need for certain skills, educators will more willing to make the investment necessary to provide the skill required by that cluster.

Doing Cluster Analysis

²The following is an abstraction and slight adaptation of the executive summaries of two studies.

Starting Cluster Analysis

Gauging the Need for Cluster-Based Development

Because no two regions face identical challenges in adapting to economic change, GAVEA must seek an approach that is compatible to the political, economic and social circumstances of its region.

The cluster framework can be a valuable tool for effective economic change because it is:

- **Market-driven** – GAVEA, by focusing on the dynamics of a demand and supply side of a particular cluster, can assist in bringing together clusters to work more effectively together.
- **Inclusive** – GAVEA, in reaching out to companies large and small can assist in creating synergies between suppliers and users such as: cities, government, education, etc.

² Cluster Analysis and Cluster Based Policy in OECD Countries: Various Approaches, Early Results and Policy Implications. Draft synthesis report on Phase 1, OECD Focus Group on Industrial Clusters. Theo J.A. Roelandt & Pim den Hertog. May 1998

Cluster Based Economic Development :A key to Regional Competitiveness Economic Development Administration (EDA). Prepared by Information Design Associates (IDeA) with ICF Kaiser International. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the Economic Development Administration.

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- **Collaborative** – GAVEA can enhance collaborative solutions to regional issues by removing barriers to self-interested group by being a neutral force for regionalism.
- **Strategic** – GAVEA’s vision for regional economic development will be enhanced and provide motivation to the community stakeholders through a stakeholder created Economic Strategic Plan that embraces all of the region’s economies. GAVEA’s call to action in providing the motivation through a Strategic Plan to all community constituents reaches across boundaries for the purpose of creating the next generations economy through regional collaboration.
- **Value-creating** -- improving depth (more suppliers) and breadth (attracting more industries) to increase regional income.

Is the Cluster Approach Right for GAVEA and the Antelope Valley?

The Right Economic Scale – Cluster building and marketing is an economy of scale and can only be successful if political and geographical boundaries can be skirted; and, requires regional thinking rather than the isolation of a single community or jurisdictions.

The Right Economic Challenge -- Economic restructuring must be strengthened through synergies developed through regionalism; and designed to effectively shape development projects by improving regional cooperation in attracting, enhancing and diversifying the economic strengths of local industries.

The Right Economic Focus – Providing a better quality of life for the regions citizens through strengthening its clusters.

The Right Leadership and Strategy Process – The Antelope Valley must have leaders and organizations which care more about the region's economy, rather than territorial boundaries, and are ready to use an inclusive and collaborative process to engage industry, institutions and businesses.

The Right Capacity to Take Action – The Antelope Valley must embrace a tradition of working regionally to face economic challenges of the future. Leaders must speak openly about the future and face those doubting constituents with a sense and determination of a new direction for the future, that doesn’t get bogged down with the

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failures and misunderstanding of the past that only feeds division and is counterproductive to future progress.

In addition, adequate technical and financial resources and a readiness to work together for shared returns must be championed.

Cluster-Based Economic Development: A Four Stage Process

Stage I: Mobilization -- Building interest and participation among the different constituencies needed to carry out the initiative. While some mobilization has occurred in the past, right now, there is more synergy among the various jurisdictions because of the emerging clusters for renewable energy.

Stage II: Diagnosis -- Assessing the industry clusters that comprise the economy and the economic infrastructure that supports cluster performance.

Stage III: Collaborative Strategy – Support and facilitate demand-side stakeholders companies in each cluster and supply-side stakeholders (public and private supporting economic institutions) in working together to identify priority challenges and action initiatives to address shared problem and issue solutions.

Stage IV: Implementation – Support and build major cluster participants organizations, those clusters which could return the most bang for the buck, to sustain implementation.

Primary Lessons Studied from Cluster-Based Experience

- Recruit highly committed leadership for each high impact cluster selected.
- Develop a strategy to ensure adequate resources for implementation through-out the process.
- Choose the right geographic level of focus in relationship to the selected high impact cluster. Example: wind, solar, manufacturing together with production and manufacturing facilities.
- Find tools to sustain momentum between stages.

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- Engage potential **implementing institutions and leaders for sustainability** from the earliest stages of the process.

Stage I: Mobilization

Lessons

- Use economic challenges/threats as windows of opportunity to bring stakeholders together.
- Sustain working together with dialogue aimed at real workable solutions.
- Mobilization must be sustainable by the organization with sufficient staff and financial resources to remain evolved.
- It is imperative that early “buy-in.” occur by a broad public and private sector participation and cultivate stakeholders with “champions.”

Examples of Approaches:

- East Tennessee 21st Century Jobs Initiative: With impetus from Oak Ridge National Laboratory, a regional marketing organization (Tennessee Resource Valley) managed a 15 county initiative.
- Arizona ASPED Initiative: Started by a private sector entrepreneurs group, Enterprise Network, grew into a partnership with the State and the economic development councils of Phoenix and Tucson and became Arizona Strategic Planning for Economic Development (ASPED).
- Joint Venture Silicon Valley: Started by concerned business leaders, Joint Venture Silicon Valley Network evolved into a regional public-private partnership that supported the regional strategy and the initial actions.

Stage II: Diagnostic

Lessons

- May require an independent analyst who can “tell it like it is.”

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- Adequate funding and staff is a must to sustain building momentum and to garner information for the initiative across the community through a participatory diagnostic process.

Use cluster analytic techniques to:

- Identify regional cluster portfolio
- Benchmark regional cluster position
- Benchmark regional economic infrastructure
- Assess strategic challenges and opportunities

Examples of Approaches:

- South Western Pennsylvania: Multiple institutions, including universities, chambers and economic development organizations, participated in the regional diagnosis.
- South East Los Angeles: A local consultant did initial work followed by a national firm who provided an in-depth cluster portfolio analysis.
- Ventura County: A neutral consultant was needed to provide a credible analysis of the situation.

Stage III: Collaborative Strategy

Lessons

- Hold events and engage participants from key industries and institutions in the region.
- Create highly inclusive cluster working groups that are market-driven to set the stage for implementation.
- Select working group leaders who are committed and can recruit high profile participants reflecting small and large companies in the region.
- Create accountability mechanisms and progress milestones throughout the process.

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- Develop concrete action plans focusing on reform and redesign of services, adding value to existing resources and enabling market innovation.
- Establish the market viability of each initiative to ensure the necessary support from stakeholders for taking action.

Examples of Approaches

- Washington Manufacturing Networks: Industry networks were used to bring companies together to do what individual firms could not.
- Florida Cornerstone: **Did not use** organized cluster groups as an integral part of initiative, but focused on building public sector capacity to support all the stake's clusters.
- Joint Venture Silicon Valley: Used both cluster and economic infrastructure working groups to generate six cross-cutting initiatives and 43 individual cluster efforts.

Stage IV: Implementation

Lessons

- A management stewardship group would be required. GAVEA could spearhead and oversee the initiative with additional funding and staff.
- Use the cluster framework to facilitate supply - and demand - side connections.
- Implementation will require ongoing funding commensurate with the type and scale of action initiatives.

Sustain sources of new leadership.

- Track activities and health of industry clusters and communicate outcomes, focusing on regional economic performance and responsiveness of economic infrastructure to clusters.

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Examples of Approaches

- South East Los Angeles: Created the Gateway Cities Partnership linking 26 cities which had never worked together but needed to in light of defense/aerospace cutbacks.
- Connecticut: The governor created a private-sector lead group, supported by a state department to manage the transition from cluster strategy to action.
- St. Louis: Established the St. Louis Key Technology Partnership to provide a regional forum for information exchange, networking and consortium building.
- El Paso and Chihuahua: Two separate regional initiatives, El Paso Agenda 21 and Chihuahua's Siglo XXI, came together through private sector action to launch the El Paso/Juarez Interplex World Trade Center.

³Conclusion: An Integrative Process

The cluster-based approach to economic development can elevate economic development from an often compartmentalized and isolated activity that focuses on just one project at a time to an integrative and enduring process.

The cluster-based approach can achieve a leveraged impact, with the economies of scale by choosing the highest impact cluster, on economic development through:

- ✓ Engaging the region's key suppliers in a dialogue with their customers.
- ✓ Linking education providers with workforce managers.
- ✓ Connecting technology providers with product developers.
- ✓ Matching financial investors to new or existing enterprise.

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- ✓ Shaping physical infrastructure to meet industry operational needs.
- ✓ Investing in information infrastructure to enhance cluster performance.
- ✓ Adjusting administrative systems to maximize cluster productivity.
- ✓ Bringing housing, health and social services providers together with clusters.

The challenge of effective cluster-based economic development is to bring industries and their public and private suppliers together to share responsibility for the outcomes of economic development actions. The goal is to achieve tangible outcomes and to use those initial outcomes as a platform for ongoing improvement in the regional economy. The effort to be inclusive in cluster-based economic development pays off even when modestly accomplished.

By changing the terms of the dialogue within the regional economy, businesses, government and other institutions can build new ways of achieving individual business and region-wide goals; thus, giving up a traditionally unilateral view of economic development being solely “government’s” job. However, government greatly benefits from a healthy economic environment and the “economy of the masses holding the purse strings” still prevails, and in many instances is the financially sustaining cornerstone for success. Without strong participation from government, failure is assured.

As the logic and tools of cluster strategy become better integrated into the vocabulary and practice of economic development, regions nationwide can look forward to creating more inclusive and market-driven economic development environments.

Future Action: GAVEA has identified a company that has access to proprietary information and the knowledge to identify overlapping cluster, emerging clusters, and business to business dollar leakage from the region.

Benchmarks: With the study, benchmarks could be established to determine measureable results; and, identify actions that need to be taken for the enhancement of results.

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Knowledge is Power: The information could be used to create relationships and synergies for sustaining and growth within the regions clusters, which heretofore did not have a cooperative or collaborative business relationship.