



What's Ahead for California's Manufacturers:  
Opportunities In a Transitioning Industry  
"Manufacturing in Today's Economy" Conference  
April 2, 2010

## Agenda

- I. Introduction**
- II. About Us**
- III. Manufacturing – A 32 Year Snapshot**
- IV. What This Means to You**
- V. Next Generation Manufacturing**
  - I. Simple NGM Test – Where Do You Stand
- VI. NGM Business Model**
- VII. Massive, Meaningful Opportunities**
- VIII. Contact Information**

## Introduction

### Jonathan Lee – Vice President

- 17 years of consulting and industry experience
- Consulted each of the 5 largest global CPGs, 6 Fortune 500 services companies, and 100s of middle market companies
- Led projects in excess of \$100 million including strategy, process, training and IT engagements; ROI in the \$billions
- Performed engagements less than \$2k with 2-day ROIs
- Integrates strategy with processes and enables data and process automation; quantifies all changes and improvements
- MBA in Strategy & Finance, B.A. in Sociology & Political Science

***Mission: Implement multi-billion dollar methodologies quickly and cost affordably, for small to midsize enterprises***

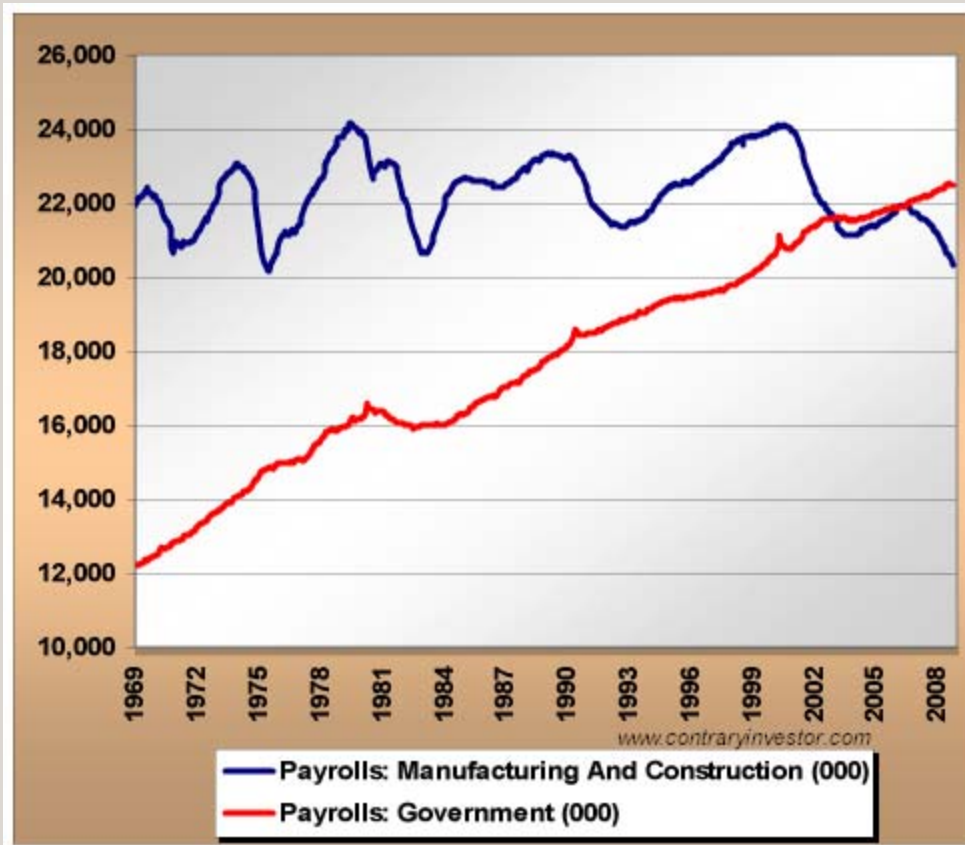
## About Manex Consulting

**Since 1995, Manex has provided a broad array of proven solutions and resources to manufacturers, distributors and their supply chains:**

- **Services include Strategy, People, Process and Performance**
- **Results: growth, profitability, and competitive advantage**
- **We are a 501(c)(3); our interest is in growing commerce**

***6 to 1 ROI; you invest 1 hr with us, we'll save you 6; you invest \$1 into projects we recommend, you will make \$6***

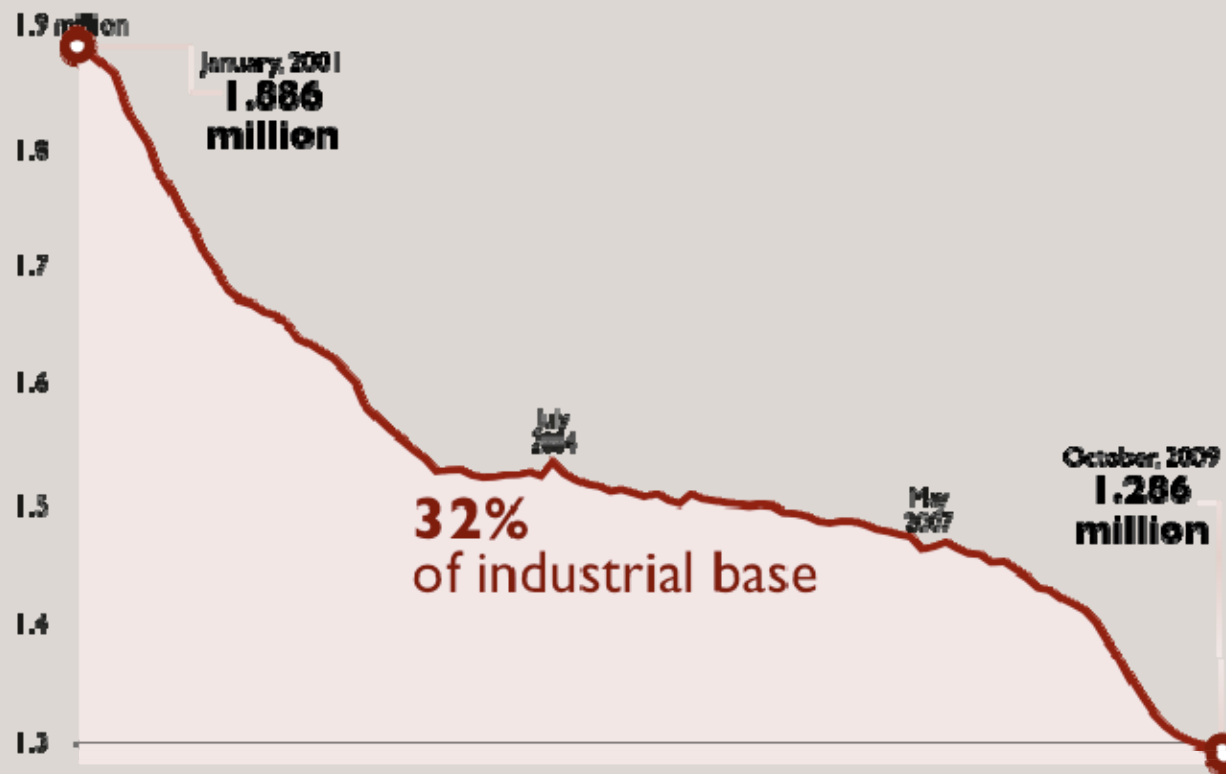
## Manufacturing – The Past 10 Years



**More people work in government than in manufacturing and construction... combined**

## Manufacturing – The Past 10 Years

### California Manufacturing employment 2001 - 2009

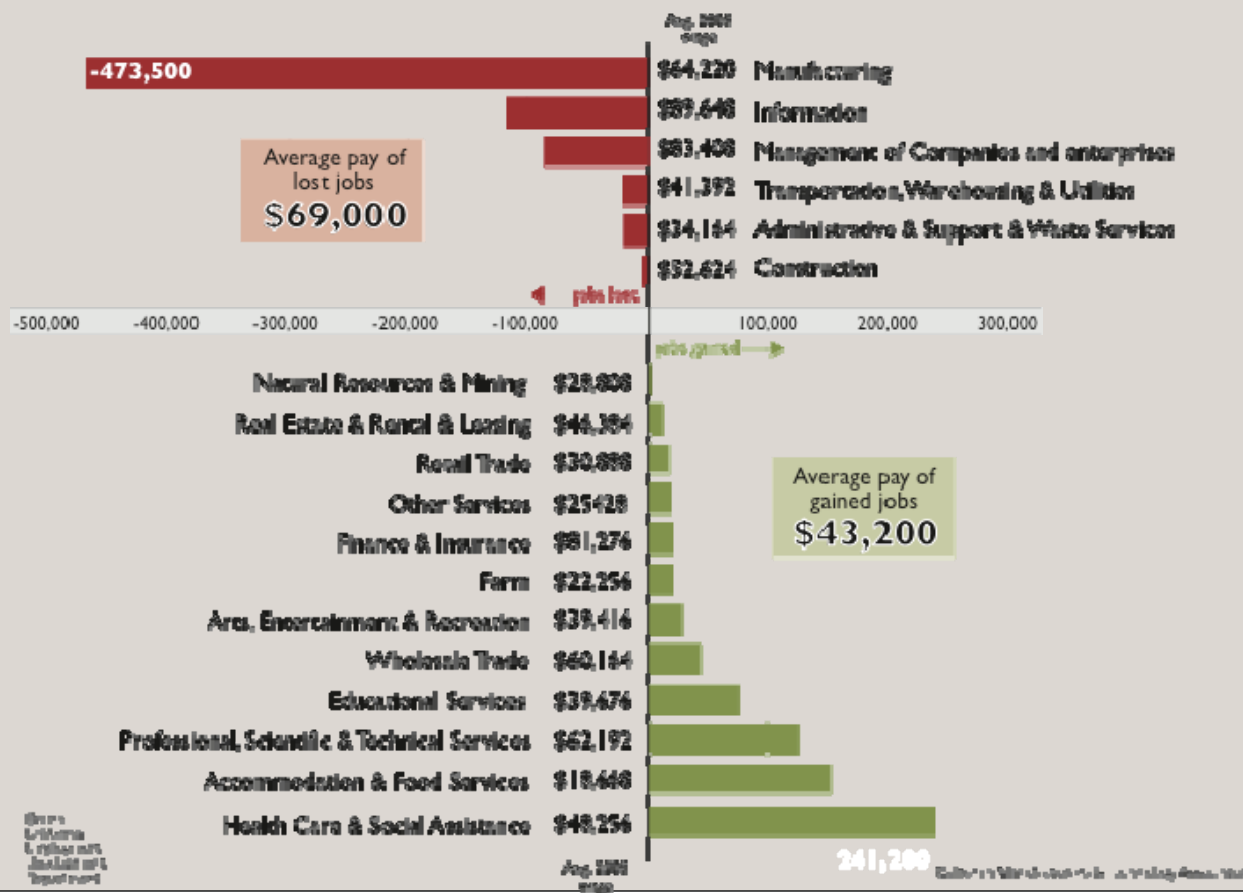


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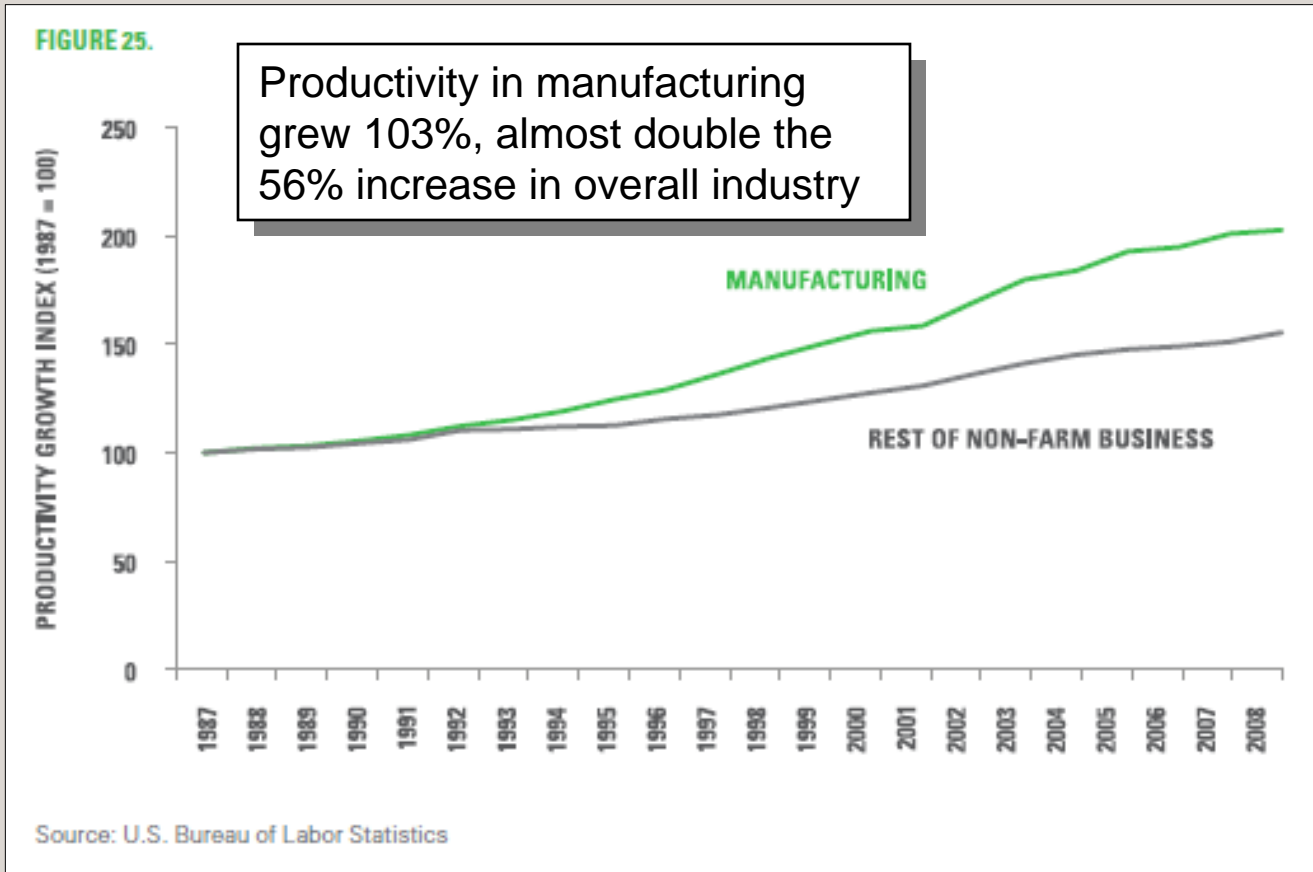
# Manufacturing – The Past 10 Years

## Higher paying sectors declining in California

January, 2001 to December, 2008 (Government not included)

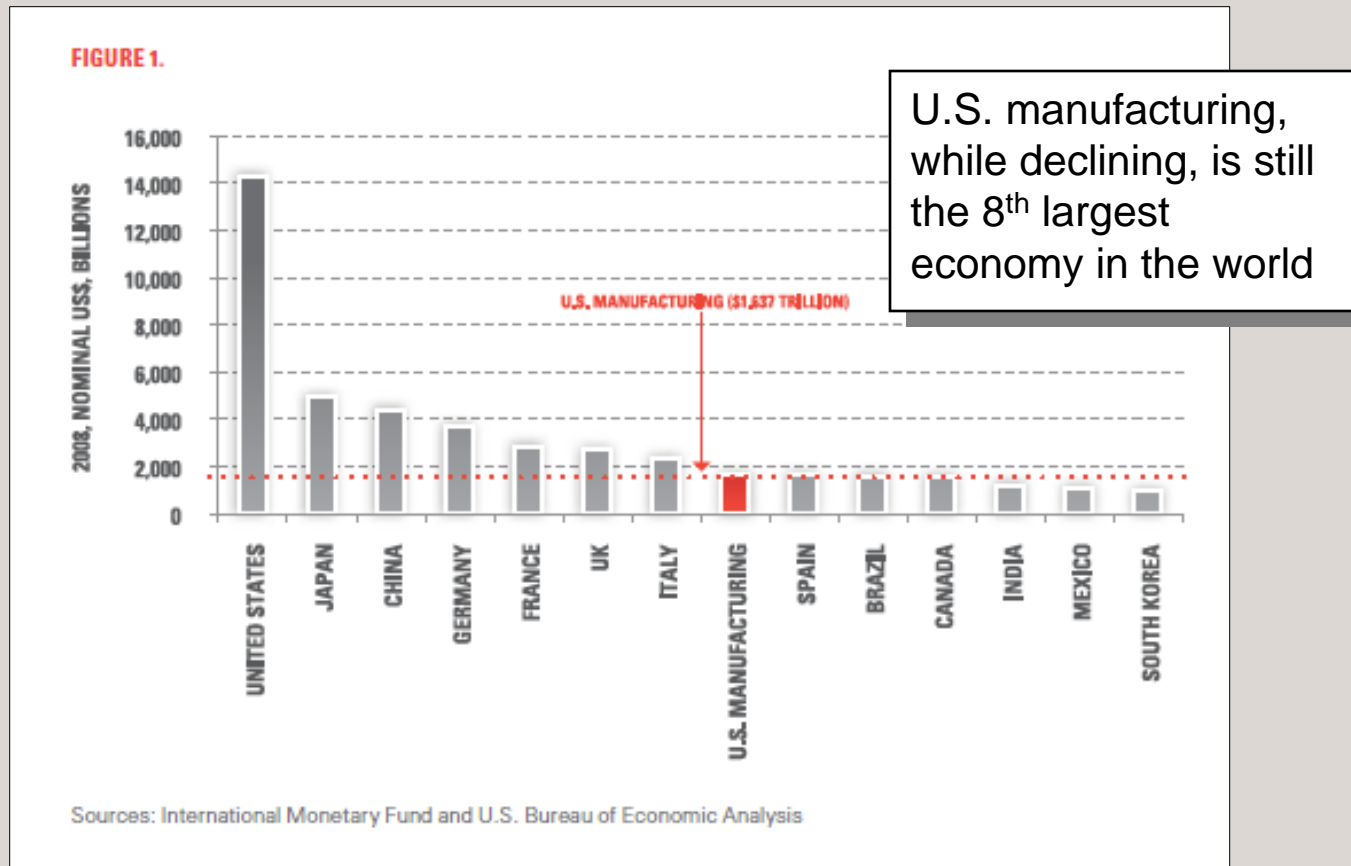


## Manufacturing – The Past 22 Years





## Manufacturing – The Present



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- **China is #2 at about 2/3 of U.S. output**
- **Japan is #3 and Germany is #4**
- **India, surprisingly is not among the top 12**

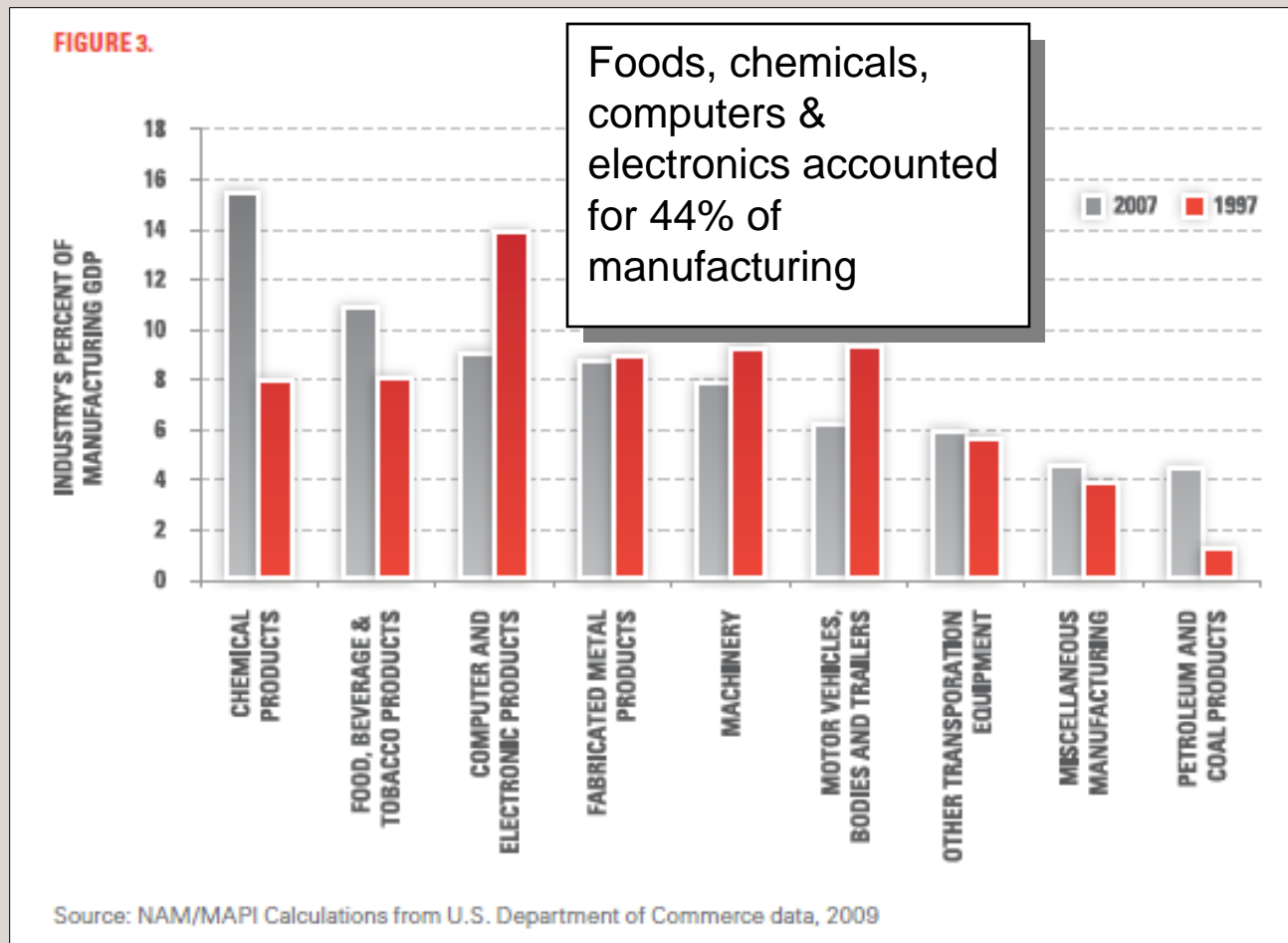
## Manufacturing – The Present

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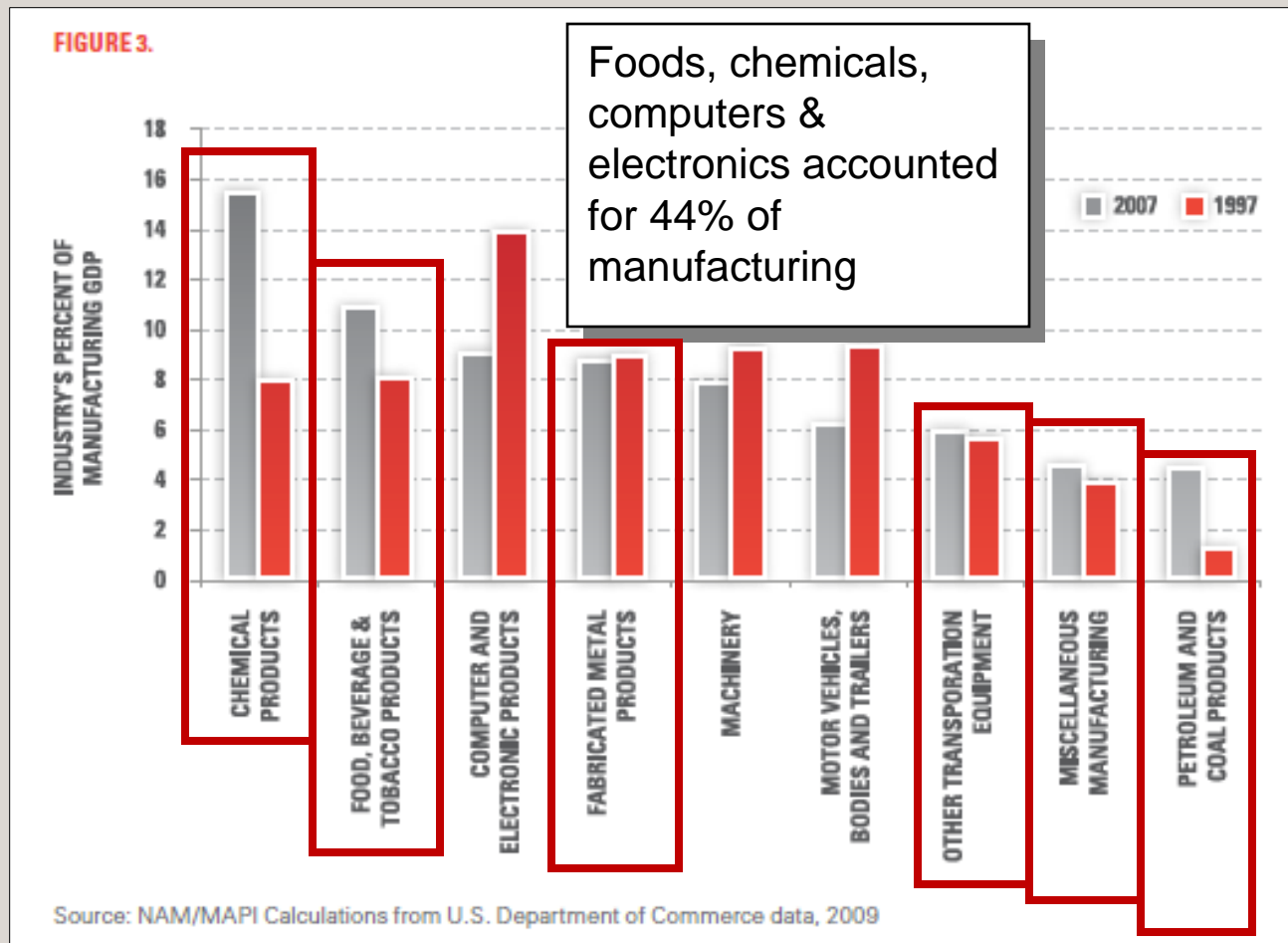
**Why and how the U.S. is still the world's largest manufacturer:**

1. U.S. consumption is both voracious & ravenous
2. Shipping cost or freight time inhibits foreign manufacturing for many product categories (e.g. milk or produce)
3. "Made in the USA" appeals to more than JUST Americans; **the world loves California wines**
4. Technology products, though produced elsewhere, contribute to U.S. domestic product

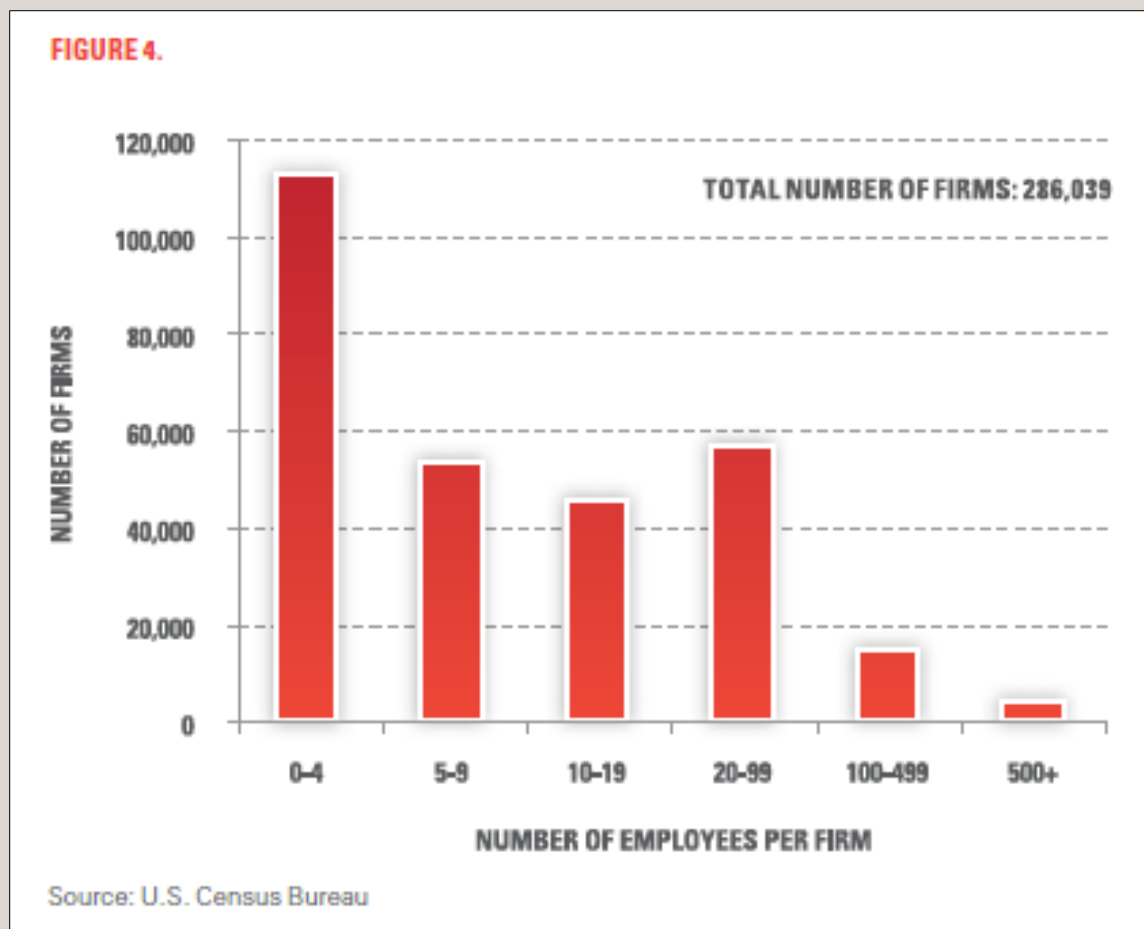
## Manufacturing – The Present



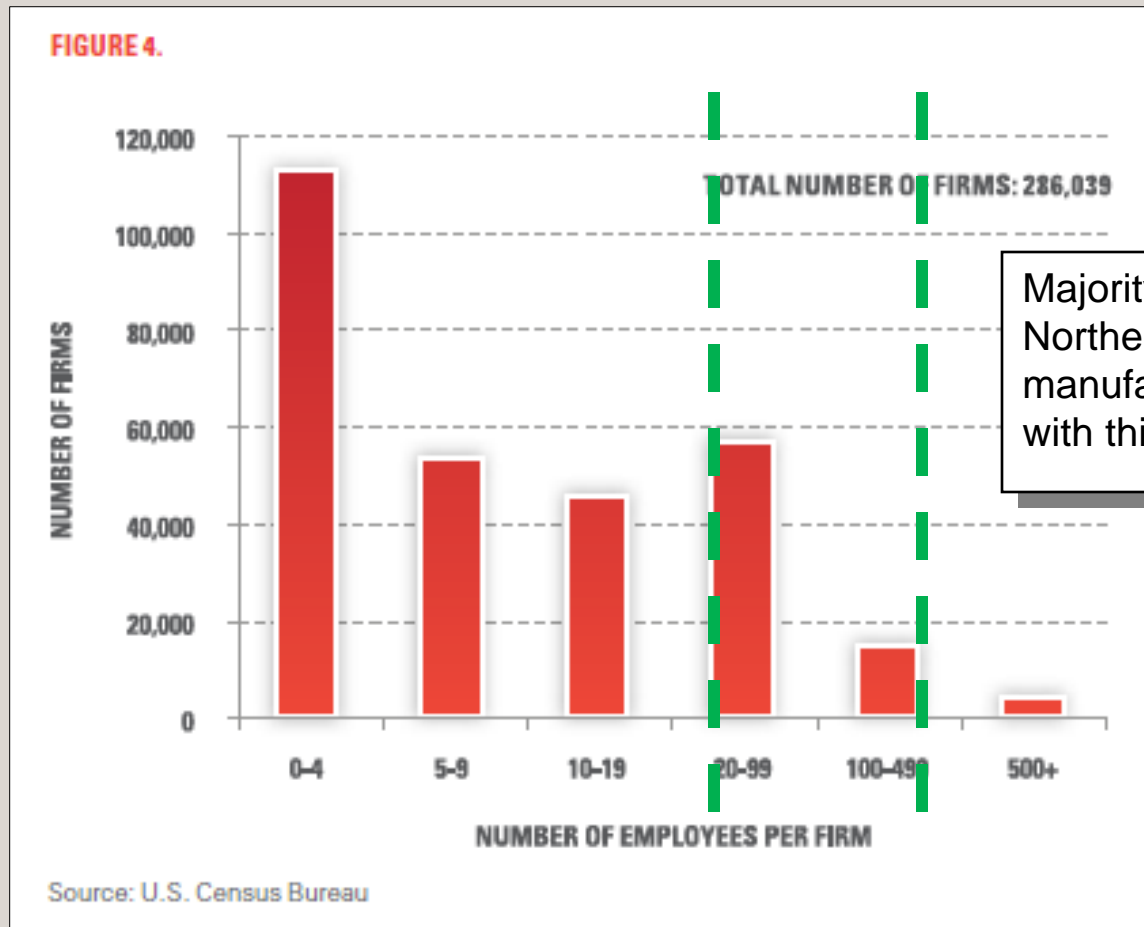
## Manufacturing – The Present



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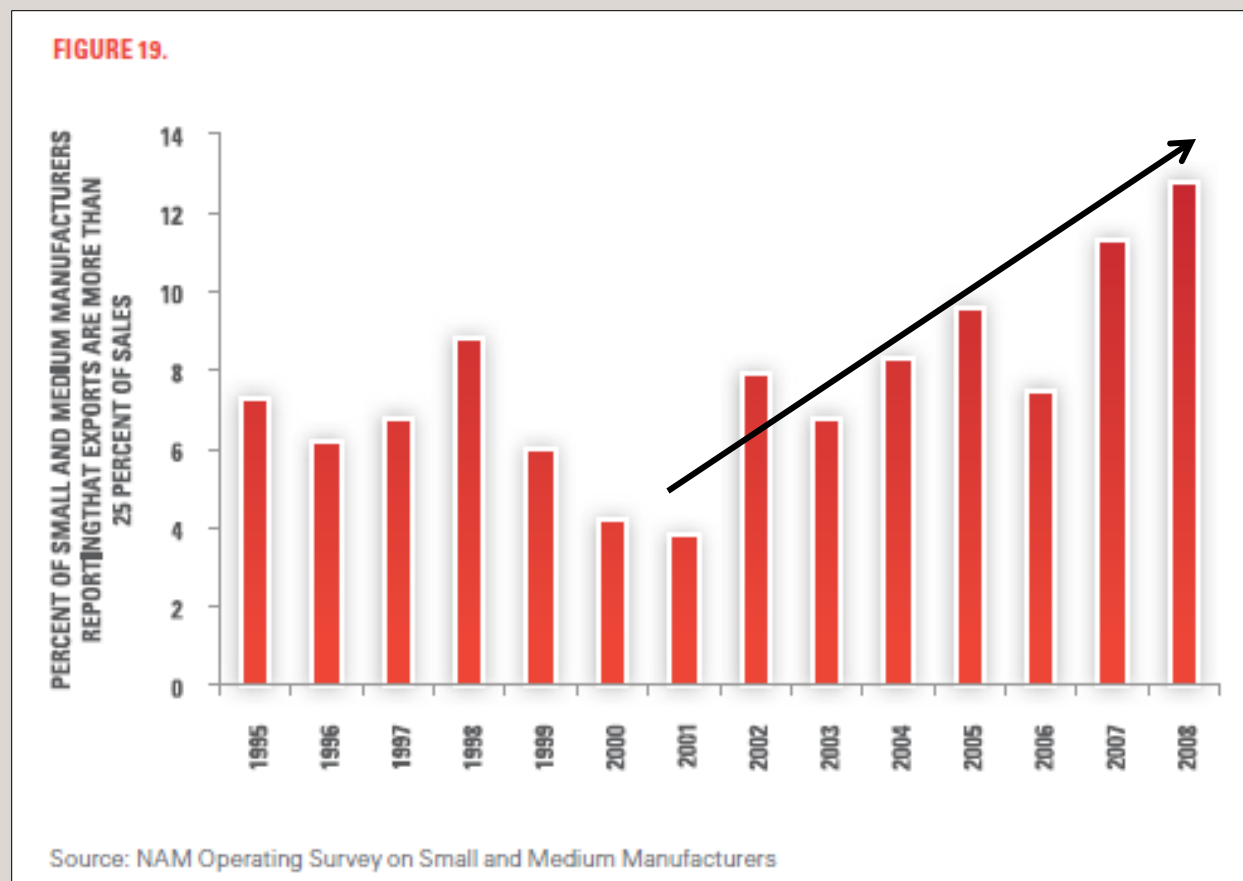


## Manufacturing – The Present



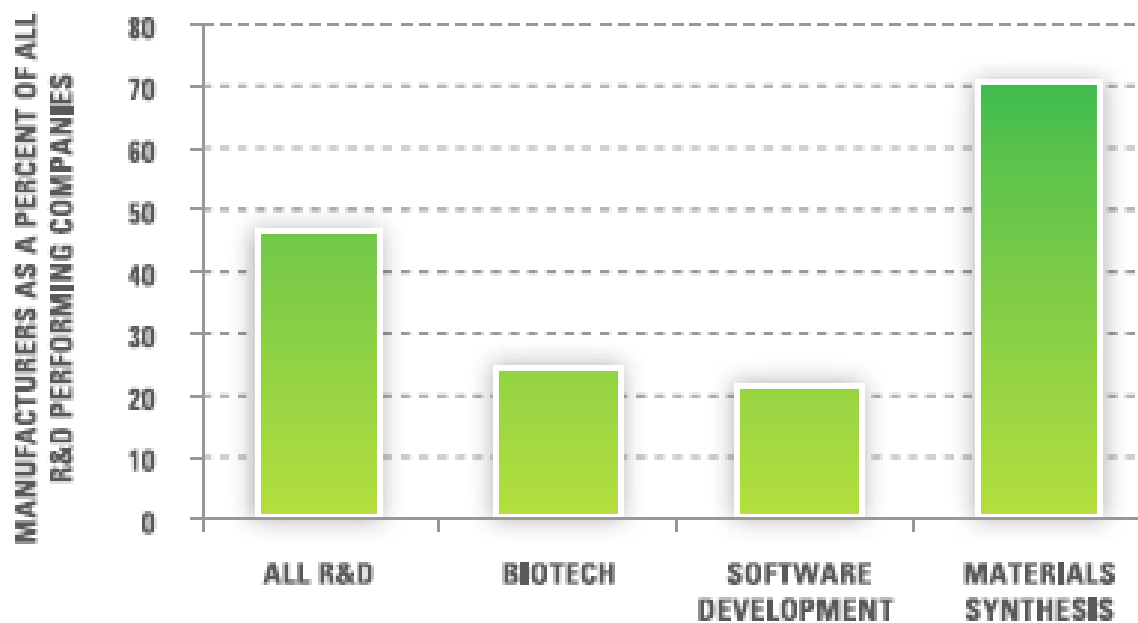


## Manufacturing – The Next 10 Years



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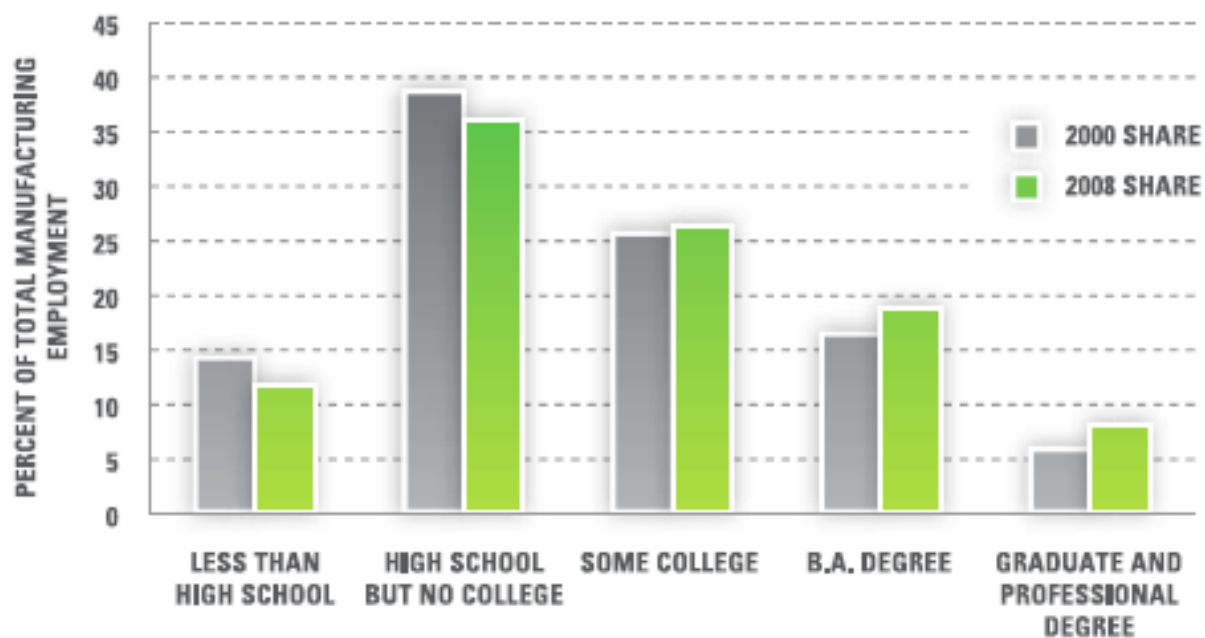
**FIGURE 28.**



Source: National Science Foundation, Survey of Industrial R&D, 2004

## Manufacturing – The Next 10 Years

**FIGURE 33.**



Source: U.S. Bureau of Labor Statistics, Current Population Survey

## What Does All of This Mean to You

- You should make stuff that is unique, stuff that is proprietary
- You should make stuff that has a lot of value added
- Your stuff should not be easy to copy or substitute
  
- You should have an export strategy
- You should have partners along the value chain
- Demonstrate high value, maximum benefit and incredible ROI
  
- Do something about data aggregation, analysis and strategy
- Adopt the principles of Next Generation Manufacturing (NGM)

## Alternative Definitions of NGM

1. **Technology Based**: increasing the use of technology in manufacturing processes or operations
2. **Lean & Green**: environmentally sound manufacturing (cutting waste or reducing waste streams)
3. **Green Products**: manufacturing of alternative energy or environmentally friendly products (e.g. solar panels)
4. **Musical Chair**: partners, distributors and channels are not fixed, and perhaps, products
5. **CRM**: everything revolves around the customer
6. **Old Definition**: Better processes, continuous improvement and more use of people and equipment
7. **Crazy Definition**: “...converge from a profit-based entity to a socially networked enterprise...”

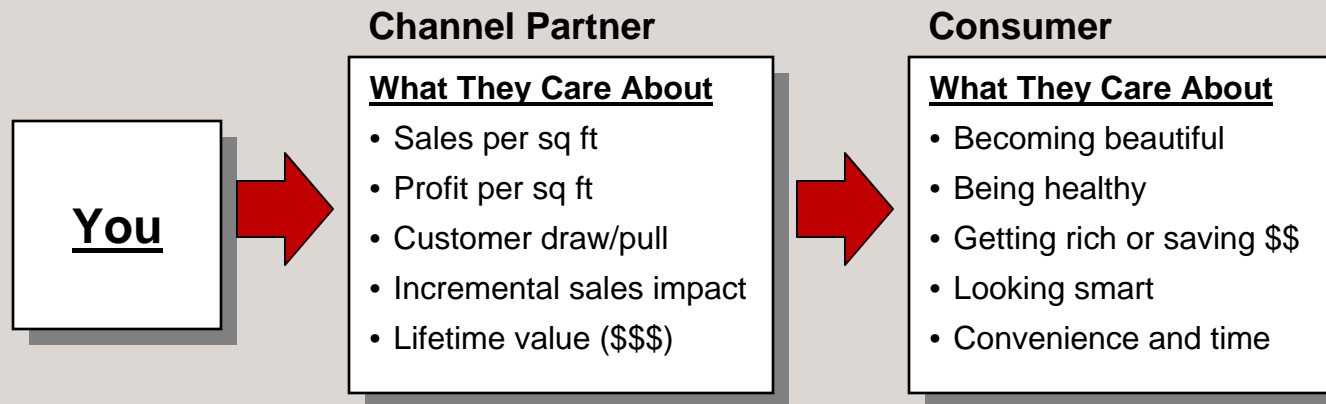
## Our Definition of NGM

**Seamless**: fully integrated, consistent and predictable, achieved through global collaboration with customers, channel partners and suppliers

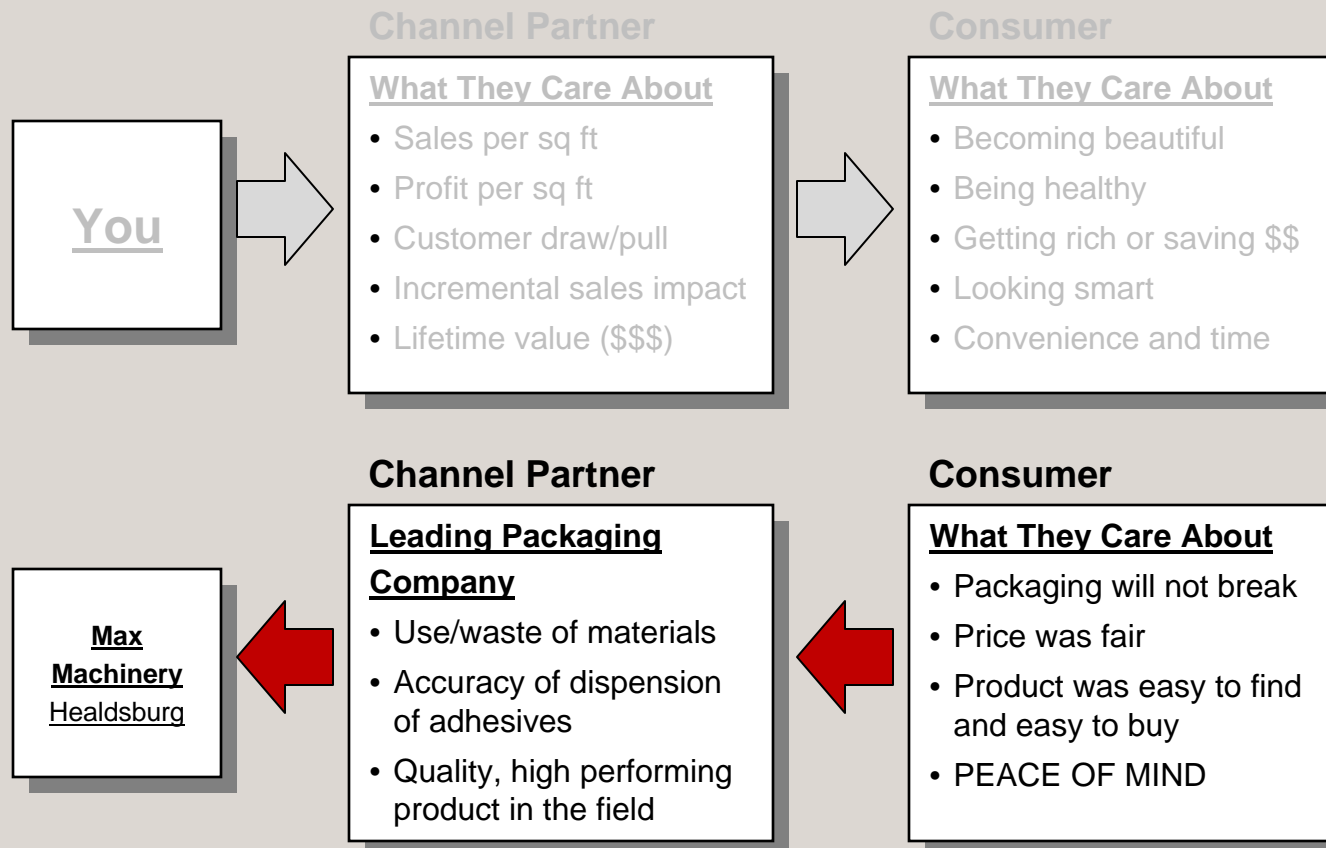
Purchasing, production, distribution and administration is automated and flow of data/information is constant. Technology is a major enabler

NGM is the maximization of utilization (labor and tangible assets) alongside the maximization of profit and value

## NGM Business Model

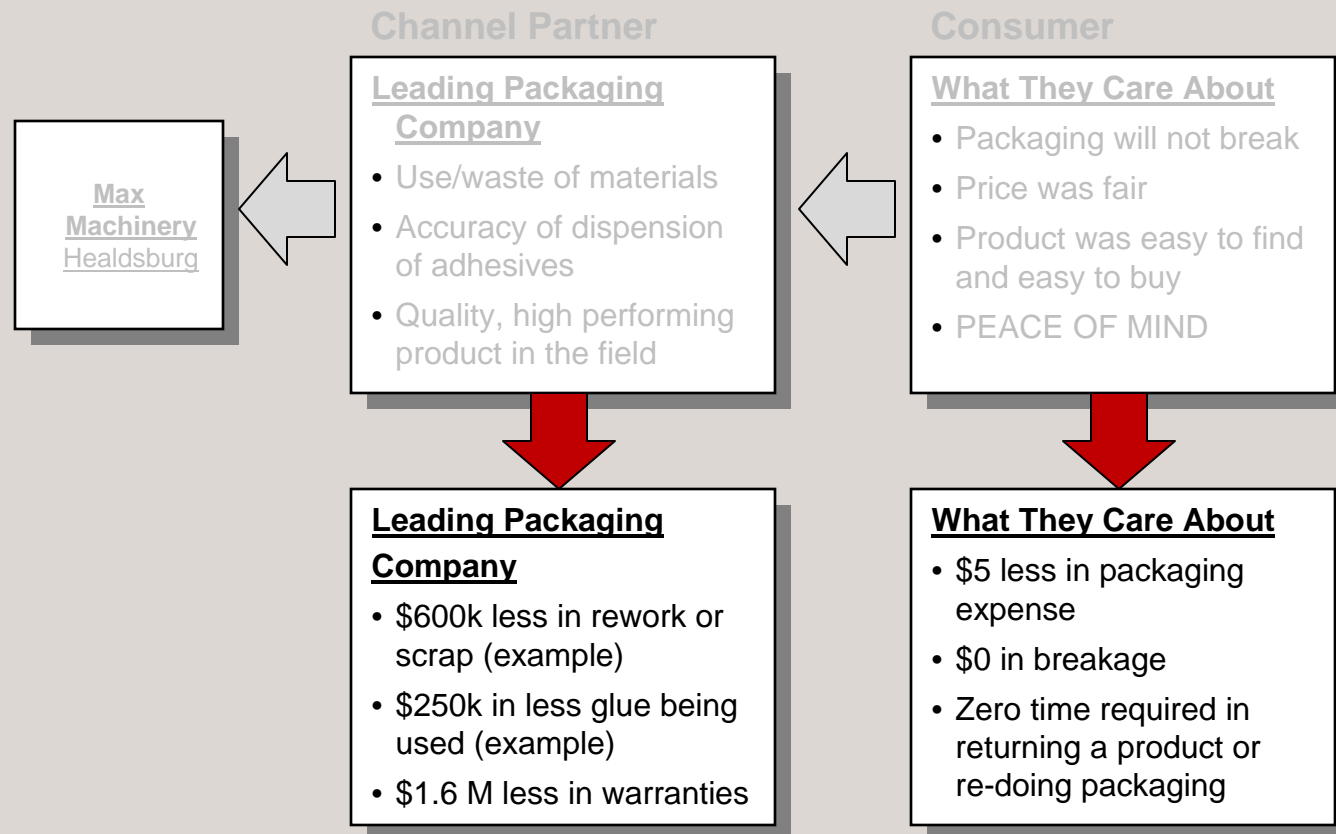


# NGM Business Model





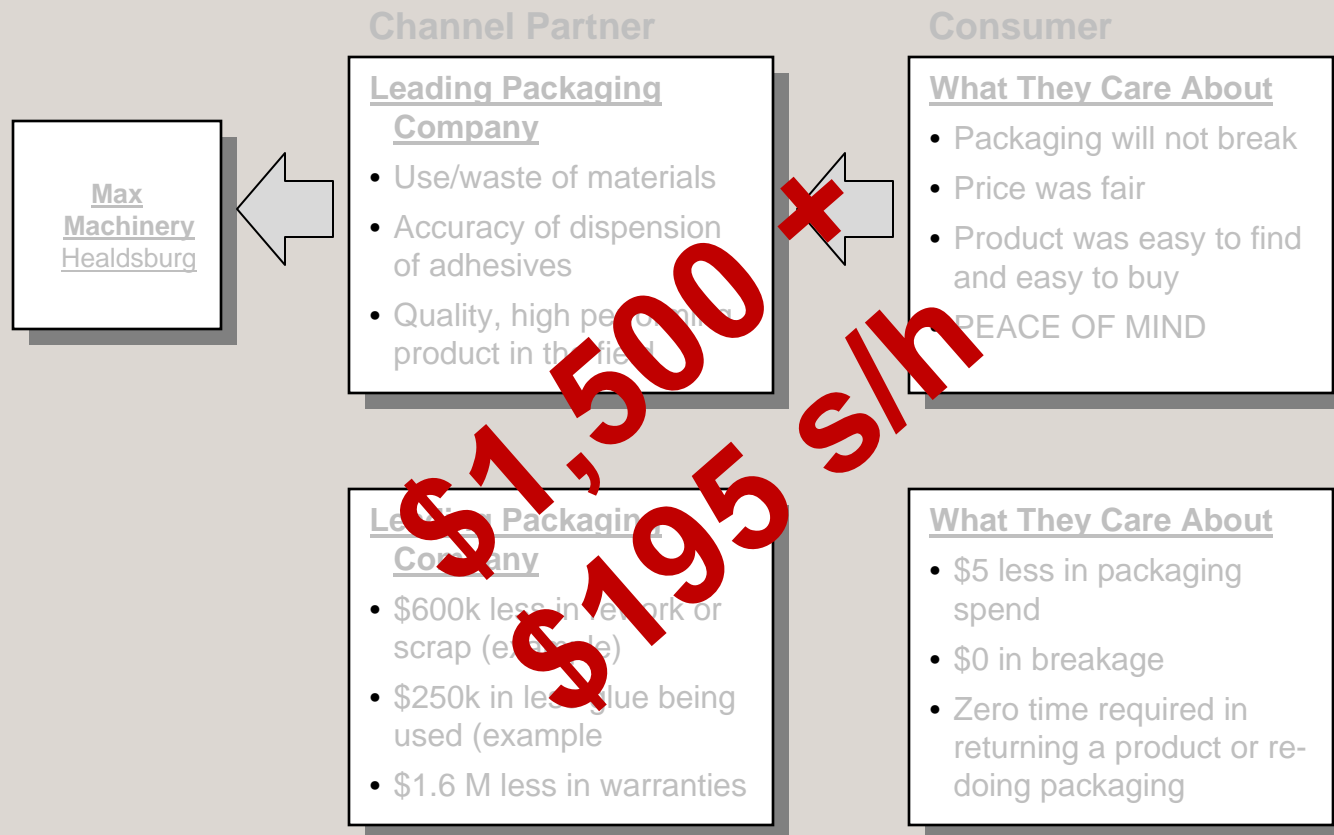
## NGM Business Model



## NGM Business Model



## NGM Business Model (Export Strategy)



## NGM Readiness

- **In a multi-state study of more than 2,500 manufacturers regarding NGM readiness:**
  - 62% of middle market manufacturers either do not have, or have a poor measurement system
  - 53% say their “customer-focused” NGM practices are poor to non-existent
  - 68% of companies recognize collaboration as critical to success in the next 5 years, yet 75% of that group admit they are far from being a collaborative partner

***Even with the most basic definition of NGM (collaboration with customers and suppliers), manufacturers admit they are far from where they need to be***

## NGM Supply Chain

- The most foundational element in NGM is the collecting, sharing and use of information
- Delays or unnecessary effort in collecting, sharing or using information is the biggest violation of NGM
- See how you compare based on the benchmarks below

	Leaders	Average	Below Average
Responsiveness to demand changes	Real-time	Efficient	Major Delays
Supply chain collaboration	Fully integrated	Some technology	Limited or no technology
CRM system	Implemented and tied to SCM/MRP	Implemented, sales team uses	CRM not implemented
Internal data sharing	Daily review of company data / performance	Weekly posting of some key company data	Information rarely shared with EEs
Technology investment	>10% of sales	6 – 10% of sales	< 5% of sales

## Becoming an NGM Company

1. **Create a Vision – in your “to be” world, how will you work? What will it look like and how will you be fully integrated?**
2. **Create a Roadmap – starting with next week, what steps will you take, and at what intervals, to become an NGM company?**
3. **Follow a Proven Methodology – implement your integration and NGM practices based on ways that have worked for thousands**

<b>Becoming NGM</b>	<b>Description</b>
<b>Integrate Internally</b>	<b>Eliminate double work, double entries and admin errors, make information accessible to all parties who need it; use technology</b>
<b>Connect with your Customers and Partners</b>	<b>Allow orders 24 hours a day, use and obtain POS data; automate replenishment; connect sales to your procurement of materials</b>
<b>Interface with your Suppliers</b>	<b>Share sales data with suppliers, then expect better performance and even pricing; cut lead times on purchases of key materials</b>

4. **Market Your Capabilities – Being an NGM isn’t just efficient, it can help you gain huge competitive advantages in the marketplace**

## NGM Based Innovation (Operations)

### **Innovation #1: Your production processes, timelines and quality**

- Lead time reduction of 50% is “innovation” in the mind of your customers, especially your core customers
- 100% on-time delivery and 100% first pass yield are both “innovations” in the mind of your customers
- Increased predictability can reduce lead times and costs from suppliers

***Seamless integration results in the above improvements; just a few of the many benefits from implementing NGM***

## NGM Based Innovation (Revenue)

### **Innovation #2: Value added services and features**

- Nearly 100% of manufacturers have key customer segments that do not know about all of its products and services
- Even 10 years after buying from a manufacturer, customers often say, “I didn’t know you did that”
- Add on services are “innovative” in the minds of customers, and they are willing to pay higher premiums
- This is among the quickest ways to grow earnings (direct flow from top line sales to bottom line profits)



## NGM Based Innovation (Products)

### Innovation #3: New products

- You can't get around it, you have to develop new products
- **23% of manufacturers invest < 1% of sales into new product development, 66% invest < 5%**
- This is the most expensive innovation activity
- "Innovate" by producing differently, both in R&D and production line areas
- Apply six sigma and DFM methodologies to increase the success rate and compress the development cycle; create designs that manufacturing can't get wrong
- Get suppliers involved in the process to set expectations for raw material and sub-component quality and timelines
- Get customers more involved in the process, they'll end up paying more (via input and contributions) for your "innovations"

## Massive, Meaningful Opportunities

- **Example: office equipment supplier manufacturer/servicer dominates its local markets by specializing in medical offices and law firms**
- **They charge almost 12% more than their non-specialty peers, but continue to gain more accounts; net income is 19%**
- **Their business model is that of full integration and 100% performance**

	<b>Best in Class Process</b>	<b>Result</b>
<b>Customer Integration</b>	Company taps into the networks of its clients to see what levels of toner, paper and supplies were consumed, then replenishes seamlessly. Service works the same way	Busy doctors and lawyers are never disturbed; that account is captive for a long time. Clients are willing to pay more for this dependability and convenience
<b>Process Optimization</b>	Supplies, break/fix needs are uploaded via their IT system, which routes the need to the correct individual with little admin effort	Internal cycle times are 75% faster than competitors; mistakes are virtually eliminated; no confusion on orders or communication
<b>Supplier Integration</b>	Suppliers are sent orders (packaging, ink, toner, etc.) as needed, based on a Kanban system built into their IT system	Suppliers charge this company less; suppliers also provide preferential treatment to them

## Massive, Meaningful Opportunities

- Foamy liquid soap
- Yes, that’s right, I said “foamy liquid soap”

<b>Strategy</b>	<b>Fact</b>	<b>Numbers</b>
<b>Charge more money for less product</b>	Foamy soap costs consumers the same or more per oz as non foaming liquid soap	Unit costs for the manufacturer are somewhere between 25-40% less than regular liquid soap
<b>Innovate and add product features</b>	Consumers love pre-lathered soap, because it “grips” better, takes less effort, is less slippery and feels “soft & fluffy”	Grew from 14% to more than 25% of the hand-soap markets since 2004; consumers were paying for the features
<b>Develop a captive audience</b>	Refill market is strong; consumers develop habits and this leads to loyalty	Refills are up to 40% less per oz for consumers, but at least that much cheaper for manufacturers

## Contact Information

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