

# MERCER

Human Resource Consulting



## Workforce Planning An Overview for Discussion

December 2005

**CONFIDENTIAL**

This presentation contains proprietary methodologies and tools which are only for review and use by the Texas Workforce Commission or in connection with the Cross Industry Cluster Initiative on Workforce Planning and remain the property of Mercer Human Resource Consulting. These methodologies and tools cannot be used outside of Texas Workforce Commission or in connection with the Texas Cross Industry Cluster Initiative without written consent by Mercer Human Resource Consulting.



Marsh & McLennan Companies

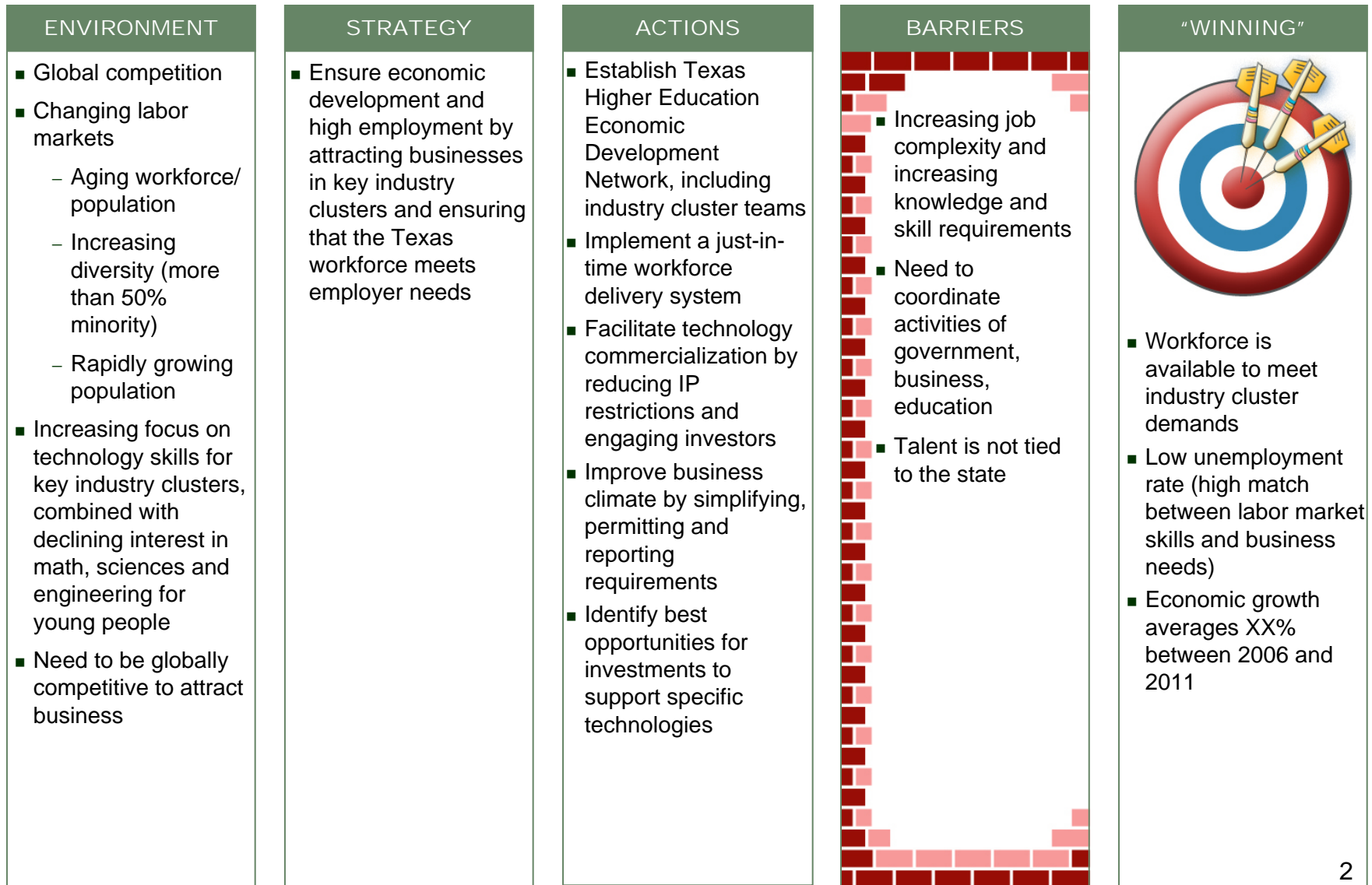
© 2005, Mercer Human Resource Consulting LLC

# Your objectives: Grow the economy of the State of Texas

- Attract and retain businesses within 6 industry clusters, identified as engines of job creation and economic development in the 21st century
  - Advanced Technologies and Manufacturing
  - Aerospace and Defense
  - Biotechnology and Life Sciences
  - Information and Computer Technology
  - Petroleum Refining and Chemical Products
  - Energy
- Implement a just in time workforce delivery system
  - Assess, forecast and recommend solutions for strategic skills by industry cluster for workforce and technical education programs
  - Develop, distribute and implement “best practice” models in education and training delivery
  - Facilitate ongoing interaction between industry and education

# The context for your workforce planning

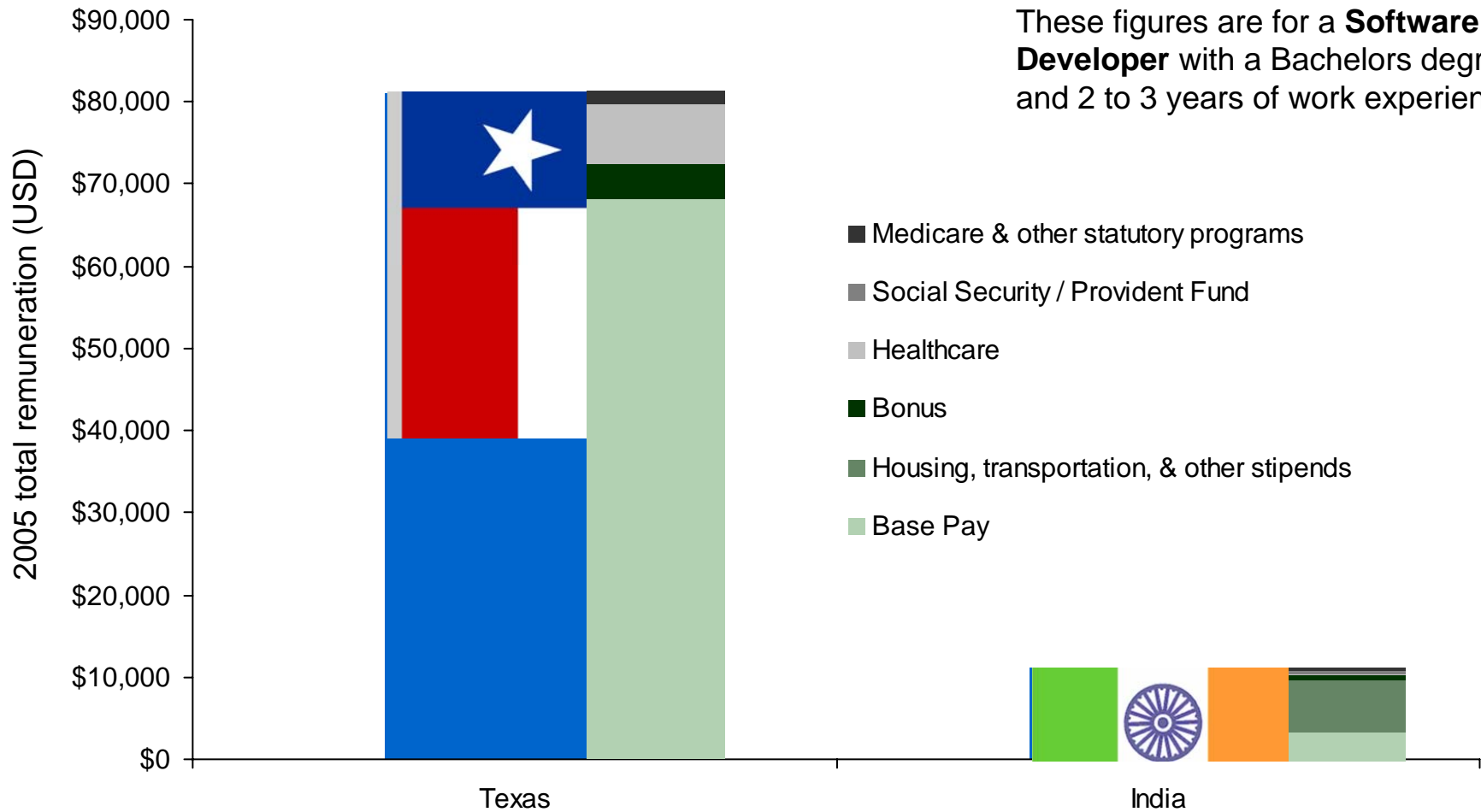
*DRAFT to be further developed*



Competition for talent is global . . . skilled labor costs in places like India are enticing for many businesses

### 2005 Employment costs

These figures are for a **Software Developer** with a Bachelors degree and 2 to 3 years of work experience



But cost is only one of the factors for knowledge workers – quality and availability is another critical dimension

An area roughly half the size of Texas has twice the number of college graduates

	Texas	State of Maharashtra, India
<b>Adult literacy rate</b>	97%	77%
<b>Labor force</b>	11.3 million	63 million
<b>With a “bachelors” degree or higher</b>	1.5 million	3.3 million
<b>Enrolled “Bachelors” students – Sciences</b>	386,100	106,500

Though Texas has far more students enrolled in the sciences

Source: US Census, National Science Foundation, IndiaStat, and Mercer analysis. Labor force is Civilian only. Texas 269,000 sq miles vs. Maharashtra at 119,000 sq mi.

Mercer Human Resource Consulting

Workforce planning delivers a rational basis for prioritizing, developing and funding the people practices needed to support business objectives

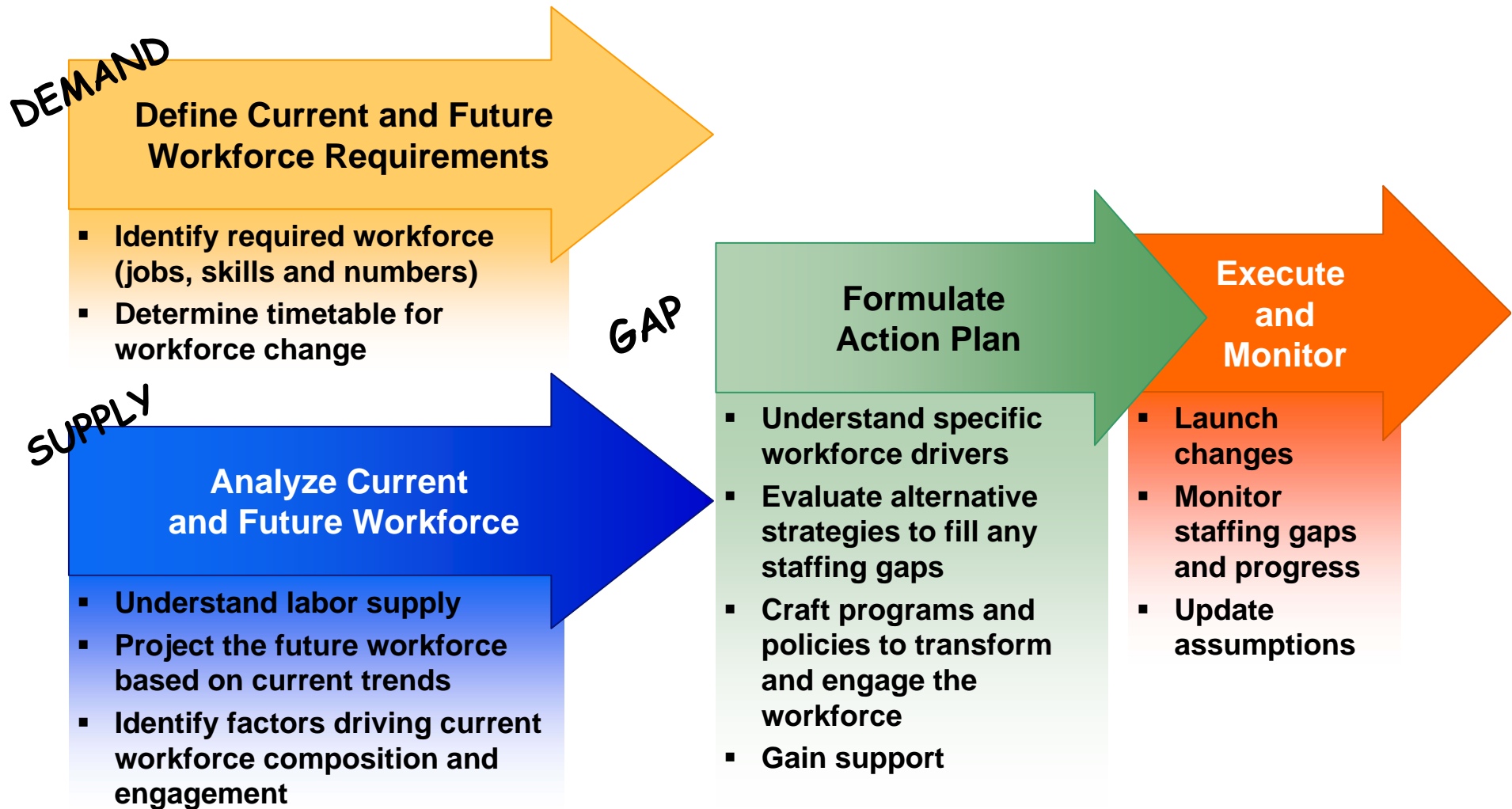
- Is a systematic process for identifying and addressing the gaps between the current (and future) workforce (supply) and the required workforce (demand)
- Provides a rational basis for prioritizing, developing, and funding workforce initiatives – such as education and training
- Should direct you to the actions that ensure that the right people with the right skills are in the right place at the right time at competitive rates



# Workforce planning answers these questions

- What jobs and skills are critical to economic development and business success for our target industry clusters?
  - Quantitative: how many?
  - Qualitative: what skills, knowledge and abilities?
- How can we ensure that Texas has workers with the right skills available when they are needed?
- What can we do to optimize our workforce investments?

# At its heart, workforce planning involves gap analysis and intervention prioritization





# Understand the current and future workforce demand

**DEMAND**

## **Define Current and Future Workforce Requirements**

- **Identify required workforce (jobs, skills and numbers)**
- **Determine timetable for workforce change**

- Identify key jobs and skills by industry cluster and across industries
- Document any current talent shortages, gaps
- Project growth for key jobs based on industry cluster growth rates
- Consider broad shifts in economy and industry that will impact need for key jobs in the clusters:
  - Will some jobs be outsourced to lower cost locations?
  - Will some talent needs grow faster than average within/across the industry clusters?
- Compare demand projections to supply projections and define critical gaps

# Input from employers and trade groups

## DEMAND

Building on the industry cluster work already completed, an employer survey can be used to collect information regarding workforce demand on:

- Key job profiles – including skill, competency and experience requirements
- Size of critical skill gaps
- Specifics on existing recruiting and retention challenges
- Current workforce gaps for key jobs (quality and quantity) and current turnover rates
- Current talent no longer in demand (could be retrained)
- Anticipated future changes in job, skill and competency requirements, including anticipated timing of change
- Technology's impact on job growth and changing skill needs

# Understand the current and future workforce supply

**SUPPLY**

## Analyze Current and Future Workforce

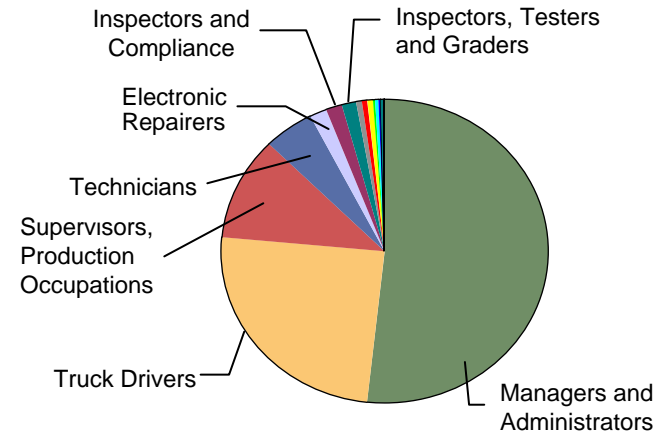
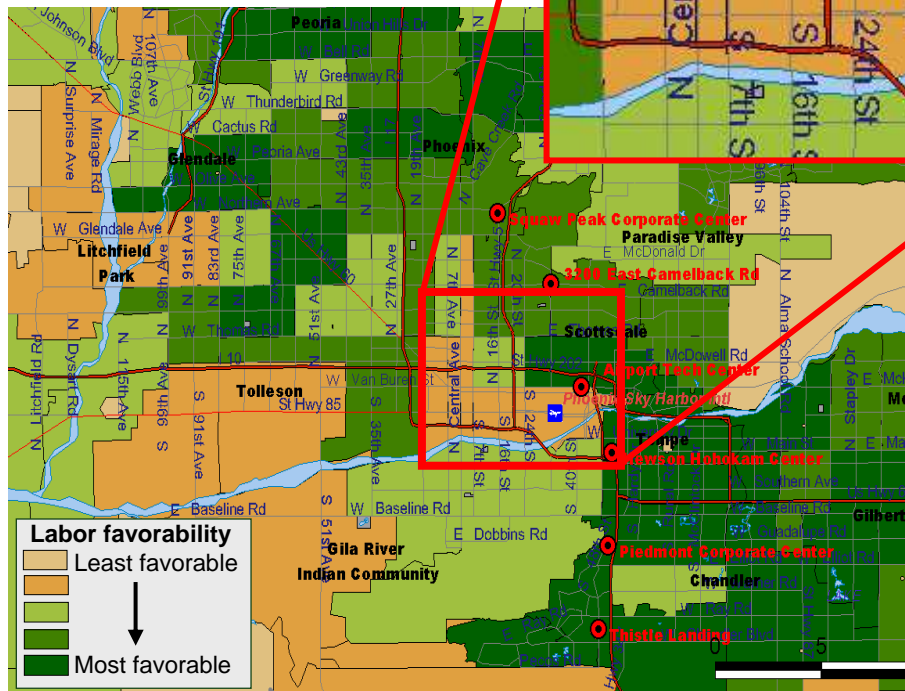
- **Understand labor supply**
- **Project the future workforce based on current trends**
- **Identify factors driving current workforce composition and engagement**

- Understand current workforce in each industry clusters – jobs, skills, education/training
- Identify common skills across the clusters
- Define labor market trends and confirm assumptions for projecting the future workforce
  - New entrants (workforce growth, educational profile, etc.)
  - Exits (retirements, leave the state, etc.)
- Consider options for expanding the supply of desired talent
  - Education and training/re-training
  - Attracting workers from outside Texas
  - Providing opportunities for individuals not currently included in the workforce (over 65, disabled, etc.)
  - Increasing retention of current workforce

# We use our External Labor Market database and analysis to assesses current and future labor availability

## SUPPLY

In most locales, demand will outstrip supply – forcing organizations to tap new sources.



Data shown above is for the selected metropolitan area

	Total mechanic supply	% Used	Available mechanics	Forecast supply	Forecast growth (%)
<b>Labor Mkt. A</b>	<b>907</b>	<b>8.1</b>	<b>806</b>	<b>959</b>	<b>6.0</b>
Area 1	456	16.4	380	479	5.0
Area 2	150	2.0	147	157	4.4
Area 3	148	12.2	131	160	7.7
Area 4	153	3.3	148	166	8.7
<b>Labor Mkt. B</b>	<b>10,822</b>	<b>1.0</b>	<b>10,794</b>	<b>11,018</b>	<b>1.8</b>
Area 1	139	1.0	138	147	6.3
Area 2	297	0.0	297	308	3.7
Area 3	569	0.0	569	590	3.8
Area 4	198	1.5	195	205	3.5

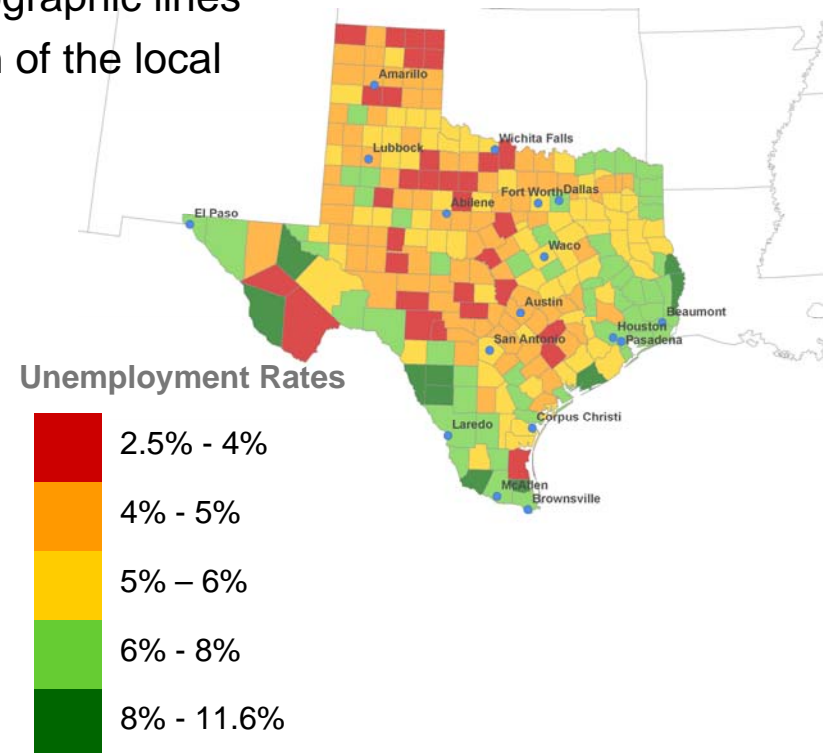
We use our own database plus existing public and private sources to determine demand

## SUPPLY

Determining how favorable a labor market is requires consideration of a number of inter-related factors

- Each metropolitan area in Texas will draw local labor differently – we define the size of each market based on past employment patterns and not simply along geographic lines
- The demographic and occupational breakdown of the local labor supply, including in- and out-migration
- The price sensitivity of labor supply to distance
- The existing or anticipated rate of turnover
- The sensitivity to changes in local unemployment rates
- The existing or anticipated rates at which companies will deplete the relevant labor pool
- The sensitivity of pay to local labor market conditions
- The value of a metropolitan areas “brand” for attracting and retaining employees

We need to go beyond simple data analysis that show disparities in employment levels and look to occupational level data



# Predicting workforce gaps with a focus on critical jobs

**GAP**

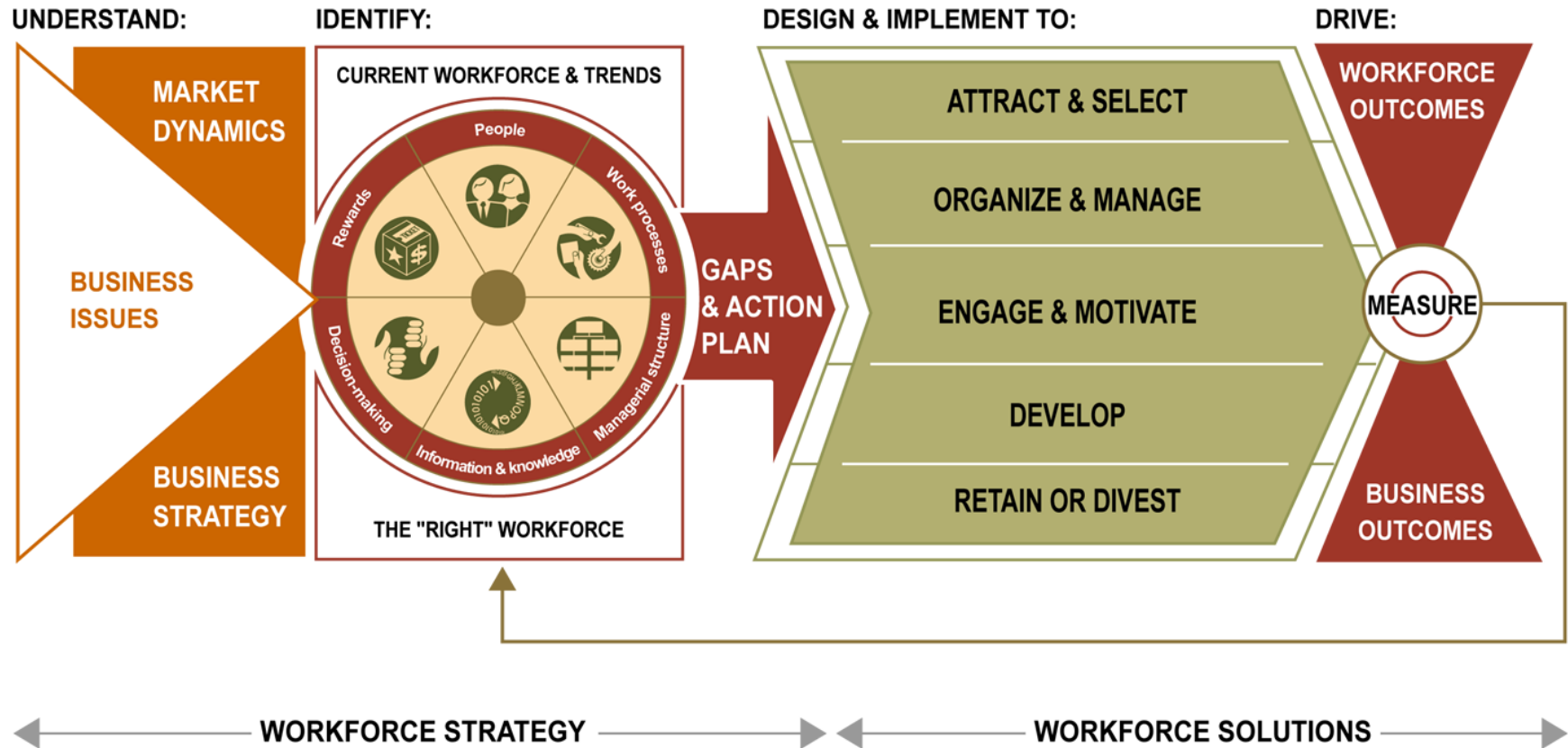
Five-year forecasted increase (+) or decline (-) in critical headcount

Job category	Gap analysis					Workforce flows		
	2002 active	Percent critical	2002 – 2007 critical gap	2002 – 2007 non-critical gap	% retirement eligible 2007	Voluntary turnover	Involuntary turnover	New hire rate
Business unit #1								
Engineering	198	7.8%	-39.8%	13.0%	21.5%	15.8%	5.0%	30.8%
Sales Manager	94	16.4%	-29.0%	11.4%	1.2%	3.5%	14.7%	20.4%
Construction	58	27.6%	-69.4%	-10.9%	28.4%	17.8%	0.0%	33.1%
Drafting	56	0.0%	0.0%	9.0%	32.2%	12.0%	4.0%	10.0%
Testing	52	48.1%	-14.5%	-5.5%	39%	2.6%	3.1%	5.2%

By knowing what critical jobs will have shortfalls, the necessary cross-training and recruiting can be anticipated and delivered.

# Workforce Strategy Framework

## Driving toward workforce and business outcomes



# Approach

## Major work steps

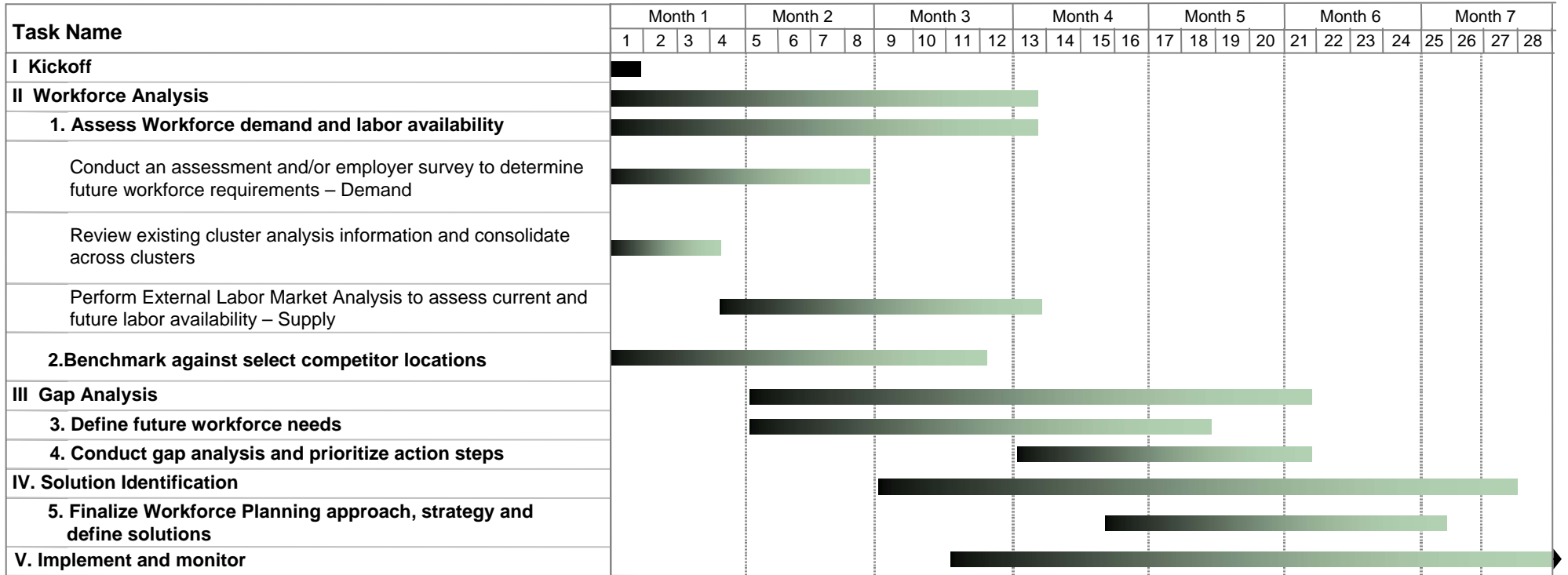
- Confirm overall approach and availability of resources with key stakeholders
- Review existing cluster analysis and industry group input
- Define employment demand survey methodology and content, then conduct survey and compile results
- Define future labor supply by critical occupation and key geographies
- Determine common skill gaps across the clusters
- Compare labor competitiveness vs. other North American and worldwide locations
- Compare supply and demand input to identify the most significant gaps; establish specific and measurable goals
- Generate recommendations for addressing high-priority gaps, including actions, resources and timing
- Facilitate decisions related to prioritization and refine recommendations; identify measures of success for each
- Gather resources and launch initiatives
- Measure progress and compare to goals



# Deliverables for workforce assessment

Aggregate demand in Texas by skill level	Supply of talent by occupational group
<ul style="list-style-type: none"> <li>• for key jobs across the clusters by metropolitan area</li> <li>• comparison of industry size and need for workers by cluster</li> <li>• current and historical economic conditions and sector growth driving workforce growth</li> <li>• current and historical wage and wage growth trends for each cluster</li> <li>• estimate for each major job group</li> </ul>	<ul style="list-style-type: none"> <li>• by metropolitan area</li> <li>• number of employees for each key job family for each cluster</li> <li>• future projections on the number of employees for each key job family for each cluster</li> <li>• general demographic trends impacting supply and the quality of workers</li> </ul>
Critical workforce gaps for each of the clusters (and across clusters)	Prioritized interventions to address the gaps
<ul style="list-style-type: none"> <li>• by metropolitan area and across the state</li> <li>• index rating comparing supply / demand for each key job family for each cluster</li> <li>• identification of workforce skills common among job families with unfavorable supply / demand gaps</li> <li>• Competitiveness vs. key US and Mexico labor markets and select markets in Asia and Eastern Europe (cost, availability, and quality)</li> </ul>	<ul style="list-style-type: none"> <li>• ranking of locations by supply / demand gap for key job families for each cluster</li> <li>• rankings for locations of primary skill gaps common across each cluster</li> <li>• identification of low demand occupations with similar KSAs as high demand jobs</li> <li>• developmental lead times for critical jobs</li> <li>• identification of education, incentive and other interventions to fill gaps by major jobs groups</li> </ul>

# Sample timeline



Timelines vary often depending on the decision making process and amount of technology transfer desired



## About the presenter...



Jay Doherty is a Principal with Mercer Human Resource Consulting. He has over twenty years of management consulting experience helping leading companies in North America, Europe and Asia. Jay's work includes retention analysis, site selection, workforce planning, organization design, and linking people management practices to bottom-line results.

Jay received an MBA from Darden at the University of Virginia, and is co-author of *Play to Your Strengths*, McGraw Hill publishing 2004.

[jay.doherty@mercer.com](mailto:jay.doherty@mercer.com)

ph: 804 344-2614

[www.LastingAdvantage.com](http://www.LastingAdvantage.com)

For further information in **Houston** please contact:

Philip Tenenbaum 713 276-2253, or

Scott Alt 713 276-2355

