Improving decisions through better understanding of labor markets
Six applications of External Labor Market (ELM) Analysis®

- Global **Site Selection** decisions can be made based upon a rigorous fact-based framework incorporating financial and non-financial data. Helps optimize location decisions across business units / functions and avoid ‘flavor-of-the-month’ location decisions.

- **Recruiting / sourcing** can be improved by identifying untapped and underutilized skilled labor pools.

- **Workforce planning** includes a forward looking estimate of new entrants and exits from the workforce by occupation group for each business location. Global businesses can optimize mobility to have employees in the business locations in which they’ll be needed. Understanding **diversity** profile and establishing reasonable goals. Analyzing the optimal future workforce footprint can ensure a supply of critical talent is available when needed.

- **Employment proposition** and **rewards** strategy can be optimized based on availability, quality and competition for skills. Location segmentation helps efficiently tailor the proposition while still enabling mobility across locations when needed.

- The external labor market factors can be incorporated into Internal Labor Market (ILM) analysis to know the **workforce drivers** (internal and in the market) that impact attraction, performance and retention.

- **Economic development** councils, governments, and educators can understand relative competitiveness and prioritize needed investments based on workforce needs and other gaps.
Companies try to understand the external labor market ... in order to better manage their Internal Labor Market

**Labor Market**
- **OVERALL LABOR MARKET**
  - Other provinces
  - Other countries
- **POOL OF POTENTIAL WORKERS**
- **QUALIFIED**
- **NOT QUALIFIED**
- **NEW ENTRANTS**
  - University
  - Other industries
  - Other locations
  - Entering from different occupation
- **LOSSES**
  - Joining other industries
  - Entering different profession
  - Leaving the province/country
- **EXITS**
  - Leaving profession
  - Leaving area
  - Exiting workforce
  - Retirement

**Your own Talent Acquisition and Internal Labor Market (ILM)**
- **EMPLOYEES**
  - LABOR DEMAND
  - BRAND
  - EMPLOYMENT PROPOSITION
  - LOCATION
  - TURNOVER
  - LATERAL TRANSFERS

- **Contract labor**
- **Service providers**

Companies try to understand the external labor market in order to better manage their Internal Labor Market.
External Labor Outlook
Mercer's External Labor Market (ELM) Analysis has been a critical input for clients evaluating their future talent supply risks. By assessing the current availability of labor and forecasting future conditions, ELM Analysis provides a comprehensive picture of labor market viability.

- Current and future labor market outlook for key jobs
- Profile of your current labor markets
- What is the labor market outlook, will current locations be viable in the future

**1. Labor Supply Projections**
The number of workers available in the labor force

**2. Labor Demand Projections**
The number of workers needed by the O&G industry

**3. Labor Force Gap Projections**
The differences between the Labor Supply and Demand

- Graduates from college (adds to the labor supply)
- Retirements (subtracts from the labor supply)
- Industry growth (adds to the workers needed)
- Workers needed to staff operations
- Worker productivity gains (subtracts from the workers needed)
Background on Mercer’s Site Selection decision framework and tools

ELM ANALYSIS
Site location can be one of the largest financial decisions many companies face. Labor supply, quality, and costs are often the largest and most variable factor when looking at options to expand or (re)locate.

Site decisions often arise from some combination of growth / geographic expansion, acquisition integration, recruiting difficulties, and those seeking lower costs.

Location decisions are clearly operating decisions – often involving the CFO, CHRO and staff specialists (e.g., corporate real estate, tax specialist, legal)
What Drives Location Choice?

For most organizations their business model drives location choice. Location is most often determined by:

- customer proximity / footfall
- natural resource / access to supply
- regulations

However … about 40% of jobs for large employers are not driven by the above factors and have some degree of discretion when it comes to location.

It is those decisions we’ll focus on here.

Percentage are based on Mercer’s analysis of Fortune 100 companies. Location choice for these vary extensively at the metropolitan area, state, country, region or globally.
As many as 40% of jobs have some degree of location choice

Percent of jobs/functions that are “location neutral” and not defined by customers, resources, logistics, or regulation

Percentages are based on Mercer’s estimates of Fortune 100 companies involving a review of 13.6 million jobs
Most approaches to site decisions have these common elements

1. Frame site decision – what strategic considerations should guide location choice (looks at organization, markets, customers, suppliers, geography and future needs)
2. Gather relevant external and internal data
3. Multi-factor location analysis
4. Financial analysis – detailed on-going and one-time costs (we typically focus only on those costs that vary by location)
5. Risk assessment
6. Site Decision
7. Negotiation, start-up ...

Determine your selection criteria upfront

- Understand how the job fits your business model? How does location impact brand, profitability, operations, and growth?
- Define the criteria upon which a decision will be made? Cost, labor quality, quality of living, business environment, etc.
- What is your risk tolerance? Safety, currency risk, hazard risk, stability, etc.
- What are the essential requirements for any candidate location? Airport access, infrastructure, time zone. Is proximity to competitors a positive or negative?
- What are the skill requirements? Education, experience, language
- How will this impact my overall workforce?
As location decisions evolve – a cross-functional team has emerged as the norm instead of Facilities or Finance/Tax driving the decision.

- LOB Leader(s)
- Human Resources
- Tax
- Finance
- Facilities/real estate
- Legal

And depending on the situation:
- Sourcing manager/procurement
- Labor relations
- Government relations
- Information technology
Mercer’s helps you with site decisions through our process, global data, decision tools and local implementation resources

**Process**
Mercer provides the global location decision framework, which provides a process and a comprehensive set of labor, business environment, and risk factors that impact location decisions.

**Data and analysis**
Mercer combines specifics from your business with our global labor and location database and plays out various location scenarios. We have extensive data on over 2,000 metropolitan areas/regions.

**Tools**
Mercer provides a custom location/sourcing tool to you, which allows you to play out various outsourcing and location scenarios on your own.

**Local Support**
Mercer has consultants in 190 cities in 41 countries.
This labor market outlook is a key input to your workforce planning. It provides context on the industry’s labor market supply, demand and workforce practices. Combined with management’s input on business strategy and armed with the results of your own Internal Labor Market Analysis these provide the critical inputs to your workforce plan.

1. Gain strategic insights
   - Gain insights on the supply and demand for talent.
   - What are XYZ’s business objectives (e.g., internal financial and strategic drivers of the business and employee demand; industry and economic demand drivers)?
   - What are the workforce implications?
   - What are the critical workforce segments?

2. Workforce Analysis
   - **Demand**: What are our future talent requirements?
   - **Supply**: How much talent will you have under specific assumptions? What is the outlook for our traditional labor markets?
   - **Risk**: What are the business risks of these gaps?

3. Model talent management options
   - **Pools (Buy)**: What is the external availability of required talent in select markets?
   - **Pipelines (Build)**: What is the feasibility of sourcing talent on a contract basis or moving select activities to others?

4. Take action
   - Where can the talent pipeline be accelerated to impact future supply?
   - Which practices need to change to ensure adequate supply and an economic workforce model?
   - How can geographic and other mobility moves impact future supply?
   - Are there work processes that should be re-engineered to minimize critical gaps?

- **Insights on Talent Supply and Demand**
- **Forecast and Gap Analysis**
- **Workforce Plan**
- **Talent Solutions and Ownership Model**
Selecting competitive labor markets
Labor supply, quality, and costs are often the largest and most variable factor when looking at options to expand or (re)locate.

Besides our Labor Supply data we maintain pay and HR information for 60 countries and 250 cities.

Country Reports
- Complete country package
- 4 country standard reports available
- 3 country standard reports available
- Limited – only 1 or two standard reports available

City Reports
- All 3 city reports available
- 2 of 3 city reports available
- 1 of 3 city reports available

We maintain data on over 2,000 metropolitan areas/regions in our ELM database.

ELM Data Quality
- Extensive data
- Moderate data
- Limited data at city level
- Data very limited

Our global labor and location database has extensive data on over 2,000 metropolitan areas/regions.

Besides labor supply data we collect annual data on compensation costs, employment practices, benefits, cost of living, political, social, and economic environment, medical and health considerations, public services and transportation for 250 cities in 60 countries.
Key elements considered in many location decisions

**External selection criteria**

### Labor Market
- Talent Availability
- Labor Quality

#### Labor and other Costs, Incentives, and taxes
- Employment Costs e.g., Compensation, Benefits and Taxes
- Local Cost Structure for Real Estate, Utilities, Transportation, FTZ, etc.
- Economic Incentives

### Cost
- Workforce Stability
- Work Schedule
- Workforce Diversity
- Language Skills
- Labor Productivity

### Community Attractiveness
- Quality of Living
- Costs of Living
- Access to Cultural Institutions

### Infrastructure
- Proximity to Educational Institutions / Professional Support
- Technological Infrastructure / Hubs
- Reliability of Utilities

### Business Climate
- Labor Law Flexibility / Work Rules / Unions
- Immigration Laws, Visas, Work Permits
- Intellectual Property Protection
- Access to Market(s), Export-Import / Tariffs and Investment Constraints, Political and Trading Relationships with Home Country

### Risks
- Safety / Security
- Brand and Employment Brand Impact

### Ecosystem
- Mobility
- Cultural Fit
- Transportation
- Supply Chain Logistics
- Real Estate Availability
- GDP and Sector Growth
- Inflation
- Development Authorities’ Support
- Community Vitality and Prosperity
- Exchange Rate Stability / Banking Risk
- Hazard Risk / Political / Investment Risk / Corruption

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Mercer’s Site Selection Framework from our ELM (External Labor Market) Analysis®

Also published in *Offshoring Opportunities – Strategies and Tactics for Global Competitiveness* by John Berry, 2005 Wiley (Jay Doherty, contributing author). Each type of decision has different elements selected and weighted by importance.

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Collecting information is not enough, we will work with you to create a framework for evaluating the sites.

Example only – Each location decision will have different factors and weightings.
Illustrative case study - framework application
This Mercer client used a similar decision-making framework to assess two locations for a centralized supply center, post-acquisition

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>Weight</th>
<th>Anytown</th>
<th>Cityplace</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>35%</td>
<td></td>
<td></td>
<td>• Lower average compensation for medical technicians in Anytown offsets greater labor talent availability in Cityplace</td>
</tr>
<tr>
<td>Risk</td>
<td>5%</td>
<td></td>
<td></td>
<td>• Hurricane/flood risk in Cityplace has higher probability than fault line risk in Anytown</td>
</tr>
<tr>
<td>Local business environment</td>
<td>15%</td>
<td></td>
<td></td>
<td>• More extensive communications and utility infrastructure in Cityplace offsets more centralized location of Anytown</td>
</tr>
<tr>
<td>National business environment</td>
<td>n/a</td>
<td></td>
<td></td>
<td>• Both markets in same country</td>
</tr>
<tr>
<td>Talent attraction / retention</td>
<td>15%</td>
<td></td>
<td></td>
<td>• Higher satisfaction level evidenced by economic and population growth in Cityplace, combined with lower union participation and turnover</td>
</tr>
<tr>
<td>NPV – economic impact</td>
<td>30%</td>
<td></td>
<td></td>
<td>• Lower labor costs in Anytown comparable with lower rent and utility costs in Cityplace</td>
</tr>
</tbody>
</table>

| Total Weight = 100%               |        |         |           | Locating the supply center in Anytown was the favored based on this relative attractiveness analysis                                                                                                                                                                                                                                    |

72 | 64

Disguised client example
Results for the most favorable locations are summarized, scored, and ranked

<table>
<thead>
<tr>
<th>Weight</th>
<th>Criteria</th>
<th>Loc A</th>
<th>Loc B</th>
<th>Loc C</th>
<th>Loc D</th>
<th>Loc E</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>Workforce capabilities</td>
<td>136</td>
<td>98</td>
<td>104</td>
<td>72</td>
<td>110</td>
</tr>
<tr>
<td>20%</td>
<td>Costs: labor &amp; real estate</td>
<td>73</td>
<td>63</td>
<td>91</td>
<td>82</td>
<td>137</td>
</tr>
<tr>
<td>15%</td>
<td>Environmental risks &amp; quality</td>
<td>105</td>
<td>125</td>
<td>116</td>
<td>119</td>
<td>79</td>
</tr>
<tr>
<td>15%</td>
<td>Existing workforce and retention</td>
<td>86</td>
<td>116</td>
<td>68</td>
<td>62</td>
<td>116</td>
</tr>
<tr>
<td>14%</td>
<td>Industry experience</td>
<td>100</td>
<td>82</td>
<td>73</td>
<td>118</td>
<td>109</td>
</tr>
<tr>
<td>10%</td>
<td>Time zone</td>
<td>89</td>
<td>77</td>
<td>77</td>
<td>125</td>
<td>143</td>
</tr>
<tr>
<td>6%</td>
<td>Travel (from HQ)</td>
<td>139</td>
<td>118</td>
<td>108</td>
<td>107</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Overall ranking</td>
<td>102</td>
<td>95</td>
<td>91</td>
<td>93</td>
<td>112</td>
</tr>
</tbody>
</table>
**Location decision criteria assessed based on quantitative facts – lead to objective decisions**

**POSSIBLE OUTPUTS**

<table>
<thead>
<tr>
<th>Key decision criteria</th>
<th>Weight</th>
<th>Budapest</th>
<th>Loc. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Labor quality / availability</td>
<td>30%</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>2  Labor costs</td>
<td>25%</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>3  Incentives</td>
<td>20%</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>4  Business climate</td>
<td>15%</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>5  Risk profile</td>
<td>5%</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6  Travel from HQ</td>
<td>5%</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total rank</strong></td>
<td>100%</td>
<td>5.5</td>
<td>6.6</td>
</tr>
</tbody>
</table>

- Decisions based on cost alone often end in disappointment
- Incentives (or penalties) are often seen as “make or breaks” however these are rarely material in the long-term
- Business climate cannot always be translated into cash, but plays an important role in long-term location choices (e.g., airline industry)

**LABOR QUALITY/ AVAILABILITY (EXAMPLE)**

- Companies’ hiring intentions for 2017
- % of population with tertiary education
- Number of students with relevant disciplines in the region
- Determining IT talent supply – Warsaw example

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Market costs of labor and real estate are collected and compared for each location

<table>
<thead>
<tr>
<th>Metropolitan area</th>
<th>Total costs per person</th>
<th>Office costs per person</th>
<th>Annual FTE wage</th>
<th>Class A Rental Rates: CBD</th>
<th>Class A Office Space: CBD</th>
<th>Class A Vacancy rate: CBD</th>
<th>Hourly wage</th>
<th>Total Cost benefits, taxes</th>
<th>Occupational labor supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>$25,426</td>
<td>$5,250</td>
<td>$20,176</td>
<td>$21.00</td>
<td>485,537</td>
<td>24.76%</td>
<td>$9.70</td>
<td>$12.94</td>
<td>26,615</td>
</tr>
<tr>
<td>Area 2</td>
<td>$26,387</td>
<td>$4,755</td>
<td>$21,632</td>
<td>$19.02</td>
<td>4,909,806</td>
<td>8.60%</td>
<td>$10.40</td>
<td>$19.15</td>
<td>12,787</td>
</tr>
<tr>
<td>Area 3</td>
<td>$26,401</td>
<td>$3,375</td>
<td>$23,026</td>
<td>$13.50</td>
<td>5,087,369</td>
<td>11.19%</td>
<td>$11.07</td>
<td>$13.51</td>
<td>16,919</td>
</tr>
<tr>
<td>Area 4</td>
<td>$27,390</td>
<td>$4,968</td>
<td>$22,422</td>
<td>$19.87</td>
<td>3,706,537</td>
<td>16.56%</td>
<td>$10.78</td>
<td>$13.52</td>
<td>52,179</td>
</tr>
<tr>
<td>Area 5</td>
<td>$28,229</td>
<td>$4,600</td>
<td>$23,629</td>
<td>$18.4</td>
<td>7,267,759</td>
<td>14.94%</td>
<td>$11.36</td>
<td>$15.19</td>
<td>43,353</td>
</tr>
</tbody>
</table>

Demographics and labor market conditions vary considerably and can work for or against a relocation or expansion decision

<table>
<thead>
<tr>
<th>Metro area 1</th>
<th>Percent college education</th>
<th>Percent married</th>
<th>Median age</th>
<th>Median household income</th>
<th>Percent households with 2 + workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>County A</td>
<td>22</td>
<td>41</td>
<td>36</td>
<td>43,257</td>
<td>26</td>
</tr>
<tr>
<td>County B</td>
<td>26</td>
<td>48</td>
<td>36</td>
<td>56,705</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metro area 2</th>
<th>Percent college education</th>
<th>Percent married</th>
<th>Median age</th>
<th>Median household income</th>
<th>Percent households with 2 + workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>County A</td>
<td>25</td>
<td>43</td>
<td>35</td>
<td>41,054</td>
<td>16</td>
</tr>
<tr>
<td>County B</td>
<td>26</td>
<td>45</td>
<td></td>
<td>45,947</td>
<td>5</td>
</tr>
</tbody>
</table>
External Labor Market analysis
Assesses current and future labor availability and identifies sourcing alternatives

In most locales, demand will outstrip supplies – forcing this company to tap new sources.

Mercer showed how to target recruitment and focus on fewer, but more lucrative, sources.
Real-time labor market data from social media and job boards

Example for Skill Distribution shows there is expected to be more C++ and Embedded skills available in XYZ than Firmware skills.

Out of the 330 IT/Software job ads in XYZ, about 80 (~25%) contain the skills XYZ is looking for.

Among that 80 job ads, C++ and Embedded skills are more popular than DSP and Firmware.

Data source: key word search from job boards.
Determining experience distribution and not simply headcounts
Example: 80% of the developers are expected to have 2+ years of experience, assuming current job postings indicate future experience level distribution in XYZ.

Among the relevant software IT jobs (e.g., C++ programming), the experience level is higher than other IT jobs (e.g., tech support).

Data source: experience level search from Southeast Asia job board
Natural hazard risks and business interruptions can be considered in facility location decisions

• Based on location and brief site descriptions, the hazards of hurricane, flood, earthquake, and tornado can be modeled.

• This modeling utilizes Marsh’s Risk Management Solutions RiskLink™ system. RMS is the recognized leader in natural hazard modeling.

• Business interruption as well as facility damage can be assessed, including:
  – Probabilities and damage estimates for the sites due to natural disaster
  – Business interruption and recoverability estimates
Decision support tools are sometimes used to run “what if” scenarios, evaluate alternatives, and validate site selection choices.

This Global Locator tool provides a risk-adjusted NPV and labor deployment scenario testing capability.

SiteSelect is a spreadsheet-based application designed to provide an easy and intuitive way to adjust criteria weightings used in Mercer’s location ranking model.
Overview of trends impacting location strategy and your future workforce
30 trends that may impact locations, facilities and amenities in the future

Changing Workforce Demographics
- Generational shifts, age imbalance, & longevity
- Diverse multi-cultural workplace
- Urbanization
- Economic migration

Accelerating, Converging & Pervasive Technology
- Big data
- Artificial intelligence (ML/NLP)
- Digital health & biotech
- Smart buildings
- Augmented reality
- Robotics / 3D printing
- Cloud
- Cyber security & privacy
- IoT
- Autonomous vehicles high-speed transport
- Logistics compression

New organizational models
- Global talent choice
- Mass customization
- Gig-based working mindset & contracts
- Smart markets for talent
- Employment propositions change
- Fluid talent networks
- Crowdsourcing & entrepreneurship
- Managed services
- Cross-company collaboration
- Skill shifts

Environment, legal and political
- Geopolitical volatility
- Sustainability & ecolocations
- Inequality & global rebalancing
- IP & trade protection

Mercer ELM Analysis. Note that this is not industry specific; as it would need to be customized to your business, geography or organization model.
Our lessons learned about the process

- **Successful decisions** have all key stakeholders represented, make the decision criteria explicit, assess the impact to the overall business, and match what the local labor markets have to offer to your workforce needs.

- **Focus only on the factors that vary** by market and not on all the costs and quality ones.

- **Avoid original data collection**, location information unless timing is not an issue.

- **Perform due diligence**, not just the market’s but your ability to manage within that environment.

- **Decisions based on costs alone often end in disappointment** – be conservative in cost savings and stick to a short time-horizon.

- **Don’t ignore the implications for your internal labor market** – understand your balance between “bought” and “built” talent needed for business success.

- Know when is it time to **look across the whole portfolio** of businesses and not take each location decision as they come.

- **Don’t copy others** … figure it out for yourself – Uniqueness dominates; exploit it to create more lasting advantage.

- This process offers insights beyond location and sourcing strategy and helps in recruiting, workforce planning, government relations, incentives, negotiations with partners, …
Some of our site selection experience

- **Energy** – Future labor market assessment for all critical jobs including geologists, geophysicists, and engineers globally
- **Energy** – Future labor supply in the Caspian Sea area
- **Banking** – Select top five sites for operational centers in the U.S.
- **Consulting** – Assess North American locations for central analytic processing
- **Consumer products** – Site Selection for marketing, sales, and sales support functions
- **Consumer products** – North American location selection for call center and financial support functions
- **Consumer products** – Determine best European office location
- **Economic dev. agency** – Analysis of a number of metropolitan areas competitiveness to supply aircraft mechanics
- **Financial Services** – Labor supply, recruiting trends and demographic changes for all current markets
- **Free Trade Zone** – Recruiting market assessment and competitive position in the Western Hemisphere
- **Healthcare** – Assessment of nursing labor supply
- **Hi tech** – Deliver Global Location Decision support tool including supply and costs for segmented engineering jobs worldwide
- **Hi-tech** – Chip Manufacturing plant location in China/India
- **Hi-tech** – Optimal locations for cross country consolidation of 40+ sites
- **Insurance** – Consolidate 40+ back office processing sites into two operations centers in US/Canada
- **Insurance** – Relocation project choice between two locations bases on labor quality, availability, demographics, quality of living, purchasing power and employee transfer likelihoods
- **Reinsurance** – Headquarters location based on nine U.S. alternatives
- **Logistics** – Where to locate all non-site dependent jobs
- **Logistics portal** – Worldwide location for all functions for a rapidly growing business
- **Manufacturing** – Precision manufacturing plant location in South America vs. three Asian countries
- **Manufacturing** – Plant location site selection for U.S. and Canada
- **Manufacturing** – ASEAN country comparison for manufacturing plant location
- **Manufacturing** – Optimal location in Asia for costs, labor, incentives and export restrictions
- **Manufacturing** – European consolidation of business unit and support services across five locations
- **Pharma** – Determine optimal headquarters and laboratory site during acquisition integration
- **Pharma** – Multi-function location decision covering back-office support, clinical, and customer support globally
- **Telecommunications** – Assess six US cities
- **Travel industry** – UK and Ireland call center location
MAKE TOMORROW, TODAY