

The background is a vibrant blue with a subtle geometric pattern of lines. A large, dark blue diagonal shape on the left contains the main text. In the upper right, a single red gumball is positioned above a large, cascading pile of yellow gumballs that fills the bottom half of the page.

# Competitive Alternatives

KPMG's Guide to International  
Business Location Costs

Volume II Report – 2014 Edition

[competitivealternatives.com](http://competitivealternatives.com)

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KPMG LLP, in association with MMK Consulting Inc., has conducted an analysis of the relative costs of doing business in 10 countries in North America, Europe, and Asia Pacific. This report was made possible through the support of our research contributors and sponsors, as identified in this report.

The analysis in this publication is based on cost information collected primarily between July 2013 and January 2014. Taxes reflect tax rates in effect on January 1, 2014, and also incorporate any announced changes at that time to take effect at specified later dates. Exchange rates and other cost factors will, of course, change over time. Tax rates and other tax-related information are also subject to change as a result of new legislation, judicial decisions, and administrative pronouncements.

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**Competitive Alternatives**  
KPMG's Guide  
to  
International Business Location Costs  
**2014 Edition**

**Volume II: Appendices**

# Appendices

**A. Details of Study Methodology.....A.1 to A.6**

Discusses the study methodology and key business model assumptions underlying the analysis contained in this report.

**B. Tax Assumptions and Comparisons.....B1. to B.22**

Presents the tax rate assumptions used for each location in the comparative analysis, along with summary measures of tax burden resulting from the analysis.

**C. Other Competitiveness Factors: Regional Data and Data Source Notes.....C.1 to C.8**

Contains detailed regional and local data, along with detailed data source notes to support the analysis of other competitiveness factors presented in Chapter 6 of the study report.

**D. Selected Bibliography and Sources of Data.....D.1 to D.15**

Contains a listing of sources used in respect of each city to gather recent data for input to this study.

# Appendix A

## Details of Study Methodology

The value of any major study depends on the quality of the study design, the data assembled, and the analytical methodology. This appendix provides further details of the methodology of the *Competitive Alternatives* study, including:

- Design of the *Competitive Alternatives* Cost Model
- Identification of the key location-sensitive cost components
- Definition of the standard business operations
- Specification of common business model assumptions
- Methodology for estimating labor costs
- Methodology for estimating transportation/distribution costs for each operation
- Methodology for estimating taxes.

### Competitive Alternatives Cost Model

This report utilizes the *Competitive Alternatives* Cost Model, a proprietary model which can analyze costs for businesses in many different types of business operations across multiple geographic locations.

The model uses two streams of information:

- Standardized operating specifications for each business operation
- Current business investment and operating cost data for each location.

By combining this information for each operation and location, the model produces pro forma estimates of annual costs and cash flows for a new business facility in each location. Outputs from the Cost Model include standard financial and project evaluation reports including:

- Ten-year income statements
- Ten-year balance sheets
- Ten-year cash flow statements
- Net present value of cash flows
- Corporate income tax calculations.

These reports form the basis of the cost comparisons contained in this report. The result is a snapshot of business costs in each location, scaled relative to the significance of each cost item during the establishment, ramp-up, and full operation phases of a new business operation, over ten years.

### Standard Business Operations

As described in Chapter 4, 19 industry-specific standard business operations were specified for analysis in this report. These business operations have been defined according to a number of standard investment and operating specifications, including:

- Land and building requirements
- Machinery and equipment requirements
- Inventory
- Financing (debt/equity) and working capital requirements
- Annual sales revenues
- Workforce requirements
- Raw material and component inputs
- Research and development expenditures
- Electricity and natural gas requirements
- Product distribution requirements.

Summaries of the standardized parameters for each of the 19 industry-specific business operations can be found online at [CompetitiveAlternatives.com/industries](http://CompetitiveAlternatives.com/industries).

## Key Location-sensitive Costs

This study and the Cost Model differentiate among 26 location-sensitive cost components.

Data for these location-sensitive cost factors, for each of the

cities included in this study, were compiled during the latter half of 2013 and the start of 2014. The resulting database includes more than 50,000 individual cost items. Sources of data are listed in Appendix D.

Other costs that a new business would encounter have been held constant for each location. These include:

- Major cost items, such as major machinery and raw materials used in production. These costs are generally subject to global market pricing and are relatively location-insensitive. Parts and components where costs are fixed from other levels of the supply chain are treated in the same way.
- Smaller cost items, such as advertising and business services, which are of very limited materiality for the types of business examined.

The scope of the Cost Model does not include an assessment of either withholding taxes or the taxation of individuals.

26 Location-Sensitive Cost Components		
<b>Labor costs</b>	<b>Facility costs</b>	<b>Cost of capital</b>
Wages and salaries:	9. Office leasing	17. Financing costs (interest)
1. Pay rates for 42 job positions	10. Factory leasing	18. Depreciation charges
Statutory plans:	11. Industrial land	
2. Government pension plans	12. Industrial construction	<b>Taxes other than income</b>
3. Public medical plans		19. Property taxes
4. Unemployment insurance	<b>Transportation costs</b>	20. Sundry local business taxes
5. Workers' compensation	13. Surface freight (road & sea)	21. Capital taxes
Other employee benefits:	14. Air freight	22. Sales & transaction taxes
6. Paid time not worked (holidays and vacation)	<b>Utility costs</b>	
7. Private health insurance	15. Electricity	<b>Income taxes</b>
8. Other discretionary benefits	16. Natural gas	23. Federal
		24. Regional (state, provincial, etc.)
		25. Local
		26. Tax incentives

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## Business Model Assumptions

### Common Assumptions: Startup Phase

- All figures are shown in current US dollars, unless another currency is specified.
- For each type of facility, the following items are assumed to be identical in each location:
  - Physical requirements for buildings and land
  - Machinery and equipment investments
  - Working capital requirements, including inventory levels
  - Cost of equity capital
  - Debt-to-equity ratio at start-up.
- Expenditures for land (if any) occur in Year 0. Real estate transfer taxes are capitalized in the cost of land.
- Four depreciable asset classes are recognized: buildings, machinery and equipment, office equipment, and R&D equipment. Major initial investments in all asset classes are made in Year 0.
- An initial investment in inventory is made in Year 0. Average inventory levels are assumed to remain steady over the 10-year period.
- The initial investment is partially financed with debt. Debt servicing costs are treated as expenses in the year incurred. No net principal payments are assumed during the 10-year period, so the level of debt remains constant.

### Common Assumptions: Operating Phase

- All figures are shown in current US dollars, unless another currency is specified.
- There is a ramp-up period of up to four years before operations reach full capacity.
- For each type of facility, the following items are assumed to be identical in each location:
  - Volume of output
  - Staffing requirements
  - Industrial and/or office leasing requirements
  - Electricity and natural gas requirements
  - Research and development activities
  - Cost of equity capital.
- All of the firm's business income is related to operations.
- For profit center operations, sales revenue is held constant for all locations. For cost center operations, revenue is determined using a "cost-plus" markup approach; with the markup percentage held constant for all locations.
- All revenues earned and expenses incurred in a given period are collected and paid in the same period.
- Net cash flow from operations is added to cash on the balance sheet.
- Additional capital expenditures for retooling are undertaken as required by the type of business operation.
- Costs for materials and other location-insensitive costs are based on a predetermined percentage of sales, split between direct and indirect costs in accordance with general accounting principles. These percentages vary with the business type. For cost center operations, where revenue is a function of costs, location-insensitive costs are fixed in US\$ per annum for all locations.
- The firm is a start-up, stand-alone, limited company.
- For the purposes of apportionment of taxable income in North America, the firm is assumed to be eligible to apportion income among states, but not to maintain a substantial portion of its physical business operations in any location other than the location being examined. The firm is also assumed not to be subject to a material level of taxation in any jurisdiction other than its main location.
- For North American operations, the company does not qualify as an S-Corporation in the United States or a Canadian-Controlled Private Corporation in Canada, and does not receive the preferential tax treatment accorded to those categories of company.
- For the purposes of net present value calculations, at the end of Year 10, residual value is measured as:
  - Current assets (including inventory), at cost; plus
  - Land, at historical cost; plus
  - Buildings, at depreciated historical cost; less
  - All liabilities at face value.
- Machinery and equipment are assumed to have zero scrap value, and no taxable capital gains are realized on the sale of capital assets.
- Calculations over the 10 years of operation are made on the basis of current (2013-14) price levels, exchange rates, tax structures, and cost factors. However, where future tax changes have been announced, such future changes are reflected in the calculations.

## Transportation/Distribution Costs

A product distribution pattern has been developed for each relevant operation to reflect the characteristics of, and markets for, the goods produced. Product distribution has been based on global, continental, national, or regional markets.

Overseas exports are assumed to be transported by sea freight, except in the case of higher value products with shorter life cycles, in which case air freight may be used.

### Food Processing Operation

In developing the product distribution model for the food processing industry, the tendency for food product markets to be somewhat country-specific due to different taste preferences among regions has been considered. As a result, this model assumes that 50 percent of product is sold to distributors in the region in which it is produced, with the remainder being distributed to global markets.

### Advanced Batteries, Auto Parts, Metal Machining, Plastic Products, and Precision Components Operations

Plants manufacturing advanced battery systems, auto parts, metal components, plastic products, and precision components are generally producing for industrial customers who will use these components in further value-added manufacturing. Production of such components have become increasingly globalized over the last decade, but still with a tendency for producers to locate close to one or more of their major customers.

In the distribution models for these operations, output is assumed to be distributed to customers globally. Global sales are weighed using Gross Fixed Capital Formation as a proxy for industrial capacity and demand in each country. To allow for the local presence of major customers, this measure is double-weighted on favor of the region of production.

### Electronics Assembly, Medical Devices, Pharmaceuticals, Specialty Chemicals, and Telecom Equipment Operations

Markets for these products tend to be continent-wide, as a minimum, with many firms selling on a global basis. In the distribution models for these operations, output is assumed to be distributed to customers globally. Global sales are weighted by a combination of population (to reflect personal consumption demand) and Gross Fixed Capital Formation (to reflect industrial consumption demand). To allow for the local presence of major customers, this measure is double-weighted in favor of the region of production.

## Aircraft Parts Operation

Markets for these products tend to be focused on the regions surrounding major aircraft assembly plants, such as the North American Boeing plants in Seattle and Wichita, and Bombardier plant in Montreal; the European Airbus plants in Toulouse, Hamburg, and Broughton; and the Brazilian Embraer plant near Sao Paulo.

Distribution for aircraft parts is assumed to occur on the following basis:

- 60 percent to major aircraft assembly plants in Europe (25 percent), North America (25 percent), and South America (10 percent)
- 40 percent exported equally among eight broad global regions, as parts used by maintenance, repair and overhaul operations.

## Other Operations

The remaining operations are all services operations and have no physical product distribution requirements:

- Biomedical R&D
- Clinical trials management
- Electronics systems testing
- International financial services
- Shared services center
- Software development
- Video game production.

## General Product Distribution Assumptions

The following general assumptions apply to each of the product distribution patterns outlined above:

- The model firms do not have any in-house distribution capability, so all freight movements are handled by third-party logistics providers
- Each firm is able to maximize the efficiency of its distribution patterns, delivering product to its customers in full truckload and/or container-load quantities, or as standardized less-than-load shipments
- The model firms are not selling to customers requiring just-in-time (JIT) or just-in-order (JIO) deliveries
- Intra-continental distribution is by road and/or rail freight (based on the most economical option), except where the use of sea freight is required between countries in Asia (e.g. between Japan and mainland Asia).



## Labor Costs

To estimate annual labor costs for each facility, employees from different industries and operations have been grouped into a range of generic job positions, based on common levels of skill and responsibility. This approach reflects the nature of data available from different wage surveys, and the number of positions that can be comparably costed across a wide range of locations. By grouping employees into generic positions, the diversity of salary levels that would be encountered in a typical operation has been built into the calculation of annual labor costs. This study uses 42 generic job positions:

- Eight management positions
- Eight production positions
- Five scientific/technical positions
- Ten information technology positions
- Nine sales and administrative positions
- Two facility maintenance positions.

Based on individual job descriptions, typical salary and wage levels have been collected for each position in each city studied. Statutory and employer-sponsored benefits have also been calculated individually, according to the average pay for each job.

## Energy Costs

Energy requirements have been developed based on actual firm and industry average data during the process of defining the standard operating parameters for each business operation. For manufacturing operations, both electricity and natural gas requirements have been considered. For service operations, where energy requirements are far less significant, only electricity requirements have been considered. Based on the identified energy requirements, costs were calculated based on published schedule rates of relevant energy suppliers or reported statistical rate data for industrial and commercial users, as available in each location.

## Taxation Costs

Refer to Appendix B for details of taxation methodology.

## Facilities Costs

Facility requirements have been developed based on actual firm data during the process of defining the standard operating parameters for each business operation:

- For service operations, facilities costs include the cost of leasing suitable Class A office space, generally in a suburban area for most business operations but in a downtown location for the International Financial Services operation
- For manufacturing operations, facility costs include the cost of leasing a suitable modern industrial facility in a suburban area.

Costs for land purchase and building construction, and lease capitalization rates are used in some instances to refine values for industrial leasing and property valuation for local tax purposes.

Costs for land purchase, building construction, industrial leasing, and/or office leasing were collected by Colliers International real estate professionals in each local market.

## Interpretation of Results

While great care has been taken in performing this analysis and developing the findings, the resulting comparisons are of a general nature. All cost factors examined in this study are subject to change over time, due to changes in local laws, regulations, and/or market conditions.

The results of this study should not be interpreted as a definitive or final opinion on the merits of locating any specific facility in one jurisdiction over another. Further analysis is required to determine the best site for a specific facility or operation.

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# Appendix B

## Tax Assumptions and Comparisons

This appendix presents the tax rate assumptions used in the comparative analysis, along with summary measures of tax burden resulting from the analysis.

In this study, income taxes have been calculated on the “tax payable” basis. Deferred income tax balances (both positive and negative) have been excluded, since these accounting book entries are generally not relevant for location decision making.

All tax rates listed here are current as at January 1, 2014, based on latest information available as at that date. Taxes are grouped based on substance rather than legal form, and legislated names of specific taxes in certain jurisdictions differ from the generic titles used in this study.

Given the broad scope of this assignment, a number of simplifying assumptions have been made with respect to specific taxes. Any simplifying assumptions made are consistent with the business model assumptions set out in Appendix A.

Payroll taxes have been incorporated into statutory benefit costs shown in this report, but are not presented in this table.

These data should not be used to draw definitive conclusions regarding the relative position of any particular jurisdiction with respect to a particular element of taxation. In all circumstances, professional advice should be sought to address any specific taxation issues in any jurisdiction.

## Australia

### Federal, regional, and local tax rates – In percent

	Adelaide	Brisbane	Melbourne	Sydney	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>					
Federal	30.00	30.00	30.00	30.00	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional	–	–	–	–	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	–	–	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	30.00	30.00	30.00	30.00	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>					
Federal	–	–	–	–	e Percentage of sales price.
Regional	–	–	–	–	f General rate. Other rates may apply to specified articles.
Combined mfg tax rate	30.00	30.00	30.00	30.00	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Effective income tax rate, overall average <sup>c</sup>	24.86	24.30	25.24	24.23	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
<b>Capital Tax <sup>d</sup></b>					
Tax based on:					i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
Capital stock	–	–	–	–	j Percentage of cost.
Net equity	–	–	–	–	k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Total assets	–	–	–	–	l Percentage of gross sales.
Debt/borrowings	–	–	–	–	m Percentage of gross payroll.
<b>Sales Tax <sup>e</sup></b>					
Refundable GST/VAT:					n Tax per employee.
Federal <sup>f</sup>	10.00	10.00	10.00	10.00	o Includes both state land tax (3.70%) and local council rates (0.76%). Land tax represents top marginal rate. Lower rates apply on the first AUD \$1.05 million of land value.
Regional <sup>f</sup>	–	–	–	–	p Includes both state land tax (2.00%) and local council rates (0.91%). Land tax represents top marginal rate. Lower rates apply on the first AUD \$5 million of land value.
Non-refundable sales tax:					q Includes both state land tax (2.25%) and local council rates (0.92%). Land tax represents top marginal rate. Lower rates apply on the first AUD \$3 million of land value.
Regional <sup>f</sup>	–	–	–	–	r Includes both state land tax (2.00%) and local council rates (0.79%). Land tax represents top marginal rate. Lower rates apply on the first AUD \$2.48 million of land value.
Local <sup>f</sup>	–	–	–	–	s State payroll tax of 4.95% (for Adelaide), 4.75% (for Brisbane), 4.90% (for Melbourne) and 5.45% (for Sydney) is not shown here as it is included under statutory plans in the labor analysis.
<b>Property Tax <sup>g</sup></b>					
Land <sup>h</sup>	4.46 <sup>o</sup>	2.91 <sup>p</sup>	3.17 <sup>q</sup>	2.79 <sup>r</sup>	
Buildings <sup>h</sup>	0.76	–	0.92	–	
Machinery & equipment <sup>i</sup>	–	–	–	–	
Inventory <sup>j</sup>	–	–	–	–	
Total property-based taxes:					
Mfg avg (12 operations) <sup>k</sup>	\$2.12	\$1.75	\$1.60	\$2.16	
Services avg (7 operations) <sup>k</sup>	–	–	–	–	
<b>Local Business Taxes</b>					
Taxes based on:					
Gross receipts <sup>l</sup>	–	–	–	–	
Salaries <sup>m</sup>	– <sup>s</sup>	– <sup>s</sup>	– <sup>s</sup>	– <sup>s</sup>	
Employees <sup>n</sup>	–	–	–	–	



## Canada

### Federal, regional, and local tax rates – In percent

	St. John's NL	Sudbury ON	Toronto ON	Vancouver BC	Winnipeg MB	Footnotes	
<b>Corporate Income Tax <sup>a</sup></b>							
Federal	15.00	15.00	15.00	15.00	15.00	<p>a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.</p> <p>b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.</p> <p>c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.</p> <p>d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.</p> <p>e Percentage of sales price.</p> <p>f General rate. Other rates may apply to specified articles.</p> <p>g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.</p> <p>h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).</p> <p>i Percentage of depreciated value.</p> <p>j Percentage of cost.</p> <p>k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.</p> <p>l Percentage of gross sales.</p> <p>m Percentage of gross payroll.</p> <p>n Tax per employee.</p> <p>o Harmonized single sales tax applies at the rate indicated, including a 5% federal component and a provincial component that varies by province.</p> <p>p This study incorporates the impact of a temporary property tax reduction where assessed value of a property increases, as would occur with new construction or modernization of a building.</p> <p>q Incorporates both property tax and property-based business/occupancy tax rates.</p>	
Regional	14.00	11.50	11.50	11.00	12.00		
Local	–	–	–	–	–		
Combined income tax rate	29.00	26.50	26.50	26.00	27.00		
<b>Manufacturing tax reduction <sup>b</sup></b>							
Federal	–	–	–	–	–		
Regional	9.00	1.50	1.50	–	–		
Combined mfg tax rate	20.00	25.00	25.00	26.00	27.00		
Effective income tax rate, overall average <sup>c</sup>	9.09	12.79	13.87	15.87	9.88		
<b>Capital Tax <sup>d</sup></b>							
Tax based on:							
Capital stock	–	–	–	–	–		
Net equity	–	–	–	–	–		
Total assets	–	–	–	–	–		
Debt/borrowings	–	–	–	–	–		
<b>Sales Tax <sup>e</sup></b>							
Refundable GST/VAT:							
Federal <sup>f</sup>	} 13.00 <sup>o</sup>	} 13.00 <sup>o</sup>	} 13.00 <sup>o</sup>	5.00	5.00		
Regional <sup>f</sup>				–	–		
Non-refundable sales tax:							
Regional <sup>f</sup>	–	–	–	7.00	8.00		
Local <sup>f</sup>	–	–	–	–	–		
<b>Property Tax <sup>g</sup></b>							
Land <sup>h</sup>	3.03 <sup>q</sup>	5.02	2.52	2.29	3.17 <sup>q</sup>		
Buildings <sup>h</sup>	3.03 <sup>q</sup>	5.02	2.52	2.29	3.17 <sup>q</sup>		
Machinery & equipment <sup>i</sup>	–	–	–	–	–		
Inventory <sup>j</sup>	–	–	–	–	–		
Total property-based taxes:							
Mfg avg (12 operations) <sup>k</sup>	\$4.47	\$6.47	\$4.03	\$3.24	\$3.97		
Services avg (7 operations) <sup>k</sup>	–	–	–	–	\$1.41		
<b>Local Business Taxes</b>							
Taxes based on:							
Gross receipts <sup>l</sup>	–	–	–	–	–		
Salaries <sup>m</sup>	–	–	–	–	–		
Employees <sup>n</sup>	–	–	–	–	–		

## France

### Federal, regional, and local tax rates – In percent

	Marseille	Paris	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>			
Federal	33.33	33.33	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional	–	–	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	33.33	33.33	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>			e Percentage of sales price.
Federal	–	–	f General rate. Other rates may apply to specified articles.
Regional	–	–	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Combined mfg tax rate	33.33	33.33	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
Effective income tax rate, overall average <sup>c</sup>	16.65	12.71	i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
<b>Capital Tax <sup>d</sup></b>			j Percentage of cost.
Tax based on:			k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Capital stock	0.10 <sup>e</sup>	0.10 <sup>e</sup>	l Percentage of gross sales.
Net equity	–	–	m Percentage of gross payroll.
Total assets	–	–	n Tax per employee.
Debt/borrowings	–	–	o One-time tax on share issuance.
<b>Sales Tax <sup>e</sup></b>			p Includes both Tax on Developed Properties (TFPB) and Contribution for Enterprise Land Value (CFE), both of which are based on property rental value. CFE is levied directly on the lessee of leased properties.
Refundable GST/VAT:			q Contribution for Enterprise Value Added (CVAE), top marginal rate. Lower rates apply to companies with sales turnover of less than €50 million per annum. Tax base is value added, which is calculated as gross receipts less limited specified deductions.
Federal <sup>f</sup>	20.00	20.00	r Total CFE plus CVAE is capped at 3% of value added as assessed for CVAE.
Regional <sup>f</sup>	–	–	
Non-refundable sales tax:			
Regional <sup>f</sup>	–	–	
Local <sup>f</sup>	–	–	
<b>Property Tax <sup>g</sup></b>			
Land <sup>h</sup>	3.93 <sup>p</sup>	1.68 <sup>p</sup>	
Buildings <sup>h</sup>	3.93 <sup>p</sup>	1.68 <sup>p</sup>	
Machinery & equipment <sup>i</sup>	–	–	
Inventory <sup>j</sup>	–	–	
Total property-based taxes:			
Mfg avg (12 operations) <sup>k</sup>	\$3.82 <sup>r</sup>	\$1.78 <sup>r</sup>	
Services avg (7 operations) <sup>k</sup>	\$7.69 <sup>r</sup>	\$10.46 <sup>r</sup>	
<b>Local Business Taxes</b>			
Taxes based on:			
Gross receipts <sup>l</sup>	1.50 <sup>q</sup>	1.50 <sup>q</sup>	
Salaries <sup>m</sup>	–	–	
Employees <sup>n</sup>	–	–	

## Germany

### Federal, regional, and local tax rates – In percent

	Berlin	Frankfurt
<b>Corporate Income Tax <sup>a</sup></b>		
Federal	15.83 <sup>o</sup>	15.83 <sup>o</sup>
Regional	–	–
Local	14.35	16.10
Combined income tax rate	30.18	31.93
Manufacturing tax reduction <sup>b</sup>		
Federal	–	–
Regional	–	–
Combined mfg tax rate	30.18	31.93
Effective income tax rate, overall average <sup>c</sup>	28.40	30.28
<b>Capital Tax <sup>d</sup></b>		
Tax based on:		
Capital stock	–	–
Net equity	–	–
Total assets	–	–
Debt/borrowings	–	–
<b>Sales Tax <sup>e</sup></b>		
Refundable GST/VAT:		
Federal <sup>f</sup>	19.00	19.00
Regional <sup>f</sup>	–	–
Non-refundable sales tax:		
Regional <sup>f</sup>	–	–
Local <sup>f</sup>	–	–
<b>Property Tax <sup>g</sup></b>		
Land <sup>h</sup>	2.84	1.61
Buildings <sup>h</sup>	2.84	1.61
Machinery & equipment <sup>i</sup>	–	–
Inventory <sup>j</sup>	–	–
Total property-based taxes:		
Mfg avg (12 operations) <sup>k</sup>	\$4.43	\$3.15
Services avg (7 operations) <sup>k</sup>	–	–
<b>Local Business Taxes</b>		
Taxes based on:		
Gross receipts <sup>l</sup>	–	–
Salaries <sup>m</sup>	–	–
Employees <sup>n</sup>	–	–

#### Footnotes

- a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
- b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
- c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
- d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
- e Percentage of sales price.
- f General rate. Other rates may apply to specified articles.
- g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
- h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
- i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
- j Percentage of cost.
- k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
- l Percentage of gross sales.
- m Percentage of gross payroll.
- n Tax per employee.
- o Federal tax rate represents 15% basic tax, plus 5.5% solidarity surcharge.



## Italy

## Federal, regional, and local tax rates – In percent

	Milan	Rome	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>			
Federal	27.50	27.50	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional	3.90 <sup>o</sup>	4.82 <sup>o</sup>	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	30.86 <sup>p</sup>	31.66 <sup>p</sup>	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>			
Federal	–	–	e Percentage of sales price.
Regional	–	–	f General rate. Other rates may apply to specified articles.
Combined mfg tax rate	30.86	31.66	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Effective income tax rate, overall average <sup>c</sup>	27.84	31.07	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
<b>Capital Tax <sup>d</sup></b>			
Tax based on:			
Capital stock	–	–	i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
Net equity	–	–	j Percentage of cost.
Total assets	–	–	k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Debt/borrowings	0.25 <sup>q</sup>	0.25 <sup>q</sup>	l Percentage of gross sales.
<b>Sales Tax <sup>e</sup></b>			
Refundable GST/VAT:			
Federal <sup>f</sup>	22.00	22.00	m Percentage of gross payroll.
Regional <sup>f</sup>	–	–	n Tax per employee.
Non-refundable sales tax:			
Regional <sup>f</sup>	–	–	o Deductions for payroll and interest costs are limited for Italian Regional Tax on Productive Activities (IRAP). This results in a higher taxable income base for IRAP purposes than for most other income taxes listed in this Appendix.
Local <sup>f</sup>	–	–	p In calculating the combined tax rate, regional tax paid is deductible for federal tax calculations to the extent that regional tax liability reflects non-deductible labor costs. The actual percentage federal deduction for regional tax paid varies by company and by year. The combined tax rate shown assumes a 50 percent federal deduction for regional tax paid. Therefore, the regional tax rate has been reduced by (1 - (federal tax rate x 50%)) to determine the combined rate.
<b>Property Tax <sup>g</sup></b>			
Land <sup>h</sup>	1.06 <sup>r</sup>	1.06 <sup>r</sup>	q One-time tax on issuance of medium and long term loans.
Buildings <sup>h</sup>	0.89 <sup>r</sup>	1.08 <sup>r</sup>	r Local tax on immovable property tax (IMU) is intended to be repealed and replaced by alternative forms of local tax as of January 2014. However, as at January 2014 the form of such new taxes is subject to significant uncertainty, so this analysis continues to reflect the IMU tax in effect for 2013. IMU is based on imputed income value of a property as determined by the Immovable Property Registry. The rates shown here represent the estimated tax rate as a percentage of property fair market value, based on the assumption that for owned facilities imputed income represents 1.495% of fair market value. For leased facilities, imputed income is assumed to equal actual lease payments.
Machinery & equipment <sup>i</sup>	–	–	
Inventory <sup>j</sup>	–	–	
Total property-based taxes:			
Mfg avg (12 operations) <sup>k</sup>	\$1.04	\$1.90	
Services avg (7 operations) <sup>k</sup>	\$3.29	\$3.43	
<b>Local Business Taxes</b>			
Taxes based on:			
Gross receipts <sup>l</sup>	–	–	
Salaries <sup>m</sup>	–	–	
Employees <sup>n</sup>	–	–	

# Japan

## Federal, regional, and local tax rates – In percent

	Osaka	Tokyo
<b>Corporate Income Tax <sup>a</sup></b>		
Federal	28.05 <sup>o</sup>	28.05 <sup>o</sup>
Regional	10.07 <sup>p</sup>	10.07 <sup>p</sup>
Local	5.75 <sup>q</sup>	5.81 <sup>r</sup>
Combined income tax rate	41.05 <sup>s</sup>	41.10 <sup>s</sup>
Manufacturing tax reduction <sup>b</sup>		
Federal	–	–
Regional	–	–
Combined mfg tax rate	41.05	41.10
Effective income tax rate, overall average <sup>c</sup>	32.92	32.22
<b>Capital Tax <sup>d</sup></b>		
Tax based on:		
Capital stock	0.700 <sup>t</sup>	0.700 <sup>t</sup>
Net equity	0.302 <sup>u</sup>	0.286 <sup>u</sup>
Total assets	–	–
Debt/borrowings	–	–
<b>Sales Tax <sup>e</sup></b>		
Refundable GST/VAT:		
Federal <sup>f</sup>	5.00	5.00
Regional <sup>f</sup>	–	–
Non-refundable sales tax:		
Regional <sup>f</sup>	–	–
Local <sup>f</sup>	–	–
<b>Property Tax <sup>g</sup></b>		
Land <sup>h</sup>	1.70	1.70
Buildings <sup>h</sup>	2.18 <sup>v</sup>	2.01 <sup>v</sup>
Machinery & equipment <sup>i</sup>	1.40	1.40
Inventory <sup>j</sup>	–	–
Total property-based taxes:		
Mfg avg (12 operations) <sup>k</sup>	\$7.81	\$13.04
Services avg (7 operations) <sup>k</sup>	\$1.53	\$1.57
<b>Local Business Taxes</b>		
Taxes based on:		
Gross receipts <sup>l</sup>	0.50 <sup>w</sup>	0.50 <sup>w</sup>
Salaries <sup>m</sup>	0.25 <sup>x</sup>	0.25 <sup>x</sup>
Employees <sup>n</sup>	–	–

### Footnotes

- a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
- b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
- c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
- d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
- e Percentage of sales price.
- f General rate. Other rates may apply to specified articles.
- g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
- h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
- i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
- j Percentage of cost.
- k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
- l Percentage of gross sales.
- m Percentage of gross payroll.
- n Tax per employee.
- o Top marginal rate. The first ¥8 million of taxable income is taxed at 16.5% only if the corporation's paid-in capital is ¥100 million or less. The top marginal rate is scheduled to decrease to 25.5% on April 1, 2014.
- p Two separate income taxes apply at the prefectural level. Business Tax applies at a top marginal rate at 5.78%, with lower rates applying to the first ¥8 million of taxable income and for corporations with paid-in capital of ¥100 million or more. However corporations with paid-in capital of ¥100 million or more are also subject to capital and value-added components of Business Tax. Special Local Corporate Tax applies as a percentage of Business Tax, which is then converted into an effective rate expressed as a percentage of taxable income. The top marginal rate for Special Local Corporate Tax is 148% of Business Tax (effective rate: 4.29%).
- q Prefectural and Municipal Inhabitant Tax are based on federal corporate income tax. The combined top marginal rate of 20.5% of federal tax paid represents an effective rate of 5.75% of taxable income.
- r Prefectural and Municipal Inhabitant Tax are based on federal corporate income tax. The combined top marginal rate of 20.7% of federal tax paid represents an effective rate of 5.81% of taxable income.
- s In calculating the combined tax rate, the prefectural business tax rates have been reduced by (1 – Federal tax rate) to recognize the deduction permitted at the federal level for business tax paid. Prefectural and municipal inhabitant (income-based) taxes are not deductible for federal income tax purposes.
- t One-time tax on share issuance.
- u Approximate rate including prefectural and municipal per-capita taxes on taxable capital of ¥5 billion (rates vary based on capital stock and employees), plus capital component of Business Tax applicable to companies with paid-in capital in excess of ¥100 million.
- v Incorporates 1.70% property tax plus building occupancy tax of ¥600 per m2 of floor space.
- w Value added component of Prefectural Business Tax applicable to companies with paid-in capital in excess of ¥100 million. Tax base is value added, defined as gross receipts less limited specified deductions.
- x Represents salaries portion of multi-base local business tax. Not assessable where employee count < 100.

## Mexico

### Federal, regional, and local tax rates – In percent

	Mexico City	Monterrey	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>			
Federal	30.00	30.00	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional	–	–	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	30.00	30.00	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>			e Percentage of sales price.
Federal	–	–	f General rate. Other rates may apply to specified articles.
Regional	–	–	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Combined mfg tax rate	30.00	30.00	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
Effective income tax rate, overall average <sup>c</sup>	30.91	30.81	i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
<b>Capital Tax <sup>d</sup></b>			j Percentage of cost.
Tax based on:			k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Capital stock	–	–	l Percentage of gross sales.
Net equity	–	–	m Percentage of gross payroll.
Total assets	–	–	n Tax per employee.
Debt/borrowings	–	–	o Exemption of 45% applies for new companies for the first year of operation. A further 25% exemption applies in any future year where the number of employees increases by at least 25% compared to the prior year.
<b>Sales Tax <sup>e</sup></b>			p Full exemption applies for new companies for the first four years of operation.
Refundable GST/VAT:			
Federal <sup>f</sup>	16.00	16.00	
Regional <sup>f</sup>	–	–	
Non-refundable sales tax:			
Regional <sup>f</sup>	–	–	
Local <sup>f</sup>	–	–	
<b>Property Tax <sup>g</sup></b>			
Land <sup>h</sup>	0.15	0.20	
Buildings <sup>h</sup>	0.15	0.20	
Machinery & equipment <sup>i</sup>	–	–	
Inventory <sup>j</sup>	–	–	
Total property-based taxes:			
Mfg avg (12 operations) <sup>k</sup>	\$0.08	\$0.10	
Services avg (7 operations) <sup>k</sup>	–	–	
<b>Local Business Taxes</b>			
Taxes based on:			
Gross receipts <sup>l</sup>	–	–	
Salaries <sup>m</sup>	2.50 <sup>a</sup>	3.00 <sup>a</sup>	
Employees <sup>n</sup>	–	–	

## Netherlands

### Federal, regional, and local tax rates – In percent

	Eindhoven	Twente Region	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>			
Federal	25.00 <sup>p</sup>	25.00 <sup>p</sup>	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional	–	–	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	25.00	25.00	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>			e Percentage of sales price.
Federal	–	–	f General rate. Other rates may apply to specified articles.
Regional	–	–	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Combined mfg tax rate	25.00	25.00	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
Effective income tax rate, overall average <sup>c</sup>	18.52 <sup>p</sup>	18.45 <sup>p</sup>	i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
<b>Capital Tax <sup>d</sup></b>			j Percentage of cost.
Tax based on:			k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Capital stock	–	–	l Percentage of gross sales.
Net equity	–	–	m Percentage of gross payroll.
Total assets	–	–	n Tax per employee.
Debt/borrowings	–	–	o Top marginal rate. The first €200,000 of taxable income is taxed at 20%.
<b>Sales Tax <sup>e</sup></b>			p The benefits provided under the Netherlands' R&D employee wage tax withholding program are netted into the calculation of effective income tax rate.
Refundable GST/VAT:			q Incorporates real estate taxes levied on both property owners and property occupants.
Federal <sup>f</sup>	21.00	21.00	
Regional <sup>f</sup>	–	–	
Non-refundable sales tax:			
Regional <sup>f</sup>	–	–	
Local <sup>f</sup>	–	–	
<b>Property Tax <sup>g</sup></b>			
Land <sup>h</sup>	0.32 <sup>a</sup>	0.54 <sup>a</sup>	
Buildings <sup>h</sup>	0.32 <sup>a</sup>	0.54 <sup>a</sup>	
Machinery & equipment <sup>i</sup>	–	–	
Inventory <sup>j</sup>	–	–	
Total property-based taxes:			
Mfg avg (12 operations) <sup>k</sup>	\$0.43	\$0.62	
Services avg (7 operations) <sup>k</sup>	\$0.22	\$0.36	
<b>Local Business Taxes</b>			
Taxes based on:			
Gross receipts <sup>l</sup>	–	–	
Salaries <sup>m</sup>	–	–	
Employees <sup>n</sup>	–	–	

## United Kingdom

### Federal, regional, and local tax rates – In percent

	London	Manchester	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>			
Federal	23.00 <sup>o,p</sup>	23.00 <sup>o,p</sup>	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional		–	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	23.00	23.00	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>			
Federal	–	–	e Percentage of sales price.
Regional	–	–	f General rate. Other rates may apply to specified articles.
Combined mfg tax rate	23.00	23.00	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Effective income tax rate, overall average <sup>c</sup>	12.70	16.36	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
<b>Capital Tax <sup>d</sup></b>			
Tax based on:			
Capital stock	–	–	i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
Net equity	–	–	j Percentage of cost.
Total assets	–	–	k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Debt/borrowings	–	–	l Percentage of gross sales.
<b>Sales Tax <sup>e</sup></b>			
Refundable GST/VAT:			
Federal <sup>f</sup>	20.00	20.00	m Percentage of gross payroll.
Regional <sup>f</sup>	–	–	n Tax per employee.
Non-refundable sales tax:			
Regional <sup>f</sup>	–	–	o Top marginal tax rate applies where taxable income exceeds £1.5 million. If taxable income is below £300,000, the tax rate is 20%, while a pro-rated tax rate of between 20% and 23% applies if taxable income is between £300,000 and £1.5 million.
Local <sup>f</sup>	–	–	p The top marginal rate is scheduled to decrease by 2% to 21% on April 1 2014, and then by a further 1% to 20% on April 1 2015.
<b>Property Tax <sup>g</sup></b>			
Land <sup>h</sup>	4.75	4.71	
Buildings <sup>h</sup>	4.75	4.71	
Machinery & equipment <sup>i</sup>	–	–	
Inventory <sup>j</sup>	–	–	
Total property-based taxes:			
Mfg avg (12 operations) <sup>k</sup>	\$9.48	\$4.58	
Services avg (7 operations) <sup>k</sup>	–	–	
<b>Local Business Taxes</b>			
Taxes based on:			
Gross receipts <sup>l</sup>	–	–	
Salaries <sup>m</sup>	–	–	
Employees <sup>n</sup>	–	–	









## United States

### Federal, regional, and local tax rates – In percent

	Jackson MS	Kansas City MO	Las Vegas NV	Lexington KY	Little Rock AR	Los Angeles CA	Madison WI	Manchester NH	Memphis TN	Miami FL
<b>Corporate Income Tax <sup>a</sup></b>										
Federal	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>
Regional	5.00 <sup>s</sup>	6.25 <sup>a</sup>	-	6.00 <sup>q,s</sup>	6.50 <sup>s</sup>	8.84	7.90 <sup>a</sup>	8.50	6.50 <sup>a</sup>	5.50 <sup>q,s</sup>
Local	-	1.00	-	2.75	-	-	-	-	-	-
Combined income tax rate	37.30 <sup>z</sup>	37.72 <sup>z,ab</sup>	34.00	39.78 <sup>z</sup>	38.29 <sup>z</sup>	39.83 <sup>z</sup>	39.21 <sup>z</sup>	39.61 <sup>z</sup>	38.29 <sup>z</sup>	37.63 <sup>z</sup>
<b>Manufacturing tax reduction <sup>b</sup></b>										
Federal	3.06 <sup>p</sup>	2.87 <sup>p</sup>	3.06 <sup>p</sup>	2.88 <sup>p</sup>	3.06 <sup>p</sup>	3.06 <sup>p</sup>	3.06 <sup>p</sup>	3.06 <sup>p</sup>	3.06 <sup>p</sup>	2.89 <sup>p</sup>
Regional	-	0.56 <sup>p</sup>	-	0.54 <sup>p</sup>	-	-	-	-	-	0.50 <sup>p</sup>
Combined mfg tax rate	34.24	34.29	30.94	36.36	35.23	36.77	36.15	36.55	35.23	34.24
Effective income tax rate, overall average <sup>c</sup>	30.03	26.78	27.12	31.89	30.08	28.96	30.25	31.92	30.20	28.57
<b>Capital Tax <sup>d</sup></b>										
Tax based on:										
Capital stock	-	-	-	-	0.300	-	-	-	-	-
Net equity	-	-	-	-	-	-	-	-	-	-
Total assets	0.250	0.013 <sup>oo</sup>	-	-	-	-	-	-	0.250 <sup>bd</sup>	-
Debt/borrowings	-	-	-	-	-	-	-	-	-	-
<b>Sales Tax <sup>e</sup></b>										
Refundable GST/VAT:										
Federal <sup>f</sup>	-	-	-	-	-	-	-	-	-	-
Regional <sup>f</sup>	-	-	-	-	-	-	-	-	-	-
Non-refundable sales tax:										
Regional <sup>f</sup>	7.00	4.23	6.85	6.00	6.50	7.50	5.00	-	7.00	6.00
Local <sup>f</sup>	-	3.59	1.25	-	2.50	1.50	0.50	-	2.25	1.00
<b>Property Tax <sup>g</sup></b>										
Land <sup>h</sup>	2.61	3.28	1.17	1.16	1.35	1.33	2.33	2.44	3.11	2.16
Buildings <sup>h</sup>	2.61	3.13	1.17	1.16	1.35	1.33	2.33	2.44	3.11	2.16
Machinery & equipment <sup>i</sup>	2.61	3.21	1.17	0.15	1.35	1.33	-	-	2.33	2.16
Inventory <sup>j</sup>	2.61 <sup>bs</sup>	-	-	0.49	1.35	-	-	-	-	-
Total property-based taxes:										
Mfg avg (12 operations) <sup>k</sup>	\$8.79	\$9.36	\$3.48	\$1.72	\$4.59	\$4.50	\$2.47	\$2.61	\$7.21	\$6.72
Services avg (7 operations) <sup>k</sup>	\$1.33	\$1.63	\$0.60	\$0.07	\$0.69	\$0.68	-	-	\$1.19	\$1.09
<b>Local Business Taxes</b>										
Taxes based on:										
Gross receipts <sup>l</sup>	-	0.08 <sup>bt</sup>	-	-	-	-	-	-	-	-
Salaries <sup>m</sup>	-	-	1.05	-	-	-	-	0.75 <sup>bg</sup>	-	-
Employees <sup>n</sup>	-	-	-	-	-	-	-	-	-	\$4.50 <sup>oo</sup>

## United States

### Federal, regional, and local tax rates – In percent

	Minneapolis MN	Mobile AL	Montgomery AL	Nashville TN	New Orleans LA	New York City NY	North Virginia (Metro DC) VA	Oklahoma City OK	Omaha NE	Orlando FL
<b>Corporate Income Tax <sup>a</sup></b>										
Federal	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>
Regional	9.80 <sup>q</sup>	6.50	6.50	6.50 <sup>q</sup>	8.00 <sup>q,s</sup>	7.10 <sup>q,r</sup>	6.00 <sup>q</sup>	6.00	7.81 <sup>q,s</sup>	5.50 <sup>q,s</sup>
Local	–	–	–	–	–	– <sup>bo</sup>	–	–	–	–
Combined income tax rate	40.47 <sup>z</sup>	36.08 <sup>z,ac</sup>	36.08 <sup>z,ac</sup>	38.29 <sup>z</sup>	36.56 <sup>z,ac</sup>	38.69 <sup>z</sup>	37.96 <sup>z</sup>	37.96 <sup>z</sup>	38.54 <sup>z,aa</sup>	37.63 <sup>z</sup>
<b>Manufacturing tax reduction <sup>b</sup></b>										
Federal	3.06 <sup>p</sup>	2.86 <sup>p</sup>	2.86 <sup>p</sup>	3.06 <sup>p</sup>	2.82 <sup>p</sup>	3.06 <sup>p</sup>	2.88 <sup>p</sup>	2.88 <sup>p</sup>	2.84 <sup>p</sup>	2.89 <sup>p</sup>
Regional	–	0.59 <sup>p</sup>	0.59 <sup>p</sup>	–	0.72 <sup>p</sup>	1.20 <sup>bc</sup>	0.54 <sup>p</sup>	0.54 <sup>p</sup>	0.65 <sup>p</sup>	0.50 <sup>p</sup>
Combined mfg tax rate	37.41	32.63	32.63	35.23	33.02	34.43	34.54	34.54	35.06	34.24
Effective income tax rate, overall average <sup>c</sup>	26.19	28.89	29.19	30.54	17.98	27.84	27.94	29.93	22.93	29.15
<b>Capital Tax <sup>d</sup></b>										
Tax based on:										
Capital stock	–	–	–	–	–	–	–	–	0.150 <sup>an</sup>	–
Net equity	–	–	–	–	–	0.150 <sup>r</sup>	–	0.125 <sup>al</sup>	–	–
Total assets	0.025 <sup>ak</sup>	0.175 <sup>ai</sup>	0.175 <sup>ai</sup>	0.250 <sup>bd</sup>	0.300 <sup>ap</sup>	–	–	–	–	–
Debt/borrowings	–	–	–	–	–	–	–	–	–	–
<b>Sales Tax <sup>e</sup></b>										
Refundable GST/VAT:										
Federal <sup>f</sup>	–	–	–	–	–	–	–	–	–	–
Regional <sup>f</sup>	–	–	–	–	–	–	–	–	–	–
Non-refundable sales tax:										
Regional <sup>f</sup>	6.88	4.00	4.00	7.00	4.00	4.00	4.30	4.50	5.50	6.00
Local <sup>f</sup>	–	6.50	6.00	2.50	4.88	4.63	1.70	3.88	1.50	0.50
<b>Property Tax <sup>g</sup></b>										
Land <sup>h</sup>	3.47	1.27	0.73	1.41	1.11	5.34	1.26	1.29	2.20	1.96
Buildings <sup>h</sup>	3.47	1.27	0.73	1.41	1.66 <sup>bk</sup>	5.34	1.26	1.29	2.20	1.96
Machinery & equipment <sup>i</sup>	–	1.27	0.73	1.06	1.66 <sup>bk</sup>	–	2.00	1.62 <sup>bf</sup>	2.20	1.96
Inventory <sup>j</sup>	–	–	–	–	1.66 <sup>br</sup>	–	–	1.62 <sup>bp</sup>	–	–
Total property-based taxes:										
Mfg avg (12 operations) <sup>k</sup>	\$4.02	\$3.41	\$1.98	\$3.22	\$1.28	\$8.88	\$5.38	\$2.65	\$2.85	\$5.65
Services avg (7 operations) <sup>k</sup>	–	\$0.64	\$0.37	\$0.54	\$0.84	–	\$1.12	\$0.25	\$1.12	\$1.00
<b>Local Business Taxes</b>										
Taxes based on:										
Gross receipts <sup>l</sup>	–	–	–	–	–	–	0.21 <sup>az</sup>	–	–	–
Salaries <sup>m</sup>	–	–	–	–	–	–	–	–	–	–
Employees <sup>n</sup>	–	–	–	–	–	–	–	–	–	\$6.16 <sup>ai</sup>





## United States

### Federal, regional, and local tax rates – In percent

	Trenton NJ	Wichita KS	Wilmington DE	Youngstown OH	Footnotes
<b>Corporate Income Tax <sup>a</sup></b>					
Federal	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	34.00 <sup>o</sup>	a Percentage of taxable income. Minor adjustments required in the calculation of taxable income in each jurisdiction are not individually disclosed. Tax rates shown in this exhibit are for the size of entity examined in this study. Many jurisdictions offer lower income tax rates for small businesses.
Regional	9.00 <sup>o,s</sup>	7.00 <sup>s</sup>	8.70 <sup>o</sup>	–	b Manufacturing tax rate reductions may reduce on a pro-rata basis where a significant component of a company's payroll or capital assets are not devoted to manufacturing or processing operations.
Local	–	–	–	1.00 <sup>bo</sup>	c The effective income tax rates for the overall average (services and manufacturing) in this study vary from the combined nominal income tax rates in each location due to the impact of adjustments to taxable income and income tax credits.
Combined income tax rate	39.94 <sup>z</sup>	38.62 <sup>z</sup>	39.74 <sup>z</sup>	34.66 <sup>z</sup>	d Percentage of taxable capital, determined on the general basis indicated. In many jurisdictions, the general tax base indicated here is subject to minor adjustment.
<b>Manufacturing tax reduction <sup>b</sup></b>					
Federal	2.78 <sup>p</sup>	2.85 <sup>p</sup>	2.79 <sup>p</sup>	3.06 <sup>p</sup>	e Percentage of sales price.
Regional	0.81 <sup>p</sup>	0.63 <sup>p</sup>	0.78 <sup>p</sup>	–	f General rate. Other rates may apply to specified articles.
Combined mfg tax rate	36.35	35.14	36.17	31.60	g The Property Tax category includes all property-based taxes, including the property-based component of multi-base local business taxes. Property tax rates relate to the suburban or urban areas identified in the real estate research for this study as offering sites suitable for the types of operation being examined.
Effective income tax rate, overall average <sup>c</sup>	15.54	31.88	29.52	25.92	h Percentage of current market value, incorporating current tax rates, assessment factors, base-year price equalization factors, and rental yields (estimated where required).
<b>Capital Tax <sup>d</sup></b>					
Tax based on:					
Capital stock	–	–	0.035 <sup>bl</sup>	–	i Percentage of depreciated value. Special depreciation rates may apply for property tax purposes.
Net equity	–	–	–	–	j Percentage of cost.
Total assets	–	–	–	–	k Total property-based taxes in US \$ per square foot of building space. Property taxes include taxes levied on the value of land and buildings, machinery and equipment, inventory, and other physical assets. For services operations (occupying leased office space), property taxes on facilities are typically levied on the landlord. The amount of tax passed by the landlord to the tenant as part of total rent is captured in leasing costs in this study, but is not separately identifiable.
Debt/borrowings	–	–	–	–	l Percentage of gross sales.
<b>Sales Tax <sup>e</sup></b>					
Refundable GST/VAT:					
Federal <sup>f</sup>	–	–	–	–	m Percentage of gross payroll.
Regional <sup>f</sup>	–	–	–	–	n Tax per employee.
Non-refundable sales tax:					
Regional <sup>f</sup>	7.00	6.15	–	5.75	o Marginal tax rate applies if earnings exceed US \$335,000 and are less than US \$10 million. All US taxable income in excess of US \$75,000 is taxed at marginal rates of 34% to 39%. Lower marginal rates (15% to 25%) apply to the first US \$75,000 of taxable income.
Local <sup>f</sup>	–	1.00	–	1.00	p Effective impact of 9% tax deduction for Qualified Production Activities Income (QPAI). Benefit at the federal level is reduced where a state also permits the QPAI deduction, as this reduces the federal deduction for state income tax paid. However, in these instances, the effective value of the saving at the state level is also shown, resulting in a higher total rate reduction than in states that do not permit the QPAI deduction. Effective rates shown are further adjusted to reflect the impact of state deductibility of federal and/or state taxes as relevant, to be consistent with the presentation of combined income tax rate.
<b>Property Tax <sup>g</sup></b>					
Land <sup>h</sup>	2.84	3.02	1.32	2.08	q Interstate and export sales from this state are not attributed back to the state-of-origin for the purpose of allocating income between states (no "sales throwback" and/or attribution of services to where the "benefit of the services is received by the client" instead of where the "income producing activities are performed"). For companies with a single main location for operations (as is assumed in this study), this may result in a portion of taxable income not being subject to state income tax. The extent of this benefit depends on the weighting given to the sales factor in each state's interstate income apportionment formula.
Buildings <sup>h</sup>	2.84	3.02	1.32	2.08	
Machinery & equipment <sup>i</sup>	–	–	–	–	
Inventory <sup>j</sup>	–	–	–	–	
Total property-based taxes:					
Mfg avg (12 operations) <sup>k</sup>	\$3.81	\$2.62	\$1.49	\$2.13	
Services avg (7 operations) <sup>k</sup>	–	–	–	–	
<b>Local Business Taxes</b>					
Taxes based on:					
Gross receipts <sup>l</sup>	–	–	0.402 <sup>bm</sup>	0.260 <sup>u</sup>	
Salaries <sup>m</sup>	–	–	–	–	
Employees <sup>n</sup>	–	–	–	–	

## United States

### Footnotes

- r New York State franchise tax is calculated as the greater of 7.1% of taxable income or 0.15% of taxable capital. Where tax is based on capital, maximum annual tax is US \$350,000.
- s Top marginal tax rate. Lower rates of tax apply to the first US \$10,000 to US \$10,000,000 of income, depending on the state. Tax calculations in this study reflect the benefit of lower marginal tax rates as appropriate.
- t Illinois corporate income tax rate is scheduled to decrease from 9.50% to 7.75% in 2015.
- u For Ohio commercial activity tax on gross receipts, all sales to customers located outside Ohio are exempt.
- v Texas franchise tax is based on "net margin" tax base, as defined for Texas franchise tax purposes. The standard franchise tax rate of 1% has been temporarily reduced to 0.975% for 2014 and 2015.
- w Indiana corporate income tax rate is scheduled to decrease to 7% in 2015 and 6.5% in 2016.
- x Connecticut business tax is calculated as the greater of tax on income or tax on capital. Tax on income is 9.0% for 2014 and 2015 only for companies with gross income in excess of US \$100 million or filing unitary or combined returns, or 7.5% in all other cases. Tax on capital is 0.31% of taxable capital, with a maximum tax of US \$1 million.
- y Rhode Island income tax rate may be reduced by up to 6.00%, subject to the level of new employment created. Tax paid is the greater of tax on taxable income and tax on taxable capital.
- z In calculating the combined tax rate, the regional and local tax rates have been reduced by (1-Federal tax rate) to recognize the deduction permitted at the federal level for regional/local income taxes paid.
- aa In calculating the combined tax rate, the regional tax rate has been reduced by (1-Regional tax rate) to recognize the deduction permitted at the regional level for regional taxes paid.
- ab In calculating the combined tax rate, the federal tax rate has been reduced by (1 - 50% x Regional tax rate) to recognize the 50% deduction permitted at the regional level for federal income taxes paid.
- ac In calculating the combined tax rate, the federal tax rate has been reduced by (1-Regional tax rate) to recognize the deduction permitted at the regional level for federal income taxes paid.
- ad Overall effective income tax rate for all operations is not reflective of true tax rates due to marginal profitability for some operations, combined with the effects of Alternative Minimum Tax. Results shown represent the support services operation, as an operation with a reasonable net income before tax and no special tax provisions.
- ae Miami-Dade business tax per employee. Rate varies by industry. This rate applies to manufacturing and many types of service operations.
- af For Georgia capital tax, rate shown is approximate rate for firms with US \$1 million to US \$20 million of taxable capital. Actual rates vary based on amount of taxable capital. Maximum annual tax is US \$5,000.
- ag Massachusetts excise tax on capital effectively applies only to inventory and supplies, not total assets. For manufacturing firms, excise tax also applies to machinery and equipment, in lieu of local property tax.
- ah Illinois franchise tax, maximum annual tax is US \$2 million.
- ai Alabama business privilege tax, top marginal rate. Lower rates apply where taxable capital is less than US \$2.5 million. Maximum annual tax is US \$15,000.
- aj Orlando local business tax comprises two flat amounts determined from tables of values based on ranges of employees and space occupied. This complex, minor tax is approximated in the analysis as \$6.16 per employee to a maximum annual tax of US \$2,000.
- ak Minnesota tax is based on inventory, tangible property, payroll and in-state sales. Tax is a flat amount based on ranges of taxable value. Rate shown is an approximation. Maximum annual tax is US \$5,000.
- al Oklahoma franchise tax. Maximum annual tax is US \$20,000.
- am Pennsylvania capital stock tax applies to the average of 75% of capital stock and average book profits for the previous five years. The first US \$125,000 of taxable value is exempt. Manufacturing and research firms are both exempt from capital stock tax. This tax is scheduled to decrease to 0.045% in 2015 and be eliminated in 2016.
- an Nebraska tax on paid-in capital is a bi-annual tax. The rate has been halved to show the effective rate on an annualized basis. Effective maximum annual tax is US \$11,995.
- ao Missouri business franchise tax on capital is scheduled to reduce to 0.0067% in 2015 and be eliminated in 2016. First US \$1 million of taxable capital exempt. Tax may be based on capital stock if this exceeds total assets less investments.
- ap Louisiana taxable capital is the greater of total fixed assets, or capital plus retained earnings plus 44% of debt. Rate shown is top marginal rate. The first US \$300,000 is taxed at half this rate.
- aq For Spartanburg, this study incorporates a five year exemption for new manufacturing establishments from a portion of county-level property taxes. Firms are still subject to full city and school taxes.
- ar In Massachusetts, machinery and equipment of manufacturing and processing firms are exempt from local property tax.
- as For Connecticut, this study incorporates a five-year automatic property tax exemption for new in-state manufacturing equipment.
- at For Maine, this study incorporates an automatic 90% property tax exemption for virtually all new in-state business equipment.
- au In Rhode Island, manufacturing equipment is exempt from property tax.
- av For Indiana, this study incorporates a one year full abatement and a five year tax phase-in for property taxes on new in-state real and personal property of manufacturing and R&D operations.
- aw For Sioux Falls, this study incorporates a one year full abatement and a five year tax phase-in for property taxes on new industrial buildings.
- ax Charleston business and occupation tax on gross receipts. Rate shown is for services companies. Rate for manufacturers is 0.3%.
- ay Shreveport occupational license tax on gross receipts. Rate shown is for services firms, manufacturers are exempt. Maximum annual tax is \$6,200.
- az Virginia business license tax on gross receipts. Rates vary by type of business. Rate shown is applicable to many types of business services. Manufacturers are exempt.
- ba Carlsbad (suburban San Diego) business license fee based on gross receipts. Rate shown is for services companies. Rate for manufacturers is 0.020%.
- bb Washington State business and occupation tax. Rate shown is the general rate for services companies. General rate for manufacturing companies is 0.484%. Specific rates apply to certain industries.
- bc New York State franchise tax rate for manufacturers incorporates the effect of a 1.2% tax rate reduction. This reduction is scheduled to increase to 1.4% in 2015, 1.6% in 2016, and 2.225% in 2018.
- bd For North Carolina and Tennessee, the capital/franchise tax base is the greater of net worth or real and tangible property.
- be In Greater Philadelphia, the applicability of gross receipts tax varies by municipality. The rate shown is reflective of more central locations in the metro area and is applied to the services operations modeled. Many outer suburban locations do not have a gross receipts tax, and no tax has been applied to the manufacturing operations modeled.

## United States

### Footnotes

- bf For Oklahoma, this study incorporates a five-year property tax exemption for new in-state machinery and equipment.
- bg New Hampshire business enterprise tax applies to salaries and interest paid.
- bh North Carolina corporate income tax rate is scheduled to decrease to 5% in 2015. Subsequent reductions to 4% in 2016 and 3% in 2017 have been incorporated into this analysis, but are contingent upon state tax revenue collections exceeding required targets in 2014/15 and 2015/16.
- bi West Virginia business franchise tax on capital is scheduled to be eliminated in 2015.
- bj In Michigan, this study incorporates a state exemption for a portion of property tax paid on manufacturing machinery and equipment.
- bk For Louisiana, this study incorporates a 10 year full abatement on buildings and machinery for new in-state manufacturing operations.
- bl Delaware capital tax, maximum annual tax is \$180,000.
- bm Delaware gross receipts tax rate shown is for professional/business services companies on gross receipts in excess of US \$1.2 million. For manufacturers, tax is 0.189% on gross receipts over US \$15 million.
- bn Arizona corporate income tax rate is scheduled to decrease to 6.0% in 2015, 5.5% in 2016, and 4.9% in 2017.
- bo Local income tax rates shown reflect suburban locations. Higher local income tax rates apply to downtown operations in Cincinnati (2.10%), Detroit (2.00%), New York City (8.85%), Philadelphia (6.45%), Portland (3.65%), Saginaw (1.50%), St. Louis (1.00%), and Youngstown (2.75%).
- bp Freeport exemptions apply to manufacturers' inventory in Georgia, Oklahoma, and Texas.
- bq In Baltimore, a property tax abatement applies to all manufacturing and R&D machinery and equipment.
- br In Louisiana, manufacturers, wholesalers, and retailers receive a refundable income tax credit equal to the amount of property tax paid on inventory.
- bs In Mississippi, manufacturers, wholesalers, and retailers receive a non-refundable income tax credit equal to the lesser of property tax paid on inventory or US \$10,000.
- bt Kansas City business license fee based on gross receipts. Actual rates vary based on receipts. Rate shown is approximate rate for services firms with receipts greater than US \$1 million. Approximate rate for manufacturing firms with receipts greater than US \$1 million is 0.07%.

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# Appendix C

## Other Competitiveness Factors Regional Data and Data Source Notes

In support of the analysis of other competitiveness factors presented in Chapter 6 of the *Competitive Alternatives 2014* report, this Appendix contains:

- Regional data for a number of the competitiveness measures presented at the national level in Chapter 6
- Detailed data source notes for the data presented in Chapter 6.

### A. Regional Competitiveness Data

Differing data collection standards and practices in the study countries limit the range of other competitiveness factors that can be compared across or within the countries. This appendix presents data on other competitiveness factors for each of the 107 cities featured in *Competitive Alternatives 2014*, covering nine main topics that were analyzed at the national level in Chapter 6:

- **Macro-economic conditions:**
  - GDP growth rates
  - GDP per capita
- **Labor markets:**
  - Economic activity (labor force participation) rates
  - Unemployment rates
  - Educational attainment rates
- **Population:**
  - Elderly dependency rate
- **Innovation:**
  - Expenditure on R&D as a percentage of GDP
- **Quality of life**
  - Doctors per 100,000 inhabitants
  - Housing affordability

In most instances, data can be compared across all locations studied. However, in some instances data definitions differ among the study countries and this prevents comparability. In these cases, data are presented as national indices, with each country scaled to 100 and indices for each location indicating whether it lies above or below the national average for its country. These national indices are clearly labeled, and such indices cannot be used to compare regions in different countries.

National data presented in this appendix may differ from national data presented in the relevant exhibits in Chapter 6, due to the need to choose a different reporting year or data definition to match national data to the data presented for various jurisdictions within the country.

Data in this appendix is labeled based on the 107 cities featured in *Competitive Alternatives 2014*. However, it should be noted that all data represent state, provincial, or regional data, unless specifically identified as being city data. Detailed footnotes provide further details on data definitions, data sources and reporting dates.

Regional Data for Other Competitiveness Factors<sup>1</sup>

Relates to Chapter 6:  <i>Green columns are national or European indices that can only be compared within each color-shaded group. Refer to column footnotes for details.</i>	General Business Environment				Labor Markets				Innovation	Quality of Life			
	Page 43				Page 46				Page 47	Page 48	Page 50	Page 56	Page 57
	GDP Growth			GDP Per Capita	Labor Market Activity			Population Structure	Education Attainment	Gross Expenditure on R&D	Healthcare	Housing Affordability	
	Years as noted below			EU and National Indices <sup>2</sup>	Economic Activity Rate	Unemployment Rates		Elderly Dependency Rate <sup>3</sup>	EU and National Indices <sup>4</sup>	% of GDP	Doctors per 100,000 inhabitants	Median Multiple <sup>5</sup>	
	2011	2012	2013	2013		Region/ State/ Province	City						
<b>Australia</b>	<b>2.2</b>	<b>3.6</b>	<b>2.6</b>	<b>100.0</b>	<b>65.0</b>	<b>5.7</b>	<b>n/a</b>	<b>21.6</b>	<b>100.0</b>	<b>2.21</b>	<b>266</b>	<b>7.0</b>	
Adelaide	2.3	1.8	1.3	85.2	62.9	6.3	6.4	25.5	94.2	2.38	294	6.5	
Brisbane	0.9	4.4	3.6	95.9	67.4	5.9	5.6	20.5	98.9	1.59	245	5.8	
Melbourne	2.2	2.8	1.6	88.2	65.9	5.8	6.0	21.8	102.6	2.44	271	7.5	
Sydney	2.3	2.4	1.8	96.3	65.9	5.6	5.4	23.0	100.1	2.05	273	8.3	
<b>Canada</b>	<b>3.4</b>	<b>2.5</b>	<b>1.7</b>	<b>100.0</b>	<b>66.5</b>	<b>7.1</b>	<b>n/a</b>	<b>19.7</b>	<b>100.0</b>	<b>1.74</b>	<b>209</b>	<b>4.1</b>	
Charlottetown, PE	2.2	1.0	1.5	70.6	69.3	11.5	n/a	21.6	95.9	1.21	177	2.9	
Edmonton, AB	4.5	5.2	3.8	155.2	73.1	4.6	5.5	16.1	101.3	0.95	274	3.7	
Fredericton, NB	2.0	0.3	(1.1)	77.8	63.2	10.4	n/a	19.6	93.7	0.94	184	2.3	
Halifax, NS	3.0	0.6	(0.1)	79.7	63.8	9.0	6.9	24.5	97.3	1.32	322	3.5	
Kamloops, BC	3.3	2.7	1.5	96.2	64.1	6.6	n/a	23.7	104.7	1.38	169	n/a	
Moncton, NB	2.0	0.3	(1.1)	77.8	63.2	10.4	7.6	20.9	93.7	0.94	232	2.3	
Montreal, QC	2.3	1.8	1.5	84.6	65.2	7.6	8.0	21.3	96.4	2.28	336	5.1	
Niagara Region, ON	3.4	2.2	1.3	96.6	66.4	7.5	8.9	28.6	101.6	2.23	190	3.5	
Quebec City, QC	2.3	1.8	1.5	84.6	65.2	7.6	4.7	23.9	96.4	2.28	341	3.9	
Saskatoon, SK	4.2	5.0	1.9	112.7	70.0	4.0	4.2	17.3	97.8	0.75	263	4.3	
St. John's, NL	5.9	2.9	(4.4)	109.5	61.2	11.4	5.9	17.8	92.5	0.89	262	3.6	
Sudbury, ON	3.4	2.2	1.3	96.6	66.4	7.5	6.8	23.5	101.6	2.23	168	3.2	
Toronto, ON	3.4	2.2	1.3	6.6	66.4	7.5	8.5	18.1	101.6	2.23	470	5.9	
Vancouver, BC	3.3	2.7	1.5	96.2	64.1	6.6	6.4	19.0	104.7	1.38	428	9.5	
Winnipeg, MB	2.6	1.7	2.6	91.4	68.7	5.4	5.8	20.5	95.7	1.24	266	3.6	
<b>EU-27 Country Average</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2011</b>	<b>100.0</b>				<b>100.0</b>				
<b>France</b>	<b>(3.7)</b>	<b>4.7</b>	<b>3.4</b>	<b>108.7</b>	<b>56.6</b>	<b>10.3</b>	<b>n/a</b>	<b>26.9</b>	<b>97.7</b>	<b>2.24</b>	<b>327</b>	<b>n/a</b>	
Marseille	(2.5)	5.2	3.9	103.2	53.0	11.9	10.1	32.4	96.0	2.10	408	n/a	
Paris	(4.3)	7.2	3.7	181.0	61.4	8.5	8.5	19.5	99.3	2.99	402	n/a	
<b>Germany</b>	<b>(7.3)</b>	<b>8.3</b>	<b>5.6</b>	<b>122.2</b>	<b>60.1</b>	<b>5.5</b>	<b>n/a</b>	<b>31.2</b>	<b>116.3</b>	<b>2.82</b>	<b>373</b>	<b>n/a</b>	
Berlin	(2.8)	6.5	3.9	112.3	60.4	10.6	10.6	27.6	114.2	3.47	454	n/a	
Frankfurt	(8.6)	5.9	5.0	160.7	61.1	4.7	4.7	30.1	116.2	3.54	368	n/a	
<b>Italy</b>	<b>(6.0)</b>	<b>3.5</b>	<b>2.0</b>	<b>101.2</b>	<b>49.3</b>	<b>10.7</b>	<b>n/a</b>	<b>31.6</b>	<b>77.1</b>	<b>1.26</b>	<b>392</b>	<b>n/a</b>	
Milan	(6.8)	5.9	1.9	131.7	54.3	8.0	7.5	31.3	80.9	1.33	346	n/a	
Rome	(3.7)	2.3	1.9	116.3	51.2	9.5	10.8	30.6	90.7	1.76	485	n/a	
<b>Netherlands</b>	<b>(7.0)</b>	<b>2.9</b>	<b>2.9</b>	<b>129.0</b>	<b>65.2</b>	<b>5.3</b>	<b>n/a</b>	<b>24.4</b>	<b>98.9</b>	<b>1.82</b>	<b>292</b>	<b>n/a</b>	
Eindhoven	(6.5)	4.3	3.3	130.6	65.4	4.8	4.7	26.4	97.0	2.41	205	n/a	
Twente Region	(4.9)	1.8	2.8	112.7	64.6	5.1	5.1	24.1	99.3	1.53	214	n/a	
<b>United Kingdom</b>	<b>(7.4)</b>	<b>0.9</b>	<b>1.0</b>	<b>104.8</b>	<b>62.7</b>	<b>7.9</b>	<b>n/a</b>	<b>25.9</b>	<b>105.0</b>	<b>1.77</b>	<b>271</b>	<b>6.3</b>	
London	(7.5)	1.1	3.4	180.2	66.0	8.8	8.8	16.3	111.7	1.03	348	7.8	
Manchester	(3.6)	(0.5)	(1.9)	89.7	62.0	8.8	10.2	26.1	100.1	1.02	275	4.8	
<b>Japan</b>	<b>(4.2)</b>	<b>(3.9)</b>	<b>0.9</b>	<b>100.0</b>	<b>59.3</b>	<b>4.0</b>	<b>n/a</b>	<b>38.4</b>	<b>100.0</b>	<b>3.39</b>	<b>213</b>	<b>n/a</b>	
Osaka	(0.0)	(0.1)	0.0	95.4	57.3	4.4	n/a	38.6	102.1	n/a	243	n/a	
Tokyo	(0.0)	(0.0)	(0.0)	116.1	61.4	4.1	n/a	33.1	106.2	n/a	277	n/a	
<b>Mexico</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2010</b>	<b>100.0</b>	<b>60.9</b>	<b>5.0</b>	<b>n/a</b>	<b>9.7</b>	<b>n/a</b>	<b>196</b>	<b>n/a</b>	
Mexico City	4.4	3.9	4.3	217.7	n/a	6.2	6.3	11.4	n/a	n/a	131	n/a	
Monterrey	9.0	6.3	4.5	183.1	n/a	5.6	5.8	9.0	n/a	n/a	163	n/a	

Regional Data for Other Competitiveness Factors<sup>1</sup>

Relates to Chapter 6:  <i>Green columns are national indices that can only be compared within each color-shaded group. Refer to column footnotes for details.</i>	General Business Environment				Labor Markets				Innovation	Quality of Life			
	Page 43				Page 46				Page 47	Page 48	Page 50	Page 56	Page 57
	GDP Growth			GDP Per Capita	Labor Market Activity			Population Structure	Education Attainment	Gross Expenditure on R&D	Healthcare	Housing Affordability	
	Years as noted below			National Indices <sup>2</sup>	Economic Activity Rate	Unemployment Rates		Elderly Dependency Rate <sup>3</sup>	National Indices <sup>4</sup>	% of GDP	Doctors per 100,000 inhabitants	Median Multiple <sup>5</sup>	
	2010	2011	2012	2012		Region/ State/ Province	City						
<b>United States</b>	<b>2.4</b>	<b>1.6</b>	<b>2.5</b>	<b>100.0</b>	<b>63.7</b>	<b>8.1</b>	<b>n/a</b>	<b>19.8</b>	<b>100.0</b>	<b>2.61</b>	<b>273</b>	<b>3.5</b>	
Albuquerque, NM	0.8	(0.4)	0.2	79.2	58.9	6.9	7.3	20.7	97.4	8.01	243	3.8	
Anchorage, AK	(1.7)	1.7	1.1	142.9	68.3	7.0	6.0	11.5	106.6	0.72	225	3.7	
Atlanta, GA	1.4	2.1	2.1	88.1	64.2	9.0	8.8	16.2	98.5	1.36	216	2.0	
Austin, TX	4.1	3.6	4.8	108.7	65.2	6.8	5.8	15.8	94.4	1.59	216	3.6	
Baltimore, MD	3.3	1.6	2.4	109.2	67.9	6.8	7.2	18.3	103.1	6.23	423	3.8	
Bangor, ME	1.8	0.4	0.5	80.9	65.2	7.3	7.1	24.2	105.9	0.95	278	n/a	
Baton Rouge, LA	5.8	(2.6)	1.5	100.8	59.6	6.4	6.4	18.7	95.9	0.53	267	3.4	
Beaumont, TX	4.1	3.6	4.8	108.7	65.2	6.8	10.1	15.8	94.4	1.59	216	2.9	
Billings, MT	2.1	2.4	2.1	77.6	64.0	6.0	4.4	22.8	107.3	1.07	219	n/a	
Boise, ID	1.6	0.0	0.4	74.7	64.8	7.1	6.9	19.8	103.5	3.20	171	3.2	
Boston, MA	3.8	1.7	2.2	124.4	65.1	6.7	6.1	20.4	104.0	5.36	474	5.2	
Buffalo, NY	4.0	1.2	1.3	124.0	61.6	8.5	8.5	20.1	99.1	1.51	394	2.8	
Burlington, VT	5.6	1.3	1.2	89.3	69.6	5.0	4.0	21.9	106.5	1.75	372	4.7	
Cedar Rapids, IA	1.9	2.2	2.4	98.7	68.6	5.2	5.3	22.9	105.9	2.00	189	2.6	
Champaign-Urbana, IL	1.8	2.1	1.9	107.9	66.0	8.9	8.0	18.9	101.6	2.46	283	3.5	
Charleston, WV	3.3	1.9	3.3	71.0	54.1	7.3	6.9	24.3	97.8	0.93	236	3.3	
Charlotte, NC	2.3	0.5	2.7	94.2	63.0	9.5	9.5	19.8	98.8	2.05	257	3.2	
Cheyenne, WY	(1.3)	(2.4)	0.2	126.9	68.8	5.4	6.1	18.9	107.1	0.29	187	n/a	
Chicago, IL	1.8	2.1	1.9	107.9	66.0	8.9	8.9	18.9	101.6	2.46	283	3.2	
Cincinnati, OH	2.1	2.9	2.2	88.1	63.7	7.2	7.1	21.5	103.0	2.16	271	2.5	
Cleveland, OH	2.1	2.9	2.2	88.1	63.7	7.2	7.1	21.5	103.0	2.16	271	2.6	
Dallas-Fort Worth, TX	4.1	3.6	4.8	108.7	65.2	6.8	6.7	15.8	94.4	1.59	216	2.9	
Denver, CO	2.2	1.7	2.1	108.1	68.8	8.0	7.9	16.4	105.0	2.42	260	4.3	
Detroit, MI	4.9	3.5	2.2	82.5	59.8	9.1	10.5	21.0	103.6	4.00	258	1.5	
Fargo, ND	7.2	7.8	13.4	129.1	72.0	3.1	3.6	21.5	105.8	1.32	250	3.0	
Gulfport-Biloxi, MS	2.0	(1.1)	2.4	67.7	59.2	9.2	8.6	19.7	94.9	0.89	179	2.8	
Hartford, CT	1.2	(0.1)	(0.1)	128.4	66.1	8.4	8.4	21.4	103.8	3.35	380	3.6	
Honolulu, HI	3.1	2.1	1.6	103.9	61.1	5.8	5.2	22.1	105.0	1.02	371	9.3	
Houston, TX	4.1	3.6	4.8	108.7	65.2	6.8	6.8	15.8	94.4	1.59	216	3.0	
Indianapolis, IN	6.4	2.2	3.3	91.3	62.6	8.4	7.8	19.8	101.6	2.34	217	2.6	
Jackson, MS	2.0	(1.1)	2.4	67.7	59.2	9.2	7.3	19.7	94.9	0.89	179	3.4	
Kansas City, MO	1.9	0.3	2.0	86.0	64.1	6.9	6.6	21.4	101.9	3.79	247	2.7	
Las Vegas, NV	(0.4)	1.8	1.5	95.9	64.7	11.1	11.2	18.5	98.4	0.75	188	2.8	
Lexington, KY	5.0	2.0	1.4	78.3	61.4	8.2	6.6	20.2	96.5	0.93	234	3.0	
Little Rock, AR	2.6	0.7	1.3	74.4	59.9	7.3	6.5	22.4	97.4	0.57	204	3.0	
Los Angeles, CA	0.3	1.2	3.5	107.6	63.0	10.5	10.1	17.1	94.4	4.39	271	6.2	
Madison, WI	3.1	1.3	1.5	91.9	68.0	6.9	5.0	20.7	105.2	2.18	262	3.5	
Manchester, NH	3.3	2.2	0.5	100.4	69.6	5.5	5.5	20.3	106.6	3.53	289	3.2	
Memphis, TN	2.5	2.4	3.3	87.1	62.0	8.0	9.0	20.5	98.3	1.56	266	2.7	
Miami, FL	0.3	0.9	2.4	81.3	60.6	8.6	8.5	27.1	100.1	1.09	252	4.5	
Minneapolis, MN	2.8	1.6	3.5	109.9	70.9	5.6	5.5	19.6	107.2	2.75	297	2.8	
Mobile, AL	2.7	1.0	1.2	76.2	57.5	7.3	8.4	21.0	96.6	2.16	218	2.6	
Montgomery, AL	2.7	1.0	1.2	76.2	57.5	7.3	7.5	21.0	96.6	2.16	218	2.8	
Nashville, TN	2.5	2.4	3.3	87.1	62.0	8.0	6.6	20.5	98.3	1.56	266	3.2	
New Orleans, LA	5.8	(2.6)	1.5	100.8	59.6	6.4	6.5	18.7	95.9	0.53	267	3.5	
New York City, NY	4.0	1.2	1.3	124.0	59.9	8.5	8.8	20.1	99.1	1.51	394	6.2	
North Virginia, Metro DC, VA	3.8	1.1	1.1	110.2	66.6	5.9	5.6	18.2	101.7	2.38	278	4.1	

Regional Data for Other Competitiveness Factors<sup>1</sup>

Relates to Chapter 6:  <i>Green columns are national indices that can only be compared within each color-shaded group. Refer to column footnotes for details.</i>	General Business Environment				Labor Markets				Innovation	Quality of Life			
	Page 43				Page 46				Page 47	Page 48	Page 50	Page 56	Page 57
	GDP Growth			GDP Per Capita	Labor Market Activity			Population Structure	Education Attainment	Gross Expenditure on R&D	Healthcare	Housing Affordability	
Years as noted below				National Indices <sup>2</sup>	Economic Activity Rate	Unemployment Rates		Elderly Dependency Rate <sup>3</sup>	National Indices <sup>4</sup>	% of GDP	Doctors per 100,000 inhabitants	Median Multiple <sup>5</sup>	
	2010	2011	2012	2012		Region/State	City						
<b>United States</b>	<b>2.4</b>	<b>1.6</b>	<b>2.5</b>	<b>100.0</b>	<b>63.7</b>	<b>8.1</b>	<b>n/a</b>	<b>19.8</b>	<b>100.0</b>	<b>2.61</b>	<b>273</b>	<b>3.5</b>	
Oklahoma City, OK	0.6	1.9	2.1	84.7	62.3	5.2	4.8	20.8	100.5	0.70	175	3.1	
Omaha, NE	3.9	1.9	1.5	105.0	72.3	3.9	4.4	20.7	105.5	1.03	251	2.6	
Orlando, FL	0.3	0.9	2.4	81.3	60.6	8.6	8.4	27.1	100.1	1.09	252	2.9	
Philadelphia, PA	2.3	1.9	1.7	93.6	63.9	7.9	8.6	23.3	103.1	2.34	307	3.8	
Phoenix, AZ	(0.2)	1.7	2.6	82.3	60.6	8.3	7.3	21.9	99.8	2.22	213	3.0	
Pittsburgh, PA	2.3	1.9	1.7	93.6	63.9	7.9	7.2	23.3	103.1	2.34	307	2.7	
Portland, OR	5.7	3.5	3.9	112.4	63.4	8.7	8.2	21.3	103.8	2.89	281	4.3	
Providence, RI	1.0	0.0	1.4	97.4	66.3	10.4	10.3	21.5	98.7	2.96	382	4.0	
Raleigh, NC	2.3	0.5	2.7	94.2	63.0	9.5	7.7	19.8	98.8	2.05	257	3.1	
Riverside-San Bernardino, CA	0.3	1.2	3.5	107.6	63.0	10.5	12.1	17.1	94.4	4.39	271	3.7	
Sacramento, CA	0.3	1.2	3.5	107.6	63.0	10.5	10.4	17.1	94.4	4.39	271	3.2	
Saginaw, MI	4.9	3.5	2.2	82.5	59.8	9.1	8.6	21.0	103.6	4.00	258	2.1	
Salt Lake City, UT	2.3	2.8	3.4	91.5	66.8	5.7	5.5	14.3	105.6	2.70	212	3.7	
San Antonio, TX	4.1	3.6	4.8	108.7	65.2	6.8	6.5	15.8	94.4	1.59	216	3.3	
San Diego, CA	0.3	1.2	3.5	107.6	63.0	10.5	8.9	17.1	94.4	4.39	271	6.4	
San Francisco, CA	0.3	1.2	3.5	107.6	63.0	10.5	8.1	17.1	94.4	4.39	271	7.8	
Seattle, WA	2.3	2.0	3.6	110.2	64.7	8.2	7.4	18.6	104.9	4.87	271	4.8	
Shreveport, LA	5.8	(2.6)	1.5	100.8	59.6	6.4	6.4	18.7	95.9	0.53	267	3.7	
Sioux Falls, SD	0.0	4.4	0.2	100.9	70.4	4.4	4.1	22.2	105.1	0.71	224	2.7	
Spartanburg, SC	2.5	2.3	2.7	74.5	59.2	9.1	9.0	21.1	98.1	1.47	228	3.1	
Spokane, WA	2.3	2.0	3.6	110.2	64.7	8.2	8.6	18.6	104.9	4.87	271	3.5	
St. Louis, MO	1.9	0.3	2.0	86.0	64.1	6.9	7.6	21.4	101.9	3.79	247	2.5	
Tampa, FL	0.3	0.9	2.4	81.3	60.6	8.6	8.8	27.1	100.1	1.09	252	3.1	
Trenton, NJ	1.5	0.2	1.3	115.5	65.9	9.5	7.8	20.4	102.6	3.70	315	3.9	
Wichita, KS	2.6	3.2	1.4	96.0	68.4	5.7	6.8	20.3	104.5	1.58	228	2.4	
Wilmington, DE	0.3	0.9	0.2	143.0	61.7	7.1	8.6	22.1	102.1	3.70	246	3.8	
Youngstown, OH	2.1	2.9	2.2	88.1	63.7	7.2	8.1	21.5	103.0	2.16	271	2.0	

## Summary Footnotes

- 1 Refer to the following section "Detailed Data Source Notes for Exhibit C.1" for full data definitions, data sources and reporting dates.
- 2 Indices represent a measure of GDP per capita for the region/state/province where each city is located relative to the national GDP per capita of its country (national GDP per capita = 100), or in the case of the European countries, the EU-27 average (EU-27 GDP per capita=100). Indices can only be compared between jurisdictions within each country and not between the countries (except within the EU).
- 3 Represents a ratio of population 65 and over to the working age population (15-64).
- 4 Indices represent a measure of education attainment (high school completion) for the region/state/province where each city is located relative to the national level of education attainment (national education attainment rate = 100), or in the case of the European countries, the EU-27 average (EU-27 education attainment rate =100). Indices can only be compared between jurisdictions within each country and not between the countries (except within the EU) due to different age cut-offs for measuring attainment.
- 5 Housing affordability median multiple: median house price as a multiple of median household income.

## Detailed Data Source Notes

### GDP growth and GDP per capita

Data are reported separately for the most current data, as available for each location.

<b>Australia</b>	Australian Bureau of Statistics, Australian National Accounts: State Accounts, Table 1: Gross state product.
<b>Canada</b>	Statistics Canada, Table: Real gross domestic product (expenditure based), by region.
<b>Europe</b>	Eurostat. Table: Gross Domestic Product (GDP) at current market prices at NUTS level 2 (purchasing power standard).
<b>Japan</b>	OECD, regional data, Table: Regional GDP, millions of national currency, current prices. 2008-2010.
<b>Mexico</b>	GDP growth rates: Instituto Nacional de Estadística, Geografía e Informática (INEGI), GDP at 2008 prices, Mexico, Nuevo León, Distrito Federal. Regional GDP per capita: OECD, regional accounts, Regional GDP (reporting 2010).
<b>United States</b>	US Bureau of Economic Analysis, News Release: GDP by State, June 2013. Table 1: Real GDP by state, 2009-2012, and, Regional Data, GDP by State, Table: Per capita real GDP by state.

### Unemployment and economic activity rates

<b>Australia</b>	Australian Bureau of Statistics, Labour Force, Australia, Table 2: Labour force status by State, Capital city / Balance of state and Sex, (reporting 2013 data).
<b>Canada</b>	Statistics Canada. National/provincial: CANSIM Table 282-0002 (reporting 2013 data). Cities: CANSIM Table 282-0116 (reporting December 2013 data).
<b>Europe</b>	Eurostat. National and regional economic activity rates, Table: Economic activity rates by sex and age, NUTS 2 regions (%), (reporting 2012 data, annual). Regional and city level unemployment rates, Table: Unemployment rates by sex and age at NUTS levels 1, 2 and 3. (reporting 2012 data).
<b>Japan</b>	Portal of Official Statistics of Japan, Labour Force Survey 2014, Table 1. National unemployment and participation rates: Population aged 15 years old and over by labour force status, employed person by industry, and unemployed person by reason for seeking a job, (reporting 2013 data). Prefectural rates: Population of 15 years old or more by age, labour force status, marital status, status in employment and industries (reporting 2013 data).
<b>Mexico</b>	National values for Mexico: refer below to Data Source Notes for Chapter 6, Labor Force Activity Indicators. Regional and city data: Instituto Nacional de Estadística, Geografía e Informática (INEGI), Encuesta Nacional de Ocupación y Empleo (reporting January-April 2013).
<b>United States</b>	U.S. Department of Labor, Bureau of Labor Statistics. National and state participation and unemployment data: Labor Force Survey 2012, Current Population Survey, Employment Status of the civilian non-institutional population by age, sex and race. (reporting 2012 data). Unemployment data at city level: Local Area Unemployment Statistics, Unemployment rates for metropolitan areas, annual average rankings (reporting 2012 data).

### Elderly dependency rate

<b>Australia</b>	Australian Bureau of Statistics, Australian Demographic Statistics, June 2013, Table 6: Estimated resident population, by sex and age groups-states and territories.
<b>Canada</b>	Statistics Canada, Census Profile - Census Metropolitan Areas and Census Agglomerations (reporting 2011 data).
<b>All other states/regions</b>	Derived from OECD, regional demographic data (reporting 2012 data except 2011 for US and 2010 for Mexico).

### Education attainment

While reporting years for this data vary between 2000 and 2010, changes in education attainment across the entire adult population occur slowly over time. Ages used to define adult population differ among countries.

<b>Australia</b>	Australian Bureau of Statistics, Education and Work, May 2013. Table: Persons aged 15-64 years, Level of highest educational attainment, by state or territory of usual residence and sex.
<b>Canada</b>	Calculated from Statistics Canada, CANSIM Table 282-0004: Population aged 15 years and over. (reporting 2013 data).
<b>Europe</b>	Eurostat. Table: Persons aged 25-64 with upper secondary or tertiary education attainment, by sex and NUTS 2 level (reporting 2012).
<b>Japan</b>	Statistics Bureau Japan, 2000 Population of Japan, Table: Population 15 Years of Age and Over by School Attendance and Type of Last School Completed and Sex - Japan and Prefectures: 1990 to 2000, (reporting 2000 data).
<b>Mexico</b>	National values for Mexico: refer below to Data Source Notes for Chapter 6, Labor Force Activity Indicators. Regional and city data: Instituto Nacional de Estadística, Geografía e Informática (INEGI), Encuesta Nacional de Ocupación y Empleo (reporting January-April 2013).
<b>United States</b>	US Census Bureau, 2010-2012 American Community Survey, 3 year estimates, Table: Sex by age by educational attainment for the population 18 years and over.

**Gross expenditure on R&D**

Reporting years for this data for all countries are relatively close, being between 2005 and 2008.

<b>Australia</b>	Australian Bureau of Statistics, Research and Experimental Development, All Sector Summary, GERD as proportion of GDP and GSP, (reporting 2008-2009 data).
<b>Canada</b>	Calculated from Statistics Canada CANSIM Tables 358-0001 (GERD) and 384-0038 (GDP) (reporting 2011 data).
<b>Europe</b>	Eurostat. Table: Total intramural R&D expenditure (GERD) by sector and NUTS2 regions (reporting 2010 data except 2009 Germany and the Netherlands).
<b>Japan</b>	OECD, Science, Technology and Industry Scoreboard 2013. Figure: Gross domestic expenditure on R&D, 2011.
<b>United States</b>	National Science Board, Science and Engineering Indicators 2014, State Indicators, R&D as a percentage of GDP by state (reporting 2010 data).

**Number of doctors per 100,000 inhabitants**

<b>Australia</b>	Australian Bureau of Statistics, Australian Social Trends Data Cube, Table: Health, State Summary 2012 (reporting 2008-2010 data).
<b>Canada</b>	Canadian Institute for Health Information, Health Indicators 2013, (reporting 2011 city data).
<b>Europe</b>	Eurostat, Table: Health personnel by NUTS 2 region (reporting 2010 data except 2009 data for the Netherlands).
<b>Japan</b>	Ministry of Health, Labor and Welfare, Japan. Health Statistics in Japan 2010, Table: Number of physicians practicing in health care facilities per 100,000 population by prefecture, 2008.
<b>Mexico</b>	Derived from World Health Organisation, World Health Statistics 2013, (reporting 2005-2011 data) and Instituto Nacional de Estadística, Geografía e Informática (INEGI), Cuaderno de Información Oportuna Regional, Table 1.1.3 (reporting 2011 data).
<b>United States</b>	US Census Bureau, Statistical Abstract of the United States: 2012. Active physicians and nurses, by state: 2009.

**Housing affordability median multiple**

<b>All countries</b>	Demographia, 7th Annual International Housing Affordability Survey, 2013 (reporting data for Q3-2012).
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## B. Data Source Notes for Chapter 6

Set out below are detailed data sources and notes for the other competitiveness factor data presented in Chapter 6. Notes are categorized based upon the order of the exhibits in Chapter 6.

**Site Selection Factors, by Indicated Importance, and Quality of Life Factors, by Indicated Importance**

Area Development ([www.areadevelopment.com](http://www.areadevelopment.com)), Site and Facility Planning, 28th Annual Corporate Survey, 2013 and 24th Annual Corporate Survey, 2011.

**National Finance Indicators**

<b>Gross Government Debt, Gross National Savings &amp; Current Account Balance as %GDP</b>	IMF, World Economic Outlook database, September 2013 edition. Reporting data or estimates for 2012.
<b>Credit Rating</b>	Standard and Poor's website, January 2014.

**Growth and Inflation Indicators**

<b>GDP Growth Rate</b>	IMF, World Economic Outlook database, October 2013 edition. Annual percentages of constant price GDP are year-on-year changes.
<b>GDP/capita (US\$, PPP)</b>	IMF, World Economic Outlook database, October 2013 edition, (reporting 2013 data. Estimates UK).
<b>Inflation Rate</b>	OECD, Consumer Prices (MEI), percentage change on the same period of the previous year, 2012 data.

**Institutional Effectiveness Indicators**

<b>Government Effectiveness and Rule of Law</b>	World Bank, World Governance Indicators, 2012. The original results were presented on a -2.5 to +2.5 scale, where -2.5=least effective and +2.5=most effective. The results were re-scaled to a scale 0-10, where 0=least effective and 10= most effective to make it comparable to other indices in this exhibit.
<b>Policy Adaptability to Economic Change</b>	World Competitiveness Yearbook (WCY) copyright © 2013, IMD International, Switzerland, World Competitiveness Center, <a href="http://www.imd.ch/wcc">www.imd.ch/wcc</a> . Executive opinion survey based on the statement: Adaptability of government policy to changes in the economy is high, where 0=low and 10=high.
<b>Corruption</b>	Transparency International, Corruption Perceptions Index, 2013, where 0=highly corrupt and 10=highly clean.

<b>Economic Competitiveness Indicators</b>	World Competitiveness Yearbook (WCY) copyright © 2013, IMD International, Switzerland, World Competitiveness Center, www.imd.ch/wcc.  The Global Competitiveness Report, The Global Competitiveness Index (GCI), World Economic Forum, Switzerland 2013-2014.
<b>Entrepreneurship Indicator</b>	Global Entrepreneurship Monitor, 2013 Global Report. Early-stage entrepreneurship activity (TEA).
<b>Labor Force Activity Indicators</b>	
<b>Unemployment Rate</b>	OECD, Labour Force Statistics (MEI). Reporting data for Quarter 2 2013 (except, Quarter 1 2013 for Mexico).
<b>Incidence of Long-term Unemployment, Youth Unemployment Rate and Economic Activity (Participation) Rate</b>	International Labour Organization (ILO), Key Indicators of the Labour Market (KILM) database, reporting 2012 data.
<b>Projected Population Growth and Age Profiles</b>	United Nations Secretariat, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2012 Revision.
<b>Skills Gap and Education Indicators</b>	
<b>Employer Difficulty in Filling Skilled Jobs</b>	ManpowerGroup, Talent Shortage 2013 Survey Results.
<b>High School Science Skills (PISA Score)</b>	OECD, Program for International Student Assessment (PISA) 2012: What Students Know and Can Do: Student Performance in Reading, Mathematics and Science, Figure 1: Comparing Countries' and Economies' Performance. PISA is a system of international assessments that focus on 15-year-olds' capabilities in reading literacy, mathematics literacy, and science literacy. The most recent assessment was administered in 2012.
<b>Tertiary Education Attainment</b>	OECD Factbook 2013, Economic, Environmental and Social Statistics, Educational attainment.
<b>Education Expenditure as % GDP</b>	OECD, Education at a Glance 2012, (reporting 2009 or latest available data), for all countries. Table: Expenditure on educational institutions as a percentage of GDP, for all levels of education.
<b>Labor Market Flexibility Indicators</b>	
<b>Union Density</b>	OECD, Employment Database, Table: Trade union density (%) (reporting 2012 or latest available data).
<b>Collective Bargaining Coverage</b>	For all countries except Mexico: OECD, Working Paper 89, Legislation, collective bargaining and enforcement: updating the OECD employment protection indicators, Danielle Venn, 2009, (reporting 2007 data). Amsterdam Institute for Advanced Labour Studies, University of Amsterdam, Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between 1960 and 2007. Data for Mexico: International Labour Organisation, Industrial Relations, Employment Strategy Paper Social Dialogue and Employment in Argentina, Brazil and Mexico, 2004, Adalberto Cardoso (Reporting 1998, 2000, 2003 data).
<b>Employer Flexibility Under Employment Protection Legislation</b>	OECD, Strictness of Employment Protection (regular employment and temporary employment), (reporting 2003 data), where 0=least restrictive and 6=most restrictive.
<b>Innovation Indicators</b>	
<b>HRST Workforce as % of Total Employment</b>	OECD, Science, Technology and Industry Scoreboard 2013. Figure: Professionals and technicians, 2012.
<b>Researchers per 1,000 Employment</b>	OECD, Science, Technology and Industry Scoreboard 2013. Figure: R&D personnel, 2001 and 2011 (reporting 2011 data). Except for United States: OECD, Science, Technology and Industry Scoreboard 2011. Figure: Researcher by R&D performing sector, 2009 (reporting 2007 data).
<b>R&amp;D Expenditure as % GDP</b>	OECD, Science, Technology and Industry Scoreboard 2013. Figure: Gross domestic expenditure on R&D, 2001 and 2011. Reporting 2001 data except for Australia and Netherlands reporting 2010.
<b>Capacity for Innovation/Company Level Innovation</b>	The Global Competitiveness Report, 2013-2014, World Economic Forum, Switzerland 2012-2013. Executive survey question: In your country, to what extent do companies have the capacity to innovate? [1=not at all; 7=to a great extent]

**Business Regulatory Environment Indicators**

<b>Commercial Real Estate Transparency Index</b>	Jones Lang LaSalle, LaSalle Investment Management, Global Real Estate Transparency Index, Global Foresight Series 2012, where 1=strong, 5=weak.
<b>Market Access Index</b>	The Global Enabling Trade Report, the Enabling Trade Index 2012, World Economic Forum, Switzerland 2012. Market Access Subindex measures the extent to which the policy framework of the country welcomes foreign goods into the economy and enables access to foreign markets for its exporters. The original scale where 1=weak and 7=strong was inverted to 1=strong and 7=weak in order to make it consistent with other scales in Exhibit 6.17.
<b>Ease of Doing Business Ranking</b>	World Bank, Doing Business Report June 2013.

**Environmental Performance and Regulation Indicators**

<b>Environmental Performance</b>	Yale Center for Environmental Law and Policy (YCELP) of Yale University and the Center for International Earth Science Information Network (CIESIN) of Columbia University, in collaboration with the World Economic Forum and the Joint Research Centre of the European Commission. 2014. Environmental Performance Index, where 0=low, 100=high.
<b>Environmental Laws and Competitiveness</b>	World Competitiveness Yearbook (WCY) copyright © 2013, IMD International, Switzerland, World Competitiveness Center, www.imd.ch/wcc. Executive opinion survey based on the statement: Environmental laws and compliance do not hinder the competitiveness of businesses, where 0=hinder, 10=do not hinder. This has been re-scaled to a 0-100 scale in order to make the results more easily comparable with the Environmental Performance Index.

**Energy Indicators**

International Energy Association, Key World Energy Statistics, 2013. Calculated based on energy balances and selected indicators for 2011, expressed in million tonnes of oil equivalent (mtoe) on a net calorific value basis.

**Quality of Infrastructure Indicators**

<b>ICT Development Index-Access</b>	International Telecommunications Union, Measuring the Information Society, 2013, Table, ICT Development Index (IDI) where 1=low and 10=high (reporting 2012 data). The original scale where 1=low and 10=high was rescaled to 0=low and 10=high in order to make it consistent with the scale of Quality of Distribution Infrastructure indicator.
<b>Quality of Distribution Infrastructure</b>	World Competitiveness Yearbook (WCY) copyright © 2013, IMD International, Switzerland, World Competitiveness Center, www.imd.ch/wcc. Executive opinion survey based on the statement: The distribution infrastructure of goods and services is generally efficient, where 0=inefficient and 10=efficient.

**Safety and Crime Indicators**

<b>Homicides per 100,000 Population</b>	United Nations Office on Drugs and Crime, International homicide, count and rate per 100,000 population. Reporting data from 2011 except Netherlands, 2010.
<b>Police Reliability and Business Cost of Crime</b>	The Global Enabling Trade Report, the Enabling Trade Index 2012, Reducing Supply Chain Barriers, World Economic Forum, Switzerland, 2012.  Question regarding reliability of police services: To what extent can police services be relied upon to enforce law and order in your country? [1=cannot be relied upon at all; 7=can always be relied upon].  Question regarding business cost of crime and violence: Does the incidence of crime and violence impose costs on businesses in our country? [1=significant costs; 7= no costs]  The original scale where 1=negative and 7=positive was inverted to 1=positive and 7=negative in order to make it consistent with the scale of Homicides per 100,000 Population indicator.

**Healthcare Indicators**

World Health Organisation, World Health Statistics 2013, (reporting data 2005-2011).

**Housing Affordability**

<b>Housing Affordability (median multiple)</b>	Demographia, International Housing Affordability Survey, 2013. Based on an average of 4 local markets surveyed in Australia, 15 in Canada, 2 in the UK, 71 in the US using median multiple=median house price/median household income.
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# Appendix D

## Selected Bibliography and Sources of Data

For the purposes of this study, a wide variety of sources in each city and country were contacted to gather recent and accurate statistical data for input to the industry models. These sources are listed on the following pages. Where only the name of an organization is listed, data were sourced either from the organization's website or custom prepared reports. Document titles are included where data were sourced from a specific, publicly-available publication.

### A. Location, Population, Local Industry, and Transportation

<b>Australia</b>	All cities	Australian Bureau of Statistics
	Adelaide	City of Adelaide, Economic Development
		Department of Trade and Economic Development, South Australia
	Brisbane	Brisbane City Council
		Brisbane Investment
		Site Selection Online
	Melbourne	City of Melbourne
Melbourne Development Board		
Melbourne Port Corporation		
Sydney	New South Wales Department of State and Regional Development	
	City of Sydney	
<b>Canada</b>	All cities	Statistics Canada
	Belleville-Quinte West	City of Belleville, City of Quinte West
		Brandon
	Charlottetown	Innovation PEI
		Atlantic Canada Opportunities Agency
	Chatham-Kent	Chatham-Kent Economic Development Services
	Edmonton	Alberta Treasury Board and Enterprise
		Edmonton Economic Development Corporation
	Fredericton	Enterprise Fredericton
	Grand Prairie	City of Grande Prairie
	Halifax	Greater Halifax Partnership
	Kamloops	Venture Kamloops
	Kelowna	Central Okanagan Economic Development Commission
	Kingston	Kingston Economic Development
	Lethbridge	Economic Development Lethbridge
	Lloydminster	Lloydminster Economic Development Corporation
	Moncton	Enterprise Greater Moncton
		Atlantic Canada Opportunities Agency
	Montreal	Montreal International
		Investissement Québec
	Moose Jaw	City of Moose Jaw
Enterprise Saskatchewan		
Nanaimo	Nanaimo Economic Development	
Niagara Region	Niagara Economic Development	

	Prince Albert	Enterprise Saskatchewan
	Quebec City	Québec International
	Red Deer	City of Red Deer
	Regina	Regina Regional Opportunities Commission
	Saint John	Enterprise Saint John
	Saskatoon	Saskatoon Regional Economic Development Authority
	St. John's	Newfoundland and Labrador, Department of Innovation, Business and Rural Development City of St. John's Atlantic Canada Opportunities Agency
	Sudbury	City of Sudbury Greater Sudbury Development Corporation
	Sydney	Enterprise Cape Breton Corporation
	Toronto	City of Toronto
	Truro	Nova Scotia Economic and Rural Development and Tourism
	Vancouver	Metro Vancouver Vancouver Economic Commission
	Windsor-Essex	Windsor-Essex Economic Development Corporation
	Winnipeg	Economic Development Winnipeg Inc. Manitoba Entrepreneurship, Training & Trade
<b>France</b>	All Cities	Institut National de la Statistique et des Études Économiques
	Marseille	Ville de Marseille
	Paris	Paris Regional Development Agency
<b>Germany</b>	Berlin	Berlin Partner GmbH
	Frankfurt	Frankfurt Economic Development GmbH
<b>Italy</b>	All Cities	Istituto Nazionale di Statistica
	Milan	Milano Metropoli
	Rome	Sviluppo Lazio
<b>Japan</b>	Osaka	City of Osaka
	Tokyo	Tokyo Metropolitan Government
<b>Mexico</b>	All cities	ProMexico Instituto Nacional de Estadística Geografía e Informática (INEGI) US Trade Department
	Mexico City	Government of Distrito Federal
	Monterrey	Government of the State of Nuevo León Monterrey Ciudad Internacional del Conocimiento Monterrey Technology Park
<b>Netherlands</b>	All Cities	Statistics Netherlands
	Eindhoven	BOM Foreign Investments
	Twente Region	East Netherlands Development Agency
<b>United Kingdom</b>	All Cities	UK Office for National Statistics
	London	Government Office for the South East London Development Agency South London Chamber of Commerce & Industry

	Manchester	Manchester City Council Manchester Training and Enterprise Council Manchester Chamber of Commerce and Industry Manchester Business Link Manchester Investment & Development Agency Services
<b>United States</b>	All Cities	US Census Bureau InfoUSA www.city-data.com
	Albuquerque	City of Albuquerque
	Alexandria	Louisiana Economic Development City of Alexandria
	Anchorage	Anchorage Economic Development Corporation
	Atlanta	Metro Atlanta Chamber of Commerce
	Austin	The Greater Austin Chamber of Commerce
	Baltimore	City of Baltimore Emerging Technology Centers Baltimore Development Corporation
	Bangor	Bangor Region Development Alliance
	Baton Rouge	East Baton Rouge Parish
	Beaumont	City Town Info, Beaumont, Texas
	Bellingham	City of Bellingham
	Billings	City of Billings
	Boise	Boise Area Chamber of Commerce
	Boston	Greater Boston Chamber of Commerce
	Buffalo	Buffalo Niagara Enterprise
	Burlington	Greater Burlington Industrial Corporation
	Cedar Rapids	Cedar Rapids Area Chamber of Commerce
	Champaign-Urbana	Illinois Department of Commerce and Economic Opportunity
	Charlotte	Charlotte Regional Partnership
	Charleston	Charleston Area Alliance
	Cheyenne	The Cheyenne-Laramie County Corporation for Economic Development
	Chicago	City of Chicago
	Cincinnati	Cincinnati Ohio Economic Development
	Cleveland	City of Cleveland
	Dallas-Fort Worth	Greater Dallas Chamber Texas Department of Economic Development
	Denver	Metro Denver Economic Development Corporation
	Detroit	Wayne County Economic Development
	Fargo	Great Fargo Moorhead Economic Development Corporation
	Gulfport-Biloxi	Harrison County Development Commission
	Hartford	Greater Hartford Chamber of Commerce
	Honolulu	City and County of Honolulu, Economic Development
	Houma	Louisiana Economic Development Terrebonne Economic Development Authority
	Houston	Greater Houston Partnership Research Department
	Indianapolis	Indianapolis Private Industry Council
	Jackson	Metro Jackson Economic Development Alliance
	Kansas City	Economic Development Corporation of Kansas City
	Lafayette	Louisiana Economic Development Lafayette Economic Development Authority

Lake Charles	Louisiana Economic Development SWLA Chamber-Economic Development Alliance
Las Vegas	City of Las Vegas Las Vegas Chamber of Commerce
Lexington	Lexington-Fayette Urban County Government
Little Rock	Little Rock Chamber of Commerce City of Little Rock
Los Angeles	Los Angeles County Economic Development San Gabriel Valley Economic Partnership
Madison	City-Data.com
Manchester	City of Manchester
Memphis	Memphis Economic Development
Miami	City of Miami Miami Dade County
Minneapolis	Greater Minneapolis Chamber of Commerce
Mobile	Mobile Area Chamber of Commerce
Monroe	Louisiana Economic Development University of Louisiana at Monroe
Montgomery	Montgomery Area Chamber of Commerce
Nashville	Nashville Area Chamber of Commerce
New Orleans	Louisiana Economic Development; City of New Orleans
New York City	Hoover's Online City of New York
North Virginia (Metro DC)	Northern Virginia Economic Development Coalition
Oklahoma City	Greater Oklahoma City Chamber of Commerce
Omaha	City of Omaha Omaha Economic Development Corporation
Orlando	Metro Orlando Economic Development Commission
Philadelphia	Philadelphia Economic Development Greater Philadelphia Chamber of Commerce
Phoenix	Greater Phoenix Chamber of Commerce
Pittsburgh	Urban Redevelopment Authority of Pittsburgh
Portland	Portland Metropolitan Chamber of Commerce
Providence	Rhode Island Economic Development Corporation
Raleigh	Greater Raleigh Chamber of Commerce Research Triangle Park
Riverside-San Bernardino	California Employment Development Department Inland Empire Economic Partnership City of Riverside City of San Bernardino
Sacramento	City of Sacramento
Saginaw	City of Saginaw, Assessor's Office
Salem	City of Salem
Salt Lake City	City of Salt Lake City Salt Lake City Chamber of Commerce
San Antonio	City of San Antonio San Antonio Economic Development Foundation
San Diego	San Diego Regional Economic Development Corporation
San Francisco	City and County of San Francisco San Francisco Center for Economic Development

Seattle	Seattle Chamber of Commerce Economic Development Council of Seattle and King County
Shreveport	Shreveport Chamber of Commerce
Sioux Falls	Sioux Falls Area Chamber of Commerce
Spartanburg	City of Spartanburg Greater Greenville Chamber of Commerce
Spokane	Spokane Area Economic Development Council Washington State Labor Market Information
St. Louis	The Alliance of Edwardsville & Glen Carbon (economic development)
Tampa	Greater Tampa Chamber of Commerce
Trenton	New Jersey Economic Development Association
Wichita	Wichita Office of Economic Development
Wilmington	Wilmington Economic Development Corporation
Youngstown	Youngstown Warren Regional Chamber

<b>General</b>	City Populations Online – <a href="http://www.citypopulation.de">http://www.citypopulation.de</a> Google Maps The World Factbook, Central Intelligence Agency, 2013
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## B. Land Prices, Construction Costs, and Facility Lease Costs

<b>All countries</b>	Colliers International
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## C. Wages and Salaries, Statutory Plans, and Benefits

<b>Wages &amp; Salaries</b>	All countries	Mercer (customized report) Mercer, Total Employment Costs Report 2013
	North America	ERI Economic Research Institute, Salary Assessor Database, 2013 Mercer, Canada and US Geographic Salary Differentials, 2013 Robert Half, Accounting and Finance Salary Guide, Canada and US, 2013
<b>Statutory Benefits</b>	All countries	Mercer, Total Employment Costs Report, 2013
	North America	Tax Facts, KPMG Canada Canada Revenue Agency Internal Revenue Service State Employment and/or Labor Commissions, as required State/provincial Workers' Compensation Boards or private insurers, as required
<b>Other Benefits</b>	All countries	Mercer, Total Employment Costs Report, 2013 Mercer, Worldwide Benefit and Employment Guidelines, 2013
	Canada	Hewitt Associates (customized report)
	United States	US Bureau of Labor Statistics, Employer Costs for Employee Compensation, September 2013

## D. Electricity Costs

<b>Australia</b>	Adelaide	Power Direct, QEnergy
	Brisbane	Click Energy, Ergon
	Melbourne	Click Energy, Origin
	Sydney	Origin
<b>Canada</b>	Belleville-Quinte West	Veridian Connections Ontario Energy Board
	Brandon	Manitoba Hydro
	Charlottetown	Maritime Electric Company Limited
	Chatham-Kent	Entergus Powerlines
	Edmonton	EPCOR
	Fredericton	New Brunswick Power Corporation
	Grand Prairie	ATCO, Direct Energy
	Halifax	Nova Scotia Power
	Kamloops	BC Hydro
	Kelowna	BC Hydro
	Kingston	Kingston Hydro Corporation
	Lethbridge	City of Lethbridge Electric Utility ENMAX
	Lloydminster	ATCO, Direct Energy
	Moncton	New Brunswick Power Corporation
	Montreal	Hydro Quebec
	Moose Jaw	SaskPower
	Nanaimo	BC Hydro
	Niagara Region	Horizon
	Prince Albert	SaskPower
	Quebec City	Hydro Quebec
	Red Deer	ENMAX
	Regina	SaskPower
	Saint John	New Brunswick Power Corporation
	Saskatoon	SaskPower
	St. John's	Newfoundland Power
	Sudbury	Greater Sudbury Hydro
	Sydney	Nova Scotia Power
	Toronto	Toronto Hydro Ontario Energy Board
	Truro	Nova Scotia Power
	Vancouver	BC Hydro
	Windsor-Essex	EnWin Utilities Ontario Energy Board
	Winnipeg	Manitoba Hydro
<b>Europe</b>	All cities	EuroStat International Energy Agency, Energy Prices and Taxes, Q3 2013
<b>Japan</b>	All cities	International Energy Agency, Energy Prices and Taxes, Q3 2013
<b>Mexico</b>	All cities	Comision Federal de Electricidad International Energy Agency, Energy Prices and Taxes, Q3 2013
<b>United States</b>	All Cities	US Energy Information Administration

## E. Natural Gas Costs

<b>Australia</b>	Adelaide	AGL, Energy Australia, Origin
	Brisbane	Origin
	Melbourne	AGL, Origin
	Sydney	AGL, Origin
<b>Canada</b>	Alberta	ATCO Gas
	British Columbia	Terasen Gas
	Manitoba	Manitoba Hydro
	New Brunswick	Enbridge Gas
	Newfoundland	Imperial Oil
		Petro-Canada
		Imperial Oil
	Nova Scotia	Heritage Gas
		Petro-Canada
		Enbridge Gas
	Ontario	Union Gas
	Prince Edward Island	Imperial Oil
		Petro-Canada
Gaz Métro		
Quebec	TransGas Limited	
Saskatchewan		
<b>Europe</b>	All cities	EuroStat
		International Energy Agency, Energy Prices and Taxes, Q3 2013
<b>Japan</b>	All Cities	International Energy Agency, Energy Prices and Taxes, Q3 2013
<b>Mexico</b>	All Cities	Pemex
<b>United States</b>	All States	US Energy Information Administration

## F. Sea Transportation Costs

**All countries** Galaxy Transport Corp. and its agents

## G. Air Transportation Costs

**All countries** Galaxy Transport Corp. and its agents

## H. Road Transportation Costs

**Australia** KPMG Australia

**Canada & United States**

North American Inland Freight Model 2013, MMK Consulting,  
 Model sources include:  
 American Trucking Association American Trucking Trends 2013  
 American Trucking Association ATA Driver Compensation Study, 2011  
 American Trucking Association Motor Carrier Annual Report 2011  
 BC Ferries  
 US Energy Information Administration, 2013 data  
 Fuel Costs, 2013 data: Kent Marketing Services Ltd.  
<http://www.truckmiles.com>  
 Federation of Tax Administrators  
 Marine Atlantic  
 International Registration Plan, Inc.  
 Matson Lines  
 Transport Canada, Operating Cost of Trucking and Surface Intermodal Transportation in Canada 2010  
 Taylor Study, The U.S.-Canada Border: Cost Impacts, Causes, and Short to Long Term Management  
 Options 2003  
 Worktruckonline.com, Medium Duty Operating Costs Increase in 2008-CY  
 US Department of Labor, Bureau of Labor Statistics 2012  
 Galaxy Transport Corp. and its agents

**Mexico**

Cosmex International

**I. National and Regional Taxes**

<b>Australia</b>	All cities	KPMG Australia
<b>Canada</b>	All cities	KPMG Canada, Tax Facts 2013-2014 Revenue Canada Provincial Revenue/Tax Departments as required
<b>France</b>	All cities	Fidal (KPMG France)
<b>Germany</b>	All cities	KPMG Germany
<b>Italy</b>	All cities	K Studio Associate (KPMG Italy)
<b>Japan</b>	All cities	KPMG Japan
<b>Mexico</b>	All cities	KPMG Mexico Cosmex International
<b>Netherlands</b>	All cities	KPMG Netherlands
<b>United Kingdom</b>	All cities	KPMG United Kingdom
<b>United States</b>	All cities	CCH, 2013 State Tax Handbook State Revenue/Tax Departments as required
	Albuquerque	State of New Mexico Taxation & Revenue
	Alexandria	Louisiana Department of Revenue
	Anchorage	Alaska Department of Revenue



Atlanta	Georgia Department of Revenue
Austin	Texas Comptroller of Public Accounts
Baltimore	Maryland Department of Revenue
Bangor	Maine Department of Revenue
Baton Rouge	Louisiana Department of Revenue
Beaumont	Texas Comptroller of Public Accounts
Bellingham	Washington State Department of Revenue
Billings	Montana Department of Revenue
Boise	Idaho State Tax Commission
Boston	Massachusetts Department of Revenue
Buffalo	New York State Department of Taxation and Finance
Burlington	Vermont Department of Taxes
Cedar Rapids	Iowa Department of Revenue
Champaign-Urbana	Illinois Department of Revenue
Charleston	West Virginia State Tax Department
Charlotte	North Carolina Department of Revenue
Cheyenne	Wyoming Department of Revenue
Chicago	Illinois Department of Revenue
Cincinnati	Ohio Department of Taxation
Cleveland	Ohio Department of Taxation
Dallas-Fort Worth	Texas Comptroller of Public Accounts
Denver	Colorado Department of Revenue
Detroit	Michigan Department of Treasury
Fargo	North Dakota State Tax Department
Gulfport-Biloxi	Missouri Department of Revenue
Hartford	State of Connecticut, Department of Revenue Services
Honolulu	Hawaii Department of Taxation
Houma	Louisiana Department of Revenue
Houston	Texas Comptroller of Public Accounts
Indianapolis	Indiana Department of Revenue
Jackson	Mississippi State Tax Commission
Kansas City	Missouri Department of Revenue
Lafayette	Louisiana Department of Revenue
Lake Charles	Louisiana Department of Revenue
Las Vegas	Nevada Department of Taxation
Lexington	Kentucky Department of Revenue
Little Rock	Arkansas Department of Finance and Administration
Los Angeles	California Franchise Tax Board
Madison	Wisconsin Department of Revenue
Manchester	New Hampshire Department of Revenue Administration
Memphis	Tennessee Department of Revenue
Miami	Florida Department of Revenue
Minneapolis	Minnesota Revenue
Mobile	Alabama Department of Revenue
Monroe	Louisiana Department of Revenue
Montgomery	Alabama Department of Revenue
Nashville	Tennessee Department of Revenue
New Orleans	Louisiana Department of Revenue
New York City	New York State Department of Taxation and Finance
North Virginia (Metro DC)	Virginia Department of Taxation
Oklahoma City	Oklahoma Tax Commission
Omaha	Nebraska Department of Revenue

Orlando	Florida Department of Revenue
Philadelphia	Pennsylvania Department of Revenue
Phoenix	Arizona Department of Revenue
Pittsburgh	Pennsylvania Department of Revenue
Portland	Oregon Department of Revenue
Providence	Rhode Island Division of Taxation
Raleigh	North Carolina Department of Revenue
Riverside-San Bernardino	California Franchise Tax Board
Sacramento	California Franchise Tax Board
Saginaw	Michigan Department of Treasury
Salem	Oregon Department of Revenue
Salt Lake City	Utah State Tax Commission
San Antonio	Texas Comptroller of Public Accounts
San Diego	California Franchise Tax Board
San Francisco	California Franchise Tax Board
Seattle	Washington State Department of Revenue
Shreveport	Louisiana Department of Revenue
Sioux Falls	South Dakota Department of Revenue
Spartanburg	South Carolina Department of Revenue
Spokane	Washington State Department of Revenue
St. Louis	Missouri Department of Revenue
Tampa	Florida Department of Revenue
Trenton	New Jersey Division of Taxation
Wichita	Kansas Department of Revenue
Wilmington	Delaware Division of Revenue
Youngstown	Ohio Department of Taxation

## J. Local Taxes

<b>Australia</b>	All cities	KPMG Australia Local city councils
<b>Canada</b>	All Cities	Provincial Revenue/Tax Departments as required
	Belleville-Quinte West	City of Belleville City of Quinte-West
	Brandon	City of Brandon
	Charlottetown	Town of Stratford
	Chatham-Kent	Municipality of Chatham-Kent
	Edmonton	City of Edmonton
	Fredericton	City of Fredericton
	Grande Prairie	City of Grande Prairie
	Halifax	Halifax Regional Municipality, Tax Division
	Kamloops	City of Kamloops
	Kelowna	City of Kelowna
	Lethbridge	City of Lethbridge
	Lloydminster	City of Lloydminster
	Moncton	Business Moncton, Property Taxes
	Montreal	City of Laval, Tax Department
	Moose Jaw	City of Moose Jaw, City Hall
	Nanaimo	City of Nanaimo, Finance Department

	Niagara Region	City of Niagara, Falls, City of St. Catharine's
	Prince Albert	City of Prince Albert, Assessment & Taxation Department
	Quebec City	City of Quebec, Tax Department
	Red Deer	City of Red Deer, Tax Department
	Regina	City of Regina, Tax Department
	Saint John	City of Saint John
	Saskatoon	City of Saskatoon, Office of the City Assessor
	St. John's	City of Mount Pearl, Tax Department
		Town of Paradise
	Sudbury	City of Greater Sudbury
	Sydney	Cape Breton Regional Municipality, Tax Office
	Toronto	City of Toronto, Tax & Water Department
		City of Brampton, Finance Department
		City of Mississauga
	Truro	Town of Truro, Finance & Property Department
	Vancouver	Township of Langley, Property Tax Department
	Victoria	District of Langford
	Windsor-Essex	Town of Lake Shore, Tax Department
		Town of Tecumseh, Tax Department
	Winnipeg	City of Winnipeg, Tax Department & Corporate Finance
<b>France</b>	All Cities	Fidal (KPMG France)
<b>Germany</b>	All Cities	KPMG Germany
<b>Italy</b>	All Cities	K Studio Associate (KPMG Italy)
<b>Japan</b>	All Cities	KPMG Japan
<b>Mexico</b>	All Cities	Cosmex International DFK / Llarena y Asociados S.C.
<b>Netherlands</b>	All cities	KPMG Netherlands
<b>United Kingdom</b>	All Cities	KPMG United Kingdom
<b>United States</b>	All cities	National Conference of State Legislatures
	Albuquerque	City of Albuquerque, Treasury Department
	Alexandria	Rapides Parish Assessor
	Anchorage	The Municipality of Anchorage, Treasury Division
	Atlanta	Georgia Department of Revenue, Property Tax Division
	Austin	Travis County Tax
	Baltimore	State of Maryland, Department of Assessment & Taxation
	Bangor	City of Bangor, Treasury Department
	Baton Rouge	East Baton Rouge Parish Assessor
	Beaumont	Jefferson County Tax Office
	Bellingham	Washington State Department of Revenue
	Billings	Yellowstone County, Treasurer
		City of Billings, Department of Revenue
	Boise	Ada County Treasurer
		Canyon County Assessor

Boston	Massachusetts Department of Revenue, Division of Local Services
Buffalo	City of Buffalo, Assessor's Office Erie County Clerk
Burlington	City of South Burlington, Department of Assessment Administration Town of Williston Town of Colchester
Cedar Rapids	Linn County Assessor Iowa Department of Revenue and Finance
Champaign-Urbana	County of Champaign Treasury
Charleston	Kanawha County, Assessor & County Clerk Putnam County Assessor
Charlotte	North Carolina, Department of Revenue City of Charlotte Mecklenburg County
Cheyenne	Laramie County Assessor
Chicago	Will County Recorder Office Will County Clerk's Office, Tax Extension Illinois Department of Revenue
Cincinnati	Hamilton County Auditor; Butler Country Treasurer
Cleveland	Cuyahoga County Treasurer's Office
Dallas-Fort Worth	Dallas County, Central Appraisal District Tarrant County, Tax Assessment
Denver	Denver Assessor's Office
Detroit	City of Romulus Assessor's Office Wayne County Register of Deeds
Fargo	North Dakota State Tax Commissioner Cass County Assessor
Gulfport-Biloxi	Harrison County Tax Assessor
Hartford	State of Connecticut, Tax Collector & Real Estate Conveyance Tax Town of Newington, Town Clerk Town of Southington, Town Clerk & Assessor Town of Cheshier, Town Clerk Town of Wolcott, Town Clerk Town of Enfield, Town Clerk & Assessor Town of Somers, Town Clerk
Honolulu	City of Honolulu, Real Property Assessment Division State of Hawaii, Department of Taxation
Houma	Terrebonne Parish Assessor
Houston	Harris County, Tax Assessor/Collector
Indianapolis	Hendricks County, Auditor's Office
Jackson	Hinds County, Tax Assessor
Kansas City	City of Kansas City Missouri Department of Revenue Clay County, Jackson County, Platte County
Lafayette	Lafayette Assessor
Lake Charles	Calcasieu Parish Sheriff's Office
Las Vegas	Nevada Department of Taxation Clark County Treasurer
Lexington	Lexington-Fayette Urban County Government, County Clerk PVD Network Kentucky Department of Revenue

Little Rock	Pulaski County Treasurer
Los Angeles	County of Los Angeles, Department of Auditor-Controller
Madison	Dane County; Department of Revenue, Wisconsin
Manchester	City of Manchester, Tax Collector's Office
Memphis	Tennessee Department of Revenue Shelby County, Assessor of Property
Miami	Miami Dade County Property Appraisal Department
Minneapolis	Minnesota House Research Department Dakota County Treasurer, Auditor Department
Mobile	Alabama Department of Revenue, Property Tax Division
Montgomery	State of Alabama, Revenue Department
Nashville	Tennessee Comptroller of the Treasury, Division of Property Assessments
New Orleans	Orleans and Jefferson Parish Assessors
New York City	City of New York, Finance Department New York State, Office of Real Estate Property Services Nassau County
North Virginia (Metro DC)	Prince William County, Tax Administration State of Virginia, Deeds Office
Oklahoma City	Oklahoma County Assessor
Omaha	Douglas County Treasurer
Orlando	Orange County Property Appraiser
Philadelphia	Montgomery County Assessor Bucks County Board of Assessment Pennsylvania Department of Community & Economic Development Services, Governor's Centre for Local Government Services State Tax Equalization Board
Phoenix	Maricopa County, Finance Department
Pittsburgh	County Allegheny Treasurer
Portland	Multnomah County, Assessment & Taxation & Recorder's Office Oregon Department of Revenue – Statistics
Providence	Rhode Island Economic Development Corporation Rhode Island Tax Department State of Rhode Island Municipal Affairs, Department of Administration Rhode Island Economic Development Corporation
Raleigh	Wake County Department of Revenue & Register of Deeds North Carolina Department of Revenue, Property Tax Division
Riverside-San Bernardino	Riverside County Auditor San Bernardino County Auditor
Sacramento	Sacramento County Auditor
Saginaw	Saginaw County, Register of Deeds State of Michigan, Department of Treasury
Salem	Marion County Assessor Office
Salt Lake City	Salt Lake County, Auditor
San Antonio	Bexar County, Tax Assessor-Collector
San Diego	County of San Diego Assessor, Recorder, County Clerk & Property Tax Services
San Francisco	County of Alameda, Auditor-Controller County of San Mateo, Controller
Seattle	King County, Department of Assessments Pierce County Kent Economic Development Washington State Department of Revenue

Shreveport	Caddo Parish Tax Division
	City of Shreveport Revenue Division
	Louisiana Tax Commission
Sioux Falls	South Dakota Department of Revenue and Regulation, Business Tax Division
	County of Minnehaha, Register of Deeds
	Sioux Falls Development Foundation
Spartanburg	South Carolina Department of Commerce & Tax Department
	County of Spartanburg, Auditor
Spokane	Spokane County Assessor
	Spoke County Treasurer
	Washington State Department of Revenue
St. Louis	St Louis County, Collector of Revenue & Department of Taxes
	Missouri Department of Revenue
Tampa	Hillsborough County
	Polk County Tax Controller
	Tampa Bay Economic Development
	Greater Tampa Chamber of Commerce
Trenton	Mercer County Taxation Department
	New Jersey Division of Taxation, Realty Transfer Fees
Wichita	Sedgwick County, Clerk's Office
Wilmington	Delaware Division of Revenue
	Newcastle County Recorder of Deeds
	State of Delaware, Property Taxes
Youngstown	Trumbull County Auditor
	Ohio Department of Taxation

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