

IT Key Metrics Data 2022: Industry Measures – Executive Summary

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Initiatives: [IT Cost Optimization](#), [Finance, Risk and Value](#)

This research contains enterprise-level IT spending and staffing metrics, as well as business productivity ratios for 21 vertical industries, collected throughout 2021 from a global audience. It provides an overall summary of the Industry Measures from the IT Key Metrics Data report series.

Overview

Key Findings

- All of the metrics published in this report are based on the IT spending and staffing model outlined in the [Framework Definitions](#) document.
- Median cross-industry IT spending as a percent of revenue is 3.0% for 2021.
- 2021 Median cross-industry IT spending as a percent of operating expenses increased to 3.8%, from 3.7% in 2020.
- 2021 Median cross-industry IT spending per employee is \$10,376, up from \$9,820 in 2020.
- Personnel related costs account for the largest percentage of IT spending at 35%.
- SaaS, IaaS and other public cloud services collectively accounted for 15%, which was up from 14% in 2020.
- Cloud adoption has resulted in shifts in the distribution of IT spendings as well. Over the past several years, the percentage of IT spending on data centers has decreased, and now accounts for just 15% of the total. Investments in application development and application support have collectively increased and now account for 45% of IT spending.
- Average portion of IT spending coming from the formal IT budget stayed flat at 85% after increasing from 81% to 85% from 2017 to 2020. This increase occurred as anecdotally we see the influence of business management over IT spending increasing. This difference may be because our surveys reference a very specific definition of IT spending and staffing. This definition does not include certain items that are only IT-enabled, such as digital advertising expenses.
- This year's report reflects more of the impact of the global pandemic than the 2021 report. At the cross industry level there aren't major shifts in the data. As Gartner has noted earlier Covid-19 did not affect all industries or all organizations equally. Many organizations weren't able to scale IT Spending relative to their business volume. Some organizations ramped up on e-commerce activities just to stay afloat. Therefore as we look into what happened in the twenty one verticals we see much more volatility.

Recommendations

- Use the [Gartner IT Budget Tool](#) to establish a baseline comparison report of your IT spend and staff levels to:
 - Put IT spending and staffing into perspective for stakeholders by developing comparable external reference points.
 - Track IT spending and staffing consistently over time.
 - Identify the sources of IT spending and variances from peers in order to support optimization activities.
- We don't recommend trying to "match" published numbers or even the changes in these numbers year to year. Our numbers represent reference points and not best practices or targets. Next year's numbers may very well shift again depending on the course of the pandemic, the ability of companies to hire, and inflationary pressures. This may explain some changes you have seen in your own metrics, but every company is different. Your investment decisions should be guided by the principles as outlined here [Optimize Risk, Value and Cost in Your Organization With Gartner's Decision Model](#)

Benchmarking is a foundational component of cost management and mature IT financial management practices.

As CIO's and IT leaders evolve IT financial management practices, benchmarking continues to be a foundational capability to identify opportunities for smarter spending.

Figure 1: 4-Step process to Identify Opportunities for Smarter Spending



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To support Step 1, the [Gartner IT Budget Tool](#) can help to analyze costs vs. the industry to identify optimization opportunities.

The resources below are available to support your cost benchmarking exercise.

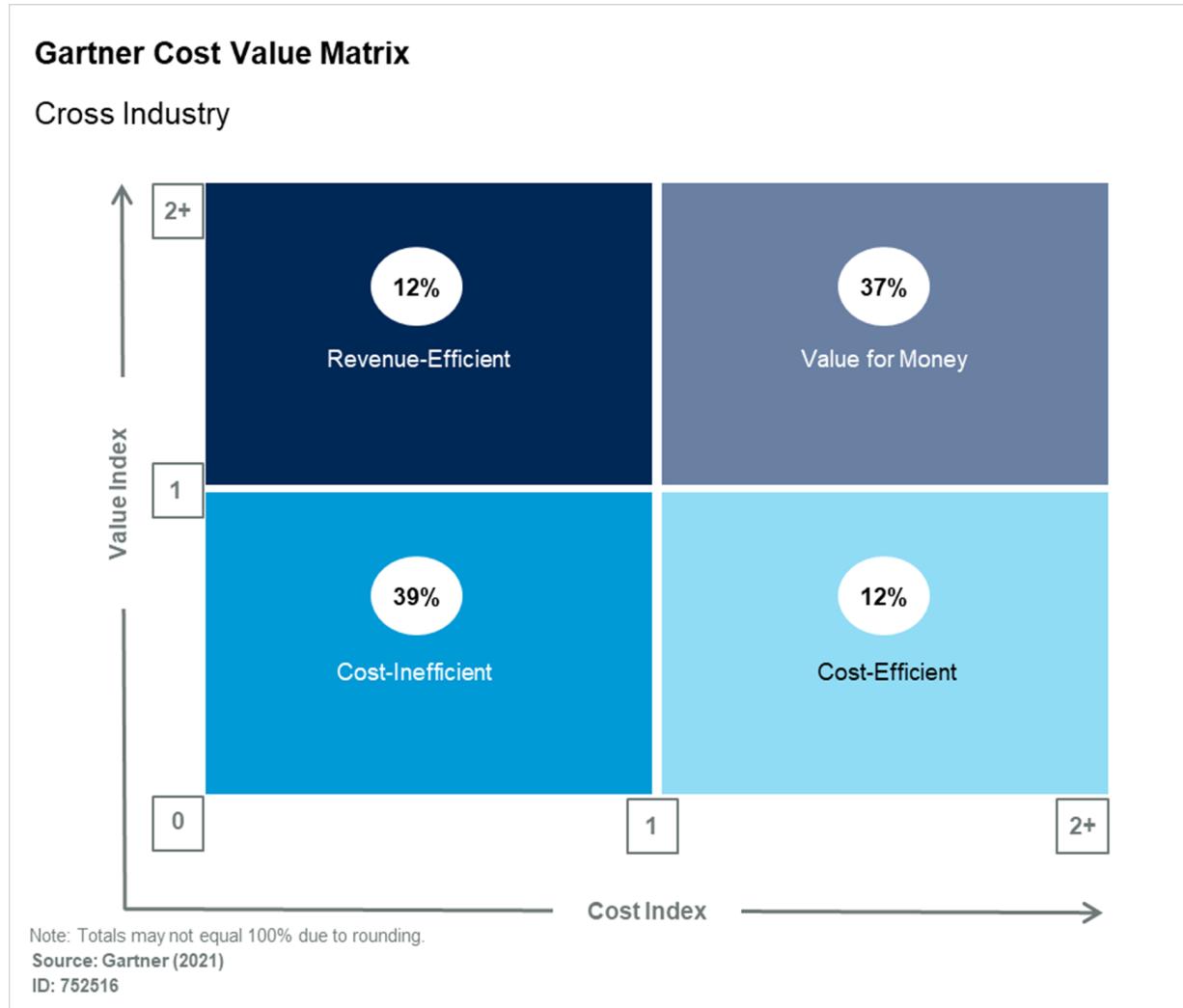
- Refer to [Framework Definitions](#) and [Frequently Asked Questions](#) to understand the scope and definitions of Enterprise IT spending and staffing.
- Use [IT Budget Practitioners Guide](#) and [IT Budget Data Collection Toolkit](#) to prepare your IT spending and staffing data for comparison.
- Review [IT Budget Next Steps](#) document to help interpret your benchmark.
- At any time during the process you can schedule an [inquiry](#) to get assistance with completing the IT Budget Tool, or to review your results.

Access is dependent on your level of Gartner subscription.

Gartner's Cost Value Matrix: Finding the Right Balance between your IT Cost Optimization and IT Investment Efforts

The Gartner cost value matrix (CVM) provides insight to ensure that cost optimization plans maximize business value as well as reduce costs by evaluating IT spend levels within the context of revenue and operating income levels.

Figure 2: Gartner Cost Value Matrix: Distribution of Enterprises by Quadrant



Recommended Reading

- "The Gartner Cost Value Matrix: Optimize IT to Fund Digital Business Acceleration"
- "Tool: The Gartner Cost Value Matrix, 2021: Balancing Business Value Metrics in Cost Optimization Efforts"

IT Spending as a Percent of Revenue, 2021

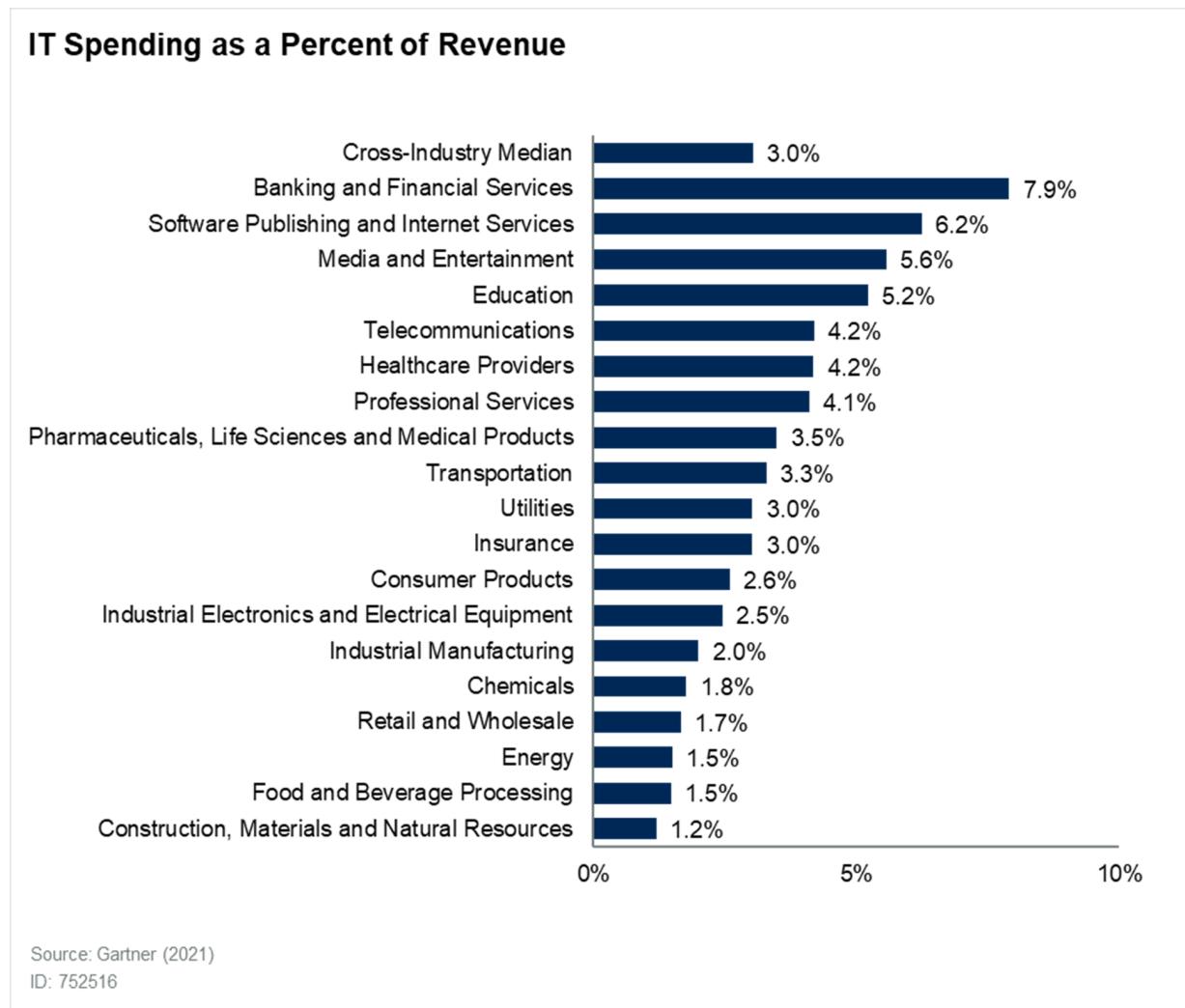
IT spending as a percent of revenue is the most recognized measure of total IT investment relative to top-line business results.

The value of this measure is that it assists in identifying the competitiveness of investment levels relative to the most fundamental measure of business performance: revenue. While this has been viewed as a must-have and readily available metric for many enterprises, common misuses include:

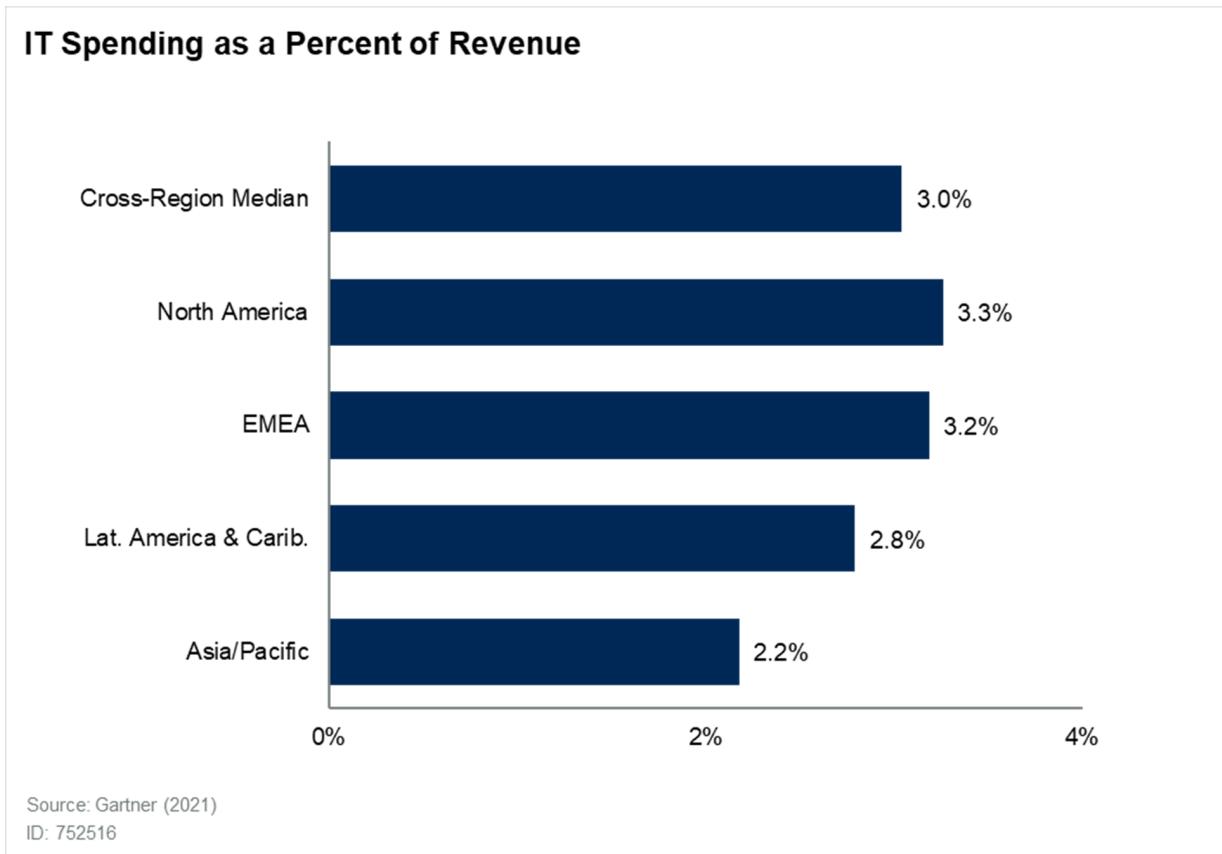
- Looking at a single year rather than multi year trends
- Basing decisions on the assumption that this figure will not change in the future, sometimes dramatically
- Failing to understand and address changes in the numerator and the denominator of the calculation
- Considering just the medians & averages rather than the range of values or the upper and lower quartiles, which can be found in Gartner ITKMD reports specific to vertical industries.

IT spending as a percent of revenue alone does not highlight why spending levels are at, above or below median (which are often misinterpreted as “good” or “bad”), nor does it reflect IT’s contribution to business performance. Thus, IT spending as a percent of revenue needs to be considered in tandem with other IT intensity measures, as well as the context of business objectives, the rate of change and the overall circumstances affecting the numerator, as well as the denominator, of the calculation.

IT intensive industries like banking and financial services, and software publishing and internet services continue to top the list of IT spending as a percent of revenue. While more “non-IT capital” and labor-intensive industries like construction, materials and natural resources and food and beverage processing are at the bottom (Figure 3).

Figure 3: IT Spending as a Percent of Revenue, by Industry, 2021**Gartner**

Regionally, North America has the highest level of median IT spending as a percent of revenue, while Asia/Pacific has the lowest (Figure 4). One reason that North America and EMEA tend to be higher than Asia/Pacific and Latin America & Caribbean is because they generally have a higher cost for personnel. Higher personnel costs result in more situations where it pays to invest in technology for automation to reduce overall costs.

Figure 4: IT Spending as a Percent of Revenue, by Region, 2021**Gartner**

Note that IT spending as a percent of revenue is calculated based on the current year's IT spending, divided by the previous year's revenue. We make the calculation in this way because the IT budget for a future year is based on experience from the current year. However, for practical reasons, we use the previous year's revenue because the current year's financial information is not available to us at the same time as the IT spending numbers. This year's report reflects more of the impact of declining revenue (2019-2020) from global pandemic than the 2021 report. At the same time it also reflects some of the rebound from 2021 IT Spending. Therefore we have seen some industries show significant increases in IT Spending as a percentage of revenue. For example Energy, Chemical and Consumer Products each rose by over 17% for this metric from the 2021 report to the 2022 report.

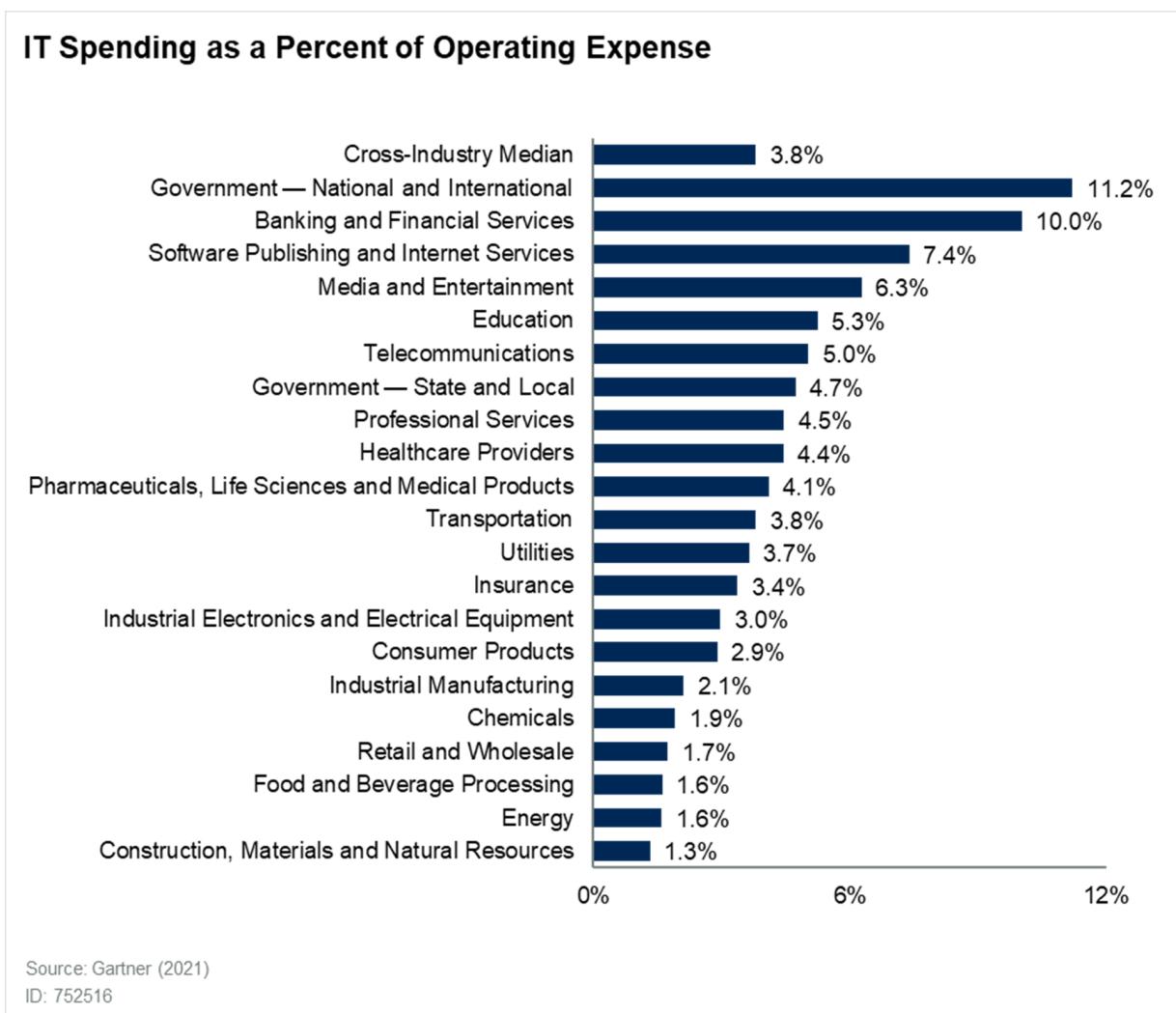
IT Spending as a Percent of Operating Expense, 2021

IT spending as a percent of operating expense is another view of IT investment level in terms of the role IT plays in overall business spending patterns.

While revenue may be subject to external-market-based volatilities, business operating expense typically remains much more consistent and predictable year over year. Therefore, it better reflects the overall business investment strategy. Typically, organizations with a greater level of IT investment relative to operating expense view IT as a strategic enabler, and this can improve business performance and productivity levels.

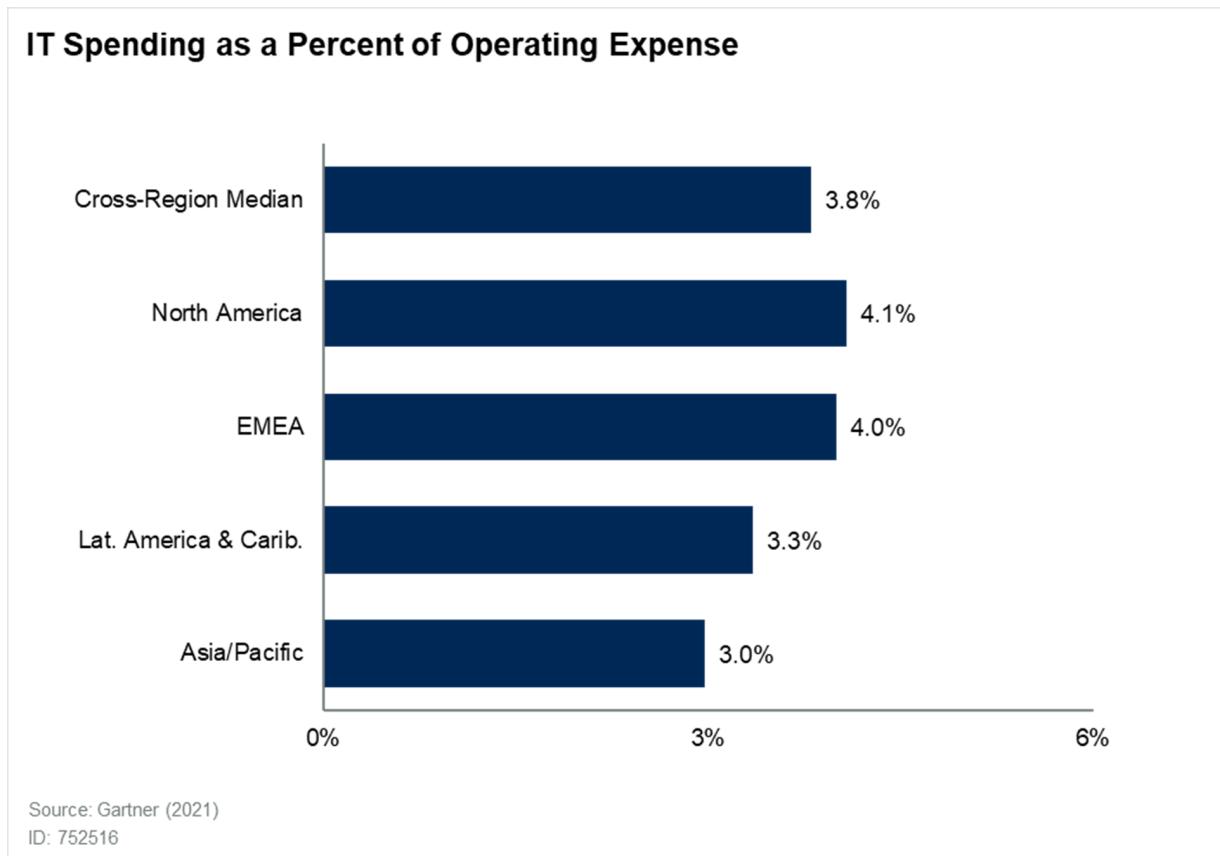
Industries with lower profit margins will tend to have smaller differences between their IT spending as a percent of revenue and their IT spending as a percent of operating expenses. For example, Banking and Financial Services has a profitability of 21.3% while Retail and Wholesale is at 4.7%. IT spending as a percent of revenue and operating expenses for Banking and Financial Services were 7.9% and 10.0% respectively (a difference of 2.1 percentage points). The same numbers for Retail and Wholesale are 1.66% and 1.74% respectively (a negligible difference of less than 0.1 percentage points).

Figure 5: IT Spending as a Percent of Operating Expense, by Industry, 2021



North America has the highest levels of median IT of spending as a percent of operating expenses. A key driver behind this difference is the relative cost of staff. The same situation that drove differences in IT spending as a percent of revenue among regions apply here.

Figure 6: IT Spending as a Percent of Operating Expense, by Region, 2021



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Again, this metric is calculated based on the current year's IT spending, divided by the previous operating expense. We advise clients to keep this in mind when comparing their own data with Gartner metrics.

IT Spending per Employee, 2021

IT spending per employee is often used to determine the amount of IT support the organization's workforce receives.

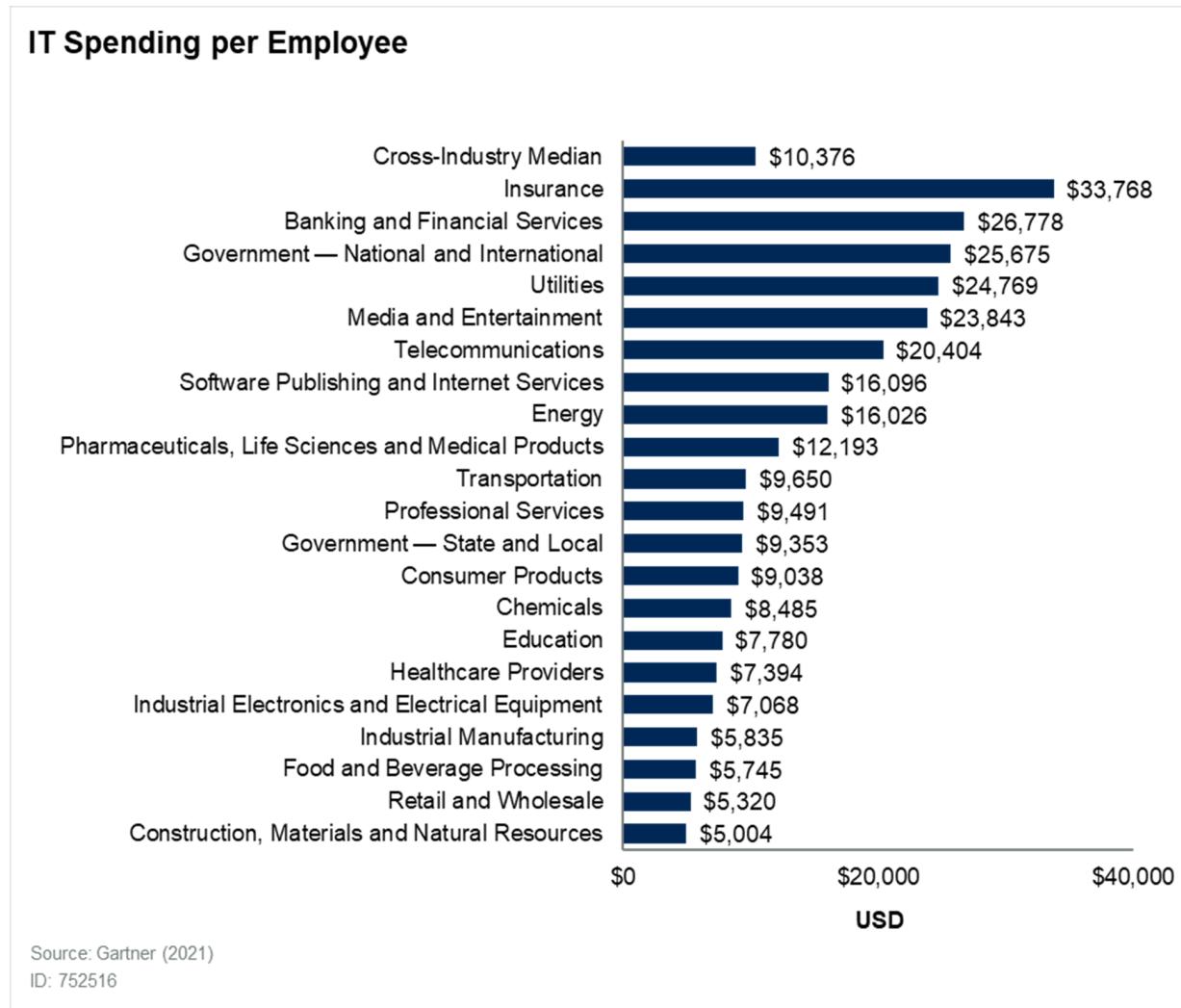
This measure helps to establish a link between IT investment and automation levels within the context of the workforce that supports revenue. Variations in this measure can represent niche-industry-specific delivery processes for service or product delivery, and, thus, should be viewed in conjunction with revenue and operating income per employee. Organizational staffing strategies and the use of contract employees can also impact this measure.

An increase in IT spending per employee is often viewed as a negative trend. However, this may not always be the case, as a decrease in employees (or a lack of increase of additional employees when business improves) can result in a higher value, simply because there are a smaller number of employees that are divided into the same or increasing IT spending. Therefore, the trend of increased IT spending per employee observed in some sectors may have been impacted by other factors, such as a move to digitization driving spending on technology versus personnel or continuing economic uncertainty in some parts of the world.

The industries with the highest level of IT spending per employee are those that typically tend to be the most information-intensive, and include insurance, banking and financial services, and national and international government (see Figure 7). Industries that are more labor-based, such as construction, materials and natural resources, tend to have much lower IT spending per employee.

The pandemic also had an effect on the IT Spending per Employee Metrics. For IT Spending per Employee both the numerator (IT Spending) and the denominator (Employees) are collected for the current year (2021). Many organizations experienced a rebound in IT Spending in 2021. The employee count is calculated on a full-time equivalent basis so we see the result of company employee staffing reductions that occurred in 2020 and continued into 2021 relative to the pandemic. The tight labor market is also likely playing a role here as companies are having trouble increasing staff even as business recovers. These factors led to an increase in IT Spending per Employee in most industries. Some of the biggest increases in IT Spending per Employee were in Transportation, Media and Entertainment (driven by the Entertainment – Museums, Movie Theaters etc. portion), Consumer Products industries.

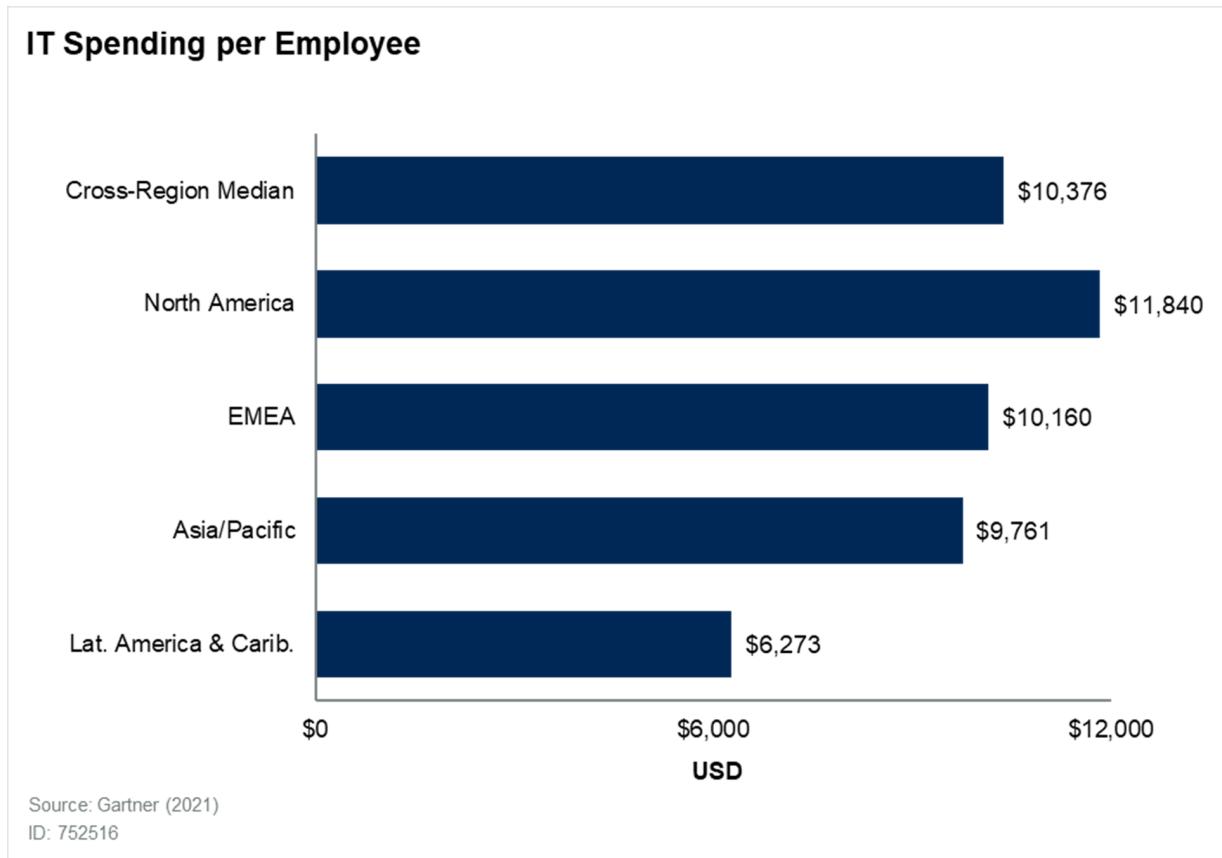
Figure 7: IT Spending per Employee, by Industry, 2021



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North America has the highest median IT spending per employee, followed by EMEA.

As with IT spending as a percent of revenue and operating expenses, the level of IT spending is lower in regions such as Latin America & Caribbean because lower labor costs mean there is less of an incentive to automate. This drives down the IT Spending per Employee. For this metric the fact that there are more employees (the denominator in the metric) in areas with lower staff costs makes the differences even more pronounced.

Figure 8: IT Spending per Employee, by Region, 2021**Gartner**

IT Spending Percent Change, 2020 to 2021

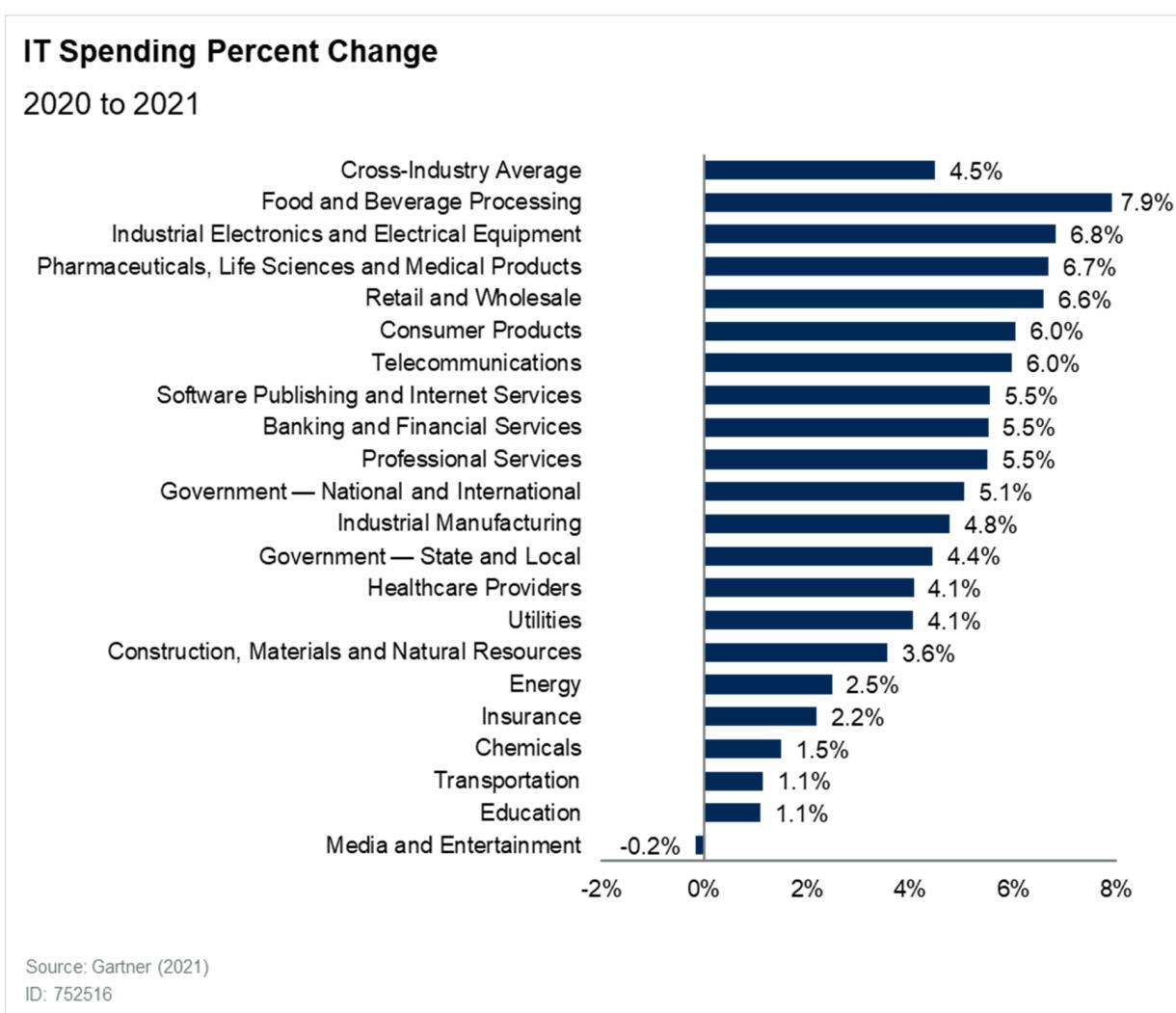
The pandemic has caused IT Spending to shift in different directions and categories for different organizations.

19 out of the 20 industries we track experienced an increase in IT Spending. The organizations in that category that had more entertainment exposure (theaters, museums etc) likely drove that down. Other industries like Transportation and Education showed very small increases. While Education in particular did need to make investments in order to continue remote learning, other IT investments were likely curtailed due to limited financial resources.

Industries like Food and Beverage and Pharmaceuticals, Life Sciences and Medical Products, and Healthcare, and Retail and Wholesale which may have been more cautious during the pandemic rebounded in IT Spending in 2021.

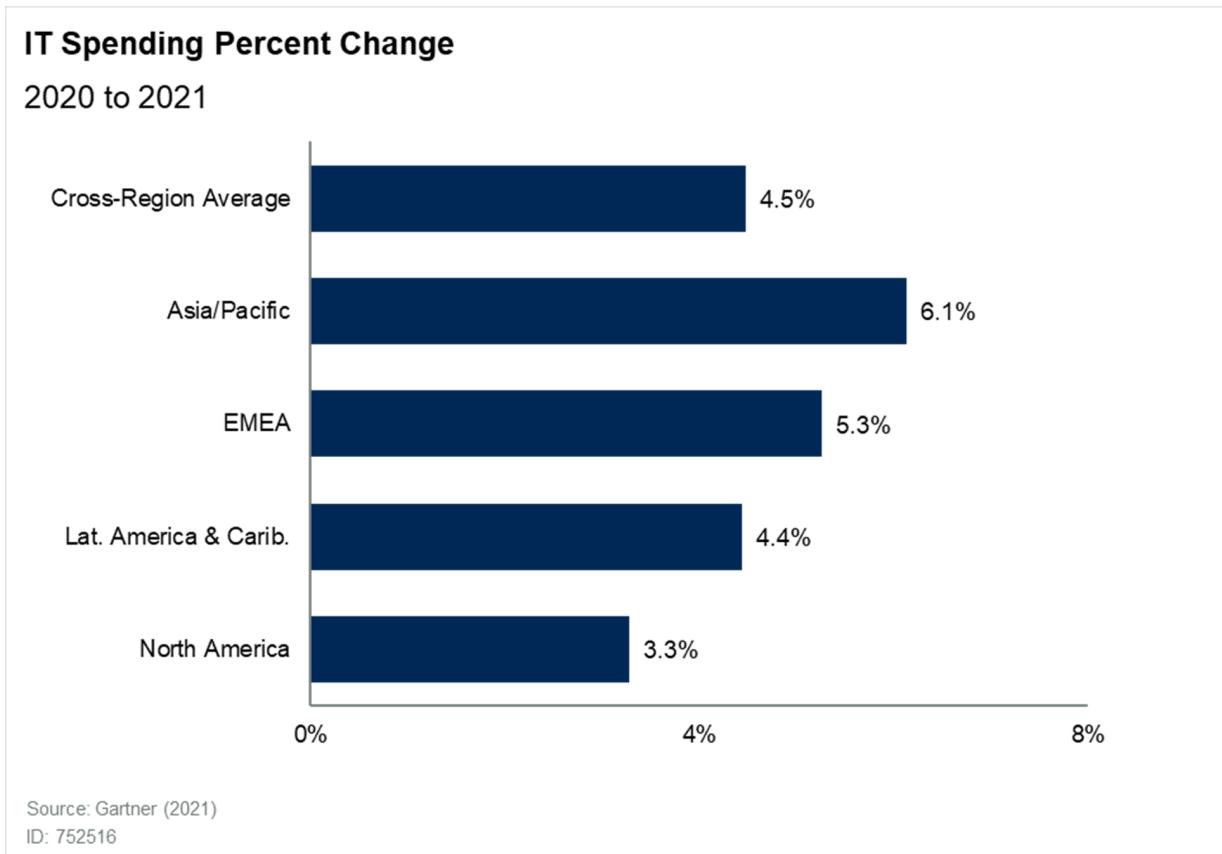
Industries like Banking and Financial Services and Software Publishing saw less financial impact from the pandemic and kept their spending increases fairly stable.

Figure 9: IT Spending Percent Change, by Industry, 2020 to 2021



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Regionally, Asia/Pacific and EMEA showed the highest increase in IT spending between 2020 and 2021, at 6.1% and 5.3% respectively (see Figure 10). While Latin America/Caribbean and North America saw a lower level of increase at 4.4% and 3.3% respectively. It is possible the former two regions overall had a quicker recovery from the pandemic than latter two. .

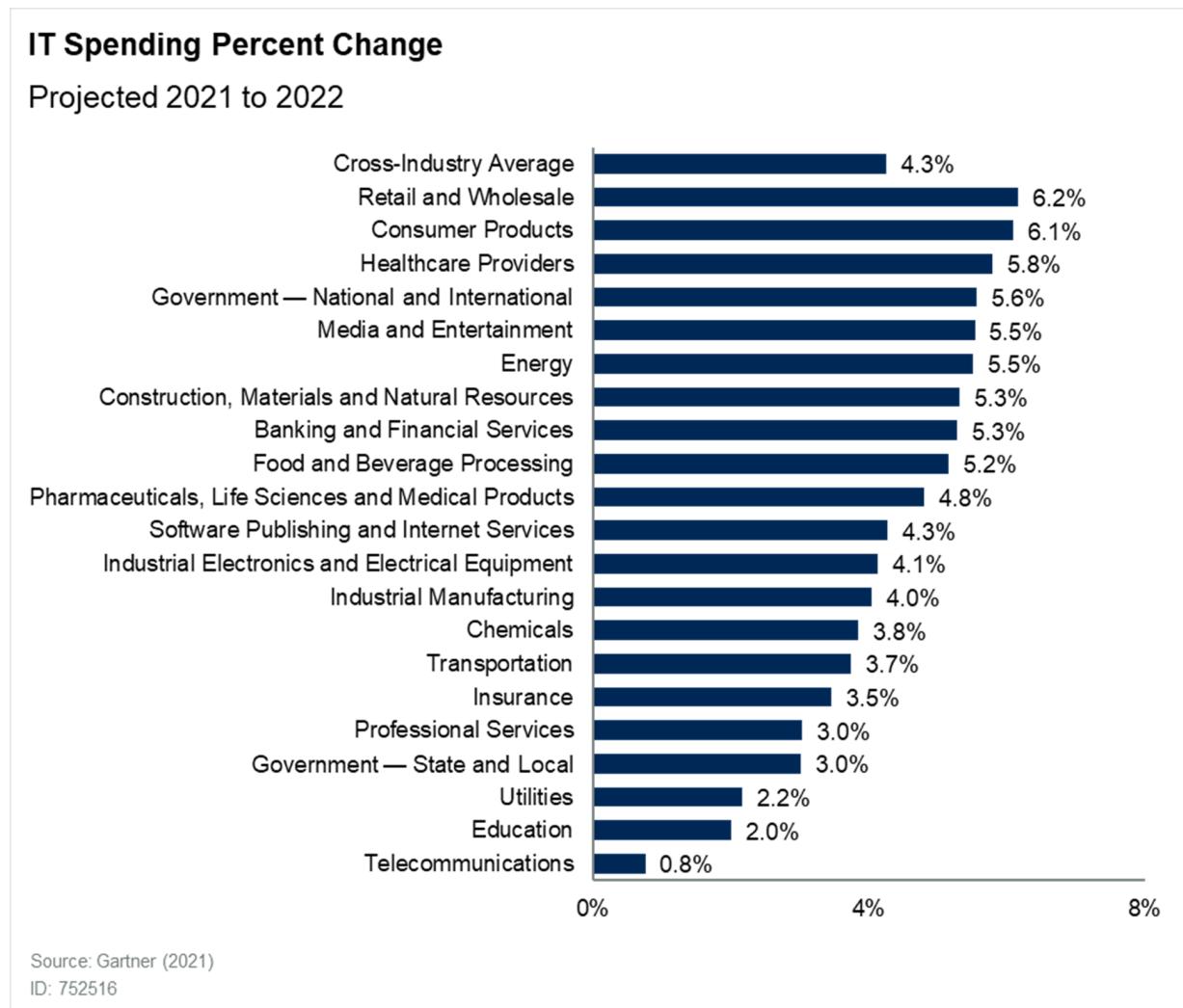
Figure 10: IT Spending Percent Change, by Region, 2020 to 2021**Gartner**

2022 Outlook

IT Spending Percent Change, 2021 to 2022

The outlook for 2022, based on pre-year budgeting information provided by Gartner clients, indicates an overall average planned increase in IT budgets of around 4.3%, where all industries are projecting an increase in IT budgets in 2022. Figure 11 shows that the level of projected increase varies by sector, and which may be related to industry-specific drivers, such as disruptions, business models and economics.

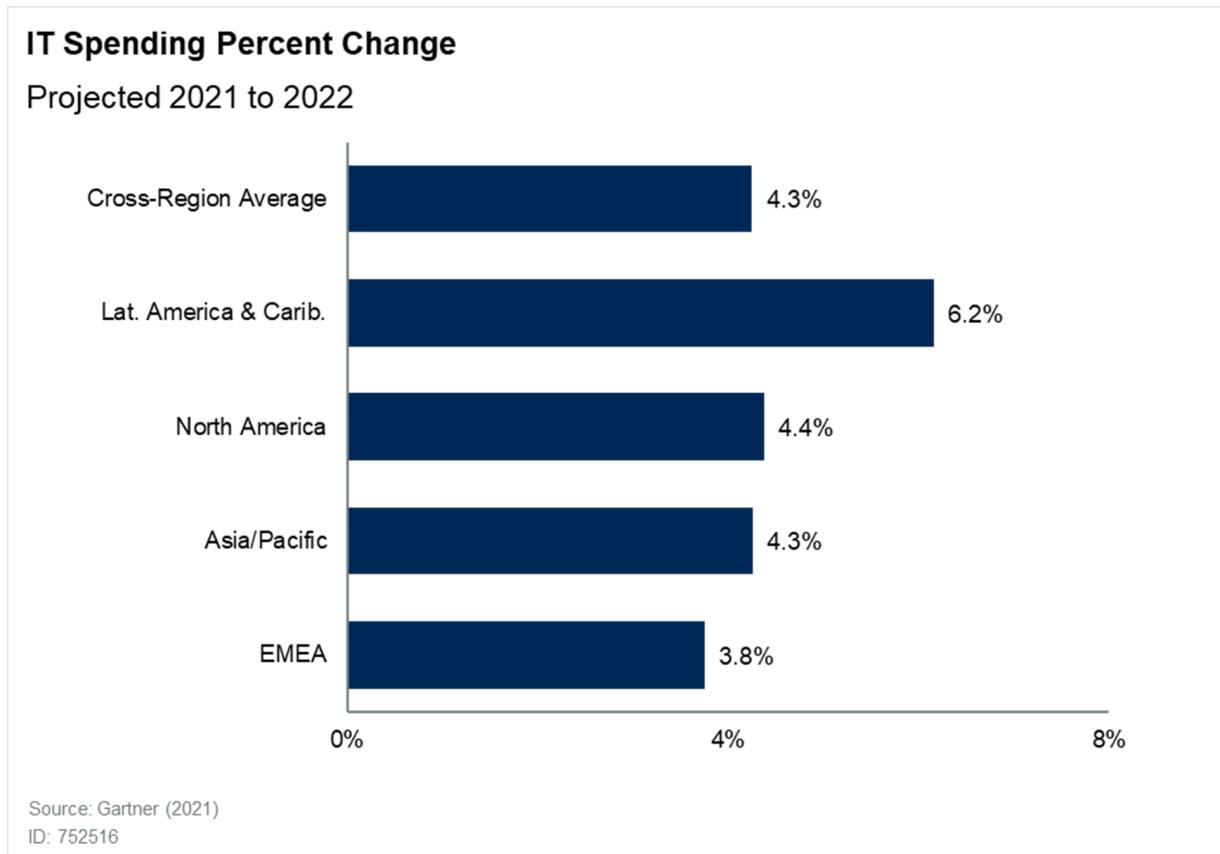
Figure 11: IT Spending Percent Change, by Industry, 2021 to 2022 Projected



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Figure 12 shows that the two slowest smallest increasing regions in 2020-2021 (North American and Latin America/Caribbean), were projected to be the two fastest growing regions in 2021-2022. This could indicate that the bounceback from the pandemic is coming later here.

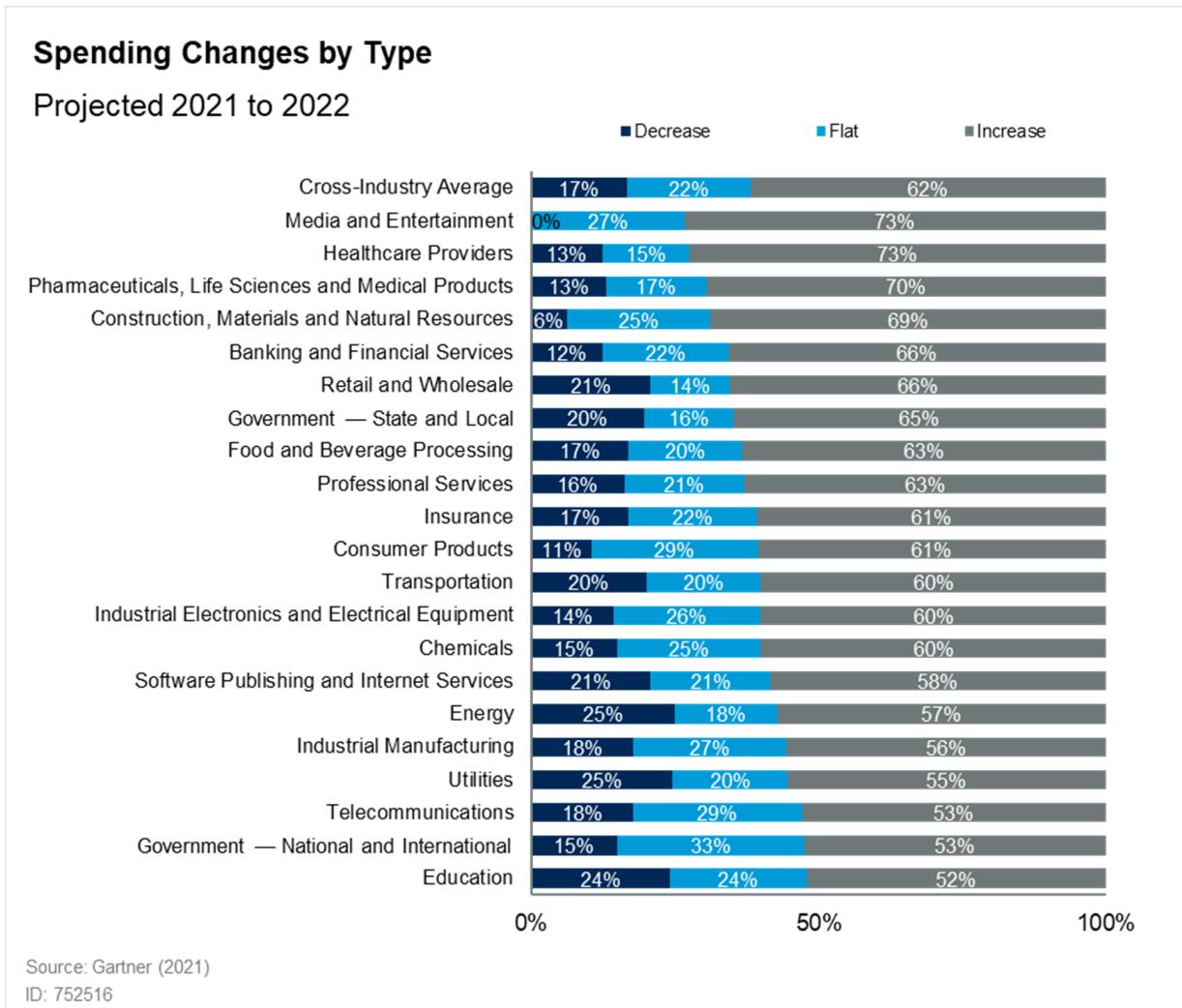
The fact that some regions may show a higher average increase than some industry sectors indicates that it is important to consider both industry-specific and local economic conditions when using the ITKMD reports.

Figure 12: IT Spending Percent Change, by Region, 2021 to 2022 Projected**Gartner**

IT Spending Trends: Decreasing Versus Increasing

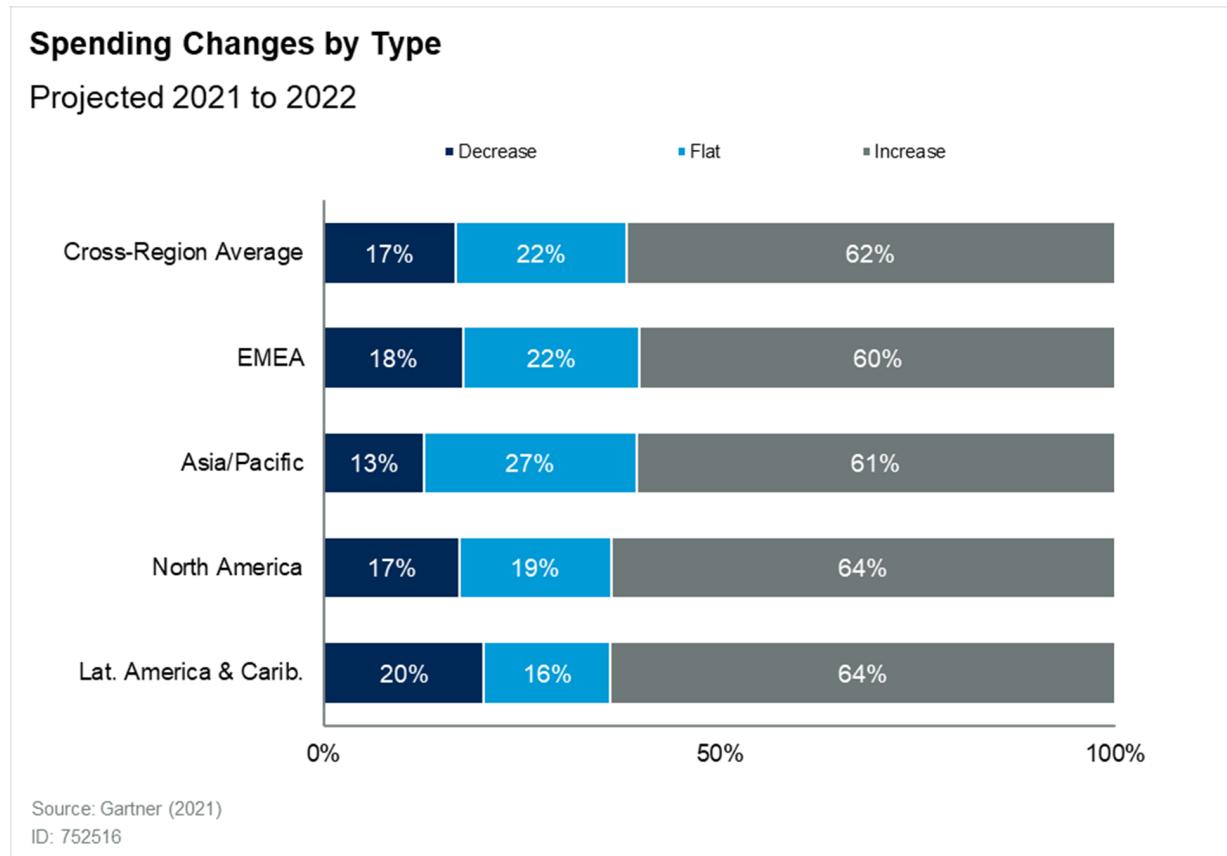
By looking at the distribution of organizations increasing, decreasing and keeping spending flat, it is possible to get a better understanding of what's driving the metrics seen in earlier figures. Also, while some of the overall metrics may initially indicate only small increases, to a certain extent this hides the fact that not all organizations are necessarily moving in the same direction, and those that are increasing can be balancing out those that are decreasing. All industries and regions have 50% or more of organizations increasing IT spending in 2022.

Figure 13: Spending Behaviors: Industry Distribution of Spending Changes by Type, 2021 to 2022 Projected



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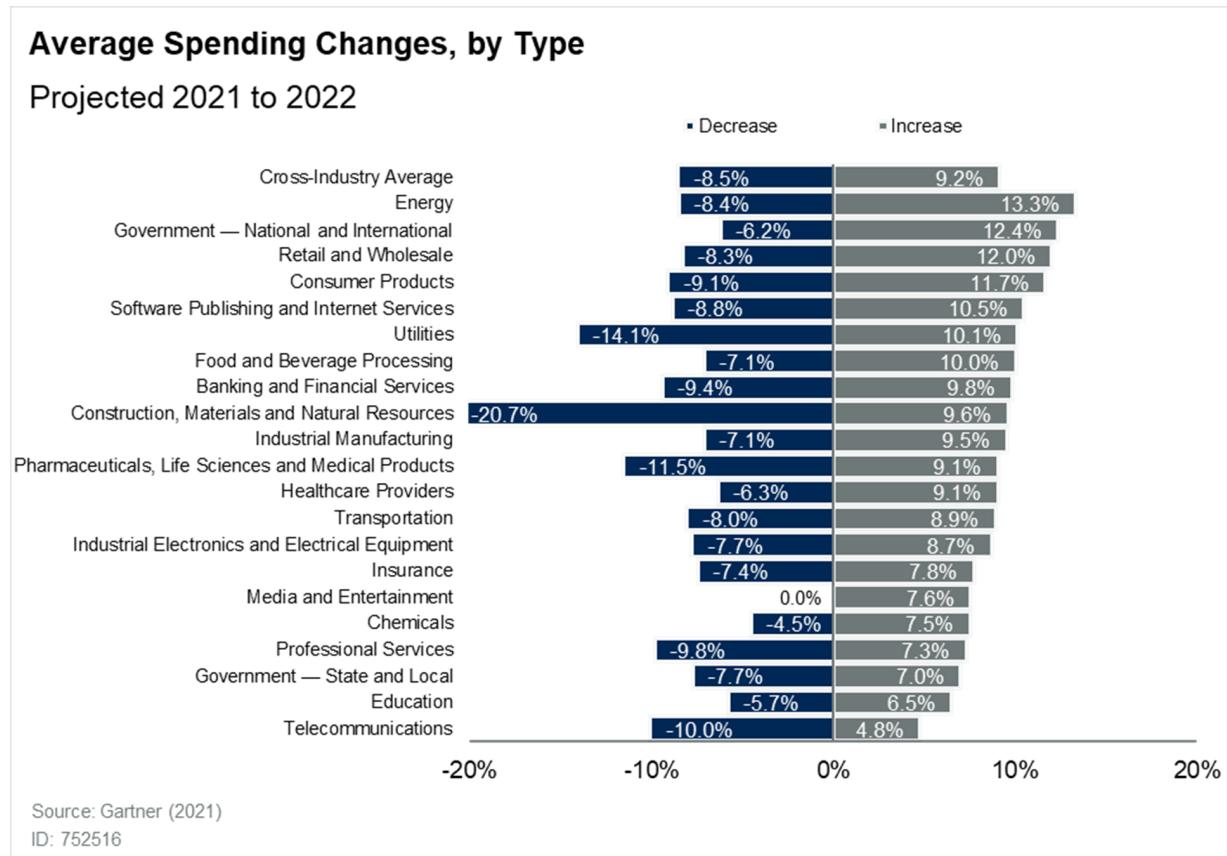
Figure 14: Spending Behaviors: Regional Distribution of Spending Changes by Type, 2021 to 2022 Projected



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This shows the average IT spending/budget increase and decrease for those industries that were planning a change (i.e., excludes data points where spending levels were expected to remain the same as in 2020). Here it is interesting to see the wide disparity in positive and negative change for transportation. It may indicate a difference between the organizations transporting people (still not recovered) and those transporting goods and packages (which may have seen increased demand).

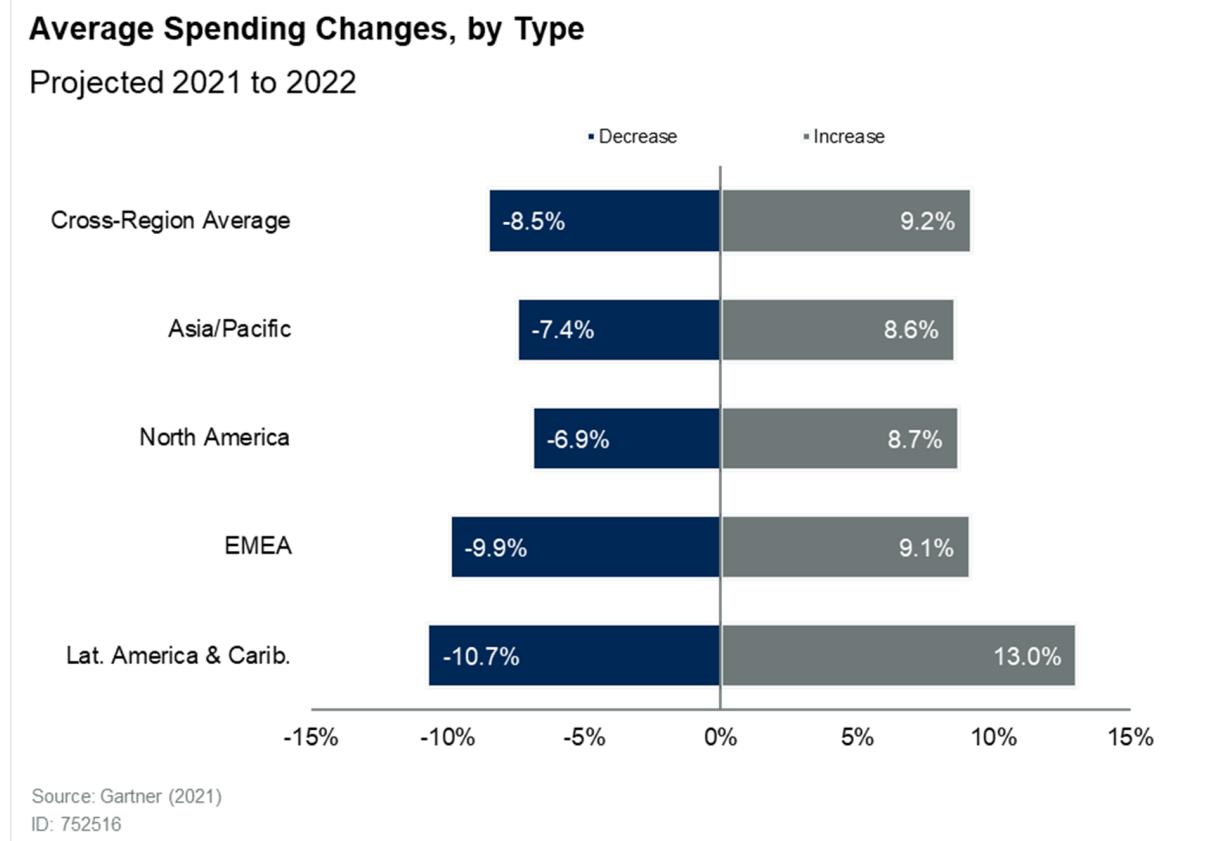
Figure 15: Spending Behaviors: Industry Average Spending Changes, by Type, 2021 to 2022 Projected



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In Latin America & Caribbean, the average level of decrease is noticeably higher than the other regions. However again these headline averages mask the fact that there are a much wider variety of scenarios in the underlying data.

Figure 16: Spending Behaviors: Regional Average Spending Changes, by Type, 2021 to 2022 Projected



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IT Spending as a Percent of Revenue, 2022 Projected

Figure 17 outlines projected 2022 IT spending as a percent of revenue by industry. This is calculated using the IT spending change above along with industry level revenue projections from a variety of sources. As with the current year IT spending as a percent of revenue, how quickly companies are rebounding from COVID-19, and any resurgence in infections will affect the data. The IT spending projections are for 2022, but the revenue is based on what is projected for 2021. IT spending as a percent of revenue is projected to decline from 3.0% to 2.9%, but actual results are always affected by our samples in any year.

Figure 17: IT Spending as a Percent of Revenue, by Industry, 2022 Projected

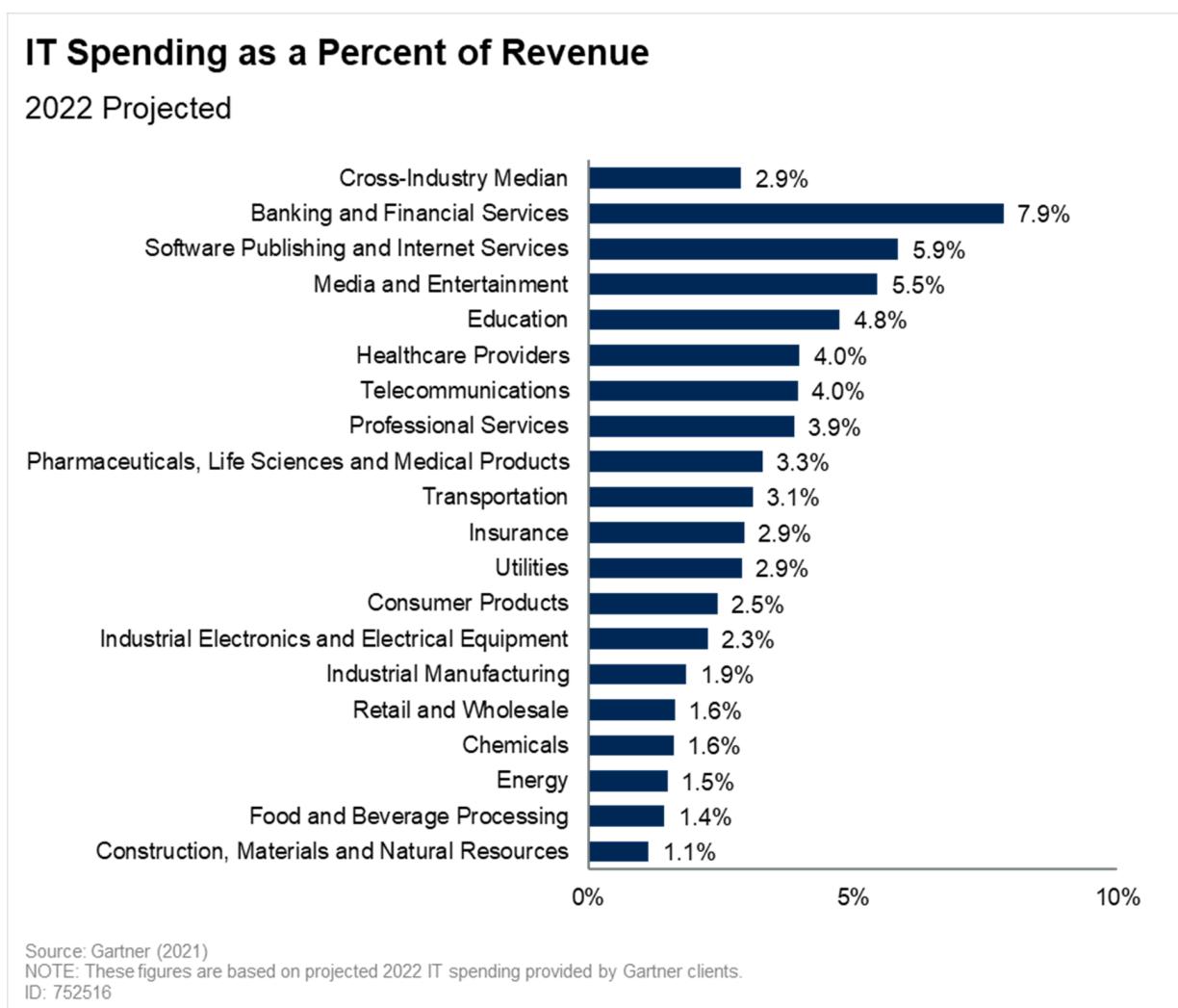
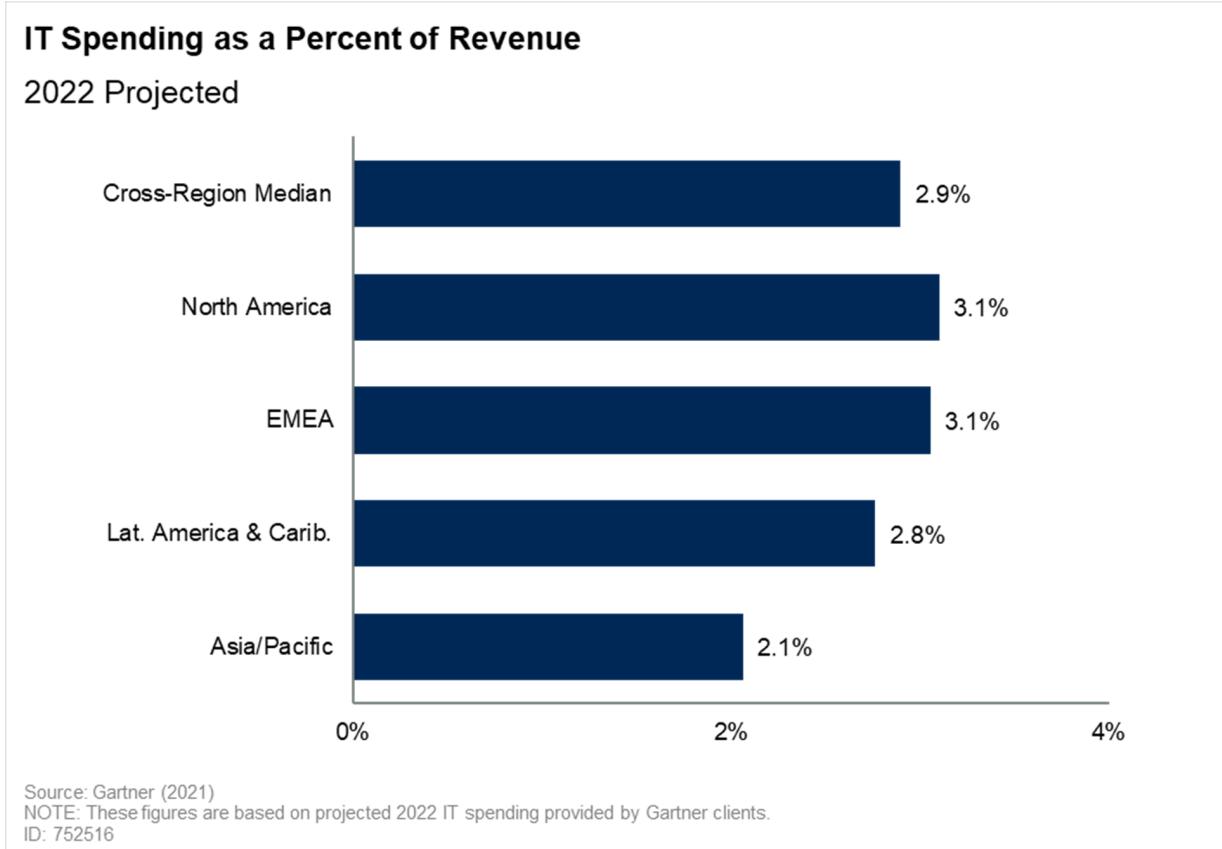
**Gartner**

Figure 18. IT Spending as a Percent of Revenue, by Region, 2022 Projected

**Gartner**

IT Spending as a Percent of Operating Expense, 2022 Projected

Figure 19 outlines projected 2022 IT spending as a percent of operating expense by industry. This is calculated using the IT spending change above along with industry level operating expense projections from a variety of sources.

Figure 19: IT Spending as a Percent of Operating Expense, by Industry, 2022 Projected

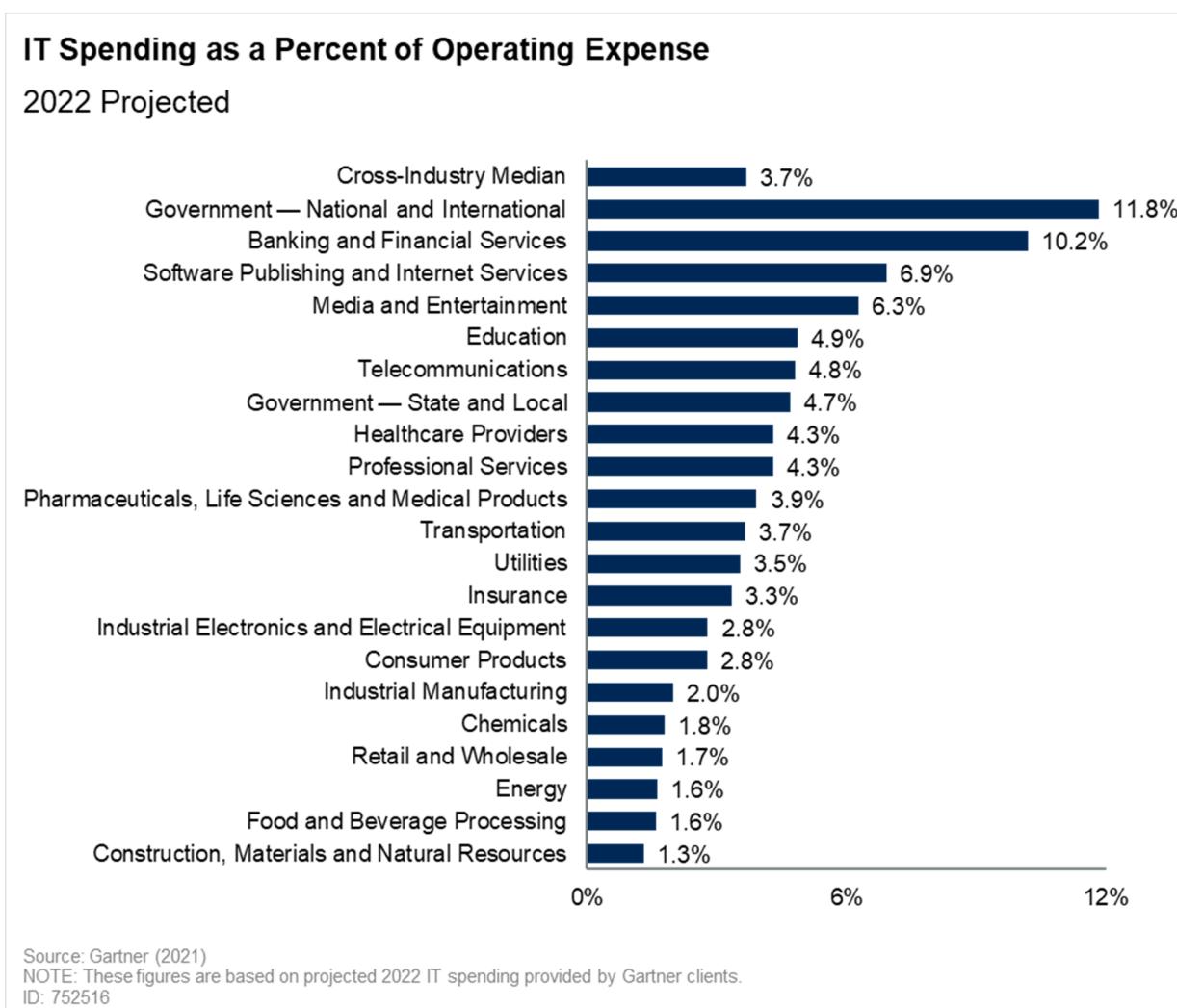
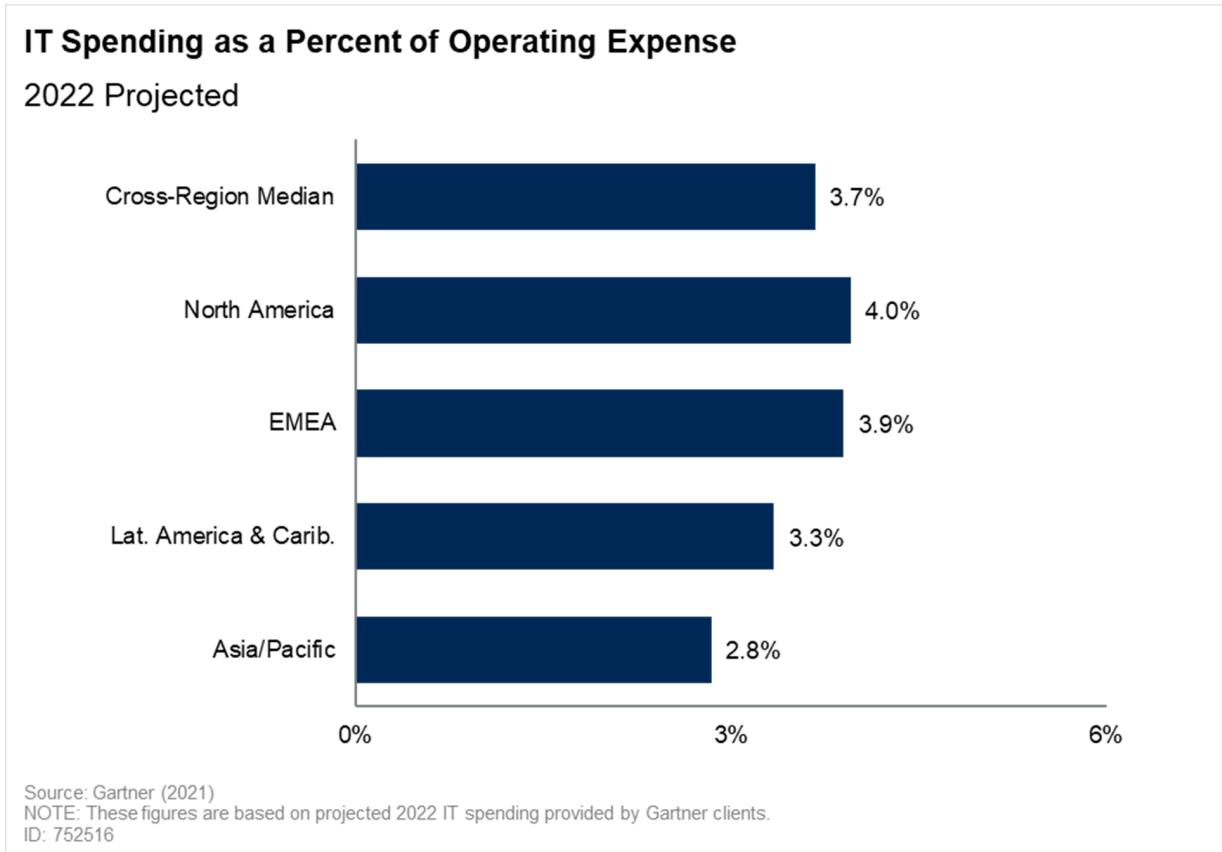
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Figure 20: IT Spending as a Percent of Operating Expense, by Region, 2022 Projected



IT Spending per Employee, 2022 Projected

Figure 21 outlines projected 2022 IT spending per employee by industry. This is calculated using the IT spending change above.

Figure 21: IT Spending per Employee, by Industry, 2022 Projected

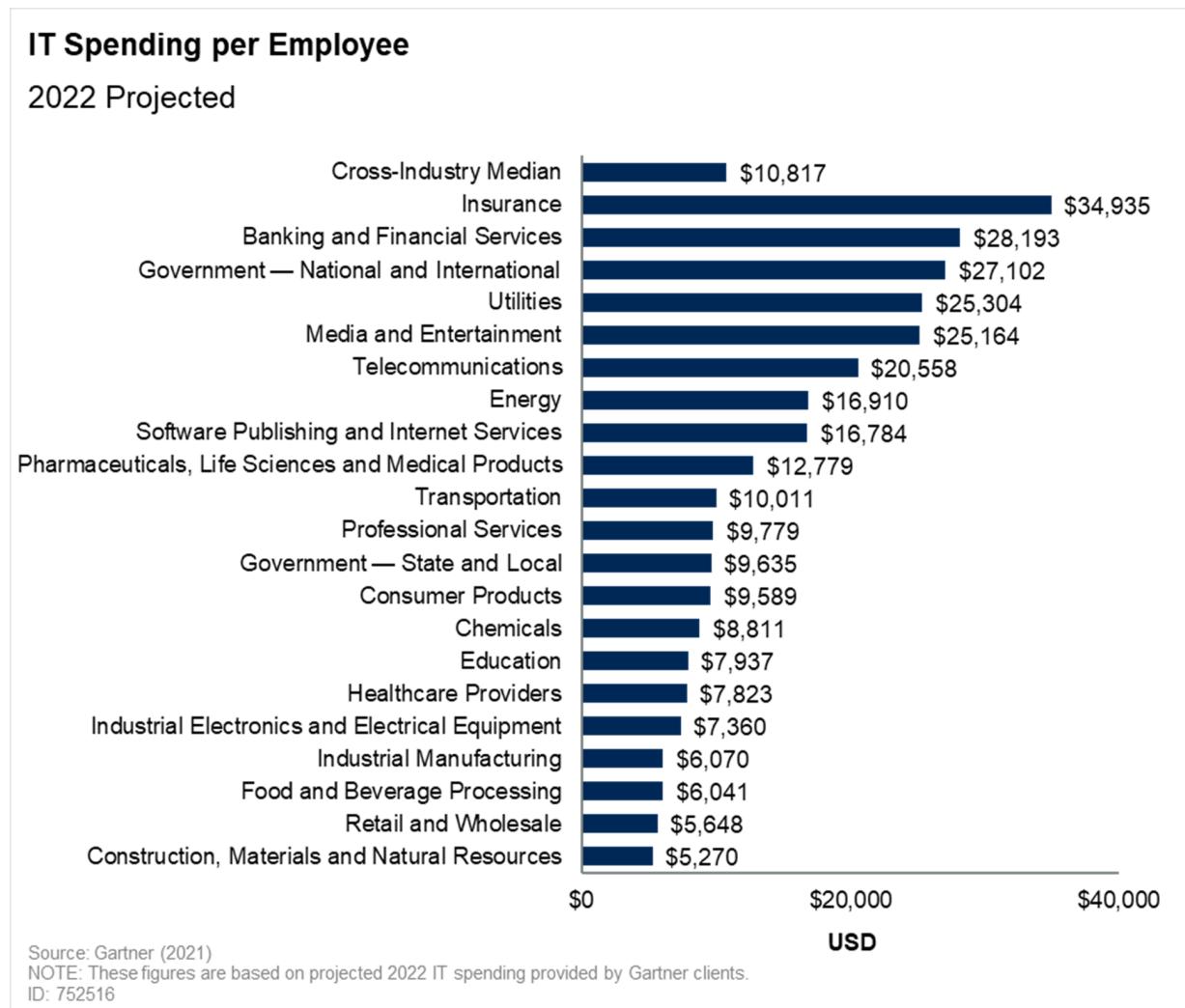
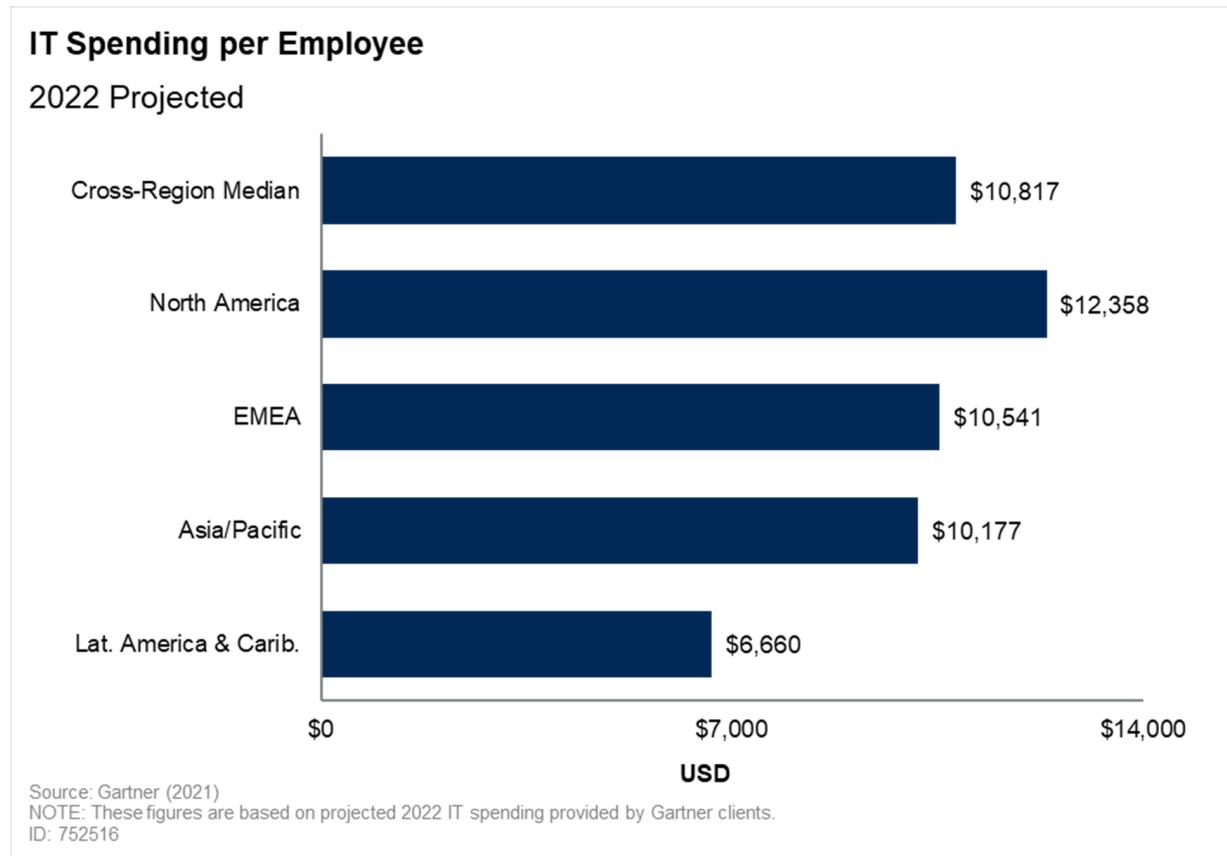
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Figure 22: IT Spending per Employee, by Region, 2022 Projected**Gartner**

Business Productivity Ratios

Revenue per Employee

Revenue per employee can help determine employee productivity in terms of revenue generation intensity. This measure is typically influenced by the company business model and staffing strategy. Enterprises with highly labor-intensive operations tend to generate lesser revenue per individual as compared to those enterprises which are highly automated. Effective and efficient uses of IT enable business processes to be streamlined, thus increasing employee productivity in terms of business results. While revenue may represent top line business results, it does not represent an organization's ability to generate income. This measure should be considered within the context of the enterprise operating model which drives operating income and profit margin as well as within the context of the total workforce strategy.

Figure 23: Revenue Per Employee, by Industry, 2021

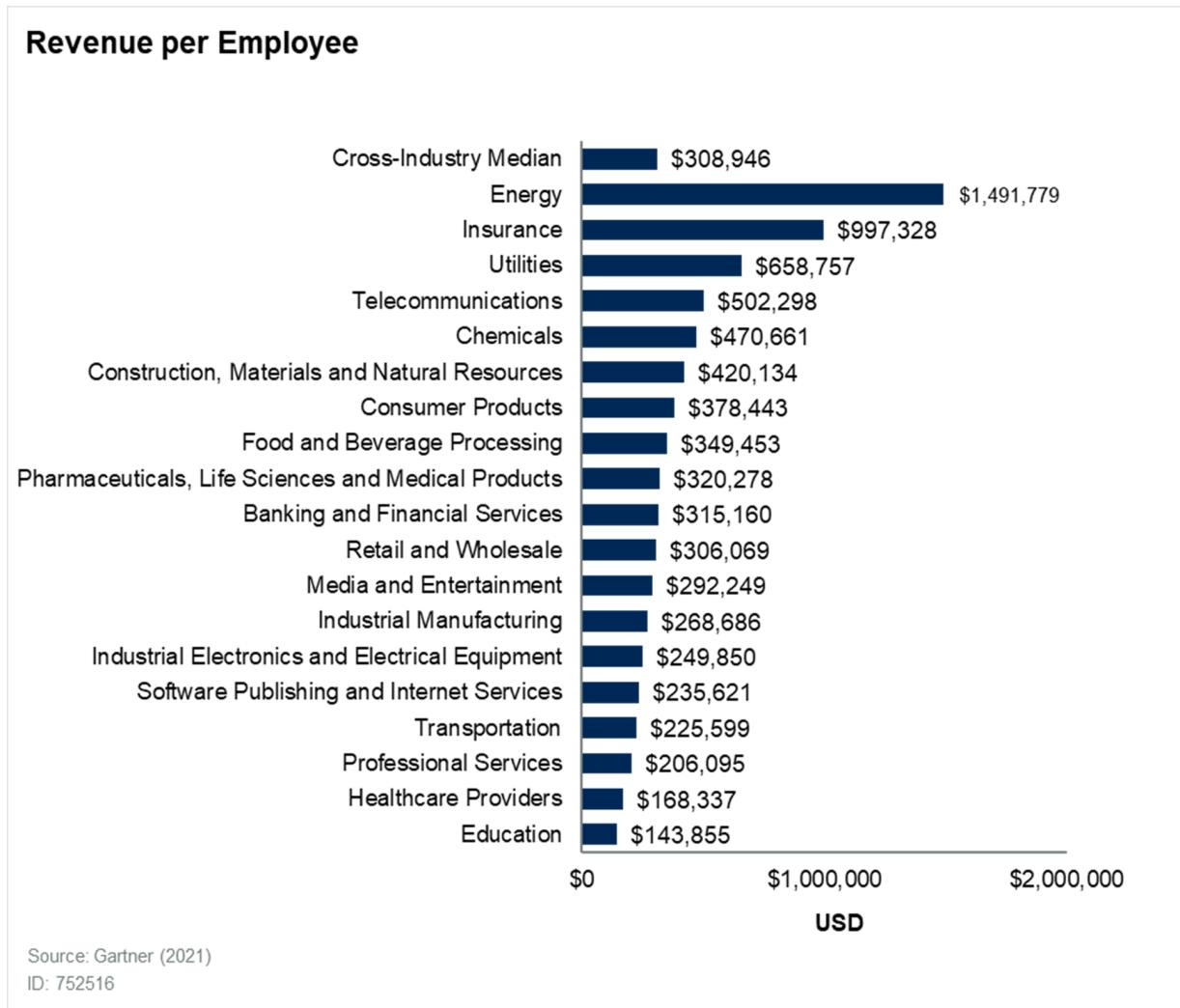
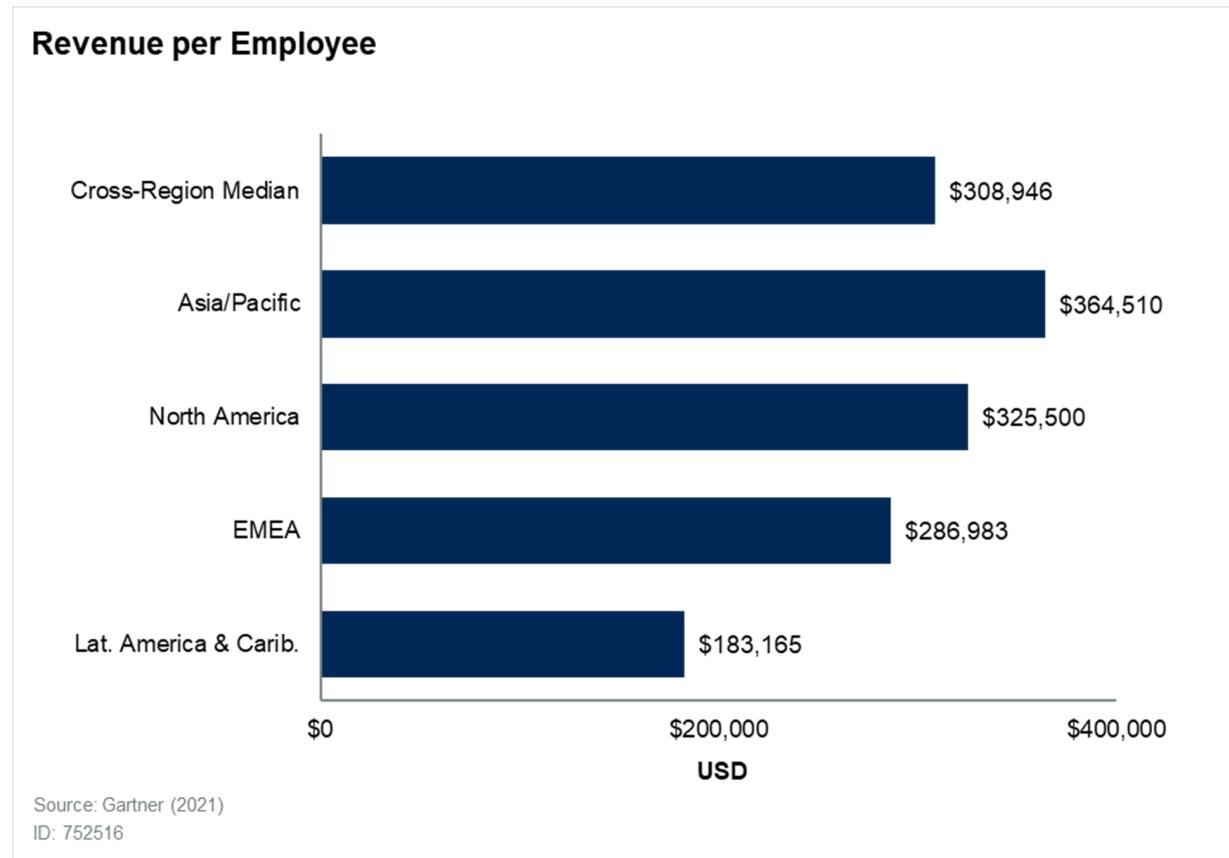
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Figure 24: Revenue Per Employee, by Region, 2021**Gartner**

Operating Income per Employee

Operating income per employee is often employed as a measure of cost efficiency and productivity at an enterprise level.

Figure 25: Operating Income Per Employee, by Industry, 2021

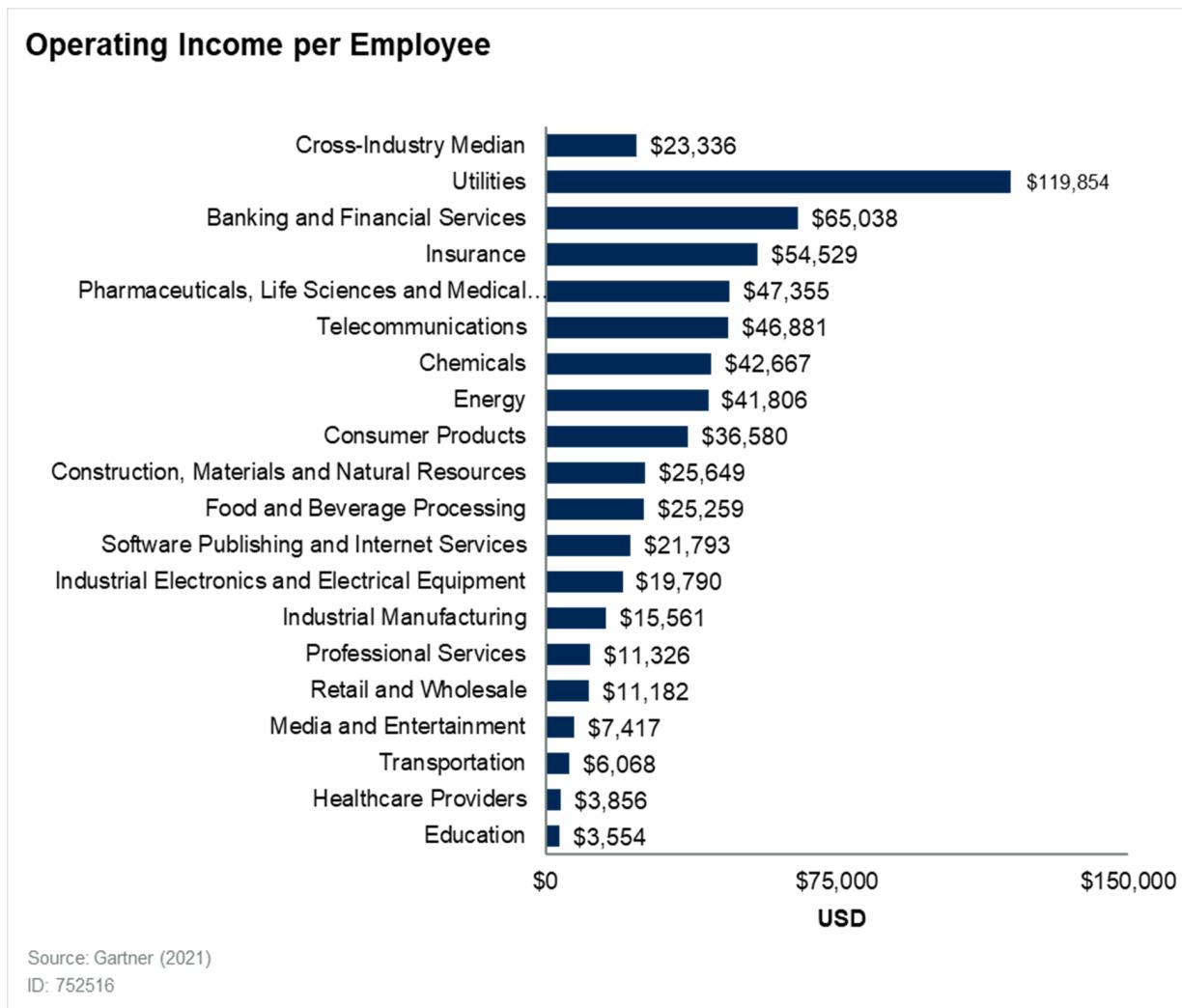
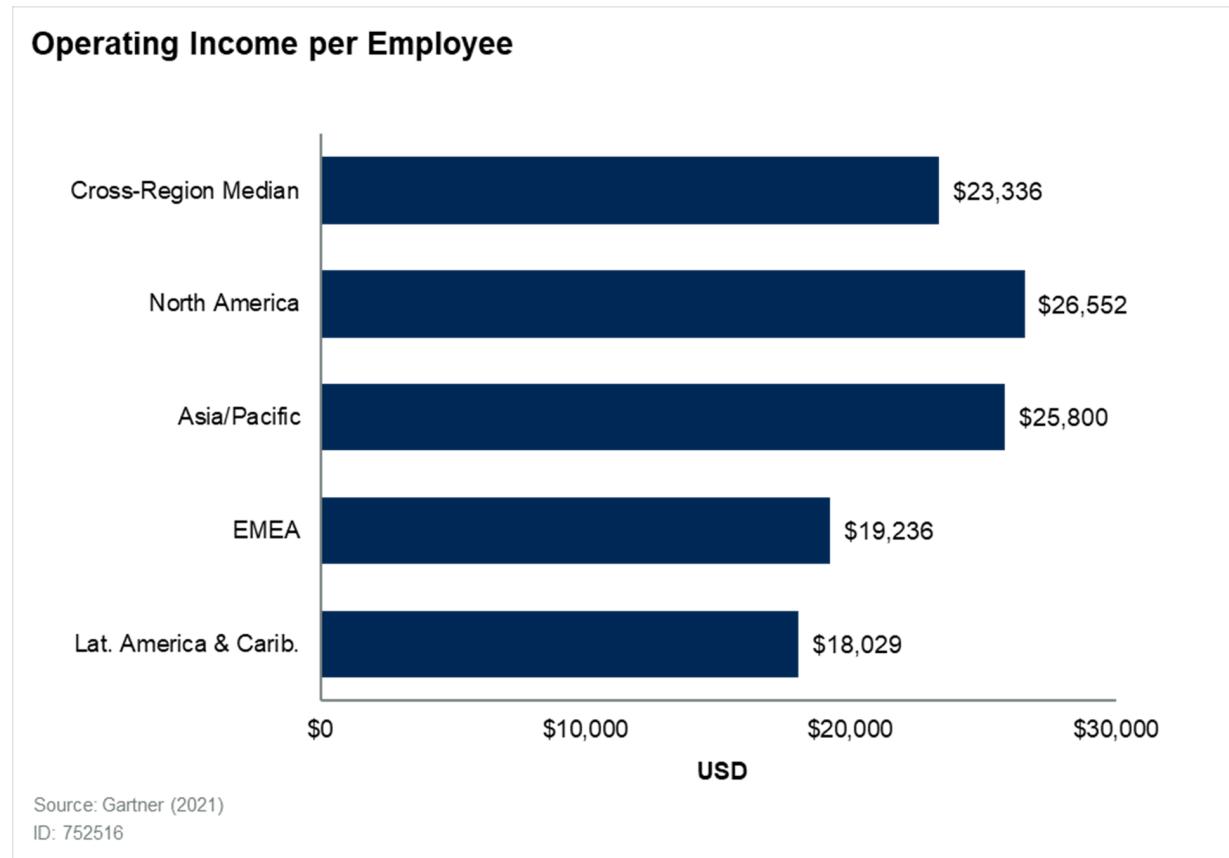
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Figure 26: Operating Income Per Employee, by Region, 2021

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Profitability

Profitability is a measure of an enterprise's cost-efficiency and can help outline the enterprise's position relative to the industry as it is often related to investment patterns.

Figure 27: Profitability, by Industry, 2021

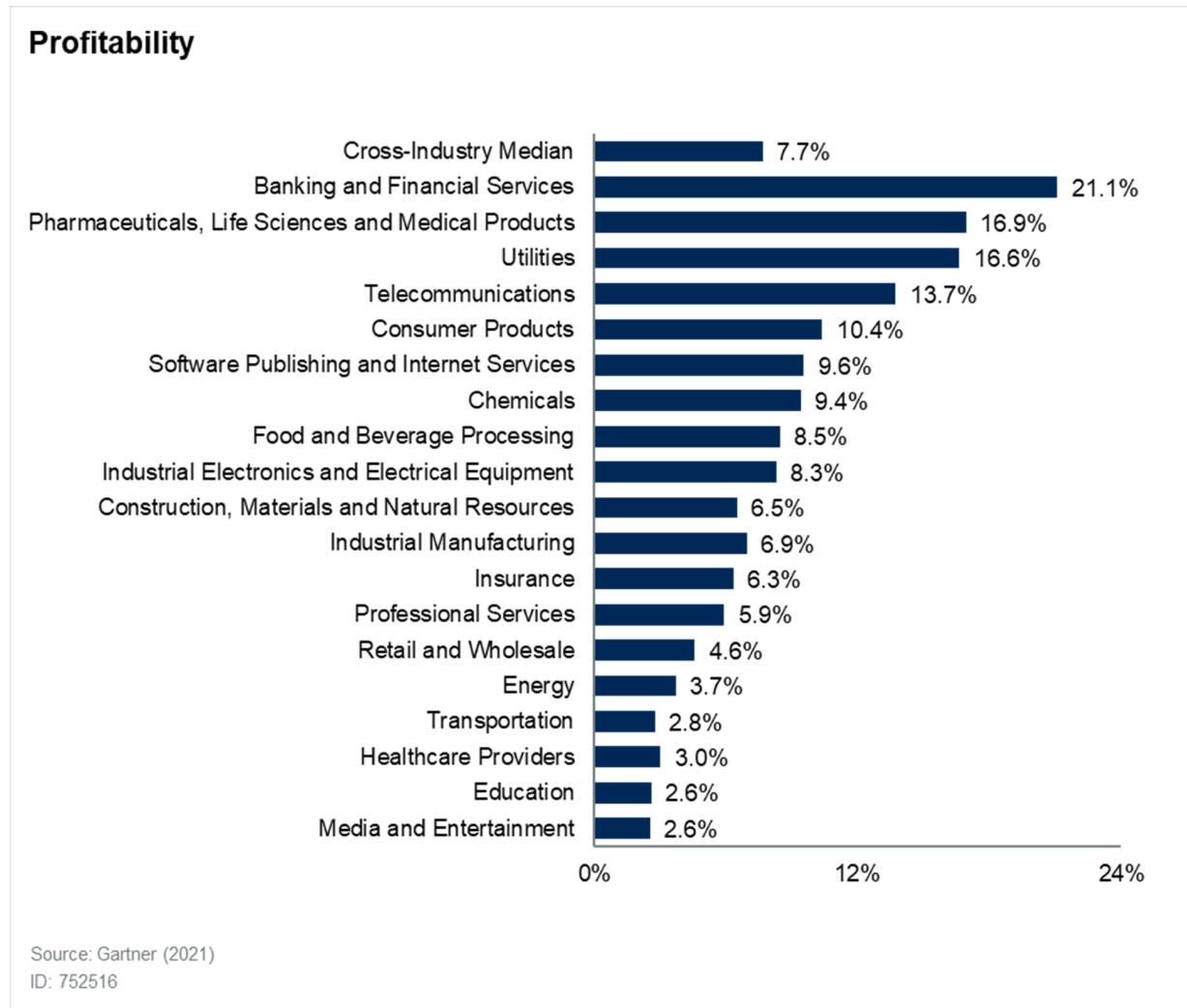
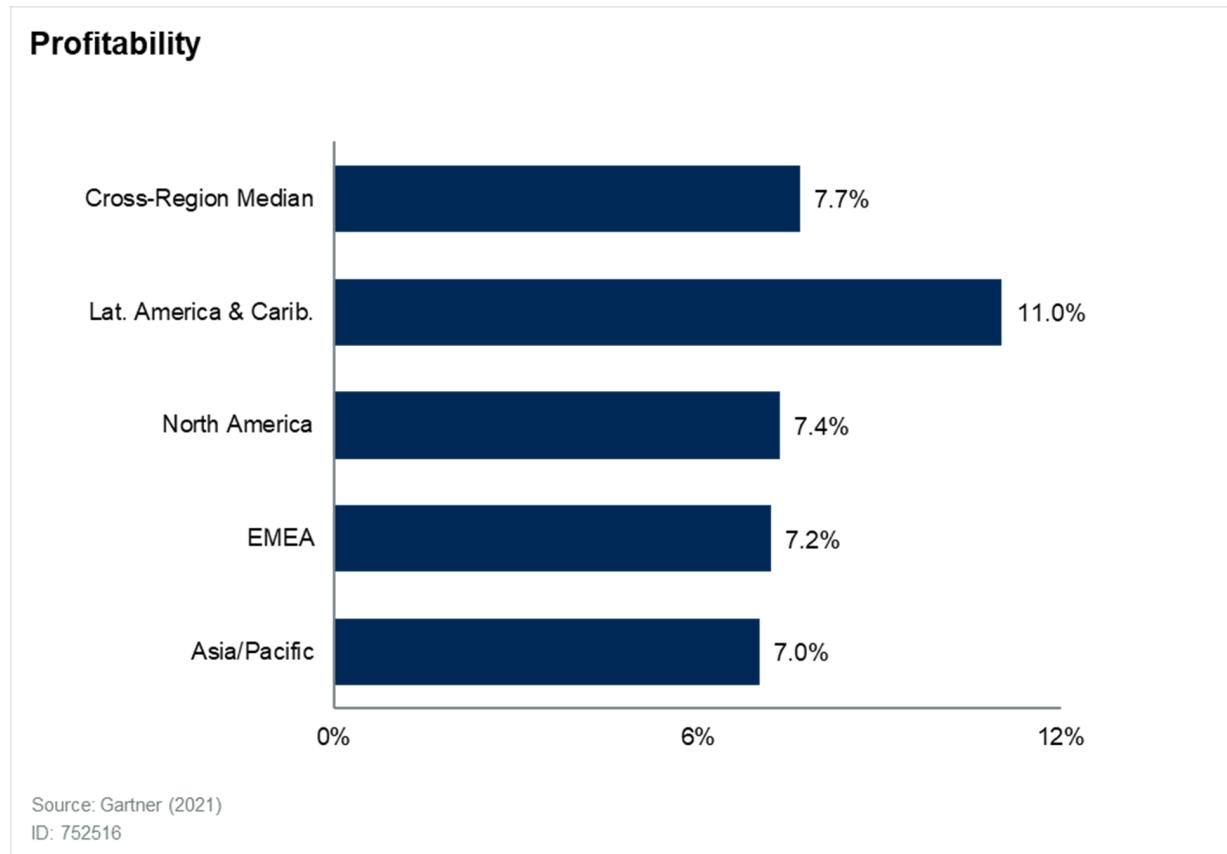
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Figure 28: Profitability, by Region, 2021**Gartner**

Top Decile - Top Line Metrics

To better understand the profile of top performers, Gartner evaluated organizations who operated within the top decile of profitability to measure their IT spending levels vs. the overall median. The results indicated companies that had better performance on several key business metrics also spent more on IT.

While IT spending as a percent of revenue for the top decile is same as the database median, IT spending as a percentage of business operating expenses, IT spending per employee, and IT FTEs as a percent of company employees are all higher than the database medians (4.5% versus 3.8%, \$12,189 versus \$10,376, and 3.9% versus 3.7% respectively).

At the same time the business metrics revenue per employee, operating income per employee and profitability were all significantly higher for the top decile relative to the database medians (\$398,848 versus \$308,946, \$133,614 versus \$23,336, and 30.1% versus 7.7% respectively).

Therefore if we had two companies with \$1B in revenue we might see a similar level of IT spending, although the top performers would operate with more efficient business processes, thus requiring fewer employees and lower operating expenses. Of course the scenario could play out differently with companies operating with the same level of business operating expenses while having higher IT spending and driving more revenue and profitability with fewer employees.

To illustrate the difference between top performer's IT spend levels vs. the database median, the below table represents an aggregate view of the top ten percentile of organizations based on profitability for each industry. This approach was used to balance more profitable industries vs others (such as banking and financial services vs. retail) for this analysis.

Table 1: Top Decile - Top Line Metrics

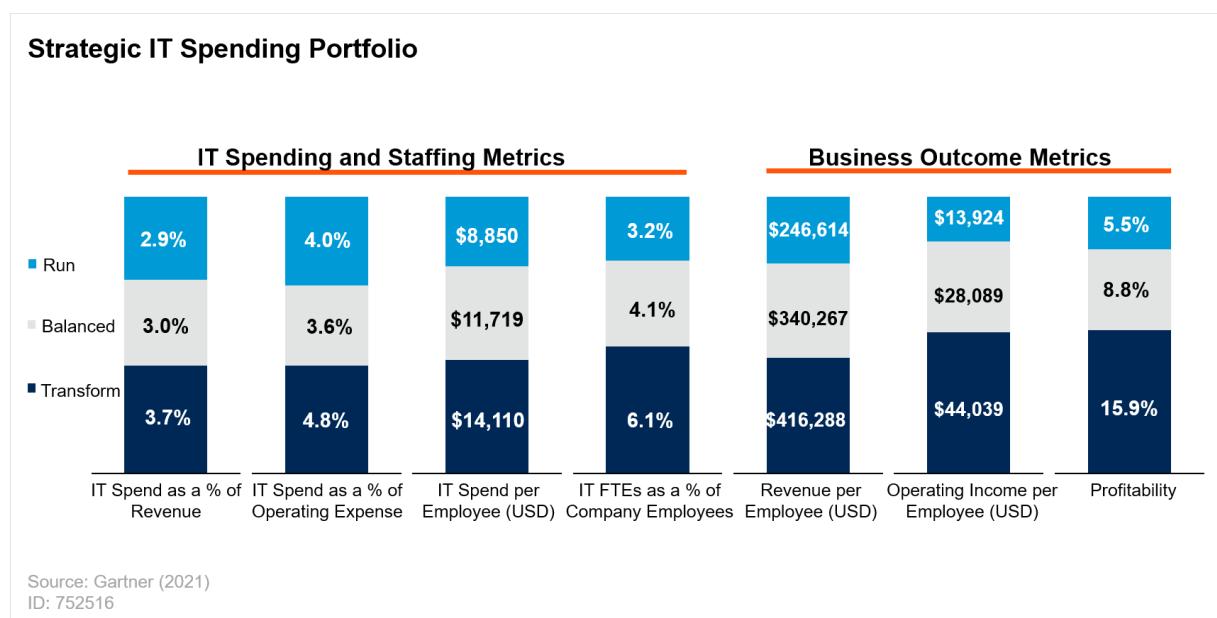
(Enlarged table in Appendix)

	IT Spend as Percent of Revenue ↓	IT Spend as Percent of Operating Expense ↓	IT Spend per Employee (USD) ↓	IT FTEs as a Percent of Company Employees ↓	Revenue per Employee (USD) ↓	Operating Income per Employee (USD) ↓	Profitability ↓
Top Decile	3.0%	4.5%	\$12,189	3.9%	\$398,848	\$133,614	30.1%
Database	3.0%	3.8%	\$10,376	3.7%	\$308,946	\$23,336	7.7%

Source: Gartner IT Key Metrics Data (December 2021)

In order to determine how growth and transformational spending affected other IT and Business metrics we separated the database into three categories. Organizations which spend more than or equal to 50% of their total IT Spend/Budget into “Grow” and “Transform” type activities have been categorized as “Transform” in Figure 29 below. While the ones which spend 25% or more are included in the “Balanced” category and the remaining ones with IT Spend less than 25% are in the “Run” category. Here we see that while high proportions of transformational led to higher IT Spending and productivity metrics they also led to better business metrics e.g. more Revenue per Employee, Operating Income per Employee, and Profitability. This is one reason why we advise clients that while IT Spending and Staffing metrics provide insight into performance, they should never be evaluated in isolation.

Figure 29: Strategic IT Spending Portfolio



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For further details, see [Strategic IT Spending Portfolio: Run, Grow and Transform the Business IT Spending](#) section below.

IT Budget Distributions: Uncover the Facts

Up to this point, the figures have shown spending trends overall, without distinguishing between the strategic, financial or operational categories that compose them. Through these categories, you can draw conclusions about critical investment areas, key investment themes and competitive spending levels.

IT Operational Versus Capital Spending

IT operational versus capital spending helps to portray the IT investment profile for an organization in a given year.

This information is typically available in most accounting or IT finance departments, and, thus, it may be easy to obtain year over year. This metric can provide visibility into the cyclical nature of capital investments (such as hardware, software and large service contracts) compared with recurring operational expenses (such as personnel, facilities and maintenance expenses). The challenge is in leveraging this information to communicate the linkage between IT investment and business results, because it is a traditional accounting view of IT cash flow and does not highlight how IT investment enables improved business performance.

In 2021, the percentage of IT spending classified as capital moved slightly downward from the 2020 figure (see Figure 30). We expected this due to the move to cloud and the fact that cloud is a period cost that is not capitalized.

Certain industries such as telecommunications and utilities tend to capitalize more of their IT Spending than others due to incentives related to the regulatory rate setting process.

It should be noted that when looking at individual organizations, Gartner observes a wide range of different distributions between IT capital and operational expenses, and so the emphasis should be placed on understanding your organization's own position and how that relates to your IT and business strategies, and not simply on trying to conform to the Gartner averages.

For more information, see "[CIOs Must Master Four Views of Spend to Manage IT Finances.](#)"

Figure 30: IT Operational Versus Capital Spending, 2017 to 2021

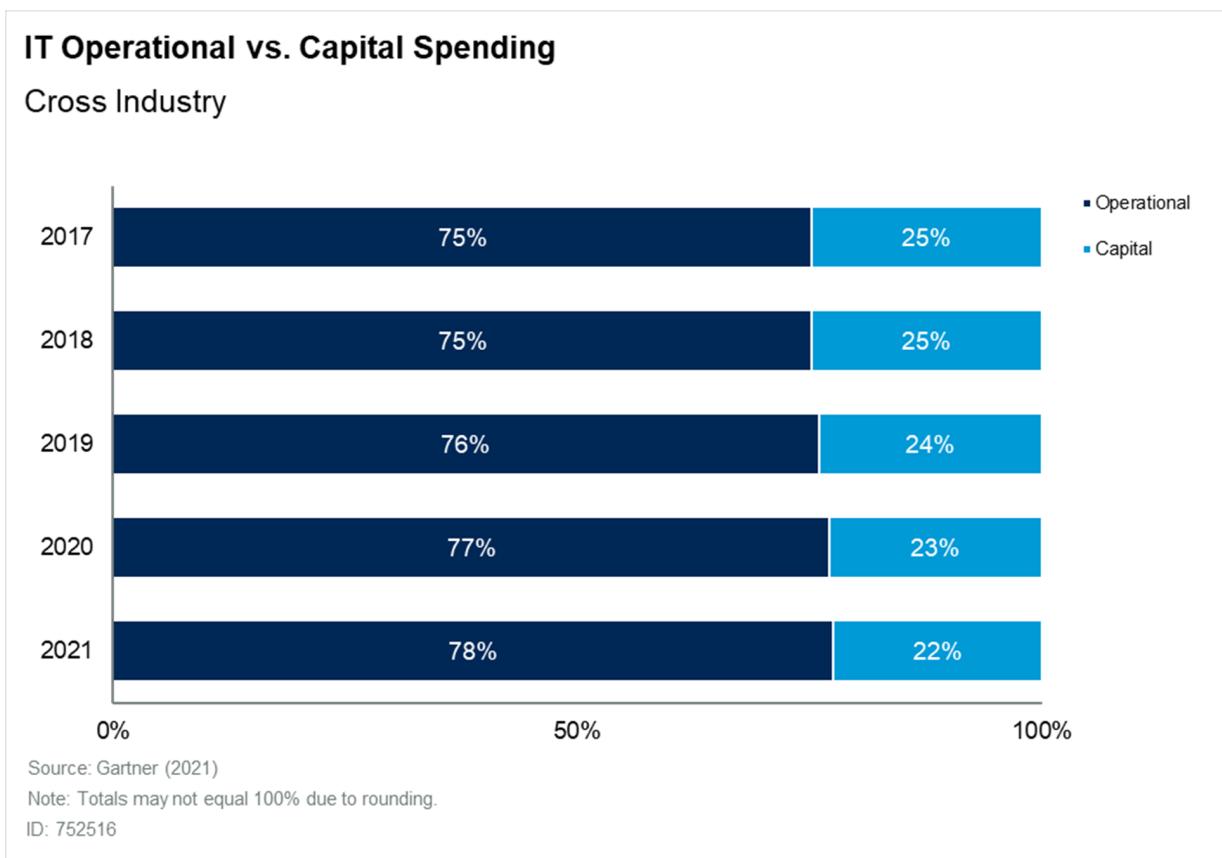
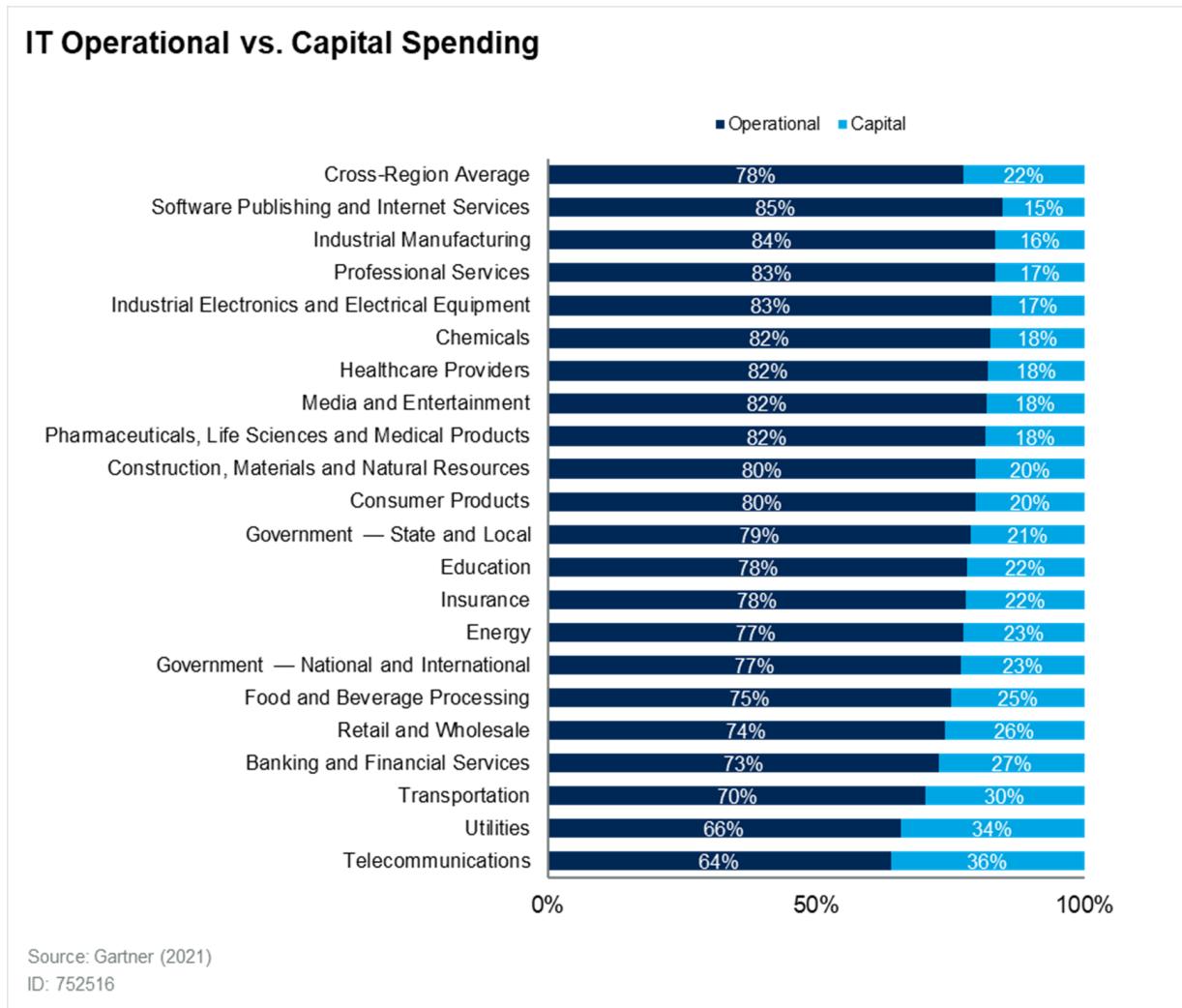
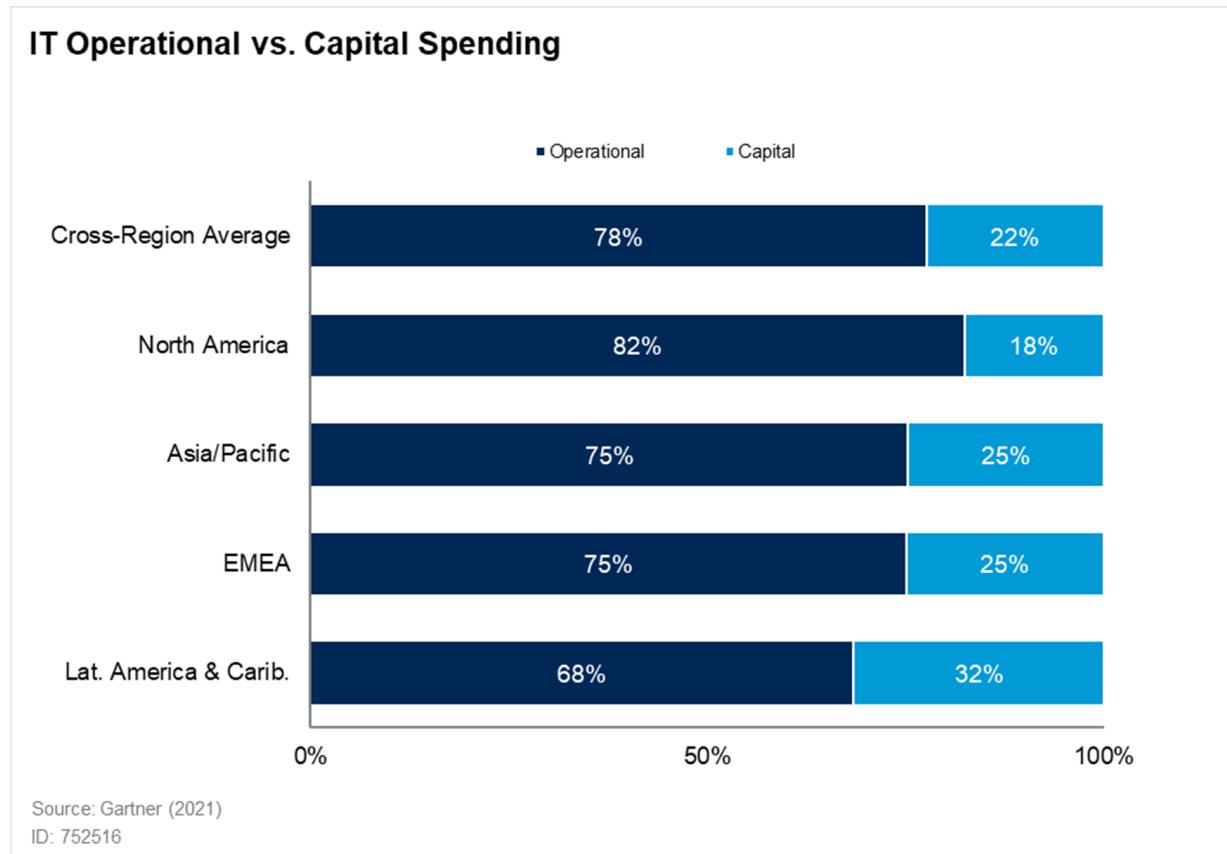
**Gartner**

Figure 31: IT Operational Versus Capital Spending, by Industry, 2021



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Figure 32: IT Operational Versus Capital Spending, by Region, 2021



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Strategic IT Spending Portfolio: Run, Grow and Transform the Business IT Spending

The distribution of IT spending to run the business, grow the business and transform the business provides a view of the IT investment profile or “portfolio” to support business performance. In some industries, it is not uncommon to see a high “run” focus – typically because organizations in the industry are not planning strong changes in business model growth or high organic growth – which often translates into a more “cost center” role for IT in the industry or niche sector.

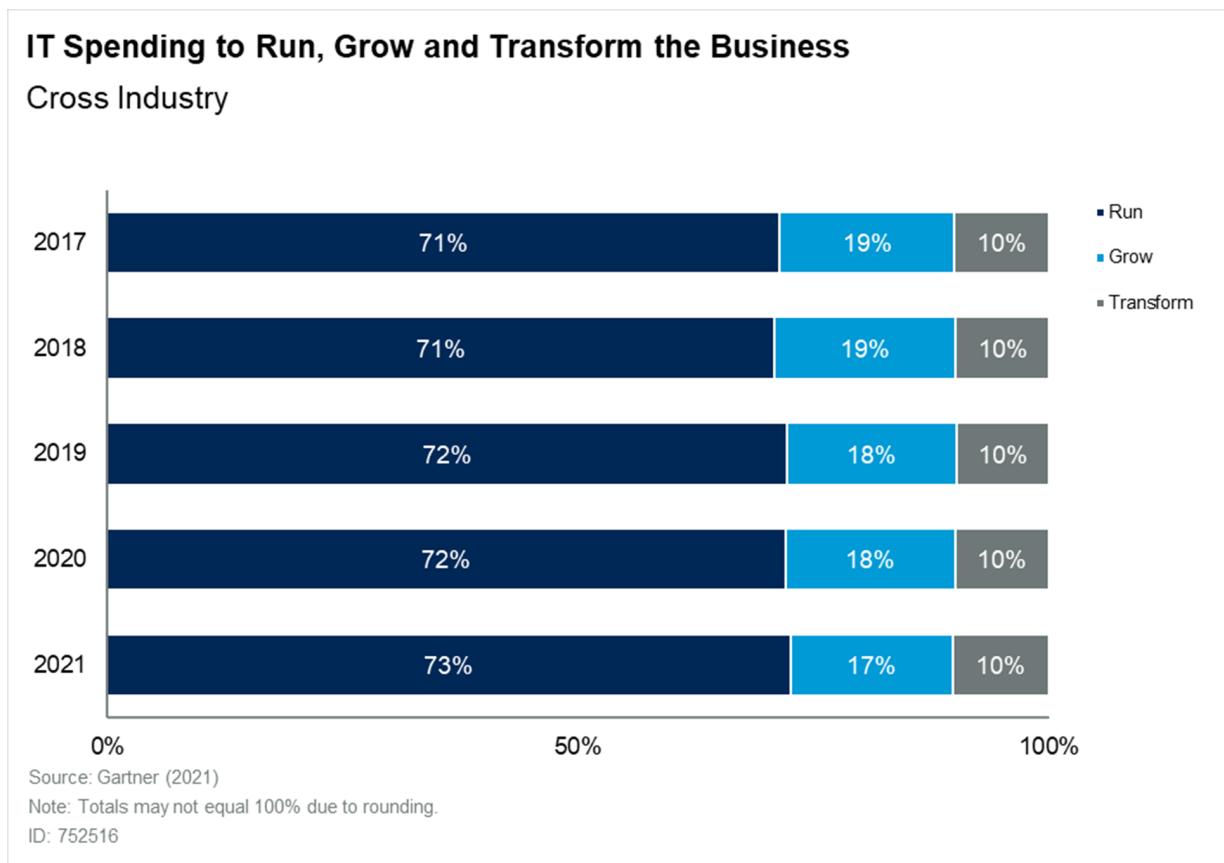
Classifying IT spending into categories that show impact on business outcomes or success can aid alignment and quantify underinvestment in IT.

A common misconception with this measure is that an IT initiative that may transform the IT organization, such as data center modernization or virtualization, should be classified as a “transform the business” investment. While these IT initiatives do transform the IT organization, they should primarily be classified as “run the business” investments because they support pre-existing IT services. IT transformation often leads to new business process improvements that enable the business to grow or build new revenue streams. Therefore, these costs would need to be evaluated and distributed based on IT service and business performance.

The run, grow and transform business framework should always be viewed in business terms with respect to how IT will enable the business to grow or transform revenue, operating income and/or profit margins.

The distribution of IT spending among run, grow, and transform may shift slightly from year to year. The fact that anything introduced as a grow or transform activity in one year will eventually become a run activity in the future tends to keep this data relatively stable.

Figure 33: IT Spending to Run, Grow and Transform the Business, 2017 to 2021

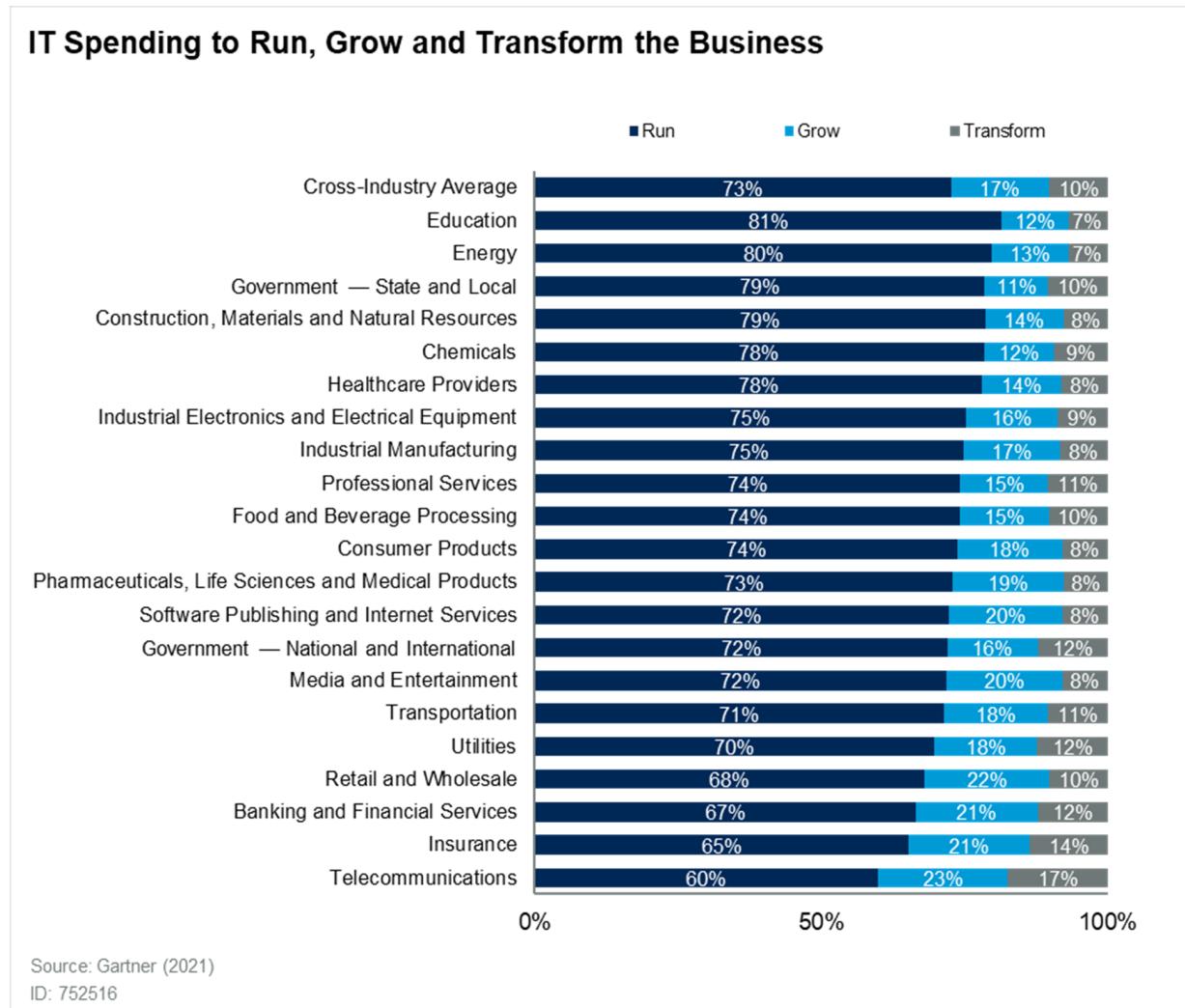


Subtle hints of an industry's IT investment profile can be seen in a higher percentage of IT spending devoted to the grow and transform categories, which comes at the expense of the run category.

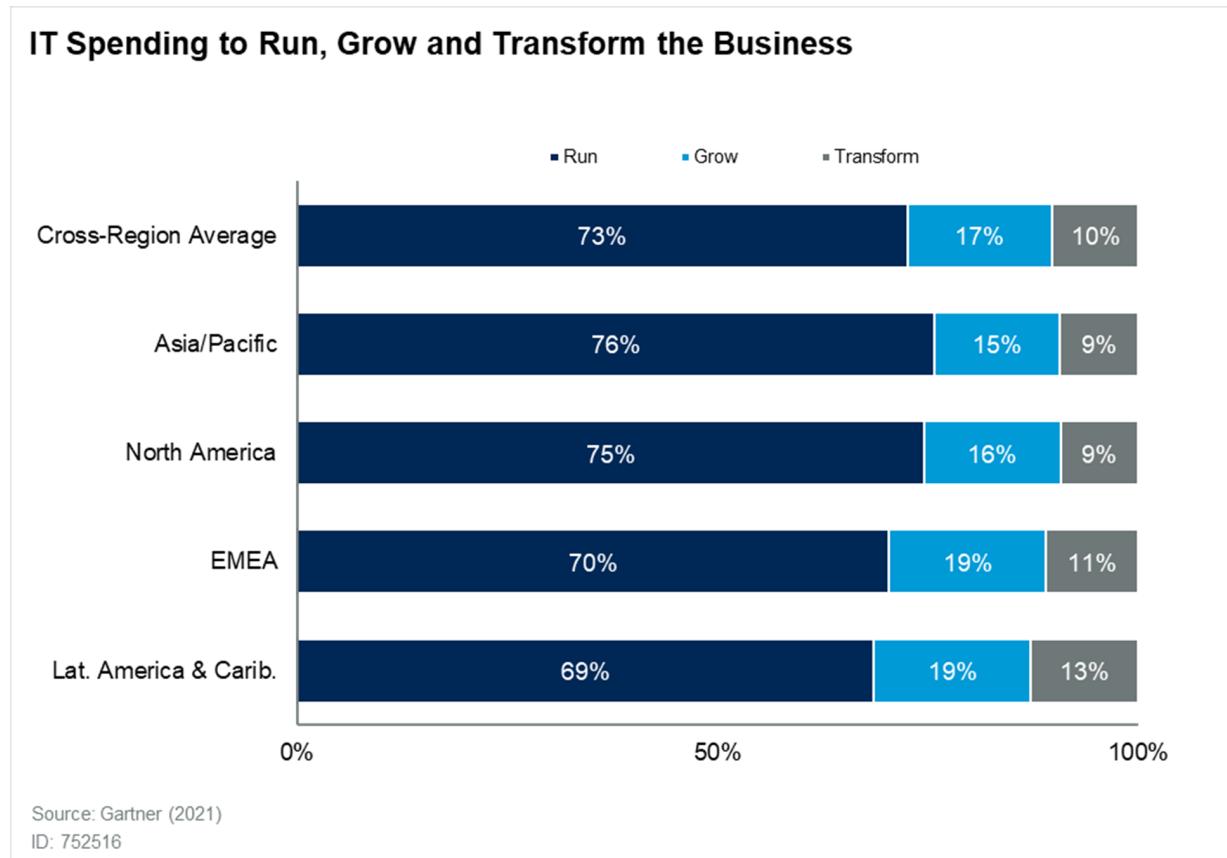
Telecommunications, and Insurance, have the highest percentages of change (grow and transform) the business, while Education and Energy have the lowest (see Figure 34).

Just because an industry has a higher percentage of "run" spending doesn't mean that there isn't a good deal of growth and innovation happening. For example, an industry like Education has an average percent spending on run of 81% which is higher than 68% for Retail and Wholesale. It is important to remember that Education has a median IT spending as a percent of revenue of 5.2% versus 1.7% for retail and wholesale. Because education is starting out at a higher level of IT spending it may be investing more in IT to grow and innovate than retail and wholesale is.

Figure 34: IT Spending to Run, Grow and Transform the Business, by Industry, 2021



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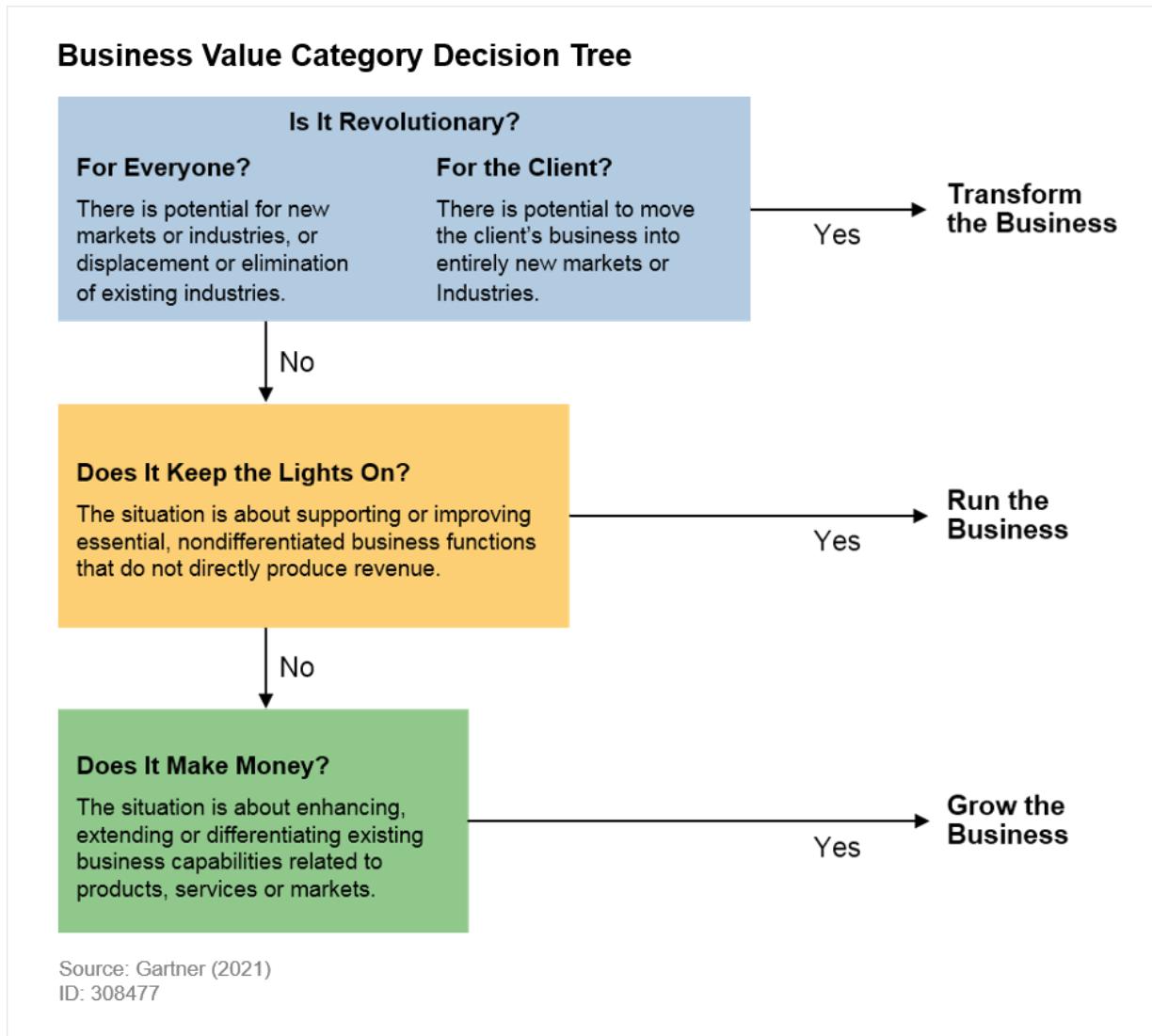
Figure 35: IT Spending to Run, Grow and Transform the Business, by Region, 2021**Gartner**

Determining the Business Context for Value

As organizations leverage the run, grow and transform the business concepts at a macro level, Gartner has found it helpful to define various IT investments (and portions of investments) with the same basic framework to illustrate the projected impact at the individual IT initiative and project levels.

With a basic understanding of the framework, as outlined here, organizations can apply the decision tree (see Figure 36) to select the category that best describes business value for their IT initiatives.

Figure 36: Business Value Category Decision Tree

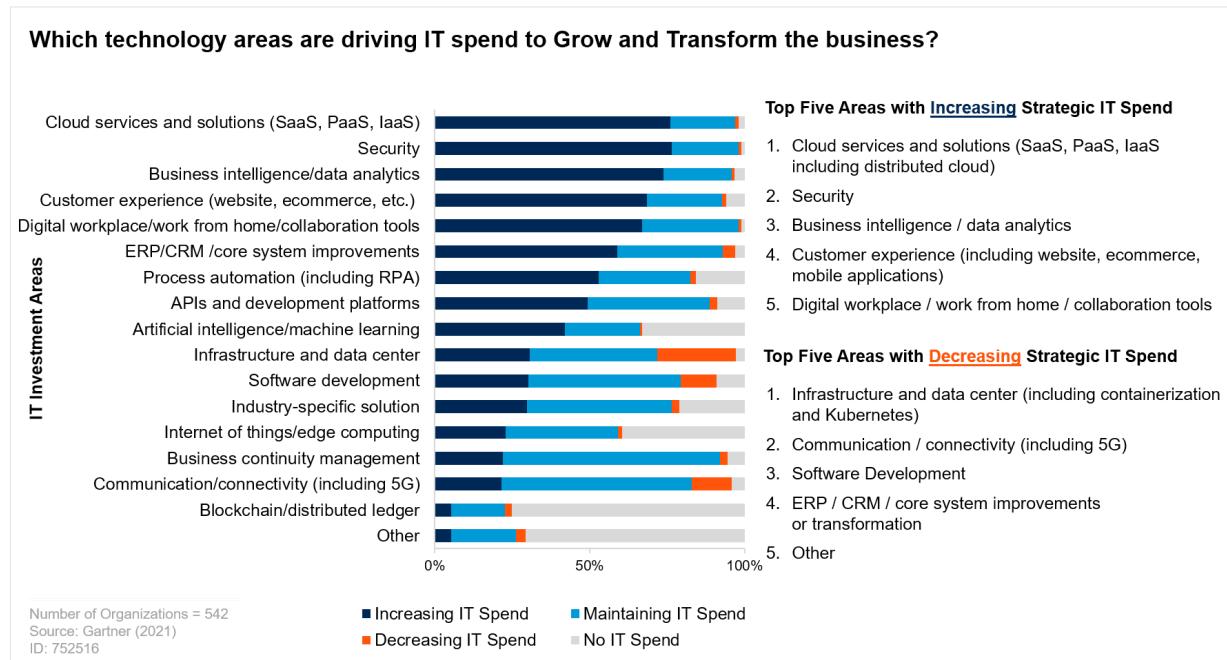


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For more information on run, grow and transform the business, see "[Strategic Cost Optimization: Link Cost Decisions to Strategic Priorities.](#)"

During 2021 we asked clients to tell us to indicate what technology areas they were spending on across their strategic investment portfolio (RGT). We also asked if they were Increasing, Maintaining, or Decreasing IT spend in the areas shown in Figure 37. The biggest areas of increased spending were cloud services and solutions and the one of the biggest decreases we saw was in Infrastructure and Data Center, and Software Development. This was expected given the shift from internal infrastructure and building applications to IaaS and SaaS. Digital Workplace/work at home/collaboration was also high reported increases in IT spending likely due to COVID-19.

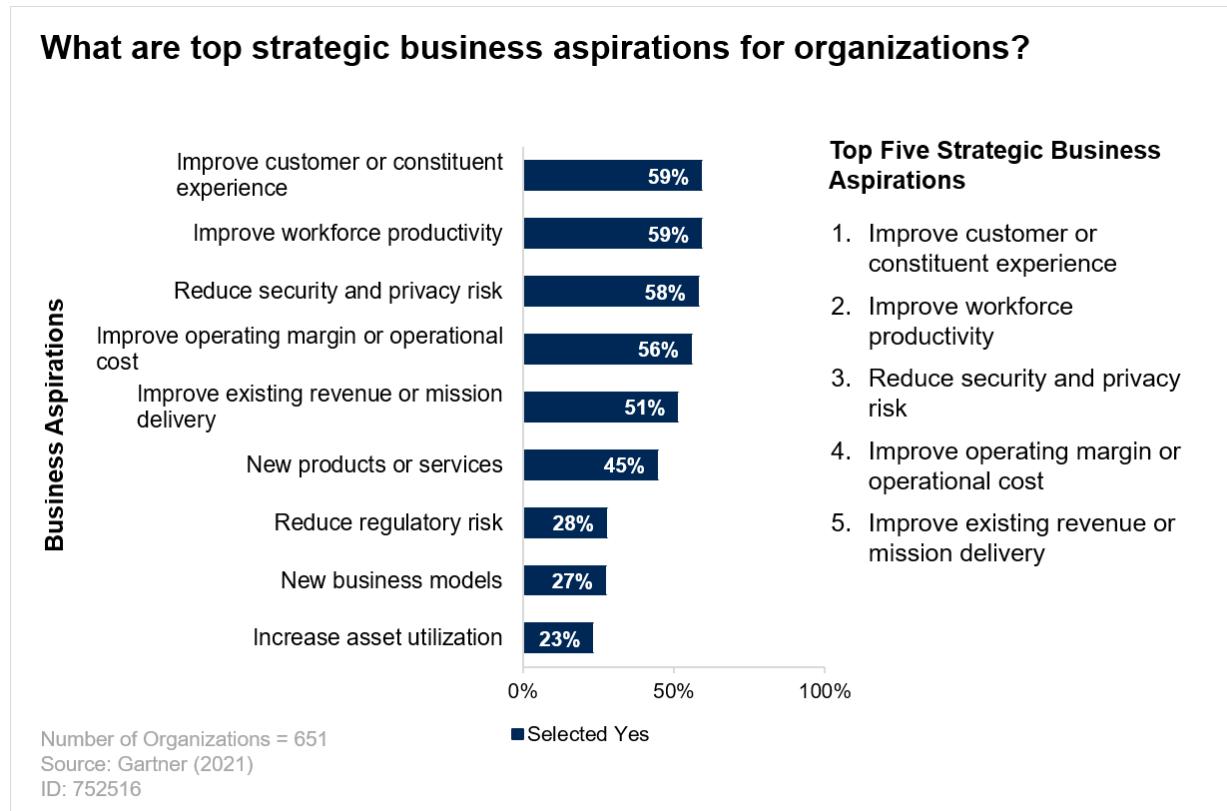
Figure 37: IT Investment Areas Driving IT Spend to Grow and Transform the Business



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During 2021 we also asked clients specifically about what they wanted to achieve through their Grow and Transform investments. Figure 38 shows which business outcomes they indicated that they were trying to improve. The top four responses are skewed towards items usually associated with organic growth including improving customer service, productivity, improving margins and reducing risk. New products and services and new business models tend to be more associated with transformation, and are closer to the bottom. This makes sense given that we also see more “Grow” spending than we see “Transform” spending in Figure 33.

Figure 38: Strategic Business Aspirations for Organizations



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IT Spending by Funding Source

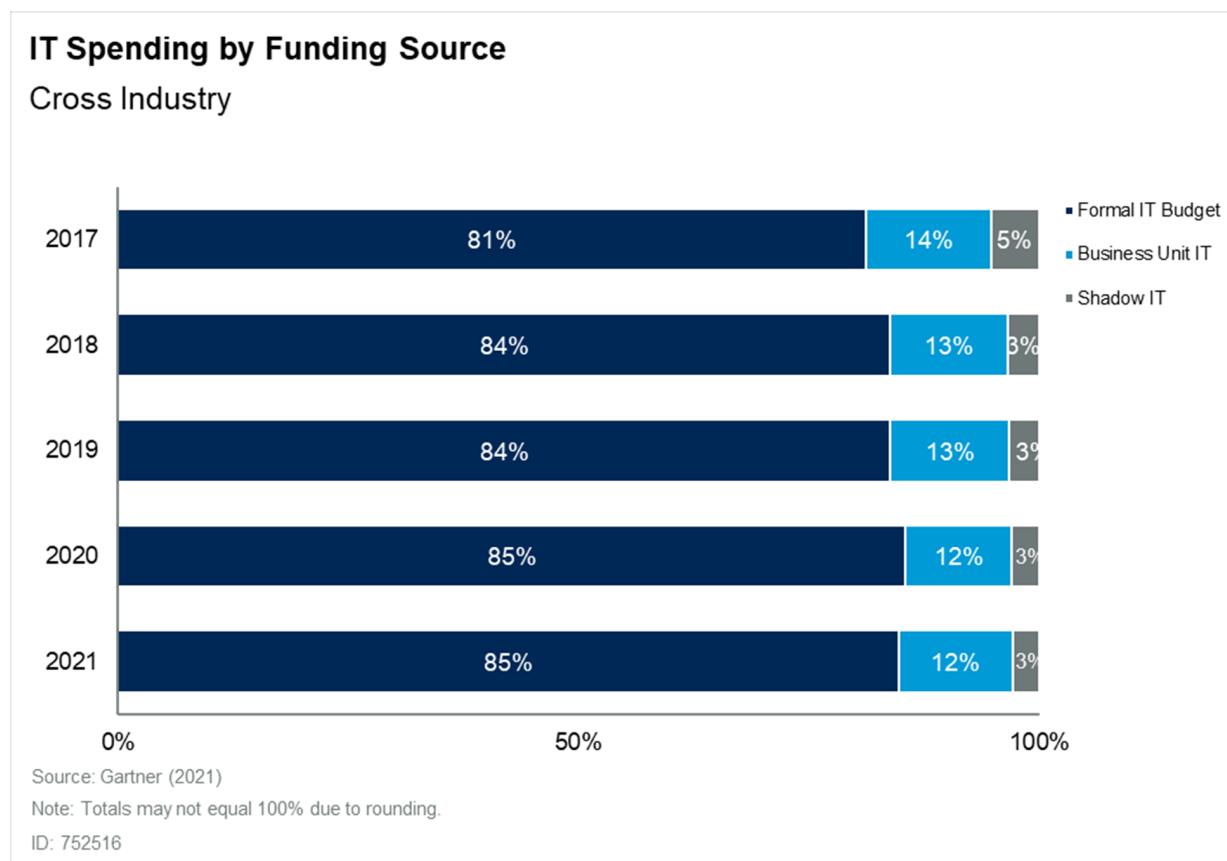
IT spending can come from several different sources within an enterprise or organization and is not restricted to the formal IT Budget. Additional spending can occur within business unit budgets and be what is known as “shadow IT.”

Understanding how much IT spending occurs outside the formal IT budget allows organizations to gauge the true extent of their IT spending and ensure for example that IT budget cost cutting exercises do not simply result in IT spending occurring elsewhere in the business. Getting the right mix of the formal IT budget, business unit IT and shadow IT can depend upon many factors and needs to be appropriate for the circumstances of the individual organization. Shadow IT can occur because the business wants to move faster than the formal IT departments processes allow and can lead to a lack of central governance and control. However, not all shadow IT should necessarily be viewed as “bad.”

See "[Quick Answer: The Difference Between Shadow and Business-Led IT, and Why It Matters](#)" for more details.

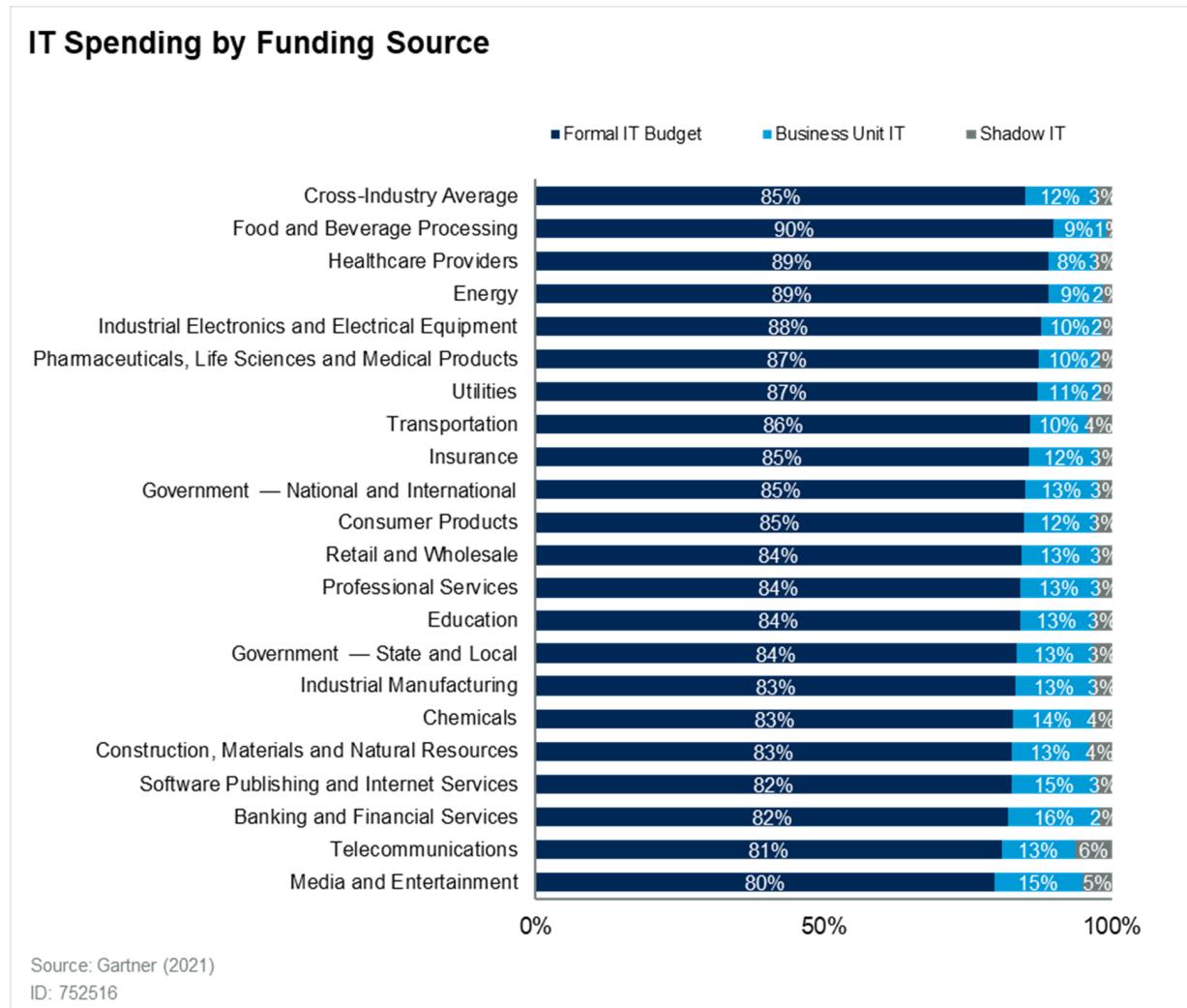
The data from past few years has shown an increase in the percent IT Spending from the formal IT budget from 81% to 85%. This seems counterintuitive as anecdotally we hear that business units are taking more responsibility for IT Spending with the move to digital business models. This may be true to some extent, but when we dig into what people call "Shadow IT" we often find that much of it includes assets and services that aren't part of the IT Spending/Budget Definition. What people casually call "Shadow IT" often includes things like digital advertising, power users of business intelligence applications, BPO, and content functions.

Figure 39: Distribution of IT Spending by Funding Source, 2017 to 2021



Certain industries have more of a culture of decentralization of management of IT resources and that is evident in Figure 40. In higher education, it is not uncommon for academic departments to have a high degree of control over their IT spending. We see that they are the fifth lowest in percentage of IT Spending from the formal IT budget. Some of the industries with higher levels of percentage of IT spending from the formal IT budget are the more conservative, more centrally managed ones such as Utilities and Healthcare Providers.

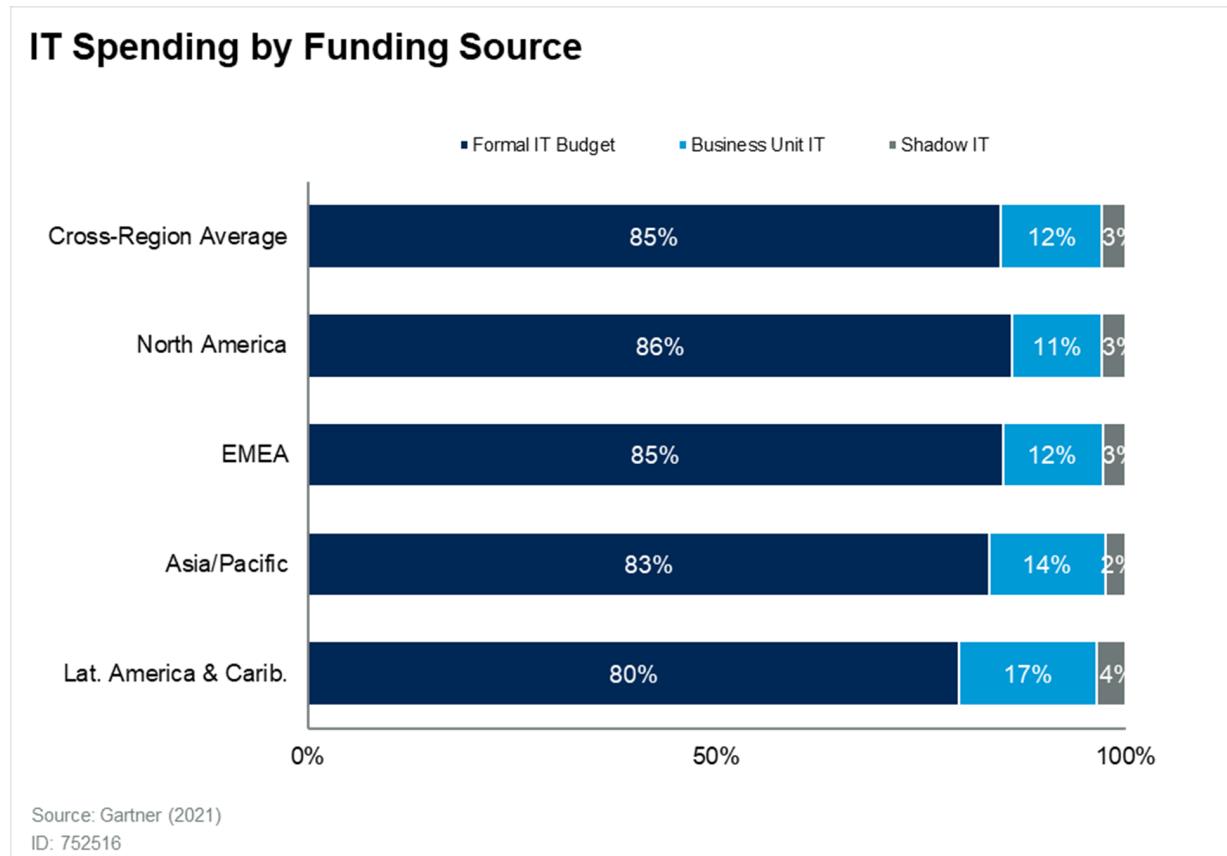
Figure 40: Distribution of IT Spending by Funding Source, by Industry, 2021



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Regionally, North America and EMEA have the highest percentage of formal IT budget (see Figure 41), while Latin America & Caribbean has the largest percentage of business unit IT.

Figure 41: Distribution of IT Spending by Funding Source, by Region, 2021



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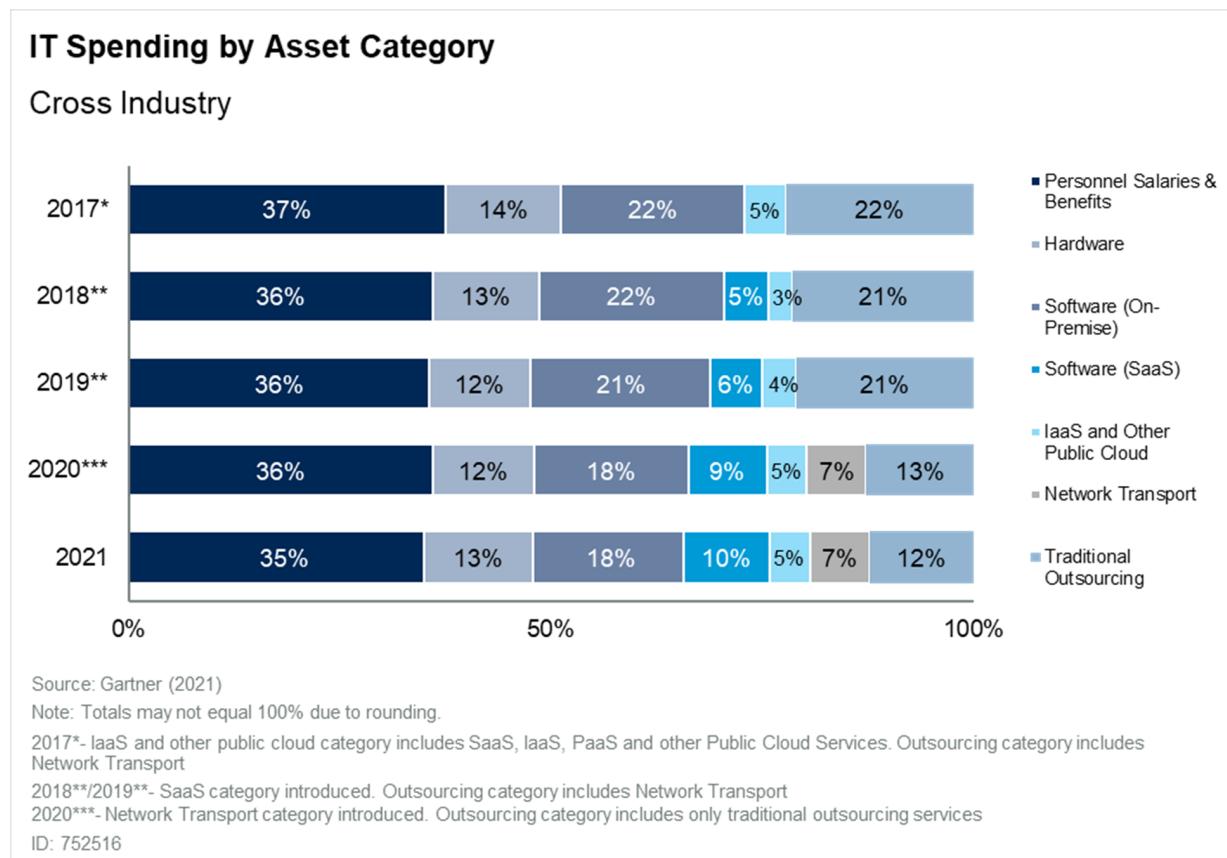
IT Spending by Asset Category

The distribution of spending between asset categories (personnel, hardware, software, SaaS, IaaS and other public cloud services, network transport and outsourcing) can show the dynamics of IT investments. For the purpose of this research, hardware includes insourced data center occupancy and facilities costs, and outsourcing includes network transmission costs.

This measure can be helpful in adding context to the IT investment strategy from a sourcing perspective, in terms of accounting-based resources that may be insourced (for example, IT hardware, software, personnel and occupancy/facilities costs) versus services delivered by a third party (for example, outsourced services and network transmission costs). As an organization increases or decreases the level of third-party/outsourced services, it may find an inverse effect in its associated personnel, hardware and/or software expenditures, depending on the scope of third-party services retained and on business requirements. The cyclical nature of capital investments in IT hardware and software may also play a significant role in an organization's IT spending outlay during a given year.

The trend toward SaaS, IaaS and other public cloud services continues as the percentage of IT spending in those areas increased from 14% in 2020 to 15% in 2021. Based on the distribution below approximately 67% of public cloud services come from SaaS versus 33% from IaaS, PaaS and other public cloud services.

Figure 42: Distribution of IT Spending by Asset Category, 2017 to 2021



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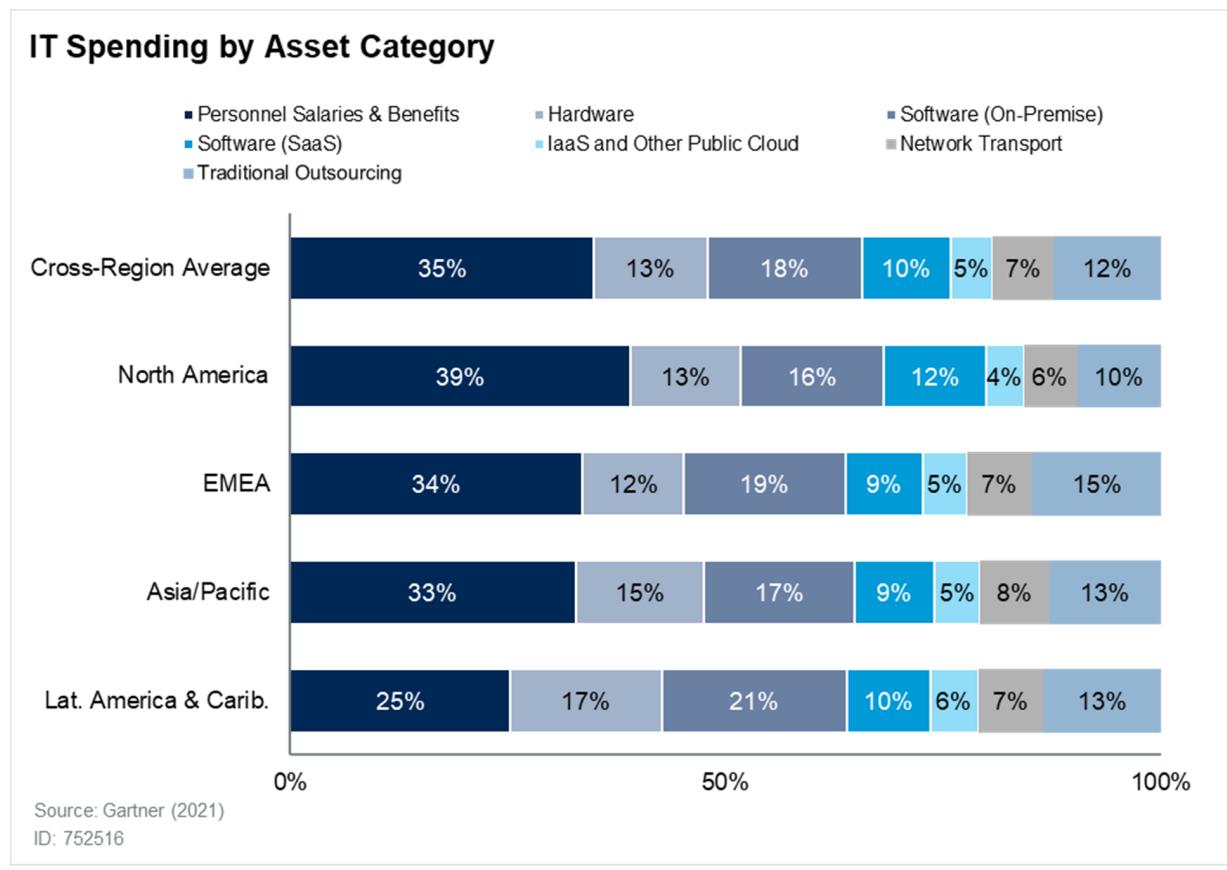
Notes: In 2017 - The IaaS and other public cloud categories included SaaS, IaaS, PaaS and other Public Cloud Services. Outsourcing category included Network Transport

In 2018 & 2019 - The SaaS category was introduced. Outsourcing category included Network Transport

In 2020 - The Network Transport category was introduced. Outsourcing category includes only traditional outsourcing services

Figure 43 indicates the percentage of IT spending allocated to software (on-premise) is broadly similar across regions, however the split between personnel costs and traditional outsourcing varies with North America spending more on internal personnel and less on traditional outsourcing, and Latin America & Caribbean spending more on traditional outsourcing than personnel.

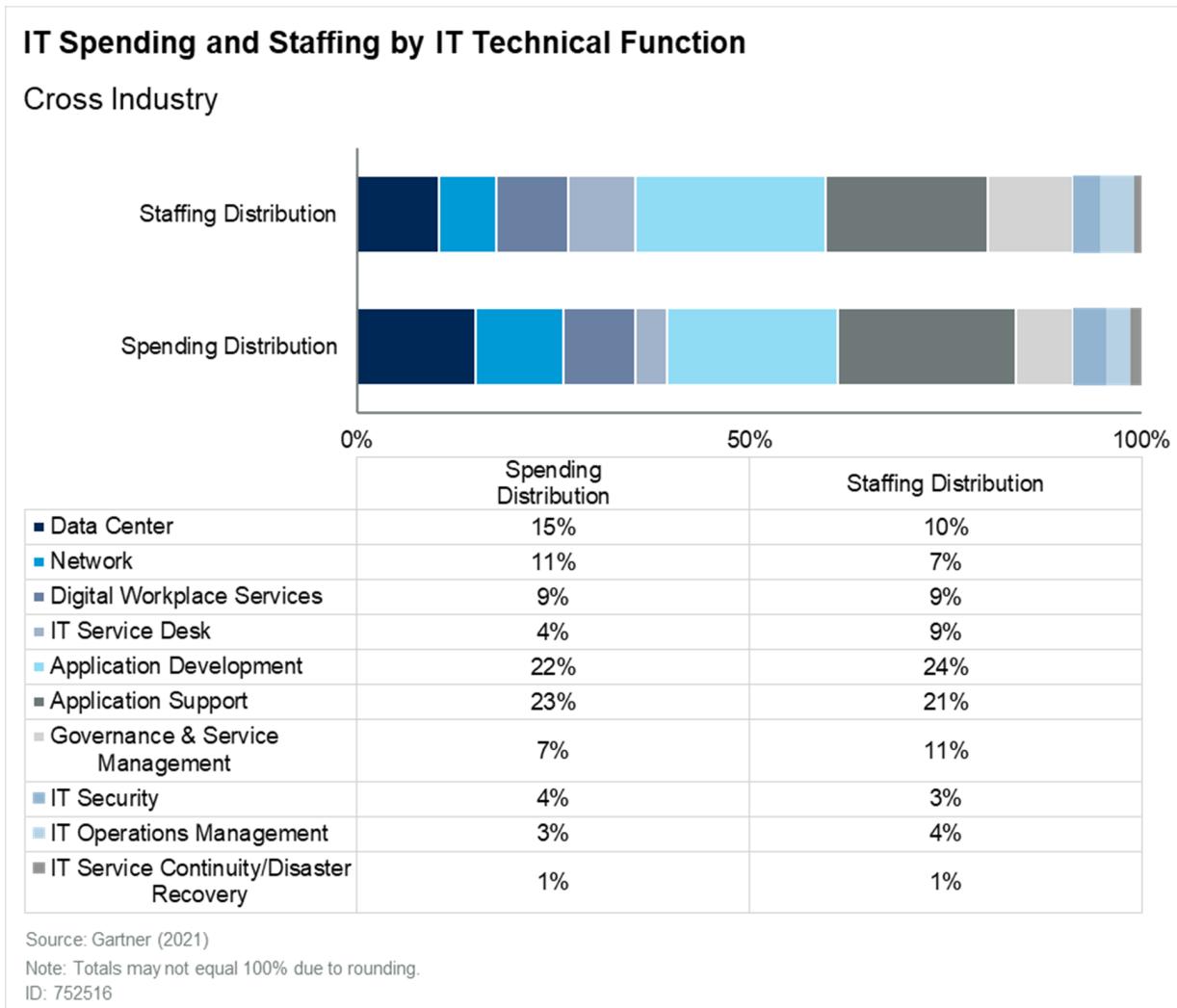
Figure 43: Distribution of IT Spending by Asset Category, by Region, 2021



Distribution of IT Spending and Staffing by IT Technical Function

The distribution of IT spending and staffing by IT technical function provides a view of key IT resource consumption in the context of the overall IT portfolio:

Figure 44: Distribution of IT Spending and Staffing by IT Technical Function, 2021



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IT Staffing Trends

As we have seen in preceding figures, internal staff typically represents more than one-third of the overall IT investment, which demonstrates the considerable human component of the IT portfolio. As such, it is critical for organizations to understand whether they are staffed adequately, whether their human resources are effective and whether they are sufficiently trained and motivated to meet changing business needs. The following metrics provide a broad view of IT staffing levels among the organizations we studied.

IT Full-Time Equivalents as a Percent of Employees

IT FTEs as a percent of employees is a key measure of IT support and IT intensity from a human capital perspective.

Understanding the relative level of IT staff dedicated to supporting the business can also assist in identifying whether the staff size is appropriate. This should be considered within the context of the overall enterprise sourcing strategy and future-state objectives. Variables to consider in tandem with this metric include IT staffing distribution, contract versus insourced FTEs, and IT outsourcing and public cloud spending as a percent of IT spending, as well as the enterprise sourcing strategy — Does the total employee count accurately represent the organization's workforce that is supported by IT? Do you have the ability to track the total number of internal users supported by IT?

Similar to the top-level IT spending metrics, the IT FTEs as a percent of employees tend to be higher for IT intensive industries such as Insurance and Banking and Financial Services.

Figure 45: IT FTEs as a Percent of Employees, by Industry, 2021

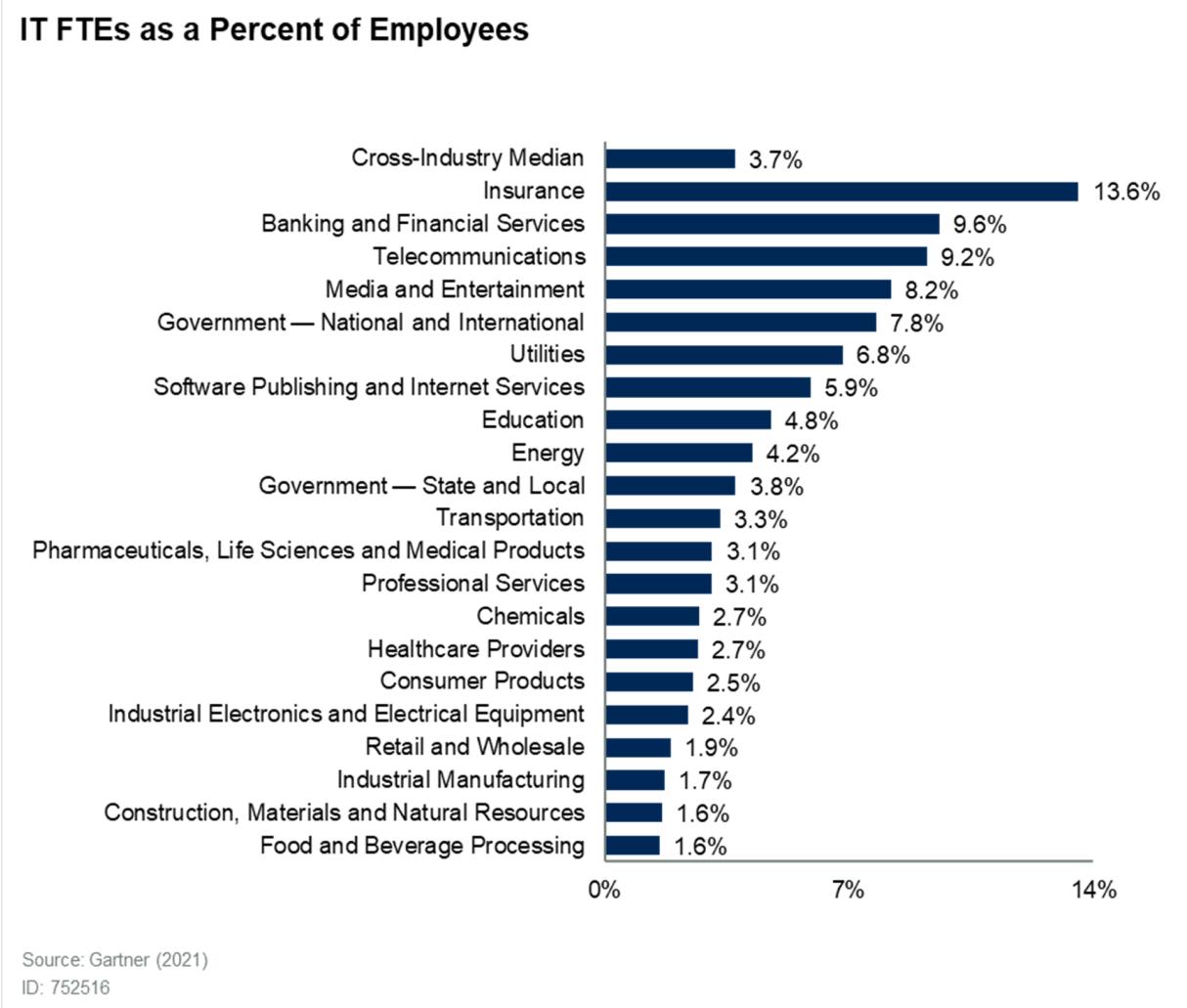
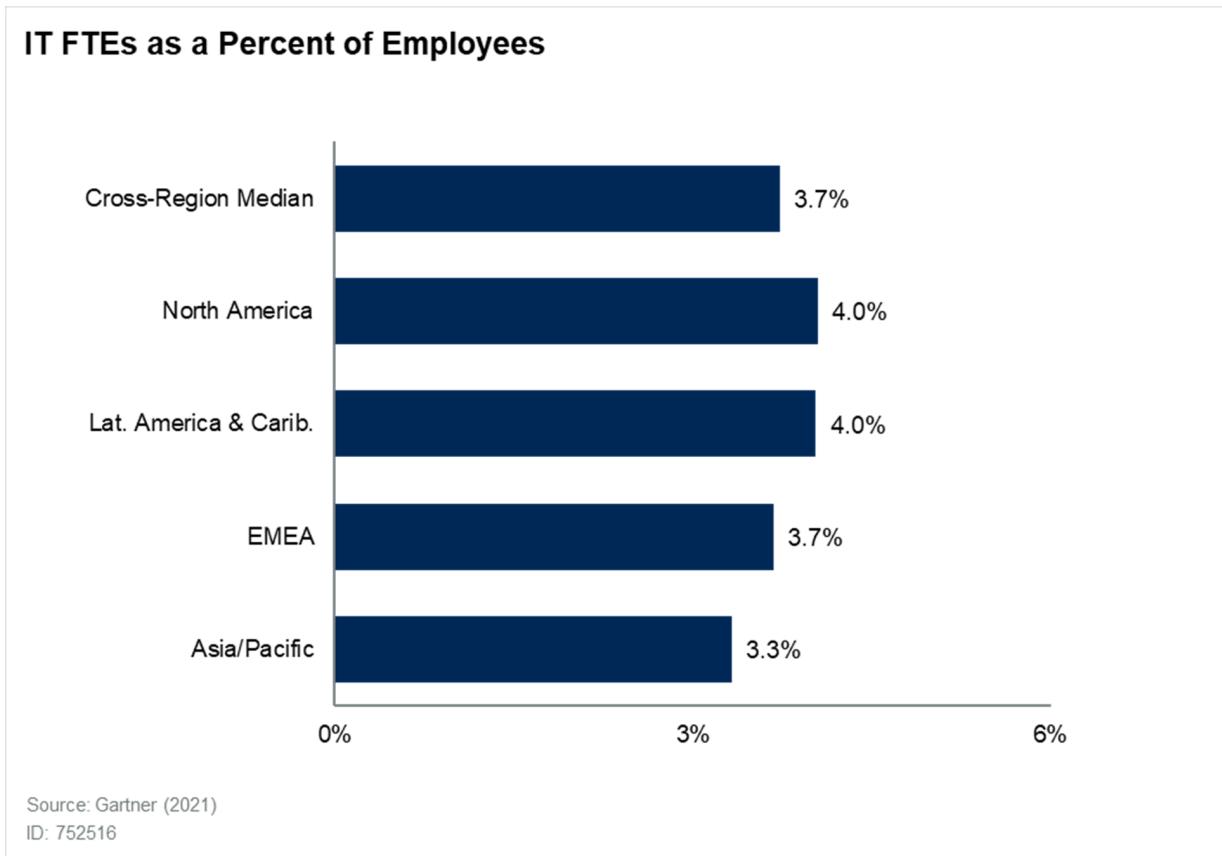


Figure 46: IT FTEs as a Percent of Employees, by Region, 2021**Gartner**

Distribution of IT FTEs: Insourced Versus Contractor

The distribution of IT FTEs (insourced versus contractor) can help provide a view of the IT staffing strategy.

IT contract labor or contractor usage can be an effective approach to maintaining flexibility and agility when business conditions are changing. However, keeping contractors for extended periods can be costly and limit process standardization.

For more information, see "[Gartner's Guide to Maximizing Your Agency Relationships](#)".

The use of contract labor should be driven by a need for flexibility and access to specific skills. However, some industries such as Government – National/International tend to rely on contract labor because of budgeting practices that discourage hiring full time staff. In other industries such as healthcare, cultural factors and a perception of having very specific business requirements lead toward a lower percentage of IT contractors in place.

Figure 47: Distribution of IT FTEs: Insourced Versus Contractor, 2017 to 2021

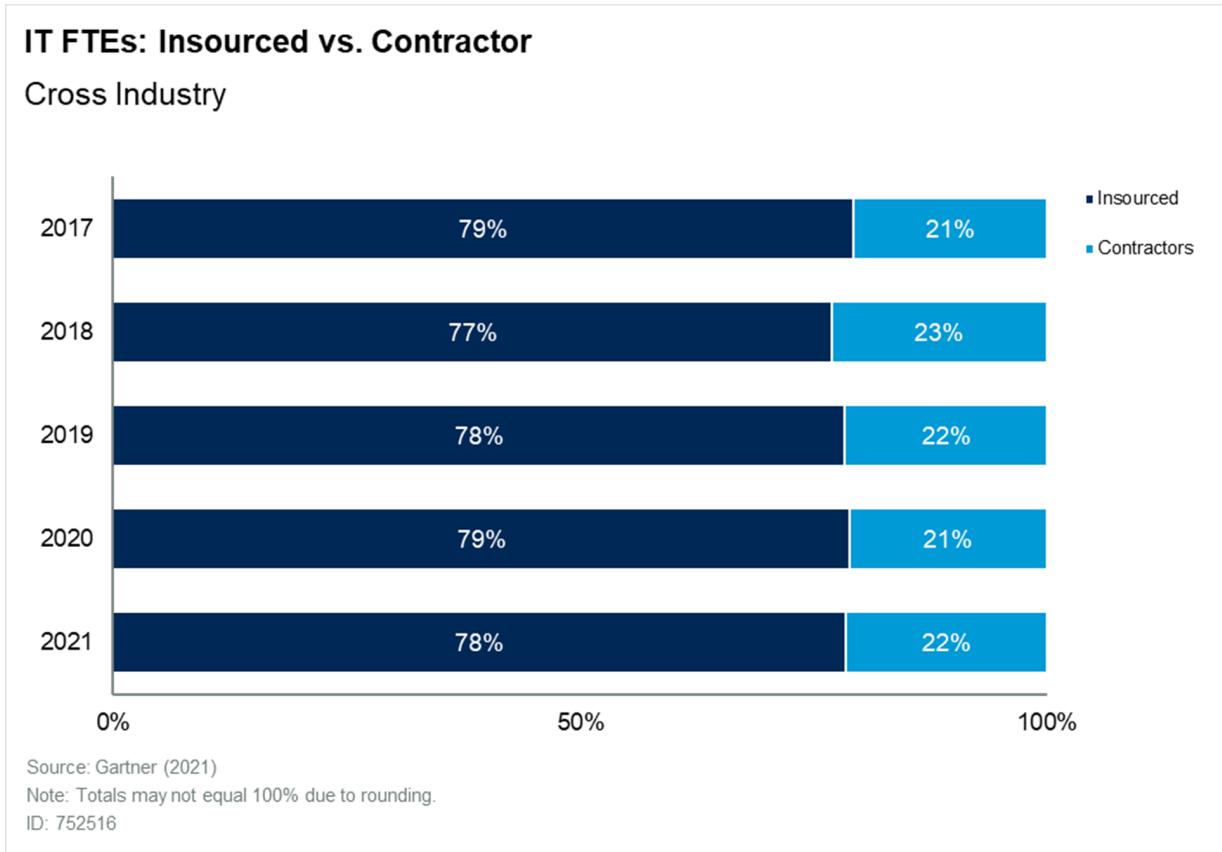


Figure 48: Distribution of IT FTEs: Insourced Versus Contractor, by Industry, 2021

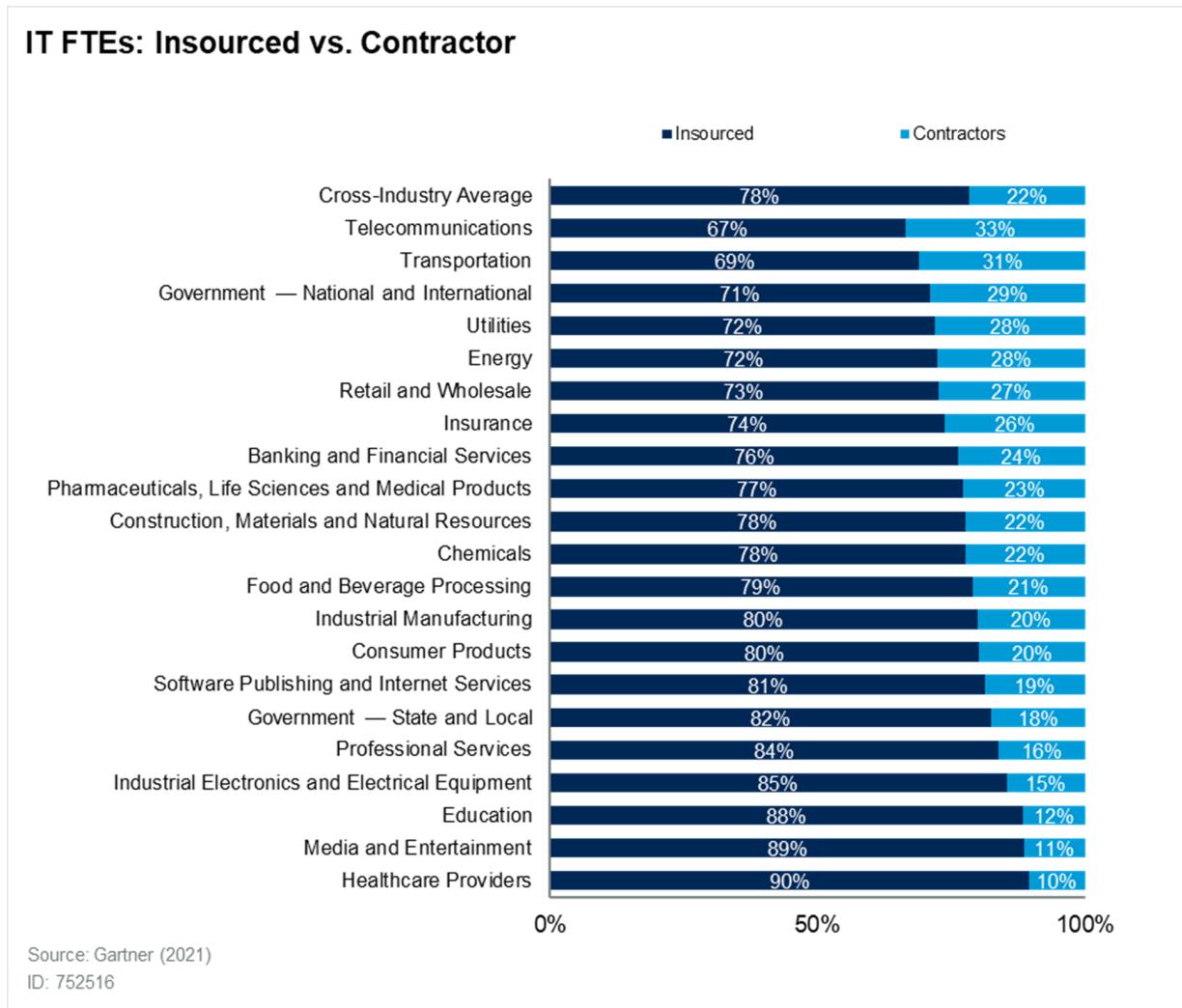
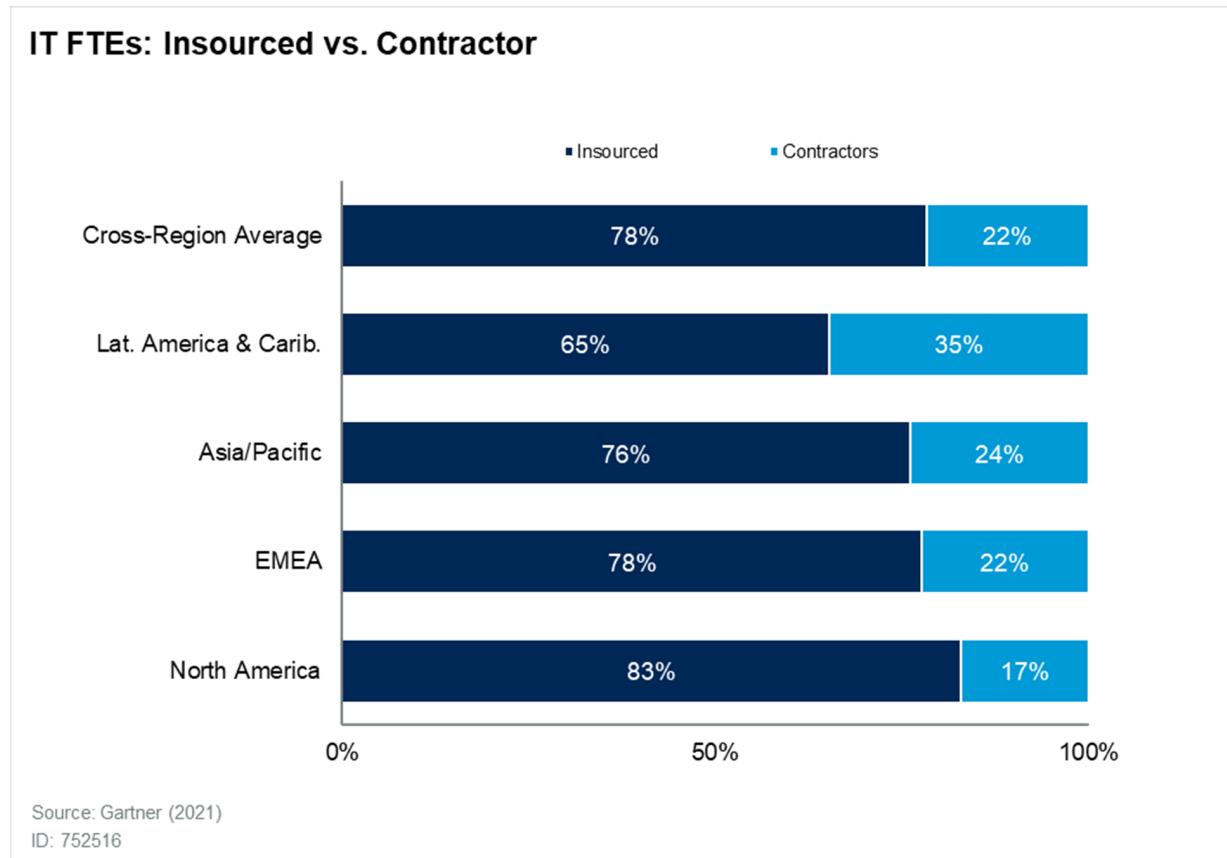


Figure 49: Distribution of IT FTEs: Insourced Versus Contractor, by Region, 2021**Gartner**

Conclusion

A successful IT performance measurement program communicates metrics that are important to a target audience. This remains true when communicating IT investments to the business. The metrics and benchmarks that Gartner has identified here provide a high-level view of current trends in IT by industry. They also reveal trends in business alignment, staffing, technology and outsourcing. They can be used to assist in communicating alignment with the business and in evaluating targets in key technology areas. They provide context for key business decisions and internal performance measures.

Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

["Strategic Cost Optimization: Link Cost Decisions to Strategic Priorities"](#)

["Cost Optimization Lessons Learned Through a Crisis"](#)

"Research Roundup for Digital-Outcome-Driven Metrics for Industries"

"Create and Communicate an Enterprise Cost Optimization Roadmap"

"The Quintessential Guide to Strategic Planning"

"Strategic Cost Optimization Score for IT"

"Proactively Manage the Impact of SaaS on Opex and Capex Budgets"

Evidence

- This research contains relevant database averages, medians and ranges from a subset of metrics and prescriptive engagements available through [Gartner Benchmark Analytics](#) consulting-based capabilities.
- Employee, income and revenue data is based on the most recently completed fiscal year.
- Calculations were made using worldwide observations.
- Demographics: ITKMD 2022 cohort represents over \$13 trillion in total revenue and over \$590 billion in total IT spend. In 2021, Gartner collected 4,657 data points in total from public and private enterprises from more than 80 countries in 21 industry sectors to contribute toward all the IT Key Metrics Data series of reports. For more information, including the distribution of data points by region, see "[IT Key Metrics Data 2022: Demographics](#)".
 - For the key industry measures contained in this report, we collected 2,547 data points. The result is the most comprehensive and authoritative IT spending, staffing and performance data in the industry.
 - Table 1 outlines the number of observations and the average size of the organizations (annual revenue and number of employees) represented in the analysis.

Table 2: Number of Observations, Average Revenue and Enterprise Employees
 (Enlarged table in Appendix)

Industry ↓	Number of Observations ↓	2020 Revenue (Billions of USD) ↓	2021 Employees (Thousands) ↓
All Industries (Cross-Industry)	2,547	4.5	14
Banking and Financial Services	281	2.3	6
Chemicals	62	4.5	10
Construction, Materials and Natural Resources	124	4.2	11
Consumer Products	73	4.8	14
Education	150	0.9	7
Energy	71	10.7	7
Food and Beverage Processing	131	5.3	16
Government – National/International (Operating Budget)	115	16.2	46
Government – State/Local (Operating Budget)	103	1.4	5
Healthcare Providers	132	2.8	16
Industrial Electronics and Electrical Equipment	67	5.3	23
Industrial Manufacturing	184	7.1	22
Insurance	209	5.2	5
Media and Entertainment	35	1.6	5
Pharmaceuticals, Life Sciences and Medical Products	96	6.0	13
Professional Services	220	2.1	14
Retail and Wholesale	161	8.1	33
Software Publishing and Internet Services	54	1.7	5
Telecommunications	34	10.9	19
Transportation	110	3.8	18
Utilities	135	5.0	8

NOTES: (1) The revenue figures reported are final and official for 2020; the 2021 revenue figures were not announced or were otherwise unavailable at the time of this publication. (2) Government operating budget is used as a proxy for "revenue"; however, it is not included in the all-industry average for revenue. (3) The all-industry enterprise full-time equivalent (FTE) average includes government FTEs.

Source: Gartner IT Key Metrics Data (December 2021)

Document Revision History

IT Key Metrics Data 2021: Industry Measures – Executive Summary - 18 December 2020

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Table 1: Top Decile - Top Line Metrics

	<i>IT Spend as Percent of Revenue</i>	<i>IT Spend as Percent of Operating Expense</i>	<i>IT Spend per Employee (USD)</i>	<i>IT FTEs as a Percent of Company Employees</i>	<i>Revenue per Employee (USD)</i>	<i>Operating Income per Employee (USD)</i>	<i>Profitability</i>
Top Decile	3.0%	4.5%	\$12,189	3.9%	\$398,848	\$133,614	30.1%
Database	3.0%	3.8%	\$10,376	3.7%	\$308,946	\$23,336	7.7%

Source: Gartner IT Key Metrics Data (December 2021)

Table 2: Number of Observations, Average Revenue and Enterprise Employees

<i>Industry ↓</i>	<i>Number of Observations ↓</i>	<i>2020 Revenue (Billions of USD) ↓</i>	<i>2021 Employees (Thousands) ↓</i>
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Education	150	0.9	7
Energy	71	10.7	7
Food and Beverage Processing	131	5.3	16
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Government – State/Local (Operating Budget)	103	1.4	5
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