

## WHITE PAPER

---

# The Economic Impact of Microsoft Windows Vista in the United States

Sponsored by: Microsoft

---

John F. Gantz                      Al Gillen  
Marcel Warmerdam  
December 2006

---

## IN THIS PROFILE

This Profile quantifies the forecasted economic impact the Microsoft Windows Vista operating system will have in the United States in its first year of shipment. The impact is seen in IT employment, and revenues to local firms.

The research is specific to Microsoft Windows Vista and, by design, does not look at the economic impact of other operating systems. Within the US nearly half of all packaged software, by spending, runs on a Windows operating system.

---

## EXECUTIVE SUMMARY

The availability of Windows Vista, Microsoft's first major new operating system released for PCs since Windows XP appeared in 2001, will begin in late 2006 with the launch of an enterprise version for selected customers and will continue through 2007.

For Microsoft, this launch will be a major event, inasmuch as the Windows client operating system accounts for 30% of Microsoft's revenue and 60% of operating income<sup>1</sup>. On the heels of Windows Vista will come two other programs, Office 2007 and Exchange Server 2007, which will also drive revenues into the market.

But Windows Vista's impact on the market will reach far beyond Microsoft, driving revenues and growth for many of the 1 million IT companies worldwide that sell hardware, write software, provide IT services, or serve as IT distribution channels.

The IDC research in this White Paper indicates that:

- ☒ Within its first year of shipment, IDC expects Windows Vista to be installed on more than 90 million computers worldwide. More than 35 million computers in the U.S. are expected to be running Windows Vista.
- ☒ In the U.S., Windows Vista-related employment will reach 18% of IT employment<sup>2</sup> in its first year of shipment.

---

<sup>1</sup> Microsoft 2006 year-end figures.

<sup>2</sup> See Definitions and Methodology section for a description of the calculations.

- ☒ Within the U.S., in 2007 as many as 200,000 IT companies that produce, sell, or distribute products or services running on Windows Vista will employ over 660,000 people; another 1.15 million will be employed at IT using firms.
- ☒ While much of this employment will shift from Windows XP-related employment, over 60% of the *growth* in Windows-related employment will be driven by Windows Vista.
- ☒ For every dollar of Microsoft revenue from Windows Vista in 2007 in the U.S., the ecosystem beyond Microsoft will reap \$18 in revenues. In 2007 this ecosystem should sell about \$70 billion in products and services revolving around Windows Vista.
- ☒ Microsoft partners are expected to invest in the vicinity of \$10 billion between now and the end of 2007, readying their products and services around Windows Vista and then rolling them out.

And although this study focused only on the U.S., in other research IDC has found the same trends in Europe. Rapid and widespread adoption of Windows Vista means that its launch will not only affect Microsoft but will also have a pronounced positive impact on local economies throughout the world.

---

## **BACKGROUND TO THIS STUDY**

Since 2002, IDC has been conducting studies on the economic impact of IT, software, and the Microsoft ecosystem and partner community on local economies. This impact comes in the form of job creation, company formation, and increased IT spending. Over the years, IDC has developed an Economic Impact Model (EIM), which ties local IT spending to the economic metrics. The model output — jobs, GDP contribution, etc., — has been calibrated through validation with local government sources. The economic impact and reach of the Microsoft ecosystem, which we call the Microsoft Footprint, have been studied in more than 40 countries since 2004.

The most recent major update to the EIM took place in spring 2006 in a study of 28 countries in Europe, and before that in the fall of 2005 in conjunction with a study for the Business Software Alliance on the economic impact of lowering software piracy rates around the world. In that study, the EIM covered 70 countries.

In 2006, Microsoft asked IDC to predict the economic impact of the upcoming launch of the Windows Vista client operating system. This study is one output of that request.

---

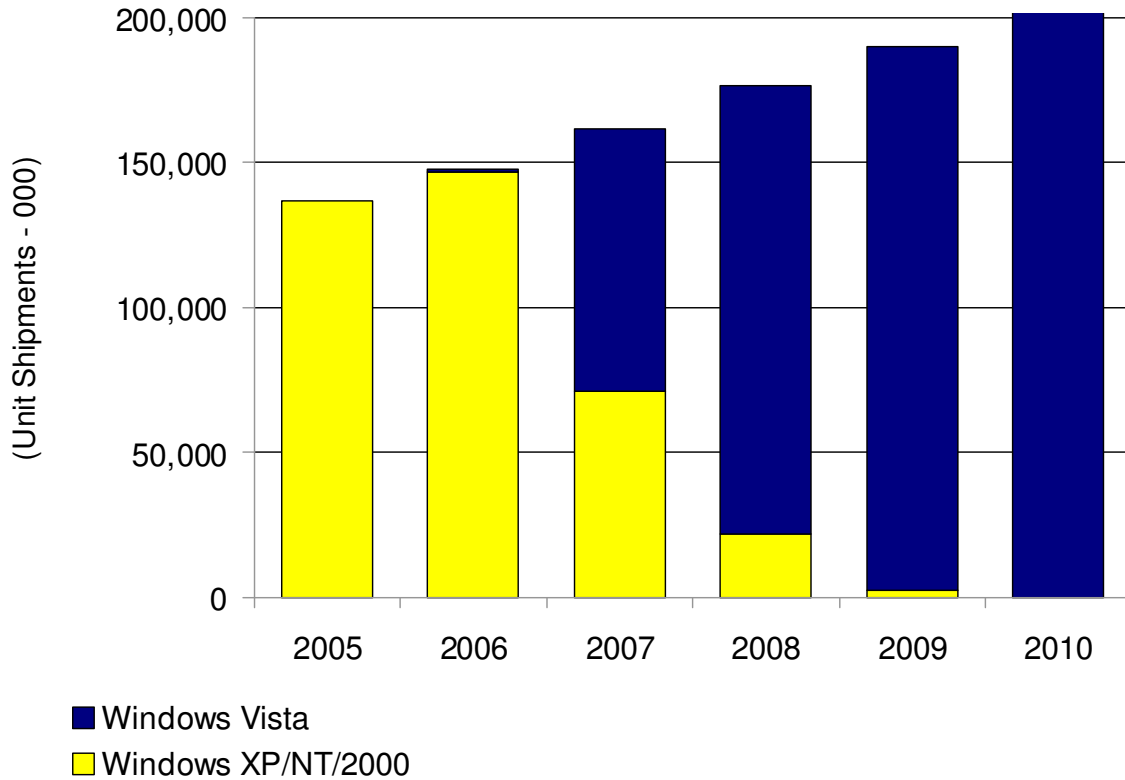
## **WINDOWS VISTA LAUNCH AND ADOPTION**

According to Microsoft, the official launch of Windows Vista will take place in stages from late fall 2006 to early 2007. Specifically, certain enterprise customers could have access to certain versions of Windows Vista in late 2006. Consumer versions will be available in early 2007. Thus, Windows Vista will be in production shipments for almost all of 2007, which is a key premise of this study.

Figure 1 shows IDC's published forecast of Windows Vista unit shipments worldwide by year compared to Windows XP, NT and 2000.

**FIGURE 1**

Microsoft Client OS Forecast — New License Shipments



Source: IDC Windows Vista Economic Impact Study, 2006

On a worldwide basis, IDC forecasts more than 90,000,000 units of Windows Vista will ship in 2007. In the U.S. that means more than 35,000,000 units should be shipped, driving nearly \$4 billion in revenue to Microsoft.

In the scheme of total IT spending, Microsoft's Windows Vista revenue will be small — about 1% of total IT spending in the U.S. in 2007 and less than 4% of total spending on software. But Windows Vista means more than revenue to just Microsoft. It will also drive revenue for hardware companies, other software companies, service firms, and channel firms.

To understand this overall impact requires first understanding the role of software in the economics of IT.

**THE IMPORTANCE OF SOFTWARE**

On a worldwide basis, IDC forecasts that by 2007 packaged software will account for 21% of total IT spending, in the U.S. for 27%. That's spending on operating systems, applications, and development tools for everything from ultra portable computers to

large mainframes. But this software generates related activity. People in service firms install, integrate, support, and train others on software. People in computer stores, system resellers, and distribution companies spend time selling and delivering software.

Because software is more complex to sell, service, and support than hardware, dollar for dollar, software generates more downstream economic activity than hardware.

IDC's analysis of the IT services market shows that for every dollar of packaged software sold, there is another \$1.25 in revenue to IT service firms. That software revenue and additional services revenue also drives revenue in the distribution channel. These multiple revenue streams pool to help fund employment.

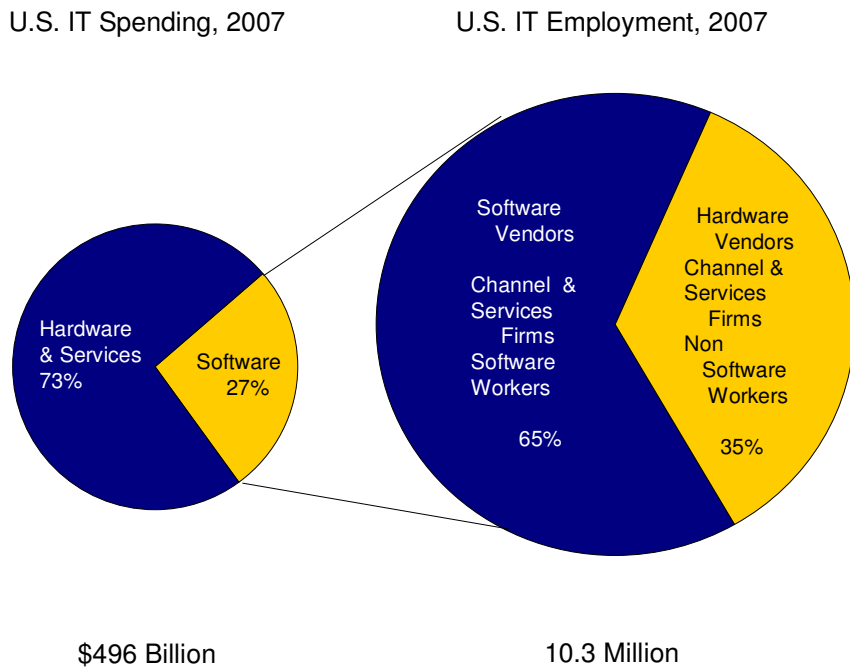
IDC's interviews with user organizations also confirm that in IT organizations, the allocation of staff is quite disproportionate in favor of software in comparison to software's share of the external IT budget.

Figure 2 shows how spending on software compares to employment driven by software. In short, while packaged software accounts for 27% of IT spending in the U.S., it *drives* 65% or nearly two-thirds of IT employment.

This is one of the reasons that Windows Vista can have a much larger impact on an economy than Microsoft's revenues alone.

**FIGURE 2**

Software's Outsized Influence



Source: IDC Windows Vista Economic Impact Model, 2006

---

## THE IT LANDSCAPE

The U.S. will show modest but healthy growth in IT spending between now and early 2007, when Windows Vista will be fully available, and good long-term prospects — an average of over 5% a year in IT spending growth through 2010. The overall U.S. forecast for 2007 looks like this:

- ☒ IT spending, \$496 billion
- ☒ Packaged software spending, \$134 billion
- ☒ Hardware spending, \$151 billion
- ☒ Services spending, \$211 billion
- ☒ Packaged software shipped (by dollar value) that runs on Windows, ~50%
- ☒ IT employment, 10.3 million
- ☒ Software-related IT employment, 6.7 million

This is the environment into which Windows Vista will be launched. Conditions are good for the investment required of user companies and Microsoft business partners to make the rapid transition from Windows XP or NT to Windows Vista predicted by IDC.

---

## THE IMPACT OF WINDOWS VISTA

Applying the same methodology used to determine software-related employment, IDC has determined Windows Vista-related employment. As a subset of the software market, Windows Vista will drive a subset of employment. As an operating system, however, it will drive a larger share than the average application package or development tool would.<sup>3</sup>

Figure 3 shows how Windows Vista-related employment compares to total IT employment. In the U.S. 18% of IT employment — 1.8 million — will be Windows Vista-related in its first 12 months of shipment.

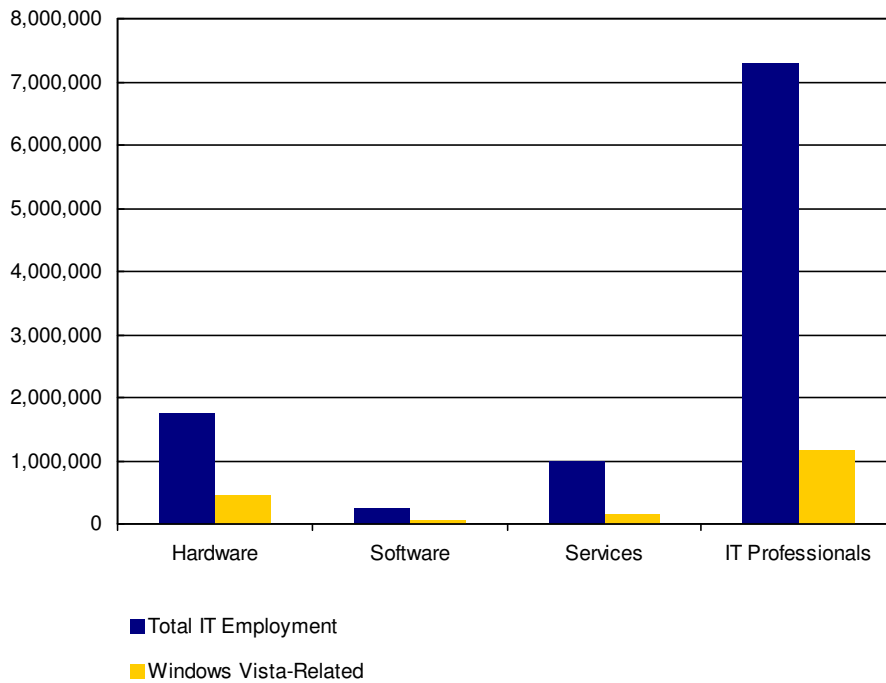
Windows Vista's influence will be even greater in 2008, when enterprise deployments hit full stride. In 2008, IDC predicts that 80% of Microsoft client operating systems shipped into enterprises will be Windows Vista.

---

<sup>3</sup> The methodology entails examining 20 categories of IT spending and using IDC published research to estimate the percentage that will run on or support Windows Vista in 2007. This determines the subset of IT spending that is reliant on Windows Vista, which in turn is used to estimate Windows Vista IT employment.

**FIGURE 3**

Windows U.S. Vista-Related IT Employment



Source: IDC Windows Vista Economic Impact Study, 2006

**THE WINDOWS VISTA EFFECT**

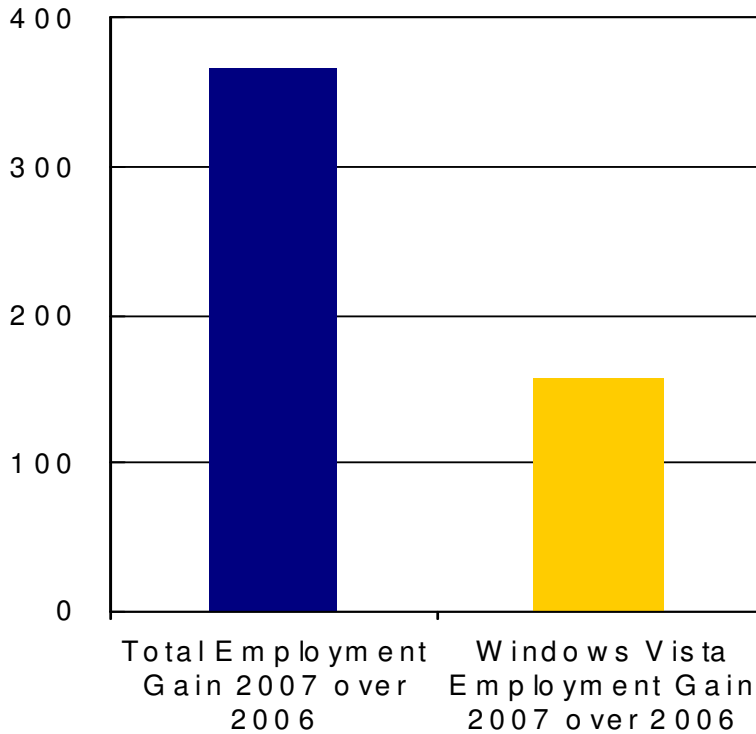
The methodology so far only depicts the total employment related to Windows Vista in 2007. But how does Windows Vista's economic impact compare to the impact of its predecessor client operating systems in 2006? Is there a significant net gain, or economic "bounce," from Windows Vista?

To determine whether there will be such a gain, IDC applied the same economic impact methodology it used on Windows Vista in 2007 to the other Windows client operating systems in 2006 to obtain a baseline of Windows client-related employment.

Figure 4 shows *net difference* between the economic impact of Windows Vista in 2007 compared to its predecessor client operating systems in 2006. Windows-related employment is expected to jump by 157,000 jobs.

**FIGURE 4**

The Windows Vista Effect



Source: IDC Windows Vista Economic Impact Study, 2006

While some of this gain would likely happen as a result of general market growth, between 2006 and 2007 Windows Vista's *share* of total IT employment is expected to go up by more than one percentage point — a big number in an employment base of 10 million.

Based on expected growth in overall IT employment, this share gain leads IDC to expect that more 60% of the gain in Windows-related employment will be specifically related to Windows Vista — growth that would not occur were Windows Vista not in the market.

Windows Vista, then, will infuse significant new energy into the market in its first 12 months of shipment, driving important job growth and new industry revenues.

**THE REACH OF THE MICROSOFT ECOSYSTEM**

While it is easy to think of Microsoft as simply the world's largest software company, it is more than that. It is an economic force that has a direct, positive impact on the countries in which it operates.

Microsoft partners and OEMs sell PCs and servers running Windows; software vendors write applications that run on Windows using Microsoft application

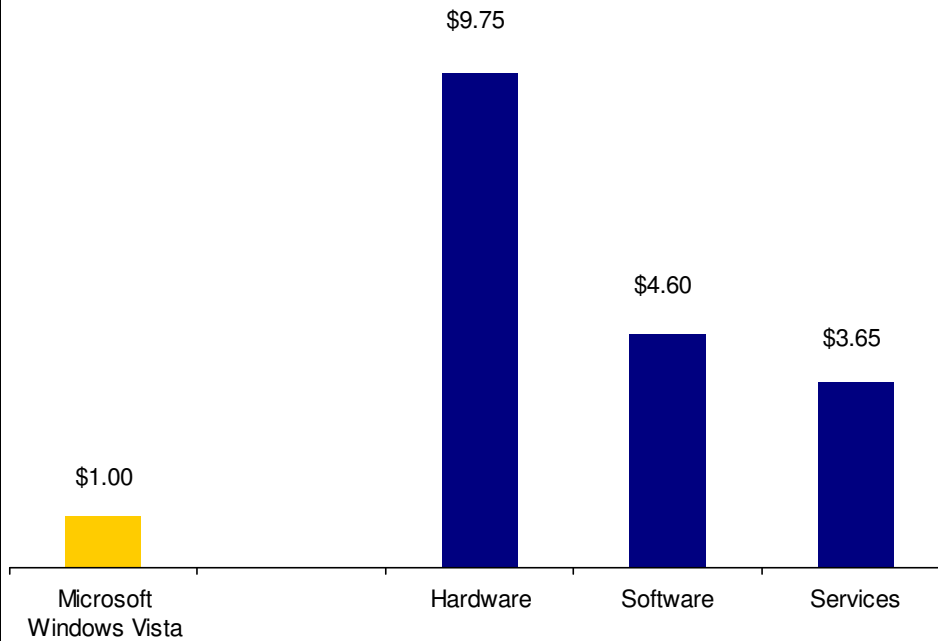
development tools; retail outlets and resellers employ people to sell and distribute these products; and service firms install and manage Microsoft-based solutions, train consumers and businesses on Microsoft products, and service customers for their own applications.

If you add up all of the spending on hardware and software that run on Microsoft operating systems as well as all of the services around installing and maintaining Microsoft applications and solutions, you quickly come up with a number much bigger than Microsoft's revenues. It grows even *larger and more significant* when compared to the subset of Microsoft revenues for operating systems.

In the U.S., Microsoft ecosystem-related activity is expected to be 18 times Microsoft's expected Windows Vista revenues in 2007, or about \$70 billion. These are revenues of OEMs selling hardware running on Windows Vista, revenues for software packages (excluding Microsoft packages) running on Windows Vista, and services supporting Microsoft Windows Vista. Some of the hardware revenue, much of the software revenue, and most of the services revenue accrue to U.S. companies.

**FIGURE 5**

Windows Vista and the Local Economy



Note: For every dollar of Microsoft Windows Vista revenue in the U.S., IDC expects \$18.00 to be generated in revenues by other companies in the Microsoft ecosystem.

Source: IDC Windows Vista Economic Impact Study, 2006



Figure 5 shows the dollar relationship between estimated Windows Vista revenues in the U.S. and revenues on Windows Vista-enabled hardware, software, and services.<sup>4</sup> For every dollar of Microsoft Windows Vista revenues, other companies make \$18.00.

## THE MICROSOFT PARTNER COMMUNITY

Within the Microsoft ecosystem is a subset of vendors that are recruited and supported by Microsoft as OEMs and registered partners. Depending on the level of business and commitment to Microsoft products, there are different tiers of partners.

Microsoft partners are a diverse group of companies, running the gamut from large international vendors, like major PC manufacturers, to very small national resellers and software entrepreneurs. (In fact, IDC estimates that in the U.S. more than 50% of IT employees work in companies of 500 employees or less.) In aggregate, Microsoft partners account for most of Microsoft's revenues and a good portion of Microsoft-related revenues.

Because these companies often have a specialty in the Microsoft product line and invest in additional training and certification, they tend to get more out of their investment in Microsoft software than non-affiliated members of the general ecosystem.

With the Windows Vista launch, those partners and OEMs will drive their own revenues by:

- Reselling Windows Vista
- Reselling other Microsoft software that runs on Windows Vista
- Selling their own software
- Selling services on the Microsoft software
- Selling services on their own software and that of others that run on Windows Vista
- Reselling partner-developed software that runs on Windows Vista
- Selling or reselling hardware that runs Windows Vista

Figure 6 shows the various permutations by which Microsoft partners, excluding OEM PC suppliers, will drive revenue off Windows Vista in the region, with proportions to scale.<sup>5</sup>

---

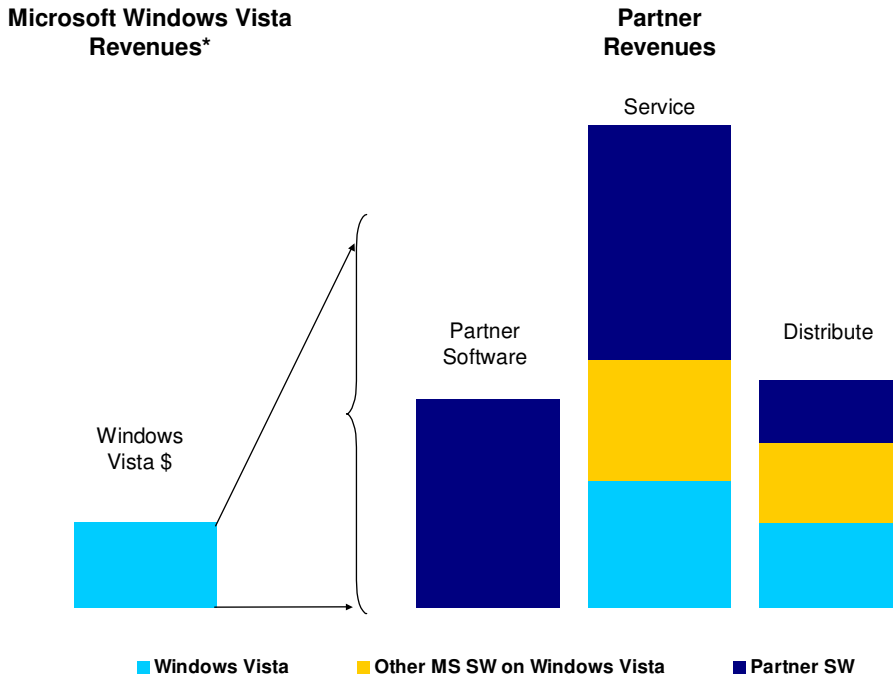
<sup>4</sup> Microsoft revenue from Microsoft applications, such as Microsoft Office, that run on Windows Vista are not included in the chart.

<sup>5</sup> The revenue allocations are based on IDC data on Microsoft partners studied using surveys conducted several times a year, most recently refreshed in the spring of 2006. The sample used for the allocations included 300 partners offering solutions running on Microsoft client operating systems.

Note that in Figure 6, Microsoft's Windows Vista revenues are depicted by the left-most column. All other columns depict: partner revenues from selling their own software that runs on Windows Vista (the second column); partner revenues from servicing either their own software or Microsoft software, including applications that run on Windows Vista and Windows Vista itself (the third column); partner revenues from distributing such software and services (the fourth column).

**FIGURE 6**

Windows Vista and Partner Revenues



\*Licenses sold through partners

Source: IDC Windows Vista Economic Impact Study, 2006

All told, Microsoft partners are expected to make \$2.50 more per dollar of Microsoft Windows Vista revenue than the general ecosystem.

These ratios show why Microsoft partners have an incentive to invest in Windows Vista, and many have been hard at work learning the new operating system, writing applications for it, and preparing services around it. Based on standard software and services industry ratios for spending on product development, marketing, and training, Microsoft partners should invest in the vicinity of \$10 billion between now and the end of 2007 readying their products and services around Windows Vista and then rolling them out.

IDC research supports the idea that the more partners invest in Windows Vista, the more that investment will pay off. In a worldwide study last year of companies with the highest level of certification in Microsoft operating systems, IDC found that in 14 key performance indicators, partners with the highest certification levels had better results than companies without that certification in almost every category. This top

echelon had revenue growth, deal growth, and customer growth twice that of the other baseline companies. Sales cycles and delivery cycles were a third faster. Daily billing rates and capacity utilization were 10% percent higher

Windows Vista is not just a product of Microsoft. In the market place, it will be a constellation of solutions and services delivered by an entire ecosystem.

What's more, this ecosystem is rooted, for the most part, within each country's market. In the U.S. IDC estimates that there as many as 200,000 companies in the Microsoft ecosystem. These are companies driving revenues and employment city by city, state by state.

---

## **SUMMARY AND OUTLOOK**

The IDC research shows that the launch of Windows Vista will precipitate cascading economic benefits, from increased employment in the region to a stronger economic base for those 200,000 or so local firms that will be selling and servicing products that run on Windows Vista. Nearly two million IT professionals and industry employees will be working with Windows Vista in 2007.

These direct benefits —157,000 *new* jobs and \$70 billion in revenues to companies in the US IT Industry — will help local economies grow, improve the labor force, and support the formation of new companies. The indirect benefits of using newer software will help boost productivity, increase competitiveness, and support local innovation.

While the U.S. is just one part of a heterogeneous global market, it is also a leading indicator of global trends in the IT sector. Windows Vista will be an important launch for Microsoft, but it will be an even more important launch for a much larger and more extensive community around the world.

---

## **Definitions and Methodology**

### ***Economic Impact***

**IT Spending** — Spending by consumers, businesses, governments, or educational institutions on information technology, including hardware, software, services, and data networking, as measured in the IDC's *Worldwide IT Spending Trends* reports (The Worldwide Black Book). This spending *excludes* all telecommunications revenues and some smaller emerging technology areas, such as videogames (although PC gaming software *is* included).

**IT Employment** — The number of people employed (full-time equivalent) in hardware, software, services, or channel firms and those managing IT resources in an IT-using organization (e.g., programmers, help desk, IT managers). The definition *excludes* employment in occupations in IT-related industries, such as Web graphics design, venture capital, trade magazine publishing, etc.

Headcounts by category were first modeled based on estimated IT revenue per employee for hardware, software, or services companies based on standard ratios,

and by levels of spending per employee by technology type for channels employees and IT professionals. Over time, these headcounts have been validated with local country governments and other sources, although they often vary from these sources as a result of definitional differences.

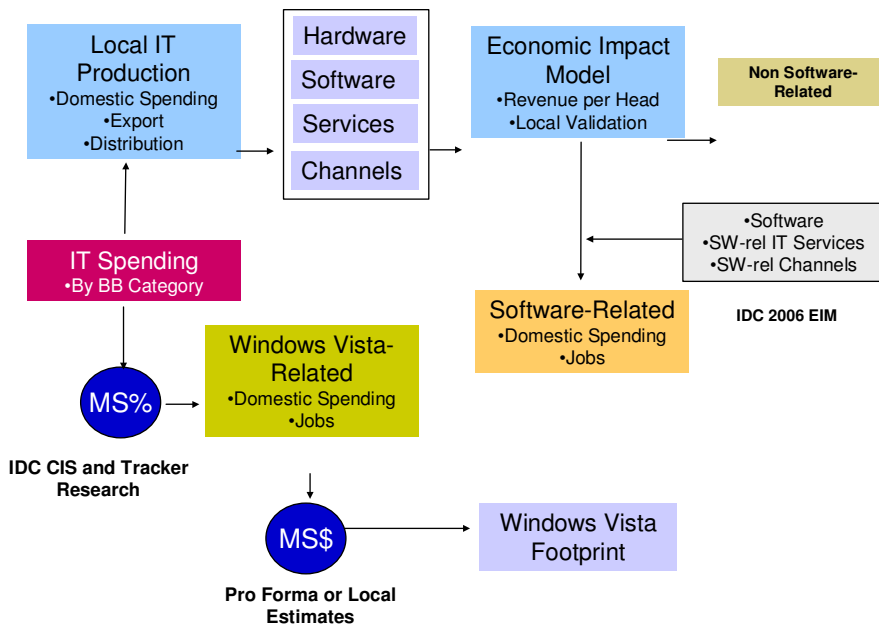
In its forecasts, IDC was conservative in how much growth in IT spending would result in IT employment — in general, if IT spending were to grow 10%, IT employment would grow something less than that. This varied by category.

**Channel revenues** — Within calculations of employment, IDC used a figure for channel revenues to drive estimates of employment. In this case, channel revenues were equated to 100% of IT spending. Most of that goes back to the hardware, software and IT services suppliers, but it is that revenue that funds employment. Within its tracking of IT *spending*, IDC looks only at channel mark-up, which is the difference between IT spending and vendor revenues.

Figure 7 illustrates the methodological flow of the study.

**FIGURE 7**

Economic Impact Methodology



Source: IDC, 2006

### ***Software-Related Revenues and Employment***

This is the percentage of spending or employment that can be associated with creating, installing, servicing, or distributing software. It was developed by first analyzing 13 service categories and using IDC research to determine the percentage of that activity devoted to software (e.g., what percentage of IS outsourcing is outsourcing software management and what percentage is related to managing hardware.) This led to a ratio of software spending to services spending. For the purposes of allocating employment, internal IT departments were assumed to resemble external service organizations and headcount is allocated accordingly. The allocation of channels activity to software is the midpoint between the percentage of software spending to the total of software and hardware spending and the percentage of IT services that is software related.

### ***Windows Vista–Related Economic Impact***

Windows Vista–related employment was derived using country-level estimates of the percentage of IT spending in 2007 by IT category for products running on Windows Vista or for services supporting Windows Vista.

- ☒ For hardware we counted newly shipped PCs that we expected to run on Windows Vista in 2007 based on IDC forecasts for Windows Vista adoption.
- ☒ For software we counted all software that we expected to be shipped that would run on Windows Vista, including Microsoft software. We started with data from the IDC Software Forecaster on revenues by software category (e.g., development tools, CRM software, collaboration tools) by operating system and adjusted this based on local country research on client software.
- ☒ For services we counted all services related to the design, deployment, management, support, and training for Windows Vista. We excluded maintenance and support on hardware running Windows Vista under the assumption that maintenance was more likely to be related to equipment failures.
- ☒ For Windows Vista–related IT professionals we used the general ratio of services to come up with estimates of headcount percentages in user organizations.

To determine the amount of Windows Vista–related IT spending per dollar of Windows Vista revenue, we took the Windows Vista–related spending percentages developed above and compared them to estimates of Microsoft Windows Vista revenue in each country. In the final calculation, we subtracted Microsoft Windows Vista revenues and Microsoft revenues from its own software (e.g., Office 2007) that would run on Windows Vista from the total to come up with the total Windows Vista–related spending that wasn't revenue to Microsoft.

### ***Comparison with Baseline Year (2006)***

To develop a baseline Microsoft Windows Vista footprint, we used the 2007 footprint model and plugged in IT spending values and Microsoft client operating system revenue values for 2006. We then adjusted the output for the fact that there will still be some Windows XP/NT/2000 shipments in 2007.

To understand the Windows Vista "effect," we used overall IT employment growth from 2006 to 2007 to adjust the Windows OS employment figure for 2006 to an estimate of Windows OS employment in 2007. The difference between that and the actual derived Windows Vista employment for 2007 constituted the impact Windows Vista would have on employment above and beyond normal market growth.

### ***Partner Revenue Categories***

The figure was based on a data base of information on Microsoft partners maintained by IDC and updated using surveys several times a year. The sample used for this calculation was 300 firms that were Microsoft partners that specifically developed solutions based on Windows client operating systems — product-oriented partners, service-oriented partners, and value-added resellers platform solution providers. The data base information includes average software revenues, average services revenues, and average revenues from resale. IDC used ratios of these categories to estimate the various revenue sources of Microsoft partners using Windows Vista. The data were applied directly to the regional estimate for Windows Vista revenues since the intent of the exercise was to be instructive and directional.

---

### **Copyright Notice**

External Publication of IDC Information and Data — Any IDC information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate IDC Vice President or Country Manager. A draft of the proposed document should accompany any such request. IDC reserves the right to deny approval of external usage for any reason.

Copyright 2006 IDC. Reproduction without written permission is completely forbidden.