

Software Development

Industry Snapshot

June 2010

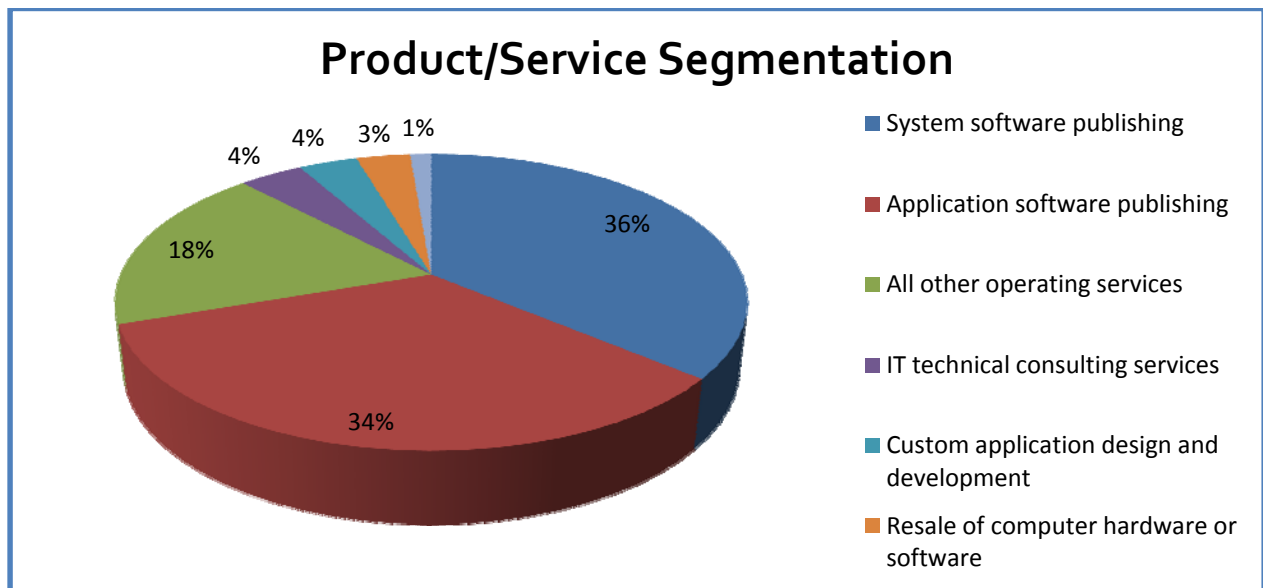


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Industry Segments

The software development industry in the United States consists of approximately 50,000 companies. Approximately 60% of industry revenues come from software publishing, with the remaining 40% being generated by custom programming. Within the packaged products segment, the industry is highly concentrated with the 50 largest companies (Microsoft, Oracle, Symantec, etc.) generating about 70% of the revenue. Custom programming, on the other hand, is highly fragmented.¹

Product and service segmentation is as follows:²



Industry Data

Packaged software development is fairly capital-intensive and average annual revenue per worker is approximately \$360,000. Custom programming is dominated by labor costs with average annual revenue per employee at approximately \$175,000. Washington State holds 17.7% of all employees within this industry segment, which is greatly disproportionate to its population. California has the highest concentration of employees within this industry at over 26%.³

This industry was less impacted by the recession than many other industries. Estimated annual growth from 2005 to 2010 was 2.3%. Advancement in semiconductors and telecommunications which are complementary industries has helped buoy the industry. In 2009 the industry was strongly impacted

¹ First Research, Inc. 2007, "Computer Software Development." Austin, TX: First Research. June 7, 2010. <http://www.firstresearch.com>.

² IBISWorld Pty Ltd., "Software Publishing in the US." New York: IBISWorld. May 2010. <http://www.ibisworld.com>.

³ First Research, Inc. 2007, "Computer Software Development." Austin, TX: First Research. June 7, 2010. <http://www.firstresearch.com>.

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by the recession and posted a 4.1% decline in industry revenues, largely due to the financial crisis and its impact on businesses and credit.⁴

While revenues are showing growth in 2010 and the next five years, consolidation has caused the number of establishments to drop 2.3%. Projections indicate growth in revenues and employment, while the number of establishment will steadily decline:⁵

Year	Revenue (\$m)	Establishments	Employment
2010	\$ 150,739.3	6,918	340,609
2011	\$ 156,316.7	6,777	342,653
2012	\$ 163,819.9	6,651	345,394
2013	\$ 167,260.1	6,515	347,467
2014	\$ 170,438.0	6,382	349,551
2015	\$ 174,187.7	6,252	351,649

Challenges & Opportunities

Overall demand for software development services follows corporate and consumer spending on computers. Budget cuts and access to funding in a recessionary climate reduces computer sales and therefore demand for software development services. In addition, software products have a relatively short shelf-life and products must be upgraded or new products developed in order to ensure future revenues. Software development can also be impacted by seasonal demand trends. In this industry, higher sales in the latter part of the year are particularly common.⁶

Several new opportunities are emerging in the industry, a few of which are outlined below:⁷

- Cloud computing: Cloud computing is becoming an increasingly popular technology, particularly in increasing capacity and enhancing collaboration ability. It offers new challenges in access, performance and security.
- Mobile devices: Smart phone and other devices offer a wide range of opportunities for developers in new operating systems, security applications, messaging programs and productivity applications. In addition, existing sites and applications are being redesigned for use on a mobile device.
- Outsourcing: Outsourcing remains a trend in this industry. New communication and collaboration technology have increased the ease with which foreign outsourcing operates. India is the top market, but other Asian nations, countries in Eastern Europe and nations in Latin America are also emerging.

⁴ [IBISWorld Pty Ltd.](http://www.ibisworld.com), "Software Publishing in the US." New York: IBISWorld. May 2010. <http://www.ibisworld.com>.

⁵ Ibid.

⁶ First Research, Inc. 2007, "Computer Software Development." Austin, TX: First Research. June 7, 2010. <http://www.firstresearch.com>.

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⁷ Ibid.

Software Expenditures

Businesses account for 80% of revenues in this industry segment. By industry, this breaks down to:⁸

Software expenditures by industry segment for companies with employees			
	Capitalized Exp. (\$ million)	Non-Capitalized Exp. (\$ million)	Total Expenditures
Manufacturing	\$ 10,469	\$ 10,120	\$ 20,589
Wholesale Trade	\$ 2,868	\$ 1,712	\$ 4,580
Retail Trade	\$ 4,890	\$ 2,958	\$ 7,848
Transport & Warehousing	\$ 1,541	\$ 1,096	\$ 2,637
Information	\$ 10,548	\$ 7,485	\$ 18,033
Finance & Insurance	\$ 15,588	\$ 17,040	\$ 32,628
Prof., Sci. & Tech. Services	\$ 5,202	\$ 6,724	\$ 11,926
Health Care & Social Asst.	\$ 4,005	\$ 2,799	\$ 6,804
Other	\$ 8,208	\$ 6,449	\$ 14,657

As a percentage of total software spending, the finance and insurance industry group makes up over 27% of total software development spending. Manufacturing and Information represent the next largest industry expenditures.

Financial Information

The software publishing industry has faced challenges, but profitability remains good. Average profits for software publishers are 20% of revenues, amounting to more than \$30 billion for this industry in 2010. Litigation and piracy can cause problems for developers, but once released software costs almost nothing to reproduce. In addition, incremental development allows for a re-release of an existing product thereby further increasing profits.⁹ Smaller companies, however, have not fared as well, with their profitability being about 1.3% after taxes (smaller companies defined as less than \$1.3 million in sales). In addition, smaller companies tend to have immensely high current liabilities.¹⁰

Firms in this industry typically have to invest significant resources into sales and marketing projects – for larger companies this can often amount to 20% of revenues.¹¹

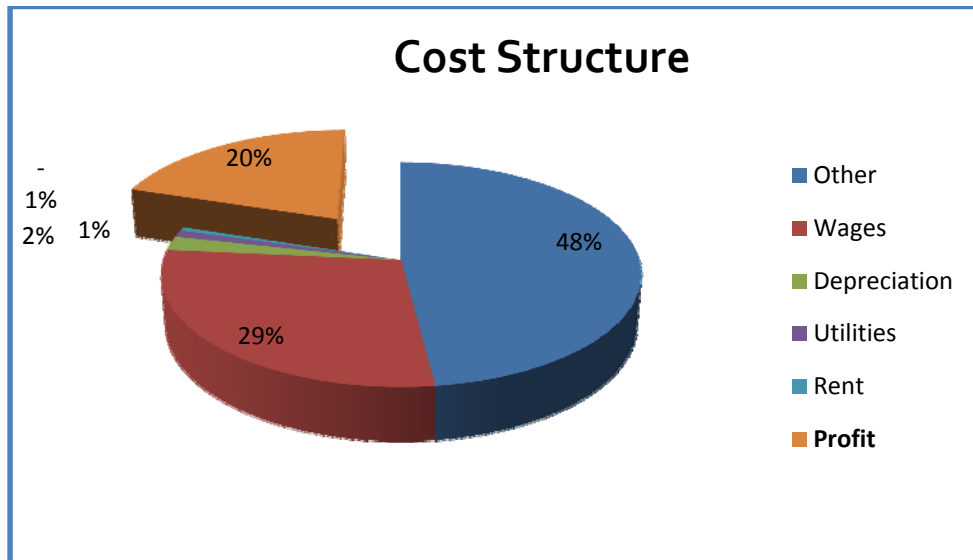
⁸ First Research, Inc. 2007, "Computer Software Development." Austin, TX: First Research. June 7, 2010. <http://www.firstresearch.com>.

⁹ IBISWorld Pty Ltd., "Software Publishing in the US." New York: IBISWorld. May 2010. <http://www.ibisworld.com>.

¹⁰ First Research, Inc. 2007, "Computer Software Development." Austin, TX: First Research. June 7, 2010. <http://www.firstresearch.com>.

¹¹ IBISWorld Pty Ltd., "Software Publishing in the US." New York: IBISWorld. May 2010. <http://www.ibisworld.com>.

The overall cost structure of the industry is:¹²



“Other” costs include research and development, legal and patent expenses and taxes.

Pricing Contract Services

Pricing services as an independent contractor can be one of the major challenges facing smaller players in this industry, as many developers work as consultants. There are a variety of different pricing models for contract services. Outlined below are a few of the most commonly referenced:

1. Market-based approaches^{13, 14, 15, 16}: One method is to gather information about pricing charged by other consultants/developers in the area for similar services (if available). At minimum this will provide a low and high point for what currently appears to be accepted in that geographic area.
2. “Rule of Thirds”^{17,18}: This method is based on the assumption that one-third of a developer’s rate should go toward salary, one-third toward overhead and the remaining third should be profit.

¹² IBISWorld Pty Ltd., “Software Publishing in the US.” New York: IBISWorld. May 2010. <http://www.ibisworld.com>.

¹³ “How much should you charge?” Nolo.com. <http://www.nolo.com/legal-encyclopedia/article-30158.html>. (Accessed June 28, 2010).

¹⁴ Juillet, Christopher. *The Meter is Running: Setting Consulting Rates for Independence*. Tech Republic: <http://blogs.techrepublic.com.com/project-management/?p=183>. (Accessed June 30, 2010).

¹⁵ Consultant Journal. “Consultant Fee Rates/Consultant Fees.” <http://www.consultantjournal.com/blog/setting-consulting-fee-rates>. (Accessed June 30, 2010).

¹⁶ Forbes.com. “How to Set Your Consulting Rate.” http://www.forbes.com/2006/11/06/bostonconsulting-marsh-mckinsey-ent-fin-cx_mc_1106pricing.html. (Accessed June 29, 2010).

¹⁷ Juillet, Christopher. *The Meter is Running: Setting Consulting Rates for Independence*. Tech Republic: <http://blogs.techrepublic.com.com/project-management/?p=183>. (Accessed June 30, 2010).

Example: If a developer wants to earn an hourly rate of \$25, the rate charged to clients would be \$75.

3. **Rational Rate:**^{19, 20} The rational rate is more in-depth and requires calculating five different values and using these values to determine a rate charged to clients. The five values are:
- Billable year (Billable days = 365 minus: weekends - holidays - vacation days - sick days - administration days - marketing days).
Example: 365 – 104 weekends – 8 holidays – 10 vacation days – 5 sick days – 24 administration days – 34 marketing days = 180 billable days
 - Daily labor rate (Annual salary including benefits divided by the number of billable days intended as worked in a year)
Example: Annual salary of \$65,000, times 1.5 for benefits equals \$72,000. Divided by 180 billable days per year = a daily labor rate of \$400.
 - Daily overhead rate (Annual business expenses – supplies, equipment, marketing, taxes, etc. projected for the year)
Example: \$25,200 per year in overhead divided by 180 billable days per year = \$140 daily overhead rate
 - Daily profit (Margin of profit desired from the business)
Example: For a 20% profit margin, add the daily labor rate and daily overhead rate and multiply by 0.20 to get the daily profit.
 - Consulting day rate (Daily labor rate + daily overhead rate + daily profit)
Example: Daily labor rate of \$400 + Daily overhead rate of \$140 + daily profit of \$108 = daily billing rate of \$648. This equates to an hourly rate of \$81.

All of these rates must take into consideration the level of competition and comparable pricing in the area. In addition, it is important to consider the payment terms extended to clients for fixed-bid or hourly work, and the potential for non-payment by some clients.

¹⁸ Consultant Journal. "Consultant Fee Rates/Consultant Fees." <http://www.consultantjournal.com/blog/setting-consulting-fee-rates>. (Accessed June 30, 2010).

¹⁹ Juillet, Christopher. *The Meter is Running: Setting Consulting Rates for Independence*. Tech Republic: <http://blogs.techrepublic.com.com/project-management/?p=183>. (Accessed June 30, 2010).

²⁰ Consultant Journal. "Consultant Fee Rates/Consultant Fees." <http://www.consultantjournal.com/blog/setting-consulting-fee-rates>. (Accessed June 30, 2010).