The past year has brought a lot of changes to the game industry, the job market, and the economy as a whole. The success of new and existing hardware last year helped pump an unprecedented $9.4 billion in total game-related sales into a sagging U.S. economy and has generated a lot of mainstream interest in game development careers.

While some outsiders have yet to come to grips with the fact that there’s more to making games than playing them all day, and some battle-worn industry veterans have absconded to higher-paying tech sectors (or any job with what resembles regular work hours), this survey represents the tens of thousands of U.S. professionals who make their living developing games.

This year’s survey was conducted by research firm Audience Insights. In March 2002, 1,178 Game Developers Conference attendees took our comprehensive annual survey, of which the salary survey is one module, using on-site tablet computers. Then, in April, we e-mailed invitations to all *Game Developer* magazine subscribers and Gamasutra.com members asking them to participate in the survey and received 5,256 responses.

The survey data presented here is based on a total of 2,524 responses that remained after we eliminated responses that provided no numerical compensation data and those whose compensation figures were less than $10,000 or greater than $300,000 per year. We also eliminated responses that lacked certain demographic and classification information.

The sample represented in the salary survey data can be projected to the game development industry as a whole with a margin of error of 1.93 percent at the 95 percent confidence level. That means we can say with 95 percent certainty that the aggregate statistics reported in this survey would stay consistent within the margin of error across the entire population.

While the industry job market has remained healthy overall, it hasn’t been immune to layoffs and other corporate casualties of an increasingly competitive marketplace. The past year’s unprecedented success was wrought in no small part by the dogged work and incalculable overtime on the part of thousands of game developers. Game developers are known to thrive on challenge, though, and they got it in spades in the form of new hardware, changing market demographics, and relentless jockeying for position from publishers and hardware vendors.

What’s the payoff for facing all these challenges? The overly simple answer appears on the following pages. But when a developer stands in a store and sees a game buyer longingly caress his or her creation, all that matters is the love of the game.
Programmers always seem to be in demand, and accordingly many find their jobs very demanding. The hours are long, the crunch modes interminable, the bug lists endless. Among the rank and file of programmers and senior programmers at most game companies you will likely find developers with a mastery of at least several of the industry’s most in-demand skills: AI, networking, tools development, 3D math, physics, and preferably the ability to invert matrices in one’s sleep.

With the growing focus on console game development, gameplay programming skills are rising in demand. Coding that may have been a virtual afterthought on a PC title now requires far more man-hours for fine-tuning the responsive kinds of gameplay favored by console game players. You can program in all the fluid dynamics simulations and volumetric fog you want in a scene pushing hundreds of thousands of polygons, but if someone holding the joypad isn’t having fun with the controls, your sales (and perhaps your royalties) will suffer.

Experience and reliability are other sought-after qualities, ones which pay off in higher salaries for seasoned programmers. For those who have stuck it out for several years and have a proven track record, compensation increases accordingly to reflect both the employee’s experience and the reduced investment risk on the part of the employer.

Programmers generally report to a lead programmer responsible for planning and scheduling programming tasks for a project. At companies with multiple projects, several leads may report into a technical director, who oversees programming productivity for the whole company and perhaps spearheads tools and technology development to be shared across teams. At single-project companies, these responsibilities often fall with those of a lead programmer upon a single individual.
Artists make up an increasingly significant chunk of game development talent, as every generation of technology brings with it more polygons to be modeled, more characters to be animated, and more faces to be plastered with detailed textures. For the purposes of our survey, we considered as artists those who described themselves as artists, modelers, animators, texture artists, concept artists, and graphic or interface designers. We grouped lead artists and lead animators under the single classification of lead artist, those who manage and schedule teams of artists. At multiple-project companies, several leads might report into an art director, who might be responsible for making technology decisions and perhaps coordinating a certain look and feel across a range of products.

As with the other disciplines featured in this survey, experience pays. Hiring rookie artists unfamiliar with the rigid technical boundaries of game production environments can be risky when output demands are high and headcount is not. Clearly, though, there are rewards to sticking it out for a few projects, as compensation increases to where the most experienced artists can command much higher salaries.

The pay disparity between programmers and artists in the game industry is not a well-kept secret, but supply and demand is ever at play in any market, including the job market. Turnover and layoffs can be more tumultuous for artists as well, with the ebb and flow of art needs between major projects. However, one bright spot in our survey shows that roughly the same percentage of artists as programmers are being offered compensation plans above their base salary, and artists are taking home slightly more above-base compensation on average than programmers, which can help offset their generally lower base salaries.
Current Hiring Trends

How healthy is the job market in the game industry?

Job seekers, employees, and industry observers have asked this question repeatedly over the last year. The answer is heartening: it’s surprisingly healthy compared to what many people believe. It seems the recent economic downturn has not affected the game industry as dramatically as we have seen in other industries, though hiring practices have shifted somewhat. The two most important factors influencing hiring practices in our industry have been the platform transitions of the last two years and the increasingly hit-driven nature of the industry. Both have forced companies to think seriously about managing their payroll and hiring costs and maximizing their return on their investment.

We spoke with hiring professionals at game studios across the country to understand the changes in hiring practices that they have observed. While all agree that there have been differences, most companies told us they have not made significant changes in their approach to hiring. As the industry continues to thrive, hiring for specialized talent and experience is still difficult.

What changes have occurred?

Half of the HR professionals we talked to report that their company has forecast fewer openings than in previous years. The other half has experienced no change at all.

In general, job descriptions have evolved from a wish list to a longer list of detailed requirements. For example, a job listing which would formerly have read “Playstation 2 experience preferred” now reads “Applicant must have shipped at least one Playstation 2 title.” This indicates not only increased selectivity on the part of the hiring authority but also the maturity of the platform in question. Also, as a result, entry-level applicants and recent graduates are capturing fewer of the available jobs.

How has the hiring package been affected?

While salaries still must remain competitive to secure good talent, some companies told us they no longer feel pressure to pay above market rate to secure the right candidate. Most said they have not made changes to their hiring bonus structure or other aspects of potential incentive packages. Some studios have reported using fewer signing bonuses.

International candidates who require visa sponsorship are having a more difficult time obtaining jobs in the U.S. Even when the economy was in full swing and “warm bodies with game experience” were at a premium, many companies in the industry did not want to consider visa sponsorship. There is even less inclination to consider sponsorship now. The extra costs in legal

S A L A R Y  S U R V E Y

Design salaries per years of experience

Design

Game design is the development discipline that perhaps holds the most cachet among lay folk, and not coincidentally it is both very competitive to break into and very hard to delineate in terms of required skills. Our survey considered designers to be those respondents who described themselves as game designers, level designers, lead designers, creative directors, and writers.

With so many people dreaming of breaking into a game design career, it’s no surprise that salaries are low relative to other disciplines. But since having a good idea for a game and actually making a good game are two very different things, those designers who have the most experience, six years or more, are rewarded with more generous compensation.

Above-base compensation is also lower and less common among game designers compared to other disciplines, again likely due to the competitive nature of the job and relative paucity of positions available.

Highest salary $300,000

No compensation other than salary

Average additional compensation $13,735

% receiving additional compensation 29%

8.9% female

$52,725 avg. salary

91.1% male

$47,735 avg. salary

71%

52% 2–5 yrs

34% 6+ yrs

14% <2 yrs

years experience in the industry

% receiving additional compensation

gender

No compensation other than salary

Average additional compensation $13,735

% receiving additional compensation 29%

8.9% female

$52,725 avg. salary

91.1% male

$47,735 avg. salary

71%
fees, relocation expenses, and time lost waiting for the candidate to arrive in the country are not easily borne by project teams with time-critical deadlines.

**What resources are being used for hiring?**

The turnaround in spending, triggered by the dot-com bomb and 9/11, has brought thrift back in vogue, thus hiring costs are being scrutinized. Although the popularity of online boards has continued to rise, the number of candidates received from such sources creates a screening process nightmare.

Many companies are cutting hiring costs by decreasing internal staff and increasing outsourcing. Other companies are doing the opposite, cutting costs by decreasing outsourcing and increasing the use of internal staff for hiring. In large companies, outsourcing is generally used for high-level or specialized openings such as director of product development or VP of sales. Smaller companies continue to rely on outsourcing for most of their hiring needs. When managed effectively, both outsourcing and greater reliance on an already developed internal hiring staff continue to be useful cost-cutting tools to companies of all sizes.

**What is the reality?**

California is no longer the center of the game industry. As the game business grows, companies are spreading across the country. International companies are increasing in number as well. Hiring is becoming more of a business initiative, being forecast over the fiscal year. For the first time in our many years of recruiting, we had multiple incoming job requisitions this past December. This seems to indicate that the industry is focused more on the bottom line and won’t stop thinking about their hiring needs due to year-end holidays.

One internal recruiter told us, “The feeling is that the market is flooded with qualified candidates, and therefore companies can be choosy. However, on the flip side, many candidates are not as desperate as companies would like to believe. Quality candidates will wait for the right opportunity at the right price.”

**ANDREA COURTIE** | Andrea has 12 years’ experience in recruiting. Prior to joining Mary-Margaret.com, Andrea worked in-house or on exclusive contracts with many companies including Electronic Arts, Disney Online, Microsoft, Sierra Online, GT Interactive, OpenTV, and Sun Microsystems.

**MARY MARGARET WALKER** | Mary Margaret is one of the leading recruiters in the game business, having co-founded Mary-Margaret.com after six years of game development with Origin Systems and 3DO.
Audio

The audio discipline includes those who describe themselves as audio engineers, sound designers, composers, and the ever-popular “audio guy.” With so many independent contractors plying their trade in the game audio business, this segment is perhaps subject to greater influence by the vagaries of the economy as a whole. Still, the most recent crop of game consoles has made sophisticated audio output a major selling point, and consumers seem responsive to the extra care developers are devoting to music and sound effects, a fact that should give designers and producers pause before simply farming out their game’s audio to the lowest bidder.

Every generation removed from bleeps and blips that we are makes life better for game audio professionals. As tools improve and more development studios bring audio in-house with full-time audio personnel, the next few years should see an abundance of new and better opportunities for game audio professionals.

Across all game industry

| Region | Avg. Salary  
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Audio salaries per years of experience

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Gender

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Gender

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<tr>
<td>6+</td>
<td>49%</td>
<td>$77,347</td>
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</table>

No compensation other than salary 69%

Average additional compensation $13,200

% receiving additional compensation 31%

Highest salary $120,000

Other Trends

For developers feeling older and wiser than they were a year ago, it’s not their imagination. This year 31 percent of survey respondents reported being in the game industry at least six years, compared with just 19 percent in our 2001 survey.

The western U.S. was both the best represented among our survey respondents and also the best paid. Clearly salaries rise with geographic competition where game development studios cluster, as can be seen with Texas far outpacing the rest of the southern states.

What can only charitably be called a gender imbalance still exists among game developers; this year’s survey produced 5.2 percent female respondents overall, a slight drop from the 6.0 percent reported last year. Women in the industry on average made 89 cents on the dollar compared to men, which exceeds the national average of 76 cents on the dollar as reported by the Bureau of Labor Statistics for 2000, the most recent year for which such data is available.