Part I

Post Production, Digital Effects, Animation:

A workforce and economic development strategy for Burbank and Glendale

By the Verdugo Workforce Investment Board

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PART I: Summary

Part I of this report provides an overview of the promise of the post production. digital effects and animation industries as a major growth area for the future in the Burbank-Glendale region. This summary examines the reasons for future job growth, the key workforce and economic development issues facing the industry, and the role that workforce development agencies and city economic development agencies can play in contributing to the local growth of these industries.

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Exactly what are post production, digital effects and animation, and what do they have in common?

Post production is the process of editing film, sound editing and mixing, and creating/adding visual effects once the filming process is complete. The process of film editing, as recently as a few decades ago, was still being performed by hand by cutting and splicing negatives. Now that process is now done exclusively by computer. Sound editing is also performed on the computer.

Digital effects, which is part of the post production process, involves creating computer generated images. In today's computerized world of entertainment, digital effects artists can blow up a building (on the computer), change the appearance of an actor, add a famous landmark to a scene, etc. Adding digital effects to motion pictures and television programs has become ubiquitous.

The advent of high-tech digital software programs has taken animation to a completely new level in the past few decades. In the past, everything was hand drawn in 2-D animation. With the popularity of 3-D animation, almost everything is done on the computer, much to the consternation of many "old-time" animation artists.

What do all of these creative areas of entertainment have in common? They have all been equally impacted by the advent of digital technology into the entertainment industry. In the mid-1990's one local studio executive said there were more industry technology advances due to the introduction of digital technologies in the past 5 years than the previous 50 years combined. This event has had obvious implications for issues such as worker skills, workforce and training needs, and job growth created from technology advancements.

The long-term promise of post-production, digital effects and animation

Entertainment is by-far the largest industry cluster in the Verdugo region, most notably in the City of Burbank. Recent state statistics show over 70,000 entertainment workers employed in the Verdugo region, however this figure is exaggerated to the upside due to the method of calculating jobs in this industry*. That said, the figure does give a general indication of the overwhelming size of the industry locally, which arguably has one of the largest—if not the largest-- concentrations of entertainment workers in the world.

One major segment of this industry prominent in the Verdugo region covers the digital area and includes fields such as digital editing, sound editing, digital special effects, animation, video games, music videos, and Internet entertainment (See Appendix I for common occupations). This field is a large segment of the entertainment industry as California is projected to have 45,100 technical jobs in the visual effects field by 2012, according to the state Employment Development Department. And 82.4% of those jobs currently reside in Los Angeles County, with 64% of the companies in L.A. County.

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as the region's long-term job growth engine.

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According to state data, there are likely between 200 to 300 digital-related companies in the Verdugo region and thousands of workers (See Appendix II for L.A. County occupation totals), though these totals are difficult to establish definitively because jobs cut across many industry areas and are generally not part of distinct industry categories. The total number of companies

**The state EDD counts any job that generates unemployment insurance from a company. Therefore, it's possible that some employees, such as extras, are counted multiple times in the statistics. However the biggest factor distorting employment counts is the inclusion of industry workers employed on projects outside of the region that are counted as Verdugo employees. Most industry firms utilize local payroll companies to employ their project workers. So, for example, Disney could launch a film project and shoot the firm entirely in Canada with a Canadian production crew, actors, writers, etc, but the employees would be credited to local employment because the project's official employer is a local payroll company. The WIB is working to develop a system to more accurately count local, full-time industry employment.*

could also be undercounted due to the method of recognizing companies. For example, many companies may not show any employees (Or, the company itself may not appear in the data) because they utilize payroll companies to actually employ the workers on a project-by-project basis. The employees appear in the data as payroll company employees as opposed to employees of a digital effects company, for example. Many industry-related workers also may not appear in data because they work as freelance workers who are not tied to a single company's employment but are self-employed. Many employees are also part-time or intermittent.

While the industry's current presence in the region is large, it is likely to grow significantly larger in the future. With the development of a major entertainment industrial park, the expansion of a major studio, and the further technological advancements that promise future employment expansion, these combined digital areas—post-production, digital effects and animation-- hold promise as the region's long-term job growth engine.

The region's key long-term job creation sector

The cornerstone of future local growth of this industry is the creation of the Disney Creative Campus in Glendale. Launched in 2000, the 113-acre site will bring almost 8,000 jobs to the region in the next 20 years. It will bring together Disney companies that specialize in the digital field, with the hope that this synergy will be a catalyst for further expansion and domination in creative technology fields like animation, digital effects, and Internet entertainment. The Campus will have dozens of buildings that are expected to house Disney and other entertainment-related computer and technology companies. As the development grows, the area surrounding the Campus is expected to attract other related businesses in a "clustering" effect that will likely spill over into surrounding cities such as Burbank, which already has a prominent post production and digital effects company base. In fact, Burbank may have one of the highest concentrations of such companies and workers in the world.

The recent merger between Disney and Pixar Entertainment prompted DreamWorks Animation, another Glendale company, to announce a recent $75 million expansion plan with a goal of adding 500 new digital animation jobs. The competition between these two giants in the animation field promises to be fierce in future years, to the benefit of the Verdugo region. In addition, Burbank has many physical sites that offer great potential for development, such as the former NBC site and significant entitlement space from Warner Brothers, as well as other sites.

The promise of future growth through technology advances

Over the past few years, the unions representing the industry's writers and actors have engaged the motion picture studios and networks in highly antagonistic contract negotiations, with the

Writers Guild of America holding a lengthy strike. The major point of contention in both negotiations: future payments to union members for entertainment shown on the Internet.

So far, based on the compensation earned by entertainment workers and amateurs on the Internet, the web has been more of a proving ground for "wannabe" producers, directors, writers, actors and cameramen. Due to the low rate of ad revenue compensation on the web, few top entertainment professionals have bothered to exploit the opportunities available on the Internet.

That's the situation now, but the future of entertainment on the Internet is why the unions are willing to engage in costly labor battles now. Web tracking firm comScore said Internet users viewed a record 14.3 billion videos in December 2008 alone. Teens and young adults—the next generation of entertainment consumers—flock to sites like YouTube and Hulu.com. Hulu.com is a joint venture of News Corp and NBC Universal. Recognizing the convergence of mediums such as the Internet, television, motion pictures, etc., Disney sought to unify its digital entertainment resources at the Disney Creative Campus in Glendale.

As the Internet grows as an entertainment vehicle, many jobs will be created in this field. The future industry will require workers who can easily move back and forth between many mediums, such as video games, the Internet, television, etc.

Technological advancements in other areas will also add job growth. Major improvements in video game technology, combined with the economic slowdown (More people are choosing the cheaper entertainment option of video games), has created greater demand for high-quality game products in recent years. The growth of cellular phone usage has also created more demand for quality digital visual content that can be utilized by cell phone users.

Ancillary benefits of a growing entertainment industry

Some studies indicate that entertainment has one of the highest multiplier effects of any industry. In other words, entertainment jobs and projects contribute to supporting other industry and non-entertainment jobs in the community. The standard industry multiplier measure is 400 jobs added for every $10 million in production expenditures, and direct dollar expenditures are multiplied by 3.3 to calculate the economic benefit to the local economy (CEIDR**, 2006). In the Burbank area in particular, many companies that are not directly participating in the production of films or television shows are directly supported by the industry, such as prop and costume shops, lighting rental companies, trucking companies, caterers, etc. Local studios and networks also tend to contract out heavily to local businesses for basic services and products, such as office supplies, printing services, legal services, etc. And, many of the dollars earned by local entertainment workers are recycled locally at restaurants, hotels, department stores, etc.

This is an industry that is intertwined with many industries throughout the region, and the overall local economy is dependent on the health and growth of this key sector.

***Center for Entertainment Industry Data and Research, 2006*

What role can workforce development and economic development play?

Workforce development issues

The U.S. annually loses an average of 47,000 jobs and $23 billion per year in revenue due to runaway production to other countries in the motion picture production category alone, according to the Center for Entertainment Industry Data and Research (2006) with a disproportionate impact in entertainment-rich Southern California. Runaway production has been a major problem for Southern California for at least two decades (As this report was being completed, the state legislature approved $100 million annually from 2009 through 2014 for tax credits for in-state film/TV production). This is a major issue for the Verdugo economy and the local workforce since the region's top job base is being slowly eroded. How can the region fight back? The post production and digital effects area is a prime piece of the local industry that offers a better chance for preservation and growth. Jobs tend to be harder to move than production jobs, though technology advances are starting to close that gap. In the past, a significant investment in hardware/software was required to compete for higher quality work, and many physical post production and effects houses are based locally. Many major studios also use their own proprietary software, which makes it difficult to contract such services. These factors make this segment of the industry an inviting area for local development and preservation.

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The greatest factor keeping jobs local, however, is the labor pool—workers mostly live in Southern California. For producers that are interested in employing the industry's top editors, digital effects artists, or animators, L.A. County still has the top digital creative talent in the entertainment industry. Though many states and many countries are building their own post production and digital effects studios to take work from L.A., they still aren't close to the talent level in Southern California.

That's one of the key roles available to the Verdugo WIB: Help keep the local workforce at the pinnacle of the industry talent pool. By keeping the talent level at the top of the industry, the WIB will help keep and create more jobs locally.

However, there are a number of barriers to achieving that task. As with most workers in the industry, the majority of workers in this field are freelance workers who work on a project-by-project basis. Consequently, they do not enjoy the benefit of government subsidized training (With the exception of a major $3 million Verdugo WIB training program in the early 2000's. The WIB subsidized upgrade training for 1,500 high-level industry workers through a grant from the federal Department of Labor. The project had a major impact in improving the overall skill level of a large segment of the local industry). And, more importantly, many of the workers do not have the benefit of company-sponsored upgrade training because many are not tied to a single employer. As one company executive stated, he does not want to invest in training a worker who could be employed at a competitor tomorrow.

Consequently, workers must figure out how to pay for their own upgrade training or how to do their own self-training. Luckily for local workers, there is an existing network of at least a half-dozen high-quality private training schools that offer the latest in occupational upgrade training. But the training can run from a few thousand dollars to tens of thousands of dollars that must be paid out-of-pocket by workers if they want to remain competitive.

Further complicating the task is the pace of technology advances in the industry. As mentioned earlier, in the mid-1990's one local studio executive said there were more technology advances in the industry due to digital technologies in the past 5 years than the previous 50 years combined. Since that statement, the pace of technology advancement has not diminished as most workers feel the need to upgrade their skills every few years to keep up with new industry advances.

How can the WIB help in these workforce development areas?

Workforce recommendations

1) The WIB can team with local public education institutions to create a lower cost training option for workers. The WIB can help facilitate a closer interaction between the public schools and the workers and companies to identify current and future training needs and identify future technology advances. Creation of an industry-led advisory group could help schools closely monitor industry training needs and technology advances.
2) The WIB can take a leadership role in securing grant funding to help subsidize worker training costs.
3) The WIB can also utilize the advisory council to take a regional leadership role in both the workforce development area and the economic development area for the region.

Economic development issues

Economic development agencies, together with the WIB, can play a key role in the future development and expansion of this industry in the region. As mentioned previously, the confluence of economic and technological factors make the region fertile territory for the further development of this industry.

How can economic development agencies, together with the WIB, help in these economic development areas?

Economic development recommendations

1) The region can work jointly to develop entrepreneurial training opportunities for current workers in the industry. As freelance workers, many of the industry workers have basic business skills that could translate into the creation of new companies. In fact, the WIB launched a successful federal demonstration project in the early 2000's that showed that freelance entertainment workers were adept at starting new companies. A regional incubator project might enhance the larger scale development of new industry companies and create new jobs. The WIB and economic development agencies can play a key role in assisting potential entrepreneurs. Burbank's Team Business already supplies regional resources and services, such as access to capital, business plan development, business consulting services, entrepreneurial training, etc. Other business assistance efforts also could be launched shortly.
2) The further development of the Disney Creative Campus will entice related businesses not only locally but from throughout the state and country to the region. The local region may want to target such businesses with marketing materials, touting the advantages of close proximity to key customers and similar businesses.
3) There are many related businesses that could see advantages to moving some of their operation to the region. For example, video game developer (many are currently located in West Los Angeles) and computer-related companies could see significant opportunities by locating near a major industry cluster. IT and computer-related companies have only a small presence in the Verdugo region but are considered one of the top future growth industries in the state.
4) Having a trained, skilled workforce available that meets the needs of the industry will be another major attraction to existing and prospective companies. Local school districts, community colleges and universities could play a key role in that process, including the new digital training program at Glendale High School.

PART II outline

The WIB is currently in the process of researching and writing Part II of this report. Release of Part II is expected around mid-2009.

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Basic industry data gathering and evaluation

- Development of a local directory of companies
    - Key strengths and weaknesses within the digital company base
    - Fertile industry areas for company recruitment and development
- Development of a training vendor directory
    - Strengths and weaknesses of the training vendor base
    - Gaps between regional training offerings and industry needs

Business and worker needs

- Surveying industry businesses: What do businesses need in both workforce development and economic development?
- Surveying industry workers: What areas do workers want additional training resources? Other needs?

Resource development

- Strategies for developing an industry advisory group for workforce development and economic development
- Identify business assistance resources to facilitate development of a business incubator and/or entrepreneurial training
- Identify potential grant funding for training

Future industry projections

- Evaluating the future direction of post production and digital effects in the region.
- Identify resources and services that can attract additional businesses into the region.
- New technologies impacting the industry and the resulting training needs. What future technologies are on the horizon? Are training organizations prepared?

Partnerships

- Identification of key regional stakeholders in business, education, economic development, and training.
- Development of larger regional partnerships, i.e. the L.A. Economic Development Corporation and the Economic Alliance of the San Fernando Valley.
- Obtain the backing of local politicians to support project goals and assist in the development of future funding.

Appendix I

Occupations in the Post-Production Sector
Post-production includes 39 occupations in the following 7 occupational areas:
1. Lab
2. Film Editing
3. Post Supervisors
4. Sound Editing
5. Music Editing
6. Re-recording Mixers
7. Title Design

Occupations in the Visual Effects and Animation Sector
There are 29 occupations within the following 9 occupational areas in visual effects and animation:
1. Visual Effects Supervisors
2. Computer Artist – 2D
3. Computer Artists – 3D
4. Computer Artist – Technical
5. Storyboard
6. Layout, Painting
7. Traditional Animation
8. Characters/Effects
9. Traditional Animation – Cleanup

(Research by the Entertainment Economy Institute, 2005)

Appendix II

Occupational titles in L.A. County that may be part of the digital entertainment workforce (Does not include self-employed workers, which constitute the majority of workers in the digital entertainment field)

Film and video editors	5,150
Art directors	3,500
Craft artist	320
Multimedia artists/animators	6,080
Graphic designers	10,350
Audio/video technicians	2,570
Broadcast technicians	1,970
Sound engineering technicians	3,820
Camera operators, TV, film	3,270

(State EDD, 2007 data)