

Note: This is a draft. Comments and suggestions are greatly appreciated.

**Building Community-Based Careers:
Labor Market Intermediaries and Flexible Employment in Silicon Valley**

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Abstract: This paper analyzes the increasingly important role of labor market intermediaries (LMIs) in Silicon Valley. Private, public and membership-based LMIs, all of which engage in job brokering or matching activities, have grown significantly in response to rising instability in labor markets. Some LMIs go beyond job matching, and also play a significant role in rationalizing worker training systems, improving firms' employment practices, building multi-firm career ladders, and/or ensuring a skill enhancement path across businesses. This paper documents the diversity and recent growth of these institutions. It then presents two case studies, of a union-led initiative, and a professional association, in order to highlight the ability of membership-based LMIs to enhance economic opportunity for their membership. I argue that they do so by: first, building and improving their members' access to occupationally-based social networks, as a nexus for on-going learning and employability in the labor market; and second, mobilizing collectively to upgrade employment conditions in their occupation more generally. This model of building occupationally-defined 'community-based careers' provides useful lessons for labor organizing strategies and for improving workforce development policy.

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Building Community-Based Careers: Labor Market Intermediaries and Flexible Employment in Silicon Valley²

Over the last three decades, American workers have witnessed significant changes in their work and employment conditions. Employers have responded to increasing global competition and rapidly changing technologies and markets by pursuing a range of flexible production and employment practices. As a result, fewer and fewer workers are employed in the ‘permanent’ full-time jobs in stable businesses that characterized the dominant employment model in the post-World War II era. More workers are employed in a range of temporary, contract and out-sourced employment relations, and workers are more frequently moving from firm to firm, or even changing lines of work, rather than staying in a single long-term job. In essence, labor markets are becoming more unstable and volatile for a growing sector of the American workforce.

One aspect of these shifting labor market conditions has been a rapid growth of labor market intermediaries (LMIs). Such labor market intermediaries engage in job brokering or matching activities, helping individual employers and job seekers find a match of appropriate skills, attitudes, interests, and needs. Intermediaries come in a variety of forms. Temporary agencies, and more recently a range of web-based employment linking services, are the most prominent and have received the most attention. However, a range of public, community, and membership-based organizations are also playing increasingly important intermediary roles in the labor market. In contrast to temporary agencies, which are most often (though not exclusively) linked with *deteriorating* employment opportunities, many non-profit intermediaries aim to *improve* labor market outcomes for workers. They may attempt to do this through a variety of strategies, including accessing better employment opportunities, improving worker training systems, improving firms’ employment practices, building multi-firm career ladders, and/or ensuring a skill enhancement path across businesses.

Given the volatility of the “new economy,” and thus the increasing prevalence of labor market intermediaries, understanding the potential of LMIs for improving labor market outcomes is important. This paper examines the role of membership-based labor market intermediaries in the region that best exemplifies both the opportunities and the problems that workers face in our ‘new economy’: the Silicon Valley. It is part of a broader study analyzing the growing importance of intermediaries of various types in the structure and dynamics of the regional labor market. In this paper, I briefly summarize the findings from the broader study, arguing that LMIs have become an integral component of the way the regional economy functions. These LMIs contribute significantly to the vibrancy of the regional economy, though frequently play a role in deteriorating employment conditions for a large sector of the labor force. I then turn in more detail to the role of membership-based LMIs in the region. Using two case studies—a professional association called Silicon Valley Webgrrls, and a union-led initiative called Working Partnerships—I argue that membership-based LMIs can be highly effective in improving labor market outcomes for disadvantaged workers. They do so by pursuing two basic strategies in addition to their employment matching function: 1) building and improving their members’ access to occupationally-based social networks, as a nexus for on-going learning and employability in the labor market; and 2) mobilizing collectively to improve employment practices and upgrade employment conditions for people in their occupation as a whole. In essence, these intermediaries help their membership create ‘community-based careers’, in which their occupation helps define a base of stability and opportunity in a highly volatile labor market. This suggests some important lessons

for workforce development policy, which I explore briefly in the final section of the paper.

I. FLEXIBLE LABOR MARKETS

Researchers have increasingly documented a marked shift in the nature of work and employment in this country (see (Cappelli 1997) for a useful summary). Some of the most important changes include the increased *externalization* of employment, including outsourcing, subcontracting, and greater use of contingent workers, and the active restructuring of work *within* firms, including flattened job hierarchies and more flexible job requirements. These trends have reduced traditional opportunities for internal advancement and brought rising job instability, both of which have likely contributed to rising inequality in the U.S.

These new trends in labor markets—in which career paths are less clear and workers must accept greater flexibility and more insecurity—itsself reflects broader economic trends. The global integration of markets has led to intensified competition and more volatile product markets. Improvements in communication and information technologies have allowed for more fluid boundaries between businesses, generating complex networks of producers, suppliers, financiers, and marketing firm in which ‘peripheral’ business functions can be externalized to other agents operating in the social ecology of the ‘new economy’(Castells 1996; Saxenian 1994; Storper 1997). While the specific forces driving these changes are not completely understood, few would contest that work and employment is more unpredictable and insecure in the 1990s than it was for most of the post World War II period.

It is important to note that there are two inter-related but distinct processes going on here: Changes in the nature of *work*, and changes in the nature of *employment*. ‘Work’ refers to the nature of the tasks performed, along with the skills used and the types of interactions required to carry out those tasks. By contrast, ‘employment’ refers to the institutional and contractual arrangement between employers and employees. For much (though not all) of the labor force, work is now less routinized and demands higher levels of employee commitment, engagement and on-going learning than in the past (Appelbaum and Batt 1994; Hull 1997; Zuboff 1988). Rapidly changing technologies and unpredictable product markets contribute to the rapid change and unpredictability of today’s world of work. Similarly, the rapid rise in ‘non-standard’ employment, combined with the increase in turnover and rise of complex sub-contracting relations, means that an increasing number of workers have tenuous, indirect, or temporary ties with their employer (Carre et al. 2000). Changes in work and employment both contribute to the uncertainty and unpredictability in labor markets, where the term ‘labor market’ is used to refer more generally both to work and employment.

Labor Market Intermediaries

In the context of these new production networks and heightened economic volatility, labor market intermediaries (LMIs) have become increasingly important. LMIs—those institutions which act as a third party to individual employers and job seekers—are not a new phenomenon. Public sector employment services for unemployed workers, union hiring halls in the building trades, and for-profit temporary agencies filling short-term staffing needs have existed for a long time. However, in recent years, these institutions have greatly expanded in the size and diversity of their activities (Kazis 1998). The most dramatic example is the rise in employment in the temporary help industry (Belous 1989; Benner 1996).³ The rise of new web-based job-matching sites, along with the proliferation of various recruiting and placement services, attests to the variety of market niches for intermedi-

ary activity. Outside the for-profit sector, federal and state employment services are also expanding their role and activities, improving their labor market information and referrals systems through the development of one-stop career centers (Economy 1997; Kogan et al. 1997). Labor unions have likewise been experimenting with a wide range of new intermediary initiatives (Benner 1996; Carre and Joshi 1997) Community-based organizations and community development corporations have increasingly focused on job brokering and workforce development partnerships (Harrison and Weiss 1998). Community colleges have played a growing role in partnering with employers, providing customized training for firms, and even conducting on-site training programs for incumbent workers (Grubb 1997).

It is important to note again that this intermediary activity is not occurring simply in the area of employment. It is also occurring in the arena of work, in a response to rapidly changing work requirements. As skills have arguably become more generalized and less firm specific, employers and employees have increasingly turned to intermediaries (rather than to internal firm-based training or the formal education system) to help respond to rapidly changing work requirements.

To understand the expansion and likely continued importance of LMIs, we should recognize two basic functions such organizations can play in labor markets. The first arises from the imperfect information and information asymmetry that is ubiquitous in labor markets. By brokering jobs, intermediaries serve the interests of both employers and employees, both of whom are generally hampered by incomplete information on job availability or worker quality. With increasingly complex work requirements in the context of technological change, and increasingly frequent job/employee search, the amount of information needed for matching workers to jobs has been ratcheted up and LMIs have often stepped neatly into the resulting market niche.

The second function of intermediaries stems from business desires to shift economic risk and reduce fixed labor costs, including training costs. Here, both cyclical and structural factors play a role. On the one hand, most firms experience cyclical fluctuations in demand (depending on industry) and may seek to delay hiring permanent employees till late in the cycle; by the same token, at the peak of the cycle, firms may wish to both externalize screening functions and reduce commitments as they dip deeper into the labor pool. On the structural side, a secular increase in the volatility experienced by firms (stemming in part from the need to flexibly respond to technological change as well as rapidly changing consumer demands⁴) has led many businesses to attempt to reduce their own internal labor force to the size necessary for 'core' functions; at the same time, the higher informational requirements of these 'peripheral' (once-core) jobs have led some intermediaries to expand their mission to include more extensive pre- and post-placement training.

With economic volatility on the rise, intermediaries will likely become an important fixture of many regional labor markets and thus play a key role in shaping workers' life chances, independent of the state of the business cycle. While some workers can also gain from this cost-driven calculus – for example, second earners in two-parent families searching for more 'flexible' labor market opportunities – the overall picture is one of shifting the burden of uncertainty from employers to employees, with declining wages and worse career opportunities.

It is important to emphasize that labor market intermediaries play a critical role at the level of regional labor markets. In spite of globalization, local labor markets remain distinct and strongly differentiated.⁵ The structure of local industry clusters, along with the social and educational characteristics of the workforce, differ significantly from region to region, and local production relations, social networks, and political institutions play a key role in shaping economic trajectories of individual workers and firms (Peck 1996; Storper and Walker 1989).

The intra-metropolitan location and distribution of employment differs significantly from region to region, and shapes patterns of economic opportunity (Massey and Shibuya 1995; Pastor et al. 2000; Wilson 1996). In short, regions are an important context for the analysis of labor market behavior and outcomes for workers, especially for those disadvantaged workers who might be less mobile. Because of this regional nature of labor markets, even the offices of national temporary agencies are only as effective as their knowledge of the local labor market. Indeed, the very nature of the labor force – in which day-to-day mobility is relatively low – requires intermediaries to have strong local relations, both with the local labor force and with local employers.

Career Outcomes, Social Networks and LMIs in Flexible Labor Markets

For workers, given the rapid changes in current work and employment conditions, outcomes in flexible labor markets must be assessed not in terms of current jobs and wages, but instead in terms of career-paths and earnings over time (Arthur 1989). Successful careers are shaped by the ways in which work and employment opportunities reflect skills and experience gained over time or made irrelevant, risks and opportunities encountered, and the nature of relationships built, both within and between firms, and that cut across work and non-work activities (Arthur 1996). For an increasing number of workers, successful careers are built less on the basis of long-term ties with a single employer, and more on the basis of an industry or occupation, as employees increasingly move between firms, though often within a single regional labor market. For disadvantaged workers in the labor market, the challenge frequently lies in gaining access to employment in industry/occupational clusters where opportunity for advancement is greater than in the more accessible but dead-end jobs in low-wage and unstable occupations.

In pursuing employment and career opportunities, workers choose to use formal intermediaries in part due to the inherent information problems in job search, particularly with regard to both discovering available employment and signaling to employers one's skills and reliability. Yet many workers solve this dual problem through the use of social networks (Fernandez and Weinberg 1997; Granovetter 1995). Unfortunately, many workers, particularly those at the bottom end of the labor market, lack not only skills, but also the 'high-quality' social networks that might lead to better employment opportunities. Formal intermediaries in this case may become a 'substitute' job-search mechanism. In many cases, the formal intermediaries that lower-income workers have access to, including many temporary agencies, do little to improve skill levels or build improved social networks, and thus do little to improve long-term employment outcomes. Nonetheless, lower-income workers or job seekers, particularly those living in conditions of concentrated poverty with geographically constrained and economically limited social ties, could theoretically benefit by using certain intermediaries that can help them 'bridge' across those social boundaries (Harrison and Weiss 1998; Johnson, Bienenstock and Farrell 1999; Pastor 1996). Labor market intermediaries in this case become essentially a substitute for social networks in the job search process.

The relationship between intermediaries and social networks is not limited to job search activities, nor to low-income workers. Recent research argues persuasively for the importance of social networks in building skills and increasing workers ability to learn in the long term. In occupationally-based social networks, workers learn through sharing experiences, knowledge and shared identities (Lave and Wenger 1991; Wenger 1998). Thus, social networks are important not only for finding employment, but also for developing skills and learning over

time, advancing and improving earnings across firms, coping with increasing lay-offs and job loss, and effectively dealing with a range of other issues that shape long-term employment outcomes (Herzenberg 1998; Hull 1997; Wial 1991). LMIs can play an important role in helping build these high-quality social networks for disadvantaged workers, helping integrate them into the ‘communities of practice’ that seem increasingly essential for life-long learning. In this context, intermediaries may form an important *infrastructure* for the development of high-quality social networks.

The relationship between intermediaries and outcomes for workers in the labor market is not limited, however, to social networks and employment matching activities. Intermediaries may also play a role in shaping power relations in the labor market. Firms and individuals make decisions around work and employment in response to a complex set of forces, not simply responding to price signals from the market. Labor market intermediaries clearly help shape the sets of choices both firms and individuals have available. Over the last twenty to thirty years, there has been a substantial shift in power from employees to firms, which has helped contribute to growing wage inequality and increasing economic insecurity for large sectors of the workforce (Osterman 1999). Some intermediaries may help contribute to this shift in power, shielding employers from responsibility for workers’ livelihoods while lowering overall wages. However, it is clear that some intermediaries can increase workers power in the labor market. In essence, this involves facilitating options for employers to make human resource choices that reflect higher wages, better employment conditions, and a greater investment in their workforce, while constraining options they may have for simply cutting costs and lowering wages. In Joel Roger’s terminology, intermediaries may help ‘pave the high-road and cut off the low-road’.

The role of intermediaries in shaping power relations is especially clear in contexts where intermediaries have developed as joint initiatives between employers and unions⁶. In these cases, a set of collective agreements between workers and employers (and sometimes other organizations such as community colleges or vocational training programs) aims to help retain good employment, upgrade other jobs, and provide improved access for disadvantaged workers. Even in the absence of such formal agreements, however, membership-based intermediaries may also build greater power for workers through less direct means. In a manner analogous to the ways that guilds and professional associations have been able to raise the employment conditions for their members, some intermediaries may also be able to improve wages and working conditions in an occupation overall by coordinating employees’ demands in their employment conditions, and constraining choices employers have for pursuing alternate employment arrangements.

Thus, in evaluating the relations between labor market intermediaries and labor market outcomes for workers, it is important to examine more than simply their employment brokering functions and their efforts to improve the skills of their constituencies. In addition, it is important to analyze their activities in two additional areas: 1) the extent to which they help provide access to and provide support for building dense occupationally-based social networks between workers; and 2) the extent to which they help increase the power workers have in the labor market and in their negotiations with specific employers. The importance of these factors will hopefully become clearer in the case studies of membership-based LMIs examined below. First, however, I will present an overview of intermediaries in the Silicon Valley labor market.

II. SILICON VALLEY—LABOR MARKETS AND INTERMEDIARIES

Silicon Valley is an important context for examining new trends in flexible labor markets and the rise of

labor market intermediaries. Silicon Valley is a trendsetter in labor market practices for at least two distinct reasons. First the newness of Silicon Valley’s industrial structure makes especially visible new patterns of work and employment that are associated with the rise of information technology industries. Secondly, Silicon Valley is a global center of innovation in these information technology industries, and new products and process innovations are adopted in the region rapidly, allowing firms to develop innovative management and human resource practices. These practices then often diffuse into other regions and other industries, as other firms make use of new technological developments in their own restructuring efforts. This is not to suggest that trends in work and employment in Silicon Valley are inevitably replicated in other regions—they are not—but trends and forces that may exist through the economy may be deeper and more exaggerated in Silicon Valley than elsewhere, providing important lessons for the study of labor markets in other regions.

There are three growing trends that characterize Silicon Valley’s labor markets in the 1990s, all reflective of the increasing volatility and uncertainty in the regional labor market:

1. First, there is a rapid growth in various forms of non-standard⁷ employment, including temporary, independent contracting, and out-sourcing employment. Between 1984 and 1998, employment in temporary agencies grew by 174% compared with a growth in total employment of 20%. Employment in temporary agencies grew from 1.6% of the workforce to 3.5% of the workforce, a rate that is two to three times the national average. At least 7.5% of the region’s workforce is self-employed, up from 5.9% in 1980. This does not include people who were classified as wage/salary workers but who are the sole employees of their own incorporated firms (Bregger 1996). Adding the latter category would most likely increase the number of self-employed substantially, as indicated by the fact that in the four largest cities in the region, the number of single employee business licenses increased 44% between 1989 and 1996, from 19,600 to 28,400.

The trend in out-sourcing employment is perhaps the most developed. By the mid-1980s, most high-tech firms had already outsourced most of their peripheral operations, such as building services and landscaping operations. In the 1990s, there was a further rapid expansion toward outsourcing a more diverse array of functions, including everything from payroll and human resource administration to manufacturing. The contract manufacturing services industry, for example, is one of the most rapidly growing segments of the high-tech sector, as original equipment ‘manufacturers’ like Hewlett-Packard, Cisco Systems and Sun Microsystems, increasingly outsource their manufacturing functions to companies like Solectron and Flextronics (Sturgeon 1997). Thus, for a typical PC company expenditures for components, software, and services purchased from outside have increased from less than 60 percent of total production costs in the mid-1980’s to more than 80 percent today (Ernst 1997). Employment in many of these out-sourcing industries is highly insecure. (Chun 1998)

Including all categories of nonstandard employment, between 254,080 and 389,770 people⁸ in Santa Clara County in 1997—as much as 42 percent of the labor force—were in some form of nonstandard employment. Between 1984 and 1997, up to 80 percent of net new jobs in the county were in nonstandard employment (see Table 1).

Table 1: Growth of the Nonstandard Workforce in Santa Clara County, 1984-1997

| | Workers | | Percent | No. |
|-------------------|---------|---------|---------|----------|
| | 1984 | 1997 | Change | Increase |
| Temporary Workers | 12,340 | 33,230 | 159% | 20,890 |
| Part-time workers | 136,200 | 164,240 | 21% | 28,040 |

| | | | | |
|--|---------|---------|------|---------|
| Business services | 48,500 | 122,400 | 152% | 73,900 |
| Self-Employed | 45,700 | 69,900 | 53% | 24,200 |
| Upper Estimate of size of Contingent workforce | 242,700 | 389,770 | 51% | 147,070 |
| Lower Estimate of size of contingent workforce | 189,300 | 254,080 | 34% | 64,780 |
| Total civilian Employment | 761,200 | 933,200 | 23% | 172,000 |

Sources: Analysis of EDD Data. See Note⁹

2. Second, there is a high-level of turnover and mobility, including for employees classified as having full-time, ‘permanent’ employment. Turnover rates in the range of 15-25 percent annually are not uncommon in large, stable high-tech firms, and the rates are much higher in the region’s many small startup companies (Carnoy and Castells 1997; Gregory 1984; Saxenian 1996) While there are no accurate turnover data at the local level, we know that almost half of California’s workers have been with their current employer for only two years or less, with the overall median job tenure no more than 3 years. Only 21% of employed adults in California had been with their current employer 10 years or more in 1998, compared with 35.4% for the country as a whole (California Work and Health Survey: <http://medicine.ucsf.edu/programs/cwhs/>).
3. Third, rapidly changing technology and market conditions is leading to high levels of skill obsolescence. Human resource managers describe skill ‘half lives’ of 18 months for skilled positions. Even employees who stay with the same employer for long periods of time face pressure and insecurity associated with rapidly changing requirements and pressures from external labor markets. In the words of Michael Curran, director of the NOVA Private Industry Council, an award-winning training center and resource in the valley, “There is an assumption around employment training programs that labor market information is available and accurate. In fact those assumptions are probably not at all true. The nature of industry in the Valley is constantly changing, and employers just can’t tell you what skills they’re going to need two years from now...In the past, the skills that employees had lasted longer, maybe 8-10 years. Now a current skill set might be valuable for only 18 months.” (Interview, June 1999)

Intermediaries—Public, Private and Membership-Based

In this context of rapid change, labor market intermediaries have flourished. The most prominent are the large temporary agencies, such as Manpower and Adecco. These temporary agencies, however, are just the tip of the iceberg of a diverse range of private-sector placement, recruiting, and employment brokering firms that have become a critical component of the region’s labor markets. In addition to the private-sector intermediaries, there is a wide range of public sector, and membership based intermediaries that have flourished in the area as well.

Private Sector Intermediaries

Private sector intermediaries in Silicon Valley have exploded in recent years, both in the number of people who are placed through them, and in the diversity and variety of their organizational forms. The most commonly known are the large temporary agencies, such as Adecco, Manpower, and Kelly Services (see Table 2). Though temporary agencies originally focused on clerical and light-industrial work, in the past 20 years temporary firms have increasingly moved into technical and managerial fields as well.

These large temporary agencies have also increasingly entered into long-term contracts with prominent

corporations in the area, providing on-site management and supervisory services as well as recruitment. These major temp agencies then enter into complex sub-contracting with a variety of smaller temporary agencies and recruitment firms to fill a wide range of positions, essentially taking over the human resource sourcing of major high-tech firms¹⁰.

Table 2: Ten Largest Temporary Agencies in Silicon Valley

(Ranked by average number of temporary employees assigned to jobs per week in Silicon Valley)

| Name in valley Number of recruiters in valley Offices in valley | Average number of temporary employees assigned to jobs per week | Total number of 1997 temporary placements |
|--|---|---|
| Manpower Staffing Services | 6,900 | 39,100 |
| Adecco Employment Services | 2,800 | 18,750 |
| Barrett Business Services | 2,400 | 7,702 |
| American Technical | 1,500 | 4,793 |
| Accustaff Inc. | 1,350 | 5,525 |
| Crossroads Staffing Services | 1,200 | 11,250 |
| Nelson Staffing Solutions | 1,085 | 2,804 |
| Advanced Technical Resources | 800 | 2,090 |
| Olsten Staffing Services | 750 | N/A |
| Spectrum Personnel | 550 | 5,000 |

Source: San Jose Business Journal 1999 Book of Lists

In addition to the large temporary agencies which dominate the placement of employees in the general staffing market, there has also been a wide proliferation of more specialized technical recruiting agencies operating in skilled information technology occupations. One directory of recruiting agencies listed more than 850 high-tech recruiters in the greater Bay Area¹¹, and industry executives complain of growing levels of competition in the 1990s in particular.

One of the most dramatic developments in this arena is the expansion in on-line job boards that has accompanied the growth of the Internet since 1994-95 (Crispin and Mehler 1999). Business Week estimated in May 1999 that there were more than 5,000 on-line job search sites, not counting employers' own web sites (Armstrong 1999). Some, like mosaic.com or monster.com are wide-ranging general sites, while others specialize in particular occupations, industries or skill sectors. The Electronic Recruiting Index (www.interbiznet.com) estimates that there were more than 9 million jobs posted on job boards in 1998, and they estimate that revenue from electronic recruiting was more than \$4 billion in 1998, and is expected to top \$10 billion in 2000. Sites that focus on information technology professions are significant among these specialized sites, and now play a conspicuous role in the Silicon Valley labor market (see Table 3).

Table 3: Prominent On-line Job Search Sites Used by Silicon Valley IT Professionals

| | | |
|---------------------------|--------------------------------------|---------------------------------|
| Ba.jobs.offered | Contract jobs (what it says) | Listfoundation.org (multimedia) |
| Bayarea.techies.com | Dice.com | Net.temps |
| Bayareacareers | Fatjobs (specifically for start-ups) | Sanjosejobs.com |
| Bridgepath | Hotjobs | Sdforum.org (tech. specialties) |
| Bridgesonline (for women) | Inforworks USA | Select jobs |
| Career mosaic | Interbiznet.com/top100/ | Sidewalk.com |
| Career path | Javajobs (software development) | Silicon valley jobs |
| Careerbuilder | Job trak | Stc.org (tech. writing) |

Careercity
Careermagic

Jobengine
Jobs.com
Jobs4women.com

Techies.com
VJF.com

Source: SV Webgrrrlsebgrrls.com, and www.careercompany.com

One of the most used sites is Dice.com, which began in 1989 as a bulletin board service (BBS). Since starting its web page in 1994, their revenues have doubled every year, as have the total number of jobs listed and visitors to the sites. In September 1999 they had more than 130,000 IT jobs listed on their site, with about 25% of them based in Northern California. They receive more than 240,000 unique visits per week to their web site, a number that had nearly tripled every year for the previous three years.

One of the more intriguing developments in the private sector intermediary market is the emergence of online auctions for personnel. The process began on ebay.com in 1999, when 16 employees of a Silicon Valley ISP announced they were willing to leave as a group to the highest bidder, with a total minimum bid of \$3,140,000. Monster.com developed their own auction service shortly thereafter, where independent contractors and freelancers put their skills up for auction to prospective employers, and within a month 35,000 customers had filled out profiles. The web site bid4geeks.com specializes in team auctions. While the level of interest among employers has remained low compared to the number of customers—no doubt in part due to concerns about a shift in power in the employment relationship—monster.com founder is confident of the business model, arguing “where the job seekers go, the employers will follow”. (Eisenberg 1999)

Elsewhere (Benner, forthcoming), I more fully analyze the character of these private sector intermediaries in the Silicon Valley labor market. Here my purpose is simply to suggest that they have become integral components of the way the regional labor market operates, and are an important component of the ‘open labor markets’ that have contributed to the region’s economic success (Castells 1994; Saxenian 1994; Saxenian 1996).

Public Sector Intermediaries

In general, public sector intermediaries have not been widely regarded and have at best a mixed record of performance (Jacobson 1995). This was especially true in the old labor market, where the need for intermediaries was narrow and limited to lower tiers of the labor market. Since most jobs were found through personal contacts, and rates of job changing and mobility were relatively modest, there was little need for intermediaries at all (Osterman 1999). With declining internal labor markets, greater levels of mobility and job changing, and also a change in the nature of skills from more firm-specific to more general skills, formal intermediaries have begun to play a more important role.

In Silicon Valley, public sector intermediaries appear to have a significant level of success. The NOVA Private Industry Council, for example, is an award-winning employment training and placement program based in Sunnyvale, with a wide range of services for job seekers of all ages and employers. NOVA has met or exceeded all State-mandated performance goals since its founding in 1983, including achieving a 73% job placement rate for dislocated workers receiving retraining during the recession years following 1991. They received the President’s Award for the Nation’s Outstanding Training Program in 1992. Their [youth@work](#) program was honored by the Smithsonian Institution in 1997 as a successful and innovative use of information technology. They received a

National Award for Performance Excellence from the Enterprise, a quality initiative of the U.S. Department of Labor in 1997.

NOVA attributes their success as a public sector intermediary in part to the nature of industry in the area, which they argues “means being prepared to deal with constant change [as] companies ramp up or downsize almost daily [and] new technologies pop up, seemingly overnight, and skills become obsolete. Jobs open and close at a rapid pace as companies shut down one division to concentrate on another.” This volatility in employment means that both employers and employees are in greater need of intermediary services, and there are greater opportunities for intermediaries to be successful. Part of NOVA’s success is also driven by its explicit approach to networking, not trying to solve the problems of dislocated workers entirely themselves, but serving as a resource to network between different service providers and their constituencies. They were one of the early PIC’s to pioneer the one-stop career shop initiatives, and have grown in the process. Since the mid-1980s, NOVA’s budget has grown by an average of 25% per year, growing from less than \$2 million per year to over \$14 million in 1998. More than 75% of their services are contracted out to other agencies, including a range of community-based organizations in the area.

The community college and UC extension system have also played a key role as intermediaries in the Valley. Here, the role is less explicitly one of job linking, but more of building the skills for adult workers to respond to rapidly changing work requirements. The Adult Extension program of UC Santa Cruz is probably the most prominent success story in this area. In 1989, they had no students in facilities in Silicon Valley. By 1998, they were providing training to more than 50,000 people a year, the vast majority taking courses in software and hardware technologies, business and management or multimedia art/design. Over 50% of their students receive full tuition reimbursement, suggesting that these external intermediaries play a more important role in career development than in the past.

The region is also home to one of the premier community-based (but primarily publicly funded) intermediaries as well. The Center for Employment Training, which originated in San Jose and still has its largest program there, has received national attention based on its similar success and strategy. The success of the program is explained by the combination of both developing skills demanded by industry, while being strongly integrated into both employers recruiting networks, and social networks within the area’s Latino community (Melendez 1996; Melendez and Harrison 1998).

Membership-based Intermediaries

There are a wide-range of membership-based organizations that play an intermediary role in the Silicon Valley labor market. These membership-based Labor Market Intermediaries (LMIs) are all rooted in a particular occupation. The skills, knowledge-base, work practices and labor market experiences associated with each occupation provides organizational coherence and shapes the structure and activities of each association. In occupations with rapidly changing skill requirements, or with high levels of volatility in employment conditions, these membership associations have arisen as a means to provide improved career opportunities for their members, through increasing access to formal training or informal learning opportunities, and through improved access to employment opportunities.

The most prominent membership-based LMIs are a range of professional associations in occupations that

might be more accurately termed ‘semi-professions’¹². In a range of technical and craft-based occupations in the valley, such as technical writers, system administrators, web designers, and salespeople, workers have built a range of professional associations which play more of an intermediary role than traditional professional associations. As compared with the very top level positions in the valley, work patterns in these mid-level positions are less secure, professional status less clearly defined, and employment insecurity a greater issue of concern than for many of the higher level engineers and computers professionals. Associations in these semi-professions play an important role in addressing these concerns in a number of ways, including: providing information and networking opportunities that facilitates finding and securing employment opportunities; helping their members stay on top of technological advancements and changing skills requirements; and in some cases trying to significantly impact employment practices and the character of the employment conditions for their members.

There are dozens if not hundreds of these professional associations and similar users groups that make up the dense network of occupational relations in Silicon Valley. Table 4 provides a partial list, assembled from a variety of published sources and from interviews.

In addition to the professional associations, there are also several union initiatives that play an important intermediary role in the high-tech labor market.¹³ The largest is probably the United Association of Plumbers, Steamfitters and Refrigeration Fitters (UA), which has developed an extensive training program that is integrated into the union’s hiring hall. Construction and maintenance of facilities in the semiconductor, computer, and biotech industries in the area requires highly trained plumbers, and the technology is constantly changing. The UA currently spends over \$2.5 million per year to provide training in the latest technology, and the majority of their 1,800 members, including members of journeymen status, take regular courses. As a result, in an intensely anti-union industry, the majority of plumbing and air conditioning systems is still conducted by union plumbers. The union’s role in preparing their membership to deal with the rapidly changing requirements in the labor market, linked with their placement program, has allowed them to maintain and build a strong presence in the region.

Another, though smaller example, is the Technical Writers Trade Group, a sub-group of the National Writers Union. With some 300 members in the Bay Area, they provide detailed training, run a jobs hot-line, and run a detailed workshop on how to get into the occupation. The Graphic Artists Guild, recently affiliated with the AFL-CIO, is very similar to the professional associations above. Finally, the South Bay AFL-CIO Central Labor Council has been developing an innovative intermediary program (described in more detail below) to assist temporary workers, in program that combines representation with advocacy efforts to intervene in the labor market around economic development issues of concern to their membership.

Table 4: Partial List of Professional Associations Active in Silicon Valley

| Association Year Founded | Mission Statement/Brief Description Membership |
|---|---|
| American Marketers Association—Silicon Valley Chapter (www.svama.org) The chapter sponsors meetings, workshops, and seminars where members meet and exchange ideas with leading innovators and thinkers in business, research, and academia. It also provides a forum to expand personal and professional contacts by networking with Silicon Valley marketing professionals. | 1980 400 |
| Association for Computing Machinery- Bay Area Chapter (www.sfbayacm.org) Local chapter of one of the oldest educational and scientific computing societies. Hosts monthly meetings and networking opportunities. | 1947 80,000 national |
| Association for Information Technology Professionals (www.aitp.org) National association that began in the 1950s with machine accountants in Chicago. Evolved into the AITP in 1996. Has local chapters around the country, including San Jose. | 1996 (with roots to 1951) |
| Association for Women in Computing, Bay Area Chapter (www.linkville.com/awcmeet.html) AWC is dedicated to the advancement of women in the computing fields. Local chapter hosts monthly meetings, produces a newsletter, provides job listings, and hosts job fairs and professional conferences. | 1978 |
| Bay Area Association of Database Developers (www.baadd.org) Promotes career potential of database developers through meetings, seminars, communication, publications and other program activities | 1985 100 |
| Bay Chi (Computer and Human Interaction) (www.baychi.org) BayCHI is the San Francisco Bay Area chapter of the ACM Special Interest Group on Computer-Human Interaction (SIGCHI). They host their meetings at Xerox PARC. | |
| BayLISA (www.baylisa.org) monthly meetings for members to stay up on changes in the industry, to network and improve their career opportunities. It is the local chapter of SAGE. | The Bay Area Large Installation Systems Administration Users Group provides 1991 ~150 |

Black Data Processing Association—Bay Area Chapter (www.bdpabac.org)

Local chapter founded in 1990. Focus on increasing opportunities for African American professionals in information technology industries. Monthly meetings in Oakland and Cupertino. Also sponsors high school internship program.

1990

Chinese Institute of Engineers (CIE/USA) (ww.cie-sf.org)

Promotes Communication and interchange of information among Chinese engineers and scientists

1979

1000

Chinese Software Professionals Association (www.cpsa.com)

Promotes technology collaboration and facilitates information exchange in the software profession.

1988

1,400

Graphic Artists Guild of Northern California (www.gag.org/sanfran)

Promotes the economic interests of member artists. Committed to improving conditions for all creators of graphic art and raising standards for the entire industry.

1995

3000 (national)

Help Desk Institute (Silicon Valley Chapter) (www.svhdi.com)

Formed to provide training, educational materials, and a networking forum for Help Desk/Support Center professionals.

HTML Writers Guild (www.hwg.org)

World's largest international organization of Web authors with over 98,000 mem-

bers in more than 130 nations worldwide. The HWG assists members in developing their skills, and compiles information about standards, practices, techniques, competency, and ethics as applied to web authoring.

International Association of Business Communicators—Silicon Valley Chapter (www.gryphon-communications.com/sv-iabc/)

Offers a range of programs for career development and technical advancement, including monthly meetings, professional development services, job listings.

260 local, 13,700 worldwide

International Webmasters Association (Silicon Valley Chapter) (www.iwa-siliconvalley.org)

Brings together people who are involved in all disciplines of Webmastering, at the local and regional levels. Provides professional development and educational resources.

1998 (SV Chapter)

12,000 (international)

Monte Jade Science and Technology Association (MJSTA) (www.montejade.org)

Promotes the cooperation and mutual flow of technology and investment between Taiwan and the United States

1989

150 corp., 300 individuals (West Coast)

Network Professionals Association (Silicon Valley Chapter) (www.svnpa.org)

For networking professionals who design implement, and maintain computer networks. They work to advance the network computing profession by educating and providing resources for its members.

| | |
|--|------------------------------|
| 1990 | 7,000 (National) |
| Professional & Technical Consultants Association (www.patca.org) | |
| Professional association of independent consultants and principals who work in small consulting firms. Based in Silicon Valley | |
| 1975 | 400 |
| Silicon Valley Association of Software Entrepreneurs (www.svase.org) | |
| Facilitates the creation of new computer software business ventures, improves the financial performance of existing ventures, and promotes and supports the commercialization of computer software technologies. | |
| Silicon Valley Chinese Engineers Association (SCEA) (www.scea.org) | |
| Network of Mainland Chinese engineers to promote entrepreneurship and professionalism among members and establish ties to China. | |
| 1989 | 400 |
| Silicon Valley Help Desk Institute (www.svhdi.com) | |
| Provides training, educational materials, and a networking forum for Help Desk/Support Center professionals. | |
| Silicon Valley Indian Professionals Association (SIPA) (www.sipa.org) | |
| Forum for expatriate Indians to contribute to cooperation between United States and India | |
| 1991 | 1000 |
| Silicon Valley Linux Users Groups (www.svlug.org) | |
| A users group that started as part of the Silicon Valley Computer Society, and promotes networking and information sharing related to LINUX, and free or low-cost implementations of UNIX | |
| 1988 | |
| Silicon Valley Web Guild (www.webguild.org) Dedicated to the education and professional development of the San Francisco Bay area Webmaster community. | |
| 1995 | 900 |
| Silicon Valley Webgrrls (www.SV_Webgrrlsebgrrls.com) | |
| Face-to-face networking group that provides support, information and resources for women in new media. | |
| 1996 | 1000 |
| Society for Technical Communication (stc.org/region8/svc/www/) | |
| STC is an individual membership organization dedicated to advancing the arts and sciences of technical communication. | |
| 1971 (with earlier roots) | 2,000 local, 22,000 national |
| System Administrators Guild (www.usenix.org/sage) | |
| Aims to advance the status of computer system administration as a profession, establishing standards of professional excellence, developing guidelines for improving the technical and managerial capabilities of members of the profession, and promote activities that advance the state of the art or the community. 1992 | |
| | ~5000 (national) |

The Indus Entrepreneur (TiE) (www.tie.org) Fosters entrepreneurship by providing mentorship and resources.
1992 560

(Sources: Saxenian (1999), Interviews, <http://ittalent.com/assocs.htm>)

III. MEMBERSHIP-BASED INTERMEDIARIES—TWO CASE STUDIES

Membership-based labor market intermediaries are distinct from most private-sector and public sector intermediaries in at least two fundamental ways. In addition to employment brokering and skills training activities, they also simultaneously build occupationally-based social networks, and attempt to upgrade employment opportunities in the occupation as a whole. In the following section, I present two case studies that illustrate these strategies in somewhat different ways. Silicon Valley Webgrrls is a professional association of primarily women who work in web design and related internet-based occupations. The strength of their organizational structure is on building a strong community of web designers, in which the dense social networks provide great opportunities for on-going learning, access to job opportunities, and multiple career opportunities. Their approach to building power for their members in the labor market, and thereby helping to improve employment conditions in the occupation as a whole, is through informal advice, information sharing, and individual empowerment. In contrast, the Temporary Worker Employment Project of Working Partnerships starts with the explicit goal of empowering their membership and thereby upgrading employment in the industry as a whole. They are also attempting to build occupationally-based networks amongst more disadvantaged sectors of the labor market, specifically temporary clerical workers.

In this section, I discuss the background of the development of each organization, and then discuss their organizational activities.

Silicon Valley Webgrrls

The Silicon Valley Webgrrls, is a chapter of an association called Webgrrls International. Webgrrls was originally founded in April 1995 in New York City, in order to provide a forum for women in or interested in new media and technology. Their goal is “to network, exchange job and business leads, form strategic alliances, mentor and teach, intern and learn the skills to help women succeed in an increasingly technical workplace and world.” Since its founding, Webgrrls has grown to have more than 100 chapters in at least 16 countries. The Silicon Valley Chapter of Webgrrls was started in the spring of 1997, and has grown rapidly in recent years. Between December 1998 and June 1999, the membership more than doubled, and there are now (10/99) more than 1,200 members of the local chapter.

Women are typically underrepresented in high-tech industries, particularly in engineering, computer programming and other technical occupations. However, work in new media and other web-based work provides some interesting openings for women into high-tech fields. This is true for a number of reasons. First of all, it is a very new occupation. Though web design obviously has roots in older skills, primarily linked with software writing and programming, it has only emerged as a prominent occupation since the development of the Internet, from about 1994 onwards. Thus it is an occupation still in rapid flux, without well established patterns of entry and opportunity. Secondly, the occupation combines both technical knowledge and creative talent, which provides opportunities for a wide range of people to find entry into the occupation. Specific web jobs may emphasize either

technical skills—such as integrating a web page to a database or accounting systems—or creative skills—such as designing the user interface—but the occupation as a whole is open to people with a range of interests and skills. Third, within information technology industries, it is a relatively accessible occupation, not typically requiring computer science or engineering degrees. It is possible to start out with little more than basic familiarity with a computer and the ability to learn new computer software programs. This is not to suggest that the occupation is unskilled—to advance in the field clearly requires a much greater knowledge of a variety of design software and programming languages, a demonstrated ability to constantly learn new techniques, and the ability to be driven and responsible in a hectic, deadline-driven environment. Entry-level positions, however, are available with relatively little training—at least compared to many of the more technical positions in information technology industries. Finally, in contrast to many assembly level positions, where many women are also employed, web work has real opportunities for advancement. Given the rapid growth in the Internet, the demand for internet professionals has been extraordinarily high in Silicon Valley and skilled web workers can make upwards of \$100,000 per year.

Nonetheless, men still dominate the industry, often making it difficult for women to advance. As Lynda Sereno, the director of the SV Chapter puts it, “there is a smaller ‘good old boy’ network to get started in the industry or to move up”. Thus webgrrls was founded to provide support for women in the industry and help encourage more women to get involved in web development. Membership is not limited to women, and monthly meetings typically have anywhere from 5-30% men attending, depending on the nature of the topic being presented.

Employment Matching

Like nearly all professional associations in Silicon Valley, Silicon Valley Webgrrls plays an important role in linking their membership with employers looking for people with their skills. They do not perform any formal job matching services, but they nonetheless provide the institutional infrastructure to bring together a range of employers with a community of web workers. They do this through two primary means—an active on-line listserv, and through regular monthly meetings. The SV Webgrrls listserv generates 30-50 messages a day, and approximately 15-20% of those messages are employment opportunities. Many of the job notices come from members of SV Webgrrls who know about opportunities in the companies they work for (and often gain bonuses for referring people to employment opportunities). Other job listing come from hiring managers who have heard about SV Webgrrls as a way of accessing a network of skilled web workers.

Monthly meetings also provide an important venue for bringing together employers and employees. Recruiters and hiring managers find these meetings valuable, in part to stay up themselves on trends in the industry, but also as an opportunity to find skilled workers who are in high demand. Like many professional associations, Webgrrls explicitly encourages networking at their meetings, and creates a conducive environment to facilitate it. Webgrrls also uses their monthly meetings as a way to bring new people into the occupation. They actively recruit people to meetings, and explicitly designate people at each meeting to find new participants and make them feel welcome. They have also recently joined in an effort to bring more young woman into the field, creating a program called MentorGirls, a cooperative venture with the San Francisco Chapter of Webgrrls and a similar organization called San Francisco Women on the Web (www.sfwow.org). Their hope is that this effort, while limited, will help to create more formal mentor/apprenticeship relationships to foster improved access for women getting into the

field.

Overall these functions may seem relatively limited in the role of employment intermediary—the organization doesn't provide any formal placement services, or engage in any direct negotiations over employment or compensation, and derive no financial benefit for the information services. Nonetheless, they provide a concentrated and efficient information sharing network, providing a valuable service for employers and employees alike. With some 100 jobs listed a month, all requiring skill sets that are highly matched with the skills sets of SV Webgrrls membership, this becomes an efficient way for employers to find skilled workers, and an effective and efficient way for employees to find out about new employment opportunities.

Skills development and Learning Opportunities

Aside from playing a role as an employment intermediary, SV Webgrrls plays a particularly strong role in information sharing and building learning opportunities for their membership. As in most occupations in the information technology industry, basic training obtained in college or formal training programs provides only the bare necessity for entering the profession, while the skills that are required to move ahead in the occupation are rarely confined to a single firm. There is a constant need for on-going learning, and an ability to stay on top of new technological developments and trends in the industry. As discussed above, much of this has to be learned outside the workplace, through staying up on current industry trends and changing skills requirements. Providing a forum for focused ongoing learning is one of the most important activities of SV Webgrrls.

Again, this is achieved through both in-person monthly meetings as well as through on-line communication. Monthly meetings combine both formal and informal information sharing. Formal presentations form the core of the gathering, with an expert speaking on an important topic of interest to the occupation. The size of the meetings often fluctuates widely depending on the topic presented, and this variation thus provides an important immediate feedback to leaders in the organization of the topics of interest to their membership. For the Webgrrls, typical meetings draw 100-150 people, but they have had meetings as large as 350. The most popular session in 1999 was a panel discussion of e-commerce. A similarly popular session was a panel discussion of job and career strategies. The events are informal social gatherings as well, as people are integrated into a community of mutual learners. In contrast to some, especially more technical professional associations in the valley which can be highly clique-ish and closed to outsiders, meetings of the Silicon Valley Webgrrls are more open and accessible to newcomers. Every month a number of older members are designated as 'greetergrrls' with the specific purpose of finding newcomers to the meetings, making them feel welcome, and introducing them around. The result is a warm, shared sense of community that helps build their monthly attendance.

This sense of community carries over into the on-line communication. While many messages on the list focus on technical issues and employment-related queries, members also feel free to share information on everything from good divorce lawyers, to hair dressers, to mountain biking clubs, to requests for cat-sitting. A special interest group for web-moms help provide mutual support for working mothers. This general sense of community helps tremendously in the area of skills development and on-going learning. Their list is an important venue for people to learn new skills, especially for newcomers learning from more experienced people in the industry, in an incremental way. The following is a typical exchange around a technical question:

1st message: August 4, 1999, 12:06 pm

On my surfings I've come across several sites (including the SV Webgrrls site last I checked) which does the typical frame setup seamlessly - a left navigation bar with the right frame seamlessly connected, ie there is no scroll bar or divider line so the image seems to come across one singlepage rather than looking like two frames. How is this achieved? When I build frames, there is always a divider line... it's likely I am using an older HTML but I would love to know how to perform this "trick". Linda

Answer #1, at 12:38 pm

Hi Linda,

On the pages I've designed or worked on which have this look, it is achieved not through frames at all but through tables. So the whole page is a big table and the "frame" is the left hand column and the rest of the page is the right hand column.

Does this help? Feel free to bug me if not.

Cheers, Larissa

Answer #2, 1:52 pm

Just say `<scrolling="no">`, but beware that you may be alienating some laptop or small display users.

Cheers! Lisa

Answer # 3, 2:11 pm

The SV Webgrrlsebgrrls site does it by setting:

`frameborder="0" framespacing="0" border="0"` in the frameset tag

`scrolling="NO"` and `frameborder="0"` in the frame that shouldn't scroll

The joys of 'view document source'! Just be sure that if you set no scrolling, your frame is short enough that people with small &/or low-resolution monitors will get the whole frame. Otherwise I've been to sites where some of the choices were invisible and unaccessible.

Annelise

Answer #4 2:16 pm

Put `frameborder="no" border="0"` in your frameset tags. And doublecheck that `scrolling="no"` OR "auto" but NOT "yes".

hth, karen

Answer #5, 2:24 pm

as in this FRAMESET code snippet from the webgrrls site, if using frames, set your marginwidth and marginheight and frameborder to "0". and to avoid the scroll bar set scrolling to "NO" (or "AUTO").

```
<frameset rows="112,*" cols="550" frameborder="0" border=0 framespacing="0" border="0"> <FRAME
src="header/header.htm" name="header" marginwidth="0" marginheight="0" noresize scrolling="NO"
frameborder="0"> <FRAME src="news/news.htm" name="main" marginwidth="0" marginheight="0">
</FRAMESET>
```

aaron

At first glance, this exchange may seem unremarkable. What is significant, however, is that within the space of two hours, Linda was able to get five answers to a technical question from people completely disconnected to her work situation, including some she may never have met. For someone just entering the field, this kind of immediate community provides an important opportunity to learn and expand their knowledge. For people constantly dealing with rapidly changing technologies, new design techniques and new software, such an immediate community of practice is invaluable for staying on top of new developments and recent trends. The value of the on-line community is also evident in discussions of overall web design and artistic content, as in the following exchange:

Message 1: 8/11/99 3:38 pm

Hello:

I just finished the web design (html, graphics) for this corp site and it's on the temporary URL at [web address]. I would like to hear your feedback on the design and compatibility of different resolutions and browsers. The content

is not rich yet coz we will add it later. (Don't mind the 2 broken links of job opportunity and board of advisors.)
Thanks! Nancy

Message 2: 8/12/99 3:36 pm

Hi all:

I would like to Thank Molly, Moshe, Laurie, Linda, Mark, Kim, Dawn, Annelise, Lisa and Doris (hope not to leave anyone out). I really appreciate your feedback on [company] site. You really point out something that I overlook. I am glad that some of you still use Netscape 3 which I totally forget about its' limitation of supporting cell bg image. That's why for NN3 user you only see my page in black background instead of the bg image that I create. I added bg color to solve the problem although my cell bg image is the central of my design of the site. For the rest of the problem that you mention, I am working on them and hopefully will have them done soon.

I am really happy to hear from you so soon and all your feedback are really really helpful.....Especially those positive ones, really boost my confidence up.

^_^ Nancy

In this exchange, it is clear that within 24 hours, Nancy had substantive feedback from at least 10 different people *not in her workplace* who were able to give her feedback and advice on improving her work. As these exchanges demonstrate, the list tends to be very open, with people very open about sharing their skills and resources, and developing the skills needed to be successful in their efforts.

Influencing employer practices and employment conditions:

By and large, SV Webgrrls, like many professional associations in semi-professions, has little ability to collectively influence the employment practices of their employers. They more or less take the demand side of the labor market as given. Nonetheless, there is a range of activity conducted through the association that helps empower their members in their individual negotiations with employers and potential employers. Part of this is simply sharing experience and knowledge about good and bad employers in the area. If someone has a bad experience with a manager or employer, the experience can be rapidly shared through the network. At least in today's tight labor markets, with many alternate employment opportunities, members of the SV Webgrrls have significant leeway in their employment negotiations. Similarly, their web page provides resources on career management, and particularly valuable is salary surveys. Information is power in the negotiating process, and the knowledge of what other people are getting paid provides leverage for individuals to negotiate higher compensation for themselves. While these efforts must be considered limited, they do informally raise standards in the industry as a whole through sharing information on employment practices.

On a more general level, the effort to establish and build a professional association, like in other more traditional professions, represents an effort to increase the social standing of people in an occupation (Larson 1977). In traditional professions, such as doctors, lawyers, and engineers, the creation of a monopolistic practitioner groups has been part of social struggles in which members of professional groups are able to charge 'rents' for their skills in the labor market. For mid-level workers in information technology industries in Silicon Valley, however, the rapid pace of change, and the openness of information and training systems makes it nearly impossible to upgrade their employment conditions through creating a monopolistic practitioners group. Instead, they face a particular set of issues in trying to mobilize to maintain or improve their economic and social status. Their capacity to cope with rapidly changing technology and to deal with uncertainty, is a crucial part of their power in the labor market. However, this kind of power is less tangible than institutional bases in truly self-regulating

professions. Information technology workers derive considerable status from being associated with cutting edge technological and economic change, but at the same time they are constantly being market tested for the relevance of their skills and the organizational problems they claim to be able to solve (Fincham 1996). Thus ultimately their ability to attain and retain their high status in the labor market requires the ability to be flexible, to stay on top of industry trends and changing skill demands, and to find access to multiple employment opportunities when needed. To solve these problems of maintaining the market relevance of their skills, knowledge workers depend on networks of information exchange and membership in communities of workers that share similar types of expertise. Groups of users become resources for each other, in maintaining knowledge about skills that are in demand. In this way, simply the collective mobilization involved in creating a professional association and creating the identity of being on the cutting edge of innovation helps to upgrade their employment conditions

Working Partnerships

Working Partnerships, a labor-linked non-profit education and policy institute in San Jose, is developing a labor market intermediary that provides a somewhat contrasting model to Silicon Valley Webgrrls. It is focusing on temporary clerical workers, a lower level in the labor market, but they have a similar set of goals.

Working Partnerships was founded in 1995 by the the AFL-CIO Central Labor Council (CLC) in collaboration with a range of community organizations. It was seen as part of the labor council's efforts to increase the presence of the labor movement in the region as a whole, by promoting organizing among local unions, educating the community and mobilizing community support for workers' rights, and building a stronger voice for labor in the political arena(Dean 1998). Working Partnerships was an attempt to bring a wider range of voices to the table around questions of regional economic development, and to develop effective responses to the changing structure of production in information technology industries. The over-reaching goal was "reinventing" the local labor movement with an eye toward offering high tech workers the representation and services they truly need.

In addition to exploring new forms of employee representation, Working Partnerships also engages in a range of research, policy and educational activities. Their research and policy agenda focuss on identifying and documenting issues that working families in the area are facing, ranging from high levels of insecure employment, to growing inequality and declining standard of living for large sectors of the region's workforce. The education and training programs includes a 1) a nine week leadership institute that provides participants with a deeper understanding of economic changes in the region and the political institutions that help shape the region's development; 2) an intensive leadership training program for members of neighborhood associations in San Jose, developed in cooperation with the Community Foundation of San Jose; and 3) labor-management partnership training, aimed at empowering front-line workers in their work-sites as well as increasing the capacity and level of activism of local unions in the area. Both the research and education are integral parts of helping support for initiatives aimed at providing better and innovative forms of representation for workers, including developing effective labor market intermediaries.

The feature of Working Partnerships' activities that is most directly geared toward creating an effective labor market intermediary is the Temporary Worker Employment Project. It includes both a placement agency to formally link workers with job opportunities, and a professional association that brings temporary employees

together to work on a variety of issues in which they share a common interest. The elements of the program are the following:

- **Membership-based organization**—The Working Partnerships Membership Association affords people the opportunity to share experiences and strategies for improving their employment conditions. It helps break through the isolation temporary workers face on the job, and creates a sense of belonging in an organization of people with similar experiences in the workplace.
- **Advocacy Agenda**—The purpose of this crucial component is twofold. One is to upgrade conditions in the temporary help industry as a whole, by developing a Code of Conduct for temporary help agencies, and monitoring its success through selective testing. The second purpose is to help create market niches in the industry for the Staffing Group.
- **Placement Services**—Working Partnerships Staffing Group is a worker centered alternative to for-profit temporary agencies. As a non-profit organization, it is able to charge employers competitive rates, while paying workers a higher hourly wage. It also gives priority to working with employers who have demonstrated a willingness to move temporary workers into more permanent positions.
- **Benefits Provision**—This program provides access to inexpensive health insurance, pension coverage, and financial services. People placed by the Working Partnerships Staffing Group have access to a \$50/month health insurance program for families provided by Kaiser Permanente. Kaiser subsidizes this program, but agreed to the terms because it gains experience in serving a population with no long-term connections with employers, which they see as a growing market.
- **Training**—This initiative is guided by a regionally defined set of skills standards for clerical and administrative occupations, developed by a council of employers, working closely with Mission Community College, one of the most highly regarded community colleges in the Valley. People can come in and go out as needed, so that workers have the flexibility to get training as needed, and to take advantage of employment opportunities when they become available. An additional goal of the program is to develop a joint council between employees and employers to help review and modify the training standards.

The placement services target particular occupations that have opportunities at the entry level with clear prospects for real advancement. The main focus is on clerical, administrative and other office skills, though there are plans to expand to include assembly/technicians and/or health care workers within the next two years. In the clerical field, as workers gain skills, there will be opportunities for advancement from basic administrative and computer tasks to more sophisticated software manipulation, Web page design, HTML skills, and even programming, depending on the participants' abilities and interests. The goal is to create authentic advancement opportunities even for participants who start at the very bottom of the labor market. Many of the participants never graduated from high school and often lack basic skills needed to survive in the job market, while others have successful work experience and good jobs but were laid off.

Other types of training include skills in financial planning, in 'know your legal rights', of in access to legal assistance and ergonomics. Along with this training, regular monthly meetings provide an opportunity for networking and information gathering. Such 'secondary' training, information gathering and networking is often essential for people to be successful in the labor market in the long term.

Another important function of the placement agency is the development of relationships with strategic employers in the region. The goal of this activity is to provide well trained and motivated workers with in-depth support services to improve their retention and to help both employers and employees be successful in the long term. Further, this agency gives employers an additional incentive to provide decent benefits and to improve the chances for long term employment of their temporary workers, because it will not work with them unless they do

so. Initial agreements have been obtained with over 80 private sector employers, who recognize both the value of the employees that are being placed, and the social benefit of a non-profit, worker friendly placement service.

Given the experience of working with these employers, the goal is to continue to expand both to other employers, and eventually other occupations as well, relying heavily on the advocacy component of the project. Advocacy strategies will be used to discourage ‘low-road’ competitive strategies—by both temporary agencies and their clients—while providing a realistic worker-friendly alternative at least in particular niche markets in the Valley and rewarding employers who use this union-friendly alternative. The focus of this effort is to develop a code of conduct for both temporary agencies and their clients which provides basic protections for workers who would otherwise be extremely vulnerable. Agencies that endorse this code will be acknowledged in a guide to good temporary agencies, while those that refuse may become targets of public media campaigns.

The process used to develop the Code of Conduct is as important as its content. The initial draft was developed through consultation with a national network of organizations concerned with temporary employment. However, the final version was developed in consultation with a wide range of local organizations, and the input of an advisory board that includes a broad cross section of leaders from local labor, business, religious and community-based organizations. Again, this participatory process is important for building in depth support for the initiative.

IV. INTERMEDIARIES AND OPPORTUNITY IN FLEXIBLE LABOR MARKETS

Silicon Valley Webgrrls and the Temporary Worker Employment Project of Working Partnerships provide examples of membership-based LMIs that combine employment matching and skill development with building occupationally-based social networks and building power for workers in the labor market. They do so with significantly different organizational backgrounds, and somewhat different emphases. Silicon Valley Webgrrls sees itself primarily as a networking organization—more of a professional association than a union—with the purpose of increasing the access of its membership to employment in which they have traditionally been excluded. In contrast, Working Partnerships was initiated by the AFL-CIO Central Labor Council, and sees itself integrally linked with the labor movement. Its purpose is explicitly to build power for workers in the labor market.

This study did not attempt to develop any quantitative measurements of the effectiveness of these intermediaries in shaping employment outcomes for workers in the labor market, and there is need for future research to establish this¹⁴. However, even in the absence of such an analysis, it seems clear that membership-based LMIs provide significant promise for improving labor market outcomes for workers in flexible labor markets. In Silicon Valley labor markets, with high levels of volatility, uncertainty, and complex networking and out-sourcing production arrangements, workers face particular challenges in trying to find and retain decent work and employment. Workers at all levels must be prepared to move from employer to employer, constantly updating their skills and staying on top of changing conditions in the labor market, or risk falling behind, facing lay-offs and skill obsolescence. Membership-based LMIs help workers deal with these insecure labor markets for two fundamental reasons that go beyond helping to find employment and gaining access to hard skills.

First, since they are rooted in employee membership, they are clearly oriented more towards the supply side of the labor market—advocating for the needs of their membership, and attempting to generate greater opportunities in the labor market. This is in stark contrast to private sector intermediaries which are either indifferent to the long-term career trends of the employees or are focused on more skilled sectors of the labor market. Even

public sector intermediaries which are clearly attempting to improve employment opportunities for their constituencies, rarely address issues of power in the labor market. They tend to stay focused on placement, either in a passive relation with employers and employees, or with a focus primarily on initial placement, rather than building long-term organization.

Secondly, since they are rooted in a particular occupation, membership-based LMIs develop a detailed and nuanced understanding of both the formal and informal skills required to perform the work required in the field. Those intermediaries that are able to combine this with effective means of identifying and anticipating changes in the industry can be very effective in on-going skills development and training for their membership. Again, this is in sharp contrast to private sector intermediaries, which rarely provide quality skills training, or to the extent they do, it serves more as a screening or ‘creaming’ mechanism to identify particularly promising placements. (Autor 1999; Autor, Levy and Murnane 1999). Public sector intermediaries may provide greater access to skills training, but rarely in a context that attempts to integrate new people into the occupational communities of practice that are so essential for on-going learning and advancement.

There are obvious limitations, however, to the types of membership-based LMIs I have discussed here. One has to do with their level of power in the labor market. In contrast to union-based high-road partnerships, they have only limited ability to alter firm human resource decisions. Membership-based LMIs may provide a potential base for building to those kinds of multi-employer training partnerships, but they are not an alternative to more formal negotiating agreements, in which power is more explicitly represented in the bargaining relationship. In the absence of such a formal bargaining relationship, however, they provide a certain measure of improved labor market outcomes for their members.

Membership-based LMIs also face challenges in their ability to reach socially-isolated workers stuck in low-wage, unstable jobs. Being built around occupationally-defined communities implies a certain level of skills development and occupational coherence. This can easily exclude workers who are not already integrated within the occupation. In this regard, there may be important lessons to be learned from Harrison and Weiss’s (1998) analysis of community-based organizations involved in regional workforce development networks. Such CBOs have demonstrated significant success in ‘networking across boundaries’, but have less demonstrated success in building long-term power for people in the labor market. If such CBO initiatives could be better linked with occupationally-defined communities, it might help create more productive partnerships.

These limitations help highlight some of the key policy implications for workforce development policy. Key principals include:

- ***Career-focus, not job focused:*** Workforce development programs need to be focused on building career opportunities, not simply on placing people in jobs. This requires building a set of relationships with workers even during times when they are employed, and not simply being restricted to serving unemployed or displaced workers.
- ***Build regional occupational communities***—These communities of practice provide an important basis for stability for workers in an unstable labor market. They can help build solidarity within the workforce, and helps break down the isolation that people often face in increasingly individualized and isolated employment relations.
- ***Build and create access to learning networks***—Regional occupational communities also help provide the

basis for on-going and incremental learning, and help ensure learning takes place in an applied context, not simply in a disconnected classroom environment. It helps workers access the informal or tacit knowledge that is often so essential to ensuring success in their work lives. Helping to support the creation of these learning networks, while create new forms of access for disadvantaged workers, should be an explicit goal of training systems. Such occupational communities could also be more effectively integrated with training providers, such as community colleges and vocational training programs.

- **Mediate risk**—Workforce development programs need to assume that workers in any job are at risk of lay-offs or restructuring. Feedback mechanisms must be developed to help identify changes in the labor market that may threaten certain occupations. Programs to development mobility paths across occupations should also be developed. Ultimately, training should not be restricted to narrow technical skills, but reflect a range of exposure and focus on providing multiple learning opportunities.
- **Ensure multiple livelihoods**—One way of mediating risk is developing access to multiple livelihoods. Occupations and employment opportunities should not be evaluated simply on the bases of an hourly wage. Clearly improved access to portable health insurance and pension systems is an essential goal. But beyond this, there is a need for people to have greater access to resources to help them adjust to changing work and employment conditions, including particularly having access to resources to pay essential expenses while going back to school or gaining additional technical training. In essence, instead of an unemployment insurance system, which was designed to support people during temporary cyclical downturns, we need to development a *reemployment* system, that would provide resources for people to develop new career paths if economic restructuring forces them out of their current path¹⁵.
- **Expand voice**—Ultimately, for workers to improve their position in the labor market requires redressing the imbalance of power between employees and firms. Polls consistently show workers desire a greater level of representation than they currently have access to (Freeman and Rogers 1995; Lipset and Meltz 1997), and increasing their power in the labor market is a key aspect of this. Developing workforce development programs that explicitly try to give workers greater voice and power in their work lives is an essential part of improving labor market outcomes for workers in today's volatile labor markets. (Osterman 1999)

The preceding principles are obviously only a broad outline. To actually attain these principles requires much more detailed analysis and program development. Nonetheless, I think the provide a useful framework for thinking about how to build occupationally-defined community-based careers, which can help provide some measure of security for workers in the midst of very uncertain labor markets.

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³ In California, for example, between 1993 and 1997 total employment in the temporary help industry grew by 131,000, more than 50,000 greater than the next closest category, and more than the software, electronics and computer industries combined (figures from the Bureau of Labor Statistics, based on ES-202 data).

⁴ In manufacturing, this might take the form of ever shorter product cycles and flexible specialization. In services, this might take the form of around-the-clock retail hours, or 24-hour telephone or internet shopping services.

⁵ Indeed, some argue that internationalization itself has given rise to regional economies. See, for example, Pastor et al. (forthcoming), Scott 1999, Storper 1997. Barnes and Ledebur (1998) note that regional economic performance in the U.S. has become more heterogeneous in recent years, affording another reason for a regional analytic strategy.

⁶ Examples include the Wisconsin Regional Training Partnership (Parker 1995), the Garment Industry Development Corporation, the San Francisco Hotels Partnership (see (Herzenberg 1998) chapter 7), and a range of other 'high-road' partnerships. The AFL-CIO's Working For America Institute is currently in the process of documenting and analyzing more than 15 of the most prominent initiatives around the country.

⁷ Non-standard employment refers to all employment that is out-side of the standard employment relation embodied in the basic U.S. labor laws and employment regulations, which assume full-time employment with a single employer for an indefinite (non-temporary) period of time.

⁸ Depending on the method for dealing with possible double-counting.

⁹ Following Belous' (1999) methodology, the lower estimate doesn't count business services at all, since it assumes that all business services workers are already counted in one of the other groups, and it counts only 60 percent of the temporary workers, since survey data suggests that 40 percent of temporary workers are part-timers. The upper estimate includes all workers in all categories. This may double-count some workers, but under-counts people in sub-contract positions in manufacturing, and people hired directly by firms on a temporary basis.

¹⁰ Two quotes help illustrate this important trend. The owner of a locally-owned temporary agency that is in the top 20 agencies in the Valley, said: "we serve as a secondary source for some of the major temporary agencies who have entered into major contracts with their clients. We back up [agency A] at Intel, we back up [agency B] at Tandem Computers, and [agency C] at Novel. We back up [agency D] at Cisco and [agency E] at Intel. The major companies call on us to when they've guaranteed to provide a certain number of people and aren't able to provide them. For instance, the temp firms may be given 24-38 hours to fill a certain order—say a couple hundred people to do data processing—and if they can't find the people, they'll come to us for help. Approximately 40% of our business now comes through these secondary source arrangements." (April 1996)

The owner of a technical recruiting firm that places information technology professionals in contract positions "We see the [large

temporary agencies] as gatekeepers at many of the large high-tech firms in the area. We started seeing them about 4-5 years ago, first at Hewlett-Packard, and a year or two later at Cisco. We used to have great relationships with the human resource managers there, and then all of a sudden these walls came up. We realized that we just have to make relationships with the gatekeepers now, and we now have a great relationship with them. It makes it more difficult, since there is another layer, but they are there to help. It has been a wave, but I'm sure it is here to stay."(June 1999)

¹¹ From Dice.com, in September 1999. Until August of 1999, their employer services were limited to recruiting agencies, defined as companies that placed at least 50% of their employees on other people's sites. In August that expanded to all companies recruiting IT professionals.

¹² These are distinct from the professional associations amongst engineers and high-level computer programmers. Professional associations in these traditional professions are widely acknowledged as being important to regional economic dynamism through facilitating information sharing and the diffusion of important innovations (Saxenian 1996; Saxenian 1999).

¹³ Unions in Silicon Valley are strong in the public sector and many more traditional industries, but are almost non-existent in the high-tech sector. Organizing efforts in the high-tech industry that have followed a traditional industrial-union model have almost universally failed in the valley. The rapid changes in workforce, and complex network production relations, have made it nearly impossible for traditional organizing strategies to be effective in the industry (see Benner 1996a for a review of organizing efforts in Silicon Valley). Other factors that have made organizing difficult include an ethnically diverse workforce, male dominated unions not taking into account gender concerns, and lack of commitment of adequate resources and personnel to organizing.

¹⁴ This is one of the goals of a future two-year comparative study of labor market intermediaries in Silicon Valley and Milwaukee that will be begun in the year 2000.

¹⁵ Some more detailed policy proposals along this line are presented in (Benner, Brownstein and Dean 1999)