

Study of Hiring Practices for Entry-Level IT Technicians: Preliminary Findings from Employer Research in Seattle and Detroit

Michelle Van Noy

Community College Research Center, Teachers College, Columbia University

Information technology (IT) technicians in computer and network support positions are a fundamental part of today's workforce. They hold positions across all industries and throughout all regions of the country. The study discussed here examines the extent to which the associate degree is a meaningful credential for entry and advancement in these positions in the context of local labor markets and employers. Given today's changing job market, a better understanding of the demand for and the perceptions of the associate degree can help inform college efforts to conduct outreach to area employers who hire IT technicians.

To examine these issues, the Community College Research Center (CCRC) at Columbia University's Teachers College and the National Workforce Center for Emerging Technologies (NWCET) at Bellevue College are conducting comparative case studies of the role of the associate degree in IT hiring practices in two labor markets, Seattle and Detroit. Given Seattle's information technology focus and Detroit's automotive manufacturing focus, these labor markets provide a contrast in terms of predominant industry. They also provide contrast in terms of average education levels: 36 percent of Seattle residents hold a bachelor's degree or higher, compared with 26 percent of Detroit residents.¹ The case studies examine employers' hiring practices for IT technicians in computer and network support positions using focus groups with employers, in-depth interviews with employers, analysis of online job postings, and analysis of student employment goals and outcomes. This memo provides some provisional, preliminary findings based on employer focus groups held in Seattle and Detroit and analysis of online job postings in both areas.

In Seattle, three focus groups were conducted at Bellevue College in September 2008 with separate groups of IT hiring managers, human resources (HR) hiring managers, and executives. In Detroit, two focus groups were conducted at Macomb Community College in February 2009 with separate groups of IT hiring managers/executives and HR hiring managers. Employers represented a range of industries including IT, manufacturing, utilities, banking, and government. Several employers had representatives in more than one focus group. Table 1 summarizes the types of employers by size and sector that participated in the focus groups. Some types of organizations were more represented than others. The Seattle focus groups included somewhat more large employers than small employers, whereas the Detroit focus groups included fewer employers overall and more small employers than the Seattle focus groups. The difference in employer participation by size may have implications for the findings by labor market; this will be further explored in in-depth interviews with employers that will strive for a balanced mix of organization types. In addition, changes in economic climate have occurred between the times that the focus groups were held in each area; this could also have implications on the findings.

¹ U.S. Census Bureau, 2005-07 American Community Survey.

Table 1: Employer Participation by Type in Seattle and Detroit Focus Groups

Type of Employer	Seattle			Detroit	
	Focus Group #1: Executives	Focus Group #2: HR Hiring Managers	Focus Group #3: IT Hiring Managers	Focus Group #4: Executives/IT Hiring Managers	Focus Group #5: HR Hiring Managers
Large, private	4	4	6	2	0
Small, private	3	2	2	2	4
Public	2	2	2	0	1
Temporary placement	0	0	0	2	0
Total in each focus group	9	8	10	6	5

Online postings for IT technician jobs from the Craigslist website have been analyzed from August 2008 to January 2009. These postings include two main categories on Craigslist where employers list jobs: systems/networking and tech support. These categories respectively correspond to network support and desktop support positions that are the focus of this research. In Seattle, there were 1,429 postings for network support positions and 1,334 posting for desktop support positions. In Detroit, there were 390 postings for network support positions and 356 postings for desktop support positions.

This memo discusses themes that emerged from the focus groups and job posting analysis and presents issues for further analysis and exploration. Quotations from focus group participants that illustrate important themes are shown in italics. Similar results were obtained from groups representing different employer representatives, so distinctions based on employer representative group are rarely made here. When notable differences exist between focus group results by type of employer representative, these are noted. The findings in this memo are provisional and will be further examined and verified in on-going research efforts, including in-depth interviews with employers. Thus, these findings should not be interpreted as final or definitive but rather suggestive and preliminary. While differences by labor market are discussed throughout, these may reflect differences in the organizational composition of the focus groups as well as the economic climate during which the sessions were held, in addition to more inherent differences in the labor markets and their employers.

Employer Views of Postsecondary Education

Finding: Focus group participants viewed educational credentials as a differentiator in the hiring process. Among Seattle focus group participants, the associate degree lacks significance compared to the bachelor’s degree, so applicants with associate degrees may be screened out. Among Detroit focus group participants, postsecondary education is viewed as important, regardless of type of degree earned. What is more, a bachelor’s degree may be seen as having too much education, signifying for employers that an applicant with a bachelor’s degree might not stay with the job for very long.

In the Seattle focus groups, employers discussed education as a way to sort through job applicants for IT technician jobs. Among many employers, associate degree applicants get less priority compared to bachelor's degree applicants in the screening process. This prioritization is understood as a given part of the process. Employers reported that the skills of associate degree holders are more limited, and that they prefer bachelor's degree holders because of their writing or general thinking skills. A few employers reported that education is not an important criterion.

If you are comparing the two resumes with each other without knowing the individuals without speaking with them, the hiring manager will gravitate to the more [educated]... if these don't work out we may go to that one with the AA. (Seattle—Human Resources)

They can apply but they are competing against people who have a four year degree. (Seattle—Human Resources)

Typically hiring managers like to hire a mini-me. Do they have the same kinds of things that I have? Most of the hiring managers have a four- year degree. (Seattle—Human Resources)

In the Detroit focus groups, education was also discussed as a differentiator between job applicants. Employers may view an associate degree and a bachelor's degree differently depending on the applicant's expectation of salary and career expectations. A bachelor's degree may be seen as less favorable if the applicant is viewed as overeducated and potentially leaving the position quickly in search of something better.

I think for us we really need the hands on experience. Education is great—I would love to see at least an associate's degree. But more than anything it is the work experience and the competencies right now [that] are huge. (Detroit—IT Hiring Managers/Executives)

We look for somebody who is willing to learn.... You have to have a high school degree; I do prefer if you are still trying to obtain a degree, at least an associate's degree, but I would hire without it. (Detroit—IT Hiring Managers/Executives)

You know a lot of times a bachelors degree is going to be that much better, but you know again, if I want them to stick around for more than a few months, I am probably going to ask a few follow up questions. (Detroit—IT Hiring Manager/Executives)

Taken together, the focus groups provide some indication that employers in Seattle may be more likely than those in Detroit to prefer a bachelor's degree and to use the degree to screen potential employees. This overall difference found in attitudes toward educational credentials by the employers in the Seattle and Detroit focus groups may be associated with differences in the labor markets or differences between the outlooks of large and small employers. This will be further explored in the employer interviews, which will include both sizes of employers in a

range of industries. This preliminary finding is also reflected in the analysis of online job postings from the same time period of August 2008 to January 2009. Employers in Seattle were found to be more likely than those in Detroit to list educational requirements and specifically a bachelor's degree for IT technician jobs (see Figures 1 and 2 at the end of this document).

Finding: Focus group participants reported that postsecondary education is needed for career advancement. According to the Seattle participants, an associate degree is typically not enough; employers expect workers interested in promotion to seek bachelor's degrees. Among Detroit participants, while higher education is viewed as important, it is unclear whether pursuing or having a bachelor's degree is necessary for advancement.

In the Seattle focus groups, some employers emphasized the importance of community college graduates' pursuing additional education to move ahead in their careers. Some expected employees seeking advancement to have or, at minimum, to be pursuing bachelor's degrees. This outlook supports the notion that community college is viewed as a stepping stone to further education, not a place to earn a terminal degree for a career. Associate degrees held by workers expressing a desire for continued education beyond community college may likewise be viewed more positively by employers.

*I think for me and for my organization, if someone came to us with an AA and still had that desire to keep going to school, that would be seen as more lucrative to us than someone who got an AA and just wants to work.
(Seattle—Human Resources)*

In the Detroit focus groups, employers varied in their assessments of how much education is required to advance within an organization once someone is hired. Some felt that a person may advance without a bachelor's degree, indicating that once a person is "in the door," that person can move up within the organization regardless of whether he or she has a degree or not; others remarked that a bachelor's degree is required to move into more advanced positions in management.

I think that [having a bachelor's degree shows that] they may have more of an ability to progress into that management position. (Detroit—IT Hiring Managers/Executives)

Career advancement possibilities are important in determining the role of the associate degree. Variation in credential requirements for career advancement may indicate different strategies and roles for community college programs in IT. These issues will need to be examined more carefully across different types of employers to understand how IT positions are constructed relative to their career advancement opportunities and educational requirements, as well as to grasp the extent to which positions and career opportunities are changing because of the current economic climate.

Finding: Effective communication skills are associated with higher education attainment among employers in both the Detroit and Seattle focus groups. Commitment to career and discipline to complete necessary job tasks are associated with the pursuit of postsecondary education among employers in the Detroit focus groups.

The idea that education is linked to the development of communication skills was a common theme in both the Seattle and Detroit focus groups. Employers view communication skills as an essential part of the IT technician job—yet these skills are often difficult to find in entry-level workers (more on this later). In the Detroit focus groups, employers also discussed some additional meanings they ascribe to job candidates and employees having or pursuing postsecondary degrees: commitment to a career and discipline. Educational credentials and even the act of pursuing education can signify a level of commitment to the field or career path.

What I am looking for is a well rounded employee, someone who can do the job, but also write a resume, write a document, or talk to me about how they feel about their job, talk to my customers—and so we typically skew our hiring more towards two- and four-year institutions rather than the [private technical institutes]. (Seattle—Executives)

I think one of the trade-offs about the community college is [that] the two-year experience is a more limited time, so you've got to focus on the technical skills. So there are less opportunities to develop the critical thinking and writing skills; these are lacking— if you ask a two-year graduate to write, you notice the grammar and sentence structure, it's just not there. So I think that's something the four-year schools are just better at, unfortunately. (Seattle—IT Hiring Managers)

I think it's discipline; I've had more and more clients come back and just say, I don't care what school they went to, I don't care what curriculum they have, but if they have at least an associates degree it shows they have discipline to do things. (Detroit—IT Hiring Managers/Executives)

I think for an entry-level [position] at least high school [is needed]; they may not have to have their associate's, but we want to see them going to school and having a career path of some sort, so some college. (Detroit—IT Hiring Managers/Executives)

Issues related to career commitment were potentially more salient in the Detroit focus groups because of the high number of displaced workers from the manufacturing sector trying to transition into new careers and because of the later timing of these focus groups. Thus, these employers may have had more experience with applicants who just wanted to get a job rather than having a real interest in pursuing a career or a passion. More often than not, Detroit focus group employers tended to view IT as something that should be a passion. Differences in labor market dynamics as well as the changing economic climate may then influence how employers view educational credentials and the importance of the associate degree in finding an IT technician job. This issue will be explored further in the employer interviews.

***Finding:* According to some employers in both the Detroit and Seattle focus groups, the meaning of educational credentials, particularly community college degrees, depends on the age of a potential hire.**

In both the Seattle and Detroit focus groups, a few employers remarked that education may mean something different depending on a person's place in the life span. For older graduates, a degree, particularly the associate degree, may signal even more discipline and commitment than for younger graduates. (However, a degree that is not completed may be viewed more skeptically when held by someone older.) Employers may believe that having only an associate degree (and not a bachelor's degree) is acceptable for older workers because they think that these workers have more developed communication skills not present in younger people right out of school. In sum, associate degrees held by younger candidates appear to be sometimes valued less than those held by older candidates. This finding combined with the finding that education may be important for advancement suggests that, particularly for younger workers with associate degrees, opportunities to continue postsecondary education in bachelor's degree programs are important.

I think from my hiring managers the A.A. is seen as having more value for someone who has made a career change. (Seattle—Human Resources)

So it is putting the education in that person's life span and career span too. No doubt about it. It tells a different story. It tells me a lot if you are working full time and have a family and [are] still trying to go to school, that's hard work. (Detroit—IT Hiring Managers/Executives)

***Finding:* Industry certifications play a mixed role in hiring decisions among participants in both the Seattle and Detroit focus groups—too many can hurt, but some may be required.**

In the Seattle focus groups, employers reported that industry certifications provide information in the hiring process, but do so with various degrees of utility. They may provide some consistent measure of information on employees' skill levels; however, they are rarely trusted on their own as indicators of skills. Instead, they need to be coupled with experience to validate candidates' skills. Too many certifications held by one candidate may, in fact, be interpreted negatively to the extent that they appear to be excessive.

In the Detroit focus groups, employers reported that industry certifications may indicate motivation, but that too many certifications may be viewed negatively, as in Seattle. Certifications may have mixed meanings; they may indicate a person earned them just to get a job, which may be viewed with skepticism. Whereas college degrees may show a long-term commitment to a career path; certifications may be viewed as a "quick fix".

The good thing about a certification is that I know what it means.... If they have a degree from XXX CC, I don't know what it means, but I know what a certification means. (Seattle—IT Hiring Managers)

I have a BS filter that is a mile long. It's super easy for me to see the buzz word and the excessive certification and know when someone is putting me on. (Seattle—Executives)

Certifications in [IT] are probably more important than a degree. Most of my degree people are [degree holders] because they need to understand how to think through a problem, problem-solve carefully; my ad-hoc PC classroom desktop support folks don't necessarily have to have those skills, so I would look more for certifications. (Detroit—IT Hiring Managers/Executives)

While employers in the Seattle and Detroit focus groups hold relatively similar views on industry certification, the online job postings we analyzed in each area indicate that Detroit employers list industry certifications more frequently in their online job postings (see Figures 1 and 2). The reasons for these differences in the online job postings will be examined further in the in-depth interviews with employers.

Employer Views of the IT Technician's Status and Skills

Finding: The status of common IT technician jobs is unclear; these jobs they may be viewed with stigma by job seekers in the Seattle labor market.

In the Seattle focus groups, the status of the IT technician, particularly in help desk jobs, was discussed with some ambivalence on the part of both IT hiring managers and HR representatives. Some reported that these jobs are seen as low ranking positions and are not as highly demanded by job seekers as might be expected, particularly among younger workers. To some extent the uncertainty about the appeal of these jobs may be due to their unclear career prospects. They may be viewed as “dead-end” jobs with little room for growth and advancement or as “stepping stone” jobs that provide a way to get into an organization to move into other jobs. This attitude may be driven by the particular context of Seattle, with its focus on IT.

Internally for my workers who are within the help desk, they don't want to be called help desk; it is the service desk, they are no longer help desk. They are desktop support, analysts, technicians, and I think that is an industry thing. Help desk gives that implication of entry-level call center outsourced, temporaries, you know, bottom of the barrel—and it's not. (Seattle—Human Resources)

As it is right now you come out of school go to desk top for a while, then you get out. But you only do this for a while because you want to move on to

the real career. I don't know how many people would want to spend 40-50 years in that industry. (Seattle—IT Hiring Managers)

Divergent opinions exist about whether the current state of help desk jobs is a problem or if it is something simply inherent to the role. Some organizations have taken efforts to improve the image of help desk jobs, suggesting the possibility of further professionalizing of the occupation. Other employers view these positions as reasonable entry points into an organization that do not necessarily need to be career jobs, nor could they be because of constraints in salary rates for promotion within the position.

Finding: IT technician jobs may require more skills today because of changes in technology and shifts in the economy, according to employers in the Detroit focus groups.

Given the timing of the Detroit focus groups in February 2009, after the economic decline, some employers discussed that as companies downsize and eliminate IT workers, they are looking for people with a greater combination of skills. These types of skills may be moving away from more hands-on mechanically-oriented tasks that had previously been viewed as central to these jobs. Despite economic difficulties, they suggested that security is a growing area of skill needed within the IT technician field. With companies downsizing, security is viewed as a skills area less vulnerable to downsizing.

Most field people, most desktop people, they're mechanics; they are wired to think mechanically. An almost blue-collar, white-collar thing. There's no other way to say it; they may have tremendous technical skills, A plus whatever to reconfigure something, but when it comes down to now let's put it on the network and let me make sure the user is productive and let me re-install this thing and what did I forget to do, they don't have those skills. They are mechanics. (Detroit—IT Hiring Managers/Executives)

It is evolving into higher-end automation that requires IT skills to get this stuff to all work together. (Detroit—IT Hiring Managers/Executives)

I think the strategic issue is that the boxes and wires are going to become less relevant for a lot of the people coming into your program, and the logical skills, the potentially data-oriented skills (Detroit—IT Hiring Managers/Executives)

Finding: According to employers in both the Seattle and Detroit focus groups, communication, customer service, and teamwork are important skills for IT technicians.

Seattle focus group participants emphasized the importance of maturity and good communication skills, including writing and speaking skills. The ability to work in teams and to provide good customer service are also seen as key qualifications for these workers. Oftentimes in the hiring process, the technical abilities of some candidates are assumed to be adequate,

while “soft skills” are more difficult to find and to differentiate among applicants. Some employers voiced concern that community colleges, and higher education more broadly, are not doing a good enough job in helping students develop these skills.

[Among] the primary qualifications we would look for, the first ... is attitude and bedside manner—the ability to work with people who are less technical and not treat them badly. There’s the idea of technical support people who make people feel stupid. The ability to sit down and interact with someone one-on-one on a personal level and be productive is the focus. (Seattle—IT Hiring Manager)

Detroit focus group participants reported that communication and customer service skills are key and may be prioritized above technical skills. These skills are seen as harder to teach than technical skills, and they are seen as more difficult to find when hiring IT technicians. Some employers reported that while people tend to think of IT work as if it were done in isolation, it increasingly requires interaction with people. Nonetheless, some employers reported that many IT workers think of themselves as mechanics and have an affinity for the technology more so than for the persons they may be helping.

I’d like to see—as they are trying to resolve that technical issue and they have that person kind quiet on the phone [and there is] a little awkward silence—I want to know that they are engaging them, you know, making them feel that they are a priority and assuring them along the way. (Detroit—IT Hiring Managers/Executives)

There’s always been the need to have good communication skills, you know we see that on every posting.... There’s really, truly been more of an emphasis on the soft skills, the presentation piece. (Detroit—IT Hiring Managers/Executives)

Finding: Technical competence, the ability to learn, and problem-solving are also all important skills discussed by employers in both the Seattle and Detroit focus groups.

In the Seattle focus groups, employers emphasized the importance of problem-solving skills as well as the ability to learn quickly. Entry-level jobs tend to require a broad background, while deeper knowledge of specific technologies is important for more advanced positions. Thus, workers need to be able to learn and expand their knowledge as they progress. In the Detroit focus groups, employers also reported that they value the ability to continually learn and keep up with changes in IT. They want employees to be able to figure things out on their own when confronted with something new.

I think it’s important to get overall problem-solving skills. If you have specific training on a system, that can become so quickly outdated that it may not appeal to the employer who is looking for someone who can bridge to new technologies. (Seattle—Human Resources)

I really want to find out what they've done on their own in IT. What are you playing with at home? What are you experimenting with at home? What are you learning at home? (Detroit—IT Hiring Managers/Executives)

The analytical piece, this is very, very big—not just being able to memorize and spit something out, but you need to take it a step further. (Detroit—IT Hiring Managers/Executives)

Finding: Understanding the employer's larger goals, having business knowledge, and having industry-specific knowledge were viewed as important for IT technicians, according to some participants in both the Seattle and Detroit VP-level focus groups.

Among the VP-level focus groups in both Seattle and Detroit, some employers discussed the importance of entry-level workers understanding the “big picture,” by which they meant such things as: knowing how IT operations fit within the organization, being able to handle time management, having some experience with a budget, recognizing what goes into making a purchase in IT. In addition, they noted that specific knowledge of an industry may take on particular importance in some contexts.

Things that we look for in any entry-level person, now even more so than a couple of years ago, is how do things interconnect? They don't have to know about how to configure a fire wall potentially, but they have to know how it all interconnects [in the business], because otherwise they can't play on my team. (Detroit—IT Hiring Managers/Executives)

Finding: Interviewing skills are important but often lacking in applicants for IT technician positions, according to some employers in both the Seattle and Detroit focus groups.

In the Seattle focus groups, employers emphasized the importance of instructing students on the job search process. They reported that students need to know how to market themselves better through their resumes, networking, interviewing skills, and appropriate follow-up. Some employers suggested that community college students might be selling themselves short in the job application process, particularly since they are starting at a disadvantage when competing with four-year graduates. Likewise, in Detroit, employers discussed that the interview process is a key way that employers seek to determine an applicant's soft skills, such as interpersonal communication skills.

That was probably one of the biggest areas they were lacking ... they didn't have a lot of confidence. They know that they are competing against four-year graduates, and they only have an associate [degree], and they lack some confidence in that area. (Seattle—Human Resources)

Employer Views on Ties with Community Colleges

***Finding:* Some employers in the Seattle focus groups expressed a desire to develop relationships with community colleges, but felt that the time commitment might be costly relative to the benefit, given their small numbers of entry-level IT hires.**

In the Seattle focus groups, employers discussed that while the value of the associate degree in hiring entry-level IT workers is limited or unclear, in contrast to the bachelor's degree, the lack of information on its content may provide colleges with an opportunity to bolster its value. In addition, several employers expressed interest in developing relationships with community colleges, or they highlighted the absence of relationships with community colleges in the past. Some employers already have relationships with four-year colleges and universities.

By developing relationships with employers and providing more information on the content of the education represented by the associate degree, it may be possible to improve the value of this degree. While the willingness among some employer to build relationships with community colleges does not guarantee that employers will embrace the associate degree, it suggests a possibility. However, for some employers these relationships may not be feasible as these entry-level IT workers do not comprise a significant enough portion of their workforce to warrant this type of investment. Furthermore, despite the desire and intention to be involved in relationships with colleges, employers report the difficulty of finding time to do so.

I think establishing partnerships with some of the educators in the area where we are looking for candidates [would be helpful]. I know that has worked for me in the past. You know they know their students best; they know who will turn out to be a high performer. To really build up that relationship and educate them about what we are looking for because they can also incorporate that into their classroom; they can, you know, look for that. (Seattle—Human Resources)

I think one of the things that would be really helpful in all areas of my company is being able to talk with all areas of educational disciplines here and see what type of things we could do to see how we could collaborate and make students more successful, because I do feel that this particular college is particularly open to that. (Seattle—Human Resources)

I think one of the things that is a challenge is how to get the company's time and commitment to getting [information on how education can best prepare students for the workplace]. (Seattle—Human Resources)

***Finding:* According to the Detroit focus groups, while employers there do have opinions about particular community colleges, they do not have strong relationships with these institutions.**

In the Detroit focus groups, employers reported that their impressions of community colleges vary by college. They reported that community colleges and other colleges have distinct reputations in the employer community. Generally, they do not have many relationships with community colleges. While some participants discussed personal experiences they had with a college or knew people who had them, many others did not have any personal experiences with community colleges except for, in some cases, recruiting for workers.

I have a bit of a bias because I attended XXX CC and graduated XXX CC and went on to other universities, but ... mainly thinking of community colleges, XXX CC and ... XXY CC very favorable, if somebody is saying they went to XXX CC for two years and saved a bunch of money transferred on to X or Y University, to me it is almost a business savvy type of move for somebody. (Detroit—IT Hiring Managers/Executives)

Summary

These findings provide some evidence that the associate degree may have different meanings to employers depending on labor market differences and/or type of employer. Further analysis and investigation is needed to better understand how and why the degree may be interpreted differently by various employers. In addition, the implications of the changing economic climate may raise important issues and will be considered in on-going research. This study seeks to provide information for community colleges to assist them in their recognition of today's labor market needs in creating and promoting programs of study.

Figure 1: Credentials Mentioned for Network Support Jobs in Online Postings

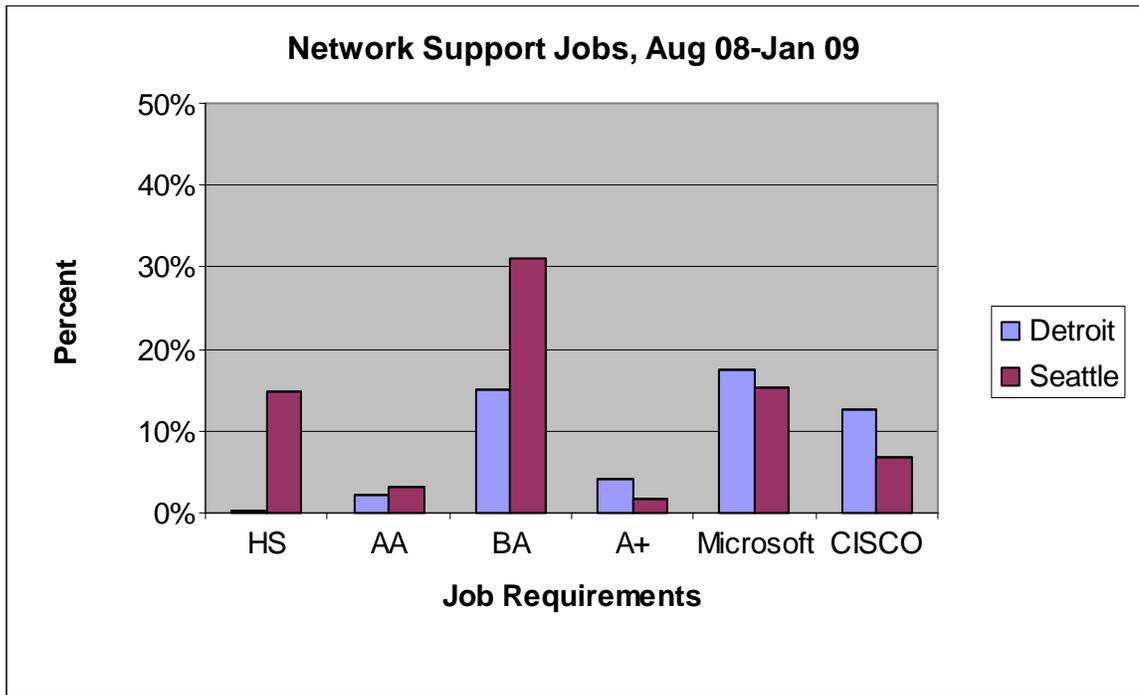


Figure 2: Credentials Mentioned in Desktop Support Jobs in Online Postings

