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# Georgia Healthcare IT Workforce Readiness Survey:

# *Key Survey Findings and Action Items*

# - 2014 -

Presented by



Georgia Healthcare IT Workforce Readiness Survey

The non-profit **Institute for Healthcare Information Technology** (IHIT) recently commissioned Atlanta-based **Porter Research** and **Billian’s HealthDATA** to conduct an online survey of Healthcare IT *Suppliers* (vendors) and *Purchasers* (hospitals, clinicians) across Georgia to gauge the status of their plans to expand and hire from within the state, as well as their perceptions of how well-equipped Georgia’s educational institutions are to provide qualified Healthcare IT candidates.

**Executive Summary**

Today’s Healthcare IT jobs market in Georgia can be optimistically characterized as “healthy” by the singular fact that Healthcare IT *Suppliers* and *Purchasers* who took part in the study indicated that there are currently *4,757 Healthcare IT jobs* available in-state at their organizations. Tomorrow’s Healthcare IT jobs forecast in Georgia also has positive indicators, as the majority (**86%**) of these Healthcare IT organizations anticipate a need to hire more Healthcare IT jobs within the state over the next five years.

The key to *Healthcare IT Workforce Readiness* success is having better alignment between business and state resources to address the perceived “major impact” factors and the workforce confidence levels discussed in this whitepaper. Georgia's business community and governmental agencies need to partner together to address these challenges that lie ahead, as well as implement proactive measurements to help foster Healthcare IT industry growth within the state over the next five years. Recommendations are covered in the *‘Conclusions’* section at the end of the whitepaper.

**Survey Overview**

Research Objectives

The goals of this research include, but are not limited to, the following:

* Identify current needs and concerns related the Healthcare IT workforce in the State of Georgia.
* Understand the role the educational system can play in addressing the workforce development issues identified by Healthcare IT *Suppliers* and *Purchasers* within the State of Georgia.
* Understand the perceptions of stakeholder executives – vendors, educators, etc. – and to address the real or perceived deficiencies that are related to the Healthcare IT workforce talent in the State of Georgia.

Survey Respondents

More than 300 qualified participants, who were knowledgeable about their organization’s Healthcare IT growth and recruitment needs over the next 3-5 years, provided feedback to the *Georgia Healthcare IT Workforce Readiness Survey*. The Healthcare IT *Suppliers* and *Purchasers* participating in this research included a range of small and medium-sized as well as some of the largest organizations in the state, such as those characterized with demographics of having more than 3,000 full-time employees (FTEs) and annual revenue greater than $50,000,000.

**Key Survey Findings**

* Overall, **19%** of the Healthcare IT *Suppliers* and *Purchasers* participating in the research have more than 3,000 full-time employees (FTEs) and **52%** of the responding organizations have annual revenues that are greater than $50,000,000.
* **79%** of all respondents stated that their organization currently has Healthcare IT jobs available for employment.
* **64%** of all respondents stated they have growth/expansion plans that include the State of Georgia over the next five years (see *Figure 1, pg. 6*).
* Major impact on growth plans for Healthcare IT *Suppliers* and *Purchasers* in the State of Georgia are as follows (see *Figure 2, pg. 6*):
	+ Georgia IT skilled workforce
	+ Georgia Healthcare IT corporate community
	+ Georgia state & local government
* **56%** of all respondents stated they were either ‘Not Confident at All’ or ‘Somewhat Confident’ that their organization would be able to fill their Healthcare IT jobs within Georgia (see *Figure 8, pg. 12*).
* **86%** of all respondents stated their organization anticipates some future need for Healthcare IT jobs within Georgia over the next five years.
* **83%** of *Purchasers* of technology, segmented alone, stated they anticipate an increased need for Healthcare IT workforce talent over the next five years (see *Figure 5, pg. 9*).
* Perceptions of the Georgia workforce talent for entry-level Healthcare IT jobs (see *Figure 17, pg. 19*):
	+ **20%** of all respondents agree that Georgia has well-trained high school graduates.
	+ **56%** of all respondents agree that Georgia has well-trained technical school graduates.
	+ **76%** of all respondents agree that Georgia has well-trained college graduates.
* Top Healthcare IT jobs over the next five years (see *Figure 7, pg. 10*):
	+ IT Security
	+ System Administrator
	+ Project Manager
	+ Help Desk
	+ Health IT Trainer
	+ Technical Support Services
	+ Database Administrator
	+ Network Administrator
* Top Healthcare IT jobs where there is a perceived challenge in filling over the next five years
	+ (see *Figure 11, pg. 13*):
	+ Data Modeler
	+ IT Auditor
	+ Business Intelligence
	+ Information Architect
* Top five highly valued job skills to fill Healthcare IT jobs over the next five years (see *Figure 12, pg. 15*):
	+ Critical thinking & problem solving
	+ Work ethic (attitudes, ethics, personal integrity)
	+ Verbal communication
	+ Prior healthcare experience
	+ Computer (IT)
* Respondents indicated the following as being the most willing to partner with to improve education / training of the Georgia workforce (see *Figure 19, pg. 21*):
	+ Georgia colleges / universities
	+ Internship programs
	+ Georgia technical schools

**Today’s Healthcare IT Workforce in Georgia**

***79%*** *of all respondents stated that their organization currently has Healthcare IT jobs available for employment.*

The majority of Healthcare IT *Suppliers* and *Purchasers* stated that they presently have Healthcare IT jobs available for employment within the State of Georgia. At the time of the survey, respondents indicated that there are *4,757 Healthcare IT jobs* currently available in Georgia at their organizations.

The availability of Healthcare IT jobs in Georgia is a positive sign of the job demand that exists in the industry, but are those positions being filled here at home, by *actual* Georgians? This is the overarching question that should be kept in mind, but applied to the near future. This whitepaper will delve into the survey respondents’ attitudes about the Healthcare IT workforce and their perceptions about anticipated needs over the next five years.

There are opportunities, strengths, and even areas for improvement found within the following survey findings, as it relates to Georgia’s Healthcare IT workforce. The conclusions drawn in the report can be used by the State of Georgia to evaluate how “best” to align its resources in order to foster growth for the Healthcare IT industry and its workforce, as looking ahead to the demands of tomorrow.

The following sections include:

* **Future Growth Plans & Impact Factors** Pg. 6
* **Future Healthcare IT Workforce Needs** Pg. 9
* **Healthcare IT Workforce Recruitment Confidence** Pg. 12
* **Healthcare IT Workforce Jobs Skills & Confidence Levels** Pg. 15
* **Healthcare IT Career Advancement & Training Opportunities** Pg. 17
* **Georgia’s Educational System: Perceptions & Confidence Levels** Pg. 19
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**Future Growth Plans & Impact Factors**

***64%*** *of all respondents stated they have growth/expansion plans that include the State of Georgia over the next five years.*

A majority of Healthcare IT *Suppliers* and *Purchasers* (increasing to **69%**, when segmented by *Purchasers* alone) anticipate operational and business growth in the state, in the near future, as reflected in the following graph:

**Figure 1**

The **64%** of organizations that have plans in the works to expand its presence in the region over the next five years is a good sign of industry growth within the state. This percentage will likely shift over time as the ‘Unsure’ segment indicated in the above graph – the **30%** of organizations that are undecided at this point in time – eventually make a decision on whether or not to develop a growth/expansion plan. Their ‘Yes’ or ‘No’ decision could have a significant impact on the rate of industry growth in Georgia over the next five years.

So, what are the impact factors that will foster, or impede, Healthcare IT industry growth in the near future?

Survey respondents were asked to evaluate several factors that are “external” to their organizations, and rate the impact of each on future growth plans. In response to the question of “Indicate the level of impact each of the following will have on your organization’s future growth and/or expansion plans within the State of Georgia”, the perceived impact factors are as follows:

**Figure 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Impact Factors on Future Growth Plans** | **Major** **Impact** | **Minor** **Impact** | **No Impact****at All** |
| * Georgia skilled Healthcare IT workforce
 | **61%** | 30% | 9% |
| * Georgia Healthcare IT corporate community
 | **50%** | 39% | 11% |
| * Georgia state / local government
 | **43%** | 34% | 23% |
| * Georgia state, city and county tax rate or tax incentives
 | 27% | 44% | 29% |
| * Georgia capital investment community
 | 25% | 38% | 37% |
| * Georgia transportation (traffic, interstate, highway

accessibility, etc.) | 25% | 43% | 32% |
| * Georgia Department of Economic Development
 | 24% | 42% | 34% |
| * Georgia Department of Education
 | 17% | 34% | 49% |
| * Georgia state, city and county relocation assistance
 | 11% | 40% | 49% |
| * Metro Atlanta Chamber of Commerce
 | 11% | 40% | 49% |

Healthcare IT *Suppliers* and *Purchasers* identified issues related to the ‘IT skilled workforce’, the ‘Healthcare IT corporate community’, and ‘state/local governance’ as “major impact” factors that could have a reverberation on future industry growth within the state. Keep in mind that this will have an effect across the board, particularly for those ‘Unsure’ organizations that have not made a decision yet – one way or the other – on a future growth/expansion plan.

This is an opportunity for state and regional departments and agencies – such as those listed in the above chart – to be proactive about the perceived “major impact” factors in order to foster Healthcare IT industry growth over the next five years. The purpose of this whitepaper is to focus on the #1 “major impact” factor – Georgia's Healthcare IT workforce – and examine its related issues in more granular detail.

Gauging the overall survey respondents’ attitudes about the existing Healthcare IT environment in the state – in order to better reflect, compare, and contrast today’s perceptions with tomorrow’s growth plans – Healthcare IT *Suppliers* and *Purchasers* were asked to give their *degree of agreement* on statements about the Healthcare IT industry, as a whole, as it currently stands in Georgia. Survey respondents had the following perceptions:

* **65%** of all respondents stated that Georgia has the right kind of business infrastructure to support the growth of Healthcare IT companies.
* **56%** of all respondents stated that Georgia has a good pool of Healthcare IT recruiting talent available.
* **37%** of all respondents stated that Georgia should be considered the nation’s Healthcare IT capital.

**Figure 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Statements of Attitude** | **Strongly****Agree** | **Agree** | **No****Opinion** | **Disagree** | **Strongly****Disagree** |
| * Georgia has the right kind of business infrastructure to support the growth of Healthcare IT companies.
 | **14%** | **51%** | 22% | 13% | 0% |
| * Georgia has a good pool of Healthcare IT recruiting talent.
 | **7%** | **49%** | 28% | 15% | 1% |
| * Georgia is the nation’s Healthcare

IT capital. | **9%** | **28%** | 31% | 28% | 4% |

The anticipated Healthcare IT growth plans in Georgia correspond with the overall industry growth predicted nationwide. The research study *“The U.S. Healthcare IT Market Outlook 2018”* performed by RNCOS Business Consultancy Services states that the nation’s Healthcare IT market is expected to have continued growth at a compound annual growth rate (CAGR) of almost 20% between 2014 and 2018.

Since the Healthcare IT organizations’ future growth plans will be contingent upon having access to the right kind of people to *actually* implement those business objectives, survey respondents were next asked about the anticipated level of need and the type of Healthcare IT jobs that they foresee a demand for in the coming years.

**Future Healthcare IT Workforce Needs**

***86%*** *of all respondents stated their organization anticipates some future need for Healthcare IT jobs within Georgia over the next five years.*

The overwhelming majority of Healthcare IT *Suppliers* and *Purchasers* stated that there will be a likely need to hire more Healthcare IT workforce talent during this time period. When asked about the *amount of increase*, by percentage, they anticipated over the next five years, the numbers were as follows:

**Figure 4**

|  |  |
| --- | --- |
| **HIT Employment****Over Next 5 Years** | **Percentage** |
| Greater than 50% increase | 6% |
| 41 – 50% | 3% |
| 31 – 40% | 5% |
| 21 – 30% | 8% |
| 11 – 20% | **30%** |
| Less than 10% | **34%** |
| Unsure | 14% |

Of the organizations that anticipate adding Healthcare IT jobs over the next five years, the bulk (**64%**) of which will expand the capacity of their current Healthcare IT workforce by up to **20%**.

***83%*** *of Purchasers of technology, segmented alone, stated they anticipate an increased need for Healthcare IT workforce talent over the next five years.*

The Healthcare IT industry, particularly among *Purchasers*, that is, hospitals and clinicians located in the state, perceive that there will be a growing demand for more Healthcare IT workforce talent to help them fulfill their operational goals in the coming years, as indicated below:

**Figure 5**

Interestingly enough, many in this industry segment – *Purchasers* of technology – do not have a strategy in place to address this likely need of hiring more HIT workforce talent over the next five years. When asked the question of “Does your organization have a strategy in place to address the recruitment of Healthcare IT workforce talent for new Healthcare IT jobs in Georgia over the next 5 years?”, the response was:

***54%*** *of Purchasers of technology stated they do* ***not*** *have a strategy in place to address the recruitment of Healthcare IT workforce talent in Georgia.*

**Figure 6**

This could signify a need, as well as an opportunity, for Georgia’s governmental and educational systems to be more proactive and work to establish more formal ties between Healthcare IT companies and the Healthcare IT workforce, such as initiating active recruitment between the job/internship placement departments at state educational institutions directly with the HR departments at the Healthcare IT organizations.

Taking a more active recruitment role directly with Healthcare IT *Suppliers* and *Purchasers* would help Georgia’s educational institutions better identify how well its educational programs and courses are aligned with the current job skill requirements. This expanded role for Georgia’s educational institutions would convey a commitment by colleges and universities as a results-oriented service provider of education *and* job placement, adding value to the costs of tuition for students. Numerous results-oriented measurements could be put into place, such as maintaining a database matrix to "best" match the student population with current Healthcare IT job openings/required skills, internships, and so forth.

The percentage of Healthcare IT workforce growth forecasted by industry insiders over the next five years within the state is very encouraging, but what kind of Healthcare IT jobs will they be looking to fill? Respondents were asked which Healthcare IT jobs they anticipated that their organization will have an increased need for: “Over the next 5 years, which of the following Healthcare IT jobs do you believe your organization will have an increase in need for quality/educated/trained employees?” The overall responses are as follows:

**Figure 7**

|  |  |
| --- | --- |
| **Healthcare IT Jobs** | **Percentage of Demand** |
| * IT security
 | **7%** |
| * Systems administrator
 | **7%** |
| * Project manager
 | 6% |
| * Help desk
 | 6% |
| * Health information technology trainer
 | 6% |
| * Technical support services
 | 6% |
| * Database administrator
 | 6% |
| * Network administrator
 | 6% |
| * Applications developer (software)
 | 5% |
| * Applications developer (web)
 | 5% |
| * Applications developer (mobile)
 | 5% |
| * Wireless / Mobility security
 | 5% |
| * Customer support / service
 | 5% |
| * Business intelligence
 | 5% |
| * Health computer networking
 | 4% |
| * Information architect
 | 4% |
| * Healthcare sales
 | 4% |
| * IT auditor
 | 4% |
| * Data modeler
 | 2% |
| * Other
 | 1% |

For both industry segments – Healthcare IT *Suppliers* and *Purchasers*, they were overlapping in their thoughts about what types of Healthcare IT positions they believe their organization will be looking to fill in the near future. Recognizing future Healthcare IT workforce needs provides some insight, but that shows only one side of the issue: the *‘Demand’*.

What about the *‘Supply’* of Georgia’s Healthcare IT workforce in order to fill the future, anticipated positions?

To look further into the readiness of Georgia’s Healthcare IT workforce, survey respondents were questioned about their attitudes and confidence levels regarding the ability to fill future Healthcare IT positions from within the state.

**Healthcare IT Workforce Recruitment Confidence**

***56%*** *of all respondents stated they were either ‘Not Confident at All’ or ‘Somewhat Confident’ that their organization would be able to fill their Healthcare IT jobs.*

When Healthcare IT *Suppliers* and *Purchasers* were asked, “How confident are you that your organization will be able to fill your Healthcare IT jobs in Georgia over the next five years?”; the responses were as follows:

**All Survey Responses (Figure 8)**

* **Segmented by Healthcare IT *Suppliers* (Figure 9)**
* **Segmented by Healthcare IT *Purchasers* (Figure 10)**

The overall lack of confidence level – combining ‘Not Confident at All’ and ‘Somewhat Confident’ – equates to **56%** (segmented by *Suppliers*, **51%**; by *Purchasers*, **64%**). The ‘Somewhat Confident’ perception (**48%** overall; **42%** by *Suppliers*; and **58%** by *Purchasers*) from survey respondents shows that there is a noteworthy amount of “mixed feelings” about whether organizations will be able to locate regional talent to fill their Healthcare IT jobs that become available over the next five years. Because ‘confidence level’ in the workforce correlates to education, training and other factors, this will be covered in more detail on subsequent pages.

At this time, let’s reintroduce *Figure 7*, which showed the list of Healthcare IT jobs that survey respondents anticipated being the most significant area of growth over the next five years. A new column has been added below, applying survey respondents’ confidence levels (5 = very confident; 1 = not confident) about the ability of being able to fill future Healthcare IT positions in-state. The table below is ordered (lowest to highest) by the *Mean ‘Confidence’ Score*:

**Figure 11**

|  |  |  |
| --- | --- | --- |
| **Healthcare IT Jobs** | **Mean Confidence Score** | **Percentage of Demand** |
| * Data modeler
 | **2.56** | 2% |
| * IT auditor
 | **2.9** | 4% |
| * Business intelligence
 | **2.91** | 5% |
| * Information architect
 | **2.94** | 4% |
| * Database administrator
 | 3.11 | 6% |
| * Applications developer (mobile)
 | 3.12 | 5% |
| * Wireless / Mobility security
 | 3.18 | 5% |
| * Health information technology trainer
 | 3.2 | 6% |
| * Applications developer (software)
 | 3.24 | 5% |
| * Health computer networking
 | 3.24 | 4% |
| * IT security
 | 3.29 | 7% |
| * Applications developer (web)
 | 3.34 | 5% |
| * Systems administrator
 | 3.47 | 7% |
| * Network administrator
 | 3.52 | 6% |
| * Other
 | 3.53 | 1% |
| * Customer support / service
 | 3.64 | 5% |
| * Project manager
 | 3.72 | 6% |
| * Technical support services
 | 3.72 | 6% |
| * Healthcare sales
 | 3.8 | 4% |
| * Help desk
 | 4.14 | 6% |

*For the above table, the average mean score gauging the level of confidence is* ***3.33*** *on a 1 – 5 (high) scale.*

It is interesting to note that the more technically advanced positions (Data Modeler, *et al*) have lower confidence scores. However, it is important to keep in mind the ‘nature’ of the individual positions when trying to draw correlations and inferences. For example; the *Help Desk* position most likely involves a significant amount of on-the-job training to comply with a Healthcare IT organization’s standards and protocols for dealing with clients, customers, patients, and so forth. This “internal” job training would naturally correspond with job placement confidence. Again, with *Healthcare Sales*, other factors have to be weighed into the equation (sales experience and history, personality fit, etc.), going beyond the realm of simply drawing a 1:1 correlation between two items, such as ‘job demand’ and ‘confidence level’.

Next, Healthcare IT *Suppliers* and *Purchasers* were asked a series of questions in order to delve further into specific areas of their attitudes regarding Georgia’s Healthcare IT workforce, at present as well as looking ahead over the coming years, to get more clarity on the overall issue.

**Healthcare IT Workforce Job Skills & Confidence Levels**

Survey respondents were asked about the job skills that they thought is most important for Healthcare IT positions within their organizations. The top five job skills identified as highly valued for prospective Healthcare IT employment is shown in the chart below:

**Figure 12**

|  |
| --- |
| **Top Five Valued Job Skills** |
| * Critical thinking / Problem solving
 |
| * Work ethic (attitudes, ethics, personal integrity)
 |
| * Verbal communication
 |
| * Prior healthcare experience
 |
| * Computer (IT)
 |

Noteworthy is the fact that four of the five highly valued job skills are not directly educational or technical based, but speak more to the *application* of talent, alluding more to ‘effectiveness’ and ‘results-oriented’. In short, *how* you apply your talent to the job.

Next, respondents were asked about how confident they are in recruiting from the *current* Georgia Healthcare IT workforce population, in being able to find individuals who have the above job skills that are necessary to meet their organization's entry-level Healthcare IT employment requirements.

Below is the overall lack of confidence level – combining ‘Not Confident at All’ and ‘Somewhat Confident’ – regarding survey respondents’ perception about being able to locate prospective Healthcare IT job candidates, who have the necessary job skills for entry-level employment, from today’s pool of Healthcare IT workforce talent found in the State of Georgia.

**Figure 13**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Job Skills** | **Overall Lack****of Confidence** | **Not Confident****at All** | **Somewhat****Confident** | **Confident** | **Very****Confident** |
| * Critical thinking / problem solving
 | **64%** | 22% | 42% | 32% | 4% |
| * Training
 | **62%** | 10% | 52% | 28% | 10% |
| * Prior healthcare experience
 | **62%** | 17% | 45% | 29% | 9% |
| * Verbal communication
 | 60% | 15% | 45% | 34% | 6% |
| * Education
 | 59% | 9% | 50% | 29% | 12% |
| * Work ethic (attitudes, ethics,

personal integrity) | 59% | 16% | 43% | 36% | 5% |
| * Written communication
 | 58% | 14% | 44% | 38% | 4% |
| * Math
 | 57% | 16% | 41% | 35% | 7% |
| * Professionalism (business skills)
 | 56% | 11% | 45% | 35% | 9% |
| * Project Management
 | 54% | 13% | 41% | 36% | 10% |
| * Computer (IT)
 | 51% | 5% | 46% | 37% | 12% |

*The overall lack of confidence for each of the above job skills exceeds the 50% threshold.* This signifies that respondents perceive that there will be a challenge in finding job applicants with the job skills that are highly valued, such as ‘critical thinking / problem solving’.

Reviewing *Figure 12* once more and noting the job skills that Healthcare IT organizations highly value in prospective employees: specifically, critical thinking, problem solving, work ethic, positive attitude, proper ethics, personal integrity, and good verbal communication. Employers want employees who have qualities that go beyond the realm of knowledge-based education and technical expertise. Healthcare IT organizations are evaluating a candidate not simply on “what you know”, but on “how effectively can you implement what you know.”

Georgia’s educational institutions could boost employer confidence and perceptions about students entering the workforce over the coming years by reviewing their education programs and courses to ensure that the technical and analytical aspects of learning are coupled with the more conceptual aspects of implementing that intellect into job-specific situations.

**Healthcare IT Career Advancement & Training Opportunities**

***43%*** *of Healthcare IT Suppliers and Purchasers stated their organization does* ***not*** *have a clear path in place for entry-level Healthcare IT employees to advance within the corporate structure.*

**Segmented by Healthcare IT *Suppliers* (Figure 14) Segmented by Healthcare IT *Purchasers* (Figure 15)**

As noted in *Figure 6* on page 10, where **54%** of *Purchasers* of technology stated that they do not have a strategy in place to address the recruitment of Healthcare IT workforce talent, there appears to be a similar opportunity for Georgia’s governmental and educational systems to intervene and work more closely with Healthcare IT organizations (particularly among *Purchasers*).:

* **33%** of Healthcare IT *Suppliers* do **not** have a clear path…
* **53%** of Healthcare IT *Purchasers* do **not** have a clear path…

Georgia’s educational institutions could partner with Healthcare IT *Suppliers* and *Purchasers* to offer continuing education courses to their key employees. This employee enrichment adds “value” to the company, while also promoting career advancement opportunities for the individual.

Survey respondents were also asked about Healthcare IT job training currently provided at their organizations. The overall responses are shown below:

* **53%** of all respondents stated they provide training for their help desk job functions.
* **50%** of all respondents stated they provide training for their customer support/service job functions.

**Figure 16**

|  |  |  |  |
| --- | --- | --- | --- |
| **On-The-Job Training** | **Yes** | **No** | **Unsure** |
| * Help desk
 | **53%** | 27% | 20% |
| * Customer support / service
 | **50%** | 29% | 21% |
| * Technical support services
 | 44% | 36% | 20% |
| * Project manager
 | 38% | 40% | 22% |
| * IT security
 | 32% | 43% | 25% |
| * Network administrator
 | 32% | 42% | 26% |
| * Healthcare IT trainer
 | 29% | 46% | 25% |
| * Health computer networking
 | 28% | 43% | 29% |
| * Database administrator
 | 28% | 46% | 26% |
| * Systems administrator
 | 27% | 46% | 27% |
| * Wireless / Mobility security
 | 24% | 48% | 28% |
| * Applications developer (software)
 | 21% | 53% | 26% |
| * Healthcare sales
 | 20% | 56% | 24% |
| * Applications developer (web)
 | 20% | 51% | 29% |
| * Applications developer (mobile)
 | 18% | 54% | 28% |
| * Data modeler
 | 15% | 54% | 31% |
| * Business intelligence
 | 15% | 52% | 33% |
| * Information architect
 | 14% | 54% | 32% |
| * IT auditor
 | 14% | 52% | 34% |

As mentioned earlier, the “nature” of the individual job will likely have a correlation with the availability of ‘on-the-job’ training programs. That is, “front line” positions (*Help Desk*, *Customer Service*, etc.) that heavily interact with clients, customers and patients usually require “internal” training to ensure that corporate standards and practices are in place in order to streamline the “customer experience” and efficiently handle related troubleshooting issues.

**Georgia’s Educational System: Perceptions & Confidence Levels**

Survey respondents were asked to rate their level of agreement with statements about Georgia’s educational system, at key graduation milestones: College, Technical School, and High School. The statements are designed to measure the Healthcare IT *Suppliers’* and *Purchasers’* perceptions about how well these learning institutions prepare students for getting entry-level Healthcare IT jobs at their organizations after graduation.

As detailed below, Healthcare IT organizations have a high degree of confidence when it comes to Georgia colleges and universities’ abilities to prepare graduates for Healthcare IT entry-level positions. That confidence level appears to have a correlation with a job candidate’s educational background, as shown in *Figure 17*:

* **20%** of all respondents agree that Georgia has well-trained high school graduates.
* **56%** of all respondents agree that Georgia has well-trained technical school graduates.
* **76%** of all respondents agree that Georgia has well-trained college graduates.

**Figure 17**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Statements of Attitude** | **Strongly****Agree** | **Agree** | **No****Opinion** | **Disagree** | **Strongly****Disagree** |
| * Georgia has high school graduates that are well trained for entry-level Healthcare

IT jobs. | **1%** | **19%** | 32% | 41% | 7% |
| * Georgia has technical school graduates that are well trained for entry-level Healthcare

IT jobs. | **2%** | **54%** | 27% | 16% | 1% |
| * Georgia has college graduates that are well trained for entry-level Healthcare IT jobs.
 | **9%** | **67%** | 15% | 8% | 1% |

The need for higher education and training in order to obtain a Healthcare IT job, even at an entry-level, is understandable considering that most of these positions require a certain amount of technical and analytical “know-how”. As mentioned before, employers want employees who have qualities that go beyond the realm of knowledge-based education and technical expertise, but employers generally evaluate entry-level job candidates, such as recent graduates, on a different basis, as most individuals entering the workforce do not have a long work history or experience to factor into the hiring decision. Therefore, employers *do* give a lot of weight to a recent graduate’s educational achievements.

The high level of confidence in Georgia’s college / university environment bodes well for how Healthcare IT organizations perceive the quality of knowledge-based education that prospective job candidates have for filling entry-level Healthcare IT positions.

Next, survey respondents were asked to evaluate the educational background of prospective Healthcare IT job candidates for their organization.

***32%*** *of all respondents stated that college / university (Bachelor degree) graduates are their potential new hires for Healthcare IT jobs.*

The breakdown of the educational background for new hires for Healthcare IT jobs here in Georgia is illustrated below:

**Figure 18**

As indicated in the chart above, businesses – whether they are hospitals or Healthcare IT vendors – want job candidates with a formal education, training and/or certification to be able to fulfill the necessary job requirements.

Georgia’s educational departments and related agencies could implement a strategy to target students who have an aptitude or interest in the IT/computer science field, promoting the array of jobs and the career advancement opportunities that exist within the regional Healthcare IT industry. Students with an interest in IT/computer science may not necessarily think of applying that talent and skill-set to the healthcare industry, from either the *Supplier* (vendors) or the *Purchaser* (hospitals, clinicians) side of the business.

State educational leaders, *et al*, could further promote the “Healthcare IT job market” within Georgia to these key students by earmarking funding sources dedicated to the pursuit of higher education and training at in-state colleges or universities, or, if more appropriate for the required level of training, at area technical schools.

Incentives for higher education could include scholarships and grants that are Healthcare IT-specific, in some capacity, such as a scholarship co-funded by the State of Georgia and leading Healthcare IT organizations. The scholarship could take into consideration specific job skills or areas based on anticipated future demands, such as the Healthcare IT jobs outlined in *Figure 7* onpage 10.

Additionally, the *suggested* scholarship could require recipients to be part of an internship program or some type of on-site involvement in the co-sponsors’ business to provide “real world” experience and better prepare today’s student, who will be tomorrow’s employee.

**Healthcare IT Industry & Georgia Working Together**

Healthcare IT *Suppliers* and *Purchasers* were asked about their willingness to work with Georgia educational programs, etc., in order to help enhance training and educational abilities and create a recruitment “pipeline” of highly-qualified entry-level Healthcare IT job applicants. The overall responses are represented below:

 **Figure 19**

Segmented by industry:

* *Suppliers’* top choices include colleges and universities, internship programs, and state and local government.
* *Purchasers’* top choices include colleges and universities, internship programs, and technical schools.

*Figure 19* corresponds with Healthcare IT organizations’ viewpoints about how well Georgia’s learning institutions prepare students for getting entry-level Healthcare IT jobs (see *Figure 17, pg. 19*).

Establishing a stronger bond between the Healthcare IT workplace & the workforce in Georgia – regardless of what “shape” it eventually morphs into – is imperative to address many of the issues that have been brought up in this whitepaper. Having the *right* Healthcare IT workforce in place will be one with the ability to:

* Fill in-demand positions, such as the top Healthcare IT jobs (see *Figure 7, pg. 10*) expected to increase over the next five years.
* Reflect the highly-valued job skills (see *Figure 12, pg. 15*) that employers are seeking, which will call for better alignment between educational programs with organizations’ job-skill requirements.
* Produce job candidates who have obtained the necessary higher education requirements (see *Figure 18, pg. 20*) for entrance into the Healthcare IT industry.

**Survey Write-In Recommendations**

Survey respondents were given the opportunity to offer their suggestions to Georgia’s schools, local government, chambers of commerce and the business community to better prepare graduates for employment in the Healthcare IT industry.

Georgia Public/Private Schools Recommendations

* “As in all industries, graduates need to be service-oriented and team players. Education on communication and professionalism should begin in high school and continue throughout the individuals’ preparation for the workforce.”
* “Better critical thinking skills. More information on the clinical side. Technology side is not bad.”
* “Partner with local businesses and develop formal and informal student mentorship programs.”
* “Internships. Proactive approach to including future healthcare requirements such as ICD-10 and electronic medical records.”
* “Internships and opportunities for site visits to observe work environment and the skills required.”

*Respondents also noted a need for sharper interview skills and career goal planning.*

Georgia Colleges/Technical Schools Recommendations

* “Align more with Healthcare IT businesses.”
* “Need more real-life clinical information and training. Tech graduates need to know how to communicate with physicians, nurses, etc.”
* “Help students understand the non-technical aspects of Healthcare IT jobs.”

*Respondents also noted a need for improved computer literacy, with more math and computer science classes, as well as for the development of analytical-thinking skills.*

Georgia Local Government, Chambers of Commerce and/or the Business Community Recommendations

* “Ensure HOPE scholarships support those seeking technical education.”
* “Scholarships and grants for IT training programs”
* “Teach more social skills. Many in this field are good at their jobs, but lack social skills to participate in meetings and interactions with non-technical employees.”
* “Elevate Healthcare IT positions and staff in PR campaigns. The healthcare delivery system relies on technology, but the workers behind the systems are not properly recognized.”
* “Help promote IT/computer programming positions. Provide opportunities for partnerships, mentorships, etc.”
* “Make more loans and capital accessible to startups. Connect banks, private equity and venture capital firms with entrepreneurs […to facilitate Healthcare IT industry growth]. Offer financial incentives to entrepreneurs to create new Healthcare IT jobs.”
* “Provide and pay for on-going training and continuing education.”
* “Hold community workshops for citizens to learn how to work with electronic devices. Computer knowledge is very limited in the rural areas.”

**Conclusions**

There is a rich cluster of Healthcare IT organizations in the State of Georgia, with a strong potential for rapid growth over the next five years. Study results show that the majority (**64%**, see *pg. 6*) of Healthcare IT organizations are looking ahead to grow their business operations over the next five years. The Healthcare IT *Suppliers* (vendors) and *Purchasers* (hospitals, clinicians) that participated in the study indicated that there are currently *4,757 Healthcare IT jobs* available in Georgia at their organizations. Furthermore, the majority (**86%**, see *pg. 9*) of these Healthcare IT organizations anticipates filling more Healthcare IT jobs within Georgia over the next five years. The key for successful industry growth is to align business and state resources in order to address the “major impact” factors, as perceived by Healthcare IT organizations (see *Figure 2, pg. 6*).

Survey respondents offered *Healthcare IT Workforce Readiness* recommendations that would be mutually beneficial for the business community and state organizations to partner together to improve the quality of Healthcare IT talent found within Georgia. Thematically, the respondents’ recommendations highlighted the need to address:

* Recruitment strategies (see *Figure 6, pg. 10*): Establish a more formal recruitment relationship between the Healthcare IT workforce & workplace.
* Workforce confidence perceptions (see *Figure 8, pg. 12*): Create better alignment between educational programs and Healthcare IT organizations’ job-skills requirements.
* Continuing education (see *Figures 14 & 15, pg. 17*): Offer Healthcare IT-specific continuing education programs at local educational institutions, promoting ongoing Healthcare IT career advancement opportunities.
* Healthcare IT-centric scholarships (see *Figure 18, pg. 20*): Fund the necessary educational requirements for entry-level jobs in the industry.
* Healthcare IT-centric internships (see *Figure 19, pg. 21*): Provide future job applicants with the “real world” job skills that employers indicated as highly-valued.

It is recommended that the above topics need to directly correlate to the Healthcare IT jobs (see *Figure 7, pg. 10*) that are expected to increase over the next five years, to the highly-valued job skills (see *Figure 12, pg. 15*) that employers want in an employee, and to the higher education requirements (see *Figure 18, pg. 20*) that job candidates need for entry-level jobs into the Healthcare IT industry.

Georgia’s educational institutions – specifically, colleges and universities – would likely be the “epicenters” where the ideas from a business community and state organizations partnership are tested. Georgia’s colleges and universities could produce a higher quality Healthcare IT workforce on several fronts, including:

* Implementing and promoting educational programs and courses that correspond with future job demands (see *Figure 7, pg. 10*).
* Aligning educational programs and courses with highly-valued job skills (see *Figure 12, pg. 15*).
* Promoting the job availability and career advancement opportunities to their general IT/computer science undergraduate program population.
* Establishing closer ties with Healthcare IT organizations that have a willingness to “work together” with educators in developing high-quality Healthcare IT job applicants (see *Figure 19, pg. 21*).
* Establishing more formal and direct recruitment initiatives between college and university placement departments and Healthcare IT organizations to "best" match students with Healthcare IT job/internship opportunities.

It should be noted that Georgia’s future Healthcare IT prosperity will require a cooperative effort between all parties…an interdependence that requires input and involvement from Healthcare IT *Suppliers* and *Purchasers*, state regulators, agencies, educators as well as workforce candidates. Healthcare IT *Suppliers* and *Purchasers* are encouraged to initiate a closer tie with the rest of the Georgia Healthcare IT community, or to share ‘new ideas’ that could benefit the overall regional Healthcare IT environment. Contact IHIT (see *‘Connect with Us’*) to share ideas, or for help to facilitate an *action plan* with the appropriate state agencies and/or educational institutions.

**About IHIT**

IHIT was founded for the purpose of connecting resources for the advancement of healthcare through technology in a way that has not yet been achieved elsewhere. IHIT plays a unique role in this coordination by leveraging the strength of the Healthcare IT industry within Georgia and the Southeastern U.S. to expand technology throughout the broader U.S. healthcare system. Specifically, IHIT will engage in projects that deliver on the mission of economic development and improvement of access and quality of care.

IHIT will achieve this mission by going beyond talk, and taking action firsthand by leading and partnering on projects aimed at leveraging the nation’s leading Healthcare IT cluster. This approach will allow us to contribute to the ongoing development of these technology resources for future adoption and expansion across the nation.

**Connect with Us**

If you would like to follow our progress, or have a project that might benefit from IHIT involvement, or otherwise want to stay in touch, please contact us at **info@InstituteforHealthcareIT.org**, or visit [**www.InstituteforHealthcareIT.org**](http://www.InstituteforHealthcareIT.org). We appreciate your interest, and we look forward to exploring how we might advance healthcare through information technology.

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