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# HITECH and Health IT Jobs: Evidence from Online Job Postings

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The Health Information Technology for Economic and Clinical Health (HITECH) provisions of the American Reinvestment and Recovery Act (ARRA) of 2009 were designed to stimulate the adoption and use of health information technology (Health IT) to transform health care delivery. Greater EHR adoption is projected to increase the demand for workers to implement, support, and use Health IT. This brief describes trends in online job postings for Health IT jobs since passage of the HITECH Act in February 2009.

#### Online postings for Health IT jobs have tripled since 2009.

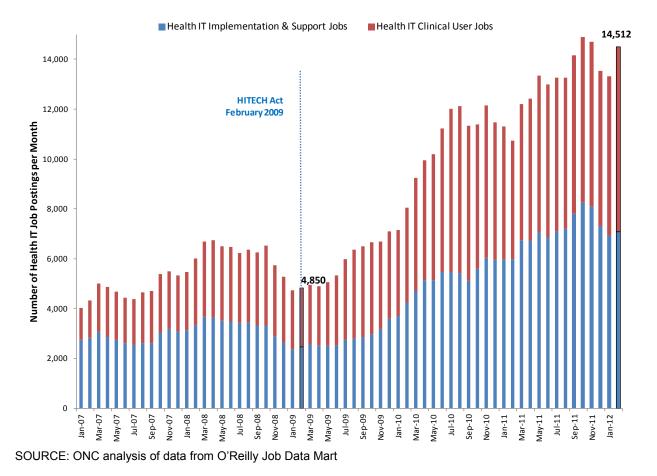
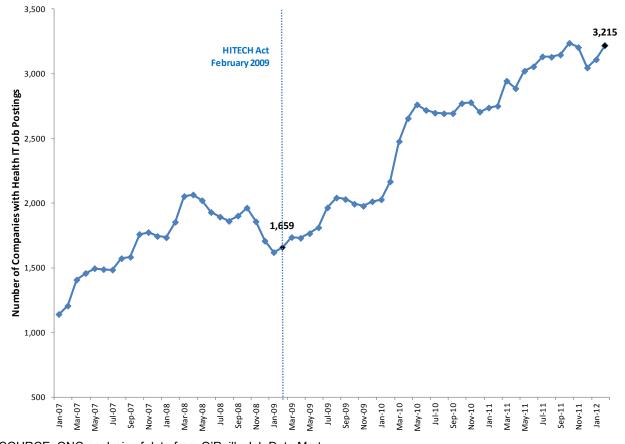
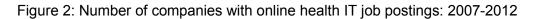


Figure 1: Number of online health IT job postings per month: 2007-2012

★ The number of online Health IT job postings per month has increased by 199% since passage of HITECH, growing from 4,850 in February 2009 to 14,512 Health IT jobs in February 2012 (Figure 1).

The number of companies with online postings for Health IT jobs has nearly doubled since 2009.

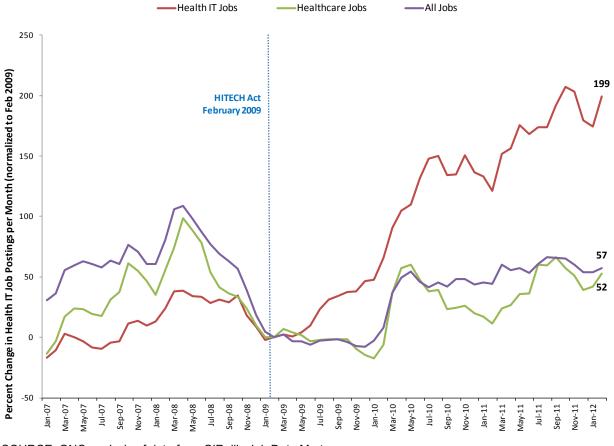




- SOURCE: ONC analysis of data from O'Reilly Job Data Mart
  - ★ Since passage of HITECH, the number of companies with online Health IT job postings has increased by 94%, growing from 1,659 in February 2009 to 3,215 in February 2012 (Figure 2).

Since passage of HITECH in 2009, growth in online postings for Health IT jobs has outpaced growth in Healthcare jobs and All jobs.

Figure 3: Percent change in online health IT job postings per month, relative to healthcare jobs and all jobs: normalized to February 2009



- SOURCE: ONC analysis of data from O'Reilly Job Data Mart
  - ★ Since passage of HITECH in February 2009, online postings for Health IT jobs per month have increased by 199%, compared with 52% growth in Healthcare jobs and 57% growth in All jobs (Figure 3).

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Health IT jobs are accounting for a larger share of online job postings for Healthcare jobs and All jobs since 2009.

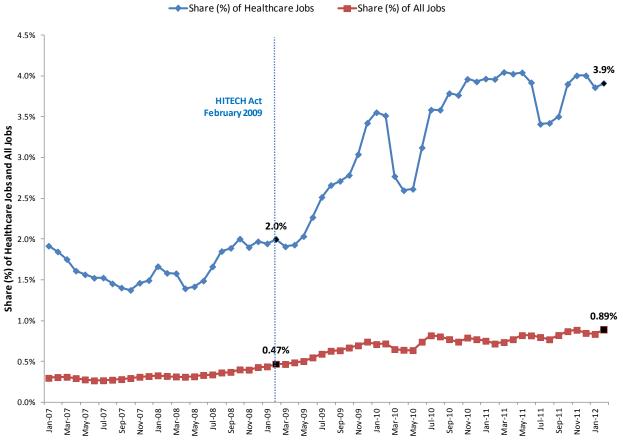
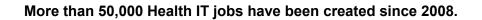


Figure 4: Online health IT job postings as a share (%) of healthcare jobs and all jobs: 2007-2012

SOURCE: ONC analysis of data from O'Reilly Job Data Mart

- ★ Since passage of HITECH, online postings for Health IT jobs has grown from 2.0% of Healthcare jobs in February 2009 to 3.9% of Healthcare jobs in February 2012 (Figure 4).
- ★ As of February 2012, Health IT jobs accounted for 0.89% of online job postings for all jobs.



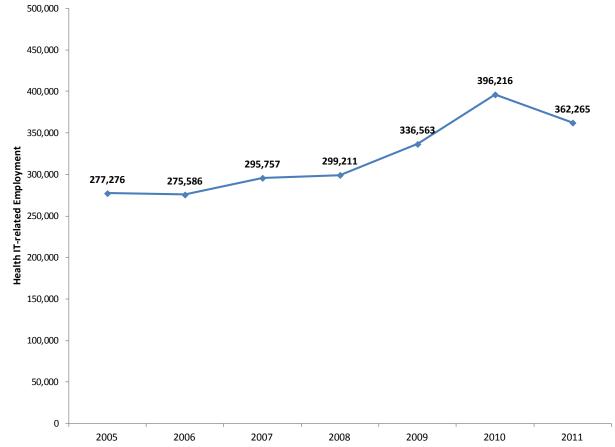


Figure 5: Employment in health IT-related occupations in the health delivery system: 2005-2011

NOTES: Occupations include: Computer and information technology managers, computer scientists, programmers, software engineers, support specialists, database administrators, network administrators, network systems analysts, computer hardware engineers, health information technicians, computer operators, data entry keyers. Estimate excludes health IT-related employment in the general IT sector that support health applications. SOURCE: ASPE analysis of Current Population Survey data from Bureau of Labor Statistics

★ From 2008 to 2011, employment in Health IT-related occupations in the health delivery system has increased by over 50,000 jobs (Figure 5).

### Summary

Beginning in February 2009, HITECH allocated \$2 billion for programs and \$27 billion in incentive payments to encourage the adoption and meaningful use of electronic health record (EHR) systems. National surveys indicate that EHR adoption by nonfederal, office-based physicians doubled from 2008 to 2011, increasing from 16.9% to 33.9%.<sup>1</sup> From 2009 to 2011, EHR adoption by nonfederal, acute care hospitals has more than doubled, increasing from 16.1% to 34.8%.<sup>2</sup>

Greater EHR adoption is projected to increase the demand for skilled workers to implement, support, and use Health IT. The Bureau of Labor Statistics projected the need for an additional 37,700 health information management workers by 2020.<sup>3</sup> A study of Health IT staffing in hospitals projected the need for an additional 41,000 workers to implement advanced EHRs.<sup>4</sup>

To address increased demand for health IT workers, the Office of the National Coordinator for Health Information Technology (ONC) invested \$118 million to support the education of health IT professionals. Launched in September 2010, ONC's Community College Consortia Program has rapidly trained over 12,000 community college students.<sup>5</sup> In addition, ONC's University-Based Training Program is currently training 1,600 university students in more advanced roles.

This study examined trends in Health IT jobs using online job postings as a proxy for labor demand. Since passage of HITECH in 2009, the number of online Health IT job postings has tripled, rising from 4,850 per month to 14,512 per month. The number of companies with online postings for Health IT jobs has nearly doubled, increasing by 94%. Since 2009, Health IT job postings have grown much faster than Healthcare jobs and All jobs. By February 2012, online postings for Health IT jobs accounted for 3.9% of healthcare jobs and 0.89% of all jobs.

The findings from this study are suggestive of the demand for Health IT workers since the enactment of HITECH. A study of actual Health IT employment found that more than 50,000 Health IT jobs had been created in the health delivery system since 2008.<sup>6</sup> Understanding the impact of HITECH on the availability of Health IT jobs remains an important policy issue for further research.

## **Data Source and Methods**

Online job posting data are from the Job Data Mart, a proprietary database of O'Reilly Media, Inc. The database captures weekly snapshots of open jobs from a national job aggregator web site and represents approximately 85-90% of all U.S.-based online job postings. Jobs are uniquely identified and de-duplicated to the extent possible. Persistent postings are recorded only at the date of first post, and companies that advertise multiple positions are counted as a single job. The number of online job postings are reported monthly based on a 3-month moving average. Prior research has shown that job openings correlate with actual employment trends.<sup>7</sup>

### Definitions

<u>Health IT jobs</u>: positions related to development, implementation, and use of EHR systems. A rule-based filtering algorithm was developed to classify Health IT jobs into two categories.

- 1. <u>Health IT Implementation & Support jobs</u>: positions in EHR system development, sales, implementation support, user training, technical support, and system management.
- 2. <u>Health IT Clinical User jobs</u>: positions for nurses and physicians who use rather than administer EHRs, laboratory technicians who use information systems, receptionists who use EHRs to schedule patients, and billing staff who work with EHRs.

### References

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The authors are with the Office of the National Coordinator for Health Information Technology, Office of Economic Analysis, Evaluation and Modeling.

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