

The House Energy & Commerce Committee

Subcommittee on Commerce, Manufacturing, and Trade

**“Where the Jobs Are: Moving the Economy with Mobile Apps”**

Testimony submitted by John B. Horrigan, Ph.D., Vice President at TechNet

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**Executive Summary**

This statement discusses research sponsored by TechNet that developed an estimate for the number of jobs that have been created by the mobile apps that people download to their Smartphones or tablet computers. The study, entitled “**Where the Jobs Are: The App Economy**,” finds that:

- At the end of 2011, the App Economy was responsible for approximately 466,000 jobs.
- Some 311,000 jobs are directly supported by mobile apps, with another 155,000 brought about by buying power created by workers developing mobile applications.
- Apps employment is distributed widely throughout the United States. Apps jobs cluster in places one would expect – New York, San Francisco, and the San Jose area – but are also found in places such as Chicago, Atlanta, and Philadelphia. The relative ease with which to participate in this sector means apps developers do not necessarily have to work in traditional tech hubs.
- Apps job growth has taken place in the context of extremely fast adoption of Smartphones & tablet computers in the United States. Nearly half (46%) of Americans have a Smartphone as of early 2012, up from just 17% in 2009. This adoption rate easily exceeds that for home broadband uptake. Some 19% of Americans have a tablet device as of early 2012; this is double the number that had a tablet in late 2010.

With future improvements in the functionality of mobile devices and the growing ubiquity and speed of broadband networks, the prospects are bright for innovation, entrepreneurship, and job creation in the Apps Economy.

## **Testimony**

Madame Chairwoman, it is a pleasure to appear before your committee this morning to discuss how “mobile apps” generate jobs in our economy. My name is John B. Horrigan and I am the Vice President of Policy & Research at TechNet, which is the policy and political network of CEOs that promotes the growth of technology and the innovation economy. TechNet appreciates the leadership role that this Committee plays in helping to foster innovation in the United States.

I will focus on two things today:

- 1) The breathtakingly fast adoption of Smartphones & other mobile devices in the United States;
- 2) How the mobile applications that ride on the smartphone platform contribute to job creation in the United States.

### **Smartphone & Tablet Adoption in the United States**

According to the Pew Research Center’s Internet & American Life Project, Americans have been embracing Smartphones at a truly rapid pace.

- In 2009, 17% of adult Americans had a Smartphone.
- In 2011, 35% of adult Americans had a Smartphone.
- In 2012, 46% of adult Americans had a Smartphone at home.

Let’s put those numbers in context. By historical standards, Americans adopted broadband at home at a very fast pace. It took roughly 9 years for broadband to reach 50% of American households. For the personal computer, it took 18 years to reach 50% adoption and for the cell phone it took 15 years.

Smartphones are a breed apart. In just 5 years time, if we date the start of the Smartphone era to the introduction of the iPhone (in 2007), nearly 50% of all Americans have gotten a Smartphone. To frame the comparison differently, it took two years for home broadband adoption to grow from 37% to 47%. Smartphones have travelled that same path in just 10 months time. On a global scale, sales of Smartphones increased by 63% from 2010 to 2011, from 298 million units to 486 million.

Tablet computers add another dimension to mobile connectivity. By early 2012, according to Pew, 19% of Americans had a tablet computer (such as an iPad), up from 10% in the fall of 2011.

### **Job creation**

People unquestionably love their Smartphones and tablet computers. These devices are multifaceted tools for communicating with others, sharing content, and getting information about job opportunities, health care, and community events. They also come with specialized software programs – or apps – that let users have a wider range of online experiences. Someone has to develop these apps and earlier this year TechNet released a report that sought to assess the impact of apps' development on the job market.

To do this, TechNet contracted with Dr. Michael Mandel of South Mountain Economics to develop an estimate of the number of jobs associated with the Apps Economy. The report, released in February 2011 is entitled "**Where the Jobs Are: The App Economy**" and TechNet has submitted it for the record. Understanding the impact of apps on the job market is no easy task. This is a new and evolving sector of the economy, which means it is difficult for government statistics to keep pace. There is today simply no entry that says "apps jobs" in Labor Department numbers. To overcome this hurdle, the TechNet report did several things:

- Used “The Conference Board Help-Wanted Online” database to get a current (as of the end of 2011) snapshot of want ads for jobs advertising for apps development. That database showed that 4.7% of ads for tech jobs were for apps development.
- Estimated, using standard assumptions about how the number of want-ads relates to overall employment, how many people were **directly** employed in developing apps.
- Used conservative employment multipliers to estimate how many jobs are **indirectly** supported by apps development (whether they are support functions in a developer’s company or nearby jobs created by new spending from apps developers).

The results were striking. At the end of 2011, the App Economy was responsible for approximately 466,000 jobs in the United States – up from zero in 2007. The figure for direct App Economy employment (311,000) is slightly greater than the number of jobs in the software publishing industry and just less than half the number of jobs in custom computer programming.

The other dimension to this finding is geography. Apps jobs are distributed throughout the United States. The New York area leads the way in apps jobs, with 9.2% of these jobs there, followed by the San Francisco area (8.5%) and the San Jose area with 6.3%. But we also see places perhaps less associated with the tech economy having sizeable apps jobs figures. For instance, Chicago has 3.5% of apps jobs, Atlanta 3.3% of apps jobs, and Philadelphia has 1.9% of apps jobs. The barriers to entry to developing apps are fairly low; if you have a computer, broadband connection, and the right skills and software, and you can start coding. This means that an apps developer need not necessarily be tethered to a specific region in order to participate in this sector.

In closing, let me point out that Smartphones and tablet computers – and the apps that enhance their usefulness – are part of the collection of information and communication technologies that fall under the label of general purpose technologies. These technologies (such as personal

computers or broadband networks) engage consumers, but that also serve as platforms for innovators to create new products, services, and jobs. They allow creativity to be transformed into social and economic value. As mobile devices become more powerful and broadband networks become faster and more ubiquitous, this process will accelerate, with benefits to the economy in terms of job creation, investment, and entrepreneurship. All stakeholders – in the public and private sectors – must continue to cultivate an environment in which such innovation can flourish.

Creating the right environment for such innovation is the challenge before us. TechNet's members span the innovation spectrum. We represent everyone from the CEOs in the Fortune 10 to the young entrepreneurs who just moved out of the garage. Large or small, publicly traded or in the first round of angel investment, tech industry leaders agree that success in this sector relies on a delicate balance of federal investments in basic scientific research, access to the right talent, and the freedom to innovate. In recent years, federal, state, and local governments have considered multiple proposals relevant to the tech industry, such as combating online piracy, improving cybersecurity, and expanding access to high-speed wireline and wireline Internet services and networks. These are complicated, technical issues – and the wrong approach could have unintended consequences. As the Apps Economy report shows, the potential for job growth is tremendous. As Congress continues to explore these other issues, it is essential that we all work together to get it right. We applaud the Chairwoman's methodical approach in exploring these issues and look forward to working with all of you as you continue to explore these matters.