

The House Energy & Commerce Committee
Subcommittee on Commerce, Manufacturing, and Trade

“Where the Jobs Are: There’s an App for That”

Testimony submitted by Rey Ramsey

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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 smart phones 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 smart phones & tablet computers in the United States. As of early 2012, nearly half (46%) of Americans have a smart phone, up from just 17% in 2009. This adoption rate easily exceeds that for home broadband adoption. 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 Chairman, it is a pleasure to appear before your committee this morning to discuss how “mobile apps” generate jobs in our economy. My name is Rey Ramsey and I am the President & CEO at TechNet, which is the policy and political network of CEOs that promotes the growth of technology and the innovation economy. TechNet applauds the leadership role that this Committee plays in helping to foster innovation in the United States and appreciates the opportunity to discuss this important topic.

I will focus on three things today:

1. How mobile applications that ride on the smart phone platform contribute to job creation in the United States;
2. How the breathtakingly fast adoption of smart phones & other mobile devices in the United States has helped drive the creation of the app economy; and
3. Finally, how we can work together to continue driving economic growth in this exciting new sector.

Job creation

The past few years we have seen an incredible rise in the number of people using smart phones and tablet computers. Smart phone users cut across the population – they represent every age, social and economic category. Why? Everyone can benefit from them. These devices are multifaceted tools for communicating with others, sharing content, and getting information via specialized software programs – or apps – that let users have a wider range of online experiences.

On an economic level, each app represents jobs— for programmers, for user interface designers, for marketers, for managers, for support staff. This total number of jobs at ‘pure’ app firms such as Zynga, a San Francisco-based maker of Facebook game apps that went public in December 2011. App Economy employment also includes app-related jobs at large companies such as Electronic Arts, Amazon, and AT&T, as well as app ‘infrastructure’ jobs at core firms such as Google, Apple, Facebook and Microsoft. Earlier this year TechNet decided 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 result was TechNet’s February 2012 report, “**Where the Jobs Are: The App Economy,**” submitted 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:

- First, we 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.
- We then estimated, using standard assumptions about how the number of want-ads relates to overall employment, how many people were **directly** employed in developing apps.
- And then 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 surprising dimension we found is geography. Apps jobs are distributed throughout the United States. The New York City region 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.

But the benefits to the economy and society are not limited to apps jobs. Almost a million apps have been created for the iPhone, iPad and Android alone, greatly augmenting the usefulness of mobile devices. Want to play games, help your kid with her homework, track your workouts, or learn a new language? There's an app for that.

The Apple store has 20,000 education apps alone. These apps can help teacher keep current with advances in their field or employ multi-media to make dry subjects more exciting. Chemistry teachers are using apps not just to memorize the periodic table but understand it. For a kid with a learning disability – we're finding that these apps can be a game-changer.

At TechNet we see the potential of apps to help a diverse population. TechNet's sister non-profit, ConvergeUS, is working with the Military Family Association to create an

app that helps military families with the unique challenges that they face. Things like finding a doctor in a new town or helping track their kids' progress in a new school. The possibilities are limited only by our imagination.

Otherwise – the app economy is not just creating jobs nationwide – it's helping our nation's diverse population live better lives. It's an economy worth preserving and promoting. All stakeholders – from consumers to entrepreneurs to policy makers must work together to cultivate an environment in which this innovation can flourish.

Smart phone & Tablet Adoption in the United States

The apps economy is built on a foundation of smart phones and tablets. As these devices have become more popular so have apps – and vice versa. According to the Pew Research Center's Internet & American Life Project, Americans have been embracing smart phones at a truly rapid pace.

- In 2009, 17% of adult Americans had a smart phone
- In 2011, 35% of adult Americans had a smart phone.
- In 2012, 46% of adult Americans had a smart phone 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.

Smart phones are a breed apart. It was just five years ago that the iPhone was introduced. Since then, nearly 50% of all Americans have gotten a smart phone. To frame the comparison differently, it took two years for home broadband adoption to grow from 37% to 47%. Smart phones travelled that same path in just 10 months time. On a global scale, sales of smart phones 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.

Smart phones, 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 for everyone.

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.

But phone sales alone will not drive job creation in the app economy. Apps will only flourish in the right environment. To sustain and grow this economic activity, Congress should focus on the broader issues of infrastructure and access. We need a national infrastructure that promotes access to spectrum, broadband adoption, working capital, and human capital. And we need to ensure that everyone – from academia to minority communities to vets – have easy access to apps.

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 cyber security, 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 Chairman's methodical approach in exploring these issues and look forward to working with all of you as you continue to explore these matters.