

CHAPTER 9

HIGH-TECH POLICY

1. Cyber-Security and Identity Theft

Recommendations

1. Enhance privacy laws, based on consumer notice, consent and security, to limit how companies share sensitive customer information with outside organizations.
2. Keep burden on government, not citizens, to justify when private information must be shared.
3. More public education – state agencies should continue to work with federal agencies to identify areas of need for increased data security.

Background

As fast as electronic technology develops for legitimate and legal purposes, so too does technology intended for malicious reasons. As quickly as code writers produce software designed to enhance security, someone with criminal motives is seeking a way around it.

As the electronic economy develops, particularly in Washington, an increasing number of individuals and organizations rely on electronic and web-based means of storing and exchanging information. The privacy and security of this information is more important than ever.

Cyber-security affects virtually everyone in modern society, since sensitive financial and medical records are often stored in potentially vulnerable computer systems, and an increasing amount of shopping and other routine business takes place over the internet.

There are several types of cyber-threats that consumers face every time they turn on their computers, surf the internet or read their e-mail. The two most common are “phishing” and spyware (or adware).

“Phishing” is a type of computer fraud designed to steal a person’s identity and other information by imitating legitimate organizations like banks or government agencies. Spyware is software secretly downloaded onto a computer for the purpose of tracking a user’s passwords or account numbers as he or she navigates the internet.

Both “phishing” and “spyware” are symptoms of the broader crime of identity theft. Identity theft is quickly becoming a much larger threat to society in general, not just computer users. Information in our porous electronic and physical mail systems is not secure enough to defend against high-tech 21st century threats.

Washington ranked 8th in the nation in 2004 for identity theft – more than 5,600 residents reported they were victims, an increase of almost 20 percent from 2003. Fortunately, through increased awareness in the private and public sector, Washington, in 2008, now ranked 13th for identity theft.

Nationally, identity theft crimes cost U.S. consumers more than \$49 billion a year.¹ More than eight million people were victimized, with financial losses averaging \$5,720 per person.² While these losses are down compared to past years, the financial industry warns that careful vigilance by consumers is still needed.

Having ones identity and credit stolen goes beyond mere financial repercussions. Victims may be rejected for jobs, home mortgages, insurance policies or credit cards because someone else is using their personal information maliciously.

Guarding against identity theft is the focus of new state laws as well as recent criminal task forces. The state Attorney General’s office formed an Identity Theft Advisory Panel in 2005 to ask citizens, businesses and government agencies about the best ways to fight identity crimes.

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In 2005, the legislature passed a bill to strengthen law enforcement tools against spyware, phishing and identity theft.³ This was followed up in the same year with two bills dealing with computer crime: House Bill 1966 and Senate Substitute Bill 5939. The first laid out general guidelines for prosecuting cases of identity theft. The second required that policy reports be given by request to victims of identity theft in order to facilitate fraud alerts and to clear fraudulent activity from victims' records.

The legislature felt more checks were needed on the consumer side and, in 2008, the legislature enacted Substitute Senate Bill 5826. This legislation dealt with a consumer's right to place a freeze on his personal credit information in order to prohibit a credit agency from furnishing the consumer's credit to a third-party, without prior authorization from the consumer.

The legislature also passed Second Substitute House Bill 1273, creating the Financial Fraud and Identity Theft Crimes Investigation and Prosecution Program as a part of the Department of Community, Trade and Economic Development. This unit will help monitor trends in identity theft and financial fraud crimes and will help coordinate investigatory and prosecutorial personnel dedicated to cracking down on these crimes.

Policy Analysis

In addition to tougher enforcement by the Attorney General's office and state law enforcement agencies, consumers themselves should become educated about changing security threats. Current defensive software can only do so much because new threats constantly emerge to subvert existing protections. A mix of public and private cooperation is necessary to address ever-present threats and to reduce the incidence of cyber-crime.

While steps have been taken to help curb identity theft over the past two years, most identity crime takes place off-line. People are much more likely to be victimized through what they throw into their trash cans or leave in an unsecured mailbox than through the internet. According to the Better Business Bureau, only 11 percent of known identity theft cases occurs online.⁴ Low-tech dumpster diving and telephone fraud account for more thefts than internet-based fraud.

However, it is still important that private companies be encouraged to develop products that respond to today's threats. Consumer education is also important. A well-informed consumer is better equipped to avoid identity victimization than a consumer who relies solely on government regulation for protection.

Recommendations

1) Enhance privacy laws, based on consumer notice, consent and security, to limit how companies share sensitive customer information with outside organizations. Individual consumers who voluntarily give their private information to a company need to be informed about that company's policies regarding use of that information, and whether it will be given or sold to a third party.

2) Keep burden on government, not citizens, to justify when private information must be shared. Government has legitimate reasons to have limited and carefully defined access to information about private citizens, especially for law enforcement purposes. But the burden must remain on the government to show when such access is justified, not on citizens to explain why sensitive personal information should remain private.

3) More public education – state agencies should continue to work with federal agencies to identify areas of need for increased data security. Increasing the public's knowledge (both consumers and businesses) of the most vulnerable areas susceptible to identity theft will help stem crime. This also has the potential to save taxpayer money.

2. Access to Broadband

Recommendations

1. Freeze any increases in telecommunications and wireless taxes, or reduce taxes as necessary to foster growth.
2. City, state and local governments should refrain from operating a municipal broadband network – either wired or wireless.
3. Encourage market forces to expand broadband service wired or wireless, into rural areas.
4. Adopt a “hands-off” approach to regulating and taxing advances in the telecommunications and technology industries.

Background

The world marketplace is quickly evolving into a digitally-connected web of business and consumer communication. The technological infrastructure necessary to support and advance the emerging e-commerce engine is complex and expensive. Private companies that risk capital on expanding the reach of broadband technology will only do so if it makes economic sense.

Policymakers should be aware that heavily taxing and regulating an industry that depends on rapid innovation stifles the research and development high-tech companies are using to extend broadband access to more people. A heavy-handed taxation policy on e-commerce also drives away consumers – or causes them to seek services from alternative (and not always legal) vendors.

While the number of broadband internet connections grew rapidly from 2005 to 2006, the United States overall ranks low on broadband penetration compared to other industrialized nations. The U.S. led the world in broadband penetration as recently as 2000, but since then we have fallen to 15th place worldwide.

A broadband connection provides a computer user with convenient high-speed service when using the internet, usually through a dedicated line. This is opposed to a much slower dial-up connection, which uses an existing telephone line to connect the user to the internet.

The U.S. also runs behind in the speed of the average broadband connection. Despite this slower relative growth, 84 million Americans, or 47 percent of the population, have broadband at home. Large numbers of households skipped the dial-up modem age and went straight to a high-speed internet connection.⁵

Policy Analysis

Counterproductive federal, state and local tax and regulatory policies hamper new investment in broadband and wireless infrastructure.⁶ In some parts of Washington, publicly-subsidized ventures, like Tacoma's Click! Network, are undercutting private service providers and driving away future investment. Click! received millions of dollars in public subsidies, and yet it has never fulfilled its original promises to the taxpayers of Tacoma.⁷

Overall, communication services in Washington face a higher level of taxation than the purchase of most other goods or services. By one estimate, telecommunication companies pay an average of 39 percent more in taxes than other industries.⁸ In Washington, for example, telecommunication consumers pay well over half a billion dollars a year in taxes.⁹

The Beacon Hill Institute and the Tax Foundation found that Washington's average wireless tax rate is just over 18 percent, more than twice the highest combined state and local sales tax rate in any U.S. city or county.¹⁰ Similarly, the tax analysts of the journal *State Tax Notes* rank Washington as having the second highest combined wireless taxes and fees in the nation – or about 150 percent higher than the national average.¹¹

Reducing the tax burden on telecommunications customers would lower a major barrier to broadband access for rural residents and smaller businesses. It would result in greater consumer fairness. Currently, when a customer signs up for a wireless or broadband

connection, a large number of state and local taxes are imposed through monthly billing.

Unlike state and local sales taxes, these fees are not widely known and therefore consumers are generally unable to take into account these added costs prior to purchasing the service.

Expanding broadband to rural areas

Rural Washington lags behind the rest of the state in access to broadband internet connections, largely because of the higher cost of outlying networks. Building fiber optic pipelines from urban or suburban transmission stations to rural communities is extremely expensive and time consuming, compared to the number of new customers reached.

Several telecommunication companies are undertaking extensive broadband buildouts, but other companies are circumnavigating the physical limitations of laying new pipe or using existing telephone and power lines by using the emerging technology of Wireless Fidelity Internet protocol (Wi-Fi).

Wi-Fi connections already exist in thousands of homes and businesses in Washington, but they are mostly short-range connections. A Wi-Fi user has to be within at least 150 to 300 feet of the nearest wired connection.

Some cities have tried establishing public, city-wide Wi-Fi systems to provide free wireless broadband service for residents. Large cities such as San Francisco and Philadelphia, and smaller ones such as St. Cloud, Florida, and Spokane have tried these systems with limited success. Many times the government's feasibility studies on subscription rates and capital costs turn out to be wrong, predicting much rosier results than the actual outcome, and causing entire networks to shut down or be sold at a loss to a private operator.

Two policy considerations are key to establishing workable rural Wi-Fi connections for citizens. First, as seen time and again with new technology, it is essential that private companies initiate Wi-Fi service instead of a government-run, taxpayer subsidized system. The discipline of the market prevents private companies from becoming entrenched, or a politically-protected agency which

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continues spending public money whether or not it is accomplishing its purpose. Once a public agency gets established, it quickly focuses more on preserving government jobs than on serving the public.

Several companies are marketing themselves as Wireless Internet Service Providers (WISPs) and buying up available spectrum to carry wireless internet signals. Private companies are also using a newer technology, Worldwide Interoperability for Microwave Access (WiMAX), which will cover a much larger area than a Wi-Fi signal.

A WiMax signal can cover about 20 square miles. Wireless companies are also tapping into radio spectrum to roll out mobile internet devices on their growing system – technologies such as 3G, 4G, LTE (Long Term Evolution), HSDPA (High-Speed Downlink Packet Access) or UMTS (Universal Mobile Telecommunications System).

Policymakers should recognize that there exists sufficient competition among private companies to provide ample and affordable internet access. Municipal governments should resist the urge to jump into the market. History is strewn with examples of governments investing in outdated technology, or blowing project budgets and taking from the taxpayers' pockets to cover cost overruns, as Tacoma's Click! Network has done.

There is no lack of adoption by the general public of these new improvements in telecommunications. It took more than 90 years for landline service to reach 100 million consumers. It took over 21 years for 100 million consumers to buy a color television. But it took less than 17 years for wireless phones to reach 100 million consumers.

As new technological improvements, such as VoIP, which allows affordable phone service over the internet, bolster the telecommunications industry, government should approach the technology with a light regulatory hand. The immense proliferation of wireless technology is testament to the landmark 1996 federal Telecommunications Act, which left the wireless industry largely unregulated.

The benefits of this wise policy can be seen in the fact that the U.S. has over 255 million wireless subscribers, with an 84 percent

penetration rate, and that wireless-only households (homes that do not have a traditional wireline telephone) jumped from 8.4 percent in 2005 to almost 14 percent in 2007.¹²

Recommendations

1) Freeze or reduce taxes on telecommunication services.

Telecommunications services are highly taxed, and often the taxes are passed off as “fees,” because over the years state and federal legislators have found this to be a convenient revenue source. In an era of rapidly-growing technology, however, the high tax burden runs the risk of stifling innovation and slowing affordable access to broadband for citizens.

Freezing or lowering the telecommunication tax burden would directly benefit current and future broadband users, and would contribute to the prosperity of Washington and the nation.

2) City, state and local governments should refrain from operating a municipal broadband network – either wired or wireless.

Government can play an important, indeed a vital, role in fostering an effective local telecommunications market, but owner and market competitor is not one of them. Running a sophisticated telecommunications and cable service is simply not a core function of government, and policymakers should allow private companies to build and operate these services.

3) Encourage market forces to expand broadband service, wired or wireless into rural areas.

Advanced technology and communications systems continue to expand the ability of rural small businesses to compete with businesses located in urban areas. Integral to the continued growth of rural businesses is the further expansion of affordable broadband access—wired and/or wireless. Policymakers, both state and federal, should take steps to reduce the regulatory barriers to building broadband access to rural communities.

4) Adopt a “hands-off” approach to regulating and taxing advances in the telecommunications and technology industries.

The state government should adopt a policy of limiting regulations on communication technologies, like Voice over Internet Protocol (VoIP), which evolve at breakneck speed and offer numerous benefits to consumers and businesses.

3. Teleworking and Telecommuting

Recommendation

1. State government should evaluate the need for increased telework options for state workers thereby establishing a “best practices” approach to teleworking.

Background

The internet age has transformed many parts of our state’s economy. As companies continue to improve the data speeds of networks that reach beyond a business or government, such as homes and schools, employees are increasingly able to seek out new and improved ways of doing their work from remote locations, while relying on broadband internet networks to stay connected to their co-workers and managers.

Teleworking, also referred to as telecommuting, is not new. However, employees of both the public and private sector have new and improved tools, like faster and less expensive laptops, wireless fidelity networks, broadband cellular systems, and virtual private network hookups, in order to work more efficiently from any place that has networking capability.

While teleworking is not for everyone – there will always be certain types of jobs that require an office presence – both businesses and government should re-evaluate their needs in regard to employee location and management practices, and consider the benefits of a teleworking policy.

State government has the opportunity to set a “best practices” approach by increasing teleworking for state employees as part of the Commute Trip Reduction Program, a program that emphasizes carpools and vanpools, and other methods of commuting.

Policy Analysis

There are many benefits to increasing both public and private sector teleworking, ranging from increased employee satisfaction and

retention, to higher productivity levels. But human resources benefits aside, there are also important public policy benefits.

First is the potential for decreased traffic congestion. The Puget Sound region has notoriously bad traffic, and congestion relief is no longer a top priority for state transportation officials (see Chapter 10 for more details).

As commutes get longer in both duration and distance, teleworking can provide an important alternative. A 2006 University of Maryland study found that nearly half of all commuters travel more than 20 miles a day to and from work, 22 percent travel more than 40 miles, and 10 percent travel more than 60 miles.¹³

The other area where increased teleworking can have an important impact is on the environment. Removing thousands of Washington commuters from the highways would conserve fuel and reduce CO2 emissions.

The same University of Maryland study found that 1.35 billion gallons of fuel worth \$4.5 billion (at \$3.33 a gallon) could be saved if everyone with the potential to telework did so just 1.6 days per week (as of this writing, the AAA estimates a gallon of gas for Washington drivers is approximately \$3.86). Similarly, the Environmental Protection Agency calculates that this much saved fuel would prevent 26 billion pounds of carbon dioxide from being released.

The federal government took up the issue of increasing teleworking options for its workers a number of years ago. Several bills have been introduced to implement programs in federal agencies in order to facilitate increased teleworking. In the wake of the attacks on September 11, 2001, the federal government recognized that teleworking has an added security benefit. It helps the government continue to function if it has to resort to its contingency plans.

The state of Washington employs approximately 110,000 workers, and while it is not possible for all state workers to telecommute, state government should set up systems that allow for more public employees to telework. In addition to its own merits, this policy would set an important example for private employers.

Recommendation

1) **State government should evaluate the need for increased telework options for state workers; thereby establishing a “best practices” approach to teleworking.** The state government has an opportunity to implement programs that private sector businesses could emulate in order to increase telework options for their employees – thereby helping reduce traffic congestion and encourage energy savings.

4. High-Tech Education

Recommendations

1. Encourage scholastic achievement in the areas of science, technology and mathematics.
2. Retool the education system to better prepare students for careers in engineering, science and technology.
3. Increase infrastructure investment in higher education geared toward science, engineering and mathematics.

Background

Advanced technological innovations and inventions throughout the 20th century established America, and particularly Washington, as a key leader in high-tech industries. Rising to the top of the technology industry was difficult, but remaining at the top is equally so.

Other countries have greatly increased the number of their students graduating with degrees in science, technology, engineering and mathematics. These countries are already attracting a significant number of jobs from multinational corporations. Certain sectors in high-tech industry are beginning to move from the United States to nations that have a more readily available and highly educated workforce. In the process they are taking valuable research and development investments away with them.

Policy Analysis

Our economy is based on a highly educated and productive workforce that is adaptable to emerging technological sectors and is motivated to spur technological innovations. But the innovation of our entrepreneurs can only be sustained to the extent that our private and public institutions invest in the infrastructure that produced such entrepreneurs in the first place.

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Maintaining major technical innovation requires a sufficient number of graduates with Ph.D. level degrees in science, technology, engineering and math (called STEM). Yet each year fewer American students focus on STEM subjects at advanced levels.

In 1987, 4,700 Ph.D. degrees were awarded to American citizens, while 5,600 Asian citizens were awarded Ph.D. degrees. By 2001, only 4,400 Ph.D. degrees were awarded to Americans, while 24,900 Asian citizens received Ph.D. degrees.¹⁴ At a time when the number of American students receiving Ph.D. degrees declined, the number earned in Asian countries jumped by a factor of five.

The United States is also awarding fewer engineering degrees as a percentage of all undergraduate degrees than other countries. The following table shows the number of engineering degrees awarded in the United States compared to those awarded in other parts of the world.

Worldwide Engineering Degrees Awarded Select Countries/Regions <i>(in thousands)</i>		
	Engineering degrees	Engineering degrees as % of all degrees
China	351.5	28%
European Union	198.3	16%
Japan	98.4	8%
Russia	82.4	7%
India	82.1	7%
South Korea	64.9	5%
United States	60.6	5%
Mexico	44.7	4%
Taiwan	41.9	3%
Brazil	25.3	2%

Source: U.S. National Science Foundation

Most European countries also award a higher percentage of degrees in STEM subjects than the United States, led by Germany with 31 percent of bachelor degrees awarded in engineering and

science.¹⁵ The U.S. awarded only five percent of its bachelor degrees in engineering and science.

Recommendations

1) Encourage scholastic achievement in the areas of science, technology, and mathematics. Too many students enter college with an interest in engineering, science or technology but drop out or change the focus of their majors. Colleges and university leaders should use contracting out and other efficiencies to reduce tuition costs and increase academic opportunities for science and technology students.

2) Re-tool the education system to better prepare students for careers in engineering, science and technology. The average time to obtain a Ph.D. is at its greatest length ever, just over seven years. The higher education system should be re-tooled to help Ph.D. students in engineering, mathematics, science and technology leave school in a reasonable time and begin their professional careers.

3) Increase infrastructure investment in higher education geared towards science, engineering and mathematics. Policymakers should take steps to encourage our institutions of higher learning to attract more U.S. students to graduate in the areas of science, mathematics and engineering, as well as seek to retain the talents of non-U.S. citizens upon their graduation.

5. Ending Cable Monopolies

Recommendations

1. Deregulate cable franchises to increase choice and lower prices for local customers.
2. End outdated local cable monopolies in favor of statewide franchises that allow more choice for consumers.

Background

New telecommunication technology is making it possible for consumers to buy cable programming from alternate sources, like telecom companies and internet providers, but government regulators insist on maintaining outdated local cable monopolies.

In the 1970s, building a cable network from scratch was expensive and risky. It made sense for local governments to use the “natural monopoly” model to get the new technology established. Like mail delivery or early phone companies, the government offered cable providers insulation from competition in return for offering universal service.

The local cable company strung wires and installed a T.V. box for any homeowner who asked for it. The customer paid a set price and local officials collected taxes and franchise fees. As a result, cable service became widely available and cable companies earned a secure return on the huge capital investment they had made while building the network.

The cost of cable television and broadband internet access is also heavily influenced by local franchise fees. The fees are imposed on private cable operators by local governments in exchange for allowing the cable operators to service the city or county’s cable customers. Between 1996 and 2007, nationwide franchise fees rose from \$1.4 billion to \$3 billion per year, leaving the average customer paying \$46 per year just to cover the franchise fee.¹⁶

Cable companies are increasingly required to pay higher local taxes and franchise fees, and to give valuable channels to local governments for free. Sometimes cable companies are even made to deposit lump sum payments directly into city treasuries just to continue in business. Cable companies have no choice but to pass higher tax and franchise costs on to their customers. This is one reason cable prices have risen three times the rate of inflation for the past decade.

Policy Analysis

After nearly four decades, local monopoly cable no longer makes sense. Cable companies still provide universal service, but for municipal officials the original purpose of serving the customer has been lost. They now see the local cable company as just another lucrative revenue source, especially from high franchise fees. As the years pass, local government officials tend to squeeze this reliable money source harder.

In recent decades, the deregulation of airlines, trucking, railroads, banking and telecommunications has unleashed an explosion of innovation and choice for consumers that has made the U.S. economy the most dynamic in the world. The internet has succeeded spectacularly because government officials avoided smothering it with arbitrary rules and red tape. The government's hands-off approach means that ideas and investment flow where they are needed most, and because of it America is at the forefront of an unprecedented digital revolution.

The same dynamic will work for cable. New technologies make possible a range of programs, services and low prices that were unimagined in the past.

If full deregulation is too radical a change, policymakers should at least allow cable providers to compete within a statewide franchise, as several other states have done, so local customers would have a greater range of affordable services choices.

Recommendations

1) Deregulate cable franchises to increase choice and lower prices for local customers. Policymakers should build on the success of

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freeing up other business sectors and similarly deregulate local franchises, to allow cable businesses to set prices and compete against other communications providers in a normally-functioning marketplace. As a mature technology, cable has much to offer homeowners and business, and it is in a good position to compete in the telecommunications market.

2) End outdated local cable monopolies in favor of statewide franchises that allow more choice for consumers. Short of full deregulation, policymakers should allow a statewide franchise in cable services. Several states have already taken steps to implement a statewide franchise system. Washington should take the same approach, so consumers can more easily gain access to emerging technologies.

6. Technology and Government Transparency

Recommendation

1. County and local officials should follow the state government's example and create a free, searchable website of public spending.

Background

At some point most citizens wonder, "Just how, when and where does government spend our tax dollars? What do our elected representatives want to accomplish when they spend public money, and what results are actually achieved?"

Citizens of Washington will soon have the opportunity to answer these questions. In 2008, Washington lawmakers passed SB 6818, which was based on Washington Policy Center's recommendation that the state create a free, searchable budget website.¹⁷ Governor Gregoire signed the "Promoting Transparency in State Expenditures" act into law in April 2008.¹⁸

The new law creates a free, easy-to-use, search-engine-type website that allows citizens to track the recipients of all state funds. The privacy of individuals is protected. Already, the state's Department of General Administration has created a searchable website showing its public contracts. The new statewide version will build upon the existing General Administration website. The expanded website is scheduled to begin service on January 1, 2009.

The provisions of SB 6818 are modeled on federal legislation passed by Congress in 2006. The "Federal Funding Accountability and Transparency Act" (FFATA) directs the Office of Management and Budget to lead the development of a single searchable website of federal spending that is accessible by the public for free.¹⁹ In addition, Texas, Missouri and a number of other states have created websites showing the public how state money is spent.

Policy Analysis

The purpose of both the federal website and the new Washington site is to provide the public with information about how lawmakers distribute money. Citizens have a right and need to understand where their tax dollars go and who is benefiting from public spending. Collecting data about the various types of government contracts, grants and loans provides a broad picture and much needed transparency about the government spending process.

The ability to review contracts, grants, loans and other types of spending across many agencies, in great detail, would help build public trust in local government. As at the state level, it would help local officials explain not only how money is spent, but when they feel additional revenue is needed to fund public services.

When local officials say they are facing a budget shortfall and that new taxes are needed, the public and the news media could use the transparency website to confirm that officials are presenting an accurate financial picture. The website would also allow independent researchers to identify and highlight to policymakers where overspending and waste is in the budget, so that in many cases no tax increase would be necessary.

Lawmakers in county and local government have the opportunity to tap into the wealth of information created by these searchable websites. The software technology already exists and the added cost of setting up such a website is minimal, while the cost of daily operation is close to zero. High-tech companies like Microsoft and Google have expressed interest in helping set up such sites, at little or no cost to the public.

The benefit of using internet technology to communicate with the public is a win-win for everyone concerned with improving the budget process and increasing spending transparency at all levels of government.

Recommendation

1) County and local officials should follow the state government's example and create a free, searchable website of public spending. A free, searchable budget transparency website would not cure all local

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budget problems, but it would go a long way toward preventing waste and improving government performance. State lawmakers have the opportunity to help publicize the merits of such a program to local governments within the state.

Additional Resources from Washington Policy Center

“Communications Policy Guide, Release 2.0,” by Washington Policy Center and Institute for Policy Innovation, December 2007.

“RFID (Radio Frequency Identification): Balancing Technology and Privacy,” by Carl Gipson, February 2008.

“Leaving Well Enough Alone: State Wireless Regulations Could Harm Consumers,” by Carl Gipson, December 2007.

“It’s Time to Modernize Our State’s Ma Bell-Era Telecom Laws,” by Carl Gipson, February 2007.

“Better Prices and Better Services for More People; Assessing the Outcomes of Video Franchise Reform,” by Steven Titch, January 2007.

“Reform Video Franchises for Cheaper, More Competitive TV Services,” by Steven Titch and Carl Gipson, January 2007.

“Bring the Competition Revolution to Cable T.V.,” by Paul Guppy, April 2006.

“We Won – So Let’s Repeal the Spanish-American War Tax,” by Paul Guppy, Policy Note 2006-03.

“A New Way to Make a Phone Call,” by Paul Guppy, May 2004.

“It’s Time for Consumer Choice in Local Phone Service,” by Paul Guppy, 2002.

“When Government Enters the Telecommunications Market: An Assessment of Tacoma’s Click! Network,” by Paul Guppy, June 2001.

¹ “2007 Identity Fraud Survey Report, Identity Fraud Dropping, Continued Vigilance Necessary,” by Mary T. Monahan, Javelin Research and Strategy, February 2007, at <http://www.privacyrights.org/ar/idtheftsurveys.htm>.

² Ibid.

³ ESHB 1012, “Regulating computer software,” sponsored by Representative Jeff Morris, enacted May 17, 2005, Title 19, Revised Code of Washington, text at www.apps.leg.wa.gov/billinfo/summary.aspx?bill=1012&year=2005.

⁴ “ID theft: The real risk, Internet hackers stealing info make headlines, but most ID theft happens in the low-tech world, CNNMoney.com, March 22, 2005, data based on a Better Business Bureau telephone survey of 4,000 consumers, at www.money.cnn.com/2005/03/22/technology/personaltech/id_theft/index.htm.

⁵ “Why it will Be Hard to Close the Broadband Divide,” by John B. Horrigan, Pew Internet & American Life Project, August 2007, at www.pewinternet.org, accessed May 7, 2008.

⁶ “Leaving Well Enough Alone: State Wireless Regulations Could Harm Consumers,” by Carl Gipson and Trevor Cross, Washington Policy Center, Policy Note 2007-27, 2007.

⁷ See “When Government Enters the Telecommunications Market, An Assessment of Tacoma’s Click! Network,” by Paul Guppy, Washington Policy Center Policy Brief, June 2001, at www.washingtonpolicy.org.

⁸ “Telecommunications Taxes: 50-state Estimates of Excess State and Local Tax Burden,” by Robert Cline, *State Tax Notes*, June 3, 2002, pages 931–47.

⁹ *Ibid.*

¹⁰ “Taxes and Fees on Communications Services,” David Tuerck, Paul Bachman, Steven Titch, and John Rutledge, *Policy Studies*, The Heartland Institute and Beacon Hill Institute, May 31 2007, at www.heartland.org/article.cfm?artId=21102.

¹¹ Cited in “50-State Study and Report on Telecommunications Taxation,” by Scott Mackey, Kimbell Sherman Ellis LLP, Committee on State Taxation, September 2007.

¹² “Wireless Quick Facts,” CTIA, the International Association for the Wireless Telecommunications Industry, at www.ctia.org/advocacy/research/index.cfm/AID/10323, accessed May 20, 2008.

¹³ “Telework in the Information Age: Building a More Flexible Workforce and a Cleaner Environment,” by Matthew Kazmierczak and Josh James, The AeA Competitiveness Series, American Electronics Association, Volume 21, April 2008.

¹⁴ “Sustaining the Nation’s Innovation Ecosystem: Maintaining the Strength of Our Science and Engineering Capabilities,” report of the President’s Council of Advisors on Science and Technology, Washington, D.C., June 2004, available at www.ostp.gov/cs/home.

¹⁵ *Ibid.*

¹⁶ “Cable Industry Statistics,” National Cable and Telecommunications Association, at www.ncta.com/Statistic/Statistic/Statistics.aspx, accessed May 12, 2008.

¹⁷ See “Creating a Free, Searchable Website of State Spending,” by Jason Mercier, Washington Policy Center, Policy Note 2007-25, December 2007, at www.washingtonpolicy.org/Centers/government/policynotes/07_mercier_statespendingwebsite.html.

¹⁸ SB 6818, signed April 1, 2008, for details see www.washingtonvotes.org.

¹⁹ See “Delivering Transparency in Government, Search Portal,” FFATA Information Center, at www.ffata.org/ffata/.