

University of Delaware

NVPA

New Visions for Public Affairs

School of Public Policy and Administration

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**HIGH SPEED RAIL IN THE UNITED STATES:
THE CURRENT DEBATES AND PRACTICES**

CLAIRE M. BECK, MA '11

Abstract

The possibility of a nationwide high speed rail system in the United States has been the topic of much excitement as well as skepticism since President Obama announced the allocation of a significant amount of federal funding for high speed rail development early in 2009. Though successful high speed rail systems have been in operation in Europe and Japan for over twenty years, it seems like the time has finally come for the development of a comprehensive high speed rail system in the U.S. Now that significant funding is being offered to initiate such a system in this country, critics and supporters alike are offering their arguments, armed with environmental data, cost projections, and political opinions. This paper addresses the various arguments for and against high speed rail in the United States and explores past, present, and future strategies towards high speed rail development.

Introduction

The possibility of a nationwide high speed rail system (HSR) in the United States has been the topic of much excitement as well as skepticism since President Obama announced the allocation of a significant amount of federal funding for high speed rail development early in 2009. Though successful high speed rail systems have been in operation in Europe and Japan for over twenty years – and advocates have argued for such a system in the United States in the past – it

seems the time has finally come for the development of a comprehensive high speed rail system in the United States. Now that significant funding is being offered to initiate such a system in this country, critics and supporters alike are offering their arguments, armed with environmental data, cost projections, and political opinions. Even with a federal administration that is highly supportive of public transportation, smart growth policies, and environmental initiatives, the debate over where, how, and if high speed rail systems should be developed is as heated as ever.

This paper does not aim to take a position on the merits or faults of high speed rail transportation for the United States, but rather attempts to give a voice to the multitude of issues surrounding the debate. Based on comments and observations drawn from the literature, recommendations for further study and possible plans of action will be offered at the conclusion.

Definition and Brief History of High Speed Rail

The definition of high speed rail is relatively unclear in the United States, and it is especially unclear once one compares the U.S. system to that of Europe and Japan. According to transportation engineering expert Tony R. Eastham (1998), high speed ground transportation is defined by systems that are capable of sustaining operating speeds over 125 mph (p. 1). The International Union of Railways, on the other hand, classifies the international standard for HSR as top speeds of 155 mph on new or upgraded track and 124 mph on old track (Reutter, 2009). The United States, however, has its own definition of high speed rail. The Federal Railroad Administration (2009b) delineates three categories of high speed intercity rail based on trip length, maximum speeds, and type of track (shared, dedicated, or grade-separated). “Emerging HSR” requires top speeds of 90-110 mph, “Regional HSR” requires speeds of 110-150 mph, and “Express HSR” must reach top speeds of over 150 mph (FRA, 2009b, p. 2). Additionally, the

FRA generally considers appropriate HSR corridors to be 100-600 miles in length. Another way of conceptualizing the different categories of HSR is the differentiation between “Incremental HSR” and “New HSR” (De Cerreno, Evans, and Permut, 2005, p. 7). Incremental HSR involves upgrading existing tracks to be able to achieve higher speeds (up to 150 mph), while “New HSR” requires the installation of new dedicated HSR tracks and equipment that can achieve speeds around 200 mph. Another type of high speed rail technology, called Magnetic Levitation (or Maglev), can achieve speeds of over 300 mph. However, there are currently no commercial Maglev trains in operation anywhere in the world, and implementation of Maglev in the United States is not in serious consideration at this point (De Cerreno, et al., 2005, p. 7).

Modern high speed rail began development and implementation in the 1960s. The first HSR line built was Japan’s Shinkansen bullet train linking Tokyo and Osaka, which opened in 1964 with top operating speeds of 169 mph (De Cerreno, et al., 2005, p. 7). In 1982 France deployed its first high speed train, Train à Grande Vitesse train between Paris and Lyon with a top speed of 188 mph, which was soon followed by Germany’s Intercity Express train that also reaches 188 mph. In the United States, the only rail corridor that meets the international definition of HSR is Amtrak’s Acela Express located in the Northeast Corridor, reaching 150 mph for an 18 mile stretch between Rhode Island and Massachusetts. Amtrak’s rail service in the Northeast Corridor is also the only corridor that qualifies as HSR by the United States’ own definition (110 mph), and yet the average speed is still only 67 mph between Boston and New York and 77 mph between New York and Washington, D.C. (Reutter, 2009).

Many in the U.S. Government has recognized the desirability of HSR in this country since its formation of Amtrak in 1970 and later, in the 1990’s, with the designation of official HSR corridors based on population densities and trip generation possibilities (FRA, 2009b, p. 6).

However, this recognition of the desirability and feasibility of HSR systems has not been supported with adequate federal funding. The Intermodal Surface Transportation Efficiency Act of 1991 authorized the federal government to provide funding to designated HSR corridors for safety improvements on highway-rail grade crossings, yet little-to-no matching funds were offered to states for any other type of rail infrastructure projects. Essentially, the federal government has recognized that certain corridors and existing railways would be good candidates for the development of HSR systems without providing any funding to implement them.

In April of 2009, President Obama announced an unprecedented amount of funding dedicated to the development of a HSR system in the United States. As part of the American Recovery and Reinvestment Act (ARRA), Obama dedicated \$8 billion to be distributed to states on a competitive basis within the next fiscal year, and \$1 billion per year for five years after that (The White House Office of the Press Secretary, 2009). Additionally, in December 2009 Congress appropriated an additional \$2.5 billion to the HSR program to be distributed the next fiscal year (FRA, n.d.). Though this is the most federal funding ever dedicated to the development of HSR, as we will see, it is just a very small portion of what would be needed for a national system. Nonetheless, the Federal Railroad Administration (FRA) reviewed applications from individual states and corridor programs to decide which projects would receive funding from the ARRA. For the first round of ARRA funding, the FRA received 259 grant applications from 37 States, totaling nearly \$57 billion in requests for the \$8 billion available (FRA, n.d.). This first round of funding has already been awarded and distributed, and the results of this competitive grant process will be discussed at the end of this paper. Despite this considerable interest and growing support for HSR development in the United States, the debate over the benefits and feasibility of a national HSR system is far from over.

Examples of High Speed Rail Proposals in the U.S.

Current federal transportation legislation calls for the development of a National Rail Plan as well as individual State Rail Plans in order to create a coordinated national rail effort while still allowing states to decide what is best for their own interests within the framework of federal regulations (FRA 2009b, p. 13). Since the National and State Rail Plans are not yet complete, funding decisions for the \$8 billion available from ARRA were decided made on a set of merits laid out by the FRA for designated HSR corridors. As a result, individual states and multi-state advocacy organizations have developed plans to submit for federal funding consideration. These plans vary greatly in size, scope, cost, and level of progress.

For the proposed Chicago Hub Network project, the Midwest High Speed Rail Association is putting together plans for a HSR network that spans several states, including Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin. The Midwest Regional Rail Initiative plans to increase passenger rail lines in these 9 states to 100 mph service through incremental HSR upgrades involving cooperation between Amtrak, the FRA, and individual state agencies (Midwest High Speed Rail Association, 2009). The Association is also advocating for a system of new 220 mph HSR tracks that would go through six of these states, though no official studies for this type of corridor improvement have yet been performed.

The Texas High Speed Rail and Transportation Corporation (2009) is advocating for a HSR system in Texas called the “Texas T-Bone” that would connect San Antonio, Houston, Dallas, and major points in between. This particular group does not have a detailed plan for what kind of HSR system would be implemented and how because it “relies on regional, local, and municipal entities to participate in the planning and to allow for a self-determined final alignment”

(Texas High Speed Rail and Transportation Corporation [THSRTC], 2009). However, according to a THSRTC newsletter, the Texas Department of Transportation applied for a total of \$1.8 billion in ARRA funding for high speed intercity passenger rail service.

In the Southeast Corridor (Virginia, North Carolina, South Carolina, Georgia, and Florida) the Southeast High Speed Rail Corridor organization is publicizing a general plan for the development of HSR in this region. For most of the corridor area, environmental impact studies have been completed or are in progress (Southeast High Speed Rail Corridor, 2009). For the Charlotte to Atlanta section, feasibility studies have been completed while environmental impact statements have not. Most of the Richmond, Virginia to Raleigh, North Carolina rail corridor is slated to be rebuilt with new tracks for 110 mph trains. A small portion is to be upgraded with positive train control measures so that it can increase speeds from 79-90 mph eventually (Southeast High Speed Rail Corridor, 2009). The federally designated Southeast HSR Corridor extends to Jacksonville, Florida, but no planned rail improvements for this section are reported by the organization.

The Southern and Central Florida region is a separate, federally designated HSR corridor apart from the Southeast Corridor, and thus the Florida High Speed Rail organization has its own plans for HSR in the state. It proposes two phases of HSR development: Phase One from Tampa to Orlando, and Phase Two from Orlando to Miami. Each line would operate at speeds in excess of 120 mph. The estimated costs for these projects are \$3.5 billion and \$8 billion, respectively (State of Florida Department of Transportation, 2009). The Florida Department of Transportation (FDOT) has requested \$30 million of ARRA funding to perform a project development and environment study on the Orlando-to-Miami corridor, and FDOT has also requested “\$2.6 billion to design-build-maintain and operate the high speed rail system within the

Tampa to Orlando corridor” (State of Florida Department of Transportation, 2009). Phase One construction is projected to be complete by 2014 and Phase Two by 2017.

To date, the California High Speed Rail Authority’s plan for a complete HSR system in California is the most comprehensive and ambitious government-proposed plan in the United States. According the California High Speed Rail’s website, California is further along in the HSR planning process than any other state, is the only state proposing HSR with speeds in excess of 200 mph, and is prepared to break ground on the project in 2011 (California High Speed Rail Authority, 2009). California’s ultimate HSR corridor would run from San Diego to Sacramento, operate on new, dedicated HSR rights of way, and be completely electrically powered. Additionally, California’s policy goal is to fuel the new HSR system with only clean renewable energy sources. The State of California has requested \$4.7 billion of the available \$8 billion ARRA funds for its HSR project.

Economic Costs and Benefits

Perhaps one of the most contentious issues surrounding high speed rail in the U.S. is the cost of its development. In the simplest form of a cost-benefit analysis, the cost of building a HSR system will be compared to the revenues that it can bring in from user fees. Using this simple input-output equation for costs, by almost all accounts HSR is an extremely expensive endeavor, and one that may not pay for itself any time in the near future. Most analyses of HSR in the United States do not attempt to make an estimate of cost for the total build-out of a national system due to the uncertainties of differing building strategies, technologies, and incomplete state plans. However, general estimates for the cost of the entire FRA High-Speed Intercity Passenger Rail Plan (the officially designated HSR corridors) range from a minimum of \$90 billion to over \$200

billion, to a maximum of nearly \$1 trillion if more corridors are added (O'Toole, 2009; Reutter, 2009). In contrast, according to Reutter (2009), the cost of building the entire Interstate Highway System, in today's dollars, was about \$280 billion.

California's proposed HSR corridor alone is predicted to cost \$45 billion to build, though it is claimed to require no operating subsidies once built and earn over \$1 billion in annual profits (California High Speed Rail Authority, 2009). The cost for the first two phases of Florida's HSR corridor is set at \$11.5 billion, not including the cost of some right-of-way acquisitions (State of Florida Department of Transportation, 2009). While Florida's plan does not project a specific profit from its HSR system, it does stipulate that funding for HSR will come from federal and private sources as well as user fees, as opposed to state funding. Incremental HSR improvements between Washington, D.C. and Charlotte, South Carolina along the Southeast Corridor are expected to cost up to \$4.5 billion, and a study by the U.S. Department of Transportation predicted that operating costs in this corridor would be covered by user fees (Southeast High Speed Rail Corridor, 2009).

None of the cost estimates cited above clearly state if and when the actual construction costs of the HSR line, outside of operating costs, will be paid for by user fees. Indeed, Randal O'Toole (2009) of the Cato Institute claims that "despite optimistic forecasts by rail proponents, passenger fares will rarely if ever cover high-speed operating costs" (p. 9). He cites the fact that Amtrak's rail service between Boston and Washington lost nearly \$2.30 per passenger in 2001, as reported by the Amtrak Reform Council. If passenger train service in this most populous corridor in the United States cannot cover its costs, he argues, no other train system will be able to make a profit or even cover its costs. This may not be a fair argument, however, considering that many

proposed new HSR corridors will have much higher operating speeds than the current Amtrak service in the Northeast Corridor, thus possibly attracting a larger ridership.

Another consideration in the cost-benefit analysis of HSR systems is whether this kind of transit should be expected to pay for itself. O'Toole (2009) again argues against HSR saying, "Taxpayers and politicians should be wary of any transportation projects that cannot be paid for out of user fees" (p. 9). Yet as Mark Reutter (2009) of the Wilson Center aptly points out, roads and airports are not entirely paid for out of user fees either. Furthermore, passenger rail's supposed lack of fiscal performance is likely the result of a federal funding preference for other modes such as highways and airports. As the Federal Railroad Administration (2009b) states, "While other modes have historically benefited from dedicated Federal funding for infrastructure investment, rail has had no such Federal capital matching source" (p. 6). Thus the argument against federal (or even State) subsidies of passenger rail falls short when compared to similar transportation subsidies for other modes.

The public versus private and profit-based nature of passenger rail funding is a conceptual issue as well as an economic one. In *High Speed Rail in the U.S.: Super Trains for the Millennium*, Dr. Thomas Lynch (1998) argues that the European view of financing transport services differs from the United States in that they do not expect to profit or break even from public transit. As a service to the public, transport services are expected to be largely paid for by the public (through taxes), rather than operating as a profit-making private enterprise. The Director General for the Lending European Investment Bank explains:

A transport service (unlike CD players, telephone services, energy supply and restaurants, for instance) cannot in most cases be supplied on a profitable or even cost covering basis. Conventional capitalistic wisdom would dictate that the HSR or

transport system should be liquidated or phased out as happens with restaurants and manufacturers of CD players if they cannot break even However (in the European view) most transport services, especially those which need to modernize due to outdated infrastructure, rolling stock or those that need to expand, show huge losses (as cited in Lynch, 1998, p. 104).

If a transport service, such as high speed rail, is not necessarily expected to cover its costs on a regular basis, then the cost-benefit analysis becomes more about the costs and benefits to the public rather than to the State or country's pocketbook.

External Costs and Benefits

Any accurate and worthwhile cost-benefit analysis must include the calculation of externalities—those benefits and costs that accrue directly or indirectly to the larger economy, society, and natural environment. A study by the Mineta Transportation Institute on the successes and failures of HSR projects in the United States concluded that looking only at the “bottom line” of HSR development plans will severely hinder any proposed HSR project because of the massive amount of capital investments required (De Cerrano, et al., 2005, p. 6). The report suggests tabulating costs and benefits that include the costs and benefits to other transportation modes as well as the society as a whole under build and no-build alternatives. External benefits are often emphasized by rail proponents, but it is also important to also take into account the external costs associated with any HSR project.

When President Obama expressed his support for federal HSR investment, the main emphasis was on the positive externalities of a HSR system. At the White House Press Conference on April 16, 2009, Vice President Biden exclaimed:

With high-speed rail system, we're going to be able to pull people off the road, lowering our dependence on foreign oil, lowering the bill for our gas in our gas tanks. We're going to loosen the congestion that also has great impact on productivity, I might add, the people sitting at stop lights right now in overcrowded streets and cities. We're also going to deal with the suffocation that's taking place in our major metropolitan areas as a consequence of that congestion. And we're going to significantly lessen the damage to our planet. (Lee, 2009)

As Vice President Biden's comment illustrates, much of the expected benefit associated with HSR is environmental. The environmental impacts of HSR will be addressed in the next section of this paper, but in general HSR is expected to include less use of fossil fuels, less energy use overall, reduced air pollution, a reduction in greenhouse gases, less land use than expansion of highways and airports, and encouragement of high-density, transit-oriented development (California High Speed Rail Authority, 2009).

There are several other possible benefits associated with HSR besides the environmental effects. Gui Shearin (1997), in an assessment of external benefits and costs of high speed ground transportation, identifies a number of external benefits of HSR, including: travel efficiency (time savings), safety increases, economic savings to other travel modes (from reduced expansion and repairs to highways and airports), benefits to intra-city commuter rail, creation of rail-related jobs, and commercial development around train stations (p. 1). Shearin evaluated the external costs and benefits versus financial costs in three rail corridors in the U.S. for four different HSR speeds (including Maglev). The author concludes that, for most of the speeds and corridors analyzed, benefits of HSR can outweigh the costs if externalities are taken into account. In Shearin's

analysis, the majority of benefits were actually due to time and cost savings for the airport and highway modes and less dependent upon environmental effects (1997, p. 6).

Often underplayed as significant benefits, high speed rail can have major implications for both personal passenger safety and the security of our nation (both of which have financial costs associated with them). Statistics from HSR operations in Europe and Japan show that HSR is the safest of all modes of transportation, with a total of 85 injuries and 14 fatalities in all of Europe and no derailments or collisions on Japan's Shinkansen line since its inception in 1964 (California High Speed Rail Authority, 2008, p. 3.2-20; FRA, 2009b, p. 3). Several sources also note that HSR systems can positively affect our nation's security by reducing dependence on foreign oil (Drake, Bassi, Tennyson, and Herren, 2009; Lee, 2009; Rail Solution, 2010). As it stands now, the movement of goods and people in the U.S. is largely reliant on foreign oil sources, which poses a threat to national security. If a comprehensive system of passenger and freight rail is developed, and these rail services reduce or eliminate our reliance on oil, energy independence and security will be increased.

It should be noted, however, that these mostly indirect external benefits and costs are notoriously difficult to measure and even more difficult to predict than the financial costs of a HSR project. Any prediction of transportation system effects must rely on use and ridership projections, and, as we will see in the environmental section, these numbers are highly contested. Many of the expected benefits of HSR are related to changes in the nation's built environment as well as individual behaviors. The California High Speed Rail Authority (2009) touts HSR's ability to discourage sprawl, reduce automobile dependence, and encourage the adoption of smart growth principles and transit-oriented development. O'Toole (2009), however, doubts that HSR will significantly alter development practices or people's driving behavior. In "The High Cost of High

Speed Rail,” O’Toole (2009) argues that higher densities and transit-oriented developments fail to reduce automobile use (p. 17). Furthermore, he points out, smart growth and Transit-Oriented Development policies impose huge financial costs on the public as well as infringing on personal property rights. Thus, it is clear that the external costs and benefits of HSR development differ depending on who is doing the analysis.

Environmental Impacts

Several of the major benefits associated with high speed rail development are attributed to environmental impacts. According to the California High Speed Rail Authority (2009), benefits of HSR as compared to expanded highways and airports include: reduced energy usage; less impact on wetlands, water resources, and farmlands; reduced dependence on fossil fuels; less air pollution; and a reduction of greenhouse gases. Most analysts concede that rail systems require less land use per passenger and thus have a less detrimental effect on wildlife habitats and farmland (California High Speed Rail Authority, 2009; International Union of Railways and Community of European Railway and Infrastructure Companies, 2008). However, the potential benefits of HSR regarding reduced air pollution and fossil fuel use, and increased energy efficiency are highly contested.

First, the argument that HSR will significantly reduce air pollution and fossil fuel use is largely predicated on the assumption that the systems will be powered electrically. Currently, parts of the Northeast Corridor and the Philadelphia to Harrisburg lines are the only electrified intercity passenger trains in the United States (Drake, et al., 2009, pp. 5-6). Aside from California, most other HSR plans in the works are not planning to operate on 100 percent electricity, and many will just continue to use diesel trains. The superiority of electrically-operated trains is clear - not

only do they use less fossil fuel and produce less air pollution, they also have about 15% higher capacity than diesel trains, are more energy efficient (due to regenerative braking), require less maintenance, and generally have higher horsepower than diesel-powered trains (Drake, et al., 2009, pp. 5-6). Nonetheless, full-scale electrification of HSR projects is often not proposed because of higher initial capital costs. Another point for consideration is the source of the fuel for electricity. As O'Toole (2009) points out, most electricity in the United States still comes from fossil fuels (p. 14). If electricity for new HSR systems is not generated from clean and renewable sources, electric trains are essentially just replacing the potential air pollution they would generate on the tracks with air pollution at power plants while still consuming fossil fuels for operation.

Aside from the issue of fuel, the general energy efficiency of intercity passenger rail is debated. For example, the term "energy efficiency" can refer to total barrels of oil consumed, amount of carbon dioxide emitted, or energy use per passenger-mile. U.S. Transportation Secretary Ray LaHood reports that current intercity passenger rail consumes one-third less energy per passenger-mile than cars (The White House Office of the Press Secretary, 2009). The Federal Railroad Administration claims that "passengers traveling by rail use 21 percent less BTUs [British Thermal Units] per mile on average than those traveling by automobile, and 17 percent less BTUs per mile than those traveling by air for short-haul flights on average" (2009a, p. 14). A study by the Center for Clean Air Policy and Center for Neighborhood Technology (2006) concludes that a full build-out of the U.S. high speed rail system could result in an emissions savings of six billion pounds of carbon dioxide per year (p. 1).

Environmental impact studies claim that high-speed trains use one-third the energy of airplanes and one-fifth the energy of automobiles, while projecting that the California HSR system will save twelve billion pounds of carbon dioxide emissions per year by 2030 (California High

Speed Rail Authority, 2009). The International Union of Railways and Community of European Railway and Infrastructure Companies (2008) reports that, based on existing European transport systems, passenger rail travel is four times more efficient than driving and three times more efficient than taking a plane in terms of carbon dioxide emissions (p. 7). Randal O'Toole (2009), on the other hand, argues that the environmental benefits of high speed rail are often exaggerated, claiming that Amtrak services are currently slightly less efficient than intercity driving (p. 5). He also points out that many studies use inaccurate vehicle occupancy rates for their calculations (p. 13).

The data about energy efficiency relies on several factors, including what kind of “efficiency” one is trying to measure, how that efficiency is measured (using what data and projections), and what kind of train service is being measured (electric, diesel, or combination). For example, California’s projections for various energy efficiency measures are based on a system ridership of 117 million annual passengers by 2030 (the high end of ridership projections), 2.4 passengers per intercity automobile trip, 101.25 passengers per plane (70 percent load factor), and a fully electric system derived from clean and renewable energy sources (California High Speed Rail Authority, 2008, p. 3.5-14). California’s environmental impact statements refer to 2030 projections based on HSR system build and no-build alternatives.

A study by The Center for Clean Air Policy and Center for Neighborhood Technology (2006), on the other hand, calculated the carbon dioxide emission reductions that would result if HSR systems replaced automobile and airplane trips in 2025 if all currently proposed HSR systems were built out (p. 1). These calculations are based on 1.6 passengers per intercity automobile trip, regional jets at 70 percent capacity, and HSR emissions calculated based on a model of diesel-powered passenger train with a top speed of 99 mph (p. 9). Randal O'Toole's

(2009) claim that current Amtrak passenger rail service is actually less energy efficient than intercity automobile trips is based on current energy calculations, 2.4 passengers per intercity automobile trip, and the total energy usage calculation of the entire Amtrak fleet by the Department of Energy (p. 13). These three examples prove that energy efficiency calculations can differ greatly depending on the measure of energy being used, type of HSR system being measured, time frame, and data sources.

Politicization of High Speed Rail

As with any proposal that involves large amounts of government spending, high speed rail projects have been and will continue to be highly politicized issues. On a national scale, one of the driving forces behind the pursuit of HSR systems is the desire to emulate other industrialized countries. President Obama's words in April 2009 when announcing HSR funding sum up this sentiment:

Now, all of you know this is not some fanciful, pie-in-the-sky vision of the future. It is now. It is happening right now. It's been happening for decades. The problem is it's been happening elsewhere, not here There's no reason why we can't do this. This is America. There's no reason why the future of travel should lie somewhere else beyond our borders (Lee, 2009).

Since Europe and Japan's successes in HSR have been apparent for several years now this desire to "catch up" to other countries' passenger rail systems is not a new phenomenon. The United States' failure to emulate other HSR systems over the past thirty years is due to several factors, but one of the main impediments has been sustained opposition from other transport modes with large shares of the passenger and freight movement market (Lynch, 1998, p. xiv). In a society and

economy largely built on petroleum-burning automobiles, winning favor for development of technologies that interfere with these highly entrenched and profitable modes is difficult.

Some of the current political reasons for pushing HSR development are more recent and context-sensitive than the desire to catch up to Europe. For one thing, as evidenced by Vice President Biden's remarks mentioned above, highway and airport congestion are presenting major problems that legislators are expected to alleviate. Additionally, anything that shows environmental concern is popular in current bipartisan politics, and HSR can gain citizen support if it is marketed as environmentally-friendly. Perhaps the most politically-motivating factor of all during this current economic situation, however, is HSR's potential to create jobs and spur economic growth. Matthew Lewis (2009) of the Center for Public Integrity sums up the current issues salient to the average politician regarding HSR:

Large airports are operating at capacity. Highway congestion is costing tens of billions per year. Trains promote energy independence and run cleaner. And, of course, there's the primary focus of legislators during a recession—the potential for long-term job creation and economic development (para. 7).

Politically, the benefits of High Speed Rail, which are currently in vogue with many constituent groups, may be seen to justify even hefty costs.

This political support for HSR may be a detriment to the cause, however, if political interests rather than density and demand logistics drive the development of HSR. Citing the aphorism that all politics is local, O'Toole (2009) predicts that "every member of Congress will want a piece of the high-speed rail pie," resulting in skyrocketing costs and unprofitable placement of HSR lines (pp. 8-9). In fact, this precise scenario occurred in Japan several years ago. After the enormous success of the Shinkansen line, several other towns, much smaller in population density,

received HSR service as pet projects of politicians, and a large number of those lines are highly unprofitable to this day (O'Toole, 2009; Reutter, 2009). According to Lewis (2009), this is why a strong national railroad plan from the FRA is extremely important. A rational long-term plan must be crafted to be largely resistant to political interference so that HSR development will occur where it most efficiently maximizes public benefit rather than the election of certain politicians.

Distribution of ARRA Funding

On January 28, 2010 President Obama announced which high speed rail applicants were chosen by the FRA to receive funding from the available \$8 billion in stimulus funds. In total, seventy-nine applications from thirty-one states were selected for various amounts of funding (FRA, n.d.). In light of the concept of “incremental” and “new” HSR addressed above, the \$8 billion was distributed almost evenly between these two categories, with approximately \$3.5 billion dedicated to new HSR projects and \$4.5 billion dedicated to incremental HSR projects (The White House, 2010). This distribution seems to represent a diplomatic approach by the FRA, with no clear preference for one HSR approach over the other. It is also interesting to note that the FRA avoided any appearance of political leanings by dividing the funding virtually equally between states with Republican and Democratic governors.

The best way to demonstrate the final funding distribution of the available ARRA stimulus grant is to look at the outcome of particular HSR proposals addressed at the beginning of this paper. The Midwest region received approximately \$2.6 billion spread among seven states for various incremental HSR projects as well as new station construction (The White House, 2010). The State of Texas, which originally requested \$1.8 billion in ARRA funding, received no funding for its particular HSR plans, but did receive \$4 million to improve signal timing on an existing

Amtrak line (The White House, 2010). The Southeast Corridor received \$620 million for various improvements that should increase speeds to 90 mph along most of the corridor (The White House, 2010). The Florida High Speed Rail Association, which requested over \$2.6 billion for its new HSR projects, received \$1.25 billion to help construct phase one of the plan (The White House, 2010). Lastly, the California High Speed Rail Association received approximately \$2.3 billion of its requested \$4.7 billion in funding to begin construction on the planned comprehensive statewide HSR system (The White House, 2010). As can be seen, none of the state HSR proposal applications was funded in its entirety, but rather the FRA chose to spread out the funding geographically as well as in terms of project type.

Conclusion

The development of HSR systems in the United States seems likely in the near future, at least in some of the designated corridors, based on current political and public support. Before a successful and comprehensive nationwide system can be built, however, a better understanding of, and agreement on, HSR's costs and benefits needs to be reached in order to implement the system in the most beneficial and efficient manner possible. If the environmental effects of certain HSR proposals cannot be accurately determined, and especially if they cannot be compared to other transportation policy options, we will not succeed in implementing a system that actually achieves significant positive environmental benefits.

Likewise, if the full short- and long-term fiscal costs of building HSR corridors are not carefully evaluated and planned for, we may run the risk of huge cost overruns and abandoned, unfinished projects. The Mineta Transportation Institute's (2006) study on past successes and failures of HSR plans in the United States came to the conclusion that incremental HSR

implementation on existing railways is a desirable option, not because of its technical superiority, but because it is more feasible than new HSR in today's economic and political environment (De Cerreno and Mathur, p. 7). If this is the case, then the incremental HSR plans for the Midwest Hub and Southeast Corridor areas may prove to be the most successful way to start HSR implementation.

Matthew Lewis (2009), on the other hand, argues that we need to take advantage of the current environment of positive political will by building "a real, working high speed rail line" as soon as possible. Perhaps, then, California's HSR plan holds the key to the future success of HSR in the United States. California's project is extremely far along in the planning process, ready to begin construction within the next few years, and is the only possible example of European-style HSR being proposed in the country. If California's grand plan can come to fruition and prove its publicized environmental and economic benefits to the rest of the country, the United States may then be ready to implement similar systems throughout the nation.

Ultimately, the types of systems and methods of implementation to be pursued depends on what our country's goal is for high speed rail. Do we want to build somewhat faster trains in existing rail corridors in order to offer passengers one additional option for intercity travel? Or do we want to build an extensive network of truly *high speed* trains that is competitive with highway and airplane travel in order to make rail a dominant mode of intercity transportation? These fundamental goal questions, in addition to the more technical questions about fiscal costs and externalities, will need to be answered in order to formulate a complete and effective National High Speed Rail Plan.

References

- California High-Speed Rail Authority. (2008). *Final Bay Area to Central Valley high-speed train (HST) Program environmental impact report/Environmental impact statement (EIR/EIS)*. Sacramento, California and Washington, DC: Author.
- California High Speed Rail Authority. (2009). News and facts. Retrieved November 11, 2009, from: <http://www.cahighspeedrail.ca.gov/news.asp>
- Center for Clean Air Policy and Center for Neighborhood Technology. (2006). *High speed rail and greenhouse gas emission in the U.S.* Washington, DC: Author.
- De Cerreno, A.L.C., Evans, D.M., & Permut, H. (2005). *High-speed rail projects in the United States: Identifying the elements for success*. San Jose, CA: Mineta Transportation Institute.
- De Cerreno, A.L.C. & Mathur, S. (2006). *High-speed rail projects in the United States: Identifying the elements for success, part two*. San Jose, CA: Mineta Transportation Institute.
- Drake, A., Bassi, A.M., Tennyson, E.L., & Herren, H.R. (2009). Evaluating the creation of a parallel non-oil transportation system in an oil constrained future. (draft version, submitted to Transport Policy Journal).
- Eastham, T.R. (1998). High speed ground transport: Overview of the technologies. In: T. Lynch (Ed.), *High speed rail in the U.S.: Super trains for the millennium*. Australia: Gordon and Breach Science Publishers, 1-24.
- Federal Railroad Administration. (2009a). Preliminary national rail plan: The groundwork for developing policies to improve the United States transportation system. Washington, DC: Government Printing Office.
- Federal Railroad Administration. (2009b). Vision for high-speed rail in America. Washington, DC: Government Printing Office.
- Federal Railroad Administration. (n.d.). High-speed intercity passenger rail (HSIPR) program. Retrieved April 14, 2010, from: <http://www.fra.dot.gov/Pages/2325.shtml>
- International Union of Railways and Community of European Railway and Infrastructure Companies. (2008). *Rail transport and environment: facts and figures*. Retrieved from http://www.etc-corporate.org/resources/uploads/railways&environment_facts&figures.pdf.
- Lee, J. (2009, Apr. 16). A vision for high speed rail [Web log post]. Retrieved November 11, 2009, from: <http://www.whitehouse.gov/blog/09/04/16/a-vision-for-high-speed-rail/>

- Lewis, M. (2009, Nov. 30). Washington's newest gravy train: High-speed rail. The Center for Public Integrity. Retrieved from: http://www.publicintegrity.org/investigations/transportation_lobby/articles/entry/1839/.
- Lynch, T. (ed.). (1998). High speed rail in the U.S.: Super trains for the millennium. Australia: Gordon and Breach Science Publishers.
- Midwest High Speed Rail Association. (2009) Homepage. Retrieved November 11, 2009, from <http://www.midwesthsr.org/>
- O'Toole, R. (2009). The high cost of high speed rail. Austin, TX: Texas Public Policy Foundation.
- Rail Solution. (2010). The steel interstate – A uniquely sustainable and synergistic national infrastructure stimulus. Retrieved from <http://www.railsolution.org/projects/steel-interstate/steel-interstate-position-paper.html>
- Reutter, M. (2009). Bullet trains for America? *The Wilson Quarterly*. Retrieved from http://www.wilsoncenter.org/index.cfm?fuseaction=wq.essay&essay_id=554055
- Shearin, G.(1997). Methodology development for estimating external benefits and costs of high-speed ground transportation in the United States. *Transportation Research Record*, No. 1584, 1-7.
- Southeast High Speed Rail Corridor. (2009). Homepage. Retrieved November 11, 2009, from <http://www.sehsr.org>
- State of Florida Department of Transportation. (2009). Florida high speed rail. Retrieved November 11, 2009, from <http://www.floridahighspeedrail.org/>
- Texas High Speed Rail and Transportation Corporation. (2009). Homepage. Retrieved November 11, 2009, from http://www.thsrct.com/home_page.html
- The White House. (2010). Recover Act High Speed Rail Award. Retrieved on April 15, 2010, from http://www.whitehouse.gov/sites/default/files/rss_viewer/hsr_awards_summary_public.pdf
- The White House Office of the Press Secretary. (2009, April 16). President Obama, Vice President Biden, Secretary LaHood call for U.S. high-speed passenger trains. Retrieved from http://www.whitehouse.gov/the_press_office/President-Obama-Vice-President-Biden-Secretary-LaHood-Call-for-US-High-Speed-Passenger-Trains

**THE MOBILITY COMMONS:
AN APPLICATION OF NETWORK NEUTRALITY TO THE COMMON POOL RESOURCE OF MOBILITY**

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Abstract

This paper posits that mobility is a form of infrastructure commons - a common pool resource best managed in a manner of open accessibility that promotes significant positive externalities. Understanding of the commons has evolved over time: traditional definitions of the commons as argued by theorists such as Hardin (1968) and Rose (1986) have given rise to more recent exploration of physical infrastructure, and even the Internet, as commons. Further, striking parallels exist between the debate over the future of the Internet and Network Neutrality and the current issues with mobility in the United States. This paper considers the case example of Wilmington, Delaware, the current state of the mobility commons there and the potential implications with managing mobility in Wilmington as a common pool resource.

Introduction

The concept of community mobility refers generally to the ability of citizens to move about their community with as little encumbrance as possible. To develop a more concrete description, Suen and Mitchell (1999) define mobility as: “[h]aving transport services going where and when one wants to travel; being informed about the services; knowing how to use them; being able to use them; and having the means to pay for them” (p. 1). Their definition largely rings true, with the clarification that “transport services” should explicitly include pedestrian and bicycle modes of

transportation. This paper posits that mobility is a form of infrastructure commons – a common pool resource best managed in a manner of open accessibility that promotes significant positive externalities. Understanding of the commons has evolved over time: traditional definitions of the commons as argued by theorists such as Hardin (1968) and Rose (1986) have given rise to more recent exploration of physical infrastructure, and even the Internet, as commons. Further, striking parallels exist between the debate over the future of the Internet and Network Neutrality and the current issues with mobility in the United States. Finally, this paper considers the case example of Wilmington, Delaware, the current state of the mobility commons there and the potential implications with managing mobility in Wilmington as a common pool resource.

Part One – A Brief History of the Commons

Writing about the carrying capacity of the planet Earth and the perceived limits on population growth, Hardin (1968) articulated his theory of “the tragedy of the commons.” According to Hardin, commonly-held property is inexorably destroyed, as users of the property plunder the resource. He proposes the example of a common pasture in which each herdsman has a rational incentive to maximize his own wealth by allowing an ever-larger herd to graze. Since no individual cattleman owns the property, it is in no single individual’s interest to graze sustainably, and as each rancher grazes ever more cattle, the pasture will ultimately be devastated. “Freedom in a commons brings ruin to all,” he opined (Hardin, 1968, p. 1244).

The public policy impact of Hardin’s seminal work has been profound. The “tragedy of the commons” has entered the vernacular, and whether Hardin was the proximal cause or merely reflected a rising tide of individualism and privatization, U.S. federal public policy in the late 20th Century frequently embraced the importance of individual, and not collective, responsibility. Bill

Clinton's 1996 welfare reform legislation, the Personal Responsibility and Work Opportunity Reconciliation Act (H.R. 3734, 1996), went so far as to include individual responsibility in the title of the law. More recently George W. Bush campaigned on an ownership society - and not a collective property society (Karabell, 2008). His status as champion of private ownership notwithstanding, Hardin (1968) actually equivocated on the optimal way to avoid tragedy in the commons, offering private ownership as one among many possible solutions including attaching taxes and fees to public goods to discourage overuse.

Despite the impact of his ideas, Hardin's conclusions have been extensively contested. Rose (1986) wrote a response playfully entitled *The Comedy of the Commons* that persuasively rejected Hardin's central conclusions: collective ownership of the commons does not necessarily engender destruction. Moreover, collective ownership in many cases is the optimal form of governing the commons. A legal scholar, she exhaustively documents British common law and case history to show that certain properties such as roadways and waterways are "inherently public property" (p. 720).

Using the example of a town marketplace as a common or "inherently public" resource, Rose (1986) demonstrates that the marketplace benefits from more and more individuals using it. In this case, everyone having open access to make use of the commons does not precipitate its destruction, but rather benefits the community as a whole. Greater levels of commerce place downward pressure on prices. Consumers and vendors alike benefit from prices closer to the marginal cost of production and a larger volume of trade. In effect, collective ownership creates economies of scale or a "network externality" (Katz & Shapiro, 1985). Such products for which concurrent consumption enhances their utility are known as "network goods" (Liebowitz & Margolis, 1994) and include telephones, XBOX 360s, and social networking sites. A telephone is

only useful when a person owns a phone, and similarly an XBOX360 is more useful with higher levels of ownership so video gamers can find more opponents for online multiplayer matches or trade games second-hand.

Economists frequently describe goods as either rivalrous (R) or nonrivalrous (NR). A good is rivalrous if one person consuming it denies another the opportunity to consume it. Thus, apples are rivalrous, but a hymn is not. If one person eats an apple no other person can, but one person singing a hymn does not restrict anyone else from singing along or separately (Stiglitz, 1999). Returning to the commons, Rose takes up Hardin's example of common pasturage specifically and notes that even if the amount of land available to pasture is a rivalrous good, the potential for network effects still exists as ranchers can collectively pool the responsibility of labor intensive activities (Dahlman, 1980, referenced in Rose, 1986). Ironically, Rose draws much of her reading directly from Adam Smith, the scion of freemarketeers such as the libertarian think tanks the Cato Institute and Competitive Enterprise Institute that consider public ownership anathema (for example, see Smith, 1981 or De Alessi, 1996).

Since Rose, other theorists have articulated in earnest a more precise demarcation of the commons and delineation of optimal governance structures. Most prominently, Elinor Ostrom (1990), preferring the term "common pool resource (CPR)," defined the commons as "a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use" (p. 30). Much of her research has concerned sustainably managing natural resource commons or "social-ecological systems" (Ostrom, 2009, p. 419) such as irrigation systems (Ostrom, 1992), but as Rose (1986) foreshadowed, infrastructural systems are also a common pool resource (Frischmann, 2005b; Künneke & Finger, 2009).

Effective, sustainable management of CPRs is complex. Mitigating rival claims to the resource is difficult, as is enforcing norms of behavior to prevent excessive use. Like marine fisheries, roadways can be subject to overuse, a phenomenon that is manifest as congestion. Künneke and Finger (2009) identify four typical issues related to managing physical infrastructure as a commons: system management, capacity management, interconnection, and interoperability. These issues, particularly interconnection and interoperability, will prove particularly relevant during later discussion of mobility as a commons, but currently it is sufficient to identify physical infrastructures as commons, with inherent administrative challenges and potential for positive externalities.

The theoretical underpinning for defining a common pool resource is critical. Ostrom (1990) focused on the supply-side variable of excludability. The concept of excludability refers to the ability to selectively exclude users from appropriating a good (Stiglitz, 1999). Thus, a challenge in managing a common pool forest might be excluding users who would overharvest the timber. However, classifying CPRs with demand-side variables is also illustrative.

In his treatise *Infrastructure Commons*, Frischmann (2005b) argues deliberately that certain classes of CPRs should be publicly held precisely because the free markets fail to satisfy societal demand. He eschews a traditional supply-side definition to define infrastructure focused on society's demand for the end products created with the CPR as direct or intermediate inputs. Frischman further classifies infrastructure as having end products that are chiefly commercial, public, or social in nature. Frischmann acknowledges that some infrastructures can fall into more than one category - he lists the Internet as all three - and that not all infrastructures should be managed as a publicly-held commons. But for infrastructures that are chiefly public or social in nature such as a public lake or monument, public management as CPRs with open access for the

public is an optimal regime. The social benefits of public access to a lake – such as fitness for swimmers, food or sport for fishers, groundwater filtration, etc – are difficult to value quantitatively and thus markets often do a poor job of providing them (Dreizen, 2008).

Frischmann (2005a) further calls for open access to public and social infrastructures with consideration of “nontraditional” forms of infrastructure, particularly the Internet. Frischmann argues for an Internet infrastructure that permits traffic in a nondiscriminatory fashion, so called “Network Neutrality,” a topic to be considered more fully in the next section.

Part Two – Network Neutrality

The history of the Internet is illustrative. As a system of computers, the original design or architecture of the network was “end-to-end,” a layout that stresses the importance of end-users, and not the central computer systems. The network linkages between endpoints are not optimized to do anything other than transmit data from one endpoint to another. The lack of optimization allows for the variety of different uses of the Internet that are so familiar – sending emails, sharing files, conducting Voice-over-IP (VOIP) internet phone calls. In contrast, the old AT&T telephone networks were optimized to transmit voices – traditional telephone calls – from one receiver to another, but proved inflexible and performed poorly at other tasks (Lessig, 2001). Many technical experts believe that the wide-open design of the Internet allowed for experimentation and innovation to flourish (for example, see Herman, 2006). It seems unlikely that the original architects of the Internet could have foreseen Netflix Instant Queue, Facebook, and the millions of weblogs. This seemingly simple design principle that the network should facilitate movement of data irrespective of content or source, without prioritizing one usage over another, belies a fearsome debate over the future of the Internet.

Precisely describing network or “net” neutrality itself has itself been the subject of debate. Generally, net neutrality means users should be able to move their data from one end of the network to another without discrimination, as long as the data does not undermine network integrity through transmission of a virus or other harm. Leading Internet theorists such as Tim Wu, Lawrence Lessig, and Tim Berners-Lee at times differ on the exact definition of network neutrality and the best way to guarantee it. For example, Wu (2003) believes that cable operators should be able to market broadband internet as well, while others fear such an arrangement could create a monopoly in the distribution of information. Time-Warner might not like Internet subscribers watching television programming from a web browser because such a use competes with their cable television business (Lemley & Lessig, 2001). Setting aside technical disputes, what matters most is the potential for harm to users that a discriminatory network poses.

Opponents of regulating network neutrality are typically large firms that operate telecommunications networks. From their perspective, they would like to charge content providers for priority access to the networks they manage. As an example, Amazon.com might have to pay Verizon a premium so that Amazon.com’s customers can complete transactions quickly and consistently. Instead of a neutral network, the Internet would become “tiered” between the actors with the resources to pay for the highest level of service, and those without. When questioned in an interview about Internet firms using large amounts of network bandwidth, Edward Whitacre, then-CEO of SBC before the merger with AT&T, summarized the industry’s position on network neutrality by stating:

How do you think they're going to get to customers? Through a broadband pipe. Cable companies have them. We have them. Now what they would like to do is use my pipes free, but I ain't going to let them do that because we have spent this capital and we

have to have a return on it. So there's going to have to be some mechanism for these people who use these pipes to pay for the portion they're using. Why should they be allowed to use my pipes?

The Internet can't be free in that sense, because we and the cable companies have made an investment and for a Google or Yahoo! [...] or Vonage or anybody to expect to use these pipes [for] free is nuts! (BusinessWeek, 2005)

To Whitacre, Internet startups represented freeloaders on his network who were not paying their fare share for the upkeep of the network. In economic parlance, he wanted to exert the power of excludability - in the form of a premium - on his rivalrous network capacity. Others have pointed out that Whitacre's comment is misleading. The image of freeloaders not paying to use the pipes belies the fact that users pay monthly fees for internet access (Fisher, 2005) and that content providers like Google already have network "peering and transit arrangements" and pay out based on the amount of traffic they move across a network like SBC/AT&T's (Lee & Wu, 2009, p. 72). Essentially, Whitacre and other opponents of network neutrality already get paid twice and seek license to charge network users a third time for using certain applications. Finally, Whitacre confuses neutrality with a free for all. Accessing an infrastructure commons often requires a cost in the form of a toll, but critically:

Roads and highways, canals, railroads, the mail, telegraph and telephone [...] have always been operated as common carriers that are required to interconnect and serve the public on a nondiscriminatory basis (Cooper 2004, p. 113).

Thus, the key factor of a neutral network is its nondiscriminatory interconnectivity. In *The Future of Ideas*, Lessig (2001) presents his clarion call for network neutrality. Not only did the neutral history of the Internet allow innovation to flourish, but by allowing network operators to

create a tiered Internet, the community denies itself the opportunity for future innovations that may not be imaginable given the current state of technology. Previous technological advances made the creation of Google Maps possible, and the neutral network made it deployable. In a tiered network, a future engineer might create an application as revolutionary as eBay, but without the ability to pay for premium access, his or her innovation may never reach the market. Lessig (p. 48) terms this interrelationship between a neutral network infrastructure and innovation the “innovation commons.”

The Federal Communications Commission (FCC), which regulates telecommunications in the United States, has waded into the network neutrality debate on several major occasions. In 2005, the FCC released a policy statement outlining four principles of network management. Each principle began “*To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet* (italics theirs),” before listing the fundamental rights to access lawful content, run applications, connect non-harmful network devices, and choose from competing service and content providers (Federal Communications Commission, 2005).

Most striking about the policy statement was the Commission’s use of the language of common pool resources. As discussed above, maintaining interconnectivity and interoperability are critical to successful infrastructure commons management (Künneke & Finger, 2009) and the FCC endorsed broad consumer rights to nondiscriminatory use and access. Indeed, the FCC explicitly used the term “*public Internet* (italics theirs)” which reinforces the notion of the Internet as a public good. The policy statement’s conclusion further illustrates the FCC’s belief in the inherently public nature of the Internet.

To foster creation, adoption, and use of Internet broadband content, applications, services and attachments, and to ensure consumers benefit from the innovation that comes from

competition, the Commission will incorporate the above principles into its ongoing policymaking activities. (Federal Communications Commission [FCC], 2005)

As the conclusion succinctly states, innovation is at the heart of network neutrality policy.

Since the publication of the policy statement, the FCC forbade Comcast from discriminating against the Bittorrent application on its network, a restriction that the FCC felt violated the “reasonable network management” clause by which network operators can disallow abusive network appropriation (Martin, 2008).

More recently, the Obama administration installed a new FCC Chairman Julius Genachowski, who has also been a strong proponent of net neutrality. Building on the 2005 policy statement in a September 2009 speech, Genachowski added two more principles of network management, further fleshing out nondiscrimination to explicitly prevent the kind of tiered Internet that content providers so oppose and requiring transparency in network administration (Genachowski, 2009). He reiterated the Commission’s belief in the critical importance of neutrality in the innovation commons by stating, “Ensuring a robust and open Internet is the best thing we can do to promote investment and innovation” (Genachowski, 2009).

To summarize, theorists have considered the utility of a neutral network. Open and nondiscriminatory access allows users to make use of the network as a commons. Provided they are not spreading viruses or unlawful content, connections should link seamlessly and facilitate the movement of data from one end of the network to another, without degradation or tiering. Federal policy currently recognizes the incredible utility of allowing data to move freely over the Internet: innovation has flourished and driven economic development in the technological sector, creating a “comedy of the commons” to return to Rose’s formulation. Clearly there are advantages to well managed network infrastructures. Network neutrality and common pool resource

management theory both provide insight into how communities can do a better job of enhancing community mobility.

Part Three - The Mobility Commons

The concept of mobility is a far reaching one. Suen and Mitchell (1999) contend that the mobility depends on the availability, accessibility, and affordability of transportation services. Their definition is a good start at conceptualizing what a community needs for accessing transport, but a broader definition of the mobility as a commons is more helpful from a community planning perspective. As a network infrastructure, the mobility commons refers to the availability of means to move safely and freely about the community with minimal impediment or inconvenience.

The key difference between the infrastructure commons and the mobility commons is that mobility commons function as a superset of the physical geography of streets and causeways to include the connectedness of a community and the ways that mobility facilitates human functioning. Expanding the infrastructure commons to include the mobility commons firmly seats management policy in an awareness of how mobility management decisions impact the quality of life for community members. In addition to the physical infrastructures of a community, the mobility commons includes the major job centers, churches, grocery stores, libraries, schools and so on in a locality and the level of connection between them. As such, the mobility commons comprises of the built infrastructures, the socioeconomic nodes of a community, and the connections between them.

Access to the mobility commons means access to the community. Denying members of the community open access to the mobility commons means shutting them out of the community. Creating a more neutral commons will generate a more connected community that allows the

autoless and those who would prefer not to drive the ability to get to work, shop for groceries, conduct transactions at the bank, attend church services, or visit a neighbor freely.

The positive externalities of neutral mobility are numerous. Community mobility is inherently a network good, and as such, livability improves as more community actors consume it. Concretely, decreasing reliance on cars not only empowers the autoless population, but promotes public health by facilitating walking and biking, decreases the amount of pollutants dumped into the environment, and could bring down the amount of fossil fuels that must be extracted and imported. The consequences of the status quo are staggering. Recent estimates of the number of short trips taken via pedestrian, bicycle, and public transit modes tally only 8% of all short trips, (Basset, Pucher, Buehler, Thompson, & Crouter, 2008) and on a monthly basis 400 pedestrians are killed by drivers (Padgett, 2009). Apart from cleaner air and water, a neutral mobility commons would literally save lives.

The language of common pool resources is appropriate here. Physical infrastructures are “partially nonrivalrous” (Frischmann, 2005b, p. 942). As an example, roadway capacity is usually nonrivalrous. A large number of automobiles can drive on the highway at one time without impacting each other’s ability to utilize the network. However, congestion at peak demand – a state of rivalry – can occur, and does so during rush hour in most metropolitan areas. Indeed, it may be an inescapable consequence of economic development (Downs, 2004). The mobility commons is also partially nonrivalrous. Buses and subway cars face periodic crowding, but pedestrian overpasses or crosswalks rarely do. Irrespective of whether one deems mobility a rival, nonrival, or partially rival good, it is a common good. As Lessig (2001) wrote, “[w]hat determined ‘the commons,’ then, is not the simple test of rivalrousness. What has determined the commons is the *character of the resource* and how it *relates to the community*” (p. 21).

Later while discussing the ability of the free market to regulate CPRs, Lessig (2005) argued that “[i]f the NR-input is sufficiently generic, and it is an input into a sufficiently diverse range of goods, then the market will not regulate access to the good well” (p. 1035). In this case, mobility is generic; the mechanisms of roadway mobility can accommodate many different kinds of traffic: pedestrians, cyclists, rapid buses, private sedans, or commercial trucks. The outputs are diverse: business or leisure travel, jogging, commuting, and deliveries. As Lessig predicts, the market does a poor job of regulating mobility. The current system of management prioritizes automobiles. Their traffic dominates our roadways, and significantly limits the interconnectedness of auto-less citizens. The network is tiered, and interconnectedness suffers.

Currently the mobility network is governed by a number of players, each with individual interests that may not align with those of other actors. The demographic and geographic characteristics of a locality will determine its mobility commons and also the agents that jockey for influence over it. Areas with sizeable elderly populations might need to plan for a substantial number of citizens with limited driving ability because of failing eyesight or the onset of dementia. Communities with large numbers of children need safe routes to school. Moreover, the mobility commons of New York City, with its extensive public transportation bears little resemblance to small town in rural Iowa.

Nevertheless, though different constituencies might have more sway in a particular locality, managing mobility as a common pool resource means balancing the desires of multiple appropriators in a sustainable way, and thus the game of resource management includes comparable players. The brokers of the commons include elected and appointed policymakers, interest groups that represent business, environmental, industry, minority, or senior concerns, citizens and outsiders. The policy framework enables (or limits) the decisions they can make.

Appendix 1 depicts some of the key managers of the mobility commons at various levels and sketches some of their interests.

A more neutral network would surely benefit the community, and would include at least some of the following physical attributes:

- “Complete Streets” with bike lanes, trails, pedestrian crossing signals, and pedestrian over or underpasses (for an overview of complete streets see McCann, 2005).
- Safe transportation for pedestrians, who risk fatality in auto-pedestrian collisions (Loukaitou-Sideris, Liggett, & Sung, 2007) and safe routes to school for children.
- Robust public transportation options that provide service outside of traditional commuting hours, with late-night and weekend trips at the lowest fare possible. Equitable public transportation does not engage in “transit racism” and provides quality service with similarly equipped buses or trains and stops in all parts of the community (See Grengs, 2002, Grengs, 2004, or Bullard, Johnson, & Torres, 2004).
- Transportation options for the handicapped, through accessible curbs, buses and trains, and lifts (Audirac, 2008).

As stated previously, however, availability of transportation options is only a part of mobility. Interconnectedness requires geospatial planning. The populations of seniors and the disabled are growing (Smith, Rayer, & Smith, 2008), and any of these populations that live in the suburbs are likely disconnected from public transportation options which exist almost entirely in

the city. Also, planning solutions in communities that are distant from major urban centers may require a greater emphasis on bus rapid transit and park and ride facilities, for instance.

While many of the above recommendations resemble Smart Growth principles, that is an unintended consequence. In truth a variety of competing livability principles exist including New Urbanism, Eco-Cities, Urban Containment among others (Jabareen, 2006) and declaring one particular set of design principles as supreme is beyond the scope of this study. The critical point is that the current management regime of the mobility commons that vastly favors automobiles over every other conceivable mode of transportation is inequitable and creates a tiered structure.

Part Four - The Wilmington, Delaware Mobility Commons

Wilmington, Delaware provides a case example in identifying the mobility commons. Situated in northern Delaware, recent federal census estimates peg Wilmington's population at roughly 64,000, with 12.9% of the population 65 years or older. Wilmington reports a racial mix of 55.1% African-American and 39.7% White. Ethnically, 9.9% of residents report Hispanic or Latino ethnicity. Median household income stands at \$38,708, and major employers operate in the sectors of education and health care (22%), retail (13%), professional, scientific, management and administrative positions (13%), and the financial industry (12%) (U.S. Census Bureau, 2000).

The Delaware Transit Corporation (DART) provides public transportation services, including fixed-route buses, commuter rail connections to Southeast Pennsylvania Transportation Authority (SEPTA), and on-demand paratransit (Delaware Transit Corporation, 2009).

The federally recognized municipal planning organization in the area is the Wilmington Area Metropolitan Planning Council (WILMPACO), which plans for the two-county region of New Castle County, Delaware, and Cecil County, Maryland. In addition to WILMAPCO, official

players in the Wilmington mobility commons include: the Wilmington Parking Authority, which operates an assortment of 11 parking lots and garages as a public authority (Wilmington Parking Authority, 2009), the Wilmington City Council, the New Castle County Council, state level actors such as the Delaware Department of Transportation (DelDOT), the state legislature, and federal level policy makers in the Congressional delegation and United States Department of Transportation.

A list of non-governmental agents that influence and mediate the Wilmington mobility commons would include auto commuters that travel to or through Wilmington, the freight traffic that connects the Port of Wilmington to transportation network, the public school population, the mobility-impaired, and many others.

This outline of the players in the Wilmington mobility commons is a brief sketch. A fuller picture would include detailed origin and destination data across modes of transportation, an exploration of the interplay between Wilmington and its suburban environment, more examination of the economic and geographic factors of Wilmington as a port city in the Northeast Corridor, as well as a thorough exploration of the power structures that play out in governance decisions. Finally, the analysis of the geo-spatial characteristics of the commons, and the spacing of commercial, residential, and community nodes here is superficial. However limited, this overview provides a basic glimpse of the community and allows for further consideration of the level of community interconnectedness.

WILMAPCO has undertaken to study the mobility commons in its two-county area and uncovered an uneven picture. The areas is home to significant concentrations of “transportation justice” (p. 6) - autoless, disabled, and senior - populations (Wilmington Area Planning Council [WILMAPCO], 2007). Some low income supermarkets were well served by transit options, but

many employment centers were not (WILMAPCO, 2009). Further, WILMPACO has identified several “environmental justice” communities – predominantly low-income and minority – that have been neglected by planners and policy makers. Though the transportation justice population is significantly more likely to walk, many poor and minority neighborhoods in Wilmington are not connected to maintained paths. Therefore this population must traverse crumbling sidewalks and intersections lacking crosswalks or pedestrian signals (Wilmington Area Planning Council, 2009).

Wilmington’s elderly and disabled residents often rely on paratransit services, which offer door-to-door transportation for a \$2 fare. In 2006 each paratransit trip in New Castle County cost DART \$27, a noticeably high deficit (WILMPACO, 2007). The same study estimated the cost to DART of a traditional bus trip at \$4, so moving more of these passengers to traditional buses would represent a significant reduction in overhead. WILMAPCO recognizes raising the level-of-service for DART as an opportunity to improve the livability of the region as a whole.

Notably, though these potential service quality investments might be targeted at transportation justice segments of the population, improved service would have the potential network effects of increasing all ridership. As the quality of DART improves, more people with mobility options might choose DART over private automobile traffic. This phenomenon could raise farebox revenue and elevate public transportation’s influence over the mobility commons, thus resulting in even greater subsidies to spend on level-of-service variables.

WILMAPCO’s efforts to identify and remedy breaks in the interconnectedness of the community are laudable, but above all, they illustrate a tiered network. The governing actors in the Wilmington mobility commons reflect the country at large and prioritize automobile traffic over all other appropriations of the mobility CPR. A philosophy of greater mobility neutrality would provide a significant quality of life enhancement for the transportation and environmental justice

populations as well as anyone who would prefer not to drive. A network neutral regime that nonprejudicially conveys all harmless data traffic along the network is worth considering.

Part Five - Final Remarks and Future Considerations

Having sketched the community mobility as a common pool resource and related that concept to the neutral system by which data traffic moves across the Internet, a consideration of the applicability of network neutrality is necessary. Lee and Wu (2009) raise the issue of generalizability directly and caution against hastily mandating neutrality in other networks through their discussion of the policy known as zero-pricing that prohibits network operators from charging content creators to reach their customer base,

There is effectively no opportunity cost of subsidizing new content and lowering the barrier to entry, since no other content is not precluded from existing or reaching users. In contrast, in media networks such as radio or cable television, each station uses a fixed amount of bandwidth or spectrum [...]. Thus even if subsidizing content may be desirable, the scarcity of airtime, spectrum, or shelf space may very well render zero-pricing unappealing and undesirable in other industries (p.74).

Community mobility is not broadcast media, but neither is it packets of data sifting through the ether. The built infrastructures for pedestrians, cyclists, public transportation passengers, private vehicle drivers, and freight traffic and the quality of connection between those structures need not be exactly comparable to the nature of network traffic for net neutrality to be instructive. To reiterate, the question of whether a property is inherently public does not depend exclusively on the rivalrousness of the good - whether airtime or mobility. The key is how the good impacts the community. In any event, the best use of network neutrality may be to paint in stark relief

current mobility limitations and aid in the conceptualization of the governance decisions that would result in more equitable mobility. It is reasonable for influencers of the mobility commons to aim for policies that foster quality of life improvements in a manner comparable to the way that neutral management of the Internet has changed everyday life for billions around the world.

As a practical matter, devising a system of truly neutral mobility would likely be neither plausible nor desirable. Some amount of zoning to separate different built structures may be beneficial and implies at least some spatial mismatch between where people live, work, and carry out their daily activities, which in turn creates the challenge of equitably managing the mobility commons. Furthermore, there may be justifiable reasons to continue privileging autos over other appropriators – the current lack of alternative modes, for instance – however, creating a more just management system that offers safe alternatives to the community should be a priority.

A final consideration on the appropriateness of using network neutrality to inform the governance of the mobility commons is that it brings into focus the potential positive externalities that communities currently deny themselves. In the same way that the original architects of the Internet never foresaw the innovations that network neutrality would engender, it is plausible that there are not-yet-imagined uses of the mobility commons.

Conceptualizing community mobility as a common pool resource network that should be managed in a manner of nondiscrimination (or minimally less discrimination) raises at least as many questions as it purports to clarify. If assuming that true mobility neutrality is unwanted or unattainable, then a valid point of inquiry would be delineating minimum standards of mobility, and implicitly identifying the maximal usages by other appropriators. This demarcation would require the community to endorse auto privilege but determine its upper limit and consequently some higher minimal level of alternative mobility.

Returning to the example of Wilmington, Delaware, addressing the acknowledged limitations of the mobility commons sketch previously outlined by fleshing out the actors and gathering substantive data would be a necessary condition for more meaningful analysis. Only then might planners attempt experimentation between different design approaches - Neotraditional, Eco-City, etc - to see which results in the most equitable resource management paradigm would also be necessary. Another promising investigation might examine a case-study in the consequences of a non-neutral Internet, including recent instances of government censorship in China, France, and elsewhere (Goldsmith & Wu, 2006). Finally, other network goods like cable television, the telephone, or even postal mail prioritize traffic differently, and may prove useful models for mobility as a network good.

Apart from the abstract issues of using network management theory to drive mobility policy are the very concrete ways in which data networks are shaping mobility. Telecommuting, e-commerce, online traffic reports, and route planning websites are all impacting community mobility. Each of these phenomena is worthy of substantive exploration, as is a fundamental consideration of how technological innovations interact with the nuanced power dynamics embedded in all policymaking, and the extent to which technology amplifies or narrows power gaps between actors.

An altogether separate question is the cooperative action problem of achieving a more neutral mobility commons. The CPR management literature would likely be helpful here in formulating the decision making processes, resource appropriation rules, and consequences for rule violation. The question is not merely abstract; with the manifold variables of access and use and the stochastic nature of CPR capacity, devising the one management system that maximizes for ideal usage is exceedingly unlikely (Ostrom, 1999). Nevertheless, sustainable CPR management

systems are well documented (for example, see Wade, 1988). Each sprawling suburban development complicates the mobility CPR picture and makes creating a more just, neutral commons all the more difficult.

In closing, constructing a more neutral mobility commons will be no easy task, but the consequences of inaction are also substantial. The history of the Internet has demonstrated the abundance that a neutral network can bring, which may hold some guidance for the influencers of the mobility commons. The factors at play - power, opportunity, equity, entrenched policy, racial and class divisions - are daunting, yet the issues that a neutral management of the mobility CPR are worthy of further study.

 Appendix 1: Influencers of the Mobility Commons

Organization:	Interests:	Mechanism of Influence:
Department of Transportation State or Federal	Maintenance of existing physical infrastructures, balancing appropriations between modes of transportation, promoting economic development, ensuring safe transportation, building out new starts.	Appropriations, Regulatory Authority
Planning Organizations MPOs, City or State Planning Departments	Providing for growth and development with Transportation Improvement Plans and Long Range Plans.	Advisory; planners create plans, elected officials choose to implement them.
Legislative bodies US Congress, State legislature, city and county elective bodies	Local economic development in district, satisfying constituent concerns about congestion and safety, reelection, etc	Appropriations through earmarks and Federal Transportation Bill, legislation governing safety, environmental health, etc.
Business Lobby (Chamber of Commerce, Homebuilders, etc)	Promote pro-business policies that favor sprawling new developments and private vehicle sales.	Campaign contributions, advertisements, and activism.
Environmental Lobby (Sierra Club, Friends of Earth Action, etc)	Promote sustainable development, increased public transportation utilization, protecting green space and wildlife habitat, clean air and water.	Campaign contributions, advertisements, and activism.
Other activists	May promote disability rights, senior citizen issues, racial disparities, etc	Campaign contributions, advertisements, and activism.
Community members Community nonmembers	Safe, reliable, expedient transportation options, high levels of mobility, responsible stewardship of tax dollars. Make use of mobility commons as visitors or by passing through. May value scenery or simply fast, direct routes.	Voting, citizen activism, campaign contributions, etc Patronage of retail establishments or local sites.

References

- Delaware Transit Corporation. (2009). About DART First State. Retrieved on December 9, 2009 from <http://dartfirststate.com/home/about/index.shtml>.
- Audirac, I. (2008). Accessing transit as universal design. *Journal of Planning Literature*, 23(1), 4-16.
- At SBC, It's all about "scale and scope." (2005, November 7). *BusinessWeek*. Retrieved on December 9, 2009 from http://www.businessweek.com/@n34h*IUQu7KtOwgA/magazine/content/05_45/b3958092.htm.
- Basset, D. R. Jr, Pucher, J., Buehler, R., Thompson, D.L., & Crouter, S.E. (2008). Walking, cycling, and obesity rates in Europe, North America, and Australia. *Journal of Physical Activity and Health*, 5, 795-814.
- Bullard, R. D., Johnson, G. S., & Torres, A. O. (2004). Dismantling transit racism in metro Atlanta. In R. Bullard, G. Johnson & A. Torres (Eds.), *Highway robbery: Transportation racism, new routes to equity* (pp. 48-73). Cambridge, MA: South End Press.
- Cooper, M. (2004). Making the network connection: Using network theory to explain the link between open digital platforms and innovation. In M. Cooper (Ed.), *Open architecture as communications policy* (pp. 95-154). Center for Internet and Society Stanford Law School.
- Dahlmann, C. (1980). *The open field system and beyond: A property rights analysis of an economic institution*. Cambridge, UK: Cambridge University Press.
- De Allesi, M. (1996). Oysters and Willapa Bay. Retrieved on December 9, 2009 from <http://cei.org/gencon/030,04419.cfm>.
- Downs, A. (2004). *Still stuck in traffic: Coping with peak-hour traffic congestion*. (Revised Edition). Washington, DC: The Brookings Institution Press.
- Dreisen, D. (2008). An economic dynamic approach to the infrastructure commons, *Ecology Law Quarterly*, 35(2), 215-221.
- Federal Communications Commission. (2005, September 23). Policy Statement. FCC 05-151.
- Fisher, K. (2005, October 31). SBC: ain't no way VoIP uses mah pipes! *ars technica*, Retrieved on December 9, 2009 from <http://arstechnica.com/old/content/2005/10/5498.ars>.
- Frischmann, B. (2005a). An economic theory of infrastructure and commons management. *Minnesota Law Review*, 89, 917-1030.
- Frischmann, B. (2005b). Infrastructure commons. *Michigan State Law Review*, 89, 121-136.
- Genachowski, J. (2009, September). Preserving a free and open Internet: A platform for innovation, opportunity, and prosperity. Presented at The Brookings Institution, Washington D.C. Retrieved on December 9, 2009 from <http://www.openinternet.gov/read-speech.html>.
- Goldsmith, J. & Wu, T. (2006). *Who controls the Internet? Illusions of a borderless world*. New York, NY: Oxford University Press.

- Grengs, J. (2004). The abandoned social goals of public transit in the neoliberal city of the USA. *City*, 9(1), 51-66.
- Grengs, J. (2002). Community-based planning as a source of political change: The case of Los Angeles' Bus Riders Union. *Journal of the American Planning Association*, 68(2), 165-178.
- Hardin, G. (1968, December 13). The tragedy of the commons. *Science*, 162(3859), 1243-1248.
- Herman, B. (2006). Opening bottlenecks: On behalf of mandated network neutrality. *Federal Communications Law Journal*, 59(1), 103-155.
- Jabareen, Y. R. (2006). Sustainable Urban forms: Their typologies, models, and concepts. *Journal of Planning Education and Research*, 26(1), 38-52.
- Karabell, Z. (2008, October 11). End of the 'Ownership Society.' *Newsweek*, (152)16. Available at <http://www.newsweek.com/id/163451>. Last accessed 12/8/2009.
- Katz, M., & Shapiro, C. (1985). Network externalities, competition, and compatibility. *The American Economic Review*, 75(3), 424-440.
- Künneke, R., & Finger, M. (2009, June). The governance of infrastructures as common pool resources. Paper presented at fourth Workshop on the Workshop (WOW4). Bloomington, IN. Retrieved on December 9, 2009 from http://dlcvm.dlib.indiana.edu/archive/00005661/01/kunneke_finger_wow4.pdf.
- Lee, R. S., & Wu, T. (2009). Subsidizing creativity through network pdesign: Zero-pricing and net neutrality. *Journal of Economic Perspectives*, 23(3), 61-76.
- Lemley, M. & Lessig, L. (2001). The end of end-to-end: Preserving the architecture of the Internet in the broadband era. *UCLA Law Review*, 48, 925-972.
- Lessig, L. (2005). Remarking the progress in Frischmann. *Minnesota Law Review*, 89, 1031-143.
- Lessig, L. (2001). *The future of ideas: The fate of the commons in a connected world*. New York, NY: Random House.
- Liebowitz, S., & Margolis, S., (1994). Network externality: An uncommon tragedy. *The Journal of Economic Perspectives*, 8(2), 133-150.
- Loukaitou-Sideris, A., Ligget, R., & Sung, H. G. (2007). Death on a crosswalk: A study of pedestrian-automobile collisions in Los Angeles. *Journal of Planning Education and Research*, 26(3), 338-351.
- Martin, K. (2008, September). *Network neutrality conference-Implications for innovation and businesses online*. Presented in Copenhagen, Denmark. Retrieved on December 9, 2009 from http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-285830A1.pdf.
- McCann, B. (2005, May). Complete the streets! *Planning*, 71(5), 18-23.
- Ostrom, E. (2009, July 24). A General framework for analyzing sustainability of social-ecological systems. *Science*, 325, 419-422.
- Ostrom, E. (1999). Coping with tragedies of the commons. *Annual Review of Political Science*, 2, 493-535.

- Ostrom, E. (1992). *Crafting institutions for self-governing irrigation systems*. San Francisco, CA: Institute for Contemporary Studies.
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. New York, NY: Cambridge University Press.
- Padgett, T. (2009, November 20). Florida's deadly hit-and-run car culture. *Time*, 174(21). Retrieved on December 9, 2009 from <http://www.time.com/time/nation/article/0,8599,1942986,00.html>.
- Personal Responsibility and Work Opportunity Reconciliation Act of 1996, H.R. 3734, 104th Congress, 2d. Sess. (1996).
- Rose, C. (1986). The comedy of the commons: Custom, commerce, and inherently public property. *University of Chicago Law Review*, 53(3), 711-781.
- Smith, R. J. (1981). Resolving the tragedy of the commons by creating private property rights in wildlife. *Cato Journal*, 1(2), 439-468.
- Smith, S. K., Rayer, S., & Smith, E. A. (2008). Aging and disability. *Journal of the American Planning Association*, 74(3), 289-305.
- Stiglitz, J. (1999). Knowledge as a global public good. In I. Kaul, I. Gunberg, & M. Stern (Eds.), *Global public goods* (pp. 308-325). New York, NY: United Nations Development Programme.
- Suen, S. L., & Mitchell, C. G. B., (1999). Accessible transportation and mobility. Paper A1E09: Committee on Accessible Transportation and Mobility. Transportation Development Centre: Transport Canada. Available at <http://onlinepubs.trb.org/onlinepubs/millennium/00001.pdf>.
- U.S. Census Bureau. (n.d.). Wilmington, Delaware Population and Housing Narrative Profile. Retrieved on December 9, 2009 from [http://factfinder.census.gov/servlet/NPTable?_bm=y&-qr_name=ACS_2008_3YR_G00_NP01&-geo_id=16000US1077580&-gc_url=&-ds_name=&-_lang=en](http://factfinder.census.gov/servlet/NPTTable?_bm=y&-qr_name=ACS_2008_3YR_G00_NP01&-geo_id=16000US1077580&-gc_url=&-ds_name=&-_lang=en).
- Wade, R. (1988). *Village republics: Economic conditions for collective action in South India*. Cambridge, UK: Cambridge University Press.
- Wilmington Area Planning Council. (2009, March). 2009 Transportation equity report: An environmental justice study of the WILMAPCO region. Retrieved on December 9, 2009 from http://www.wilmapco.org/EJ/WILMAPCO_2009_EJ_Report.pdf.
- Wilmington Area Planning Council. (2007, January). 2007 Accessibility and mobility report: A Transportation justice study of the WILMAPCO region. Retrieved on December 9, 2009 from http://www.wilmapco.org/EJ/2007_TJ_Report_Executive_Summary.pdf.
- Wilmington Parking Authority. (2009). Mission statement. Retrieved on December 9, 2009 from <http://www.wilmingtonparking.com/aboutus.html>.
- Wu, T. (2003). Network neutrality and broadband discrimination. *Journal on Telecommunications and High Technology Law*, 2, 141-178.

**VIRTUAL ACTIVISM IN PATRIARCHAL SOCIETIES:
EDUCATING, ENGAGING, AND EMPOWERING WOMEN**

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Abstract

This paper examines the emergence of the Internet as the primary way for women to speak freely in patriarchal societies. The foundations for female suppression in patriarchal cultures are reviewed. Then this paper reveals how women in these cultures are using the virtual world as a resource for social change.

Passionate citizens ignite change. Resourceful action sustains change. Advancing technologies have created a plethora of information and tools to enable individuals to act; thus, access to technology is a major resource for social change. Specifically, the Internet has transformed how individuals interact globally. Tools such as blogs provide a platform for citizens around the world to speak out about their political and personal opinions. In Western democracies, Internet tools enhance citizens' ability to speak freely. In patriarchal cultures, the Internet is emerging as the primary way for individuals, particularly women, to speak freely. Suppressed women in patriarchal cultures are utilizing Internet tools to find their own identity and voice. These women are using the virtual world as the main resource for social change to educate, engage, and empower future generations.

To understand the phenomenon of female virtual activism, it is essential to examine the foundation for female suppression in the patriarchal culture. A majority of this activism is found in

the “belt of classic patriarchy” that includes countries located in the Muslim Middle East (Kandiyoti, 1991). Social scientists have defined patriarchy as “a precapitalist social formation that has historically existed in varying forms in Europe and Asia in which property, residence, and descent proceed through the male line” (Moghadam, 2003). Therefore, in a patriarchy, men hold power in both the public and private realms over women within that society. This power is the foundation of the social repression of a woman’s self-identity and voice (Shukri, 1999).

In the private realm or household, the patriarchal ideals suppress any self-identity women might have in their lives. According to Naila Kabeer (1988), “Men are entrusted with safeguarding family honor through their control over female members; they are backed by complex social arrangements that ensure the protection - and dependence - of women.” Therefore, the patriarchal household causes women to feel that their identity is dependent upon male-dominated beliefs and actions. Further, women are given the role to reproduce and to be the caregiver in the household, which is where they tend to find their identity. In the patriarchal culture, “women must marry and reproduce to earn status” (Moghadam, 2003). A social scientist, Shirin J.A. Shukri, crudely illustrates the true meaning of being a mother in a patriarchal family, stating: “[C]hildbearing is the central female labour activity. But just as in capitalism what a worker produces is not considered the property of the worker, so in a patriarchal context a woman’s products - be they children or rugs - are not considered her property but those of the patriarchal family” (1999). Traditionally, women in patriarchal cultures define themselves in the context of their father or husband. They are suppressed to identify solely with their family.

In the public realm, women are expected to be submissive to male authority. According to Asef Bayat (2007), “Patriarchy is entrenched in religious authoritarian polity [and]... where conservative Islamic laws are in place, women have turned into second-class citizens in many

domains of public life.” As stated by Bayat, the public sphere is a combination of Islamic religious law and male dominance that regulates the actions of women. For example, the citizens of Iran follow a social policy referred to as *urf* that is formed from cultural beliefs. Specifically, *urf* regulates how women should act in the public sphere. For example, the guidelines of *urf* control the relationships between men and women in the public (Amir-Ebrahimi 2008). According to Masserat Amir-Ebrahimi (2008), “The rules of *urf* evolve over time as the will of the people. . . . [M]any *urfi* rules, especially those that regulate and control the sexuality of women, have been institutionalized by the Islamic Republic.” Societal policies in Iran are implemented to suppress women based on beliefs found in *urf*; therefore, aspects of the law are created around the patriarchal culture.

Additionally, in many Muslim Middle Eastern nations women wear the hijab in public, which can range from a veil covering the face to a dress covering the entire body. Even though women have some choice in whether to wear the hijab, the public and societal norms have a strong influence on their choice. “According to this cultural perception, disclosing the self was considered . . . exposing the vulnerability of the person to society, attracting misjudgment and misevaluation. . . . All information about a woman’s life was to stay under the cover of veils, walls, anonymity, and secrecy” (Amir-Ebrahimi, 2008). Therefore, within the patriarchal culture and under the strong influence of societal control of women, the hijab becomes the tangible symbol of female silence or the repression of the female voice.

As noted, within the patriarchal culture, women’s identity and voice are suppressed in the private and public sphere. Over the past two decades, women have organized small changes to conservatively step beyond and speak outside of the restricted boundaries. However, the patriarchal culture is still a powerful foundation. According to Loubna Skalli (2006), “Women’s

access to this sphere is contested because the male-dominated politico-religious centers of power in Muslim societies remain ambivalent in their position toward the scope of women's mobility, as well as their visibility." The combination of the nature of the patriarchal society and modern resistance to inequality has laid a foundation for passionate women who are seeking change.

As stated previously, passionate individuals must engage in resourceful action to sustain change. A major resource is the use and broad access of Internet technology. In the Middle East, research has shown that an increasing number of individuals have access to the Internet. For example, in 2001, Iran identified 1 million Internet users; 6 years later, that number had climbed to 18 million (Ministry of ICT Iran, 2008). Because of the nature of the patriarchal culture, it has been identified that only a small percentage of the Internet users in these societies are women; however, a growing number of Internet users are young women (Skalli, 2006).

Access to the Internet has provided a strong voice for women in the virtual world that is referred to as cyberfeminism. Sadie Plant (2000) argues that "cyberfeminism is an insurrection on the part of the goods and materials of the patriarchal world, a dispersed, distributed emergence composed of links between women, women and computers, computers and communication links, connections and connectionist nets." Plant points out that technology, especially the use of the Internet, connect women who can begin to break down the foundation of the patriarchal culture.

In the virtual world, women are beginning to step outside the boundaries and red tape to voice their opinion. According to Masserat Amir-Ebrahimi (2008), "The absence of the body in virtual space generally allows more freedom of expression and at the same time more security through the possibility of concealing gender, age, and personal positions on political, social and cultural issues." Among the Internet tools available, blogs are being utilized by women to write their opinions in a virtual notebook. Women feel free to use blogs because of the anonymity of

names and identities. Blogs have become a viable resource for social change. Masserat Amir-Ebrahimi (2008) argues that “blogging spread among ordinary young women of the urban middle class who for the first time found a medium in which to express themselves... Through bold narration in their blogs, they unveiled a hidden woman.” Thus, women can use blogs as an interactive tool to build a cohesive unit and influence others who read the writings on the blogs in the virtual world.

With the substantial increase in Internet use among female youth, the virtual world has provided a platform for older women to educate, engage, and empower the future generations to become activists. It has been observed that “transgressing social conventions is considered part of youth culture ... and with the rise of global youth culture, especially via satellite TV and the Internet, ... their new self-representation in public space has become increasingly disturbing to the Islamic Republic” (Amir-Ebrahimi, 2008). Thus, in future generations, the opinions and social movements in the virtual world will break down the strict boundaries of the patriarchal culture.

Education is the universal instrument to ignite passion that brings about change. It has been noted that education is an essential element in evolving the position women hold in patriarchal cultures (Shukri, 1999). Research has been conducted correlating education levels between mothers and daughters in the Middle East. A survey conducted in the 1980s concluded that mothers who attended a higher education institution and achieved a university degree positively influenced the aspirations of their daughters (Moghadam, 2003). A daughter looks to her mother as a role model and a benchmark for what she can achieve in society. Thus, a “trickle-down effect” can occur between mothers and daughters in educating the female youth on the importance of having an identity and voice in society.

In the context of education, the Internet has increased the capacity and speed with which the youth are able to acquire, absorb, and act on political and cultural information (Skalli, 2006). The Internet has created a resource for cyberfeminists to disseminate educational materials, such as electronic magazines. These “e-zines” educate the female youth on the importance of rising above male dominance to find their own identity and voice. Several examples of “e-zines” are found in Iran. Skalli (2000) reports the following:

Although the phenomenon of ‘e-zines’ is recent... it suggests that women are trying to carve out a space in the cyberworld to reach a larger and geographically more diversified readership...The initiative of Tehran-based feminist activist Masha Shekarloo seeks to increase the visibility of alternative feminine voices and ‘deconstruct stereotypes’ in Iran and the West about the dominant images of passivity and victimization produced about Iranian women. The magazine includes interviews with Iranian feminists, artists, and activists and publicizes their work, activities, and various activist achievements.

Female activists in Iran are using the Internet to disseminate information that breaks down the boundaries of being a woman in Iran. The combination of education of female youth, mother/daughter involvement, and electronic magazines can alter their behavior. Ultimately, education will engage and empower young women to become social activists.

Engaging the youth is essential to strengthen the movement toward social change. Young women’s access to the Internet has increased their engagement. Through electronic magazines, the youth are educated about the current issues facing women. By blogging, they are given a platform to confidently express educated thoughts about the issues without feeling threatened or lacking

sufficient competencies. This increase in engagement can be correlated to a current Western practice of utilizing the Internet for social change. In Australia, for example, disabled women connected through the Internet have created a platform for changing their role and place in the Australian society. Women in patriarchal cultures are silenced to the point of social disability. According to Helen Meekosha (2002), “[A network of women] have begun to create communities of the imagination, where they are welcomed for their capacities rather than excluded for incapacities. While being ‘virtual,’ these ‘imagined’ communities work to produce spaces that celebrate possibilities in the lives of women.” The findings from Meekosha’s research on the virtual disabilities movement emphasize the importance of blogs to engage the female youth by having an unrestricted and underestimated voice. The tools within the virtual world enable cyberfeminists in patriarchal cultures to reach and engage the female youth.

The combination of education and engagement leads to empowerment. According to Valentine Moghadam (2007), “Women’s empowerment is defined as a multidimensional process of achieving basic capabilities, legal rights, and participation in key social, economic, political, and cultural domains.” Empowering women in patriarchal cultures is the ultimate goal to break down the red tape and boundaries these women face on a daily basis.

The virtual world within the Internet has started to empower women and female youth at a faster speed. Because of the anonymity and secrecy of the virtual world, suppressed women have started to achieve the basic abilities of possessing a self-identity and having an active, confident voice. According to Masserat Amir-Ebrahimi (2008), “[The] feelings of courage and self-confidence, along with the means of self-expression, allow bloggers to cross some red lines in private and personal matters in the virtual environment.” Additionally, Loubna Skalli (2006) indicates that technology, especially the Internet, is a powerful tool in the empowerment of

women. She states that technology “encourages women to think about new ways to establish professional relations, forge alliances, and broaden the scope of their interventions.” Thus, in a specific sense, the Internet has created a cohesive unit of women who are finding their identity and voice. These connected women are using Internet tools to educate, enable, and eventually empower female youth to become social activists.

As noted throughout this paper, the Internet has become an essential resource for women activists in patriarchal cultures. The speed with which women are becoming educated and engaged in various movements to bring about social change can be attributed, at least in part, to advancements in the Internet. The virtual world has presented a platform to ignite social change in suppressed countries. Current Middle Eastern feminists have been able to quickly disseminate educational materials to the female youth. The opportunity to have an anonymous voice on blogs has engaged women in conversation toward social change. The combination of education and engagement has started to empower the female youth to break down patriarchal boundaries.

After analyzing the history of patriarchy and the current increase in Middle Eastern female activism, it is easy to attribute the fast changes in female empowerment to Internet technology. In several aspects, the future of female empowerment in patriarchal cultures depends upon advancements in Internet technology in the upcoming years. It is difficult to predict the future; however, a hypothesis can be identified. Once women and the female youth feel confident enough to voice their opinions without anonymity on blogs, they will feel empowered to become activists in the public world. In the decades to come, the cohesive voices in the virtual world will be empowered to break down the walls of the patriarchal culture in the public world. The women will become social activists for change. This confidence in social collaborative change among women in the future will come from the knowledge, as shown in past social movements, that passion can

ignite change and resourceful action can sustain change. As twentieth-century activist Margaret Mead once said, “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”

References

- Amir-Ebrahimi, M. (2008). Blogging from Qom, behind walls and veils. *Comparative Studies of South Asia, Africa, and the Middle East*, 28, (2), 235 - 239.
- Amir-Ebrahimi, M. (2008). Transgression in narration: The lives of Iranian women in cyberspace. *Journal of Middle East Women's Studies*, 4, (3), 89 - 118.
- Bayat, A. (2007). A women's non-movement: What it means to be a woman activist in an Islamic state. *Comparative Studies of South Asia, Africa, and the Middle East*, 27(1), 160 - 172.
- Kabeer, N. (1988). Subordination and struggle: Women in Bangladesh. *New Left Review* 168, 95.
- Kandiyoti, D. (ed.). (1992) *Women, Islam, and The State*. London: Macmillian.
- Meekosha, H. (2002). Virtual activists? Women and the making of identities of disability. *Hypatia*. 17(3), 67 - 88.
- Ministry of ICT Iran (March 2008). ict.gov.ir/newsdetail-fa-2536.html.
- Moghadam, V. M. (2003). *Modernizing Women: Gender and Social Change in the Middle East*. Colorado: Lynne Rienner.
- Moghadam, V. M. (ed.). (2007). *From Patriarchy to Empowerment*. Syracuse New York: New York University Press.
- Plant, S. (2000). On the matrix: Cyberfeminist simulations. *The Cybercultures Reader*. New York: Routledge.
- Shukri, S. J. A. (1999). *Social Changes and Women in the Middle East*. United States: Ashgate.
- Skalli, L.H. (2006). Communicating gender in the public sphere: Women and information technologies in the MENA. *Journal of Middle East Women's Studies*, 2(2), 35 - 59.

**LABOR UNIONS, CORPORATIONS AND RIGHT-TO-WORK LAWS:
IMPACTS ON THE AMERICAN ECONOMY**

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Abstract

The labor movement of the U. S. continues to bring the issue of worker rights to the forefront of American policy debates. As the American economy again has shifted from one based on manufacturing and the production of hard goods to one reliant upon human, financial and informational services, the labor movement faces new challenges. Labor unions and business leaders continue to disagree on the proper role of collective action and the effectiveness of policies aimed at the workplace sector. Today, one of the largest debates is the continued role and expansion of Right-to-Work (RTW) legislation. The debate is often cast as one between two perspectives on the guaranteed right to freedom of association. Labor unions believe RTW limits the power of collective action and, subsequently, the collective rights of workers versus business management. Conversely, business management believes that individual choices to associate are taken away through union requirements (Hogler, 2005). This analysis will examine the history of Right-to-Work laws, their impact on state and individual economies, the issues generated from their implementation and offer a recommendation for policy reform.

Introduction

Beginning with the onset of the American Industrial Revolution in the mid 1800s, workers increasingly left the traditional agricultural sector for manufacturing and extraction employment.

This transition marked a shift from production ownership (i.e., growing crops on one's own land) to shared production (i.e., factories and mines). More workers were now employed by someone else. As a result a formal labor class was established. Many manufacturing industries were characterized by unhealthy working conditions, unfair employment practices and low wages. In response the labor class began to mobilize. Prior to the expansion of the Industrial Revolution small trade unions (i.e. carpenters) had formed in some cities across the country but a nationwide labor movement did not exist. In 1866, the National Labor Union was founded as the first recognized national labor union in the United States. It was followed by the American Federation of Labor (AFL) in 1886 and the Congress of Industrial Organizations (CIO) in 1932.¹ Labor unions and their members helped shape twentieth century business and politics by calling for new wage, benefit, and health standards and the recognition of union and worker rights. Today, 15.4 million Americans or 12.5 percent of the workforce are members of labor unions (American Federation of Labor-Congress of Industrial Organizations [AFL-CIO], n.d.). They remain a powerful force in American society and a highly debated entity in the political sector.

The labor movement of the U. S. continues to bring the issue of worker rights to the forefront of American policy debates. As the American economy again has shifted from one based on manufacturing and the production of hard goods to one reliant upon human, financial and informational services, the labor movement faces new challenges. Labor unions and business leaders continue to disagree on the proper role of collective action and the effectiveness of policies aimed at the workplace sector. Today, one of the largest debates is the continued role and expansion of Right-to-Work (RTW) legislation. RTW legislation guarantees the right of individual workers to determine their union membership status (i.e., no forced membership regardless of the employment sites union affiliation). The debate is often cast as one between two perspectives on

the guaranteed right to freedom of association. Labor unions believe RTW limits the power of collective action and, subsequently, the collective rights of workers versus business management. Conversely, business management believes that individual choices to associate are taken away through union requirements (Hogler, 2005). This analysis will examine the history of Right-to-Work laws, their impact on state and individual economies, the issues generated from their implementation and offer a recommendation for policy reform.

History & Context

Federal Policies and American Labor Relations

The National Labor Relations Act/Wagner Act (NLRA) of 1935 was passed by Congress to protect workers' rights to unionization. NLRA states and defines the rights of employees to organize and bargain collectively with their employers through representatives of their own choosing (i.e., elected union leaders). The NLRA identified workers' rights to form a union, join a union, and to strike in an effort to secure better working conditions (National Labor Relations Board, 1997). "The act also created a new National Labor Relations Board (NLRB) to arbitrate deadlocked labor-management disputes, guarantee democratic union elections and penalize unfair labor practices by employers" (Cooper, 2004, p. 2). Furthermore, NLRA prohibited employers from setting up a company union and firing or otherwise discriminating against workers who organized or joined unions (Encyclopedia Britannica, 2007).

Prior to the passage of NLRA, the federal government had been largely antagonistic to union organizing. Labor unions across the country faced significant challenges in social action initiatives aimed at ensuring adequate wages, benefits and the reduction of industry health hazards. During the first half of the twentieth century, for example, laborers who attempted to organize

protective associations frequently found themselves prosecuted for and convicted of conspiracy (Beik, 2005). With the onset of the Great Depression, and an unemployment rate of 24.9 percent in 1933, the national political framework shifted its focus from the protection of the business sector to the protection of workers and individuals through the creation of New Deal policies (e.g., Social Security and Civilian Conservation Corps). These policies hoped to create a social safety net that would prevent further economic disaster. Due to the power of business interests and persons advocating a free market society, many New Deal policies had been declared unconstitutional by the United States Supreme Court, including the previous labor legislation – the National Industry Recovery Act of 1933 which authorized the President to regulate businesses in the interests of promoting fair competition, supporting prices and competition, creating jobs for the unemployed, and stimulating the United States economy to recover from the Great Depression (Babson, 1999). Thus, many businesses believed that the NLRA would follow the same path. In April of 1937, however, the NLRA was declared constitutional by the Supreme Court, highlighting the increased power of labor unions on national politics and policymaking (Beik, 2005).

In 1935, 15 percent of American workers were unionized. By 1945, the proportion had risen to 35 percent (Babson, 1999). During this time there were three primary types of union/employer structural arrangements: the agency shop, the union shop, and the closed shop. Cooper (2004) describes the arrangements as follows:

- Agency Shop: The union's contract does not mandate that all employees join the union, but it does mandate that the employees pay agency fees.
- Union Shop: The union's contract requires that all employees join the union within a specified amount of time after becoming employed.

- Closed Shop: The union's contract mandates that the employer only hire union members (pg. 2).

1945 marked the peak of American unionization with over one-third of American workers belonging to labor unions. Organized labor reached the zenith of its power in the U.S. from 1935 - 1947 (Beik, 2005). Many business leaders, however, began to lobby for a loosening of union power insisting that businesses and individuals were, due to the NLRA, prevented from exercising their right of association and employment procedures. At the same time, the political landscape was changing and anti-communism was used as a key argument to stymie the power of unions. Labor unions were seen as a corrupt socialist tactic and, thus, could be associated with the "red scare." The public also began to demand action after the World War II coal strikes and the postwar strikes in steel, autos and other industries were perceived to have damaged the economy.

With the increasing constituent pressure and the election in 1944 of the pro-business and pro-states' rights Republican congress, the second significant piece of national labor legislation was passed, the 1947 Taft-Hartley Act. Taft-Hartley effectively overturned many of the rights guaranteed by NLRA and outlawed the closed shop arrangement (Cooper, 2004). Moreover, "section 14(b) of Taft-Hartley made Right-to-Work laws legal and gave states the power to pass laws to outlaw both agency and union shops" (Cooper, 2004, p. 10). This provision afforded states the opportunity to pass laws that forbade the establishment of businesses and/or union contracts where union membership was a condition of employment; thus, the age of RTW began.

Right-to-Work Laws

Immediately following the passage of the Taft-Hartley Act states began to enact Right-to-Work laws. The basic concept of RTW is that workers should not be obligated to join or give

support to a union as a condition of employment (Kersey, 2007). The main objectives of RTW laws have, to this day, shared similar purposes. These objectives include: a. the promotion of individual freedom; b. the creation of a pro-business atmosphere aimed at spurring economic growth; c. the elimination of the power of union organization. As of January 1, 2006, 22 states had passed RTW legislation. Table 1 below indicates the states that have passed RTW and the year the law was enacted.

TABLE 1

Table of Right-to-Work Laws as of January 1, 2007

State	Year Enacted
Alabama	1953
Arizona	1947
Arkansas	1947
Florida	1943
Georgia	1947
Idaho	1985
Indiana <i>only applicable to school employees</i>	1995
Iowa	1947
Kansas	1958
Louisiana	1976
Mississippi	1954
Nebraska	1947
Nevada	1951
North Carolina	1947
North Dakota	1947
Oklahoma	2001
South Carolina	1954
South Dakota	1947
Tennessee	1947
Texas	1993
Utah	1955
Virginia	1947
Wyoming	1963

Note. From United States Department of Labor (2003). *State right-to-work laws as of January 1, 2007 with year of passage.* Retrieved December 2, 2007, from <http://www.dol.gov/esa/programs/whd/state/righttowork.htm>

agency shops. Of the 22 states with RTW laws, 20 also include provisions eliminating the agency shop option of union/employer relations. The inclusion of this provision is important to understanding the varying degrees of union capacity in governance and negotiating as the states with agency shop allowance are not, in essence, decreasing union power. Agency shops afford labor unions the right to operate under exclusive representation. Exclusive representation is the privilege that empowers union officials to represent all employees in a company's bargaining unit regardless of membership status (National Right-to-Work Legal Defense Foundation [NTRW-LDF], 2007). All employees of agency shops must pay fees regardless of status, thereby maintaining the fiscal capacity and the associated political power of labor unions.

The passage of RTW laws symbolizes the ongoing debate about freedom of association that creates a divide between unions and employers. Each organizational stakeholder (labor unions, employers) believes that RTW laws create significant changes in the U.S. workplace landscape with regard to wages, job creation, collective bargaining and economic growth. These changes, however, are viewed differently by each stakeholder group. The concerns of each group are key components of the policy debate.

Labor unions believe that RTW laws stall the potential growth of worker wages and, subsequently, state economic growth. Furthermore, a decline in union membership, according to leading labor unions, further diminishes the power of workers to bargain with employers. This leads to lower wages, less comprehensive benefit packages and more hazardous working conditions. The AFL-CIO, one of the nation's leading labor unions² states, "Right-to-Work laws are a direct attack on the fundamental right of freedom of association. They are a veiled attempt to weaken or remove unions from the bargaining table" (Indiana AFL-CIO, 2000, paragraph 1). Conversely, employers believe that forced union membership inhibits the freedom of workers to

choose their place of employment based upon the wages determined by the market. The power of union bargaining can diminish the capacity of businesses to effectively design strategies that ensure economic growth and the creation of new jobs. In other words, unionized workers and their associated employment agreements often are products, not of the prevailing economic system, but of the negotiating ability of union leaders. Both groups argue that their perspective is the best to ensure economic viability of individual workers, businesses and their state and national economies.

Impacts

Right-to-Work Laws and Employment

One of the key arguments offered by proponents of RTW legislation is that the laws increase employment. Proponents believe that, if businesses are not required to operate under union wage contracts, they will remain profitable due to decreased labor costs and the economic landscape will encourage cross-state relocation of businesses; thus, employment opportunities will increase for all citizens. “Opponents, however, argue that most job growth occurs from in-state business expansion not the relocation of businesses from a non-RTW to a RTW state” (Oklahoma League of Economists, 1996, para. 2). The unemployment rates in RTW states pre and post RTW passage, as well as the comparison of RTW to non-RTW states, provide important insights in to the impact of RTW legislation on employment across jurisdictions.

Overall, the unemployment rates in RTW states are lower than non-RTW states. For example, the unemployment rate between 1978 and 2000 averaged 5.8 percent in RTW states versus 6.3 percent in non-RTW states. Additionally, between 1970 and 2000 overall employment increased by 2.9 percent annually in RTW states versus 2.0percent in non-RTW states. This trend has continued, although tightening, into the 2000s; between 2001 and 2006 RTW states had

a median 4.8 percent unemployment rate compared to 5.1 percent for non-RTW states (Kersey, 2007). As of March 2010, RTW states had an average unemployment rate of 8.6 percent while the rate in non-RTW states stood at 9.4% (Bureau of Labor Statistics [BLS], 2010).

Another aspect of the impact that RTW laws have on employment relates to the type and condition of employment between the two types of states. The share of manufacturing employment in the U.S. in 1950 was 35 percent of the workforce. This figure declined to 13 percent in 2004 (Fischer & Rupert, 2005). Many RTW advocates believe pro-business laws, such as RTW, lessen manufacturing losses by creating a conducive business atmosphere. While both types of states have not been able to stem the national tide, data indicates that manufacturing employment in RTW states has decreased at a much lower rate than in their non-RTW counterparts where manufacturing employment has seen significant decreases. Between 2001 and 2006 the typical RTW state saw manufacturing employment decline 1.5 percent annually, equaling 7.1 percent overall. Non-RTW states, however, faced even sharper declines, averaging 3.0 percent annually and 13.7 percent over the five year period. Every non-RTW state but one, Alaska, lost manufacturing jobs during that period, while five RTW states registered at least modest gains in this area (Wright, 2007).

In terms of job conditions, the government data shows that in 2003 the rate of workplace fatalities per 100,000 workers was highest in right-to-work states. The rate of workplace deaths is 51 percent higher in RTW states (BLS, 2006). Nineteen of the top 25 worker fatality rates were found in RTW states, while three of the bottom 25 states were RTW states (Bureau of Labor Statistics [BLS], 2003). Further, in a study of New York City construction site fatalities, it was found that 93 percent of deaths happened at non-union sites (Walter, 2007). The same holds true

in the coal mining industry where 87 percent of fatalities between 2007 and 2009 occurred at non-union mines (U.S. House of Representatives Committee on Education and Labor, 2007).

Right-to-Work and Job Growth

Holmes (1998) argues that large manufacturing establishments are more likely to be attracted to RTW states because larger plants are more likely to be unionized. RTW laws, according to manufacturers, help maintain competitiveness and encourage development in the strained sector. He also found that eight of the ten states with the highest manufacturing employment growth rates are RTW states. All ten states with the lowest growth rates are non-RTW states. Opponents charge that the laws depress individual worker wages at the expense of profits and capitalist objectives. From 1977 through 1999, Gross State Product (GSP), the market value of all goods and services produced in a state, increased 0.5 percent faster in RTW states than in non-RTW states (Wilson, 2002).

Right-to-Work Laws and Wages

The impact that RTW laws have on wages is another important consideration. This includes both absolute wages and the overall wage distribution across income and racial lines following RTW passage. There are currently 132,604,980 workers in the United States (U.S.). The American worker, as of July 2009, earned an average of \$44,901 per year. This translates in to an average hourly wage of \$22.36 (Bureau of Labor Statistics [BLS], 2009).

Leading researchers disagree on the impact of RTW laws on wages. For example, 16 of the 18 RTW states are estimated to have had higher average wages in 2000 as a result of their RTW status (Reed, 2003). On the other hand, Bureau of Labor Statistics (BLS) data reveals that

average annual pay is higher in non-RTW states. In addition, income polarization is higher in RTW states, with a higher percentage of workers earning the minimum wage (even when controlling for education level) than in non-RTW states. After years of economic development, the portion of heads of household earning around the minimum wage is still 35.5 percent (4.4 percentage points) higher in RTW than in high-union-density states (Cassell, 2001).

Lawrence Mishel (2001) of the Economic Policy Institute found that in 2000 the median wage for workers living in RTW states was \$11.45, while wages for those living in non-RTW states were \$13.00, indicating that wages were 11.9 percent lower in RTW states. He further concluded that previous research citing wage increases in RTW states were directly attributable to the improved income characteristics of those residing in large cities located on a state border with a non-RTW state. At the same time, when looking at weekly and hourly wages by industry between RTW and non-RTW states *adjusted for cost-of-living*, RTW states have higher wages in two key industries. For example, in manufacturing workers in RTW states earn an average of \$717 weekly and \$17.89 hourly while their non-RTW counterparts earn \$672 and \$16.80. In education and health services, those amounts are \$717 and \$21.34 for RTW and \$650 and \$20.06 for non-RTW. These differing statistics question the true RTW impact on wage increases and the quality of employment.

The impact of union status on wages, rather than RTW vs. non-RTW, may play the biggest role in terms of weekly earnings. The following chart provides wage data by industry between union and non-union jobs. As Table 2 demonstrates, in all presented industries union workers earn a higher weekly wage than their non-union counterparts. This is further augmented when looking at employment benefits.

TABLE 2

INDUSTRY	Union	Non-Union
OVERALL	\$908	\$710
Manufacturing	\$800	\$762
Transportation & Utilities	\$975	\$748
Local Government	\$956	\$720
Service Occupations	\$702	\$435
Education & Health Services	\$839	\$698

Note. Created with data from Bureau of Labor Statistics (2009). “*Employer Costs for Employee Compensation –MARCH 2010.*” Retrieved April 21, 2010, from <http://www.bls.gov/news.release/pdf/ecec.pdf>

For example, in goods-producing industries, union workers earn health insurance benefits worth \$5.04 per hour while their non-union counterparts earn an average of \$2.51. In service-producing industries, for union workers that benefit stands at \$4.24 per hour while for non-union workers it is equal to \$1.76. Restrictions on unionization may prohibit earnings and benefits increases at individual workplaces.

Right-to-Work Laws and Unionization

Are RTW laws, as unions would suggest, reducing the freedom of association afforded to America's workers through unionization? Ellwood and Fine (1987) suggest that a RTW law reduces the percentage of employees working in organized plants by five to ten percent. The number of persons belonging to a union fell by 326,000 in 2006 to 15.4 million. The union membership rate has steadily declined from 20.1 percent in 1983, the first year for which comparable union data are available, to 12.5 percent in 2008. The overall power of unions is diminished nationwide but is lower in non-RTW states. In 2004, the private sector unionization rate in non-RTW states was 14.9 percent versus 6.7 percent in RTW states (Hirsch & Macpherson, 2009). For example, 20 percent of construction workers in non-RTW states are unionized while only 8 percent are in RTW states. Only one state (Nevada) has a higher unionization rate than the national average.

Labor unions have, through collective bargaining and organizing, the ability to set contracts that diminish the power of discrimination on the behalf of employers based on racial and/or gender bias. The uniform nature of the labor contracts ideally has, although not always, been able to secure non-discriminatory wage rates. As of 2006, black workers (14.5 percent) were more likely to be union members than were white (11.7 percent). Any RTW law may then disproportionately affect black workers as the power of unions decreases. Moreover, the most unionized industries are teachers and librarians at 37 percent, occupations dominated by women (BLS, 2006).

For the bottom fifth of American workers the unionization rate is 5.6 percent (Fine, 2005). The lack of unionization among the lowest-income Americans signifies the falling influence of unions. In the U.S. there is a growing divide between the lowest economic categories and the top

one percent of wage earners. The U.S. is increasingly dividing in to a two class system – the rich get richer, the poor get poorer and the middle class shrinks. The low rate of unionization, the increased income class divide and the potential disparate impacts on minorities and the decline in union membership nationwide may increasingly assist in diminished capacity of the working class. The following table summarizes the impacts of RTW laws on the variables discussed in the *Impacts* section.

TABLE 3**Impacts Summary of Right-to-Work Laws**

RTW Laws and Impact	POSITIVE	NEGATIVE
Unemployment Rates	X	
Working Conditions (safety, poverty rate)		X
State Economic Growth	X	
Wages	X	X
Minority Impact		X
Unionization		X

Issues***Free Riders***

Free riders are actors who consume more than their fair share of a resource, or shoulder less than a fair share of the costs of its production (Cooper, 2004). Labor unions argue that RTW laws enhance the free rider problem. In other words, non-union members at a workplace are not paying dues but are benefiting from the contracts negotiated by unions and their members. RTW advocates counter that the problem is not the “free riders” but laws that require employees, union

members or not, to operate under a union contract and maintain union bargaining representation. They claim there is always a group of highly skilled or ambitious workers whose ability to get ahead is impeded by union contract restrictions such as rigid seniority clauses, which prevent them from competing for advancement. Employees may also oppose union obligations because of union discrimination, which can result from employees objecting to forced financing of union political activities (Wilson, 2002). Moore (1998) concluded that if all RTW laws were eliminated, the percentage of free riding would be reduced from an average of 15.5 percent to an average of 7.2 percent in RTW states.

Service Economy

In 1960, 58 percent of Americans were employed in the service sector. Since that time the percentage has grown to 75 percent (Herzenberg, Alic & Wial, 1998). The service sector, which includes banking, construction, retailing and travel, generates about two-thirds of the nation's economic activity (The Associated Press, 2006). This transition has important implications for labor unions and RTW legislation. High and low-wage service occupations have low unionization rates. For example, financial services occupations in 2006 had a unionization rate of 1.9 percent while sales and retail occupations were at 3.1 percent. At the same time, the majority of labor sector growth in 2006 was attributable to job increases in the service sector -- 40 percent. The food service sector in 2007 has added 306,000 jobs while the manufacturing industry has lost 138,000 (BLS, 2007). The traditionally low rate of union membership combined with the significant employment increases in the service sector must be examined when analyzing the effects of RTW laws.

As traditionally high unionized sectors (e.g., manufacturing) experience job declines, what wage impacts are attributable to RTW laws versus the overall national shift towards low wage positions? Although overall income has grown by 27 percent since 1979, 33 percent of the gains have gone to the top 1 percent of the nation's income earners. Meanwhile, the bottom 60 percent are making less: about \$.95 for each dollar they made in 1979 (Domhoff, 2006). The low rates of unionization among service sector workers, the largest of which are retail and food service employees earning an average of \$10.34 per hour, combined with their traditional part-time status creates difficult access for unions. Service sector businesses are also antagonistic to organizing. For example, Wal-Mart, the nation's largest retail store employing 1.3 million workers (Wal-Mart, 2007), has openly engaged in union busting and the NLRB is currently hearing a case of such activity at a Las Vegas outlet.

The service economy is not solely a lower-income sector. The Financial Insurance Real Estate (FIRE) sector represents the upper class of the service economy. The income in these industries has grown by 50 percent since 1990 (BLS, 2006). Their low rates of unionization are due to both the lack of historical ties to labor unions and the general job satisfaction of the classification's employees. In 1998, persons employed in the FIRE industries reported a 67 percent job satisfaction rate versus 32 percent for their lower-wage service counterparts (Frenkel, Korczynski, Shire, & Tam, 1999)³. This combination reflects the move towards the two-tiered income class system and the declining power of unions to assist in the development of higher wages.

Geography & Globalization

Is there also a two-tiered geography in the U.S.? Figure 1 shows the geographic division of RTW laws. In response to the higher labor costs in Northern states, many companies began moving their factories and plants to the Southeast in the 1930s. The laws, demographics and culture of the Southeast created an atmosphere amenable to business expansion and the population followed. The cost-of-living and tax rate structures of these states are also lower. Among the five states reporting union membership rates below 5.0 percent in 2006, North Carolina and South Carolina (RTW states) continued to post the lowest rates (3.3 percent each). The next lowest rates were recorded in Virginia (4.0 percent), Georgia (4.4 percent), and Texas (4.9 percent). Four states had union membership rates over 20.0 percent in 2006--Hawaii (24.7 percent), New York (24.4 percent), Alaska (22.2 percent), and New Jersey (20.1 percent). Hawaii and New York, non-RTW states, have recorded the highest union membership rates among all states for ten of the past eleven years (Kersey, 2007).

After the movement to the Southeastern United States, as the age of globalization set in, businesses continued with their geographic expansion. The low labor costs and lax health and environmental standards in developing countries offer attractive incentives for corporate development. Before the forces of globalization opened the relatively insular U.S. economy to increased trade, U.S. manufacturers were enjoying near monopolistic market conditions in the United States. The U.S. auto industry, for example, enjoyed a 90 percent domestic market share in 1960 (Wilson, 2002). Forrester Research estimates that in the next decade four million jobs will be outsourced (DeLong & Cohen, 2004). The availability of intra- or international options creates significant barriers for labor unions in the U.S. as they are torn at the negotiating table between

keeping their jobs and increasing their wages and other benefits. RTW laws do little to curb or enable this expansion.

Politics

The political system is also divided along RTW, non-RTW lines. Twenty out of 28 non-RTW states voted Democratic in the 2004 presidential election while all 22 RTW states voted Republican in 2004. This divide further illustrates the polarization between the two categories (Cable News Network, 2007).

Policy Recommendations

RTW laws are often seen as the struggle between the power of unions and the power of business. The employment, wage and unionization impacts of RTW laws coupled with the changing labor market (service economy) offer a chance to reform policies to better serve the economic needs of the nation, the states and the citizens. How then can laws governing unions and their business adversaries be altered to enhance the economic viability of the country? The following section provides a plan for reform that focuses on the reformation of the political system, labor unions and corporations.

Right-to-Work Laws

One policy option is to continue the path of divided state federalism that allows states, through RTW laws, to choose their policies governing the relationship between labor unions and the business sector. The aforementioned impacts of RTW laws are mixed, subject to factors not directly related to their implementation and face challenges in the new global economy. This path,

if chosen, will further enhance the geographic polarization of the country (i.e., Southeast vs. Northeast) and dilute the power of labor unions.

At the same time, the repeal of Taft-Hartley will not bring back the golden age of unions as the modern economic landscape and its occupational composition have changed drastically since the 1930s and 1940s. A reform that focuses on reducing the influence of business and unions on the political process as well as increasing the economic access for individuals will help curb the increasing two-tiered U.S. class system and help ensure the stability of workers in the changing markets. There are three areas for reform: politics, labor unions and corporations.

Campaign Finance Reform

Modern American politics is about money and power. How much will business A contribute versus union A? The average wealth for the 2008 presidential campaign was \$32 million (Dannheisser, 2007).⁴ Rich people in the U.S. run for office. RTW laws are directly impacted by the role of businesses and unions in local campaigns. If a large segment of the voting population consists of union members, it is more likely that a state will not pass RTW. However, this does not mean that businesses will not move to a RTW state. The financing of campaigns must be changed to offer increasing access to the political system and to help curb the influence of large contributors.⁵ This can be accomplished through a system of public financing of campaigns through government subsidies or personal vouchers (Rauch, 2005).

Currently thirteen states have some form of public campaign financing. Research shows that states that have campaign finance laws have more contested races (Mayer, Werner & Williams, 2005). The goals of public financing are to increase competitiveness and reduce influence, both of which will help curb the power of labor unions and corporations. Individuals in

states dominated by unions, business or both will not, most likely, design policies that help the economic development of that state. Their concerns are largely their members or their profits but not the well-being of the economy.

Labor Union Reform

Researchers (Herzenberg et al., 1998) argue that national policies, including the NLRA and Taft-Hartley, offer workers two options: a. join the labor unions as they exist or b. do not join. Option B is typically the one available for the non-unionized sector, particularly service employees. Many service jobs are located in small businesses and firms, thereby limiting the access of employees to collective representation. A framework offering workers the opportunity for multi-worksite and/or multiemployer bargaining will help unionize small firm employees. The NLRB should be given the authority to certify broad occupational, sectoral or network-based bargaining units. For example, florists across Philadelphia, or another chosen geographic area, regardless of direct employer would have representation for collective bargaining.

New, decentralized institutions designed for the modern economy in which change is constant and rapid are necessary. In particular, there is a need for job ladders and worker associations that cut across firm boundaries. “These institutions would foster individual and collective learning, mark out career paths, and facilitate coordination among both individuals and organizations in a networked economy” (Herzenberg et al., 1998, p. 163). These new rules will help reshape labor market institutions and policy while improving economic performance and opportunities for workers that will not likely result from RTW law repeals.

Corporate Reform

In order to filter the corporate profits made through cost-cutting measures, including the reduced labor costs due to RTW, large corporations (at least 500 employees) should be required to invest 15 percent of their profits in a nationwide job training and economic development program to help offset the increased income inequality and stagnant wage growth. Due to globalization, the mere repeal of RTW laws will only encourage outsourcing and/or job cuts. Moreover, high tax penalties should be applied to companies that are proven to use deceptive profit reporting mechanisms. The process should be overseen by the NLRB. Further, laws protecting worker safety and union busting must be uniform across states and industry.

The policy tension regarding freedom of association and RTW loses its importance in the face of other economic and industry factors (globalization, service economy, politics). RTW laws are a product of the geographic, political and cultural context in which they are passed. Their impacts, while largely negative, are also largely marginal. Manufacturing is declining in all locations regardless of RTW status; the unemployment rates between the two types of states are within one percent and the real power of wages in all states is declining. The employment and income of Americans is a product of the overall governance system and the debate about unionization is often marred by the power-hungry nature of some labor unions. To truly create economic development, measures aimed at adjusting the political power structure as well as access to labor unions and corporate social responsibility are policy areas in which to affect real economic change in both RTW and non-RTW states.

¹ The two unions merged in 1955 to form the AFL-CIO (AFL-CIO, n.d.).

² Voluntary federation of 55 labor unions representing ten million members (AFL-CIO, n.d.).

³ 7.6 million employees in 2000 or 5.7% of workforce (BLS, 2006)

⁴ Rudolph Giuliani, Mitt Romney, John McCain, Hillary Clinton, Barack Obama, John Edwards

⁵ Labor unions contributed \$66 million in 2006 versus \$1.1 billion for corporations (Open Secrets, n.d.).

References

- American Federation of Labor-Congress of Industrial Organizations (n.d.) *Union Facts*. Retrieved December 7, 2007, from <http://www.aflcio.org/aboutus/faq/>
- Babson, S. (1999). *The Unfinished Struggle: Turning Points in American Labor, 1877- Present*. Lanham, MD: Rowan & Littlefield.
- Beik, M.A. (2005). *Labor Relations*. Westport, CT: Greenwood Press.
- Bureau of Labor Statistics (2003). *National Census of Fatal Occupational Injuries in 2003*. Retrieved December 5, 2007, from <http://www.bls.gov/iif/oshwc/foi/cfir0010.pdf>
- Bureau of Labor Statistics (2006, May). *National Occupational Employment and Wage Estimates*. Retrieved December 4, 2007 from http://www.bls.gov/oes/current/oes_nat.htm#b00-0000
- Bureau of Labor Statistics (2007, December 7). *The employment situation: November 2007*. Retrieved December 3, 2007, from www.bls.gov/news.release/pdf/empisit.pdf
- Bureau of Labor Statistics (2009). “*Employer Costs for Employee Compensation -March 2010.*” Retrieved April 21, 2010, from <http://www.bls.gov/news.release/pdf/ecec.pdf>
- Bureau of Labor Statistics (2010). “*The Employment Situation - March 2010.*” Retrieved April 21, 2010 from http://www.bls.gov/news.release/archives/empisit_04022010.pdf
- Cable News Network (2004). *2004 Election Results*. Retrieved December 9, 2007, from <http://www.cnn.com/ELECTION/2004/pages/results/>
- Cassell, M (2001). *Right-to-Work laws and economic development in Oklahoma*. Retrieved on December 5, 2007 from Economic Policy Institute. Web Site: http://www.epinet.org/content.cfm/briefingpapers_rtw-ok.
- Cooper J. W. (2004). *Effects of right-to-work laws on employees, unions and businesses*. Retrieved December 1, 2007, from <http://www.johnwcooper.com/right-to-work-laws/right-to-work-laws.pdf>
- Dannheisser, R. (2007, October 16). *U.S. Elections 2008: Wealthy candidates abound as campaign costs zoom*. Retrieved December 9, 2007, from <http://london.usembassy.gov/elec08/news14.html>
- DeLong, J. & Cohen S. (2004). *Thinking about outsourcing*. Retrieved December 8, 2007, from University of California-Berkeley, The Berkeley Roundtable on the International Economy. Web Site: <http://brie.berkeley.edu/~briewww/research/innovation/DeLong%20and%20Cohen.doc>
- Domhoff, W. (2006, December). *Wealth, Income, and Power*. Retrieved December 4, 2007 from University of California-Santa Cruz, Sociology Department. Web Site: <http://sociology.ucsc.edu/whorulesamerica/power/wealth.html>
- Ellwood, D. & Fine, G. (1987, April). The impact of right-to-work laws on union organizing. *Journal of Political Economy*, 95, 250-273.

- Encyclopedia Britannica. (2007). *Wagner Act*. Retrieved December 4, 2007, from <http://www.britannica.com/eb/article-9075846>
- Farber, H. S. (1984, September). *Right-to-Work Laws and the Extent of Unionization*. Retrieved December 7, 2007 from <http://ssrn.com/abstract=304852>
- Farber, H. (2005). *Union membership in the United States: The divergence between the public and private sectors*. Retrieved December 2, 2007, from Princeton University, Industrial Relations Section, Firestone Library. Web Site: <http://www.irs.princeton.edu/pubs/pdfs/503.pdf>
- Fine, J. (2005, March). Community unions and the revival of the American labor movement. *Politics & Society*, 33(1), 153-199.
- Fischer, E. & Rupert, P. (2005, December 10). *The Decline of Manufacturing Employment in the United States*. Retrieved on December 6, 2007, from <http://www.calpoly.edu/~efisher/fr20050327.pdf>
- Frenkel, S. J., Korczynski, M., Shire, K.A. & Tam, M. (1999). *On the Front Line: Organization of Work in the Information Economy*. Ithaca, NY: Cornell University Press.
- Herzenberg S., Alic, J. & Wial, H. (1998). *New Rules for a New Economy Employment and Opportunity in Postindustrial America*. Ithaca, NY: Cornell University Press.
- Hirsch, B. and Macpherson, D. (2009). *Union Membership and Coverage Database*. Retrieved April 23, 2010 from <http://unionstats.gsu.edu/>
- Hogler, R. (2005). The historical misconception of right to work laws in the United States: Senator Robert Wagner, legal policy, and the decline of American unions. *Hofstra Labor & Employment Law Journal*, 23(101), 101-151.
- Holmes, T. J. (1998, August). The effect of state policies on the location of manufacturing: Evidence from state borders. *Journal of Political Economy*, 106(4), 667-705.
- Hunter, R. (1997). *Compulsory union dues in Michigan: The need to enforce union members' rights, and the impact on workers, employers, and labor unions*. Retrieved December 9, 2007, from Mackinac Center for Public Policy. Web Site: <http://www.mackinac.org/archives/1997/S1997-01.pdf>
- Indiana American Federation of Labor-Congress of Industrial Organizations (2000). *The misunderstanding of right-to-work*. Retrieved December 5, 2007, from <http://www.inaflcio.org/documents/leg2000-p21.htm>
- Kersey, P. (2007). *The economic effects of right-to-work laws: 2007*. Retrieved November 27, 2007, from Mackinac Center for Public Policy. Web Site: <http://www.mackinac.org/archives/2007/s2007-11.pdf>
- Mayer, K., Werner, T. & Williams, A. (2005). *Do public funding programs enhance electoral competition?* Retrieved December 7, 2007, from University Wisconsin-Madison, Department of Political Science. Web Site: <http://campfin.polisci.wisc.edu/Wisc%20Camp%20Fin%20Proj%20%20Public%20Funding%20and%20Competition.pdf>

- Moore, W. J. (1998). The determinants and effects of Right-to-Work laws: A review of the recent literature. *Journal of Labor Research*, 19, 445-470.
- National Labor Relations Board (1997). *Basic guide to the National Labor Relations Act*. Retrieved December 2, 2007, from http://www.nlr.gov/nlr/shared_files/brochures/basicguide.pdf
- National Right-to-Work Legal Defense Foundation (2007). *In State Right-to-Work Laws*. Retrieved December 2, 2007 <http://www.nrtw.org/rtws.htm>
- Oklahoma League of Economists (1996). *In State Right-to-Work Laws*. Retrieved December 4, 2007 from <http://www.busn.ucok.edu/ole/Fall%201996/rtw.htm>
- Open Secrets (n.d.). *The big picture 2006 cycle: Business-Labor-ideology split in PAC, soft & individual donations to candidates and parties*. Retrieved December 8, 2007, from <http://www.opensecrets.org/bigpicture/blbio.asp>
- Rauch, J. (2005, May 7). Here's a new campaign finance reform plan: Just stop. *National Journal*. Retrieved December 5, 2007, from <http://nationaljournal.com>
- Reed, W.R. (2003). How right-to-work laws affect wages. *Journal of Labor Research*, 24(4), 713-730.
- Tannenwald, R. (1997, March/April). State regulatory policy and economic development. *New England Economic Review*, 83-99.
- The Associated Press. (2006, November 4). Fast growth seen in service sector. *The New York Times*. Retrieved December 4, 2007 from <http://www.nytimes.com>
- United States Department of Labor (2007). *State right-to-work laws as of January 1, 2007 with year of passage*. Retrieved December 2, 2007, from <http://www.dol.gov/esa/programs/whd/state/righttowork.htm>
- United States House of Representatives Committee on Education and Labor (2007, March 28). *Protecting the Health and Safety of America's Mine Workers*. Retrieved April 23, 2010 from <http://bulk.resource.org/gpo.gov/hearings/110h/34100.pdf>
- Wal-Mart (2007). *Corporate Facts*. Retrieved on December 7, 2007 from http://www.walmartfacts.com/FactSheets/Corporate_Facts.pdf
- Walter, L. (2007, November 28). *Most NYC Construction Deaths Occur on Non-Union Worksites*. Retrieved April 23, 2010 from http://ehstoday.com/construction/news/ehs_imp_76542/
- Wilson, W. (2002). *The Effect of Right-to-Work Laws on Economic Development*. Retrieved on December 1, 2007 from Mackinac Center for Public Policy. Web Site: <http://www.mackinac.org/archives/2002/s2002-02.pdf>.
- Wright, P. (2007). *A model right-to-work amendment to the Michigan constitution*. Retrieved December 4, 2007, from Mackinac Center for Public Policy. Web Site: <http://www.mackinac.org/archives/2007/s2007-12.pdf>
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**MOVING AWAY FROM ZERO?
THE CURRENT STATE OF ZERO TOLERANCE IN AMERICA'S SCHOOLS**

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Abstract

Zero tolerance policies in American public schools, which prescribe stringent punishment such as suspension and expulsion for certain student misbehavior, rose to national prominence during the mid-1990s in response to a perceived increase in school violence. However, as zero tolerance policies spread throughout the country, critics emerged, arguing that the policies were too harsh and ineffective at reducing violence in schools. This paper provides an account of the current state of zero tolerance in American public schools. It introduces zero tolerance by discussing its origins and application in the public school context. Then, both sides of the zero tolerance debate are reviewed, including the theories and outcomes upon which proponents and opponents rely to analyze this controversial policy initiative. Lastly, this paper discusses the ongoing debate over zero tolerance in the state of Delaware where recent media attention thrust zero tolerance into the forefront of the state's education discourse. Delaware's zero tolerance debate serves as a useful illustration of where the issue presently stands in the United States.

Introduction

Zero tolerance policies in American public schools, which prescribe stringent punishments such as suspension and expulsion for certain student misbehavior, rose to national prominence during the mid-1990s. Proponents of zero tolerance policies felt the policies' strong mandates were necessary to curb a rising trend of school violence. However, as zero tolerance policies spread

throughout the country, critics emerged, arguing that the policies were too harsh, and were ineffective at reducing violence in schools. While critics mount strong challenges to zero tolerance's efficacy, and even present evidence of its detrimental consequences, zero tolerance proponents continue to convince policy makers and the public that zero tolerance contributes to safer schools. Without question, zero tolerance's place in American public education remains a heated debate.

This paper provides a policy framework for this debate. It introduces zero tolerance by discussing its origins and application in the public school context. Then, both sides of the zero tolerance debate are reviewed, including the theories and outcomes upon which proponents and opponents rely to analyze this controversial policy initiative. Lastly, the zero tolerance debate in the state of Delaware is discussed, as policy-makers there are engaged in an ongoing review of the policy.

An Introduction to Zero Tolerance

In the public school context, zero tolerance policies prescribe predetermined, mandatory punishments for specific offenses, ranging in severity from possession of a firearm on school property to redundant tardiness. When zero tolerance policies are strictly applied, school administrators are bound to give relatively strict punishments when a student commits one of the enumerated offenses. For example, under a typical zero tolerance policy, an administrator is bound to expel a student for possession of a "weapon" on school property, regardless of the reason for the student's possession of that weapon - in one extreme instance, a student faced expulsion when a butter knife was discovered in the back of his truck, parked on school grounds (Reyes, 2006).

Zero tolerance policies were widely implemented in the mid-1990s following the passage of the Federal Gun-Free Schools Act of 1994 (GFSA), which mandated a one-year expulsion for possession of a firearm on school property.¹ While a small group of school districts implemented zero tolerance policies prior to the GFSA, such policies quickly spread throughout the country following its enactment (Skiba & Peterson, 1999). Notably, the GFSA made federal education funding contingent on compliance with its mandates, leading states and school districts to adopt complying policies that often far exceeded the GFSA's provisions. Within five months of its passage, all states passed legislation reflecting GFSA's mandates (Dohm, 2001). By 1996-1997, 94 percent of public schools had zero tolerance policies for firearms, 91 percent for weapons other than firearms, 87 percent for drugs and alcohol violations, and 79 percent for fighting (Casella, 2003; Stader, 2006). Zero tolerance policies vary across school districts, but all include strong punishments such as suspensions and expulsions for enumerated offenses. Importantly, most policies afford administrators some limited degree of flexibility in punishing students. While the GFSA specifically afforded "chief administering officers" case-by-case review to modify punishments, most state and local policies limited the discretion afforded to school administrators (Reyes, 2006).

Zero tolerance policies emerged from growing public concern over safety in schools (Pederson, 2004). This concern was fueled by a perceived epidemic of violence amongst youth (Casella, 2003), and supported by government reports that recounted increases in student involvement in violence, violence against teachers and student fear of violence (Sughrue, 2003). Zero tolerance was viewed as a necessary response to a drastic situation (Casella, 2003).

Beyond the broader goal of making schools safer, zero tolerance policies are thought to have three specific benefits. First, they will change the violating students' behaviors through

punishment. Second, they will remove violent and dangerous students from the school environment, thereby protecting the student body at large. Third, severe punishment of violating students will deter future misbehavior on the part of other students (Gladden, 2002).

Common Ground Amongst Zero Tolerance's Proponents and Opponents

Before the zero tolerance debate is discussed, it is important to note that distaste for the extreme consequences of zero tolerance policies is seemingly universal. Both proponents and opponents of zero tolerance criticize its application when it results in severe punishments for seemingly innocuous behavior (e.g., Ayers, Ayers & Dorhn, 2001; Pederson, 2004; Stader, 2006). Examples of such incidents abound and are frequently cited in the zero tolerance debate. In addition to the butter knife incident discussed above, frequently cited incidents in which the zero tolerance punishment did not match the severity of the offense include:

- expulsion for using a steak knife to peel an apple in the cafeteria (Ayers, Ayers, & Dorhn, 2001);
- expulsion for bringing a carved cane, which was deemed a weapon, to school for show-and-tell (Ayers, Ayers, & Dorhn, 2001);
- suspension of a student for possessing a knife which he took from his friend who had expressed suicidal intentions and which he voluntarily presented to the school principal (Pederson, 2004);
- suspension of a six-year-old for sharing a lemon drop with another student (Pederson, 2004);
- suspension of three students for playing “cops and robbers” (Pederson, 2004);

- expulsion of a student for shooting a paper clip with a rubber band at a classmate, missing and hitting a cafeteria worker (Martin, 2001);
- expulsion of a student for having a cardboard cut-out of a rifle in a car window on school property (Schwartz & Rieser, 2001); and
- suspension of a student for having a plastic ax attached to a Halloween costume (Schwartz & Rieser, 2001).

Zero tolerance opponents frequently cite these examples to shock their audience and provide real-life examples of the potentially extreme consequences of zero tolerance (e.g., Martin, 2001; Schwartz & Rieser, 2001). Proponents note that such incidents occur rarely and could have been avoided if school administrators had used common sense and employed the small amount of flexibility afforded by most zero tolerance policies in determining the students' punishments (Sughrue, 2003). In fact, one study found that zero tolerance policies are waived at the local level 30-40 percent of the time (Stader, 2006). Although such incidents are attention-grabbing, they do not lie at the core of the zero tolerance debate.

Support for Zero Tolerance

Zero tolerance proponents offer theoretical support for its application in the public school context. They argue that rational choice theory indicates that zero tolerance will effectively deter misbehavior (Casella, 2003), and that zero tolerance's strict mandates promote equality in punishment (Reyes, 2006). To buttress the theoretical foundation for zero tolerance, proponents offer outcome-based support for their belief that schools are safer due to zero tolerance (Stader, 2006).

Theory Behind Zero Tolerance

Rational choice theory suggests that zero tolerance will have the desired effect of deterring the targeted misbehavior. Rational choice theory is based on the economic principle that a person will weigh the consequences of a potential action before taking it, and will only take such an action if its benefits outweigh its negative consequences. Thus, according to the theory, zero tolerance heightens the negative consequences of taking a potential action, such as fighting in school, and decreases the likelihood that a student will act (Casella, 2003).

Proponents also value zero tolerance policies' "blind" application of punishment to offense - by not considering who an offending student is and what circumstances led to the offense, zero tolerance is thought to remove personal discretion from the equation (Reyes, 2006). Students have consistent expectations for their behavior and punishment for their misbehavior. Proponents contend that this will result in a disciplinary system free from bias, favoritism or racism. In other words, uniform application guarantees equal application (Casella, 2003).

Outcome-based Support for Zero Tolerance

Proponents highlight both national and local outcomes that suggest zero tolerance has made schools safer. These include the following:

- The number of homicides at school has decreased from thirty per year in 1992-1993 to twelve per year in 1999-2002 (Stader, 2006);
- Between 1993 and 2003, the percentage of students who self-reported carrying a weapon to school during the previous thirty days dropped from twelve percent to six percent (Stader, 2006);

- Student victimization at school dropped from 48 to 33 violent incidents per 1,000 students between 1992 and 1999 (Gladden, 2002);
- Camden, New Jersey's school district reported that its zero tolerance policy contributed to a 30 percent drop in superintendent disciplinary hearings and almost a 50 percent decline in drug offenses (Casella, 2003); and
- A school district in Tacoma, Washington, reported that school fighting reduced by nearly one-half in the first year of its zero tolerance policy, and dropped from 194 fights to three fights between 1991 and 1994 (Casella, 2003).

Based on these outcomes, proponents contend that properly applied zero tolerance policies have resulted in the lowest level of school crime in decades, particularly in urban schools (Feldman, 2000).

Proponents also note that zero tolerance does not exist in a vacuum, nor should it. Rather, it is part of comprehensive school discipline plans. Indeed, violence prevention programs coupled with zero tolerance policies have been found to diminish school violence (Casella, 2003). Also according to proponents, suggestions that zero tolerance policies are void of sufficient support services for troubled youth is belied by many districts' discipline plans, which often include alternative schooling, conflict resolution initiatives, and other services (Stader, 2006).

Criticism of Zero Tolerance

Opponents of zero tolerance policies attack it on several fronts. First, they argue that such policies were adopted based on false pretenses - there was not a school violence epidemic in the United States. Second, the theoretical supports advanced by zero tolerance proponents are faulty,

as is the outcome-based support advanced by zero tolerance proponents. Third, zero tolerance policies cause several unintended and detrimental effects.

The Faulty Premise Supporting Zero Tolerance

Opponents of zero tolerance urge that violence in schools is not a significant impediment to education, nor was it when zero tolerance policies were being adopted (Skiba & Peterson, 1999). Rather, support for zero tolerance emerged from public misperception of violence at school, spurred in large part by the media (Schiraldi & Ziegenberg, 2001). For example, while occurrences of juvenile homicides dropped by 13 percent between 1990 and 1995, network evening news coverage of such incidents increased 240 percent (Dohrn, 2001). A 1996-1997 survey that asked school disciplinarians what were serious or moderate problems at their schools revealed that significantly more disciplinarians viewed less serious offenses – such as tardiness, absenteeism and fighting – as serious or moderate problems, than viewed more serious offenses – such as drugs, gangs, weapons possession and physical attacks of teachers – as serious or moderate problems (Skiba & Peterson, 1999). The same survey found that violent crimes occurred infrequently, at an annual rate of 53 per 100,000 students (Skiba & Peterson, 1999). Opponents also note that, despite the frequent public attention afforded to such events, a very small percentage of youth homicides occur at school. For example, in 1998-1999, one percent of youth homicides occurred at school (Gladden, 2002). Thus, opponents of zero tolerance contend its alleged necessity was based on the public's false impressions of reality.

The Faulty Theory Behind Zero Tolerance

Opponents further criticize zero tolerance because it fails to adhere to the theoretical bases upon which it is formed. Zero tolerance critics argue that rational choice theory is misapplied in the zero tolerance context because what is rational for youth facing difficult circumstances is not understood (Casella, 2003). For example, a student confronted with repeated bullying may choose to bring a weapon to school to scare off his harassers, despite the severe punishment he will face if caught with the weapon. To this student, the threat of expulsion does not outweigh the potential benefit of ending his continued victimization and the rational choice is to bring the weapon to school. Such a hypothetical scenario is based in reality – students are commonly confronted with bullying and the most common reason for bringing weapons to school is for protection (Stader, 2006). Thus, bringing a weapon to school for self-defense may be a rational choice, despite the possibility of harsh discipline.

Opponents also vigorously contest the notion that zero tolerance allows unbiased application of discipline and ensures equal punishment amongst students because it minimizes discretion. On the contrary, multiple studies demonstrate that zero tolerance policies disproportionately punish African American and Latino students (Gordon, Della Piana & Keleher, 2001). Though African Americans are only 17 percent of the public school student body, they comprise 32 percent of out-of-school suspensions (Gladden, 2002). Even when socioeconomic status is taken into account,² African Americans are disproportionately suspended (Skiba, 2001; Skiba & Peterson, 1999). Data from the 1998-1999 school year in South Carolina further demonstrates the disproportionate treatment of African Americans (who were 42 percent of the student body):

- African American students were 69 percent of the students charged for disturbing school;

- African American students were 71 percent students charged for assault; and
- African American students were 69 percent students charged for threatening a school official (Advancement Project & Civil Rights Project, 2000).

Thus, the notion that zero tolerance removes bias, and therefore discrimination, from school discipline is in doubt.

The Faulty Outcome-based Support for Zero Tolerance

Opponents of zero tolerance contend that many of the alleged outcomes cited by zero tolerance proponents do not demonstrate that such policies make schools safer. While rates of violent crime at school may have dropped significantly during the 1990s, the decline is not necessarily due to zero tolerance policies. Proponents point out that the decline in school violence mimics the decline in crime rates nationally, suggesting that there are forces greater than zero tolerance at play (Molsbee, 2008). Further, although national statistics may point to a decline in school violence, opponents argue that school-specific analysis suggests that zero tolerance is ineffective - even after zero tolerance policies were in place for four years, schools with zero tolerance policies remain less safe than those that do not have such policies (Skiba & Peterson, 1999).

The Unintended and Detrimental Effects of Zero Tolerance

Zero tolerance policies also receive criticism because they contributed to a dramatic increase in suspensions and expulsions. From 1974 to 2001, suspensions nearly doubled from 1,700,000 to 3,100,000 and expulsions increased by approximately 97,000. The overwhelming majority of suspensions and expulsions came as a result of relatively minor offenses, such as

tardiness, truancy, smoking and dress code violations (Molsbee, 2008). While zero tolerance is not solely to blame for this increase, it certainly contributed.

Zero tolerance critics contend that the consequences of these increases are dramatic. A history of suspension or expulsion is a strong predictor of dropping out of school (Skiba & Peterson, 1999). Suspension and expulsion are also commonly cited reasons for students' decisions to drop out (Molsbee, 2008). Zero tolerance policies commonly fail to provide education to students while they are suspended or expelled. Students facing disciplinary action are often already struggling in school, and disruption in their educational progress pushes them further towards failure (Sughrue, 2003). Misbehavior and poor school performance build upon one another. As students fall behind academically, they become less invested in school and tend to misbehave. This leads to suspensions or expulsion, which further delays their academic progress and causes them to further devalue school (Gladden, 2003). Just as a history of exclusion is a predictor of dropping out, academic struggles are demonstrated predictors of exclusionary discipline (Haft, 2000).

Moreover, suspended and expelled students have high rates (between 35 percent and 45 percent) of recidivism (being subsequently suspended or expelled for misbehaving at school) (Molsbee, 2008). This suggests that zero tolerance's goal of reforming misbehaving students is not being met. Teachers report that exclusionary punishments are more often administered to students whom the teachers expect to reoffend – in other words, teachers do not expect such punishments to prevent future misbehavior for most students (Wald & Casella, 2001).

Zero tolerance opponents are also quick to point out that, other than the threat of missing school, suspensions and expulsions do nothing proactive to reform misbehavior (Sughrue, 2003). Although teachers report that they value zero tolerance because it enables them to remove

disruptive students from their classrooms, they note that zero tolerance fails to do anything to prevent repetitive misbehavior (Wald & Casella, 2001). Moreover, suspension and expulsion may enhance a student's social isolation, which has been identified as a cause of misbehavior (Haft, 2000).

Opponents of zero tolerance also contend that such policies are part of the "schoolhouse to jailhouse pipeline," which places misbehaving students on a narrow path to incarceration in juvenile detention centers and, ultimately, prison. As part of their zero tolerance approach, more than forty states require schools to report students to the police for certain misbehavior (Robbins, 2008). For example, many schools are required to report students involved in schoolyard fights to the police, which results in assault charges (Advancement Project & Civil Rights Project, 2000). The majority of arrests for school misbehavior are not the result of serious violent crime. For example, in 1997, approximately 180,000 students nationally were arrested for fighting in school, 120,000 for theft in school, 110,000 for vandalism in school, but only 20,000 for committing violent crimes (other than fighting) in school (Dorhn, 2001). Thus, in 1997, more than 400,000 students were arrested for misbehavior that once was addressed within the school context - a new population of youth is being introduced to the juvenile justice system due to zero tolerance.

Opponents also stress that zero tolerance policies removing discipline decision making from those who best know the offending students - teachers and lower-level school administrators (Sughrue, 2003). A practical result of this is teachers facing the tough decision of reporting a misbehaving student to administrators, likely resulting in an unduly harsh punishment, or bucking school policy, keeping the student's misbehavior to herself, and giving the student her own punishment. Learning theories suggest that punishment is more effective when the punisher is trusted and respected and the punishment itself is well reasoned. Therefore, teachers should not

face the discipline dilemma described above; rather, they should be empowered to develop relationships with their students in which students can expect fair punishments for misbehavior (Gladden, 2002).

Alternatives to Zero Tolerance

Importantly, opponents of zero tolerance policies offer various alternative approaches to school discipline. Such policies include: formal mentoring programs for misbehaving students, peer mediation and other conflict resolution initiatives, deliberate study of character and social well-being as part of the academic curriculum, enhanced counseling services, in-school-suspension that features modified academic programs, discipline contracts developed and signed by students and community partnerships (e.g., Casella, 2003; Advancement Project & Civil Rights Project 2000). Notably, some critics of zero tolerance concede that circumstances, although rare, do occur in which suspensions and expulsion are necessary. However, exclusionary punishments should be last resorts, not automatic sanctions (Haft, 2000).

The Zero Tolerance Debate in Delaware

In the autumn of 2009, a six-year-old student in Delaware's Christina School District was suspended for 45 days because he brought a camping utensil that can be used as a spoon, fork and knife to school. The boy had recently joined the Cub Scouts of America, and was excited about using his new gadget during lunch. According to the school district's code of conduct, which was directed by state law, the gadget qualified as a weapon and suspension was mandatory, regardless of whether he intended to use it for harm (Urbina, 2009). Thus, school officials were dutifully following the laws and regulations in place when they suspended the student. Remarkably, this

incident came on the heels of another harsh application of Christina School District's zero tolerance policy. In 2007, a twelve-year-old was expelled for bringing a utility knife blade to school for a class project. The student had used the knife to cut windows out of a paper house (Janerette & Shepperson, 2009).

In response to the media attention these incidents garnered, as well as outrage from concerned parents, the Christina School District and the Delaware State Legislature reviewed their zero tolerance policies. Specifically, in 2009, the House of Representatives formed a School Discipline Task Force to examine whether House Bill 85, which introduced zero tolerance policies to the state in 1993, should be changed to effectuate school discipline practices that yield more fair and reasonable outcomes (School Discipline Task Force, 2010). In forming the Task Force, the House desired to determine whether greater discretion for school officials was feasible, and if other changes to the law or to school districts' codes of conduct should be made. The Task Force included various school administrators, government officials, advocates and others who brought a wide array of perspectives to bear on the zero tolerance issues facing the state (School Discipline Task Force, 2010).

Several detrimental consequences of Delaware's zero tolerance approach were highlighted by members of the Task Force (School Discipline Task Force, 2010). For example, as applied, zero tolerance precipitated high arrest rates, as well as arrests for students with no prior discipline issues. These arrests often harmed students' chances of university admission and employment and placed an unnecessary burden on the resources of the Attorney General's Office and the Family Court. Inconsistent application of zero tolerance rules across Delaware's nineteen school districts was also noted (School Discipline Task Force, 2010).

Based on the insights of Task Force members, a number of recommendations to the General Assembly and to the school districts in the state were made. Suggested policy changes included: providing school boards and other officials greater discretion when reviewing the application of zero tolerance punishments, incorporating more moderate and graduated disciplinary responses for students who violate their district's code of conduct, ensuring that suspended and expelled students have adequate educational opportunities, and redrafting portions of House Bill 85 to include specific, common sense language that can be better understood by those interpreting it (School Discipline Task Force, 2010).

The evaluation of zero tolerance in Delaware serves a prime example of the current state of zero tolerance nationwide. The General Assembly is considering softening the laws and regulations in effect to avoid the more extreme applications of zero tolerance that occurred in 2007 and 2009. However, they are not going so far as to repeal zero tolerance entirely and grant teachers and administrators the wide disciplinary discretion they once had. Because safety in schools remains a prominent and essential issue, policy makers are seeking ways to remain tough but reasonable. Their hope is to provide school administrators with firm guidelines to follow that contain just enough flexibility to allow them to avoid blatantly unreasonable applications of zero tolerance. At the same time, the Task Force noted the importance of providing quality educational opportunities for students who face suspension or expulsion to mitigate the detrimental effects of these severe punishments. Their recommendations serve as a strong example of a policy discussion in which striking a balance between ensuring that schools remain safe and ensuring that every student has acceptable educational opportunities drives the conversation. Notably, this scrutiny has thus far only led to minimal changes in the Christina School District and Delaware's zero tolerance rules.

Conclusion

Since its peak in popularity in the late 1990s, zero tolerance remains a pillar of school safety policy. Despite significant criticism, zero tolerance continues to enjoy widespread support. For example, a study conducted in 2004 found that 88 percent of parents supported zero tolerance policies in their children's schools (Stader, 2006). Parents, administrators and lawmakers alike value zero tolerance as a decisive and strong reaction to school violence and other misbehavior (Gladden, 2002).

It appears that zero tolerance in public schools is not simply a policy fad; rather, as stories such as the Columbine shootings continue to stoke the public's fear of violence at school, zero tolerance and similar "get-tough" policies promise to endure. As is demonstrated by the ongoing debate in Delaware, states and school districts are considering adjusting zero tolerance policies to afford administrators more discretion and to eradicate instances of extreme punishments mandated by zero tolerance laws (Molsbee, 2008). At the same time, the federal government is encouraging states to provide better educational opportunities for offending students, such as alternative schools and in-school-suspensions, to minimize the disruption in students' educational development (Stader, 2003). Thus, while its opponents may not successfully defeat zero tolerance, their critiques contribute to states', districts' and schools' continuing efforts to construct comprehensive school policies that equitably and efficiently create safer school environments and reform misbehaving youth.

¹ In 1995, the GFSA was amended to pertain to "weapons," which included any device that could be used as a weapon.

² Notably, zero tolerance also disproportionately affects lower socioeconomic classes – high income students are less likely to receive referrals for misbehavior, which result in suspensions and expulsions. (Molsbee, 2008).

References

- Advancement Project & Civil Rights Project (2000). *Opportunities Suspended: The Devastating Consequences of Zero Tolerance and School Discipline*, Boston: Civil Rights Project.
- Ayers, W., Ayers, R., & Dohrn, B. (2001). Introduction: Resisting zero tolerance. In W. Ayers, B. Dohrn, & R. Ayers (Eds.), *Zero tolerance: Resisting the drive for punishment in our schools*, New York: The New Press, xi-xvi.
- Casella, R. (2003). Zero tolerance policy in schools: Rationale, consequences, and alternatives. *Teachers College Record*, 105(5), p. 872-892.
- Dohrn, B. (2001). "Look out kid/ It's something you did": Zero tolerance for children. In W. Ayers, B. Dohrn, & R. Ayers (Eds.), *Zero tolerance: Resisting the drive for punishment in our schools*, New York: The New Press, 89-113.
- Feldman, S. (2002). Let's stay the course. Retrieved from American Federation of Teachers Press Center, available at <http://www.aft.org/presscenter/speeches-columns/wws/2000/0200.htm>.
- Gladden, R.M. (2002). Reducing school violence: Strengthening student programs and addressing the role of school organizations. *Review of Research in Education*, 26, 263-299.
- Gordon, R., Della Piana, Keleher, T. (2001). Zero tolerance: A basic racial report card. In W. Ayers, B. Dohrn, & R. Ayers (Eds.), *Zero tolerance: Resisting the drive for punishment in our schools*, New York: The New Press, 165-175.
- Haft, W. (2000). More than zero: The cost of zero tolerance and the case for restorative justice in school. *Denver University Law Review*, 77, 795-813.
- Janerette, D. & Shepperdson, B. (2009). Zero tolerance policies and school discipline. Education Policy Brief, Newark, DE: Delaware Education Research & Development Center and University of Delaware College of Education and Public Policy.
- Martin, R.C. (2001). Zero tolerance policy. Retrieved from American Bar Association, Juvenile Justice Policies, <http://www.abanet.org/crimjust/juvjus/zerotolreport.html>.
- Molsbee, S. (2008). Zeroing out zero tolerance: Eliminating zero tolerance policies in Texas schools. *Texas Tech Law Review*, 40, 325-363.
- Pederson, D.M. (2004). Zero tolerance policies. In J.C. Hanks (Ed.), *School violence*, Chicago: ABA Publishing, 47-55.
- Reyes, A.H. (2006). *Discipline, achievement & race: Is zero tolerance the answer?* Lanham, MD: Rowman & Littlefield Education.
- Robbins, C.G. (2008). *Expelling hope: The assault on youth and the militarization of schooling*, Albany: SUNY Press.
- Schiraldi, V. & Ziedenberg, J. (2001). How distorted coverage of juvenile crime affects public policy. In W. Ayers, B. Dohrn, & R. Ayers (Eds.), *Zero tolerance: Resisting the drive for punishment in our schools*, New York: The New Press, 115-125.

- School Discipline Task Force (2010, January). Final report. Retrieved on February 12, 2010 from www.whyy.org/podcast/news/delaware/100127meschool.pdf.
- Schwartz, R. & Rieser, L. (2001). Zero tolerance as mandatory sentencing. In W. Ayers, B. Dohrn, & R. Ayers (Eds.), *Zero tolerance: Resisting the drive for punishment in our schools*, New York: The New Press, 126-135.
- Skiba, R. (2001). When is disproportionately discrimination? The overrepresentation of Black students in school suspensions. W. Ayers, B. Dohrn, & R. Ayers (Eds.), *Zero tolerance: Resisting the drive for punishment in our schools*, New York: The New Press, 176-187.
- Skiba, R. & Peterson, R. (1999). The dark side of zero tolerance: Can punishment lead to safer schools? *Phi Delta Kappan*, 80(5), 372-376, 381-382.
- Stader, D.L. (2006). Zero tolerance: Safe schools or zero sense? *Journal of Forensic Psychology Practice*, 6(2), 65-75.
- Sughrue, J.A. (2003). Zero tolerance for children: Two wrongs do not make a right. *Educational Administrative Quarterly*, 39, 238-258.
- Urbina, I. (2009, Oct. 11). It's a fork, it's a spoon, it's a . . . weapon? *The New York Times*, retrieved on February 12, 2010 from <http://www.nytimes.com/2009/10/12/education/12discipline.html>.
- Wald, J. & Casella, R. (2001). A battle each day: Teachers talk about discipline, suspensions, and zero tolerance policy. In A.H Reyes, *Discipline, achievement & race: Is zero tolerance the answer?* Lanham, MD: Rowman