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**Contemporary Policy Issues in the State of Texas: A Series of Policy
Analyses**

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by

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Report

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Dedication

To my grandfather, Jack, for his eternal support. To my cousin, Lauren, for her tremendous love. To my dear friend, Mercedes, for her vast wisdom beyond her years. I miss you all.

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Abstract

Contemporary Policy Issues in the State of Texas: A Series of Policy Analyses

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The University of Texas at Austin, 2015

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This report is a combination of individual policy analyses on food deserts, groundwater management, teenage pregnancy, and transportation capacity in the State of Texas. Additionally, an analysis on the gender pay gap viewed from the national level is included. These analyses suggest the critical importance of all five issues to the future of Texas as the state faces continued population growth and changing demographics. Furthermore, taken in tandem, these policy issues present an opportunity to reconsider the approach of policymakers working toward achieving social and economic justice. The commonalities amongst these issues suggest that moving from a policy agenda centered around a core of social issues to a broad, all-encompassing agenda that considers the disparate impact of issues like water scarcity and traffic congestion may have a more profound impact on the eradication of social and economic injustice.

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Introduction

This report is comprised of five separate policy analyses on issues that are of contemporary importance to the State of Texas. These particular issues were selected based upon the experiences of the author while working for a state senator during the 84th session of the Texas Legislature. Various legislators from both parties authored and supported several pieces of legislation attempting to address each of these issues prior to and during session, exhibiting the importance of understanding the existing problems and taking action to confront the consequences. Accordingly, all but one analysis focuses on the state government level; the scope of the final analysis was expanded to the national level due to the lack of data and information specific to Texas.

Each analysis examines why the issue is a problem for the state, provides the pertinent background information relevant to the current state of the problem, suggests three reform options, analyzes the attendant potential advantages and disadvantages of each option, and offers a recommendation for going forward. Furthermore, this report concludes by seeking to identify any common themes that may exist amongst the five seemingly separate issues.

Chapter 1: Food Deserts

As the knowledge and understanding of what constitutes a healthy diet for most people becomes more concrete, the importance of access to affordable fresh food grows. However, many people in Texas live in rural areas or urban neighborhoods without a supermarket or other grocer that carries affordable fresh food. As a result, these people are more likely to eat readily available, cheaper, processed foods that do not carry a high nutritional value; the over-consumption of these foods is also tied to negative health consequences such as heart disease, obesity, and diabetes.

BACKGROUND

Definition

The United States Department of Agriculture (USDA) defines food deserts as “a census tract with a substantial share of residents who live in low-income areas that have low levels of access to a grocery store or healthy, affordable food retail outlet”.¹ In practice, these census tracts must be identified as both low-income and low-access to receive a designation as a food desert. Additionally, separate low-access standards are utilized for urban and rural areas. A community, regardless of the type, is considered low-income when: a) the poverty rate is 20% or greater; or b) the median family income is at or below 80% of the area median family income. For urban communities, at least 500 people and/or 33% of the population of the census tract must live at least one mile

¹ “Food Deserts,” *United States Department of Agriculture: Agricultural Marketing Service*, 2015, <http://apps.ams.usda.gov/fooddeserts/fooddeserts.aspx>.

from the nearest supermarket or large grocery store. In rural areas, the distance is increased to at least 10 miles.²

In its definition, the USDA considers only grocery retailers with annual revenue of \$2 million or more.³ The argument has been made that this definition leaves out important access points such as farmer's markets, convenience stores, and smaller groceries.⁴ However, these types of stores are left out due to their more limited purchasing power, typically resulting in a smaller selection of more high-priced foods. On the other hand, larger retailers are more able to provide accessible and affordable foods for low-income families, with a greater selection at lower prices.⁵

Texas Food Deserts

In a report prepared by The Food Trust on supermarket access in Texas, the Houston area alone could support an additional 185 supermarkets. Statewide, estimates suggest 589 stores could be supported. These supermarkets also tend to be unevenly distributed amongst the population in Texas, often disproportionately negatively affecting people with low incomes.⁶

² Ibid.

³ Ibid.

⁴ Adam Drewnowski, Anju Aggarwal, and Anne Vernez Moudon, "The Supermarket Gap: How to Ensure Equitable Access to Affordable, Healthy Foods" (The Center for Public Health Nutrition, University of Washington, May 2010), <http://depts.washington.edu/uwcpnhn/reports/cphnbrf051910.pdf>.

⁵ Michele Ver Ploeg et al., "Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences" (USDA Economic Research Service, June 2009), http://www.ers.usda.gov/media/242675/ap036_1_.pdf.

⁶ Miriam Manon, Tracey Giang, and David Treering, "Food for Every Child: The Need for More Supermarkets in Houston" (The Food Trust, December 2010), http://policylinkcontent.s3.amazonaws.com/FoodForEveryChild--Houston_0.pdf.

An analysis of the data provided in the USDA's Food Access Research Atlas assists in offering a picture of food deserts in Texas. As of May 2013, the USDA has identified 1,093 census tracts as food deserts in Texas. The total number of census tracts in Texas is 5,258, resulting in 21% of census tracts in the state being designated as food deserts. Of the 1,093 food desert tracts, 978 of them are in urban areas, which equates to 89% of all food deserts in Texas being located in urban areas. The total population of all food deserts in the state is 5,184,810, also equating to 21% of the total population of the state at 25,145,561. This data shows that 1 in 5 individuals in this state are living within a food desert. Although these individuals are more likely to live in an urban area, only half of them have access to a vehicle they can use for transportation to a grocer with fresh food. Additionally, approximately 16% of the individuals living in a food desert are 17 or younger; about 5% are 65 or older.⁷

An understanding of the demographics of poverty in Texas can help create a deeper understanding of exactly who is most affected by the existence of food deserts across the state. Across all age groups, women have higher rates of poverty than men. Female-headed households are also significantly more likely than male-headed or two-parent households to live in poverty. In addition, people of color in Texas – especially Latinos and African-Americans – have higher rates of poverty than Whites.⁸ Extrapolating from this data, those living in a woman of color-headed household are

⁷ Vince Breneman, Michele Ver Ploeg, and Paula Dutko, *Food Access Research Atlas Data File* (USDA Economic Research Service, 2013).

⁸ Center for Public Policy Priorities, "Key Facts About Poverty and Income in Texas," 2015, http://forabettertexas.org/images/EO_2014_ACSPovertyIncome_Charts.pdf.

much more likely to experience poverty and live in a food desert, demonstrating the disparate and inequitable effects of food deserts across the population.

Implications

As previously noted, the lack of supermarket accessibility in an area is often coupled with increased access to retailers selling low-price, low-quality foods that are likely to be high in fat, sugar, and sodium.⁹ Consequently, because people tend to make food choices based upon their immediate surroundings, individuals in food deserts frequently substitute these energy-dense, “empty calorie” foods for fresh foods due to affordability and accessibility.¹⁰ Increased consumption of these types of food can be linked to negative health outcomes such as obesity, diabetes, and heart disease.¹¹

In turn, the Texas Comptroller of Public Accounts (Comptroller) released a report in 2011 that estimated the costs of obesity to Texas business to be \$9.5 billion in 2009.¹² The Comptroller further projected that, by 2030, obesity will cost businesses \$32.5 billion if no action to combat obesity is taken.¹³ Furthermore, the state also bears some cost of providing care for the uninsured and those on Medicaid with chronic conditions that can be linked, at least in part, to poor diet. Ensuring accessibility for all Texans to

⁹ Margaret Andrews, Rhea Bhatta, and Michele Ver Ploeg, “An Alternative to Developing Stores in Food Deserts: Can Changes in SNAP Benefits Make a Difference?,” *Applied Economic Perspectives and Policy* 35, no. 1 (March 1, 2013): 150–70, doi:10.1093/aapp/pps042.

¹⁰ Sinéad Furey, Christopher Strugnell, and Ms Heather McIlveen, “An Investigation of the Potential Existence of “food Deserts” in Rural and Urban Areas of Northern Ireland,” *Agriculture and Human Values* 18, no. 4 (December 2001): 447–57, doi:10.1023/A:1015218502547.

¹¹ “Food Deserts.”

¹² “Gaining Costs, Losing Time - The Obesity Crisis in Texas,” Miscellaneous Reports, *Texas Comptroller of Public Accounts*, (December 18, 2008), <http://comptroller.texas.gov/specialrpt/obesitycost/>.

¹³ *Ibid.*

affordable fresh food, regardless of income level or geographic location, could therefore help address social and economic costs experienced by the state and the individuals who reside in Texas.

REFORM OPTIONS

Option One

The Texas Legislature could create a loan program for new and existing businesses to bring fresh food to existing food deserts.

A noted impediment to the expansion of supermarkets into food deserts is the lack of incentive for businesses, as they may feel the potential costs outweigh potential benefits.¹⁴ To address this impediment, other states and cities have started implementing loan programs.¹⁵ Both existing and new businesses may apply for the loans to use toward building, expanding, or renovating supermarkets in food deserts, with the ultimate goal of increasing access to affordable fresh food.

Advantages

The following are potential advantages of this option:

- Could create needed jobs in low-income areas.
- Would likely increase accessibility for people living in current food deserts.
- May help businesses keep prices in an affordable range.

¹⁴ Renee E. Walker, Christopher R. Keane, and Jessica G. Burke, “Disparities and Access to Healthy Food in the United States: A Review of Food Deserts Literature,” *Health & Place* 16, no. 5 (September 2010): 876–84, doi:10.1016/j.healthplace.2010.04.013.

¹⁵ Celia Cole, “Access to Healthy and Affordable Food Is Critical to Good Nutrition” (Center for Public Policy Priorities, March 2012), http://forabettertexas.org/images/2012_02_FoodAccess.pdf.

A possible unintended positive consequence of bringing new businesses or expanding existing businesses in food deserts may be job creation. These jobs could be especially beneficial for individuals without access to a vehicle, thus limiting their transportation ability, or with a limited education. As the loan program could be restricted to businesses that will be building or expanding only in existing food deserts, this option would likely increase the ability of people living in existing food deserts to purchase fresh foods. Furthermore, receiving assistance in the form of loans could help businesses defray the costs of maintenance. In turn, businesses may be able to sell fresh food at lower prices than they otherwise may need to if their operating costs were higher.

Disadvantages

The following are potential disadvantages of this option:

- May not result in increased purchasing and consumption of fresh foods.
- Could be difficult to prioritize funding for the program.
- Businesses receiving loans could default on repayment.

Although the fundamental target of the program would be to ensure accessibility and affordability of fresh foods for more people, there may not be an assurance that people will actually purchase and consume more fresh foods. Current behaviors may be deeply ingrained, particularly in children, such that the provision of a healthier selection of foods may not result in a change in choices. At the state level, the competing funding demands of various policy issues affecting Texas could be an impediment to securing funding for the program. This complication could be compounded by the possibility that

businesses may default on repayment of loans. Depending on the structure of the program, business repayments could be utilized for future loans. Defaulting on payments, therefore, could lead to limited funds for businesses to access in the future.

Option Two

The Texas Legislature could provide tax credits to convenience stores in existing food deserts to add fresh foods to stores.

Researchers studying food deserts have noted an abundance of convenience stores in these areas, compared with areas that are not food deserts.¹⁶ These researchers also note that convenience stores in food deserts are highly frequented, particularly by children.¹⁷ Utilizing these features, a tax credit program could be implemented for convenience stores located in food deserts that add fresh foods to their stores.

Advantages

The following are potential advantages of this option:

- Convenience stores are already an existing feature of many food deserts.
- Could result in increased purchasing and consumption of fresh foods due to people presently frequenting convenience stores.
- Tax credits could help stores increase purchasing power and subsequently lower prices of fresh foods.

¹⁶ Andrews, Bhatta, and Ploeg, “An Alternative to Developing Stores in Food Deserts.”

¹⁷ Ibid.

As noted above, the frequency of convenience stores in food deserts, coupled with the regularity of visits by individuals living in the area, could increase the possibility of behavioral changes in purchasing patterns. In addition, convenience stores may be able to maintain low prices, competitive with those seen at supermarkets, for fresh foods. The similar price points may also add to the possibility of a revised basket of goods for those living in a food desert and that includes more fresh foods.

Disadvantages

The following are potential disadvantages of this option:

- Limited space in convenience stores could result in small inventory of fresh foods.
- Success could be contingent upon convenience stores perceiving the program as beneficial.
- May result in a loss of tax revenue to the state.

Even with the incentive of a tax credit, convenience stores are constrained by space limitations. Taken together with the possibility of low-price, low-quality foods generating more sales and profit than fresh foods, convenience stores may choose to restrict the amount of display space dedicated to fresh foods. Consequently, it is possible the fresh food inventory could sell out, leaving consumers with only the low-quality foods as choices. The addition of fresh food inventory may also be reliant on convenience stores believing the change is profitable for business, which could go against the existing successful model of convenience stores as an easy, quick place to stop in and pick up

snack foods or certain grocery items. Finally, dependent upon the number of convenience stores participating in the program and the designated level of tax credit, the state could experience a notable loss of tax revenue. As the legislature is dependent upon this revenue for some appropriations, the loss could potentially have far-reaching fiscal impacts.

Option Three

The Texas Legislature could appropriate funds for a pilot project to bring a mobile fresh food store to existing food deserts.

To help combat the growing issue of food deserts in the city, a non-profit in Chicago instituted a program that repurposed old city buses as mobile, single-aisle grocery stores selling fresh produce.¹⁸ The use of the bus enabled a level of flexibility to travel to multiple areas within the city, thereby trying to assist more people than a supermarket in a fixed location. To determine how a program such as this one could work within Texas, the legislature could create a pilot program and introduce a mobile fresh food program to designated areas of the state.

Advantages

The following are potential advantages of this option:

- Could assist more people while using fewer resources.

¹⁸ “Fresh Moves Buses Stalled as Funding Runs out,” *Tribunedigital-Chicagotribune*, accessed June 15, 2015, http://articles.chicagotribune.com/2013-10-16/news/ct-met-chicago-food-deserts-1016-20131016_1_fresh-moves-four-more-buses-food-desert-action.

- May enable the state to forego continuation of the program if it does not meet objectives.
- Could provide insight on other feasible policy options.

Though this program would still require resources in the form of equipment, workers, and money to cover startup, operating, and overhead costs, the total monetary sum of these resources is likely to be less than that of building or expanding several supermarkets across the state. Combined with the transportable nature of the single-aisle store, this option could ultimately serve a greater number of people and consume fewer resources than alternative plans. Furthermore, if the pilot program does not have successful outcomes or becomes inefficient, the legislature could terminate the program to preserve resources for potentially more effective policy options. The concepts for additional policy options to target the problem of food deserts could be born from this pilot program, as the state may be able to learn more about the nature of the problem overall.

Disadvantages

The following are potential disadvantages of this option:

- Mobile nature could result in confusion.
- May be a limited inventory due to size constraints.
- Could restrict expanded accessibility and affordability to pilot areas only.

The movability of the food store could potentially result in confusion among people seeking to access its services. Though a schedule could likely be posted online, as

such a platform would allow for the greatest flexibility in providing accurate and up-to-date information, retrieving the schedule may not be feasible for all individuals living in a low-income area. While some people may have constant access to the Internet, relying on technology to distribute a schedule could act as a service barrier for others. The small space may also pose a challenge to keeping the store fully stocked and could lead to limited time spent in communities and more time spent restocking inventory. Finally, the isolated nature of a pilot project may mean that some communities or cities could benefit from this option while others are not provided the opportunity to participate.

RECOMMENDATION

Due to the frequency of convenience stores in existing food deserts, the regularity of visits by residents to these stores, and the likelihood of a shorter timeline for implementation than the other two provided options, it is recommended that the Texas Legislature pursue option two to create a tax credit program. Although successful examples of the grocer loan program described in option one exist, the probable implementation time for this option provides a significant barrier. Identifying and ordering fresh foods and rearranging the layout of a convenience store are activities that will more than likely consume less time than building a brand new supermarket. Furthermore, the mobile fresh food store may not generate enough revenue from selling affordable foods to offset associated operating costs, as Chicago experienced when it implemented a similar program. As a result, Chicago was forced to shut down the mobile store; if the pilot program in Texas experienced a similar result, the consequences could

be harmful. The tax credit option appears to have the shortest timeline, could have the lowest cost to the state, and may have the highest likelihood of increased purchasing and consumption of fresh foods by individuals and families living in food deserts due to the existing patterns of behavior in these areas.

Chapter 2: Groundwater Management

There are two sets of laws that govern groundwater management in Texas: 1) state-level statutes that provide landowners private property ownership over all groundwater that flows under their land; and 2) case laws that established the right of landowners to capture and pump groundwater, subject to parameters imposed by a decentralized regulatory system. However, given the state's current drought conditions and population growth, these policies may place at risk the availability of groundwater across the state for important public purposes.

BACKGROUND

What is Groundwater?

The State of Texas acknowledges the existence of two main types of water: surface water and groundwater. While surface water is easily observed as rivers, lakes, and streams, groundwater is found beneath the surface of the Earth, often contained in aquifers. To extract groundwater, wells are drilled and utilized. This water is subsequently replenished through the environmental process of recharge.¹⁹

Legal Doctrine

Groundwater has been governed by the common law “rule of capture” since the 19th century.²⁰ The rule of capture states that landowners have full rights to any and all

¹⁹ Ronald C. Griffin, ed., *Water Policy in Texas: Responding to the Rise of Scarcity*, RFF Press Water Policy Series (RFF Press, 2010).

²⁰ “Water for Texas 2012 State Water Plan” (Texas Water Development Board, January 2012), http://www.twdb.texas.gov/publications/state_water_plan/2012/2012_SWP.pdf.

water they pump and capture from beneath their land; thus, the only limitation for landowners is the size of their water pump. As a result, the rule of capture is also often colloquially referred to as “the rule of the biggest pump”.²¹ In 1904, the Texas Supreme Court officially adopted this doctrine in the *Houston & T.C. Railway Co. vs. East* decision.²² Ownership was further described in the decision as giving the landowner all that lies beneath his surface, including the right to dig therein and apply all that is found to his own purpose even if he drains his neighbor’s well. Even though described as an absolute ownership rule, the Court recognized the common law limitations on the exercise of the right, stating that the groundwater must be put to a beneficial use without waste, and the action must be without malice.²³

Currently, landowners are granted a set of rights in regards to the groundwater beneath their land.²⁴ These rights include:

- A right to drill a well on the property to any depth and size;
- Ownership of the water captured and brought to the surface;
- A right to make nonwasteful use of the water;
- A right to sell or lease the water;
- A right to export water beyond boundaries of land or of the aquifer; and
- A right to reserve the groundwater when the land is sold.

²¹ Griffin, *Water Policy in Texas: Responding to the Rise of Scarcity*.

²² “Water for Texas 2012 State Water Plan.”

²³ *Ownership of Groundwater, Texas Water Code*, 1995,
<http://www.statutes.legis.state.tx.us/Docs/WA/htm/WA.36.htm#36.002>.

²⁴ Griffin, *Water Policy in Texas: Responding to the Rise of Scarcity*.

However, courts have also crafted exceptions to the capture rule in three main instances: 1) if there is a malicious intent to harm neighbors by pumping; 2) if pumping will cause land subsidence; and 3) if the captured water is wasted.²⁵ The Texas Legislature has added two statutory limitations, as well – groundwater conservation districts have the authority to limit pumping, and when water is pumped from the underflow of a river.²⁶

Regulatory Structure

The Texas Legislature established a decentralized regulatory system as an incentive to conserve by way of the Conservation Amendment of 1917.²⁷ This constitutional amendment requires the state to engage in the preservation and conservation of all natural resources of the state and, specifically, authorizes the legislature to pass laws that may be appropriate. The Conservation Amendment codifies water regulation as a legislative function, recognizing that preserving and conserving natural resources are public rights and duties.²⁸ Despite this clear authority, the Texas Legislature did not authorize the creation of local districts (termed groundwater conservation districts and henceforth shortened to GCDs) until 1949 and did not form a GCD until the creation of the High Plains Underground Water Conservation District No.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Harry Grant Potter III, “History and Evolution of the Rule of Capture,” in *100 Years of Rule of Capture: From East to Groundwater Management* (Texas Water Development Board, 2004), http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R361/R361.pdf.

²⁸ *Conservation and Development of Natural Resources and Parks and Recreational Facilities; Conservation and Reclamation Districts, Texas Constitution, 1917*, <http://www.constitution.legis.state.tx.us/DocViewer.aspx?DocKey=CN%2fCN.16&Phrases=1917&HighlightType=1&ExactPhrase=False&QueryText=1917>.

1 in 1951.²⁹ Since authorization in 1949, the state has described GCDs as the state's preferred method of regulation production of groundwater.³⁰

GCDs can be established in one of four ways: action by the Texas Legislature, petition by property owners, initiation by the Texas Commission on Environmental Quality, or addition of territory to an existing district.³¹ There are currently 98 GCDs in the state,³² most of which fall along political (typically county), rather than hydrological, boundaries.³³ Additionally, GCDs are statutorily charged with multiple duties that must be carried out, including developing and adopting a management plan; adopting rules to implement the plan; setting goals to achieve one or more specifics; register and require permits for wells; keeping records on wells and the production and use of groundwater; adopting governance rules and establishing administrative and financial procedures; and holding regular meetings.³⁴

While all of the aforementioned seven duties are required of every GCD, a number of optional duties exist, as well. This list includes: regulating the spacing of and production from wells; setting rules to control land subsidence, prevent degradation of water quality, and prevent waste of groundwater; buying, selling, transporting, and distributing surface water and groundwater; acquiring land by purchase or eminent

²⁹ John Thomas Dupnik, "A Policy Proposal for Regional Aquifer-Scale Management of Groundwater in Texas" (The University of Texas at Austin, 2012), http://repositories.lib.utexas.edu/bitstream/handle/2152/19658/dupnik_thesis_20129.pdf?sequence=1.

³⁰ "Water for Texas 2012 State Water Plan."

³¹ *Ibid.*

³² "Groundwater Conservation District Facts," *Texas Water Development Board*, 2015, http://www.twdb.texas.gov/groundwater/conservation_districts/facts.asp.

³³ Dupnik, "A Policy Proposal for Regional Aquifer-Scale Management of Groundwater in Texas."

³⁴ *Powers and Duties, Texas Water Code*, accessed June 16, 2015, <http://www.statutes.legis.state.tx.us/Docs/WA/htm/WA.36.htm#36.002>.

domain; providing public educational materials and programs; requiring wells to be capped or plugged; requiring export permits for water transported outside the boundaries of the district; establishing export fees; and enforcing rules by injunction and setting reasonable civil penalties to ensure compliance with district rules.³⁵

Impending Concerns

The potential issues related to the deregulated system of groundwater management in Texas are additionally compounded by two concerns as experts look toward the future of the state: water scarcity and population growth. Combined with the current approach to management, these two factors underscore the necessity of proactive policy action.

The geography of the state causes increased susceptibility to drought conditions in Texas.³⁶ Future climate models project an increase in temperatures across the state coupled with decreased precipitation, which may result in increased likelihood of more severe periods of drought.³⁷ These factors play a role in determining the probable future water needs of the state.

Presently, groundwater accounts for roughly 60% of Texas' water supply.³⁸ However, the available supply of groundwater is projected to decrease 30% by 2060, due in part to aquifer depletion related to prolonged drought conditions.³⁹ The implications of

³⁵ Ibid.

³⁶ "Water for Texas 2012 State Water Plan."

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

this shortage could be dire, as the state may not have enough groundwater supply to meet needs in times of drought. Without intervention, the state may lack 8.3 million acre-feet of water per year in times of drought by 2060. Furthermore, the annual economic losses of not meeting water supply needs include \$115.7 billion annually by 2060 and over one million jobs lost.⁴⁰

Over the last decade, the population of Texas has increased by an average of 1100 people per day.⁴¹ By 2060, the state population is projected to top 46 million, which is an 82% increase from 2010. Coupled with a projected 22% increase in water demand and the expected 30% decrease in groundwater supply, the state could face serious social, economic, and environmental consequences as a direct result of demand for water far outpacing available supply of water.

REFORM OPTIONS

Option One

Texas legislators could maintain the current governance structure over the management of groundwater.

As the main impetuses for considering a change to the current governance structure are future projections based upon population and water scarcity, the Texas Legislature could choose not to act at the present time. The implication of this option would likely be a continuation of litigation regarding the authority of GCDs, the most recent of which was the 2012 Texas Supreme Court *Day* decision that ultimately curbed

⁴⁰ Ibid.

⁴¹ Ibid.

the authority of GCDs in favor of landowners.⁴² Such litigation could lead to an increasingly more limited influential role of GCDs, as well as possible financial strain on GCDs through takings claims. Taken together, these potential outcomes could force the Texas Legislature to become involved in the long run.

Advantages

Potential advantages of this option include:

- Maintains the tradition of the rule of capture.
- Could preserve local stakeholder input through the decentralized governance structure.
- Population and water availability projections could be overestimates.

Since the capture rule has been in place through common law since the 1800s, the people of Texas have a general understanding of current statute relating to a landowner's right to pump and capture water. Making changes to this long-standing practice could create confusion and take time to properly educate the affected stakeholders. The current GCD structure also provides a unique and important platform for local stakeholders to discuss their specific needs and think about pertinent constraints for their areas. In a state as large as Texas, local input can get lost in a more centralized system. Additionally, as with all projections, the population and water availability approximations could be overestimates due to researchers being overly cautious about climate change. If the

⁴² Nathan Hecht, *Edwards Aquifer Authority v. Day* (Supreme Court of Texas 2012).

projections were overestimates, preemptive action could ultimately have a more negative, rather than positive, impact.

Disadvantages

Potential disadvantages of this option include:

- Delaying action could decrease the likelihood of managing crises.
- Could lead to federal intervention.
- Population and water availability projections could be underestimates.

In the event of an unforeseen environmental crisis such as a natural disaster, or an unanticipated population crisis such as a large influx of individuals to the state, the current decentralized system could be slow to respond. As a result, leaving the system as is without any modifications could cause potential future crises to have a potentially avoidable increased negative impact on water availability. Furthermore, some of the aquifers within Texas extend beyond the state boundaries into neighboring states, where these aquifers are important water resources.⁴³ As the water in these aquifers is depleted, disagreements may arise between states on the best approach to policies that will ensure water access for all involved. In such a case, the federal government may be forced to intervene in order to find a solution; if federal involvement occurs, Texas may be required to pay for any action, which could be unpredictable and potentially disagreeable to the state. Moreover, while the population and water availability projections may be

⁴³ The Ogallala Aquifer is found beneath nine states, including a substantial portion of the Great Plains. This aquifer is an essential water supply for croplands and rangelands in this area.

overestimates, they may also be underestimates. If so, the conditions could be worse and exacerbated by not acting in the present.

Option Two

Texas legislators could eliminate the legal and regulatory distinctions between surface water and groundwater.

As mentioned previously, governmental authorities regulate surface water. The Texas Water Code states that surface water may be appropriated by an individual for: domestic and municipal uses; agricultural uses; industrial uses; mining and recovery of minerals; hydroelectric power; navigation; recreation and pleasure; public parks; game preserves; and “any other beneficial use”.⁴⁴ The appropriation priority occurs based on the listed order. Pursuing this option would eliminate the absolute authority of the capture rule and instead institute an appropriating priority and permit process.

Advantages

Potential advantages of this option include:

- Could improve conservation.
- Could increase funding.
- Could increase power of state authority through consistency.

This policy option could provide the state an opportunity to set conservation priorities for all major and minor aquifers, regardless of the geopolitical boundaries that

⁴⁴ *Purposes for Which Water May Be Appropriated, Texas Water Code, 1977,*
<http://www.statutes.legis.state.tx.us/Docs/WA/htm/WA.11.htm>.

often form GCDs. Consequently, the state may be able to achieve greater success at conserving groundwater while ensuring accessibility for current and future water needs. Through the fees that would likely be collected as part of the permitting process, the state could accumulate funds to help in offsetting the costs of implementing this option. The consistent standards applied as part of the appropriating priority could also result in heightened transparency and greater public trust in regulating authority of the state.

Disadvantages

Potential disadvantages of this option include:

- Could decrease local control.
- Could have a disproportionately negative effect on some landowners.
- The current management of surface water is not without issues.

With regulating authority given to the state, groundwater would become a public, rather than largely private, resource. In times of conflicting needs, the state is likely to pursue options that will benefit the greatest number of stakeholders and may not rely as much on local stakeholder input to determine a course of action. Additionally, any potential fees associated with the permitting process could have a disproportionately negative impact on people who may not have the monetary resources to afford the fees, though likely require access to groundwater as much as those who do have the necessary monetary resources. Each of these possible disadvantages is a notable downside to the current management of surface water in the state, as is the issue of enforceability. The

vast size of Texas creates a sizeable barrier to the state’s ability to ensure compliance with any imposed regulations, which could result in unauthorized use of groundwater.

Option Three

Texas legislators could eliminate GCDs and transfer GCD authority to existing Groundwater Management Areas (GMAs).

GMAs are existing regional planning entities that have been created by the Texas Water Development Board, with direction from the legislature, to include all major and minor aquifers within the state. However, in their current function, GMAs lack any regulatory control and are used only to increase the coordination between GCDs within a GMA boundary.⁴⁵ This option would revise the governance structure for groundwater into more regionalized entities.

Advantages

Potential advantages of this option include:

- Could balance both local control and centralized control.
- Would likely include “white areas”.
- Could lead to increased oversight.

Centralizing the governance structured through the proposed regional GMAs could increase the likelihood that local entities coordinate their groundwater usage, and thus decrease the likelihood of depletion. In addition, the local stakeholder representation

⁴⁵ “Groundwater Management Areas,” *Texas Water Development Board*, March 2014, http://www.twdb.texas.gov/groundwater/management_areas/index.asp.

on the proposed oversight bodies could increase the likelihood that the GMAs retain the knowledge of and appropriately address local water needs. Currently, there are areas of the state not currently governed by a GCD, referred to as “white areas” or “white zones”.⁴⁶ These areas subsequently have no regulations in place to preserve existing groundwater sources. As the 16 existing GMAs cover the entire geography of the State of Texas, this proposed governance structure would ensure representation for all areas of the state, increasing the likelihood of a truly statewide groundwater management system. Finally, as independent government agencies, the GMAs would be subject to the state’s sunset review process every 12 years. Through this oversight, the likelihood of achieving conservation goals could increase.

Disadvantages

Potential disadvantages of this option include:

- May not be a large enough change to ensure conservation goals.
- Does not eliminate the rule of capture.
- Could generate potentially inadequate revenue to self-fund GMAs.

This proposed regional governance structure does not remove the “rule of capture,” which the Texas Judiciary has interpreted as landowners’ unregulated right to the groundwater they pump. Therefore, the proposed reform may not increase the conservation of groundwater without additional changes to regulate the amount of water landowners may pump and capture. Existing local GCDs retain individualized funding

⁴⁶ Dupnik, “A Policy Proposal for Regional Aquifer-Scale Management of Groundwater in Texas.”

structures that allow them to remain self-funded without any funds from local or state governments. However, through this proposal, these funding structures may not generate enough revenue to finance the operation of the GMAs. As a result, this option could result in GMA reliance on local or state governments to assist with providing funds to meet GMA operation needs.

RECOMMENDATION

If the policy options to address this issue are considered along a continuum, with complete private control in the form of rule of capture at one end, and complete public control in the form of Texas owning all groundwater, option three appears to fall toward the middle. Consequently, in order to balance out the varying needs and concerns of stakeholders, it is recommended that the Texas Legislature pursue option three and transfer existing GCD regulatory authority to GMAs. This structure could create a necessary balance between the competing interests of rural and urban areas that may not be found by maintaining the status quo or making groundwater a state-owned public good. Moreover, implementing this structure likely would not radically change the management framework enough to create extensive confusion amongst landowners, which may increase the likelihood of adherence to the regulatory authority of GMAs.

Chapter 3: Teen Pregnancy

Texas has one of the highest rates of teen pregnancy and births to teens in the United States. These teens typically face negative consequences on their education and future life opportunities. Babies born to these teens are also more likely to live in poverty during their lifetime. The consequences to both teen parents and their babies also often result in a high economic cost to the state.

BACKGROUND

Current Data

As of 2013 - the latest year for which data exists - the State of Texas ranks in the top 5 nationally for rates of both teenage pregnancy and births to teens.⁴⁷ While the rate of teen pregnancy in the United States as a whole was 57 pregnancies per 1,000 girls between the ages of 15 and 19, Texas experienced a rate of 73 pregnancies per 1,000 girls, putting the state at 3rd highest in the nation.⁴⁸ That same year, the rate of teen births to girls ages 15-19 in the United States was 27 per 1,000; in Texas, that number was 41 per 1,000, or 4th highest in the nation.⁴⁹ In addition, Texas is home to the highest rate of *repeat* births to teen mothers.⁵⁰

However, these statistics are disparate across race/ethnicity. In 2010, Hispanic teens had the highest rate of pregnancy, at 98 pregnancies per 1,000 girls; Non-Hispanic

⁴⁷ National Campaign to Prevent Teen and Unplanned Pregnancy, "Texas Data," *The National Campaign to Prevent Teen and Unplanned Pregnancy*, 2015a, <http://thenationalcampaign.org/data/state/texas>.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ CFRP, "Kids Having Kids in Texas" (Child and Family Research Partnership, May 2014).

Black teens were the second highest, at 82 pregnancies per 1,000 girls; Non-Hispanic Whites had the lowest rate, at 45 pregnancies per 1,000 girls.⁵¹ The order remains the same for teen birth rates, though with different numbers. Hispanic teens had a birth rate of 62 births per 1,000 girls; Non-Hispanic Black teens had a birth rate of 44.1 births per 1,000 girls; Non-Hispanic White teens had a birth rate of 26.3 births per 1,000 girls.⁵² These incongruent rates are of note as, taken together with the unintended social and economic consequences of teen pregnancy and childbearing, teens of color are significantly more likely to experience adverse outcomes.

Economic Costs

The National Campaign to Prevent Teen and Unplanned Pregnancy (Campaign) estimates that the cost to taxpayers in Texas for teen childbearing in 2010 was at least \$1.1 billion.⁵³ Between 1991 and 2010, the Campaign estimates that the 1,063,399 births to teenagers in Texas cost taxpayers \$24.3 billion.⁵⁴ These costs account for the greater participation of teen parents in Medicaid and CHIP, the increased risk of participation in the child welfare system, the increased risk of incarceration for children of teen parents, and lost tax revenue due to decreased earnings and spending of teen parents and their children.⁵⁵

⁵¹ National Campaign to Prevent Teen and Unplanned Pregnancy, “Texas Data.”

⁵² Ibid.

⁵³ “Counting It Up: The Public Costs of Teen Childbearing in Texas in 2010” (The National Campaign to Prevent Teen and Unplanned Pregnancy, April 2014).

⁵⁴ Ibid.

⁵⁵ Ibid.

Social Costs

In addition to the economic costs of teen pregnancy and childbearing, social costs also exist. When teens give birth while still in school, these parents are much more likely than their non-parent peers to drop out of school due to childcare responsibilities, stigmatization, and isolation from peers.⁵⁶ According to the Child and Family Research Partnership, only 38% of teen mothers in Texas will complete high school, while less than 2% go on to obtain a college degree.⁵⁷ In part due to this decreased likelihood of obtaining education credentials, such as a high school diploma or postsecondary certificate or degree, teen mothers are additionally more likely to head single-parent households⁵⁸ and have significantly reduced work experience as teenagers.⁵⁹ In turn, single-parent households are more likely to experience financial instability and food insecurity, and receive public assistance.⁶⁰ CFRP again estimates that 63% of teen mothers in Texas receive some form of public assistance within a year of the child's birth.⁶¹ Finally, teen mothers are also the least likely of all age groups to seek prenatal care, and are twice as likely as non-parent peers to experience depression and anxiety.⁶²

The children of teenage mothers may face unintended negative social consequences, as well. These children are more likely to have lower school achievement

⁵⁶ Ann Neeley et al., "Teenage Parents and Their Educational Attainment" (The Southwest Educational Development Laboratory, 2011).

⁵⁷ CFRP, "Kids Having Kids in Texas."

⁵⁸ Adam Sonfield et al., "The Social and Economic Benefits of Women's Ability To Determine Whether and When to Have Children" (New York: Guttmacher Institute, March 2013).

⁵⁹ CFRP, "Kids Having Kids in Texas."

⁶⁰ Sonfield et al., "The Social and Economic Benefits of Women's Ability To Determine Whether and When to Have Children."

⁶¹ CFRP, "Kids Having Kids in Texas."

⁶² Ibid.

and ultimately drop out of school. In addition, these children are likely to experience more health problems than children born to older mothers. As adolescents, children of teenage mothers are more likely to be incarcerated at some point and give birth as teenagers themselves. Finally, in young adulthood, these children are more likely to face unemployment.⁶³

REFORM OPTIONS

Option One

The Texas Legislature could require public schools providing human sexuality education to utilize evidence-based programming.

In an analysis performed by the Texas Freedom Network, 41% of districts are providing factually inaccurate information to students.⁶⁴ Of these districts, the vast majority have errors in their materials pertaining to condom use.⁶⁵ As a result, students cannot apply their learned knowledge accurately since the knowledge itself is inaccurate, which could lead to unintended pregnancies.

While the specific definition of evidence-based programs can differ, these programs are generally those that have undergone rigorous scientific evaluation and been

⁶³ Saul D Hoffman and Rebecca A Maynard, eds., *Kids Having Kids: Economic and Social Consequences of Teen Pregnancy*, 2nd ed. (Washington, D.C.: The Urban Institute Press, 2008).

⁶⁴ Dr. David Wiley and Dr. Kelly Wilson, “Just Say Don’t Know: Sexuality Education in Texas Public Schools” (Texas Freedom Network Education Fund, 2009), 2/24/15.

⁶⁵ Ibid.

shown to “reduce teen pregnancy, behaviors underlying teen pregnancy, or other associated risk factors”.⁶⁶

Advantages

Potential advantages of this option include:

- Existing research on the efficacy of evidence-based human sexuality education in lowering teen pregnancy.
- Existing research that shows that evidence-based programming also lowers the prevalence of other risky sexual behaviors.
- Could address the issue of medically inaccurate materials, as evidence-based programs are inherently medically accurate.

Although the movement toward evidence-based programming in human sexuality education is relatively recent, the federal government has invested in these programs due to their efficacy.⁶⁷ The evaluation of these programs suggests that providing teenagers with evidence-based human sexuality education can lower the incidence of teen pregnancy and other behaviors such as not using contraception and not being tested for STIs.⁶⁸ Therefore, requiring evidence-based education could result in less teenagers becoming pregnant, having children, and engaging in risky sexual behaviors. In addition, as noted above, many students in Texas are currently receiving factually and medically

⁶⁶ “Choosing an Evidence-Based Program and Curriculum,” *Office of Adolescent Health*, July 3, 2015, http://www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/training/curriculum.html.

⁶⁷ “Evidence-Based Programs,” *Office of Adolescent Health*, February 6, 2015, http://www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/db/tpp-searchable.html.

⁶⁸ “Choosing an Evidence-Based Program and Curriculum.”

inaccurate information in their human sexuality courses. Because evidence-based education is inherently medically accurate, requiring such education could also help ensure what students are taught is factually and medically accurate.

Disadvantages

Potential disadvantages of this option include:

- Could result in an increase of students who do not receive any human sexuality education.
- Evidence-based programs are likely more expensive for districts to purchase.
- Could be difficult for the state to ensure compliance in individual classrooms.

Current Texas statute states that public school districts are not required to provide human sexuality education to students; if such education will be provided, parents of students retain the ability to see materials and opt their children out of any programming.⁶⁹ Requiring evidence-based programming, which would likely include information on contraception and the use of contraception, could conflict with the values of some parents and result in less students receiving human sexuality education. If this situation were to occur, it is possible more teenagers could become pregnant as a consequence of not receiving any human sexuality education. Furthermore, because evidence-based programs have undergone rigorous scientific testing, they are likely to be more expensive, which could create an economic barrier and unfunded mandate for

⁶⁹ *Local School Health Advisory Council and Health Education Instruction, Texas Education Code, 1995*, <http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.28.htm#28.004>.

districts with less financial resources available. Finally, due to the size of the state and the hundreds of school districts, ensuring individual school and classroom compliance with this requirement could be difficult and based upon self-reporting, which may not be accurate.

Option Two

The Texas Legislature could increase appropriations for family planning services.

The Texas Health and Human Services Commission receives funding from the Texas Legislature to coordinate a family planning services program.⁷⁰ However, the funding for this program was cut in 2011 and has not yet been restored to pre-2011 levels.⁷¹ Although the target population for these services is underserved, low-income women,⁷² expanding the program could help reach more teenagers of all backgrounds.

Advantages

Potential advantages of this option include:

- May assist with providing birth control for teenagers.
- Could be a safe space for teenagers to learn about and discuss sex, especially if sex is a taboo topic at home or at school.
- The information gained through family planning services could supplement or correct what is taught in schools.

⁷⁰ Kyle Janek et al., "Presentation to Senate Committee on Health and Human Services: Texas Women's Health and Family Planning Programs," February 20, 2014, <http://www.hhsc.state.tx.us/news/presentations/2014/022014-womens-health.pdf>.

⁷¹ Ibid.

⁷² Ibid.

While the number of sexually active teenagers appears to have gone down in recent years, ample research continues to show that many teenagers are sexually active.⁷³ For these teenagers, access to family planning services could also mean access to birth control, which can help prevent pregnancies for these teens. Some teens may be uncomfortable discussing sex at home or at school due to the cultural or religious meanings assigned to sex in their communities. Moreover, as previously noted, many teens receive incorrect information in their human sexuality curricula at school. Clinics providing family planning services may be able to provide these teens with a safe space to learn accurate information and ask questions, and may help to reinforce healthy behaviors while discouraging risky behaviors.

Disadvantages

Potential disadvantages of this option include:

- No guarantee that teenagers will seek services.
- Could be a misunderstanding of services as only for women who are already pregnant.
- Could be a conflagration of family planning services with abortion.

Although there may be benefits to using services from clinics providing family planning, providing greater funding for this program does not guarantee that teens will seek these services. Additionally, existing knowledge about family planning services may

⁷³ Lawrence B. Finer and Jesse M. Philbin, “Sexual Initiation, Contraceptive Use, and Pregnancy Among Young Adolescents,” *Pediatrics*, April 1, 2013, peds.2012–3495, doi:10.1542/peds.2012-3495.

be incorrect, as some teens or parents may misinterpret family planning services as only for women who are already pregnant, or synonymous with abortion services. Consequently, those individuals who would be targeted by an expansion of this program may choose to avoid clinics providing family planning. A public information campaign may therefore need to be undertaken to address the expansion of funding for the program, and what services are encompassed by family planning.

Option Three

The Texas Legislature could increase appropriations for youth programs overall.

General youth programs are shown to be positive forces in the lives of youth, particularly those from disadvantaged backgrounds and who may be at increased risk of becoming pregnant, joining a gang, and other risky behaviors.⁷⁴ Increasing appropriations for youth programs as a whole could therefore target larger segments of the teenage population.

Advantages

Potential advantages of this option include:

- Could produce broader positive effects for more teens.
- May enable a wider variety of programming.
- Could be more acceptable to legislators and parents alike since youth programs are not overtly tied to sex education.

⁷⁴ “Benefits for Youth, Families, and Communities,” *Youth.gov*, 2015, <http://youth.gov/youth-topics/afterschool-programs/benefits-youth-families-and-communities>.

While increasing funding for youth programs could have the positive impact of reducing teen pregnancy, these programs could also create a positive influence in the lives of teens experiencing poverty, neglect, low academic achievement, and others who may be vulnerable to adverse life outcomes. Furthermore, by appropriating funding for youth programs overall, it is possible that a greater number of organizations will be able to apply for and utilize the funding to support their efforts. In doing so, more teenagers in various locations across the state could have access to programs and potentially benefit from them, as noted above. Finally, the lack of an explicit, publicly acknowledged tie-in to sex could result in a higher likelihood of support for this reform option from legislators and parents.

Disadvantages

Potential disadvantages of this option include:

- May only assist those teens who are already more likely to attend programs in the first place.
- Could be difficult for teens who work or have other responsibilities to access programs.
- Funding for the programs may not continue.

Although gains in personal growth may be experienced by those teens participating in youth programs, the gains may be limited to those teens who are currently more likely to attend programs in the first place. Increasing the funding for programs may not result in a larger number of teens accessing services. This potential for limited

outreach may also be compounded by the difficulty of attending programs for teens who work, are parents, have younger siblings to care for, or any other time-consuming responsibility central to survival. Consequently, those teens who may be most in need of youth programs may not be the teens who engage in programming. Moreover, in times of budget cuts, social service programs are typically the first to experience withdrawal of funds.⁷⁵ As such, the increased level of funding for youth programs may not be guaranteed to continue. If this becomes the case, teens who have been accessing services and participating in programs may experience negative repercussions due to programs potentially decreasing in size or discontinuing altogether due to lack of funds.

RECOMMENDATION

While options two and three may present opportunities for groups other than teens to experience positive outcomes, each option presents a large challenge that may significantly influence the possible impact on teen pregnancy. Since the Texas Legislature has decreased funding for women's health programs in recent years, resulting in a withdrawal of federal drawdown funds for services, the political feasibility of increasing the funding for these programs only a few years after major cuts is likely low. In addition, the possibility exists that the very teens who may benefit the most from participating in the youth programs described in option three, may be the same teens who face obstacles to attending programming. Given these realities, it is recommended that the Texas Legislature consider option one. Although political feasibility may also play a

⁷⁵ Nicholas Johnson, Phil Oliff, and Erica Williams, "An Update on State Budget Cuts," *Center on Budget and Policy Priorities*, February 9, 2011, <http://www.cbpp.org/research/an-update-on-state-budget-cuts>.

role in the successful implementation of this option, legislators may be able to reach an agreement that targets the areas with the highest rates of teen pregnancy. For example, legislators could consider placing a conditional statement that limits the scope of any legislation to those counties or school districts above a specified threshold of the rate of teen pregnancies. The flexibility of this option, combined with the existing literature on the success of evidence-based programming, seemingly result in the highest likelihood of achieving this option compared with the two others offered.

Chapter 4: Transportation Capacity

The contemporary population growth experienced by Texas has led to a dramatic increase in the number of vehicles on the road. In the same amount of time, however, road capacity has increased only slightly. The inability of transportation infrastructure to keep up with population growth and vehicle usage has resulted in intensified traffic congestion and longer travel times. These phenomena, in turn, have produced lost wages and time, and had a negative impact on quality of life for the residents of this state.

Under the Texas Transportation Code, the Texas Department of Transportation (TxDOT) retains authority over and responsibility for state-owned highways and roads.⁷⁶ TxDOT, through the Texas Transportation Commission, is also responsible for the designation of current or future roads as state-owned.⁷⁷ Public roads not in control of the state may be county or city-owned. Unless explicitly stated, references to roads, highways, etc. in this analysis may be presumed to mean those owned and controlled by the state.

BACKGROUND

Texas Transportation Challenge

TxDOT notes that, in the past 25 years, the population of the state has increased 57% and use of roads has increased 95%, while state road capacity increased only 8%.⁷⁸

⁷⁶ *Texas Department of Transportation, Texas Transportation Code*, accessed July 8, 2015, <http://www.statutes.legis.state.tx.us/Docs/TN/htm/TN.201.htm>.

⁷⁷ *Ibid.*

⁷⁸ "The Texas Transportation Challenge" (Texas Department of Transportation, n.d.), http://www.txdot.state.tx.us/txdotnews/trans_challenges.pdf.

In the next 25 years, the population is expected to increase another 64% and road usage an additional 214%, yet state road capacity is projected to grow only another 6%.⁷⁹ Referred to by the agency as the “Texas Transportation Challenge”, these numbers exhibit the need to study this issue and provide innovative policy options to begin to address both existing and forthcoming problems.

History

Following World War II in the 1940s, the State of Texas began to develop a state highway system.⁸⁰ In the five years immediately following the end of the war, the state was responsible for one-quarter of all roadway development nationwide.⁸¹ The state further benefitted after President Dwight Eisenhower signed the Federal Aid Highway Act of 1956, providing a design concept and funding mechanism to significantly expand the interstate system across the United States.⁸²

This growth in road capacity allowed the economic development of Texas to flourish as businesses moved here and transported their goods throughout the state. The 2030 Committee estimates that in the past 50 years, the highway system alone has contributed \$2.8 trillion to the Texas economy. Since 2004, that number has been \$100 billion each year.⁸³ The director of the Texas Transportation Institute further attributes

⁷⁹ Ibid.

⁸⁰ Dennis L. Christiansen, “Transportation Infrastructure in Texas: The Needs and the Numbers,” *Texas A&M Transportation Institute*, June 3, 2014, <http://tti.tamu.edu/2014/06/03/transportation-infrastructure-in-texas-the-needs-and-the-numbers/>.

⁸¹ Ibid.

⁸² Ibid.

⁸³ C. Michael Walton et al., “2030 Committee Texas Transportation Needs Report” (2030 Committee, February 2009), http://texas2030committee.tamu.edu/documents/final_022609_report.pdf.

1.6 non-farm jobs to the state's road infrastructure; without these, an estimated 4.2 million fewer people could be supported by the economy.⁸⁴ However, the current volumes per lane on Texas roadways are more than twice what the roads were originally designed to accommodate.⁸⁵

Funding

The state receives revenue to pay for transportation costs through both a federal gas tax and a state gas tax.⁸⁶ As of July 2014, the federal excise tax on gasoline is 18.4 cents per gallon, while the diesel tax is 24.4 cents per gallon.⁸⁷ The state excise tax is set at 20 cents per gallon for both diesel and non-diesel fuel.⁸⁸ This rate has not changed since 1991.⁸⁹ Combined, these excise taxes should result in 38.4 cents per gallon revenue to the state for every gallon of non-diesel gasoline sold, and 44.4 cents per gallon revenue to the state for every gallon of diesel fuel sold. Nevertheless, Texas has not received full federal excise tax revenue in recent years.⁹⁰ Instead, the federal government has re-appropriated \$7 billion of this money over the last 25 years from states with a high share of tax revenue to states with a low share of tax revenue. The result has been a decrease in available funds to finance transportation projects in the state, with another \$7.5 billion expected in transfers over the next 25 years.

⁸⁴ Christiansen, "Transportation Infrastructure in Texas: The Needs and the Numbers."

⁸⁵ Ibid.

⁸⁶ "The Texas Transportation Challenge."

⁸⁷ "Frequently Asked Questions," *U.S. Energy Information Administration*, January 20, 2015, <http://www.eia.gov/tools/faqs/faq.cfm?id=10&t=10>.

⁸⁸ "Federal and State Motor Fuels Taxes" (U.S. Energy Information Administration, January 1, 2015), <http://www.eia.gov/petroleum/marketing/monthly/xls/fueltaxes.xls>.

⁸⁹ "The Texas Transportation Challenge."

⁹⁰ Ibid.

Furthermore, the 20 cent per gallon state excise tax has lost considerable purchasing power since it was last increased in 1991.⁹¹ In not keeping pace with inflation, the money generated by the tax now only goes half as far as it did 24 years ago, paying for only 32% of the state transportation budget. Compounding the issue, vehicles are increasingly more fuel-efficient than ever before. While this change is beneficial for the environment and personal budgetary limitations, more fuel-efficient vehicles require refueling less often, producing less gas tax revenue for the state. Moreover, \$10.8 billion of the dedicated revenue the state sets aside for transportation projects has been transferred out of the constitutionally-created fund for non-transportation purposes over the last 25 years.⁹² In the next 25 years, an additional \$13.5 billion will be transferred to fund other needs. Taken together with the decreased share of federal gas tax revenue to the state, Texas cannot completely rely on traditional funding mechanisms to finance transportation projects.

Implications

The 2030 Commission, charged with identifying Texas' transportation needs, concluded the state will require \$315 billion to fund transportation needs by 2030, or \$14.3 billion per year between 2009 and 2030.⁹³ In response, and taking into account the

⁹¹ Ibid.

⁹² Ibid.

⁹³ Walton et al., "2030 Committee Texas Transportation Needs Report."

anticipated further loss of federal and state gas tax revenue, TxDOT has identified an \$86 billion funding gap in attempting to address those needs by 2030.⁹⁴

While that funding gap may serve as a possible barrier to action for the state, the implications of an inadequate transportation system could negatively impact the economy, businesses, and residents alike. Businesses may find insufficient investment in the state transportation system to be too high of a cost of doing business in Texas, and subsequently choose not to significantly invest in the economy by coming to the state and bringing needed jobs. Residents of the state are already losing approximately \$1,000 and 44 hours per year due to traffic congestion across the state.⁹⁵ These costs can have an effect on where Texans choose to live. For those individuals whose choices are already constrained by a variety of factors, the worsening congestion may limit job opportunities, childcare options, and access to quality schools.

REFORM OPTIONS

Option One

The Texas Legislature could create a state-local match program to help municipalities implement national and state best practices in congestion reduction.

A report by the Texas Transportation Institute indicated that, among the state's four largest metropolitan areas of Houston, Dallas/Fort Worth, San Antonio, and Austin, a large gap exists between metro areas in terms of use of state and national best practices

⁹⁴ "The Texas Transportation Challenge."

⁹⁵ Ginger Goodin, "To Ensure a Healthy Building Industry, Our State Needs a Viable Transportation System," *Texas Builder*, June 2015.

in congestion reduction.⁹⁶ These strategies include categories related to system efficiency, travel options, active traffic management, system modification, additional capacity, and construction improvements. Across the board, Houston appears to be leading in the utilization of best practices, while Austin and San Antonio lag far behind. To incentivize municipalities to adopt these practices on their locally owned roads, and help offset some of the costs, the legislature could create a funding match program.

Advantages

Possible advantages of this option include:

- Higher likelihood of observable impact on congestion reduction as these are proven strategies.
- Municipalities may have an easier time of planning and implementation due to models and resources.
- Could help spread the responsibility for congestion reduction between both the state and local governments.

The use of national and state best practices may be considered low hanging fruit in congestion reduction. These strategies have been shown to have a positive, observable impact in reducing traffic congestion; consequently, implementing these best practices may result in a higher likelihood of traffic congestion in municipalities. The existing model areas for these best practices may also provide a framework for cities to work

⁹⁶ Tim Lomax, "An Overview of TTI's Findings, TxDOT Rider 42: Addressing the State's Most Congested Roadways," June 23, 2014, <http://tti.tamu.edu/policy/wp-content/uploads/2014/06/Lomax-testimony-June-23-14.pdf>.

from, possibly easing the process of planning and implementation. Moreover, a program that makes the most of both local and state funding sources could help spread the perceived responsibility for congestion reduction and adequate transportation infrastructure. In doing so, the state and localities may be more likely to take proactive steps toward addressing transportation needs.

Disadvantages

Possible disadvantages of this option include:

- May only be beneficial for municipalities that can find their own funds.
- Could result in limited positive impact and may need to be taken in tandem with other options.
- May not be relevant for all municipalities experiencing congestion.

The potential beneficial impact on congestion may only be felt by those cities that can come up with the necessary funds for the match, leaving those cities that cannot afford the match to come up with other potential solutions. The improvement in congestion may also be limited, as evidenced by Houston – although the city has implemented several state and national best practices, the traffic congestion remains among the highest in the nation. Furthermore, for municipalities like Houston that are already making use of best practices, this option could be irrelevant.

Option Two

The Texas Legislature could implement a teleworking program for state employees.

Understanding the potential benefits of the practice, the United States Congress passed the Telework Enhancement Act for federal agencies in 2010.⁹⁷ The federal Office of Personnel Management states that teleworking is viewed as an important tool for a “resilient and results-oriented workforce”.⁹⁸ Many federal agencies created goals related to reduced commuter miles when crafting agency policy on teleworking procedures, suggesting that this practice may be linked to reducing traffic congestion. As a result, the Texas Legislature could consider implementing a similar program that would provide for eligible state employees to telework from home.

Advantages

Possible advantages of this option include:

- May increase worker productivity.
- Could assist the state in competing with private business.
- Might generate an added benefit for parents.

While the main impetus behind starting a state employee teleworking program would be to reduce traffic congestion, other possible gains may be realized. Private businesses have long studied the potential effects of teleworking, typically finding an

⁹⁷ “2013 Status of Telework in the Federal Government” (United States Office of Personnel Management, December 2013), http://www.telework.gov/Reports_and_Studies/Annual_Reports/2013teleworkreport.pdf.

⁹⁸ Ibid.

increase in productivity amongst workers who telecommute, and producing cost-savings for the business.⁹⁹ Employing a teleworking program for state employees could therefore increase employee productivity and save the state money through this heightened productivity. The use of teleworking as a potential benefit could also assist the state in remaining competitive with the private sector for quality talent. Additionally, for parents, the ability to telework may cut down on high childcare costs and could produce additional income due to an expansion of work hours.

Disadvantages

Possible disadvantages of this option include:

- May be difficult to assure employee accountability.
- Could produce a disproportionate effect that largely benefits workers in medium and high-skill positions.
- Impact on congestion may be limited.

Without the ability to directly manage teleworking employees in-person, it could be difficult to ensure employees are working throughout the duration of their expected work hours. In addition, such a benefit can likely only be extended to workers whose primary functions are completed through the use of common technology – such as a laptop – and may therefore produce a disparate effect that favors medium and high-skill workers in non-managerial positions. Finally, the small segment of the overall workforce

⁹⁹ Faris Yamini et al., “Real-Time Collaborative Technologies: Incentives and Impediments” (University of California-Berkeley, April 3, 1997), <http://www-inst.eecs.berkeley.edu/~eecsba1/sp97/reports/eecsba1d/report>.

that may telecommute under this option could produce a narrow impact on congestion reduction.

Option Three

The Texas Legislature could index the state gas tax to inflation.

As discussed previously, the rate of the state gas tax has not changed since 1991, despite inflation to the dollar and fuel efficiency improvements in vehicles since then. To assist in addressing the transportation funding gap and restore purchasing power to the gas tax revenue, the legislature could index the rate to inflation.

Advantages

Possible advantages of this option include:

- Could produce a more financially incremental approach for consumers.
- May result in more immediate availability of funds.
- Can evolve over time and with need.

Indexing the gas tax to inflation could be a more financially incremental approach than other options for revenue generation, which could ease any additional burden consumers experience when purchasing gas. Although the previous two options would take time to put in place and generate benefits, this alternative may produce a growth in funds that the state can access and put to use in a faster manner. Additionally, since the tax would automatically fluctuate based upon inflation, the legislature may not need to

revisit a potential change to the tax rate and transportation funding could subsequently rely less on the often slow policymaking process.

Disadvantages

Possible disadvantages of this option include:

- May still result in a funding gap.
- Regressive nature of the tax could disproportionately affect those with lower incomes.
- Could result in fewer people purchasing gasoline.

Despite the probable increase in gas tax revenue the state would realize by pursuing this option, the current funding gap is large enough that this alternative may not eradicate it fully. Additionally, the regressive tax could impose a higher burden on those individuals and families with lower incomes and consume more of their limited financial resources. With this possibility in mind, and dependent on the elasticity of individual demand for gasoline, indexing the gas tax to inflation could result in fewer people purchasing gasoline, which would be a counterproductive outcome to attempting to generate greater revenue.

RECOMMENDATION

The analysis of the presenting problem with the transportation infrastructure of Texas suggests that the status quo for approaching transportation is insufficient to address the problem. As a result, it is recommended that the Texas Legislature consider options

two and three in tandem. While indexing the state gas tax to inflation will likely assist in addressing the current funding gap, the State will probably not have the ability to build away the infrastructure issues. Consequently, addressing the problem through more innovative methods like teleworking combined with utilizing a fundraising mechanism may result in a larger and more readily apparent alleviation of the problem. The use of national and state best practices in congestion reduction remains a worthwhile and potentially useful policy option; however, the potential cost-benefit ratio associated with implementing a match program that may be underutilized and have limited positive impact prevents the recommendation of option one for action by the Texas Legislature.

Chapter 5: Gender Pay Gap

Despite the federal protections in place, the gender pay gap has persisted for women doing the same work as men where the same pay is therefore expected, denoting that an issue of fairness exists. This analysis uses the U.S. Equal Employment Opportunity Commission (EEOC) definition of same work, which is “jobs that require substantially equal skill, effort, and responsibility, and that are performed under similar working conditions within the same establishment”.¹⁰⁰ Of note in this definition is the lack of mention of equal education or experience.

BACKGROUND

Current Policies

Federal policy first sought to address the pay gap with the Equal Pay Act (EPA) of 1963, followed by Title VII of the Civil Rights Act of 1964.¹⁰¹ Each of these acts forbade wage discrimination on the basis of sex and provided for a mechanism by which women earning less than men for the same work could file a complaint with the EEOC and sue their employer.¹⁰² Seeking to address the Supreme Court decision in *Ledbetter v. Goodyear Tire & Rubber Co.* that instituted a 180-day statute of limitations for wage

¹⁰⁰ “Facts About Equal Pay and Compensation Discrimination,” *U.S. Equal Employment Opportunity Commission*, 2014, <http://www.eeoc.gov/eeoc/publications/fs-epa.cfm>.

¹⁰¹ *Ibid.*

¹⁰² *Ibid.*

discrimination, Congress passed the Lilly Ledbetter Fair Pay Act in 2009, extending that statute of limitations.¹⁰³

Taken together, the current federal policies addressing the pay gap constitute a model of anti-discrimination, indicating the potential preferred approach of Congress. In addition, these policies institutionalized the role of the EEOC in wage discrimination, wherein this agency both investigates potential cases of discrimination and attempts to prevent discrimination through outreach and education.¹⁰⁴ Included in the purview of the EEOC is the concept of protected activities, or actions an employee may take without retaliation from an employer. Examples of such activities include complaining about alleged discrimination against oneself or filing a charge of employment discrimination.¹⁰⁵ Voluntarily inquiring about or disclosing wages is not a protected activity.

Measurement of the Gap

The U.S. Bureau of Labor Statistics (BLS) provides statistics and analysis related to the labor market in the United States. In coordination with the U.S. Census Bureau (Census), BLS conducts a monthly survey known as the Current Population Survey (CPS). This survey provides data about labor force characteristics such as employment, earnings, and hours of work, as well as demographic analysis. To officially measure the

¹⁰³ “Lilly Ledbetter Fair Pay Act,” *National Women’s Law Center*, accessed October 20, 2014, <http://www.nwlc.org/resource/lilly-ledbetter-fair-pay-act-0>.

¹⁰⁴ “About the EEOC: Overview,” *U.S. Equal Employment Opportunity Commission*, 2014, <http://www.eeoc.gov/eeoc/>.

¹⁰⁵ “Facts About Retaliation,” *U.S. Equal Employment Opportunity Commission*, 2014, <http://www.eeoc.gov/laws/types/facts-retal.cfm>.

pay gap, the median annual earnings of both men and women who work year-round and are employed full-time are taken from the CPS and used in the following calculation¹⁰⁶:

$$\text{Pay gap} = \frac{(\text{median wage of men} - \text{median wage of women})}{\text{median wage of men}}$$

As noted above, this calculation only includes full-time employees working year-round.¹⁰⁷ By measuring the gap in this manner, differences in number of hours worked and experience due to voluntary absence from the labor market are not considered. To control for these confounding factors, the weekly wage, instead of the annual wage, can be determined from the CPS and used to calculate the wage gap. However, note that each method still utilizes the median earnings of women as a whole, as a percentage of men's earnings as a whole, creating difficulties in disaggregating the data for purposes of a more complete understanding of the issue.

Current Data

As of 2012, which is the most current year for which data is available, women made 77% of men's earnings, using the annual median wages of both men and women.¹⁰⁸ Using data from that same year but substituting the weekly median wage, the gap closes

¹⁰⁶ "Current Population Survey (CPS)," *U.S. Bureau of Labor Statistics*, 2014, <http://www.bls.gov/cps/home.htm>.

¹⁰⁷ Eileen Patten, "On Equal Pay Day, Key Facts about the Gender Pay Gap," *Pew Research Center*, 2014, <http://www.pewresearch.org/fact-tank/2014/04/08/on-equal-pay-day-everything-you-need-to-know-about-the-gender-pay-gap/>.

¹⁰⁸ Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, "Income, Poverty, and Health Insurance Coverage in the United States: 2012" (US Census Bureau, September 2013), <http://www.census.gov/prod/2013pubs/p60-245.pdf>.

slightly to 81%.¹⁰⁹ One estimate based on U.S. Census data shows that, at the current rate, the pay gap is not expected to close entirely until 2058.¹¹⁰ Despite larger numbers of women entering the workforce and earning bachelors and advanced degrees, the gap has persisted.¹¹¹ For women of color¹¹² and women older than 35,¹¹³ the gap in earnings is wider than the 77% average noted above. The existence of the pay gap can also be noted across occupations. Of the 534 occupations listed by BLS, women earn equal to or more than men in 7 occupations and less than men in 527 occupations.¹¹⁴

The gap also varies across geographic location. According to the American Community Survey conducted by the U.S. Census Bureau, the District of Columbia has the narrowest pay gap as of 2012, where women earned 90% of what men did; the largest gap in 2012 was in Wyoming, where women made 64% of what men did.¹¹⁵ Most states in the U.S. were within a few percentage points of the 77% average; however, more states had pay gaps below 77% than above that nationwide average.

¹⁰⁹ “Median Weekly Earnings by Sex, Marital Status, and Presence and Age of Own Children under 18 in 2012 : The Economics Daily : U.S. Bureau of Labor Statistics,” 2012, http://www.bls.gov/opub/ted/2013/ted_20131203.htm.

¹¹⁰ Jeff Hayes, “Gender Wage Gap Projected to Close in Year 2058: Most Women Working Today Will Not See Equal Pay during Their Working Lives” (Washington, D.C.: Institute for Women’s Policy Research, September 2013), <http://www.iwpr.org/publications/pubs/gender-wage-gap-projected-to-close-in-year-2058-most-women-working-today-will-not-see-equal-pay-during-their-working-lives>.

¹¹¹ “Educational Attainment and Earnings of Women : The Economics Daily : U.S. Bureau of Labor Statistics,” 2014, http://www.bls.gov/opub/ted/2014/ted_20140603.htm.

¹¹² “The Simple Truth about the Gender Pay Gap (Fall 2014),” *AAUW: Empowering Women Since 1881*, 2014, <http://www.aauw.org/research/the-simple-truth-about-the-gender-pay-gap/>.

¹¹³ “Women’s Earnings, 1979–2012 : The Economics Daily : U.S. Bureau of Labor Statistics,” 2012, http://www.bls.gov/opub/ted/2013/ted_20131104.htm.

¹¹⁴ Sarah Jane Glynn, Nancy Wu | April 9, and 2013, “The Gender Wage Gap Differs by Occupation,” *Name*, accessed December 5, 2014, <https://www.americanprogress.org/issues/labor/news/2013/04/09/59698/the-gender-wage-gap-differs-by-occupation/>.

¹¹⁵ U.S. Census, “ACS 2008-2012 (5-Year Estimates),” *Social Explorer*, 2012 2008.

Contention

The role of women's choices as contributing to the pay gap is debated. Some critics suggest that the pay gap can be explained by factors such as women's choice of college major and employment industry, salary negotiation skills, the decision to take time off from the workforce to have children or care for family members, and investments in human capital.¹¹⁶ The impact of these factors, critics point out, cannot be accurately captured in statistics on wages. Therefore, to better understand how decisions may have an impact on wages, some scholars have begun to find ways to calculate how various factors explain the existence of a pay gap.¹¹⁷ These analyses have consistently found a portion of the pay gap that cannot be explained by the factors studied. Though conjecture by researchers suggests that this unexplained portion may be due in part or wholly to discrimination, the lack of available data on wages in the private sector contributes to the inability of researchers to test this hypothesis. Additionally, comprehensive research that utilizes an exhaustive list of potential contributing factors does not exist.

¹¹⁶ Jane Farrell, Sarah Jane Glenn, and 2013, "What Causes the Gender Wage Gap?," *Center for American Progress*, accessed October 20, 2014,

<http://www.americanprogress.org/issues/labor/news/2013/04/09/59658/what-causes-the-gender-wage-gap/>.

¹¹⁷ Francine D. Blau and Lawrence M. Kahn, "The Gender Pay Gap: Have Women Gone as Far as They Can?," *Academy of Management Perspectives* 21 (2007): 7–23.

REFORM OPTIONS

Option One

Congress could prohibit private employer retaliation against employees who inquire about or voluntarily discuss wages in the workplace.

As previously noted, this activity is not currently protected by the EEOC. As a result, employees who currently partake in this action may face retaliation by their employer, including a reduction in wages or job termination. Authority for creating protected activities rests with Congress through legislation. Precedent for creating protected activities exists in the National Labor Relations Act, the Fair Labor Standards Act of 1938, Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967, the Employee Retirement Income Security Act of 1974, the Occupational Safety and Health Act of 1970, and the Americans with Disabilities Act of 1990.¹¹⁸

Advantages

Potential advantages of this option include:

- Likely will not require employers or employees to disclose any information.
- May help create a more transparent work environment.
- Fits within current anti-discrimination model of federal policy.

If this option were pursued, legislation would stipulate the exact scope of the protected activity. However, it is likely that the legislation would not require employers

¹¹⁸ Douglas E. Ray, "Title VII Retaliation Cases: Creating a New Protected Class," *University of Pittsburgh Law Review* 58 (1997 1996): 405.

or employees to actually disclose any information they may be asked about. The lack of such a requirement would enable employers and employees who wish to maintain personal privacy the ability to do so. Even if employers and employees were not required to disclose any information, this option may have the advantage of creating a more transparent work environment in regards to salary information. Because salary transparency has been linked with task performance, the potential creation of a more transparent work environment could also lead to higher worker productivity.¹¹⁹

As mentioned earlier in this analysis, the current federal policies address the pay gap form an anti-discrimination model. This option would likely fit within this current model, as the option specifically addresses the protection of an activity related to potential workplace discrimination. This cohesion with the current model could positively affect the ability of policymakers to understand this option and the possible ramifications by placing it in the context of previous federal action on the pay gap.

Disadvantages

Potential disadvantages of this option include:

- Fits within current anti-discrimination model of federal policy.
- May not affect the pay gap.
- Could take resources away from investigating claims of wage discrimination.

¹¹⁹ Peter Bamberger and Elena Belogolovsky, “The Impact of Pay Secrecy on Individual Task Performance,” *Personnel Psychology* 63, no. 4 (December 1, 2010): 965–96, doi:10.1111/j.1744-6570.2010.01194.x.

Though the overlap of this option with the current anti-discrimination model of federal policy could be advantageous, this compatibility could also limit change. The continued existence of the policy gap since legislation was first passed in 1963, taken with the projection that the gap may not close entirely until 2058, illustrate that current federal policy may be insufficient to address the gap entirely. This option therefore may not create any shifts in the federal policy model, though a shift could be beneficial to address the pay gap.

While the possibility exists this option could create greater transparency in the workplace, this option may not ultimately address the pay gap. Many changes may likely need to occur in order to move from protecting workers who openly inquire about or discuss wages, to ensuring men and women are paid equally for the same work. This option might not have the necessary depth to prompt that process.

Currently, the EEOC receives nearly 40,000 charges of retaliation-based discrimination per fiscal year.¹²⁰ The addition of a new protected action could result in an increase in charges per year as employers adjust to the change. With this possible increase in charges, EEOC staff would be needed to investigate the validity of charges and potentially move forward with the charges if necessary. Such an uptick in charges that may or may not continue through the investigative process could take time away from EEOC staff to adequately investigate and address charges of pay discrimination, possibly delaying action on pay discrimination cases or resulting in a case backlog.

¹²⁰ “Retaliation-Based Charges: FY 1997 - FY 2013,” *U.S. Equal Employment Opportunity Commission*, 2014, <http://www.eeoc.gov/eeoc/statistics/enforcement/retaliation.cfm>.

Option Two

Congress could require appropriate federal agencies to conduct authoritative research on the factors contributing to the pay gap.

Though research on this topic has begun, as noted earlier in this analysis, the work has not included an exhaustive study of possible factors contributing to the pay gap nor a specific study of the role discrimination may play in the pay gap, if any. Conducting authoritative research could fill this knowledge gap.

Advantages

Potential advantages of this option include:

- Could provide policymakers with thorough and objective information.
- May encourage more targeted policy strategies.
- Might result in more support for policy options based upon this research.

As illustrated by the calculation of the pay gap utilizing median wages, research from government entities such as BLS can be incomplete due to the restrictions on what information may be collected. Advocacy groups may expand the depth and breadth of available research, though policymakers may be more reluctant to trust the objectivity of information in comparison to government research. This option could therefore potentially bridge the gap between the breadth, depth, and objectivity of research provided to policymakers for their use in formulating policy, and possibly result in more support for policy reforms created as a result of the research. With the possibility of thorough and objective information, policymakers could be encouraged to craft more

targeted policy strategies to address the findings of the research. These strategies may better address the roots of the pay gap, as opposed to an anti-discrimination only approach, as the U.S. currently employs. This research could also aid in creating more effective potential strategies that could possibly mitigate the gap in the long run.

Disadvantages

Potential disadvantages of this option include:

- May not result in ownership of the findings.
- Findings could be cherry-picked by policymakers based on personal ideology.
- Quality research could take a significant amount of time to perform and publish.

Despite the outcome of the research in this option, no guarantee exists that anyone will take ownership of the findings and utilize them to inform policy. The possibility exists that the research could therefore go unused, despite the potential ramifications of the findings. Conversely, the findings may also be parsed by policymakers based on personal ideology, instead of taken together as a whole. Policymakers may therefore retain the status quo and continue to push an agenda on this topic more grounded in personal belief than rigorous and authoritative research. If so, the pay gap could go unaffected despite the filling in of a current gap in knowledge on the issue. Furthermore, conducting and publishing research of this magnitude could require a substantial amount of time. Should Congress wait to pursue any further policy action until reports are distributed, the pay gap may continue to persist without intervention.

Option Three

Congress could require the collection of wage information from private sector employers based on gender of employees.

Currently, Title VII of the Civil Rights Act of 1964 requires that all employers in the U.S. submit certain information to the EEOC, including data about gender by some type of job grouping.¹²¹ Only in the public sector, however, are employers required to submit wage information, which can be broken down based upon the gender of employees. This separation between the two sectors currently leads to incomplete information.

Advantages

Potential advantages of this option include:

- Could enable the EEOC to study data and take proactive action.
- Information collected may be kept confidential.
- May provide more nuanced information for a more thorough understanding of the specifics of the problem.

The EEOC utilizes the currently mandated reporting data as a means of enforcement of anti-discrimination policies. This option could therefore allow the EEOC to study wage information from private sector employers and possibly take proactive action if potential wage discrimination is found. As employees may currently be unable to request or receive this information from employers, based upon the rules of the

¹²¹ “Reporting Requirements,” 2014, *U.S. Equal Employment Opportunity Commission*, accessed December 4, 2014, <http://www.eeoc.gov/employers/reporting.cfm>.

employer, the ability of the EEOC to potentially take action could result in swifter movement where discrimination may exist and possibly rectify these instances of discrimination. As a result, the pay gap could close for some women.

Most data reported to the EEOC is subject to public reporting; however, the majority of data is reported in the aggregate so as to protect the privacy of employers.¹²² The data targeted by this option could therefore be kept confidential outside of the EEOC, which may decrease the possible pushback from the private sector if this option were pursued.

Although BLS collects wage information based upon 534 occupations, the data lacks further nuance. This data could supplement the data from BLS to create a more thorough understanding of the specifics of the problem, such as particularly problematic industries by location or patterns of a pay gap across employers. Because the problem of the pay gap is widespread and difficult to narrow down and parse out, a more thorough understanding could also aid policymakers in addressing this problem through policy.

Disadvantages

Potential disadvantages of this option include:

- May only address the portion of the pay gap that could be attributed to discrimination.
- Information may take time to collect and study, possibly slowing any potential action.

¹²² Ibid.

- Private businesses could refuse to comply, resulting in possible litigation.

As this option would likely rely on the federal body responsible for enforcing anti-discrimination laws, information obtained through the analysis of the data would likely result in an anti-discrimination approach to rectify any potential pay gaps. As a result, this option may only address the portion of the gap that may be attributed to discrimination. Other portions of the gap that may be explained by other factors such as women's absence from the labor market or choice of college major may still result in a pay gap.

According to the U.S. Census Bureau, as of 2011, there are over 5 million private employers in the United States.¹²³ Receiving, sorting, and analyzing mandatory data from each of these employers could take up a significant amount of time for EEOC staff. The time spent on these activities could delay potential action by the EEOC in terms of enforcement and may take resources away from the investigative responsibilities of the EEOC. Though the pay gap may be ultimately influenced by this option if the EEOC is able to address instances of discrimination in the private sector, potential action could be a long time coming, possibly ensuring the pay gap remains in place in the short term. However, private businesses could refuse to comply with the measure altogether. In this case, it is possible that lengthy and expensive litigation could occur, costing the federal government money and again potentially delaying policy action to address the pay gap.

¹²³ "Statistics of U.S. Businesses: 2011 Totals" (U.S. Census Bureau, 2014), <http://www.census.gov/econ/susb/>.

RECOMMENDATION

The persistence of the gender pay gap in spite of legislation that prohibits the practice suggests that further protections may be necessary for employees seeking information from fellow employees or their employer about the wage structure within their place of employment. Accordingly, it is recommended that Congress add employee discussion of or inquiry into wages to the list of protected actions. Though this reform option is unlikely to close the pay gap entirely, protecting these actions may assist in creating a work environment where discussion of and inquiry into wages is more acceptable, and differential wages based on gender are exposed and addressed. Additionally, it is further recommended that Congress direct the appropriate federal agencies to conduct research on the factors contributing to the continued existence of the pay gap. Although this research will likely take time to plan, conduct, analyze, and publish, the results may present an opportunity for Congress to craft legislation that directly addresses the varied factors that uphold this unfair practice and result in a further decrease in the magnitude of the gap. Although this research could perhaps benefit from wage data for public sector businesses, option three is unlikely to gain the support necessary to successfully pass Congress and become law.

Conclusion

As discussed in each individual analysis, each of these issues has a disproportionate affect on an already disadvantaged population. For example, teenagers of color living in poverty are more likely to become pregnant; individuals living in rural areas who depend on groundwater for survival but do not have the economic resources to build a deep well are more likely to experience the negative consequences associated with aquifer depletion and water scarcity; women of color encounter a larger wage gap than their White peers; families with limited income have fewer housing options and are subsequently more likely to live in a food desert, and have limited latitude to ensure a short commute to work. Taken together, this common thread presents a renewed opportunity for policymakers focused on addressing, alleviating, and correcting social and economic injustices. While the typical focus of such a policymaker tends to lean heavily toward social policy, including healthcare, the social safety net, and policies affecting women and children, this report may provide the impetus for these policymakers to expand their repertoire to include policy areas not typically framed within a social and/or economic justice lens. Through such an expansion, a better understanding of the role policy plays in social and economic justice can be gained, and perhaps greater progress toward social and economic justice can be achieved.

Moreover, although apparently independent policy issues at first glance, each of these problems impacts the quality of life of individuals and families living in Texas. This unifying feature portrays the importance of policymakers pursuing a policy agenda that is dedicated to a broad, yet manageable, array of issues. Individualized emphasis on a

small and homogeneous core of issues likely restricts the overall positive impact that policy changes can have on the collective quality of life of Texas residents. In addition to the probable increase to quality of life that an expanded policy agenda may have, such an expansion could also affect the work of those involved in the policy process. Specifically, coalitions – a crucial component of advocacy work – could become more diversified in composition, providing a more comprehensive and effective set of strategies to advocate for important policies.

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