## UNIVERSITY OF BERGEN



## DEPARTMENT OF COMPARATIVE POLITICS

## "Don't mess with Texas":

A Quantitative Study of Party Polarization, and the Constituencies' Effect on Legislators' Ideology within the Congressional Delegation from Texas in the United States House of Representatives

## SAMPOL 350

MASTER THESIS

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#### Abstract

Since the 1980s there has been a significant increase in polarization between the Republican and Democratic parties in the United States Congress. This thesis looks further into the increase in polarization in the United States House of Representatives. By using Texas as a case the thesis investigate if the congressional district affects the legislators' ideology, which again may explain the increasing polarization.


This thesis addresses two schools of theories of polarization. First are the external theories, which are the redistricting-, ideological realignment-, constituent sorting-, economic- and party activism explanations. Second is the internal explanation that addresses changes at the inside of Congress. In addition research that address changes in Texas politically, economically and demographically is included. The different explanations have been intensely discussed among scholars of polarization, and an additional part of this thesis has been to test some of the external explanations.

The data used is gathered from voteview.com, which estimate legislators' ideology, and the Almanac of American Politics, which provides detailed data from every congressional district. By using a Time-Series-Cross-Section design, the thesis clearly finds that there has been a significant increase in polarization between the Democratic and Republican parties. Another finding is that the Democratic and Republican legislators from Texas have traditionally been more conservative than the rest of the House of Representatives, but that this has equalized in the past congresses.

By using three different regressions in two models, the thesis finds that the economic explanation is the more reliable of the external explanations used in this thesis. It also indicates that demography has a part to say. Still the polarization puzzle is too complex to be explained by one single explanation, and that the different explanations used in this thesis in varying degree contribute in explaining polarization.

## Acknowledgements

First and foremost I would like to thank my dear Alma Mater - The University of Bergen for some amazing years as a student in the most beautiful city in the World.

I would like to thank my supervisor Professor Lars G. Svåsand for steady guidance, great theoretical input, and interesting discussions throughout the entire writing process. Thanks to Associate Professor Michael Tatham and PhD fellow Jon Kåre Skiple for methodological input. Thanks to Professor at the University of Texas, Austin, Sean Theriault for deepening my knowledge about party polarization, and a great dinner in Houston, Texas.

The master thesis process would not have been the same without the warm companionship of my fellow students of both the classes of 2012-2014 and 2013-2015. The two years spent behind the old blue walls of Sofie Lindstrøm's hus have given me new friends, insight and knowledge and for that I am grateful.

I would also like to thank my parents for taking their time to read and comment on the thesis, and of course for all your support throughout the years. Thanks to friends and family for support. I would like to thank Sigga and Heimir and their family for their warm hospitality. And of course the Labrador Ugla who always reminds me about the good things in life.

Lastly, the most wonderful part of my life as a master student was that I met Svana. Words cannot describe my gratitude for all your support, patience and motivation, Svana. You inspire me every day - ástin min.

Oslo, May 2015
Bjørn Kristian Danbolt

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## 1. Introduction

### 1.1. Research Question

"Don't mess with Texas". This famous slogan is one of the first signs travelers see when driving along the endless highways in the Lone Star State. This sign sends a signal to travelers that this nation-sized state has its own kind of patriotism and traditions. While the two major parties for decades were ideologically placed almost in the same car, Democrats and Republicans have since the 1980s, both in Texas and the United States as a whole, driven further apart on separate ideological highways. Scholars on the United States Congress have never before seen a more polarized climate in Washington (Barber and McCarty 2013, Layman, Carsey and Horowitz 2006, McCarty, Poole and Rosenthal 2006, Theriault 2008). But the scholars themselves are polarized and disagree in which factors actually explain polarization.

In this thesis some of the various explanations for party polarization in the United States Congress will be tested. Rather than focusing on the entire Congress, which is quite common in the American literature, I will restrict my analysis to the Congressional Delegation from Texas in the United States House of Representatives. Texas, with over 25 million inhabitants and covering an area of nearly $700000 \mathrm{~km}^{2}$, is the second largest state in the United States in population and area. It is one among four states that has previously been independent republics, and as a nation-sized state has created its own distinct political and social culture. Still demographically and historically Texas reflects some of the unique diversity that is found in the United States (Barone, McCutcheon and Trende 2013:1559,1564).

One of the tests in this thesis is whether the explanations that are given for the polarization at the national level may apply to Texas. Focusing on one large state makes it easier go in depth at every congressional district, and see if constituency changes affect the legislators' ideological position.

The research question for this thesis is as follows:

Has there been an increase in polarization between the Democratic and Republican members of the Congressional Delegation from Texas in the House of Representatives between the $106^{\text {th }}$ and $113^{\text {th }}$ Congress? Does the congressional district have any affect on the legislators' ideological position? And may theories of polarization on the federal level explain polarization within a state congressional delegation?

### 1.2. Justification of the thesis

In Designing Social Inquiry King, Keohane and Verba argue that: "a research project should pose a question that is "important" in the real world" (1994:15). Polarization in the United States Congress has become an increasingly important issue over the years. Every day one see examples of how far Democrats and Republicans have drifted apart, and how reluctant the two parties have become in cooperating over party lines. Therefore it is important that the growing polarization is addressed. Is the polarization real and does the scholarship manage to give good enough explanations, are questions that need to be reviewed.

King et al. also claim ".... research project should make a specific contribution to an identifiable scholarly literature by increasing our collective ability to construct verified scientific explanations of some aspect of the world" (1994:15).

Following the guidelines from King et al. it is a straightforward process in identifying the scholarship on party polarization. A challenge is managing to narrow it down to which parts of the scholarship that are the most relevant for answering the research question. This is addressed in chapter 2 . An interesting finding is that in spite of the large scholarship, very few scholars have tried to explain polarization at the state level based on the explanations for the federal level. Linking the federal and state level is quite a new field of research (Shor and McCarty 2011). And few scholars have made a case study of the states congressional delegation in Congress. Therefore this thesis approaches some new terrain that has not been comprehensively addressed before, and may consequently provide new results.

By focusing on Texas I will manage to get a more detailed background on every legislator and his/her congressional district, and also how both the legislator and his/her constituency have developed over time. If these results may be used and applied to all members of the House of Representatives is worth finding out.

### 1.3. Structure of the thesis

In the following chapter I will provide the theoretical framework for this thesis. First, I will define and discuss the terms polarization, ideology, liberal and conservative. Then the vast scholarship on polarization will be analyzed. This is divided into two sub-chapters: External and Internal. These are terms that I have borrowed from Barber and McCarty and will be further explained in part 2.2 (Barber and McCarty 2013:23).

In part 2.3 I will analyze the external explanations, which is first and foremost explanations that are linked to the changes outside of Congress. The following explanations that I have chosen to address in part 2.3 are redistricting, ideological realignment, constituent sorting, economic explanations and extremism of party activists.

Part 2.4 will look closer at the Internal explanations, which explore the changes and reforms at the inside of the parties in Congress. Here I will briefly go through the transformation of both the Democratic and Republican parties in the $20^{\text {th }}$ century, and some of the most essential reforms that have transformed Congress. In every explanation analyzed in chapter 2 I will look at both the arguments and the counter-arguments that are provided in the literature.

Chapter 3 is divided into three parts. Part 3.1 will analyze how the different explanations in Chapter 2 fit into a Texan context. The structure will resemble Chapter 2, but will address the literature that focuses on Texas. After every sub-chapter a hypothesis will be generated. This part also contains the argument for why Texas is chosen as the case in this thesis.

In chapter 4 the data and method will be presented, where both the advantages and challenges will be discussed. The data used in this thesis is gathered from Voteview.com and the Almanac of American Politics. The method chosen is a Time-Series-Cross-Section analysis (TSCS).

In chapter 5 the variables will be operationalized. The dependent variable and the independent variables will be thoroughly reviewed and discussed.

In chapter 6 the results from the analysis will be presented. In part 6.1 I will address the first part of the research question. In part 6.2 the results from the TSCS-analysis will be presented, and the hypotheses generated in chapter 3 will be verified or rejected.

In chapter 7 the results from chapter 6 will be more carefully reviewed. This will be done with the theoretical framework in mind. In this chapter the last part of the research question will be discussed. Implications and mandates for further research will also be addressed. The conclusion of this thesis will be stated in chapter 8 .

## 2. Theoretical framework

In this chapter I will first define polarization and other important conceptual terms based on literature from several scholars. In part 2.2 to 2.4 I will take a closer look at the comprehensive literature on party polarization in the United States Congress. The first parts of this chapter will based on the literature, discuss how scholars define polarization, and on what level it exists. I will also define ideology, liberal and conservative, which are key concepts that are often mentioned in this thesis.

### 2.1. Definition of polarization

Many of the terms that are used in this thesis, are wide and complex terms. To narrow it down and define and understand the terms in a relevant context, I will base my definitions of the terms on the comprehensive literature that exists on polarization.

Although today's scholarship on both Congress and polarization is comprehensive, it is according to Jacobsen a quite new field of research (2013:ix). There are several classical works on Congress from the end of the $19^{\text {th }}$ century until the mid $20^{\text {th }}$ century, but the amazing amount of literature studying Congress, and especially party polarization in Congress is something that emerged first in the 1980s. An interesting finding is that the terms polarization and party polarization were something that hardly occurred in scholarship prior to the 1980s. This may be related to the fact that modern party polarization started in the 1980s after a long period of cohesion within the Republican and Democratic parties. In the 1980s political scientists developed new tools to analyze Congress, like the NOMINATE and DW-NOMINATE-scales. This was developed primarily by Poole and Rosenthal and uses the average mean of the legislators' ideological position. It ranges from -1 , which means the most liberal, to +1 , which is the most conservative (Poole and Rosenthal 2007:15, Carroll, Lewis, Ro, Poole and Rosenthal 2009:262-263). Shor and McCarty claim that the development of the DW-nominate and spatial model of roll call voting was essential in the study of Congress (2011:530). I will revisit the DW-nominate and others measures of polarization in chapter 5 .

The DW-nominate is a common reference when scholars define polarization. McCarty, Poole and Rosenthal define polarization in short as: "...a separation of politics into liberal and conservative camps" (2006:3). They further define polarization by how it is measured. Poole and Rosenthal also define party polarization in methodological terms. Their definition is: "the parties have to be apart on policy issues and the party members must be
tightly clustered around the party mean" (2007:105). Theriault maintains that: "the term polarization refers to the divide between how the parties vote and not necessarily the substantive difference between the parties" (2008:35).

Another approach scholars have made in defining and analyzing polarization has been to look at the level of political conflict and level of party cohesion. In some cases they have contributed new terms, like for instance Layman, Carsey and Horowitz (2006) who have studied what they call conflict extension. Their definition of conflict extension is as follows: "Clear policy differences between the two parties are not new. What is new is that the parties' elites, mass coalitions, and activist bases have become sharply divided along the lines of multiple policy dimensions...in short new partisan conflicts have not displaced old ones; party conflict has extended from older to never issues" (Layman et al. 2006:104).

Based on the literature I will argue that the term polarization may be used at three different levels: elite, party and popular polarization. These levels are not mutually exclusive and have several overlapping aspects. The terms I use are in many cases replaced by other terms, which I will also address.

### 2.1.1. Elite polarization

Elite is, as many other terms in this thesis, a wide and complex term. There are several schools about elites and "power elites" which are most often oriented toward class structures in society (Domhoff 1967). In this thesis I will have a more practical approach to the term elite and use Levendusky's definition where elites are understood as "partisan political elites [are the] politicians holding elected office who have some control over policy...[for instance] members of Congress, presidential nominees, governors and so forth" (Levendusky 2009:4) Theriault have identified at least three types of elites: "elected representatives, those engaged in multiple political activist and those attending their parties' national nomination conventions" (Theriault 2008:111). These groups will be further examined in part 2.3.3.

Levendusky (2009) and several other scholars claim that since the 1970s the elected elites in Congress have sorted themselves towards the ideological poles, where liberal elites have become Democrats and conservative elites have become Republicans. This has clarified what the parties stand for and made it easier for voters to sort under a partisan label (Levendusky 2009:2-3). This argument will be revisited in part 2.5, and is also examined in part 2.3.3, 2.3.5 and 2.4.1.

### 2.1.2. Party polarization

At this level it is first important to get an understanding of what a party is. O'Connor and Sabato define party as: "An organized effort by office holders, candidates, activists, and voters to pursue their common interests by gaining and exercising power through the electoral process" (2008:421). Lee claims that: "Parties are institutions with members who have common political interests in winning elections and wielding power, not just coalitions of individuals with similar ideological preferences" (2009:18). The classical definition of the term party has been disputed in recent literature. Masket defines parties rather as: "loose alliances of policy demanders...often operating at the local level, outside the legislature, who manipulate party nominations to control the government" (Masket 2009:53).

In the modern literature on party polarization, it is easy to assume that the definition of party, and how the parties operate, is inspired by V.O. Key's classical work Politics, Parties and Pressure Groups (1942/1964). In his work Key claims that the party operates at least four different levels: 1) The party-in-the-electorate, 2) the professional political group, 3) the party-in-the-legislature and 4) the party-in-the-government (Key 1964:164). Key's comprehensive work is worth reading. Based on Key's party levels O'Connor and Sabato (2008) have a provided a more modern account on how the party operates. O'Connor and Sabato maintain that the party consists of: "three separate but related entities", which they call the governmental, organizational and party in the electorate (2008:422). The governmental party is the merging of Key's "party-in-the-legislature" and "party-in-the-government". The organizational party is the delegates to conventions and activists that make up the formal party structure. The party in the electorate is "the voters who consider themselves allied or associated with the party" (O'Connor and Sabato 2008:422). These different party levels will be revisited in part 2.3.3, 2.3.5 and 2.4.1.

It is first and foremost the "governmental party level" that is most often addressed in the literature on party polarization. Scholars have seen that the parties have become more cohesive since the 1970s, both in voting patterns and in ideological positions.

### 2.1.3. Popular polarization and sorting of voters

Popular polarization is maybe the most disputed term among scholars in this field of research, and refers to the polarization that occurs on the electoral level. Here it is important to clarify, which Fiorina, Abrams and Pope do: "...it is crucial to understand that [the increasing polarization] is partisan polarization, not popular polarization" (2005:25). Partisan polarization (not to be misunderstood with party polarization) is that the electorate sort themselves after party identification. Popular polarization is on the other hand that they separate on ideological and political issues (Fiorina et al. 2005:25). This will be further addressed in part 2.3.3.

Levendusky (2009) argues that the term popular or partisan polarization is not preferable and rather calls it partisan sorting. Levendusky defines popular polarization as a phenomenon that occurs when the electorate moves to the ideological extremes and the ideological center disappear. What he rather emphasizes in his study is that the electorate has increasingly sorted themselves under the Republican or Democratic Party labels (Levendusky 2009:3-7). Another term used by Theriault $(2008: 44,58)$ is constituent sorting. These terms will be further examined in part 2.3.3.

### 2.1.4. Definition of Ideology, Liberal and Conservative

In this sub-chapter I will briefly discuss ideology, liberal and conservative. These are quite wide and complex terms that will often be addressed in this thesis, and may contain different meanings. I will not try to get lost in a deep philosophical debate, but base the terms in the context of the scholarship on American politics. In the literature itself ideology has been often defined on a liberal/conservative dimension, but there is a general lack of agreement of how to define the concepts ideology, liberal and conservative. Maybe it is because these terms often are taken for granted.

Some scholars like Lee (2009), Levendusky (2009) and O'Connor and Sabato (2008) have provided brief conceptual definitions and debate around these terms. O'Connor and Sabato have defined ideology as: "A set or system of beliefs that shapes the thinking of individual and how they view the world" (2008:772). Levendusky defines ideology as a: "...cluster of ideas encompassing not just a set of issue positions but also the connections between the issues themselves...and the connections between the issues and abstract concepts like liberalism and conservatism" (2009:4). Both Levendusky and Lee see challenges in defining ideology and practically define the term like most scholars do by basing it on a
liberal/conservative ideological dimension. This is often based on surveys (like for instance the National Elections Studies) where respondents place themselves on a variety of different issues (Levendusky 2009:4).

Scholars have seen that in current American politics there is a strong correlation between ideology and party preference, where liberal means Democrat and conservative means Republican (McCarty et al. 2006:chap. 1, Theriault 2008:48). To get the best understanding of the liberal/conservative dimension it is important to briefly define the terms "liberal" and "conservative". In American politics one may place the terms liberal and conservative in two ${ }^{1}$ broad dimensions (Poole and Rosenthal 2007:20-22). The first dimension is the economic dimension, which is most often regarded as the role of government, level of taxation and welfare. O'Connor and Sabato have defined a liberal as: "One considered to favor extensive governmental involvement in the economy and the provision of social services" (2008:773) and conservative as: "One thought to believe that a government is best that governs least and that big government can only infringe on individual, personal, and economic rights" (2008:770).

The second dimension is on a moral and faith issues. O'Connor and Sabato have further described a liberal as one whom: "...take an activist role in protecting the rights of women, the elderly, minorities, and the environment" (2008:773). The Democrats have for the last decades embraced policies like abortion and gay rights to marry, which is still strongly opposed among most conservatives (and within the Republican Party) ( $\mathrm{O}^{\prime}$ Connor and Sabato 2008:421). How the Democratic and Republican parties have evolved into liberal and conservative parties will be briefly visited in part 2.4.1.

An interesting finding is that the terms "ideology", "liberal" and "conservative", did not become important terms in labeling legislators until the 1960s. A study done by Lee finds that articles about Congress from early to mid $20^{\text {th }}$ century very rarely used the term ideology, while over 80 percent of the articles published after year 2000 use ideology as an analytical concept (Lee 2009:30). The scaling of ideology will be revisited in chapter 4.

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### 2.2. Explanations for party polarization in the United States Congress external and internal

The scholarship on polarization in the United States Congress is comprehensive. Although there is a general well-documented consensus among scholars that there has been an increase in party and elite polarization during the last thirty years, the various explanations for party polarization have been highly debated (Barber and McCarty 2013, Carson, Crespin, Finocchiearo and Rohde 2007:880, Jacobsen 2013, McCarty, Poole and Rosenthal 2006, Theriault 2008).

Barber and McCarty have categorized them in two large categories: 1) external explanations and 2) internal explanations (2013:23). External explanations are most often linked to the changes outside Congress and usually explained by linking it to changes in the electorate. Scholars have often referred to external explanations as popular polarization or polarization in the electorate. I think it is more appropriate that explanations rooted outside Congress are called external since in some cases both the elites and the electorate may explain them. Internal explanations (also referred to as elite polarization) focus on the reforms inside of Congress (Carson et al. 2007:880, Theriault 2008:6).

I will use the same categorization as Barber and McCarty (2013) to address the different explanations in the literature of party polarization in the United States. It is important to note that the categorizations "external" and "internal" are not mutually exclusive, for instance an external explanation may be linked to an internal explanation and vice versa.

### 2.3. External explanations

There are several external explanations. In this part I will briefly analyze how the literature approaches some of the various external explanations.

### 2.3.1. The Redistricting explanation

Redistricting, often called gerrymandering ${ }^{2}$, is a popular explanation for the increased party polarization, especially for the House of Representatives. Scholars like Carson, Crespin, Finocchiearo and Rohde (2007), Hirsch (2003), Fiorina et al. (2005), Mann and Cain (ed.) (2005), Nelson (ed.) (2014) and Jacobsen (2013) emphasize the impact redistricting have had on polarization.

In the debate about party polarization the proponents of this explanation maintain that parties deliberately create safe districts, where the party in fact doesn't meet any real contest by the opposing party. This makes the electorate in redrawn districts more homogenous again dragging their representative in a more extreme direction. The result is that districts now send very conservative or very liberal legislators to Congress (Carson et al. 2007, Theriault 2008:46).

Redistricting is based on the events that occur in the aftermath of the census that is completed every decade in the United States. After the census the 435 members of the House of Representatives, the lower chamber of Congress, are required by the Constitution to reapportion the seats after changes in the states population. When a state gains or loses a membership in the House it needs to redraw its congressional districts. The 1962 Baker v. Carr Supreme Court decision gave the state partisan delegations the responsibility for drawing new congressional districts boundaries. These districts also needed to be population-equal. It was after this ruling that scholars first saw the link between the incumbency advantage, redistricting and party polarization (Carson et al. 2007:899, O'Connor and Sabato 2008:494495, Theriault 2008:63, United States Supreme Court Media 2014). Since the state partisan delegations are responsible of drawing lines, Carson et al. argue that the delegations use their

[^1]partisan bias to draw districts that gain their party an advantage. In addition Carson et al. claim that: "...by drawing congressional districts in creative ways, mapmakers can exploit the underlying polarization, which further contributes to polarized legislative behavior" (2007:883-884)

The redistricting explanation seems convincing. The "incumbency protection plan", which Carson et al. call redistricting, surely works. For the last decades over 90 percent of incumbent members of Congress have been reelected. Another fact is that the Republican Party has gained a structural advantage in the House because of redistricting. For instance in the 2012 election the Democrats won the popular vote with 50.6 , but only gained 46.2 percent of the seats in the House of representatives (Jacobsen in Nelson 2014:166, Hirsch 2003). In the last five of the six presidential elections the Democrats have won the majority of the presidential votes, but since 1994 Democrats only have had the majority in the House of Representatives from 2006 to 2010. Gary C. Jacobsen's explanation for the Republican structural advantage in the House is that due to their voters being more effectively distributed among house districts and although; ..."both parties used control of redistricting to improve their candidates' prospects, but Republicans more so than Democrats, and Republicans also came out ahead in states where neither party had full control of the process" (Jacobsen 2013:9-19, Chap. 6, The New York Times 2014a). Sam Hirsch claims that: "redistricting has helped to transform the U.S. House of Representatives into a body that will no longer accurately reflect majority will" (Hirsch 2003:179).

However, the redistricting explanation has also met a lot of criticism. Some of its main critics are McCarty, Poole and Rosenthal (2006) and Abramowitz, Alexander and Gunning (2006). First of all the redistricting-explanation lacks evidence for causing polarization. An obvious weakness is that redistricting cannot explain the increasing polarization in the Senate and in several states that never experienced redistricting. Since 1980 the Senate have experienced a similar amount of polarization as the House of Representatives, although the Senate elections always take place within the same borders (McCarty et al. 2006, Theriault 2008:48). This is counter-argued by Theriault (2008) and Carson et al. (2007), who maintain that the polarization from the House has "spilled over" to the Senate. I will revisit this argument in part 2.4.1.

McCarty et al. (2006) argue that party polarization is rather caused by the reallocation of seats from Northern liberal states to the more conservative Southern states, than
redistricting itself. For the last thirty years the population in the Northern states has stagnated or decreased, while conservative states in the South ${ }^{3}$ have seen a great population increase. For instance in the last census held in 2012 a total of 12 seats were reapportioned, and eight of the ten states that lost seats were in the North, while Texas gained four and other southern states like Florida, Georgia and South Carolina gained four combined. For McCarthy et al. redistricting and apportionment are not more than: "...a symptom of our political maladies rather than their cause" (McCarty et al. 2006:59 United States Census Bureau 2010).

In part 3.1.1 the redistricting explanation will be analyzed in a Texan context.

### 2.3.2. Ideological realignment

Why a reallocation of seats from northern to southern states may cause party polarization may be better explained by Ideological realignment theory rather than the redistricting explanation. Ideological Realignment (also called Southern Realignment) is another established theory to explain the modern American party system and also the polarization that has increased since the 1970s. Several scholars like for instance Sinclair (2006), and Stonecash (2014) point to American political history and the realignment in the South in the 1960s as the central explanation for party polarization. Other scholars like Cunningham (2010) provide detailed explanations of how this realignment occurred.

Since the end of Reconstruction era after the Civil War, the Democratic Party dominated the Southern states, virtually meeting no opposition from other parties. This changed in the 1960s and 70s, when the Southern voters moved away from the Democrats, and gradually made the South into a competitive two-party-system in Congressional elections, and a Republican stronghold in presidential elections. This shift resulted in a gradual replacement of moderate Democrats with increasingly conservative Republicans in Congress. From being two parties dancing "cheek to cheek" around the ideological middle, the Southern realignment established the Republican Party as the conservative party and the Democratic party as the liberal party. This long-term political realignment is for Stonecash (2014) a central explanation for why party polarization has increased. He argues: "...today's

[^2]polarization is the product of today's issues and yesterday's political realignment" (Stonecash 2014, Barber and McCarty 2014:26, McCarty et al. 2006:44-54).

Race is often regarded as the conventional explanation for the realignment, after the Democratic Party embraced the Civil Rights Movement in the 1960s, leading to progressive laws like the Civil Rights Act of 1964 and Voting Rights Act of 1965. Cunningham argues that the Democratic parties dominance in the South were as much due to loyalty rather than ideology. When the Democratic Party at the national level embraced the Civil Rights Movement, combined with nominating the ultra-liberal George McGovern for president in 1972, they became the clear liberal alternative, but at the same time they broke the bonds to the loyal conservative Southern Democrats (Cunningham 2010:134-141, Jacobsen 2013:272).

McCarty et al. provide an alternative explanation for the Southern Realignment. They argue that economic growth and migration of middle- and upper class whites, which moved from the North to the South, are the reasons for the Southern Realignment. These new well ofmigrants lacked the old grudges to the Republican Party; making the high-income Southerners affiliated with the Republican Party while low income Southerners became Democrats (2006:46-50). I will revisit the relationship between income and party affiliation in part 2.3.4 and 3.1.3.

McCarthy et al. explanation may be compared to Abramowitz and Saunders (1998) ideological realignment explanation. Basing their research on the National Elections Studies from 1976-1994, their key argument is that there has been an "intergenerational shift" in the electorate, and that "...today's voters are considerably more Republican and less Democratic than were their parents". In addition Abramowitz and Saunders maintain, "The largest intergenerational differences are found among those groups with conservative policy preferences" (1998:638). Abramowitz and Saunders argue that ideological realignment is not only a Southern phenomenon. They have extended the ideological realignment theory, and argue that there has been a secular realignment all over the United States. For Abramowitz and Saunders the realignment did not start with the Civil Rights movement in the 1960s, but with "the Reagan Revolution" in the 1970s and 80s (1998:638).

The Southern Realignment-theory has some shortcomings. Prior to the 1970s, the Republican Party had several liberal and moderate representatives in the Northern states. The vanishing of these liberal Republicans cannot be explained by the Southern ideological realignment theory (McCarty et al. 2006:50). For McCarty et al. the: "Southern realignment clearly changed the
dimensionality of political conflict, but is not at all clear how the change in dimensionality generated greater polarization" (2006:53). The ideological realignment in Texas will be analyzed in part 3.1.2.

### 2.3.3. The constituent- and partisan sorting - the ideological self-sorting of voters

During the last 30 years scholars have seen that several counties of the United States have become increasingly politically homogenous. An analysis by The New York Times, based on Dave Leip's presidential atlas, shows that in the 1996 presidential election 38 percent of the counties were won by a margin of 10 percent or less. In 2012 the number of competitive counties had been reduced to 18 percent (Leip in The New York Times 2014a).

A recent example is from is the Milwaukee, the largest city in the swing-state Wisconsin, which Barack Obama won with a decisive 66.8 percent of the popular vote in the 2012 presidential election. In some of the wards Obama won over 99 percent of the popular vote. Less than a 30 -minute drive from Downtown Milwaukee lays Waukesha County where Mitt Romney won with a 30-percentage point margin. According to the Milwaukee Journal Sentinel "Metro Milwaukee is almost all dark red or dark blue: only seven of its 90 communities were decided by single digits in the 2012 presidential race" (Gilbert 2014a, The New York Times 2012).

The last three decades these counties have become darker blue and darker red. While Obama won Milwaukee County with over 170000 votes in 2012, Bill Clinton only won the same county with 84000 votes in 1992, and Jimmy Carter only won the County with 56000 votes in 1980. The population has stayed roughly at 950000 in Milwaukee County in this period. Although winning in a landslide election in 1980 Ronald Reagan only won Waukesha County with 37000 votes, while Mitt Romney won the same County with over 84000 votes in 2012, although losing the presidential election. Waukesha's population has increased from 280000 to 389000 since 1980 (Gilbert 2014b).

The story of the Counties of Milwaukee and Waukesha is not unique, and one may see the same trend all over the United States. The increase of politically homogenously liberal or conservative counties is by Theriault defined as constituent sorting. This an abbreviation of what Theriault calls: "the political and geographical sorting of constituents" (2008:44,58). The constituent sorting-explanation may look similar to the redistricting explanation, but where elites drawing homogenous districts explain the redistricting explanation, this
explanation looks at how the electorate has ideologically sorted themselves in increasingly conservative and liberal districts during the last decades. Unlike the redistricting explanation, the constituent sorting explanation may explain the increasing polarization in the Senate. Scholars like Abramowitz et al. (2006), Dalton (2008), Gimpel and Schukneckt (2004), and Levendusky (2009) emphasize the impact constituent sorting have had on party polarization. The most common argument is that that an increasingly homogenous district creates safer districts, which again increases the incumbency advantage. When the constituency becomes more ideologically conservative or liberal this will drag their legislator in a more ideological extreme direction.

Scholars disagree what cause the increasingly ideological divide in the American population, or if the increasing ideological polarization occurs at all. Scholars like Theriault (2008) analyses the constituent-sorting explanation, but argues that the link between voter sorting and polarization is overemphasized. Fiorina et al. (2005), and DiMaggio, Bryson and Evans (1996) also dispute the constituent sorting explanation. I will revisit their counterarguments later.

The link between the legislator and his/hers constituency is a classic subject in American political scholarship. One term developed by Robert Weisberg is dyadic correspondence, defined by Russell Dalton as; "the pairing of district opinion and elites...in simple terms, liberal districts presumably select liberal representatives, and conservative districts select conservative representatives" (Dalton 2008:223). The dyadic correspondencemodel argues that the constituency's attitude affects the legislator's attitude, again affecting the legislator's roll-call votes. The constituency's attitude also affects the legislator's perception of the constituency's attitude.

Figure 2.1: Weisberg/Dalton's dyadic-correspondence model


Source: Dalton 2008:224

This part of Weisberg's model will be revisited in part 2.3.5. Dalton shows us that in the $104^{\text {th }}$ Congress there was a close linkage between the constituency's conservatism and representatives issue position (Dalton 2008:225). Weisberg's dyadic correspondence-model is not commonly referred to in the literature of party polarization, but the link between the constituency ideology and the legislator's ideology is a common explanation for the increasing party polarization in the United States Congress. As mentioned in part 2.3.2 Southern United States has seen an ideological realignment, where moderate Democrats have transformed to more conservative Republicans, but scholars and political pundits see this trend in the rest of the United States as well (Abramowitz et al. 2006).

The constituent sorting explanation is heavily debated among scholars, for instance Barber and McCarty (2013:23). I will revisit this debate later on, but first introduce another term for the sorting of voters called partisan sorting. This term is used by for instance Levendusky (2009) and Barber and McCarty (2013:23). Partisan sorting is based on the increase in ideological divergence between the Democratic and Republican parties, and growing ideological coherence within the two parties. While there in the 1970s was a large base of liberal Republicans (nearly 13\%) and conservative Democrats (nearly 25\%), these voices have diminished in both parties. In 2004 only 6 percent of Republicans placed themselves as liberals, and only 12 percent of Democrats regarded themselves as conservatives. In the same period the number of conservatives in the Republican Party have increased from composing around 50 to over 70 percent, while the liberal base of the Democratic Party has increased from 31 to 50 percent (Theriault 2008:89-90). In the same period the number of "consistently or mostly conservative" ${ }^{4}$ and "consistently or mostly liberal" in the American electorate have increased significantly. In addition the ideological distance between the voters registered as Democrats or Republicans have increased sharply. According to a recent report by the Pew Research Center for the People and the Press (Pew) (2014) over 92 percent of Republicans are more conservative than the median Democrat, an increase from 70 percent in 1994. In 1994 only 70 percent of Democrats were more liberal than the median Republican. In 2014 this number had increased to 94 percent (Pew 2014:20). Levendusky argues: "Party and ideology

[^3]today are much more tightly aligned than they were a generation ago, with liberals and conservatives better sorted into the Democratic and Republican parties" (2009:1).

The constituent- and partisan sorting explanations have some interesting empirical enhancements. First of all, the Pew study finds a correlation between the respondents' ideology and where they want to live; over 70 percent of consistently conservatives prefer to live in large houses in rural areas while over 77 percent of consistently liberals want to live in large cities with small houses and "walkable" communities. In contrast only 21 percent of consistently conservatives have the same urban preferences and only 22 percent of consistently liberals has the same rural preferences as their conservative counterparts. This development has created what Pew calls "Ideological echo chambers" (2014:52,13,42,45). According to Theriault: "Scholars who have been studying demographic trends at a neighborhood level find that ...more and more individuals are moving closer to their ideological soul mates" (2008:89).

Another finding is that during the last 30 years the number of voters who hold mixed Republican or Democratic positions and ticket-splitting ${ }^{5}$ in elections has reduced significantly. Until the end of the 1980s half of the electorate split their vote in congressional and presidential elections (Gilbert 2014c, Levendusky 2009). In 2004 that number was reduced to only 21 percent. And in the last decade it has decreased even further. Theriault argues: "As constituencies have become more ideologically homogeneous, they are also casting increasingly consistent ballots between presidential and congressional elections" (2008:95-99). Hetherington explain the decline of ticket-splitting in this way: "Polarization has not caused partisans to like their own party more, but has caused them to like the other party much less... the other party is simply not a viable option in the eyes of most partisans any longer" (Hetherington in Nelson 2013:61).

As mentioned earlier what has caused the electorate to sort is a great source of debate. In part 2.3.2 the ideological realignment both in the North and the South of the United States was highlighted. This has also been seen as an explanation for constituent- and partisan sorting. Layman, Carsey and Horowitz (2006) argue that there has been a "conflict extension" over the political dimensions between the two parties. Based on a comprehensive analysis of

[^4]the National Elections Studies, Layman et al. argue that the Democratic and Republican parties have diverged sharply since the 1970s on several major economic and social issues. When it in the 1950's and 1960's was hard to tell the difference between Democrats and Republicans on several policy dimensions, conflict-extension has made it easier for the electorate to recognize their ideological preferences with the elites in the Democratic or Republican Party (Laymen et al. 2006:89-93). Levendusky (2009) also argues that the partisan sorting of voters is elite driven; "As elites pull apart on to the ideological poles, they clarify what it means to be a Democrat or a Republican. Ordinary voters use these clearer cues to align their own partisanship and ideology (2009:3)". Levendusky argues that voters may sort in two ways; either by shifting parties (for instance that a liberal Republican becomes a liberal Democrat) or by realigning their ideological beliefs with the mainstream of the party (for instance that a liberal Republican becomes a more conservative Republican).

Levendusky's arguments indirectly counter-argues Weisberg/Dalton's dyadiccorrespondence model by reversing it. Instead of the electorate affecting the attitudes of their legislators it is rather the other way around. Levendusky acknowledges that the increase in constituent- and partisan sorting, with more ideological pure liberal and conservative districts, pressures the elites to maintain less centrist ideological attitudes. "So while sorting is elite driven, a better-sorted electorate also has important consequences for elite behavior" (Levendusky 2009:9).

A question is whether constituent- and partisan sorting has led to popular polarization as well. A popular perception is that United States has become a divided 50-50 "red and blue" nation where "progressive liberals" and "orthodox conservatives" almost live "worlds apart" (Gilbert 2014a). Hunter (1991 in Layman et al. 2006) is often cited for what he called "The Culture War" between the "Red" and "Blue" America. Several Political pundits, some politicians and some scholars argue that the electorate has sorted to both sides of the ideological scale, with few voters remaining on the middle ground (Fiorina et al. 2005:1-4, Levendusky 2009). This is counter-argued by Fiorina et al. (2005) and DiMaggio et al. (1996) who argue that the broad majority of the American electorate, even comparing conservatives with liberals, shares many of the same ideological positions and has done so for several years.

The constituent- and partisan sorting explanations also have some empirical caveats. Theriault tests the constituent-sorting explanation by comparing polarization scores of
legislators from "safe" ${ }^{6}$ states with "weak" states. According to the constituent- and partisan sorting hypothesis, and Weisberg's dyadic-correspondence-model, legislators elected from "safe" and ideological pure districts should be more partisan and polarized than their colleagues elected from "weak" and ideologically mixed districts. Somewhat unexpectedly Theriault's test shows that legislators from the "weak" states have experienced almost the same increase in polarization as legislators from "safe" states (2008:101-102, 104). Theriault's test also proves that the members from "safe" districts had a more polarized starting point. Masket have a similar finding proving that members representing weak districts are almost as extreme ideologically as their fellow legislators elected from safe districts (Masket 2009:4-5).

Constituent- and partisan sorting proves that elites from safe districts are slightly more polarized than their colleagues from weak states, and may therefore explain some of the increasing polarization in Congress during the last 30 years. But increasing party polarization is not just a safe district phenomenon. How the constituent sorting explanations suits in a Texan perspective will be analyzed in part 3.1.3.

### 2.3.4. Economic explanations

McCarty, Poole and Rosenthal (2006) claim that increasing income inequality and increase in immigration in the United States during the last thirty years are the main explanation for party polarization. Though income inequality increased significantly in the United States since 1980, the linking between inequality and polarization is a very recent contribution to the scholarship on party polarization (McCarty et al. 2006:73).

McCarty et al. see a close relationship between the Gini-index ${ }^{7}$, immigration ${ }^{8}$ and polarization. They argue: "inequality and polarization are linked by a dynamic relationship in which the increased inequality generated by rising top incomes produces electoral support for conservative economic policies and facilitates a movement to the right by Republicans". This dynamic relationship, which McCarty et al. call a "Dance", means that the polarization caused

[^5]by rising inequality makes it harder to enact legislation that decreases inequality. With no policy response inequality continues to increase which again creates greater party polarization (Barber and McCarty 2013:30, McCarty et al. 2006).

McCarty et al. argue that income has become one of the most important explanations for why voters sort: "High-Income voters increasingly identify with the Republican Party...[while] low income voters are increasingly in the Democratic camp" (McCarty et al. 2006:71). McCarty et al. used the average income of Democratic and Republican households to verify their hypothesis. Using data from 1973 to 2003 they proved that the average income difference between Democratic and Republican households had doubled from in a thirty-year period. In 2003 the average Republican household earned $\$ 49.355$ while the average Democratic household income was $\$ 41.066$, a gap of $\$ 8.289$ (McCarty et al. 2006:48).

The link between income inequality and polarization has been criticized for being a spurious correlation, but a study by Garand: "Found strong evidence that state-level inequality exacerbates constituency polarization within states and predicts the extremity of Senate voting behavior" (Garand in Barber and McCarty 2013:30).

In part 3.1.4 the economical explanation will be applied for Texas.

### 2.3.5. Extremism of party activists

We have seen that both the redistricting and constituent sorting explanations argue that today's legislators in Congress have safer, and less competitive congressional districts. But what is the link between safe districts and increasing party polarization?

The role of party activists is by several scholars seen as an important reason for the increasing party polarization (Layman et al. 2006:96-100, Masket 2009, Sinclair 2006:22-28, Skocpol and Williamson 2012, Theriault 2008:chap. 6). Party activists may be defined as different kind of groups within the party, for instance the elites (the elected representatives), the convention delegates, or the grassroots activists (often called partisans). These terms are often used interchangeably in the literature of party polarization (Theriault 2008:112). I will in this part focus on the convention delegates and grassroots activists, and I will use the Tea Party-movement as an example of grassroots activists.

Scholars have for decades seen that delegates attending the Republican or Democratic national conventions ${ }^{9}$ are more ideologically conservative or liberal than the common party identifier. This trend has been occurring since the 1960s. Prior to the 1960s convention delegates (and party activists in general) were; "professionals who sought victory at the polls. Issues and ideologies necessarily took a back seat to winning elections" (Theriault 2008:111). After the 1960s the convention delegates have gone from being party professionals to ideological "amateurs", and have increasingly moved to the ideological poles on issues that separate the Republican and Democratic parties (Layman et al. 2006:97). Results from the Convention Delegates Studies and National Elections Studies shows that around 4 percent of Convention delegates regarded themselves as "extreme liberal" or "extreme conservative" in 1972. While in 2000 this number had increased to 15 percent. In the public in general only 5 percent regarded themselves as "extreme conservatives or liberals" (Theriault 2008:114-115, Layman et al. 2006:97).

The last group of activists is grassroots activists. One example I will use in this thesis is the Tea Party-movement ${ }^{10}$, which emerged in February 2009 just weeks after the inauguration of Barack Obama. From 2009-2012 Skocpol and Williamson made a comprehensive qualitative study of the Tea Party, and how they have become a massive force within the Republican Party. The Tea Party consists of all the groups of activists mentioned above; at elite level there is a large Tea Party-caucus in both chambers of Congress, as well as elected representatives in state level offices. These elites have received million-dollar donations from right-wing Foundations like FreedomWorks and Americans for Prosperity. The Tea Party also consists of a large group of grassroots activists that arrange rallies and meetings all over the United States (Berry, Portney and Joseph 2014:1,5, Skocpol and Williamson 2012:9,10,13). In this thesis I will call the grassroots activists associated with the Tea Party for Tea Partiers.

The Tea Partiers are composed of a large majority of white, age 40+, middle class and evangelical Protestants, where men compose over $60 \%$ of the movement. This is also a very common social profile for a typical Republican. What distinguishes Tea Partiers is that they

[^6]are much more ideologically conservative than the median Republican, and are more angrily opposed to the Obama administration (Skocpol and Williamson 2012:26-27,30,42).

The Tea Party may be regarded as the last element in creating a more conservative oriented Republican Party. Barbara Sinclair argues that since the 1970s a coalition of rightwing intellectuals and evangelical leaders have built a "neo-conservative" infrastructure that has dragged the Republican Party to the right (Sinclair 2006:chap 2). Abramowitz also argues that the Tea Party is the latest (and loudest) addition to a long-term ideological shift within the Republican Party (Abramowitz 2011). Abramowitz connects this to the ideological realignment that has occurred in the electorate, which was reviewed in part 2.3.2.

How does grassroots activist, like the Tea Partiers, drive polarization? The Pew Study (2014) finds that activists are less willing to compromise with the other party's legislative agenda, and they are less willing to allow their elected representatives to make compromises as well. In addition activists are much more engaged in politics, and almost always vote in every election. The Pew Study also finds that over 70 percent of the politically engaged Republicans are "mostly" or "consistently" conservative, and also 70 percent of the politically engaged Democrats are "mostly" or "consistently liberal" (Pew 2014:25,56).

Revisiting Weisberg's dyadic-correspondence model, that I first introduced in part 2.3.3 (see figure 2.1 as well) the "the legislator's perception of the constituency attitude" had an important effect on the legislators' roll-call votes (Dalton 2008:224). Hypothetically, since activists are more engaged in elections, the legislator may perceive that his/hers constituency is more conservative or liberal than it actually is, since the activists are best in making their voice get heard.

Layman et al. (2006) see the new role activists have gained during the last decades as a key factor in explaining the increasing polarization in Congress. They argue that there are two key factors: one is that the activists hold more extreme ideological views. Activists are regarded by Layman et al. (and other scholars as well) as the "dynamic element" in the partisan process, and by holding more ideological views contribute to the "conflict extension" that has occurred the last decades (2006:96-100). Taking the Tea Party as an example of "conflict extension", Skocpol and Williamson argue that the Tea Party has made a significant impact on the Republican Party, and has an ambition of remaking the Republican Party "into a much more uncompromising and ideologically principled force...[wanting] Republicans in offices to refuse compromises with the Democrats ... [and] they "go nuclear" when GOP
officeholders take any steps toward moderation and negotiation" (2012:156). The Pew Study mentioned above shows that activists are more ideological, while Skocpol and Williamson's study shows that the Tea Partiers are even more on the ideological fringe.

The other factor Layman et al. emphasize is that activists play an important role in the nomination process. In the United States most party nominees are selected in primary elections ${ }^{11}$, in contrast to other democracies where nominees most often are selected by a small group of party elites. In the late 1960s several reforms were implemented that made the primary process in both congressional and presidential elections more open and participatory. Layman et al. argue that in the primary process: "...candidates need the support of party activists, who are disproportionately represented in these contests, to secure nominations. ... Party nominees also need activists' financial support and manpower in order to win general elections" (2006:96). Tea Partiers are a good example, by Skocpol and Williamson seen as "watchdogs" on the conservative fringe, Republicans legislators are in many ways pushed to the right. If they held too moderate stands it is likely that they will meet a Tea Party-backed challenger in the next primary. This is what happened in 2010, 2012 and 2014 when several established Republican legislators lost their seat to a Tea Party backed challenger. The biggest upset came in June 2014 when Eric Cantor, the majority leader ${ }^{12}$ in the House of Representatives, lost his seat to a Tea Party-backed primary opponent (Berry et al. 2014:8, The New York Times 2014b, Skocpol and Williamson 2012:178-183). This may support Layman's et al. primary explanation.

The primary explanation, that Layman et al. argue is a driver for polarization, is a great source of debate. Kaufmann, Gimpel and Hoffman argue that in open primary elections nominees are less polarized, and in general hold more ideological views than the rest of the electorate. This is in contrast to closed primary elections, which is dominated by party activists, and the nominees are more polarized (Kaufmann et al. in Barber and McCarty 2013:29). McGhee, Masket, Shor, Rodgers and McCarty (2013), McCarty et al. (2006), and Barber and McCarty

[^7](2013) see the primary explanation as "implausible as best" and argue that polarization has increased despite reforms opening up most primary elections. They further argue that open primaries did not create more moderate candidates, and have little effect on the legislators' ideology (McGhee et al. 2013:347, Barber and McCarty 2013:29). Regardless of open or closed primaries the literature sees activists as an important explanation for the increasing polarization. One reason is the role that the legislators elected and endorsed by activists play in Congress. This I will examine in part 2.4.

Finally in this sub-chapter I find it relevant to analyze party activism in the lens of May's special law of curvilinear disparity. Often called for May's law, this classical model explains ideological conflict within a party. May divides the party into three categories: leaders, subleaders, and non-leaders, who are hierarchically ranked after their status and powers. May's law claim that: "non-leaders usually take the most moderate line on any particular issue, subleaders prove the most ideologically extreme, while top leaders are located equidistant between these echelons" (Norris 1995:30, May 1973:135-136).

The various explanations revised in part 2.3 and 2.4 may fit well into Mays theory. As mentioned in part 2.3.3 the American population (which here may be regarded as "nonleaders") has not polarized in the same degree as the Republican and Democratic parties, but they have sorted into the two political parties as they have become more ideologically distinct. In part 2.3 .5 we saw that activists, like the Tea Party-movement, are often the most ideologically extreme. This goes hand in hand with May's law, which claim that it is the subleaders who are the most ideologically extreme. An argument is that May's law may be more appropriate in explaining the activist behavior within the Republican Party, which has seen the surge of the Tea Party-movement, but not for the Democratic Party, which has not seen a formation of a similar movement (May 1973:135-136, Norris 1995:30-31). Party Activism in Texas will be further analyzed in part 3.1.5.

### 2.4. Internal explanations

We have seen that redistricting, the constituent and partisan sorting of voters fueled by increasing economic inequalities and partisan activists are key explanations for party polarization. But what factors drive polarization from the inside of Congress? The internal factors have become a major part of the recent literature. Even if the internal explanations will not play any major part in the rest of this thesis, I regard it as important to review these theories since they contribute in explaining the growing party polarization. Therefore in this chapter the internal explanations will be briefly reviewed. The chapter will end in a short discussion whether the external and internal explanations may be linked together.

### 2.4.1. Revival of party cohesion and replacement of moderates in Congress

In the period of 1950 to 1980 several transformations occurred inside Congress that according to scholars like Lee (2009), Jacobsen (2013), Sinclair (2006) and Theriault (2008, 2013) paved way for polarization and partisan warfare. They argue that these transformations may be traced to several waves of elected representatives that changed the norms inside of Congress, at the same time as rule changes made this possible. I will here briefly address the transformations of the two parties. Since the transformation of the Democratic Party occurred previous to the Republican one, I will address their transformation first.

## Transformation of the Democratic Party 1960-1980

In the mid- $20^{\text {th }}$ century the Democratic Party dominated congressional politics, having the majority in both chambers of Congress almost continuously from 1930 to 1994 (Sinclair 2006:67). But the Democratic Party at that time was a large and fractious party with a large group of conservative Democrats from the South and liberal and moderates in the North. The ideological distance factions had a DW-nominate score of 0.4 in the $92^{\text {nd }}$ congress. In the last thirty years the ideological distances has within the Democratic Party decreased to less than 0.2 . To form a majority the conservative Democrats often voted with the Republican Party (Sinclair 2006:70,73, Theriault 2013:20). Due to the ideological realignment the conservative Democrats gradually disappeared from the national scene. The same did the liberal Republicans. In part 2.3.2 and 2.3.3 I discussed the external factors that contributed to the vanishing of these groups. But two waves of new elected representatives, in each ideological camp, amplified this process, and transformed Congress from the inside from a "textbook Congress", with fractious parties, to a "partisan Congress" with distinct and cohesive parties.

Sinclair argues that the first wave occurred in the aftermath of the Watergate scandal in 1974. The scandal, which brought down president Richard Nixon, tarnished American politics in general. In the following midterm elections the same year a large group, consisting of 75 progressive and young Democrats were elected. Called the "Watergate babies" they according to Sinclair: "...had come into this hidebound institution and produced a revolution, suddenly and completely upending the old power structure" (2006:68). With the Watergate babies rise to prominence they managed to implement several reforms that changed Congress, which I will discuss in part 2.4.3. They also transformed the Democratic Party to a more cohesive and liberal party (Sinclair 2006:74).

## Transformation of the Republican Party 1978-1994

In the late 1970s several changes also occurred inside the Republican Party. With the Democrats having the majority in Congress for several decades, the Republicans were in the late 1970s regarded as a "permanent minority" in Congress. For several Republican legislators the culture was to "go along to get along", meaning that instead of being purists at the ideological fringe, they rather moved to the middle to make compromises with the Democrats (Sinclair 2006, Theriault 2013:25).

As mentioned briefly in part 2.3 .5 a build up of a neo-conservative infrastructure in the late 1960s and 70s brought new and more conservative ideas into the Republican Party. The elections of 1976, 78 and 80 brought several of these new conservatives into Congress. One of them was Newt Gingrich, first elected to the House in 1978. Gingrich is often claimed as the architect of transforming the Republican Party from an ideologically indistinct party, that often made compromises with the Democrats, to a confrontational, distinct and cohesive conservative party (Sinclair 2006, Theriault 2013:25).

Through the Conservative Opportunity Society (COS), which Gingrich founded with other conservatives in the late 1970s he, according to Theriault: "...had an organization to help him criticize the Democratic leadership and bring down the 30-year Democratic majority that had persisted in the House" (Theriault 2013:22, Sinclair 2006:113). After slightly gaining more ground in several elections the Republican won the majority in both Houses of Congress in 1994, making Gingrich ${ }^{13}$ Speaker of the House.

[^8]Gingrich transferred the tactics he had used inside of Congress to the outside as well, engineering a more confrontational electoral strategy for Republicans seeking office. As a result of Gingrich confrontational strategy the DW-nominate scores for the Republican legislators have increased significantly since Gingrich entered the House in 1978 (Theriault 2013:23-24,28). He is also seen as key person in explaining the increased polarization in Congress. As mentioned in part 2.3.1. Theriault argues that the increased polarization in the House has "spilled" over to the Senate. In a comprehensive study of Gingrich and his colleagues, Theriault created a term called the "Gingrich Senators". This is a group of Republican Senators that first served with Gingrich in the House before they became Senators. Theriault argues that the "Gingrich Senators" have had an important effect of creating a more partisan and polarized Senate (Theriault 2013).

## Strategic disagreement

The more confrontational approach to policymaking that especially the Republican Party implemented in Congress are by many scholars called strategic disagreement or "teamsmanship" (Barber and McCarty 2013:35, Lee 2009). Since the battle for the majority in Congress and in the presidential elections has become very competitive the last decades, the party often sees an electoral advantage in refusing to compromise with the other party, for then to blame the other party for the legislative gridlock in hope of gaining an electoral advantage in the next election. This may be strengthened by the fact that divided government ${ }^{14}$ has been the general trend since the 1970s. Jacobsen argues that: "...divided government helped to unify both parties in both houses" (2013:261), analyzing that the party unity vote increased significantly within both parties in the 1980s. Barber and McCarty claim that strategic disagreement: "...often results in the appearance of a level of polarization that exceeds the actual policy differences between the parties" (2013:35).

[^9]
## Replacement of moderates

One important factor that has contributed to both party cohesion and polarization in Congress is the replacement of moderates, which has escalated the last decade. As mentioned in part 2.3.3 and 2.3.5 ideological moderates have vanished from both parties since the 1970s. In both the 2006 and 2008 elections several moderates retired from the House. In 2010 moderates retired as well, but many of them lost their seat to Tea Party-candidates (also mentioned in part 2.3.5). In this election the amount of "blue dog" moderate democrats dropped from 54 to 27 and it further decreased to just 14 after the elections of 2012 (Nelson 2014:163).

With the 2014 elections just finished, where the Republican Party gained control of the Senate as well, political pundits see that the increasing number of very conservatives in both chambers of Congress may contribute to more polarization and increase the strains within the Republican Party (The New York Times 2014b).

### 2.4.2. Institutional reforms

The changes that have happened to Congress as a legislative institution since the 1970s are by many scholars, like Schickler, McGhee and Sides (2003), Sinclair (2006) and Theriault (2008, 2013) seen as explanations for increasing polarization. In the 1970s several reforms where passed in Congress. The most notable were the seniority reform, the "sunshine reform", and the committee reform (Schickler et al. 2003:301). The Seniority reform made it possible to elect committee leaders on other criteria than seniority. They also changed the elections of Committee Chairs from open to secret ballots. The second reform was the Legislative Reorganization Act of 1970, which Schickler et al. call the "Sunshine reform" (2003:303). This reform changed the votes on floor amendments from being secret to being recorded. Moderations of the reform required that Committee meetings should be held in public. The third reform that Schickler et al. address is the several acts that reorganized the several Committees in both chambers of Congress (2003:304-305).

All of the reforms of the 1970s era changed the old and quite hierarchical system of electing chairs and Committees, and increased the powers of more junior and activist members of Congress. The reforms opened up Congress, but also made it more exposed to public scrutiny. It also gave more power to junior, ideological and activist members. One of the most striking
examples happened in 1975 when three senior chairs where overthrown and replaced by junior committee members (Schickler et al. 2003:301-304, Sinclair 2006:73-80).

The reforms changed the rules and procedures in Congress, and gave more powers to the leaders of Congress as well. When seniority became less important, the leadership elected the most loyal rather than senior members to become committee chairs. The leadership gained a powerful tool in threating members in denying them a chairmanship if they were disloyal to the party agenda. This is one of several "rewards and punishments" congressional leaders have to hold their fellow partisans in line. At the same time as leaders of Congress have gained more power, they have also become more polarized. Another reason for this is the growing divergence between the parties. Rohde and Aldrich claim that: "the leadership of political parties grows stronger when the parties become more internally homogeneous and externally heterogeneous" (Rohde and Aldrich in Theriault 2008:133).

Theriault analyses the use of procedural votes and sees that the frequency of using procedural votes instead of substantive votes has changed dramatically since the 1970s. He maintains that: "as parties increasingly rely upon procedures, they are pushing themselves further apart above and beyond the substantive of their policy proposals" (Theriault 2008:180).

The theories mentioned in part 2.4 have been counter-argued by several scholars. Barber and McCarty regard internal changes as plausible, but see several methodological challenges in connecting both the reforms, rule changes and growing power of leaders (which they call "party pressures") to polarization. Barber and McCarty regard it as: "unlikely that a one-time rules change would produce such a long-term trend" (Barber and McCarty 2013:33-35).

### 2.5. The link between the external and internal explanations

In this chapter I have briefly analyzed some of the most common explanations for the increasing polarization in American politics. We have seen that scholars disagree over what is the causal chain and which explanations actually account for polarization. Theriault argues that the biggest weaknesses with the external and internal explanations are that they "are independently incomplete" (2008:7). The picture becomes more complete when the various external and internal explanations are linked together. Sinclair maintains that: "external factors...made possible and were necessary condition for some of the internal changes...[but]...internal changes have shaped and amplified the effect of external factors and have had consequences of their own for how Congress makes law" (Sinclair 2006:66). Linking the external to internal changes is a challenging task, however several scholars are now focusing on this link. Another trend is that several scholars are now analyzing some of the consequences of party polarization (Theriault 2008: chap. 10).

As mentioned earlier the literature on party polarization is comprehensive. Several other scholars have provided different explanations for this phenomenon that is not mentioned in this thesis. For instance D'Antonio, Tuch and Baker (2013) see religion and the rise of the evangelical right as the main reason for party polarization. Others like Bickerstaff (2007) regard money as a central explanation. Race is often regarded as a key factor as well, which will be reviewed in chapter 3, but not as a separate theory. The scholarship on party polarization is in rapid development, and to embrace all the different aspects of the literature is an almost impossible task.

The reason why I preferred to analyze the redistricting, ideological realignment, constituent sorting, economic and party activism explanations were that they are the most common explanations found in the literature. They may still be regarded as relevant, and stand the test of time for decades to come. In addition I also found it relevant to briefly review the most central internal explanations.

In the next chapter I will look closer at the state of Texas. I will use the external explanations mentioned in this chapter and see if they may be applied to the Texas Congressional Delegation and their electoral districts.

## 3. Selection of case and how the theoretical framework applies to Texas

### 3.1. Selection of case - Texas

Due to the limitations of this thesis I have chosen to only analyze the congressional delegation from Texas in the House of Representatives (CDT). This is to get the best in-depth analysis of the external explanations that were summarized in chapter two. What will be analyzed are the CDTs congressional districts from the $97^{\text {th }}$ to the $112^{\text {th }}$ Congress.

Table 3.1: Texas compared to the United States (2014)

|  | United States | Texas |
| :--- | :--- | :--- |
| Population: | $305,745,538$ | $25,145,561$ |
|  | $(9,7 \%$ increase since 2000 $)$ | $(20,6 \%$ increase since 2000 $)$ |
| Population per square mile: | 88 | 96 |
| Urban/Rural: | $80,9 \%$ - Urban | $84,7 \%$ - Urban |
|  | $19,1 \%$ - Rural | $15,3 \%$ - Rural |
| Mean household income: | $50,502 \$$ | $49,392 \$$ |
| Gini-Index: | 0,481 | 0,481 |
| Race: | $74,1 \%$ - White | $74,6 \%$ white, |
|  | $12,6 \%$ - Black | $11,7 \%$ black, |
|  | $4,8 \%$ - Asian | $3,9 \%$ Asian, |
|  | $0,8 \%-$ Native American | $0,5 \%$ Native American |
|  | $4,9 \%-$ Other 15 | $7,0 \%$ Other |
|  | $2,8 \%$ - Two or more races | $2,3 \%-$ Two or more races |
| Hispanic/Latino ethnicity: | $16,7 \%$ | $38 \%$ |
| Percentage of the 2012 | Barack Obama (D): $51 \%$ | Barack Obama (D): $41 \%$ |
| Presidential Vote: | Mitt Romney (R): $47 \%$ | Mitt Romney (R): $57 \%$ |

Source: Barone et al. 2013:5,1564, United States Census Bureau $2014 b$

As seen in table 3.1, Texas has almost the identical demographical composition and economic distribution as the rest of the United States. One might see that there is quite a larger group of Hispanic ethnicity in Texas (38\%) compared to the Nation as a whole ( $16,7 \%$ ), that Texas has experienced a larger population growth, and that Mitt Romney performed 10 percentage points better in this State in the 2012 presidential election.

Texas has often been characterized as an overwhelmingly conservative state, but this has been counter-argued by Anderson, Murray and Farley (1990: chap. 2). In spite of the

[^10]common assumption of overwhelming conservatism, Texas has a history that makes it possible to apply and test the theories explained in chapter 2 . This will be further analyzed in the following sub-chapters, were the different external explanations mentioned in Chapter 2 will be fitted into a Texan context. First I will summarize some of the major redistricting events that have occurred in Texas. Then I will look at how ideological realignment, constituent sorting, party activism and eventually other factors fit into a Texan context. After every sub-chapter one or more hypotheses will be generated. The hypothesis will be tested in chapter 6.

Whether or not Texas is more polarized than the rest of the United States will also be tested in section 6.1. In the end chapter 4 I will have brief debate if it may be called a case study or not and other methodological choices.

### 3.1.1. Redistricting of the congressional districts in Texas

Since the Second World War Texas has experienced an enormous population growth. From a population of only 4.6 million in the 1940s, Texas' population has increased to over 25 million in 2010 (see table 3.1). In 1994 Texas surpassed New York to become the second most populous state after California, and became the second largest state delegation in the House as well (Barone, McCutcheon and Trende 2013:1559, Bickerstaff 2007, Anderson, Murray and Farley 1989). Due to the population increase, Texas has gained several congressional seats, which again has produced several rounds of redistricting. Therefore the redistricting explanation (mentioned in part 2.3.1.) may be applied.

It is the Texas State Legislature that is responsible for drawing the Congressional districts. The party that has held the majority in the State Legislature, which for most of the last century was dominated by the Democratic Party, has at times managed to draw quite biased redistricting plans. In the aftermath of the 1990 census the Democratic legislators managed to create a redistricting plan called both "the shrewdest gerrymander of the 1990s" and the Democratic "masterpiece". For instance the 1991 redistricting plan gave the Democrats the majority in congressional seats although they didn't manage to get the majority of the popular vote (Bickerstaff 2007:29, Barone et al. 2009:1407).

Table 3.2: Number of legislators and population growth in Texas - 1970-2010.

| Year | Legislators/Congressional districts | Population |
| :--- | :--- | :--- |
| 1970 | 24 | 11.196 .730 |
| 1980 | 27 | 14.228 .000 |
| 1990 | 30 | 16.986 .510 |
| 2000 | 32 | 20.851 .820 |
| 2010 | 36 | 25.145 .561 |

Source: U.S. Census 1970-2010, Barone et al. 2013

In 2002 the Democrats lost control of both chambers in the Texas State Legislature (as shown in figure 3.2). The new Republican majority did not hesitate in creating a new redistricting plan. In the following year one of the most controversial special redistricting plans in United States history was passed. After the 2003 redistricting the congressional delegation (as seen in figure 3.2) went from a 17-15 Democratic majority in the $108^{\text {th }}$ to a 21 11 Republican majority in the $109^{\text {th }}$ Congress, giving Texas the largest Republican delegation from any state. According to Bickerstaff: "The 2003 redistricting plan was designed to provide noncompetitive congressional districts" (2007:3-6). The plan intended to marginalize the Democratic Party as well, targeting specifically white democratic legislators (Barone et al. 2005:1576, 2013:1407). The plan succeeded and as seen in figure 3.1 below the Republicans gained several legislators after the $108^{\text {th }}$ Congress.

The test in this case if is the several rounds of redistricting since 1980 have caused a more polarized delegation from Texas. Here I will use the theoretical framework to Carson et al. first mentioned in part 2.3.1. Based on Carson's et al. theory and methodological framework my hypothesis is as follows:

[^11]Figure 3.1: Democratic and Republican legislators in the Texas Congressional Delegation 97th to $114^{\text {th }}$ Congress


Figure 3.2: Party control in the Texas House of Representatives and Texas Senate 1979-2015
Source: Anderson et al. 1989:119, Poole 2014


### 3.1.2. Ideological realignment in Texas

Texas was, like most other southern states, for over a century a de facto one-party state dominated by the Democratic Party. In spite of only having one electorally successful party for nearly a century, the Democratic Party consisted of large conservative and liberal factions.

In the late 1960s and throughout 1970s the Democrats grip on the Lone Star State started to loosen. Shifts both within-state and at the national level paved way for a competitive, and later on dominant, Republican Party. According to Abramowitz and Saunders (1998) and Cunningham (2010) the massive immigration to Texas was an important reason for the ideological realignment. As mentioned briefly in part 2.3.2 most of the immigrants where white conservative voters and didn't have the old grudges to the GOP ${ }^{16}$ (Abramowitz and Saunders 1998:638, Cunningham 2010:80).

In addition what Cunningham has called "the nationalization of state political culture" gave several new challenges to the Texas Democratic Party (2010:194). The 1972 presidential election was for many a major turning point when the Democratic Party nominated the George McGovern for president. McGovern's nomination, which candidacy was labeled as one of "acid, amnesty and abortion", was the last straw for many conservative Texan Democrats that could not bear the ultraliberal policies of the Democratic presidential nominee (Cunningham 2010:138-139).

The Democratic presidential nominee of 1976 Jimmy Carter managed to win Texas, but Democrats ultimately lost the grip of the Lone Star State. As late as 1978 "...twice as many Texans still identified themselves as Democrat than Republicans. Yet, twice as many Texans identified themselves as conservative rather than liberal" (Cunningham 2010:193). Carter's unpopular presidency combined with the rise of Ronald Reagan as a conservative icon made several conservative Democrats realign with the Republican Party. Reagan, who himself formerly been a Democrat, "more than any other political figure in the state, tore down the barriers of loyalty and tradition that had kept many Texans voting Democrat for so long" (Cunningham 2010:223). Reagan ultimately defeated Carter with landslide margins in both Texas and the rest of the United States in the 1980 presidential election.

Since the mid-1990s the Republicans has dominated in statewide elections ${ }^{17}$. Democrats have not carried Texas in a presidential competition since Carter's slim victory in

[^12]1976, and not won any statewide election since 1994. The Democrats managed to hold the majority in the Congressional Delegation until the $108^{\text {th }}$ Congress, due to the Democrats had a structural advantage until 2003. After 2003 the Republicans have had a clear majority in the Texan Congressional Delegation (see figure 3.1) (Barone et al. 2013:1559-1569).

According to Cunningham "The roots of national conservative Republican growth between 1980 and 2004 were located deep in the heart of Texas" (2010:241). To test the ideological realignment-theory I will see whether the Republican and Democratic legislators have become more cohesive. As seen in the literature the major realignment occurred when the traditional conservative Democrats shifted parties and became Republicans. Therefore it is not unthinkable that the Democratic Texan delegation has become more liberal since the 1980s, and that the Republican more cohesively conservative. This will be done analyzed in section 6.1.

### 3.1.3. Constituent and partisan sorting in Texas

Texas is a large state with enormous rural areas, but the Lone Star State is also home to large cities like Houston, Dallas and San Antonio. According to Barone et al. Texas may be divided into four large regions for electoral analysis: "The Dallas-Forth Worth Metroplex, The Metro Parts of Houston, the more Democratic parts of the state (metro Austin, metro San Antonio, Rio Grande Valley), and the remainder rural and small town Texas, east, north, south and west" (Barone et al. 2013:1563-1564).

In part 2.3.3 I analyzed several various explanations for constituent sorting. One of the findings, based on the Pew study, was that voters living in rural areas tended to be more conservative that voters in urban areas (Pew 2014:13,42-52). Another theory mentioned in part 2.3.3 was Dalton/Weisberg's dyadic-correspondence model that argued that the constituency's ideology affected the legislator's attitude, ideology and roll call votes. Dalton/Weisberg's theory is indirectly counter-argued by Levendusky who maintain that it is the legislators who affect the constituency's ideology. Since the legislators in Washington have drifted to the ideological poles it is easier for the common voter to see which legislator who are closest to their own ideological beliefs (Levendusky 2009:chap. 1).

In this test I will try to find out if there is a link between the percentages of rural population and the conservativeness of the districts legislator.
$H_{2}$ : Legislators from rural districts are more conservative than legislators from urban districts in Texas.

### 3.1.4. Income inequality in Texas

"Without the underpinnings and burdens of tradition, $20^{\text {th }}$ century Texas produced fabulous wealth, generously rewarding success while being unforgiving of failure" (Barone et al. 2013:1559). With Barone et al.'s citation in mind it is not surprising that political pundits and scholars have regarded Texas as one of the states with the highest income inequality of household income in the United States (Schnurman 2014).

A combination of rapid immigration, great economic growth and in general policies that has not dealt with income redistribution has been regarded as some of the explanations for the rising income inequality in Texas as well as the United States. The explanations for what causes income inequality is not central part of this thesis, but mentioned in part 2.3.4 McCarty et al. argue that there is a link between income inequality and polarization (2006). McCarty et al. does this by linking polarization scores to the Gini-index. In addition McCarty et al. use the mean household income and compare it with party identification. Their finding is that Republican household has an average higher mean household income than Democratic households, and that the difference between Republican and Democratic household income has nearly doubled from $\$ 4,525$ in the $93^{\text {rd }}$ Congress to $\$ 8,288$ in the $108^{\text {th }}$ Congress (McCarty et al. 2006:6,48).

In figure 3.3 we see that both the United States and Texas has seen a significant increase in income inequality since 1979. The increase in Texas was slightly higher than in the rest of the United States from 1979 until 1999. In the first decade of this millennium income inequality has continued to increase, but the rest of the United States has equaled Texas, both having a Gini-index of 0,48 (United States Census Bureau 2010b, 2014b). This means that the income inequality in both Texas and the United States is quite high compared with other western countries, for instance most western European countries has had a Gini Index ranging from around 0,25 to 0,37 (Smeeding 2005:958).

Figure 3.3: Income inequality in the United States and Texas (1969-2013)


Source: United States Census Bureau 2010b, 2014b:2

The Census Bureau has also collected household income data at the county level. An interesting finding is that some of the most economically unequal counties in disproportionally located in The South. Another finding is that Texas is home to both Edwards County, who has the second highest Gini-score in the US with 0.626 , and Loving County with the lowest Gini-score with 0.207 (United States Census Bureau 2012:1,4). This proves something of the diversity within Texas.

A data that is more easily collectible is the mean household income from every congressional district. This is for instance given in the Almanac of American Politics, and will be examined in part 4.2.3 (Barone et al. 1972-2014). The hypotheses generated are as follows:
$H_{3}$ : The higher the mean household income of a district, the more conservative the legislator is.
$H_{4}$ : The higher the poverty rate, the more liberal the representative from the district is.

### 3.1.5. Party activism in Texas

Party activism has for most of the $20^{\text {th }}$ century played a different role in Texas than on the national scene. Being a de-facto one-party state (also mentioned in part 3.1.2) most of the activism was not party labeled, but ideologically labeled with the struggles under the large Democratic umbrella. According to Anderson et al. (1989) the Texan Democratic Party consisted of a large conservative and liberal wing. The conservative faction of the Democratic Party was the most successful, since they contributed the most to the low levels of political participation and that conservatives voted in higher numbers than liberals. During the oneparty regime winning the Democratic Primary most often was equivalent to with winning the election (Anderson et al. 1989:57-61).

The establishment of a two-party regime in Texas in the 1970s and 80s and the rise of Ronald Reagan as a conservative icon and presidential candidate created more party activism in Texas. Reagan's presidential campaigns of 1980 and 1984 mobilized more grassroots support in Texas than ever seen before. George W. Bush rise to both the Texas governorship in 1994 and Presidency in 2000 played on the same conservative strings as Reagan's success in the 1980s (Cunningham 2010:159-236).

In the last years The Tea Party Movement, which I analyzed in part 2.3.5, has become a major factor within Texas. The victory of Ted Cruz in the 2012 Texan Senate election was for many seen as the "affirmation of the Tea Party Movement's power". With far less campaign funds, but with the backing of the tea party activists, Cruz managed in an upset primary to win over the Republican establishment candidate. Cruz is the latest example of legislators that have won because of strong Tea Party support (Barone et al. 2013:1576).

With as many as 13 Texan legislators supported or affiliated with the Tea Party (from now on called Tea Party-Legislators), Texas has by far the largest portion of the Tea Party Caucus in the House of Representatives (Barone et al. 2013, The Atlantic 2010, Fox News Insider 2011, The New York Times 2010). Most of the legislators affiliated with the Tea Party today had been long time members when the Tea Party was formally established in 2009. An interesting test is to see whether the Tea-Party Legislators has traditionally been more conservative than their republican co-legislators. It is also worth testing if the Congressional Districts to the Tea Party Legislators are more ideologically extreme. How this test will be conducted will be presented in part 5.2.4 and 6.2.
$\mathrm{H}_{5}$ : Tea-Party-Legislators are more, and have traditionally been more, ideologically conservative.

### 3.1.6. Other factors

There may of course be several other factors contributing to the polarization within the Texas Congressional Delegation, which may also have an impact on the legislator's ideological score. Things that may need to be controlled for are the gender and the ethnicity of the legislator. Another factor that is hard to control but may of course have impact is the legislator's personality.

In addition Texas has also been home to two of the presidents during the timespan of this thesis: George H.W. Bush (1989-1993) and George W. Bush (2001-2009). Both were Republicans and it might be interesting to see if the Republican base is more strongly coherent and "rally" to support their presidents, who are both a fellow partisan and Texan.

### 3.2. Overview of hypotheses

In table 3.3 is an overview of the hypotheses mentioned in this chapter.

Table 3.3: Overview of hypotheses in this thesis

| Nr. | Hypotheses | Counter-hypotheses | Theoretical <br> explanation |
| :--- | :--- | :--- | :--- |
| $\mathrm{H}_{1}$ | Legislators from redistricted <br> districts in Texas are more <br> ideologically conservative in the <br> United States House of <br> Representatives. | Legislators from redistricted <br> districts are not more <br> ideologically conservative. | Redistricting |
| $\mathrm{H}_{2}$ | Legislators from rural districts <br> are more conservative than <br> legislators from urban districts <br> in Texas. | Legislators from rural districts <br> are not more conservative than <br> legislators from urban districts <br> in Texas. | Constituent sorting |
| $\mathrm{H}_{3}$ | The higher the mean household <br> income of a district, the more <br> conservative the legislator is. | The constituencies mean <br> household has no effect on the <br> legislators' ideological position. | Economic explanation |
| $\mathrm{H}_{4}$ | The higher the poverty rate, the <br> more liberal the representative <br> from the district is. | The poverty rate has no effect <br> on the legislator's ideology. | Economic explanation |
| $\mathrm{H}_{5}$ | Tea-Party-Legislators are more, <br> and have traditionally been <br> more, ideologically <br> conservative. | Tea-Party Legislators are not <br> more ideologically conservative. | Party activism |

## 4. Data and method

### 4.1. Brief overview of methodological approaches and data used in the literature

There are dozens of methodological approaches in the constantly growing literature on party polarization where both qualitative and quantitative methods have been frequently used. Masket (2009) and Skocpol and Williamson (2012) made qualitative interviews with respectively party organizers and Tea Party supporters. Several scholars like for instance Cunningham (2010) and Sinclair (2006) had a historically oriented methodological approach.

Still the vast majority of research done on party polarization has had a quantitative approach. This is due to several reasons. Data on Congress has always been quite easily available, and legislator's votes have been recorded since the first sessions ever held in both the House of Representatives and the Senate. One might say the same about Census data, which has been gathered since the early days of the United States. In addition several interest groups have since the mid-20 ${ }^{\text {th }}$ century rated legislators (Barone and Ujifusa 1999:16-17).

The work done the last four decades by Poole and Rosenthal with others (2007) with the development of the Nominate-scale, and gathering of data on every Congress, has been a major contribution for this research field. It may also explain why much of the literature uses various quantitative approaches. Most of the literature uses a cross-sectional or time-series approach or a combination of both. Both Theriault and McCarty et al. for instance make cross-sectional comparisons of the $93^{\text {rd }}$ Congress with the $108^{\text {th }}$ Congress as well as looking at how polarization has developed over time (Theruailt 2008:18,22, McCarty et al 2006:48).

The reason why most scholars have the opportunity to use both cross-sectional and time-series is that they use the datasets provided from voteview.com where both roll call votes and legislator estimates have been collected for every Congress. This gives researchers the possibility to check how Congress has developed over time as well as making crosssectional analysis for every session in Congress.

The Nominate-scale and data will be reviewed in chapter 4 and 5 .

### 4.2. A case study or not

It is worth discussing if this thesis may be called a case study or not. Gerring argues:"There are two ways to learn how to build a house. One might study the construction of many houses ... or one might study the construction of a particular house". This citation from Gerring (2007:1) says something about the methodological approaches one might take. In this thesis if we regard the 50 state delegations in the United States Congress as "many houses", Texas is then one, but a very large "house". First of all, Gerring has defined a case study as an: "...intensive study of a single case where the purpose of that study is ... to shed light on a larger class of cases (a population)" (2007:20). He further adds that case studies may incorporate multiple case studies, which he defines as case study research. However he maintains that: "At the point where the emphasis of a study shifts from the individual case to a sample of cases, we shall say that a study is cross-case. Evidently, the distinction between case study and cross-case study is a matter of degree" (Gerring 2007:20). It is most common to regard a case study as a typical qualitative method, but his claim is that a case study may be conducted by using both quantitative and qualitative methods (2007:10,33).

One might maintain that this thesis may be called a "case-study", since it focuses on just one case, which is Texas, and that this is limited in time (1981-2013). It's though worth noticing that I use this case to test explanations made in a larger context. There are several other cases that could be selected, like for instance other large states like California, New York or Florida. But due to the limitations of this thesis I maintain that it is better to go more in depth on the congressional districts of one state rather than several.

Still this thesis does not have a qualitative design. In the following chapters the selection of data and method will be explained.

### 4.3. Selection of data

Polarization in Congress is a field of constant research with large amounts of data available.
A data source that is commonly used by scholars is the several datasets provided by Poole et al. ${ }^{18}$ at www.voteview.com ${ }^{19}$. This data is easily accessible and is based on the principle of open access. There are two datasets I have downloaded and used from this blog. In part 4.3.1 and 4.3.2 I will briefly go through some of their characteristics. In addition the reference work The Almanac of American Politics by Barone et al. (1971-2013) has been an important data source. This will be reviewed in part 4.3.3.

### 4.3.1. Legislator estimates from the $1^{\text {st }}$ to the $113{ }^{\text {th }}$ United States Congress

The dataset "Legislator Estimates $1^{\text {st }}$ to $113{ }^{\text {th }}$ Congress" ${ }^{20}$ comprehends every legislator that has served in the House of Representatives from the very first in 1789-1791 to the $113^{\text {th }}$ that lasted from 2013-2015 (Carroll, Lewis, Lo, McCarty, Poole and Rosenthal 2015). Based on roll call votes they have estimated all the legislators' ideological position. This estimation is called the DW-nominate and will be further described in section 5.1. The dataset contains sorting variables like the legislators' state, party and congressional districts, and therefore makes it quite easy to limit in time and space ${ }^{21}$. Of course analyzing all the legislators from the days of George Washington too Barack Obama is a to extensive task for this thesis. Therefore I have limited the dataset to the legislators from Texas that has served from the $97^{\text {th }}$ to $113^{\text {th }}$ House of Representatives.

Yet another reason for selecting this dataset is that it is commonly used in the literature, and several of the scholars mentioned in chapter 2, like Theriault $(2008,2013)$, McCarty et al. (2006), Poole and Rosenthal (2007), have used previous editions of this dataset as their empirical foundation.

[^13]
### 4.3.2. Legislator estimates in the Texas State Legislature from 1973-2009

In addition to the dataset mentioned in part 3.3.1, a dataset of legislator estimates in the Texas House of Representatives ${ }^{22}$ is downloaded (Poole 2014). This is mainly to help sort and provide more information about the legislators from Texas. This data set is also created by Poole et al. and is accessible at Voteview.com. The dataset has ideologically mapped every legislator in the Texas House of Representatives from 1973-2011, based on the same principles as the Legislators Estimates of the United States Congress. Although I will not use this dataset in chapter 4 or 5 , the dataset has been helpful in mapping which Texan legislators are Democrats and Republicans, which of them have further served in the United States Congress, and other facts that were especially helpful in sub-chapter 3.1. The data set is also the source for figure 3.1.

### 4.3.3. The Almanac of American Politics and the Cook Partisan Voting Index

The Almanac of American Politics is a reference work by Barone and other contributors. It has been published biennially since 1972 (Barone and Cohen 2009). In The Almanac of American Politics every legislator in Congress and their congressional district has been analyzed. In addition population data, including economical and demographical data, and election data is gathered and provided at the federal-, state- and congressional district level (see Barone and Cohen 2009:13-16 for a more detailed analysis of which data is provided in the Almanac).

The Cook Partisan Voting Index (PVI) will also be used as a guideline for how partisan the congressional district is. This index was introduced in 1997, has been included in every Almanac of American Politics since 2000. The PVI compares the presidential performance to a party at the district level with the performance at the national level ${ }^{23}$. The PVI will be revisited in chapter 4 (Barone and Cohen 2009:17-18, Wasserman 2013).

[^14]The advantage of using the Almanac is that they most often use the same measures in their demographical data and election data. A disadvantage is that several editions are not that easily available, or has a long delivery time from online bookstores. Therefore the following editions of the Almanac of American Politics are used in this thesis: 2000, 2004, 2006, 2008, 2010, 2012 and 2014. These are the editions that have been available at libraries in Norway, and on electronic library sources like Ebrary.

The downside of having few editions of the Almanac available is that this reduces the time span of the thesis to 2001-2013. This will be further described in chapter 6 .

With the legislators dataset mentioned in part 4.3.1 as a basis I have punched in data from the Almanac of American Politics, and created my own dataset ${ }^{24}$. In chapter 5 the data that has been selected and punched in will be further described and operationalized. In the next part the method chosen in this thesis will be analyzed.

[^15]
### 4.4. Method - Time-Series-Cross-Section Analysis

To answer the research question as best as possible, and with the data available, a quantitative methodological approach is the preferred one in this thesis. The method chosen is a time-series-cross-section analysis (TSCS) since it addresses both time and space, but also may cope with the limitations in the dataset. TSCS (often called for pseudo panel, repeated crosssections analysis or pooled cross-sectional time-series) has become a more common methodological approach in the later years, since it gives researchers the possibility to move beyond the limitations of a cross-sectional design. Worrall and Prat consider panel and TSCS models as: "... one of the best designs for the study of causation". Since causation is a large part of the research question this strengthens why I have chosen this design (Worrall and Prat 2004:35, Verbeek 2008:406-407, Baum 2006:44-45).

The TSCS models often follow this generic form (Worrall and Prat 2004:36):

$$
\mathrm{y}_{\mathrm{it}}=\mathrm{x}_{\mathrm{it}} \mathfrak{\beta}+\mathrm{e}_{\mathrm{it}} ; \mathrm{i}=1, \ldots, \mathrm{~N} ; \mathrm{t}=1, \ldots, \mathrm{~T}
$$

Here $i$ is the unit of analysis, which is the legislators representing Texas in the House of Representatives. $t$ is the time dimension, which is in Congresses $\left(97^{\text {th }}\right.$ to $113^{\text {th }}$ Congress), where one Congress lasts for two years. $y$ is the constant term when $x=0, x$ is the independent variable and $e=$ the error term to the regression.

In the following sections I will discuss the differences between an ordinary panel data set and the data set used in this thesis, what constraints this lays for the model, and some of the elements one needs to be aware of when working with TSCS models.

### 4.4.1. Panel-data or not panel data

The data set, reviewed in part 4.4.1, is a TSCS data set which gathers data both over time and cross-sectionally (Worrall and Pratt (2004:35). This may remind of a panel data (which also has the time and cross-sectional dimension), but one must be aware of some of the differences in estimation techniques. The major difference is that panel data requires that it is the same units that are followed over all the time periods. This is regarded as an advantage of panel data models since: "The availability of repeated observations on the same units allows ... more complicated and more realistic models than a single cross-section or a single time
series would do" (Verbeek 2008:355). Both TSCS-models and panel models make it possible to see differences within one system at each point in time (Beck 2001:273-274).

TSCS data, and especially the dataset used in this thesis have many of the same advantages as a regular panel data set. Since it is the legislators that are the unit of analysis in the data set in this thesis, they follow, in some degree, the assumption of a panel data set. This is because the large majority of the legislators are elected to more than one session in Congress, which makes it possible to follow how the legislators develop ideologically over time. But legislators are at some time point be replaced by either losing elections or retirement, and therefore the assumption that one need to follow the same units over time, which a panel data set requires, is violated (Verbeek 2008:355).

Another unit that is analyzed in this thesis is the Congressional Districts. The Congressional district also changes in shape and in population due to redistricting, migration or constituent sorting (see Appendix, section 10.1.). The changes in Congressional Districts will be further examined in part 5.2.1. A third unit of analysis is the parties and how they change over time. This unit is created by sorting the legislators after their party label. This will be further explained in chapter 6 .

A way of treating the data set is as repeated cross-sectional data. Verbeek maintain that: "... several models that seemingly require the availability of panel data can also be identified with repeated cross-section..." (2008:407). On the other hand and, as mentioned earlier the large majority of legislators take part in several Congresses, and therefore it is possible to see how these legislators develop ideologically. An advantage is that common problems with panel data like nonresponse and attrition is far less frequent with TSCS (Verbeek 2008:407).

There are several challenges and assumptions to be aware of when working with TSCS models. These will be explained in section 4.4.3, but first we will see what is most appropriate of a random effects or a fixed effects model.

### 4.4.2. Fixed effects or Random effects

When operating with ordinary panel data models it is a common question if one should use a fixed effects- or random effects model. The Fixed Effects (FE) model may be equated as follows:

$$
y_{i t}=x_{i t}^{\prime} \beta+a_{i}+u_{i t}
$$

The FE-model assumes that all the explanatory variables $\left(x_{i t}\right)$ are independent of the error term $\left(u_{i t}\right)$, and $a_{i}$ is the unobserved time-invariant individual effect (Verbeek 2008:359-362, 407). The FE- model only observes the within effects, and all unobserved effects are excluded from the model. The advantage is that this model cannot experience heterogeneity bias. This makes it quite "safe" to use a FE-model, and may explain why it is a quite popular method in several sciences. A drawback with the FE-model is its incapability in estimating the effects of higher-level processes. With the higher-level processes excluded from the model this creates a serious loss of information that the model is unable to estimate (Bell and Jones 2015:138-139)

An alternative to the FE-model is the Random Effects (RE) model. The RE-model assumes that "... all factors that affect the dependent variable, but that have not been included as regressors, can be appropriately summarized by a random error term" (Verbeek 2008: 364). The equation for a RE-model is usually like this (Bell and Jones 2015:135):

$$
y_{i j}=\beta_{0 j}+\beta_{1} x_{1 i j}+e_{i j}
$$

A Hausman test is a common test in deciding whether a FE or RE-model should be used. The test generates a null hypothesis where the independent variables ( $\mathrm{x}_{\mathrm{it}}$ ) are uncorrelated with $a_{i t}$. If the null hypothesis is violated, the most common approach is to operate with a FE-model. The Hausman test is just a supplementary test since the thesis operates with TSCS data. Since the data is a series of independent cross-sections, which are not capable of tracing the development within the individual units, it is logical to assume that the $\mathrm{x}_{\mathrm{it}}$ are independent of the $\mathrm{u}_{\mathrm{it}}$. For most scholars a FE-model is therefore used (Verbeek 2008:407).

The Hausman test has been scrutinized later years, and according to Bell and Jones it is "neither necessary nor sufficient to use the Hausman test as the sole basis of a researcher's ultimate methodological decision" (2015:139). The essence for my methodological choice should be what the research question actually asks for. Bell and Jones claim, "...explicating a
method that fails to answer your research question is nonsensical" (2015:139). They argue that a RE-model is more preferable than an FE-model since it may analyze both the withinand between effects in a better way, in addition to being more flexible and generalizable. Their main point is that "...a well-specified RE model can be used to achieve everything that FE models achieve, and much more besides" (Bell and Jones 2015:135).

As mentioned in the previous section, this data set is not a "plain" TSCS data set, since we may follow the majority of the legislators over time, and both the within and between effects are interesting to test. Therefore both a RE-model and FE-model is chosen in the analysis, and this will be further explained in section 6.2.1.

### 4.4.3. Challenges and assumptions when working with TSCS and panel data models

## Endogeneity and direction of causality

If the independent variables are correlated with the error term in a regression model endogeneity, (also called simultaneity), is encountered. This is quite often a problem with time series, where the direction of causality may go both ways, and in some cases the "wrong way". An example may is that the legislators' ideology (the dependent variable) affects income (one of the independent variables) instead of the other way around. A common method is to lag either the independent or dependent variables to ensure that causality goes in the right direction (Kjær 2011).

Briefly revisiting the discussion held in section 2.3 .3 it is a debate among scholars which direction the causality actually goes. For instance Dalton argues that the causality goes from the constituency (independent variables) to the legislators (dependent variable) (see figure 2.1). Levendusky on the other hand claim that the causality moves in the other direction and that the legislators ideology affect the constituency's ideology (Dalton 2008:223, Levendusky 2009:9). With this scholarly dispute over the direction of causality in mind I maintain that lagged dependent- or independent variables may destabilize and weaken the model. It is worth noting that in this thesis the direction of causality goes from the independent variables to the dependent. This will be more thoroughly discussed in chapter 7.

## Non-stationary and unit roots

According to Worrall and Prat, "[a] fundamental assumption underlying the analysis of TSCS data is that they are stationary. In formal terms, data are stationary if their means, variances, and autocovariances (at various lags) remain across all time points" (2004:38).

A Fisher-type unit roots test based on an augmented Dickey-Fuller unit root test is a way of detecting if the assumption of stationary is fulfilled. This is done with the commands $x t f i s h e r$ and xtunitroot in the Stata software. If the p -value is close to 1 this means that the data is non-stationary and therefore the TSCS-assumption is violated. In the methodological sciences a lot of groundbreaking research has been done during the last decades to analyze TSCS-data that are non-stationary. What has been the most common treatment has been to first-difference the data or create a random-walk model, but Beck and Katz argue that these techniques create underspecified and weak models. Their simple solution is to do nothing at all. They argue that the stationary-assumption has been overestimated in the literature. Since TSCS-data often cope with short periods of time (20-40 years) it is hard to estimate wheter these data would have stationary or not over a longer time period. Their key argument is the consistency of the data and that the standard errors do not walk far from their means (Beck and Katz 2011:342-343).

In this thesis the large part of the data set only spans over eight Congresses (106-113). How this is treated will be discussed in section 6.2.1.

## Autocorrelation

In regression analysis one of the assumptions is that the covariance between the different error terms equals zero. Autocorrelation (also known as serial correlation) may occur: "...when two or more consecutive error terms are correlated" (Verbeek 2008:104).

When operating with time series data, autocorrelation is recognized as a common issue since correlation in the error term of one or more consecutive periods may occur. When operating with panel data or TSCS data one might "...expect the different error terms of an individual to be correlated" (Verbeek 2008:105). The Woolridge Test for first order autocorrelation, by using the command xtserial in Stata, will be used to detect autocorrelation. The Woolridge Test generates a null hypothesis of "no first order autocorrelation". This method uses the residuals from a regression in first-differences, and provides a null hypothesis that there is no serial correlation (Drukker 2003, Verbeek 2008:104, Midtbø 2012:112).

## Heteroskedasticity and Panel Heteroskedasticity

Heteroskedasticity is present when the variance to the error term depends on the values of the explanatory variables (Midtbø 2012:106). This violates the assumption that the error term should be homoscedastic, and is a common problem when working with cross-sectional models. In TSCS and/or panel data models a unique form for heteroskedasticity called Panel heteroskedasticity may be encountered. This form for heteroskedasticity "...allows the error variances to vary between unit to unit while requiring that they be constant within each unit (Worrall and Prat 2004:45, Veerbeek 2008:89, Beck 2001:276).

The Stata software provides a Modified Wald Test by using the command xttest3, which shows if the heteroskedasticity is present or not. If the p-value is 0 heteroskedasticity occurs. A way of treating panel heteroskedasticity is to adjust the standard errors, and inflate them in light of the panel structure of the data. Beck and Katz have called this approach for Panel Corrected Standard Errors (PCSEs) (Beck and Katz 1995, Worrall and Prat 2004:38).

In addition, running a GLS-regression (Generalized Least Squares) will check for heteroskedasticity (Midtbø 2012:109).

In order to deal with both autocorrelation and heteroskedasticity PCSEs will be applied. It is regarded as a sufficient way to deal with these problems. But for further research it would have been more ideal to some way try to model the heteroskedasticity, and deal with it in that manner.

## Multicolliniearity

Multicolliniearity occurs when one or several of the independent variables are correlated with each other. This may affect and inflate the standard error to the dependent variable, making it challenging to identify the size of the coefficients. One may also encounter great changes in the results even if this is based on minor adjustments in the model (Midtbø 2012:128-129, Verbeek 2008:43-44).

Midtbø suggests two measures in both finding and treating multicolliniearity. The first is the Variance Inflation Factor (VIF), defined as $1 / 1-R^{2}$ where in a regression one of the explanatory variables is explained by the other explanatory variables. If a variable encounters a VIF-score of over 10 it is regarded as being multicolliniear (Midtbø 2012:129).

How this is dealt with will be mentioned in section 6.2.1.

## 5. Operationalization of variables

In this chapter the dependent variable (part 5.1) and independent variables (part 5.2) will be operationalized and further explained. In part 5.3 a table of all the variables used in this thesis is provided.

### 5.1. The dependent variable: DW-NOMINATE $1^{\text {st }}$ dimension of the legislators ideological position

In the 1980s Poole and Rosenthal developed a multidimensional scaling technique to place and measure legislative roll-call behavior. The scale was named NOMINATE an abbreviation for nominal, three-step estimation. According to Poole and Rosenthal: "Nominal referred to the dichotomous nature of the observed roll-call-voting decisions. The three steps were the estimations of the legislator ideal points, the roll-call-voting decisions, and a parameter of the legislator utility function" (Poole and Rosenthal 2001:6). Poole and Rosenthal's latest contribution to the Nominate-scale is the DW-nominate ${ }^{25}$, were D and W stands for dynamic and weighted (Poole and Rosenthal 2001:6).

Poole and Rosenthal claim that "...through most of American history two dimensions account for between 85 and $90 \%$ of roll-call-voting decisions" (2001:7). The first dimension is an economic liberal/conservative dimension, which has almost always divided the two major parties. The second dimension highlights more regional differences within and between the two parties on issues regarding race and civil rights. Poole and Rosenthal argue that the first dimension (liberal/conservative) and second dimension (race/regional) merged into one in the 1960s. Today race-related issues are closely correlated to economic issues and therefore are regarded, and therefore the two dimensions have "collapsed into one unidimensional liberal/conservative space" (Poole and Rosenthal 2001:7, 19-20 and 2007:316).

The Basic Space theory, developed by Converse in the 1960s (in Poole and Rosenthal 2001:7) is the ideological framework for Poole and Rosenthal's DW-nominate scale. Converse's theory analyzes how most issues are bundled together, calling "...this bundling of issues constraint - the ability, based on one or two issue position, to predict other (seemingly

[^16]unrelated) issue positions" (Poole and Rosenthal 2001:7). Based on the constraint hypothesis Poole and Rosenthal argued that most voting positions are predictable over most of the issues are voted over in Congress. They called this voting for ideological voting (Poole and Rosenthal 2007:3).

Based on the constraint hypothesis the DW-nominate operates within Euclidian space and ranges of -1 (ultra liberal) to 1 (ultra conservative). 0 means complete moderate. One important feature is that the DW-nominate allows legislators to exceed the -1 to +1 continuum, but the large majority of legislators may be placed within these thresholds. The DW-nominate needs to be weighted ${ }^{26}$, but this is quite an easy process since the weight on the first dimension always is 1.0 . Therefore for instance a legislator with a DW-nominate score of 0.67 , weighted with 1 equals $0.67(0.67 \times 1.0=0.67)$ (Poole 2004).

The DW-nominate have some critics, although indirectly. One of the critics of using ideology as a way of scaling and measuring legislators is Lee. She argues: "Congressional parties hold together and battle with one another because of political interests, not just because of members ideals or ideological preferences" (Lee 2009:3). Lee argues further that not all cases are ideological, and not all cases may be placed on a "liberal" or "conservative scale" (Lee 2009:5). Lee has another focus, instead of looking at how conflict between the parties has escalated, she analyzes: "how party can organize conflict on matters that extend far beyond ideological disagreements between liberal and conservatives" (2009:20). For Lee, an important part of this "organized conflict" is how the president affects the party label.

Having this critique in mind, the advantages of using the DW-nominate as a tool of measuring legislators' ideology exceeds the downsides, and therefore will be used as the dependent variable in this thesis. Further on the DW-nominate is a very frequent tool in measuring legislators' ideological positions, and have in the later years been globalized. Legislatures like the United Nations General Assembly, the European Parliament and several State Legislatures have been analyzed with help of the DW-nominate scale (Poole 2005, Poole and Rosenthal 2007:295-296, Shor and McCarty 2011).

[^17]
### 5.2. The independent variables

### 5.2.1. Redistricting - significant redistricting or no change

In operationalizing the redistricting variable Carson et al.'s method will be used (2007). By using population data and comparing maps of congressional districts from 1962-2002, Carson et al. categorize congressional districts into three different categories after every round of redistricting: significantly redistricting (new), modest redistricting (continues) and no change (2007:885).

Carson et al. define a continuous district (a district that has been modestly redistricted) as: "one where at least $50 \%$ of the population from the old district remains in the redrawn district" (2007:886). Carson et al. use the same definition for a district that has experienced no change. In a new district (one that has been significantly redistricting) more than $50 \%$ of the population has changed after the redistricting session according to Carson's et al. model (2007:885-886).

It is the districts that have been significantly redistricted that will be tested. Since Texas has reapportioned a total of 6 seats from 2000-2015 (or 12 seats all together from 1970 until present (see table 2 for more details)), this means that every district has in some way been redrawn, but not every district has been significantly redrawn. Carson et al. acknowledge this and therefore labels districts that have either been modestly redistricted or experienced no change both as continues districts (Carson et al. 2007:885-887).

There are some weaknesses with Carson et al.'s model that needs to be addressed. First of al is that Carson's et al. model uses population change as a criteria. The population growth Texas has experienced in the last decades has created a natural change in the congressional districts population. In 2000 most congressional district had an average population of 550000. In 2010 this had increased to 700000 (Barone et al. 1999, 2013). This means that population must be used with caution when classifying the new districts. Changes in the demographic composition of the district will be a helpful tool to see if there have been population changes. A second weakness with Carson et al.'s model is that is hard to check which districts they argue have been significantly redistricted or not.

The classification of districts as significantly redistricted or no change is based on historical maps gathered from The Texas Legislative Council (2012) combined with descriptions of the districts gathered from the Almanac of American Politics (2000-2013) and Bickerstaff (2007). These will be punched into a dummy-variables simply called redistricted, where districts that have experienced significant redistricted will be labeled 1 and no change
as 0 . The starting point is 2000 since this is the first Almanac I have available. In the appendix maps of Texas Congressional Districts from 2000 to 2012 is provided. Below is a table over which districts that has been categorized as significantly redistricted or not.

Table 5.1: Categorization of districts as significantly redrawn or no change

| Congress (years) | Number of districts | Signifi- <br> cantly <br> redistricted $=\mathbf{1}$ | $\begin{aligned} & \hline \text { No } \\ & \text { change } \\ & =0 \end{aligned}$ | Districts redrawn | Notes | Sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline 106 \\ & (1999- \\ & 01) \end{aligned}$ | 30 | 0 | 30 | - | This is the starting point for the examination therefore every district is labeled 0 . There have of course been several redistricting sessions prior to the $106^{\text {th }}$ Congress, but this is not included in the thesis. | Map A <br> (see appendix for all maps) Barone et al. 1999 |
| $\begin{aligned} & \hline 107 \\ & (2001- \\ & 03) \end{aligned}$ | 30 | 0 | 30 | - | Districts followed the same redistricting plan | Map A Barone et al. 1999 |
| $\begin{aligned} & \hline 108 \\ & (2003- \\ & 05) \end{aligned}$ | 32 | 6 | 26 | $\begin{aligned} & 6^{\text {th }}, 19^{\text {th }}, 21^{\text {st }}, 24^{\text {th }} \\ & 31^{\text {st }}, 32^{\text {nd }} \end{aligned}$ | Texas gained two seats after the 2000 census. 2001 Redistricting plan for the 2002 elections | Map B <br> Barone et <br> al. 2003 |
| $\begin{aligned} & \hline 109 \\ & (2005- \\ & 07) \end{aligned}$ | 32 | 15 | 17 | $\begin{aligned} & l^{\text {st }}, 2^{\text {nd }}, 4^{\text {th }}, 6^{\text {th }} \\ & 8^{\text {a }}, 9^{\text {th }}, 10^{\mathrm{th}}, 11^{\text {th }} \\ & 14^{\text {th }}, 17^{\text {th }}, 19^{\text {th }} \\ & 21^{\text {st }}, 24^{\text {th }}, 25^{\text {th }}, 31^{\text {st }} \end{aligned}$ | Special redistricting session held in 2003, applied for the 2004 elections ( $109^{\text {th }}$ congress) | Map C <br> Barone et <br> al. 2005 <br> Bickerstaff 2007 |
| $\begin{aligned} & \hline 110 \\ & (2007- \\ & 09) \end{aligned}$ | 32 | 5 | 27 | $\begin{aligned} & 15^{\text {th }}, 21^{\mathrm{st}}, 23^{\mathrm{rd}} \\ & 25^{\text {th }}, 28^{\text {th }} \end{aligned}$ | A 2006 U.S District Court order made adjustments to the 2003 plan | Map D <br> Barone et <br> al. 2009 |
| $\begin{aligned} & 111 \\ & (2009- \\ & 11) \\ & \hline \end{aligned}$ | 32 | 0 | 32 | - |  | Map D |
| $\begin{aligned} & \hline 112 \\ & (2011- \end{aligned}$ 13) | 32 | 0 | 32 | - |  | Map D |
| $\begin{aligned} & 113 \\ & (2013- \\ & 15) \end{aligned}$ | 36 | 11 | 25 | $\begin{aligned} & 2^{\text {nd }}, 6^{\text {th }}, 8^{\text {th }}, 14^{\text {th }}, \\ & 17^{\text {hh }} 25^{\text {th }}, 27^{\text {th }} \\ & 33^{\text {td }}, 34^{\text {th }}, 35^{\text {th }}, 36^{\text {th }} \end{aligned}$ | Texas gained 4 seats after the 2010 census. 2011 redistricting plan for the 2012 elections | Map E Barone et al. 2013 |

### 5.2.2. Constituent sorting - rural, white, black and Hispanic

To test constituent sorting I will use parts of Theriault's methodological framework and parts of the findings gathered by Pew Research Center (Theriault 2008:chap. 5, Pew 2014:42-47). Theriault compares over time how congressional districts have become increasingly homogenous both according to race and income (2008:91). The Pew Study finds conservatives prefer living in communities where: "the houses are larger and farther apart, but schools, stores and restaurants are within walking distance". The preferences of consistent liberals are almost the exact inverse, with $77 \%$ preferring the smaller house closer to amenities" (Pew 2014:42).

The constituent sorting explanation will be operationalized into four variables, with all the data provided by the Almanac of American Politics. These are: Rural, white, black and Hispanic. The Almanac provides several other demographical data among them the size of the congressional district and how many living in urban or rural areas ${ }^{27}$.

The first variable tests if congressional district with a high percentage of the population living rural areas elect more conservative legislators. Here the independent variable is "Rural". In addition the Partisan Voting Index (PVI), first mentioned in part 3.3.4, will be used as a helpful tool to measure the "partisanship" of the congressional district. The PVI variable will not be a part of the Models computed in section 6.2, but will be used in the analysis.

To manage to use the PVI in Stata I will do some small adaptions to the variables' notations. The PVI is originally noted $R+8$ meaning that the district is 8 percentage points more Republican than national average, or $D+22$, which means that the district is 22 percentage points more Democratic than the national average. Instead of using R+ or $\mathrm{D}+$, democratic districts are labeled with a minus. A minus is used because liberal ranges from 0 to -1 in the DW-nominate-scale. Even districts are labeled 0 . This means that a democratic district will be labeled for instance -8 (instead of $\mathrm{D}+8$ ) and a republican district will be

[^18]labeled 8 (instead of $\mathrm{R}+8$ ). An example of the PVI is that $R+8$ becomes 8 , while $D+8$ becomes - 8 .

For which party residents register to vote ${ }^{28}$ (also called Party ID) is often used to measure the partisan sorting of a constituency. This is not possible to use in Texas since this is one of very few states that do not require party registration prior to elections. The PVI in many ways gives a similar measure as the Party ID.

Race is the last measure that will be operationalized in this sub-chapter. As mentioned briefly in part 4.1 Poole and Rosenthal claim that the racial dimension (which is the second dimension in the DW-nominate) score has merged with the liberal/conservative-dimension. They, with several other scholars like Hayes and McKee (2012), McCarty et al. (2006) and Bickerstaff (2007) maintain that white residents often are more conservative than black residents and other races.

The test in this case is to see whether race has any impact on the legislator's ideological position. The Almanac gives detailed measures of the racial composition of the residents in every Congressional District. Here I have used the percentage of white, black and Hispanic residents. Note that "white" and "black" is treated like races, while Hispanic is treated like "ethnicity". This means that a resident in a district may be classified as "white" of race, but of Hispanic origin and therefore are included in both measures (Barone et al. 2013:17).

### 5.2.3. Economic explanation - Mean household income and poverty status

In operationalizing the economic explanation I will use two measures. The first is based on the mean household income of the Congressional District, a measure also used by McCarty et al. (2006:48). An issue with this measure is that Almanac of American Politics uses three different categorizations of household income: mean household income and median household income. The income variable is divided by 1000, so that for instance 50300 become 50,3 in the dataset. This is to make it more comprehensible when comparing it to the demographic and rural variables, which spread from 0-100 percent.

Another measure used to highlight the economic explanation is the percentage of residents 16 years and older living under the poverty line. The poverty line was in 2007

[^19]defined by the United States Federal Government: "as a family of four living on about $\$ 21000$ or less a year", which is around $\$ 29000$ less than the mean household income in the United States (Barone and Cohen 2009:16,33). The poverty measure is not included in the Almanac for 2000 and 2014 and therefore further limits the time-span of the analysis from the $108^{\text {th }}$ to the $112^{\text {th }}$ Congress. This is a cause of concern that will be raised in chapter 6 .

### 5.2.4. Party activism - Tea party legislators

To operationalize party activism a dummy variable is created where the legislators affiliated with the Tea Party Movement (first mentioned in part 3.1.5) are given value 1 while the rest is given the value 0 .

Who of the legislators who are categorized as Tea Party-legislators are based on sources like the Almanac of American Politics and several established newspapers and magazines, like The New York Times, Fox News, The Dallas Morning News and The Atlantic. It has been an important part of the classification to be cautious and critical, especially to the newspaper sources. Therefore the legislators given the Tea Party brand (and therefore 1 in the Dummy-variable) are frequently mentioned as Tea Partiers or affiliated with the Tea Party. Table 5.2 provides a list of the Tea Party-legislators and what source this is given, and table 5.3 provides the number of Tea Party-legislators and other Republicans in each Congress analyzed.

Tea Party Caucus was first established in 2011, but several of the members had been members of Congress for several years prior to the Tea Party's emergence on the national scene. An interesting aspect is to see if the Tea Party-legislators traditionally have been more conservative. Therefore these legislators are given the score 1 for every session they have been in Congress, even for the sessions prior to the formal establishment of the Tea Party Caucus. Table 5.2 shows the number of Republican legislators who are affiliated with the Tea Party-Movement (given value 1) and non-affiliated members, simply called "other Republicans". Table 5.3 also shows how the Tea Party-group within the Congressional Delegation of Texas has grown over the years.

Using just Tea Party-legislators as the variable of measuring party activism may of course be a source of critique. In the theoretical review of party activism analyzed in part 2.3.5, many of the scholars look at the parties convention delegates rather than grass root activists. However tracing down how the convention delegates operate is quite a hefty task. More important the convention delegates are more relevant when it comes to presidential and
party politics, rather than congressional elections. Also when it comes to the research question and method, the legislators is the unit of analysis, therefore I see it as more relevant to look at features of the legislators, rather than features of convention delegates - which is not a unit of analysis in this thesis. The rise of the Tea Party-movement has become an important field of research, and trying to create a link between Tea Party-affiliation and ideology is quite an interesting task. This will be tested section 6.2.5 and may be seen in figure 6.2.

Table 5.2: List of Texas legislators affiliated with the Tea Party Movement and source

| Legislator | Congressional District | Years in Congress | Source |
| :--- | :--- | :--- | :--- |
| Louie Gohmert | $1^{\text {st }}$ | $2005-$ | Barone et al. 2013:1578-1579 <br> Fox News Insider 2011 |
| Ted Poe | $2^{\text {nd }}$ | $2005-$ | Fox News Insider 2011 |
| Ralph Hall | $4^{\text {th }}$ | $1981-($ Hall switched <br> parties in 2003 and joined <br> the Republican Caucus $)$ | The Herald Democrat 2010 |
| Joe Barton | $6^{\text {th }}$ | $1985-$ | Fox News Insider 2011 <br> The Dallas Morning News 2010 |
| John Culberson | $7^{\text {th }}$ | $2001-$ | The Dallas Morning News 2010 |
| Ron Paul | $22^{\text {nd }}(1976-1977,1979-$ | $1976-1977,1979-85$, | The Atlantic |
| Randy Neugebauer | $85), 14^{\text {th }}(1997-2013)$ | $1997-2013$ | $2003-$ |
| Lamar Smith | $21^{\text {st }}$ | $1987-$ | Fox News Insider 2011 |
| Quico Canseco | $23^{\text {rd }}$ | $2011-2013$ | Fox News Insider 2011 |
| Kenny Marchant | $24^{\text {th }}$ | $2005-$ | The New York Times 2010 |
| Michael Burgess | $26^{\text {th }}$ | $2003-$ | The Nallas Morning News 2010 |
| Blake Farenthold | $27^{\text {th }}$ | $2011-$ | Barone et al. 2013 |
| John Carter | $31^{\text {st }}$ | $2003-$ | The Dallas Morning News 2010 |
| Pete Sessions | $5^{\text {th }}(1997-2003), 32^{\text {nd }}$ |  |  |
| $(2003-)$ | $1997-$ | Fox News Insider 2011 |  |

Table 5.3: Number of Tea Party-legislators compared to other Republicans in the Congressional Delegation of Texas, 106-113 ${ }^{\text {th }}$ Congress

| Congress | Tea Party-legislators | Other Republicans | Total Republicans |
| :--- | :--- | :--- | :--- |
| 106 | 4 | 9 | 13 |
| 107 | 5 | 8 | 13 |
| 108 | 8 | 9 | 17 |
| 109 | 12 | 9 | 21 |
| 110 | 12 | 7 | 19 |
| 111 | 12 | 8 | 20 |
| 112 | 13 | 10 | 23 |
| 113 | 12 | 12 | 24 |

### 5.3. Overview of variables

I will end this chapter with an overview of the variables used in this thesis.

Table 5.4: Overview of dependent variable and independent variables

| Variable-name | Description | Type of variable | Theory |
| :---: | :---: | :---: | :---: |
| Dependent variable |  |  |  |
| DW-nominate | First dimension) in the DW-nominate. Measures the Liberal/conservativecontinuum | Metrical |  |
| Independent variables |  |  |  |
| Redistricted | A district where more than 50 percent of the population has changed or the district has been significantly redrawn after a redistricting session = 1 | Dummy | Redistricting |
| Size | Area size of the congressional district (in square miles) | Metrical/Continuous | Constituent sorting |
| Rural | Percentage of residents in the Congressional District living in rural areas | Metrical/Continuous | Constituent sorting |
| PVI | Cook Partisan Voting Index | Descriptive (will not be used in the regression models) | Constituent sorting |
| White | Percentage of whites living in the Congressional District | Metrical/Continuous | Constituent sorting |
| Black | Percentage of blacks living in the Congressional District | Metrical/Continuous | Constituent sorting |
| Hispanic | Percentage of Hispanic origin living in the Congressional District | Metrical/Continuous | Constituent sorting |
| Income | Mean Household Income | Metrical/Continuous | Economic |
| Poverty | Percentage of residents living below the poverty line | Metrical/Continuous | Economic |
| TeaParty | Legislators affiliated with the Tea Party Movement $=1$ | Dummy | Party activism |

## 6. Analysis

The research question (see part 1.1.) in this thesis actually comprises three questions. First: if the legislators from Texas in the House of Representatives have polarized, second: if the constituency affects the legislators, and third: if theories generated at the federal level, may explain polarization within a state's congressional delegation. The analysis will look first and foremost at the first two parts of the research question, while part three will be answered in chapter 7. In part 6.1 I will analyze the first part of the research question, which compares polarization in the Texas congressional delegation over time. Part 6.2 will analyze if the constituency affect the legislators ideological score. In this part the hypotheses generated in chapter 3 (see table 3.3 in part 3.2.) will be tested.

Based on the results in both part 6.1 and 6.2 a discussion over the theoretical framework and its relevance will be carried in chapter 7. The level of significance chosen is around 5 percent (where $\mathrm{p}=0.05$ and t -values exceed around $\pm 2$ ).

### 6.1. Polarization in the Texan congressional delegation

The first part of the research question asked: Has there been an increase in polarization between the Democratic and Republican members of the Congressional Delegation from Texas in the House of Representatives between the 97th ${ }^{\text {th }}$ and $113^{\text {th }}$ Congress?

The approach made to answer this question was to group the Texas legislators after party affiliation (Republican or Democrat) at every time point in the dataset by creating a dummy variable where Democrats where labeled 0 and Republicans labeled 1. Thereafter a twosample t-test with equal variances comparing the DW-nominate score by the party dummy was done in Stata for every other time period $\left(97^{\text {th }}, 99^{\text {th }}, 101\right.$ th $, 103^{\text {rd }}, 105^{\text {th }}, 107^{\text {th }}, 109^{\text {th }}, 111^{\text {th }}$ and $113^{\text {th }}$ Congress).

The same procedure was carried out with the rest of the legislators ${ }^{29}$ in the U.S. House of Representatives, excluding the Texas Representatives. This was to get a more fruitful analysis, and it is an interesting aspect in itself to compare Texas with the rest of the United

[^20]States. The t-test computes both the mean DW-nominate score for the Republican and Democratic legislators, as well as the difference between them. The $t$-test also measures the mean for all the legislators combined, as well as the standard error, standard deviation, and of course the $t$-value, which measures whether the results are statistically significant or not. The $t$-values for all the tests comfortably exceed the critical value of $\pm 2$ and the results are therefore statistically significant. The results are shown in figure 6.1:


As figure 6.1 clearly tells us there has been an increasing polarization between the Republican and Democratic Legislators within the Texas congressional delegation, and the gap between them has been growing steadily since the $97^{\text {th }}$ Congress. The Texas Republican legislators DW-nominate score has increased from 0,57 in the $97^{\text {th }}$ Congress to 0,8 in the $113^{\text {th }}$ Congress. At the opposite level the Texas Democrats have in the same period decreased from -0,14 to 0,34 . An interesting finding is that the Democrats on the national level have remained quite stable, with the DW-nominate score only dropping from $-0,3$ to $-0,37$ in the entire time
period. In addition figure 6.1 tells us that the Texas Democrats have been quite more conservative than their fellow legislators at the national level, but since the $109^{\text {th }}$ Congress their score has been almost identical.

The Texas Republicans have for most of the time period been clearly more conservative than the rest of the House Republicans, but since the $109^{\text {th }}$ Congress the gap has been less than 0,1 points in the DW-nominate score. The astonishing fact is that it is the Republicans at the national level that have had the most remarkable increase in the DW-nominate score of all the groups of legislators in figure 6.1, and therefore have contributed the most to the increasing polarization. In the $97^{\text {th }}$ Congress the gap between the Democrats and Republicans at the national level were at 0,54 points. In the $113^{\text {th }}$ Congress the gap were at 1,09 points.

The mean for all the legislators is included to see the ideology of the House of Representatives. At the national level (the grey stapled line) the DW-nominate has had a mean around 0 for most of the time period, but has increased to 0,2 in the $113^{\text {th }}$ Congress. For the Texas delegation the increase has been more remarkable. Equaling the national level with a mean around 0 it increased remarkably between the $107^{\text {th }}$ and $109^{\text {th }}$ Congress, reaching a mean of 0,42 at the $113^{\text {th }}$ Congress. All these results prove that there has been an increase in polarization between the Democratic and Republican legislators, both in Texas as well as at the national level. In addition it shows that the Texas delegation in general has become more conservative. The results showed in figure 6.1 will be further discussed in chapter 7.

### 6.2. The constituency and legislators ideological score

This section will analyze if the congressional district have any affect on the legislator's ideological position. This may be recognized as a more complex question than the first one in this analysis, since it includes several more variables combined with the addition of data from other sources. In the first part I will go through the treatment of the data and problems encountered. I will operate by using two models with three different regressions in each. The results will be presented and analyzed in sections 6.2 .2 to 6.2 .5 , and further discussed in chapter 7.

### 6.2.1. Treatment of data and problems encountered

## Reduction of time span and non-stationary

When including the data from the Almanac of American Politics (reviewed in chapter 4 and 5) the time dimension of the analysis is reduced from the $106^{\text {th }}$ to the $113^{\text {th }}$ Congress. When the variable Poverty is included the time span for the analysis is further reduced to $108^{\text {th }}$ to $112^{\text {th }}$ Congress, reducing the number of observations from 255 to 159 . With such a constraint on the time span and number of observations it is worth asking if it is feasible to include the poverty variable in the analysis. Still Poverty is one of the variables that I would prefer testing since it is essential in explaining $\mathrm{H}^{4}$, where I look at the link between poverty level in the congressional district and legislators' ideology. My solution will be addressed in the following sub-chapter.

Since the time span is quite short the assumption of stationary or non-stationary is hard to trace, and therefore I follow Beck and Katz's guidelines mentioned in part 4.4.3 (Beck and Katz 2011:342-343).

## Multicolliniearity

The VIF-test, as seen in table 6.1, proves that the variables White and Hispanic exceed the 10point threshold by solid margins, and are therefore multicolliniear. The mean VIF is as high as 15.77 . A correlation test shows they correlate quite strongly with each other. By doing several VIF-test I find that the root to the multicolliniearity problem is the variable poverty. If poverty is dropped from the model the mean VIF drops to 1.43 , and the issue with multicolliniearity disappears at the same time as the numbers of observations increase from 159 to 255 .

Midtbø argues that it is not desirable to drop a variable to solve the problem of multicolliniearity, since this most often leads to a weaker model. A solution he provides is to merge two of the explanatory variables (Midtbø 2012:157-158). The root to the multicolliniearity issue is that income is closely linked to poverty. Instead of merging the two variables I maintain that the income variable explains the poverty variable in a satisfying way. In addition the income variable also gives enough data to analyze the economic explanation mentioned in part 2.3.4 and 3.1.4. But to be able to test hypothesis nr 5 the poverty variable still needs to be included. Therefore two models are created in this analysis: Model 1, which includes all the variables, and Model 2, where the poverty variable is excluded.

Table 6.1: Comparison of VIF scores, Model 1 and Model 2

| Variables | VIF - Model 1 | VIF - Model 2 |
| :--- | :--- | :--- |
| White | 47.98 | 2.42 |
| Hispanic | 43.09 | 3.02 |
| Black | 12.65 | 2.05 |
| Poverty | 11.96 | - |
| Rural | 4.24 | 1.56 |
| Income | 3.88 | 1.51 |
| TeaParty | 1.26 | 1.23 |
| Redistricted | 1.12 | 1.05 |
| Mean VIF | 15.77 | 1.83 |

VIF $<10=$ multicollinear

## Hausman test - FE and (or) RE-model

For Model 1 the Hausman test does not manage to get a consistent result since the data fails to meet the asymptotic assumptions of the Hausman test. This is most likely due to the huge multicolliniear issues with this model.

For Model 2 the Hausman test has a $\mathrm{p}=$ chi-squared that equals' 0.00 , meaning that the test prefers a FE-model. With the discussion in 4.4.2 in mind I regard it as unsatisfying to use only a FE-model. In reverence of the large scholarly tradition of respecting the results of the Hauman test, but combined with Bell and Jones’ (2015) genuine endorsement of the REmodel in mind, I will apply both the RE- and FE-estimation techniques in Model 1 and 2.

## Autocorrelation and heteroskedasticity

The Modified Wald test (which measures heteroskedasticity) and the Woolridge Test (which measures autocorrelation) both have a p -value $=0$. This proves that autocorrelation and heteroskedasticity is present in both models.

Robust standard errors will be applied to both the FE and RE-model. Although this deals with parts of the autocorrelation problems, a Linear Ordinary Least Squares (OLS) regression with PCSEs manages to correct for both autocorrelation and heteroskedasticity, and will therefore be added to both models. The samples are grouped pairwise, which include all variable observations with non-missing pairs. The PCSEs manage to "...correctly measures the sampling variability of the OLS estimates" (Beck 2001:278), and is included to make sure that the model provides as realistic results as possible.

This leads us to two models with three regressions in each:

1) Fixed Effects with robust standard errors
2) Random Effects (Generalized Least Squares) with robust standard errors
3) Linear regression (Ordinary Least Squares) with Panel Corrected Standard Errors

### 6.2.2. Results from Model 1 and 2.

Table 6.2: Model 1 - Three regression models including all explanatory variables

| Dependent variable: <br> $D W$-nominate ( $1^{\text {st }}$ dimension) | (1) <br> Fixed Effects <br> Regression |  | (2) <br> Random effects regression with Generalized Least Squares |  | (3) <br> Linear Regression with <br> Panel Corrected <br> Standard Errors |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Independent Variables | Coeff. <br> (St. Err.) | $P$-value | Coeff. (St. Err.) | $P$-value | Coeff. <br> (St. Err.) | $P$-value |
| Redistricted | $\begin{aligned} & -.0205 \\ & (.0155) \end{aligned}$ | . 193 | $\begin{aligned} & -.0242 \\ & (.0151) \end{aligned}$ | . 109 | $-.1410^{*}$ <br> (0.073) | . 0534 |
| Rural | $\begin{gathered} .0007 \\ (.0017) \end{gathered}$ | . 661 | $\begin{gathered} .0008 \\ (.0016) \end{gathered}$ | . 628 | $\begin{gathered} .0013 \\ (.0016) \end{gathered}$ | . 417 |
| Income | $\begin{aligned} & .0035^{*} \\ & (.0018) \end{aligned}$ | . 0573 | $\begin{aligned} & .0047 * * \\ & (.0020) \end{aligned}$ | . 0158 | $\begin{aligned} & .0102 * * \\ & (.0040) \end{aligned}$ | . 0124 |
| Poverty | $\begin{aligned} & -.0004 \\ & (.0043) \end{aligned}$ | . 922 | $\begin{gathered} .0016 \\ (.0041) \end{gathered}$ | . 701 | $\begin{aligned} & -.0048 \\ & (.0136) \end{aligned}$ | . 723 |
| White | $\begin{aligned} & -.0028 \\ & (.0022) \end{aligned}$ | . 216 | $\begin{aligned} & -.0006 \\ & (.0022) \end{aligned}$ | . 800 | $\begin{gathered} .0120^{* * *} \\ (.0031) \end{gathered}$ | . 0001 |
| Black | $\begin{gathered} .0047 \\ (.0048) \end{gathered}$ | . 334 | $\begin{gathered} .0010 \\ (.0045) \end{gathered}$ | . 831 | $\begin{gathered} -.0049^{* *} \\ (.0025) \end{gathered}$ | . 0454 |
| Hispanic | $\begin{aligned} & -.0003 \\ & (.0004) \end{aligned}$ | . 521 | $\begin{aligned} & -.0005 \\ & (.0005) \end{aligned}$ | . 311 | $\begin{gathered} .0017 \\ (.0017) \end{gathered}$ | . 323 |
| TeaParty | $\begin{aligned} & -.0128 \\ & (.0222) \end{aligned}$ | $.567$ | $\begin{gathered} .104 \\ (.0862) \end{gathered}$ | $228$ | $\begin{gathered} .3610^{* * *} \\ (.0461) \end{gathered}$ | . 000 |
| Constant |  | . 265 | .0732 <br> (.2480) | . 768 | $\begin{gathered} -.7580^{* *} \\ (.376) \end{gathered}$ | . 0434 |
| Observations | 159 |  | 159 |  | 159 |  |
| $\mathrm{R}^{2}$ | $\begin{gathered} \text { Within }=.254 \\ \text { Between }=.135 \\ \text { Overall }=.187 \end{gathered}$ |  | $\begin{gathered} \text { Within }=.17 \\ \text { Between }=.508 \\ \text { Overall }=.462 \end{gathered}$ |  | . 7 |  |
| Number of groups | 43 |  | 43 |  | 43 |  |

Table 6.3: Model 2 - Three regressions models (excluding poverty)

| Dependent variable: <br> $D W$-nominate ( $1^{s t}$ <br> dimension) | (1) <br> Fixed Effects <br> Regression |  | (2) <br> Random effects regression with Generalized Least Squares |  | (3) <br> Linear Regression with <br> Panel Corrected <br> Standard Errors |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Independent Variables | $\begin{gathered} \text { Ceff. } \\ \text { (St. Err.) } \end{gathered}$ | $P$-value | $\begin{gathered} \text { Coeff. } \\ \text { (St. Err.) } \end{gathered}$ | $P$-value | Coeff. <br> (St. Err.) | $P$-value |
| Redistricted | -. 0199 | . 179 | -. 0148 | . 339 | -. 0296 | . 698 |
|  | (.0147) |  | (.0154) |  | (.0761) |  |
| Rural | . 0029 | . 360 | . 0034 | . 227 | -.0047*** | . 000 |
|  | (.0031) |  | (.0028) |  | (.0013) |  |
| Income | .0043*** | . 006 | .0055*** | . 0002 | .0150*** | . 0004 |
|  | (.0015) |  | (.0015) |  | (.0018) |  |
| White | . 0002 | . 309 | . 0003 | . 256 | . 0007 | . 463 |
|  | (.000230) |  | (.0002) |  | (.0010) |  |
| Black | . 0027 | . 255 | -. 0009 | . 676 | -.0153*** | . 000 |
|  | (.0023) |  | (.0022) |  | (.0009) |  |
| Hispanic | . 0006 | . 489 | -. 0013 | . 160 | -.0078*** | . 000 |
|  | (.0008) |  | (.0009) |  | (.0016) |  |
| TeaParty | .0617*** | . 000 | .2050** | . 034 | .3270*** | . 000 |
|  | (.0072) |  | (.0968) |  | (.0356) |  |
| Constant | -. 0029 | . 981 | -. 0055 | . 965 | -. 0998 | . 511 |
|  | (.120) |  | (.1260) |  | (.152) |  |
| Observations $\mathrm{R}^{2}$ | 255 |  | 255 |  | 255 |  |
|  | $\begin{gathered} \text { Within }=.268 \\ \text { Between }=.455 \\ \text { Overall }=.452 \end{gathered}$ |  | $\begin{aligned} \text { Within } & =.231 \\ \text { Between } & =.599 \\ \text { Overall } & =.624 \end{aligned}$ |  | . 693 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Number of groups | 55 |  | 55 |  | 55 |  |

For both models: Robust standard errors in parentheses except for the linear regression with Panel Corrected Standard Errors (PCSEs).
Statistically significant: ${ }^{* * *} p<.01$ (1 percent level), ${ }^{* *} p<.05$ ( 5 percent level),

* $p<.1$ (10 percent level).

Before I analyze the results presented in Model 1 and 2, it is worth mentioning some of the two errors one can make when testing hypotheses. The first is a type $I$ error, where one rejects the null hypothesis although it is actually true. A type II error occurs when the null hypothesis is not rejected although it is not true. It is commonly acknowledged the doing a type I error is more severe than doing a type II error (Verbeek 2008:31, Midtbø 2007:64-65).

The p-value is used to classify the results as statistically significant or not. Briefly explained the p -value (abbreviation for probability value) "denotes the marginal significance level for which the null hypothesis would still be rejected" (Verbeek 2008:32). In addition the p-value is also useful in seeing how well the variable works. The higher the p-value the less trustworthy the variable is.

R-squared (noted as $R^{2}$ ) measures how well the estimated regression line fits the observations in each regression in the model, as well as how much of the variation in the dependent variable that may be explained by the variation in the independent variables. It spans from 0 to 1 where 1 means that the variance in the dependent variable is explained by the independent variable. Called the goodness-of-fit or coefficient of determination, $\mathrm{R}^{2}$ is a very popular measure, but has several shortcomings that one needs to be aware of. $\mathrm{R}^{2}$ will automatically increase when independent variables are added to the model, and it tends to be higher in time-series models than in traditional cross-section models (Midtbø 2007:87-88, Skog 2004:224). I will still use the $\mathrm{R}^{2}$ as a measure of how well each regression works, but with some caution.

In the two next sections I will analyze Model 1 and 2 and each of the three regressions within each model. Here I will test the hypotheses generated in chapter 3 (see table 4, part 3.2, for an overview of the hypotheses) and also see how the hypothesis may be attached to the theoretical framework analyzed in Chapter 2.

### 6.2.3. Analysis of Model 1

I will start by analyzing Model 1 where the poverty variable is included. This gives the Model a time span from the $108^{\text {th }}$ to $112^{\text {th }}$ Congress, and 159 observations. Due to the issue of multicolliniearity in this model I will be quite cautious in emphasizing the results.

As mentioned in chapter 1, the second part of the research question asked "does the congressional district have any affect on the legislators ideology?" The essence in this question is that factors within the constituency drag the legislators in either a liberal or conservative direction, which again creates more party polarization. The factors that are operationalized is poverty level, white, black, Hispanic, rural and income. All of these have in common that they span from $0-100$ in percentage, and income, which is household income divided by 1000 . Therefore one may compare the coefficients between these variables ${ }^{30}$.

In addition two dummy variables are included, redistricted and TeaParty. As a reminder the DW-nominate spans from +1 , so for instances a coefficient in the variable income of .01 means that the DW-nominate increase with .01 for every $\$ 1000$ the median income in the district increases. Although the coefficients in both tables may seem small, it may have a larger impact on the DW-nominate scale than a first impression may give.

Analyzing the three regressions models seen in table 6.2 we first see that the Fixed Effects regression (FE) does not manage to explain anything at all. The overall $\mathrm{R}^{2}$ is low as .187 , while the between and within $\mathrm{R}^{2}$ does not spread far from the overall value. The only variable that has a significant result is Income with a p-value of .057, making significant at the 10 percent level. The remaining variables have p-values that are far from accomplishing any significant or reliable results.

One may see the same trends in the Random Effects GLS-regression (RE) as well. Income is the only variable that is significant, and has a p -value of .016 . The redistricted variable is close to being significant at the 10 percent level. Although the between effects $\mathrm{R}^{2}$ of the overall $\mathrm{R}^{2}$ has quite higher than in the FE-model, the score is still .51 and .46 .

[^21]The regression with Panel Corrected Standard Errors (PCSEs) works far better than the RE- and FE-model. The $\mathrm{R}^{2}$ is .72 , meaning the model works quite well. White and the TeaParty-dummy variable are significant at the $1 \%$ level, the black, income and the Constant term are significant at the $5 \%$ level, while redistricted is close to being significant at the $5 \%$ level with a p-value $=.053$.

An interesting finding is that the three regression models have many similar results, with some clear exceptions. All three regressions have significant results for the income. This strengthens the economic explanation, which especially McCarty et al. (2006) endorse. The constant term has the largest difference between the three regressions with a coefficient ranging from .77 in the RE, .28 in the FE to -.76 in the PCSEs, but only the PCSEs that provides a significant result.

The Poverty variable does not give any reliable results in any of the three regressions, with pvalues ranging from .7 to .92 , exceeding the 5 percent level of significance threshold with wide margins. This means that technically the alternative hypothesis generated in $\mathrm{H}^{4}$, which said, "The higher the poverty rate, the more liberal the representative from the district is" is rejected. It seems clear from these results that there is no link between levels of poverty in the district and the ideology to the districts legislator. This will be further discussed in chapter 7 .

It seems clear that the issues with autocorrelation, heteroskedasticity and multicolliniearity especially affect RE and FE in Model 1, although the standard errors are robust. PCSEs correct for autocorrelation and heteroskedasticity, but still the issue of multicolliniearity is not dealt with in a satisfying manor in this model. Although the results from the PCSEs look trustworthy I will not emphasize the results from Model 1 in the rest of the analysis due to the issue with multicolliniearity. In the next section I will analyze Model 2.

### 6.2.4. Analysis of Model 2

By dealing with the multicolliniearity issue by simple excluding the poverty variable we get a much more reliable Model (as seen in table 6.3) than when we analyzed Model 1 (table 6.2), but still there are large differences between the three regressions-models in Model 2.

The number of observations has increased from 159 to 255 , and the span is now from the $106^{\text {th }}$ to $113^{\text {th }}$ Congresses. The $\mathrm{R}^{2}$ values in FE have increased to .46 (between) and .45 (overall). In RE the $\mathrm{R}^{2}$ values are . 6 (between) and . 62 (overall). In PCSEs the $\mathrm{R}^{2}$ value has decreased slightly from .71 in Model 1 to .69 in Model 2, but this may be since Model 1 includes one more variable then Model 2. This also shows a weakness with using $\mathrm{R}^{2}$ in explaining the goodness-of-fit. I will maintain that an $\mathrm{R}^{2}$ of .69 proves that the PCSEs-model works decently.

The FE-regression in Model 2 still does not work properly, and only Income and TeaParty have significant results with P -values close to 0 , making it significant on the 1 percent level. These are the only variables that are significant in the RE-model as well.

The PCSEs provides the most reliable results since it correct for autocorrelation, heteroskedasticity, and multicolliniearity, and therefore I will emphasize these results the most. Every variable except for Redistricted, White and the Constant term have significant pvalues at the 1 percent threshold. The remaining variables have $p$-values spanning from .46 to .69, which is far above the significant threshold. It is an interesting finding that the redistricted and the constant term goes from having significant results in PCSEs regression in Model 1 to none significant in Model 2.

### 6.2.5. Comparing results from Model 1 and 2 with theory, and answering the hypotheses

Many of the results in Model 1 and 2 are in line with the expectations made in chapter 2 and 3. But parts of the results also contradict the expectations made earlier in this thesis. Based on the results it is easy to understand why there is a general lack of agreement among scholars in explaining party polarization. In the following parts I will briefly go through how the results from the remaining variables in both models cope with the theoretical expectations.

## Redistricting

The Redistricting variable only had significant results in the PCSEs in Model 1. Here the coefficient was quite negative with -.14. All the regression estimates in both models have negative coefficients. This contradicts the hypothesis that legislators from redistricted districts are more ideologically conservative; they are in fact slightly more liberal. The time dimension may help explaining this surprising result. Prior to 2003 the Democrats controlled the Redistricting process. Although with the Republican spectacle of the 2003 special redistricting session, the 2010 session carved out four new Democratic districts to compensate for the immense growth in the Hispanic population (Barone et al. 2013:1566-1567). The shift in control between the two parties over the redistricting process, may explain the negative coefficients in both models.

On the other hand since I used Carson et al.'s (2007) methodological framework (see part 5.2.1) it is a bit surprising that the variable did not provide significant and reliable results. The results show that Carson et al.'s model does not work for Texas in the time span chosen for this thesis. But in defense of Carson et al. it may have been too few districts and to short a time span, to actually test Carson et al.'s method. But the results indicate that the critics of the Redistricting explanation like McCarty et al. (2006), Poole and Rosenthal (2007) and Abramowitz et al. (2006) have valid arguments to counter-argue the redistricting explanation. Due to lack of trustworthy results $\mathrm{H}^{1}$ is rejected.

Rural
$\mathrm{H}^{2}$ is based on parts of the Constituent sorting explanation (see part 2.3.3), and the Pew Research Center's (2014) report that maintained that conservatives preferred living in rural areas and liberals preferred "walkable" communities in urban areas.

In the analysis it was only in the PCSEs in Model 2 that the rural variable had a significant result. A bit surprising was that the coefficient was negative, with -.0047 , meaning that the congressional districts with large rural areas are slightly more liberal in rural than in urban areas. The other regressions in both models had a minimal positive coefficient. Either way the effect is quite small, so the theoretical expectation that the more rural the more conservative was not met in this analysis.

There may be some explanations for why the rural variable did not meet the expectations made in chapter 2 and 3. First of all there may be a mismatch between the Pew Research Center's definition of urban/rural and the US Census Bureau's definition, which is used in the Almanac of American Politics. By revisiting the Pew Study Report I see that Pew looks at sub-urban areas as "rural". In the U.S. Census Bureau's definition, rural is really on the countryside, while suburbs are classified as "urban" (Pew Research Center 2014, United States Census Bureau 2014a). Several of the Congressional Districts in Texas with almost no rural population, like the $2^{\text {nd }}, 3^{\text {rd }}, 7^{\text {th }}, 22^{\text {nd }}, 24^{\text {th }}, 26^{\text {th }}$ and $32^{\text {nd }}$, are solidly Republican districts with PVI spanning from $\mathrm{R}+10$ to $\mathrm{R}+20$ (Barone et al. 2013:1580-1670).

The ideological realignment explanation, which was analyzed in part 2.3.2 and 3.1.2, is also factor that may explain the negative coefficient. The rural areas in Texas used to be dominated by Conservative Democrats, who switched allegiance and became Republicans in the later part of the $20^{\text {th }}$ century (Cunningham 2010:193). Still the Democrats managed to control a large part of the rural areas in Texas until the $108^{\text {th }}$ Congress. Although the rural Democratic legislators tended to be conservative they were far from being equally conservative as their Republican successors (Cunningham 2010, Bickerstaff 2007, Barone et al. 1999, 2013).

## White, Black and Hispanic

In both Model 1 and 2 variables white, black and Hispanic, which controls for race and ethnicity, were included. Admitting that race was not thoroughly explained in the theoretical framework I regard it as a natural part of the constituent sorting explanation. Race has also been seen as an important factor in the ideological realignment explanation (see part 2.3.2 and 2.3.3) (Theriault 2008, McCarty et al. 2006, Bickerstaff 2007:4-6).

It is not a surprising result that black has a negative coefficient of -.0153 in the PCSEs regression in Model 2, meaning that the legislator becomes increasingly liberal the higher the percentage of black residents in the neighborhood. It is only in the PCSEs regressions that the race variables provide significant results. In the PCSEs in Model 1 one may see that white has a positive coefficient of .012 , assuming that white congressional districts tend to elect more conservative legislators. But in the PCSEs in model 2 the results is not significant and the coefficient is close to zero. The Hispanic variable has contradicting results in the PCSEs regressions when we compare the models. In model 1 the coefficient is close to 0 , while we have a slight negative coefficient in Model 2.

Why the white and Hispanic variables do not indicate clear results may be explained by looking at the demographical composition of Texas, which was analyzed in section 3.1 (see table 3.1). Nearly 75 percent of the Texan population is white, 38 percent is of Hispanic origin, while only 11,7 is black. It's is obvious that even if a slight majority of the white population favor the Republicans, large parts of the white population also vote Democratic (Barone et al. 2013:1564). With the exception of black residents, it seems clear that there are other factors than race that determine what elements within the constituency that affect the legislators ideology. This may also explain why race it is not a highly favored explanation in the literature on party polarization.

## Income

Income was the only variable that had significant results in all regressions in both models. The PCSEs regression in Model 2 coefficient of .015 shows that the mean income of the constituency has quite an impact on the legislator's ideology, where the higher income the more conservative the legislator is. The results prove that McCarty et al. and other scholars that support the economic explanation (mentioned in part 2.3.4) may have valid arguments when they claim that rising income inequality explains the increase in party polarization (McCarty et al. 2006). McCarty et al. claimed that voters increasingly identified themselves as either Republicans or Democrats after the size of their wallet, where high-income voters supported Republicans (2006:48,71). The results in Model 2 support McCarty et al.'s argument. By performing a $t$-test where I group the Democratic and Republican legislators and summarize the mean household income, I get the following results in table 6.4.

Table 6.4: Mean household income sorted after Democratic or Republican representative

| Congress (Years) | Democrat (Std. deviation) | Republican <br> (Std. deviation) | Difference | T-value |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 106 \\ & (1999-01) \end{aligned}$ | $\begin{aligned} & \hline \$ 23683 \\ & (3316.6) \end{aligned}$ | $\begin{aligned} & \$ 32152 \\ & (8029.5) \end{aligned}$ | \$8469 | -3.95 |
| $\begin{aligned} & 107 \\ & (2001-03) \end{aligned}$ | $\begin{aligned} & \hline \$ 23683 \\ & (3316.6) \end{aligned}$ | $\begin{aligned} & \hline \$ 32152 \\ & (8029.47) \end{aligned}$ | \$8469 | -3.95 |
| $\begin{aligned} & \hline 108 \\ & (2003-05) \end{aligned}$ | $\begin{aligned} & \$ 33817 \\ & (4079.9) \end{aligned}$ | $\begin{aligned} & \hline \$ 47127 \\ & (11378.6) \end{aligned}$ | \$13310 | -4.40 |
| $\begin{aligned} & \hline 109 \\ & (2005-07) \end{aligned}$ | $\begin{aligned} & \hline \$ 31722 \\ & (2260.4) \end{aligned}$ | $\begin{aligned} & \hline \$ 44937 \\ & (9077.1) \end{aligned}$ | \$13215 | -4.72 |
| $\begin{aligned} & 110 \\ & (2007-09) \end{aligned}$ | $\begin{aligned} & \hline \$ 34476 \\ & (7719.7) \end{aligned}$ | $\begin{aligned} & \hline \$ 44268 \\ & (8584.3) \end{aligned}$ | \$9792 | -3.30 |
| $\begin{aligned} & \hline 111 \\ & (2009-11) \end{aligned}$ | $\begin{aligned} & \hline \$ 36580 \\ & (4262.2) \end{aligned}$ | $\begin{aligned} & \hline \$ 52501 \\ & (9024.2) \end{aligned}$ | \$15921 | -5.71 |
| $\begin{aligned} & 112 \\ & (2011-13) \end{aligned}$ | $\begin{aligned} & \hline \$ 35710 \\ & (4147.7) \end{aligned}$ | $\begin{aligned} & \hline \$ 50765 \\ & (9640.2) \end{aligned}$ | \$15055 | -4.49 |
| $\begin{aligned} & 113 \\ & (2013-15) \end{aligned}$ | $\begin{aligned} & \$ 38640 \\ & (4126) \end{aligned}$ | $\begin{aligned} & \$ 56040 \\ & (12068.2) \end{aligned}$ | \$17400 | -4.83 |
| Summarized | $\begin{aligned} & \$ 31471 \\ & (7039.3) \end{aligned}$ | $\begin{aligned} & \hline \$ 46559 \\ & (12256.3) \end{aligned}$ | \$15087 | -11.45 |

Source: Barone et al. 1999-2013, Carroll et al. 2015. T-test computed in Stata.

Table 6.4 we may see that both Democrats and Republican have had a considerable increase in household income, but this has been genuinely higher among Republicans. The table shows that the difference between the two parties has more than doubled from $\$ 8469$ in the $106^{\text {th }}$ Congress to $\$ 17400$ in the $113^{\text {th }}$ Congress. When considering the quite short time span in this thesis this is a quite remarkable increase.

The increase in income differences between the constituencies to the Democrats and Republican legislators goes hand in hand with the arguments given by McCarty at al. (2006). Increasing economic differences seems as a valid and compelling argument in both explaining legislators behavior and party polarization. All the regression estimates from this variable are statistically significant which proves that there are valid reasons to accept $\mathrm{H}^{3}$.

Still I will maintain that the economic explanation does not tell the entire story, and that there are other factors contributing as well, which will be further discussed in the next chapter.

## TeaParty

As seen in the PCSEs regression in both models and FE and RE in Model 2, the TeaParty variable has a significant positive effect on the DW-nominate, meaning that legislators affiliated with the Tea Party movement are generally more conservative than their Republican colleagues. This supports $\mathrm{H}^{5}$. Still the variable has quite different results across the three different regressions in Model 2, from quite a slight coefficient of .062 in the FE, to .205 in RE, to a more remarkable .327 in the PCSEs regression. As discussed earlier the PCSEs regression is regarded as the most compelling regression model among the three regressions in this thesis. But with the dubious results about the effect, an additional t-test where I compare the Tea Party legislators' mean DW-nominate score with the remaining Republicans score to help answer the hypothesis. The results computed in the $t$-tests may be seen in figure 6.2.


Figure 6.2 shows that Tea Party-legislators have traditionally been slightly more conservative than their Republican colleagues. But that difference has decreased in the last Congresses, and the DW-nominate scores have been close to identical, even after the formal establishment of the Tea Party Caucus in 2011 ( $112^{\text {th }}$ Congress). An unexpected finding is that the Tea Partylegislators were slightly less conservative in the $113^{\text {th }}$ Congress than the other Republicans, but with almost identical scores (. 79 and .8 ).

An important note is that the $t$-test did not generate significant results, with $t$-values ranging below the critical threshold of $\pm 1,96$. Therefore I would use some caution in
emphasizing the result from figure 6.2. The insignificant results are most likely explained by too few observations. As seen in figure 3.1 and table 5.3 the number of Republican legislators in the Texan Congressional delegation only ranges from 12 ( $106^{\text {th }}$ Congress) to $25\left(107^{\text {th }}\right.$ Congress). In addition there is quite a similar number of Tea Party-legislators and other Republicans, which might create some disturbances in the test results.

Still figure 6.1 and 6.2 give clear indications that Texan Republicans are some of the most conservative members in the U.S. House of Representatives, regardless of Tea Party affiliation, but that the Tea Party legislators may have been a factor in dragging their fellow legislators increasingly to the fringe of the ideological dimension.

After the review of the variables I conclude with the following verdicts to the hypotheses in this thesis in table 6.5.

Table 6.5: Answer to the hypotheses

| Nr. | Hypotheses | Theoretical <br> explanation | Accept or reject the <br> alternative hypothesis |
| :--- | :--- | :--- | :--- |
| $\mathrm{H}_{1}$ | Legislators from redistricted <br> districts in Texas are more <br> ideologically conservative in the <br> U.S. House of Representatives | Redistricting | Rejected |
| $\mathrm{H}_{2}$ | Legislators from rural districts <br> are more conservative than <br> legislators from urban districts <br> in Texas. | Constituent sorting | Rejected |
| $\mathrm{H}_{3}$ | The higher the mean household <br> income of a district, the more <br> conservative the legislator is. | Economic explanation | Accepted |
| $\mathrm{H}_{4}$ | The higher the poverty rate, the <br> more liberal the representative <br> from the district is. | Economic explanation | Rejected |
| $\mathrm{H}_{5}$ | Tea-Party-Legislators are more, <br> and have traditionally been <br> more, ideologically <br> conservative. | Party activism | Accepted (but with some <br> doubts) |

### 6.3. Summary of analysis

In this chapter I have divided the research question into two sections and empirically tested each part. In section 6.1 I find that there has been an increase in polarization between the Republican and Democratic legislators from the $97^{\text {th }}$ to $113^{\text {th }}$ Congress. An interesting finding was that the Texas legislators generally were more conservative than the rest of the representatives. But since the $109^{\text {th }}$ Congress the Texas Republican and Democratic representatives have nearly equalized with the rest of the U.S. House Representatives DWnominate score. In addition to confirming that the House has polarized, as seen in figure 6.1, the results indicate that the parties has become more ideologically cohesive, both in Texas and nationwide.

In section 6.2 I approached the second part of the research question, if the congressional district affects the legislators ideological position, which was done by running three regressions (FE, RE and PCSEs) in two separate models. Model 1 included all the independent variables, and Model 2 excluded the poverty variable. The PCSEs in Model 2 gave the most reliable results, and only the income and TeaParty variables managed to meet the theoretical expectations made in chapter 2 and 3 . Of the five hypotheses tested in the analysis only $\mathrm{H}^{3}$ and $\mathrm{H}^{5}$ were accepted. The results from the analysis tend to favor the economic explanation (first addressed in section 2.3.4.). So for this thesis it seems clear that it is only the Congressional districts mean income that has any affect the legislators' ideological position.

In the next chapter the results from the analysis will be further discussed and will be closer linked to the theoretical framework of this thesis. Here I will also give a more comprehensive answer to the research question.

## 7. Discussion

In this chapter I will more thoroughly discuss and answer the research question, based on the results from chapter 6 and the theoretical framework laid out in chapter 2 and 3. I will also address some of the advantages and drawbacks of the design of this thesis. At last I will discuss the contributions of this thesis and some suggestions for future research. First, I will provide a short summary of the goals and design of this thesis.

This thesis looks at party polarization within the United States House of Representatives, and whether the congressional districts may affect legislators' ideology, which again may explain the rising polarization. In addition the thesis asks whether theories of polarization on the federal level explain polarization within a state congressional delegation. Instead of looking at the entire House of Representatives the thesis has rather analyzed the legislators representing Texas. In section 3.1 I argued why I selected Texas as my case of research. The two key arguments were that Texas demographically is quite identical to the rest of the United States (see table 3.1) and that the theoretical framework for this thesis may be applied to Texas. In addition Texas was selected for practicable purposes, since I wanted to investigate the legislators' Congressional District in more detail. This would have been challenging to carry out if I had tried to analyze more than the Texan Congressional Districts.

For both the theoretical framework for the federal level (chapter 2) and for Texas (chapter 3) time is an important component. Therefore Texas was selected since it made it possible to analyze several more congressional districts over a longer time span. A Time-Series-Cross-Section analysis has been used to implement the time dimension in this thesis.

In chapter 2 I reviewed the scholarship on polarization. The theories may be divided into two large camps, the external explanations (section 2.3) and internal explanations (section 2.4.). Due to the limitations of the thesis it is hard to address both the external and internal factors. Therefore this thesis primarily addresses the external explanations, due to theoretical and methodological reasons. Since the larger part of the scholarship on polarization looks at changes outside Congress, I regarded it as applicable to address the external explanations. I see it as relevant to have some insight in the internal explanations, and this was therefore included in the theoretical framework. The internal explanations will be revisited later in this chapter when I discuss some approaches for future research.

### 7.1. Discussion of the results and research question

## Has there been an increase in party polarization?

Section 6.1 gave clear results that there has been a significant increase in polarization between the Democrats and Republicans in the Texas Congressional Delegation as well as at the national level in the House of Representatives in the time span chosen for this thesis. The polarization has been as steep in Texas as in the rest of the U.S. House of Representatives, but as seen in figure 6.1 the parties in Texas and rest of the U.S. had different starting points. Both the Texan Democrats and Republicans were generally more conservative than the rest of the U.S. Republicans and Democrats. This finding will be discussed further later in this chapter, but first I will discuss the most robust finding in the analysis, which was the income variable.

I maintain that income and the economic explanation is the most robust of the external explanations, and the results from the analysis prove that there is a link between income and ideology. $\mathrm{H}^{3}$ was the only hypothesis that was accepted without doubts, and it seems quite clear that congressional districts with high median income elect more conservative legislators. The empirical findings from the analysis strengthen McCarty et al.'s theoretical framework analyzed in chapter 2. Still I maintain that there are several other aspects that the models used in this thesis did not manage to embrace.

As discussed in section 3.1.4 and seen in figure 3.3, there has for decades been quite a high level of income inequality in Texas, as well as the United States, with a Gini-Index of .42 . Though the Gini-index increased in both Texas and the U.S, from . 42 in 1979 to .48 in 2013 in, the increase in polarization in the same time period has been even more remarkable. With a history in Texas of "generously rewarding success while being unforgiving of failure", it is actually a bit surprising that the distances in polarization were not larger in Texas prior to year 2000 (Barone et al. 2013:1559). In spite of the fact that the income variable provides significant results, and the economic explanation seems as a plausible contribution, there must be other factors that play a large part in explaining party polarization as well.

I regard the ideological realignment theory, which was discussed in section 2.3.2 and 3.1.2, as an essential explanation in understanding some of the historical foundations of the rising party polarization especially in Texas. Scholars generally agree that the South was for a century dominated by the Democratic Parties one-party regime. Cunningham (2010) argued
that the conservative wing of the Democratic Party was the dominant one during this oneparty regime. This may explain why the Democrats in Texas generally were more conservative than their fellow legislators from the rest of the United States. A massive migration and the rise of conservative icons like Ronald Reagan contributed to what Poole and Rosenthal (2007) have called "the collapse of the southern Democratic Party". In addition the 2003 special redistricting plan was an important component in sweeping out the last remainders of the conservative "Blue-Dog" Democrats in the House of Representatives, both in Texas, but also on the national scene, creating the final collapse of the Southern Democrats regime (Bickerstaff 2007).

I contend that the rise of polarization in Texas is due to the fact that traditional conservative Democratic voters became even more conservative Republicans with the remaining Democratic Party becoming a liberal party for the black, Hispanic and the poor (Bickerstaff 2007:4-7). This is exemplified in figure 6.1. Still the Texas Republicans have in the same period become even more conservative and is the most conservative faction within the Texas Republican party.

Increasing income inequality has fueled this growing polarization, which explains why the income variable gave quite clear results in Model 1 and 2. At the national level the largest increase in polarization is caused by the increasing conservativeness of the Republican Party.

## Does the congressional district affect the legislators' ideology?

Based on the literature and the results of the analysis it is plausible that the constituency affect the legislators ideology, but as seen in Model 1 and 2 there are some factors within the constituency that are more convincing than others. As discussed, regarding the income variable in section 6.2.5, the analysis gave clear results that the congressional districts mean income affects the legislators' ideology. The racial composition of the district also affects the legislators' ideology. This is especially in black neighborhoods, which elect slightly more liberal members.

Parts of the literature analyzed in section 2.3.1 and 2.3.3 provide compelling arguments for this part of the research question. The increasing partisan sorting since the 1970s, with liberals and conservatives clearly sorted into Democratic and Republican parties, has created "ideological echo chambers", where voters live closer to their ideological soul mates. I will argue that redistricting fueled the constituent and partisan sorting process since mapmakers draw congressional districts as safe as possible.

In spite of convincing empirical results and compelling theoretical arguments, it is worth noting that neither the literature nor the results from the analysis give clear indications in which way the causality actually goes. This fact makes it hard to provide a clear answer whether the congressional district affects the legislators' ideology.

It might rather be that the legislator actually affects the congressional district's ideology. Levendusky provides a compelling argument to the opposite way of causality. As analyzed in section 2.3.3, Levundusky claims that when the legislators sort to the each end of the ideological poles it clarifies what it means to be either a Republican or a Democrat (2009:3). The modern redistricting process is also a tool for the party elites to secure non-competitive and homogenous congressional districts where "...legislators are no longer chosen by their constituents, but rather that the constituents are chosen by the legislators" (2008:65).

I will argue that the causality between the congressional district and its legislator ideology is mutual, rather than going strictly in one direction. When the Republican or Democratic legislators' ideology is clearly conservative or liberal it is easier for the common voter to associate their ideological preferences with a party. Combined with the conflict extension on most issues during the last decades, it has become easier for voters to choose parties based on ideological preferences. The legislators have drifted so far away from each other, that for many voters the other party is not regarded as a viable option (Layman et al. 2006:89-93, Nelson (ed.) 2014:61).

As discussed earlier we see that the results from Model 1 and 2 indicate that several aspects like racial and economic composition affect the legislators' ideology. Another interesting effect is growing party activism among the grassroots. When most of the congressional districts are quite homogenous and non-competitive, this creates more room for the fringes of the electorate. Exemplified with the Tea Party movement in this thesis, scholars have seen that the fringes of the electorate are quite capable of letting their voice get heard, and the legislators cannot ignore these ideological fringes of their own party. The surprising unseating of Majority Leader Eric Cantor, which I briefly summarized in section 2.3.5, is a striking example of how the congressional district may unseat their legislator, regardless of status, if he ignores the party activist trends within his own constituency (The New York Times 2014b, Skocpol and Williamson 2012).

A concluding remark is that the link between the congressional districts ideology and the legislators' ideology goes in a mutual ascending spiral. When the legislators and their parties have drifted further apart to the ideological poles, this makes it easier for voters in the district to align their partisan and ideological beliefs. But changes in the constituency, and reduction of the electoral competitiveness create new ground for activist voices, which further pressures the legislators to the outskirts of the ideological poles.

This dynamic creates a challenge in providing a clear answer to the second part of the research question. Still the dynamic between the legislators and his/her constituency is an interesting aspect and important contribution to understanding the increasing polarization of the last decades.

The results in section 6.2 deepen our understanding in why there has been a profound discussion among scholars of the various theories of polarization. It also show that one theory, or even one school of theories, may not explain party polarization as well as the shift in legislators' ideology, but that the picture is more complex. Still the results show that some theories account more for polarization than others.

May theories of polarization on the federal level explain polarization within a state congressional delegation?

Theories generated at the federal level may partly explain polarization within a state congressional delegation. Especially the external factors like income, constituent sorting, the ideological realignment and the increase in party activism have been crucial in understanding the increasing polarization in the Texas Congressional Delegation since the 1970s.

Still every state has its own unique story, and the same may be said with the Texan case as well. But as analyzed in the chapter 3, what Cunningham has called for the "nationalization of state political culture" played an important role in realigning Texan politics, and creating the modern two-party system that the state has today (Cunningham 2010:194). The analysis and theoretical findings in this thesis shows a clear indication that the large part of the polarization within the Texas Congressional Delegation may be explained by theories at the federal level.

In the current era of polarization it seems clear that it is the political trends at the national level that affects the legislators at the state level.

### 7.2. Answering potential criticism and suggestions for future research

### 7.2.1. Answering potential criticism

## Is Texas the right case?

With the slightly surprising results generated in figure 6.1 , where the results clearly show that Texan legislators have traditionally been more conservative than the rest of the United States, it is worth asking whether Texas is the most appropriate case. Just using one state may be a source of critique, and using more cases may be appropriate in future research.

One might ask if there are other states that resemble the United States even more, for instance California, New York, Florida or Pennsylvania. Still every state has its unique character and history, and when choosing one state this has to be dealt with. When I chose Texas the states unique features were analyzed in chapter 3, and with regard to the limitations of this thesis I regard Texas as the right case. Based on demographical data it is quite similar to the rest of the United States. And Texas has a history that makes it possible to test the theories implemented designed for the federal level.

Still the most important aspect in why I choose Texas was that it made it possible to gather more detailed data on congressional districts, which again made it possible to test the link between the congressional districts and its legislators. This would not have been achievable if I had to approach more states or all the Congressional Districts of the entire U.S. House of Representatives.

## Too weak models used in this thesis

There are of course several other aspects that might explain the increasing polarization. And one might argue that there should be more variables implemented in the model. Even if variables like rural, redistricting, poverty and white did not provide clear results, all the variables used in this thesis have been carefully analyzed and operationalized, and are all based on the theoretical framework of this thesis.

I maintain that the Model 1 and 2 used in this thesis manage to test several of the most common external explanations, and that the variables used are properly operationalized.

As briefly mentioned in section 5.1 there is an interesting scholarly debate whether the DWnominate score actually is an appropriate tool for measuring ideology. Ideology is such a complex term that the DW-nominate score may give an impression that there are greater distances between the parties than there what is actually the case. And as Lee (2009) argues, most votes in Congress are not ideological. In lack of other measures, the DW-nominate is by far the most frequently used and is regarded as a very precise measure in explaining legislators’ ideology. Therefore I regard the DW-nominate measure as appropriate for measuring polarization.

An entire field of research, regardless of method, clearly concludes that there has been a significant increase in party polarization since the 1980s. And most scholars use the DWnominate score to explain this polarization. What actually explains polarization, is still an ongoing discussion among scholars.

### 7.2.2. Suggestions for future research

There are several aspects that this thesis did not manage to embrace, which should be further investigated in future research. Due to the limitations of time in this thesis it was not practically possible to investigate every one of the 435 Congressional Districts, especially over time. A larger project should try to look at more Congressional Districts, and use more than one state as an example, where cross-comparisons over different states may be an interesting approach. Despite that the research on polarization is greatly expanding, there is done far too little research on how the state and constituency affect the states' congressional delegation in Congress. There is also very little research conducted on State Legislatures, and whether there has been a similar increase polarization in State Legislatures as in the United States Congress during the same time span.

In understanding polarization I would address scholars to investigate and do more research on the changes that have occurred on the inside of Congress. Though external explanations surely help explain the increasing party polarization, a finding in this thesis is that the external models do not manage to tell the entire story. I maintain that the largest bits in solving the polarization puzzle lies in conducting research on the inside of Congress.

For instance, when I analyzed the data for this thesis, a surprising finding was that the representative from the $4^{\text {th }}$ district Ralph Hall's DW-nominate score jumped from .073 to .505 when he switched parties from Democrat to Republican in the $108^{\text {th }}$ Congress (Carroll et al. 2015). It was obvious that changes in his constituency could not explain this sudden and drastic increase in ideology. Therefore how things work on the inside of Congress and within the party ranks have their say in explaining legislators' ideology and behavior.

In section 2.4 I briefly reviewed some of the internal explanations. These should be further investigated and tested, where a qualitative approach may be even more appropriate. A qualitative approach on polarization within Congress may provide an alternative to the scholarship on polarization, which has been dominated by quantitative method. Still there are several aspects of polarization where a quantitative method is the most suitable.

### 7.3. Contributions

This thesis has touched a new field of research within the vast scholarship of party polarization. By analyzing only one state, the thesis has managed to implement data from each of the Congressional Districts in Texas, and link them to polarization.

By doing this, the thesis has tested several of the most popular explanations for party polarization. The results from the analysis tend to favor the economic explanation, and it may therefore enhance McCarty's et al. (2006) argument that increasing polarization is caused by the increase in income inequality. The thesis has also contributed with a comprehensive analysis of several of the most popular theories of party polarization. By comparing the arguments from several scholars the thesis has proved that there is a general lack of theoretical agreement.

At last the thesis has managed to test polarization by using one case. This may help future research to have an even more detailed approach, and create new paths in a field of research that is under constant development.

## 8. Conclusion

From the $97^{\text {th }}$ to the $113^{\text {th }}$ Congress there has been a significant increase in polarization between the Democratic and Republican parties. By using data from voteview.com and the Almanac of American Politics this thesis has gone further into trying to explain whether the congressional district affects the legislators' ideology.

This thesis has had a comprehensive review and tested some of the most common explanations for party polarization. This has been possible by using Texas as a case and looking more thoroughly at the congressional districts and the political history in this state.

One of the findings is that one should not mess with Texas, since the Lone Star State has sent some of the most hardline conservative legislators that the U.S. House of the Representatives has ever seen. An interesting finding is that their Republican colleagues have become almost equally conservative. On the other hand the thesis has demonstrated that the traditionally dominant conservative part of the Democratic Party has collapsed, and Texas Democrats are now as liberal as the rest of the Democrats in the House of Representatives.

Both models used in this thesis emphasize that the congressional districts mean household income affects the legislators' ideology. As discussed it seems clear that there are other theories that the models used in this thesis do not manage to embrace, which also affect the legislators' ideology. A finding is that internal explanations may equally well explain the increasing polarization as the external explanations, and that future research should address the link between the internal and external explanations.

By reviewing both the theories for polarization at the federal level and in Texas, the thesis sees a clear link between polarization at the federal and the state level. A finding is that state politics in general has become more nationalized, and that increasing polarization in a state congressional delegation may be explained by trends at the national level.

By studying polarization, the undisputed finding is that the Democratic and Republican parties have drifted further away on separate ideological highways, and the distance becomes greater from Congress to Congress. Will the increasing polarization never end and will Congress be trapped in further gridlock? The causes and consequences of polarization deserve the attention from scholars worldwide, and maybe it is time for scholars to provide some bold solutions to solve the polarization puzzle.

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## 10.Appendix

Table 10.1: Congresses and Almanacs analyzed in this thesis
Data for $97^{\text {th }}$ to $105^{\text {th }}$ Congress is collected from Voteveiw.com

| Congress <br> (years) | Almanac <br> (Year) | Notes | Congress <br> (years) <br> (continued) | Almanac <br> (Year) <br> (continued) | Notes |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $97(1981-83)$ | - | 24 districts. | $106(1999-01)$ | 2000 |  |
| $98(1983-85)$ | - |  | $107(2001-03)$ | 2000 |  |
| $99(1985-87)$ | - |  | $108(2003-05)$ | 2004 | Special redistricting <br> session held in 2003 |
| $100(1987-89)$ | - | $109(2005-07)$ | 2006 |  |  |
| $101(1989-91)$ | - | Redistricting <br> to 27 districts | $110(2007-09)$ | 2008 |  |
| $102(1991-93)$ | - |  | $112(2009-11)$ | 2010 |  |
| $103(1993-95)$ | - | $113(2013-15)$ | 2014 | New redistricting to <br> 36 districts |  |
| 104 | - |  |  |  |  |
| 105 | - |  |  |  |  |

### 10.1. Congressional maps over Texas 1996 - present

Map A (1996-2002)


Map B (2002-2004)


Map C (2004-2006) (The Special Redistricting Plan)


Map D (2006-2010)


Map E (2012-present)


Source: Maps A-D: Texas Legislative Council (2012), Map E: U.S. Department of the Interior (2014).


[^0]:    ${ }^{1}$ It is worth noting that several scholars operate with several other liberal/conservative dimensions, for instance foreign policy conservatism, and other terms of conservatism and liberalism, like neo-conservatism and neoliberalism. In this thesis I will address the socio- and economic liberal/conservative dimensions since these are the most commonly analyzed in the literature mentioned in chapter 2.
    ${ }^{2}$ The term "gerrymandering" is a combination of $19^{\text {th }}$ century governor Elbridge Gerry's name, who is first

[^1]:    ${ }^{2}$ The term "gerrymandering" is a combination of $19^{\text {th }}$ century governor Elbridge Gerry's name, who is first credited for politicizing the redistricting process, and a salamander, since the strangely shaped district Gerry created in 1812 resembled a salamander. O'Connor and Sabato has further defined gerrymandering as: "The legislative process through which the majority party in each statehouse tries to assure that the maximum number of representatives from its political party can be elected to Congress trough the redrawing of legislative districts (2008:494).

[^2]:    ${ }^{3}$ In this thesis I will use McCarthy's et al. definition of The South, meaning that the South consists of states of Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia (McCarthy et al. 2006:25,48). Maryland, West Virginia and Delaware are often recognized as being a part of the South. In this thesis these states will be regarded as a part of the Northeast.

[^3]:    ${ }^{4}$ The Pew Research Center has created an Ideological Consistency Scale ranging on a left/right-dimension from "consistently liberal", "mostly liberal", "mixed", "mostly conservative" and "consistently conservative". The placement is based on a range of questions on the survey respondent's political values. See Appendix A in Pew 2014a:82 for full questionnaire (Pew 2014:18,82-84).

[^4]:    ${ }^{5}$ Ticket-splitting (or split-ticket-voting) occurs when a person votes for different candidates from different parties in elections for multiple offices. For instance that he votes for the Democratic presidential nominee and for the Republican candidate for Senate in the same election cycle.

[^5]:    ${ }^{6}$ A "safe" state (or district) is regarded as a state/congressional district where the winning candidate won with over a 10-percentage point margin to his/hers closest competitor. A "weak" state (or district) is a state/ congressional district where the margin of winning was less than 10-percent (Theriault 2008).
    ${ }^{7}$ The Gini Index is a common measure for income inequality ranging from 0 to 1.0 means perfect equality while 1 is perfect inequality (United States Census Bureau 2014b:1).
    ${ }^{8}$ McCarty et al. uses the percentage of foreign-born residents in the United States to measure immigration (McCarty et al. 2006:9).

[^6]:    ${ }^{9}$ Prior to every presidential election, usually in August or September, the Republican and Democratic National Conventions are held ( $\mathrm{O}^{\prime}$ Connor and Sabato 2008:484-485).
    ${ }^{10}$ The Tea Party-term resembles the $18^{\text {th }}$ century colonial protesters that rebelled against the British by tossing tea in the Boston harbor prior to the American Revolution, and started as a rallying term for the first protestors of the Obama Administration in 2009 (Skocpol and Williamson 2012:7).

[^7]:    ${ }^{11}$ There are three ways primary elections may be held, and it's up to the states themselves to decide. The oldest is that they are arranged as caucuses, where party delegates meet in small groups and decide. Another is a closed-primary, where only members of the party may vote. The third is open primaries, where everyone may vote (O'Connor and Sabato 2008:481-482).
    ${ }^{12}$ The Majority Leader is the elected leader of the party controlling the majority in the House of Representatives, and is the second-highest ranking member in the House, only surpassed by the Speaker of the House (O'Connor and Sabato 2008:773).

[^8]:    ${ }^{13}$ Gingrich ultimately had to resign both the speakership and seat in Congress after an ethic scandal in 1998.

[^9]:    ${ }^{14}$ Divided government occurs when different parties control the White House and Congress. Since 1968 divided government has occurred except for the periods of 1977-81, 1993-95, 2003-07 and 2009-11 (O'Connor and Sabato 2008:770).

[^10]:    ${ }^{15}$ Barones et al.'s data is based on the 2010 United States Census Bureau. The racial group "other" in this thesis also includes Hawaiian. Hispanic/Latino is classified as an ethnicity rather than race (Barone et al. 2013:17).

[^11]:    $H_{1}$ : Legislators from redistricted districts in Texas are more ideologically conservative in the United States House of Representatives

[^12]:    ${ }^{16}$ The GOP stands for "The Grand Old Party" and is a common nickname for the Republican Party (O'Connor and Sabato 2008).
    ${ }^{17}$ A statewide election is the election of governor, lieutenant governor, senator or president.

[^13]:    ${ }^{18}$ The data gathered from Voteview.com, described in section 4.3.1 and 4.3.2, is publicly available and free of charge.
    ${ }^{19}$ The website Voteview.com was unfortunately hacked in late March 2015. The authors of the website are working on re-launching the website. Due to this attack, many of the original Internet links in this thesis does not work properly.
    ${ }^{20}$ For the larger part during the writing of this thesis I used The Legislator Estimates $1^{\text {st }}$ to $112{ }^{\text {th }}$ Congress, which was the previous edition of this dataset. The dataset used in this thesis was introduced March $10^{\text {th }} 2015$ and may be downloaded here: ftp://voteview.com/junkord/HL01113D21_PRES_12.DTA (Stata-file). It corresponds with the previous release of the dataset (Carroll et al. 2015).
    ${ }^{21}$ See Carroll et al. 2015 for a more detailed description of the Legislators dataset and the variables that are originally included.

[^14]:    ${ }^{22}$ The Texas House of Representatives legislator estimates text-file may be downloaded here: $\mathrm{ftp}: / / \mathrm{voteview} . \mathrm{com} / \mathrm{JUNKORD} / \mathrm{TEXAS}$ HL01020A21.DAT (see Poole (2014a) in the bibliography for the full reference)
    ${ }^{23}$ The PVI uses the mean result of the two last presidential elections. Barone and Cohen use the elections of 2004 and 2008 as an example. John Kerry won 48.8 percent of the national vote in 2004, while Obama's share was 53.7. This gives a mean of 51.2 , as the national democratic value and 48.8 is the Republican national value. If then a County gave 60 percent to the democrats it would have a PVI of $\mathrm{D}+9$ since it voted 9 percentage points more democratic than the nation as a whole (Barone and Cohen 2009:17-18).

[^15]:    ${ }^{24}$ Feel free to mail me at bkdanbolt@gmail.com if you like a copy of the dataset and Stata do-file used in this thesis.

[^16]:    ${ }^{25}$ For a deeper and more comprehensive explanation of the different NOMINATE-scales, were the mathematical equations for the NOMINATE-scale is provided, I recommend reading Poole and Rosenthal: Ideology and Congress (2007), Carroll, Lewis, Lo, Poole and Rosenthal (2009) and Poole and Rosenthal (2001).

[^17]:    ${ }^{26}$ For the DW-nominate's second dimension the weight is 0.3938 , so this is a more delicate job to weight. The second dimension is not used in this thesis (Carroll et al. 2015).

[^18]:    ${ }^{27}$ According to the United States Census Bureau own classification for the 2010 Census Urban areas are regarded as either densely populated areas with more than 50000 people (called Urbanized Areas (UA)) or urban clusters (UC) which are territories with a population between $2500-50000$ people. Rural areas: "...encompasses all population, housing, and territory not included within an urban area" (U.S. Census Bureau 2014). Note that in this thesis I will use population data from different Censuses. For the 1990, 2000 and 2010 censuses there where some slight variations in how the Census Bureau has defined urban and rural.

[^19]:    ${ }^{28}$ In most states people need to register to vote to actually be entitled to vote in the forthcoming election. When they do this they often get the choice of registering as a "Democrat", "Republican" or "Independent" (O'Connor and Sabato 2008: Chap. 13).

[^20]:    ${ }^{29}$ Three of the legislators in the House of Representatives in this time period (Sanders, VT, Goode, VI and Foglietta, PA) were elected as Independents. These are set as missing values and are therefore not included in the analysis.

[^21]:    ${ }^{30}$ It is of course possible that a congressional district may have a mean household income that surpasses $\$ 100.000$, which divided by 1000 would go beyond the $0-100$ scale. But in the data gathered from the Almanac of American Politics none of the Congressional Districts in Texas, regardless of time period, had a mean household income exceeding $\$ 100.000$. The highest income noted is 83.724 ( $3^{\text {rd }}$ district, $113^{\text {th }}$ Congress), the lowest is $17.866\left(15^{\text {th }}\right.$ district, $106-107^{\text {th }}$ Congress) and the mean income is 40.252 .

