

# The Long Run Evolution of Political Cleavages in Israel

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## Abstract

This paper uses pre-electoral surveys conducted in Israel between 1969 and 2015 to describe the long run evolution of political cleavages in the country. Despite Israel's exceptional characteristics, we find similar patterns to those found for France, the UK and the US. Notably, we find that in the 1960s–1970s, the vote for left-wing parties was associated with lower education and lower social class voters. It has gradually become associated with high social class voters during the late 1970s and 1980s. Since, the social class cleavage remained largely stable. We also find a weak inter-relationship between inequality and political outcomes, suggesting that despite the social class cleavage, identity-based voting and security issues are more dominant in Israeli politics.

**Keywords:** Political cleavages, Political economy, Inequality

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# 1 Introduction

This paper addresses the long run evolution of voting patterns in Israel during the past 50 years. Our focus is on socio-economic issues, particularly related to social class, education, ethnic origin and religiosity. Using pre-election surveys conducted from 1969 to 2015, we are able to quantitatively describe the evolution of political cleavages in Israel at the macro level. We also use micro-level data in the surveys to discuss short run political changes.

Following [Piketty \(2018\)](#), who studied the evolution of political cleavages in France, the UK and the US, there is a natural interest to present similar analyses for other countries. One particular reason is helping better understand the underlying mechanisms of common trends in different countries. Studying Israel is also motivated by its uniqueness in several key issues, compared to other high-income economies:

- The influence of the Arab-Israeli conflict on Israeli politics
- The governance of a strong socialist party in the 30 years that followed the creation of Israel
- The high levels of income inequality in a country with a historically strong socialist sentiment
- The exceptional evolution of income inequality in Israel (see below)
- The geographical isolation of Israel and its unique immigration policy (essentially accepting all Jewish immigrants and rejecting the rest)
- The role of religion and Jewish heritage in Israeli politics

These unique issues seemingly make the political cleavages in Israel less likely to be driven by the same drivers that were observed, for instance, in France. Yet, as we find in this paper, the most dramatic change in the political cleavages in Israel is similar to that observed in France or the US. In the 1960s–1970s, the vote for left-wing parties was associated with lower education and lower social class voters. It has gradually become associated with high social class voters.

Israel is a parliamentary republic, in which the parliament (the Knesset) is elected every 4 years or less. The prime minister is usually the leader of the biggest party.

For some time (1992–2001), there were direct elections for determining the identity of the prime minister, twice (1996 and 1999) in parallel to the legislative elections and once (2001) for the prime minister only. So far, there have been 20 parliamentary elections, the first in 1949 and the last in 2015. From 1949 to 1973, a single party won all the elections – Mapai (Workers’ Party of the Land of Israel, the early incarnation of the Israeli Labor party). From 1977 and until 2009, with very few exceptions, the political parties on either side found difficulties to form coalitions that lasted for more than several years each time and this period was characterized by political instability, also forcing a grand coalition of the two largest parties (during 1984–1990). From 2009 onward, the liberal-right party Likud is the ruling party. Fig. 1 presents the evolution of parliament seat share of different political blocs. The definition of each party by bloc is given in Appendix A. Appendix B also presents a historical breakdown of left and right blocs by party.

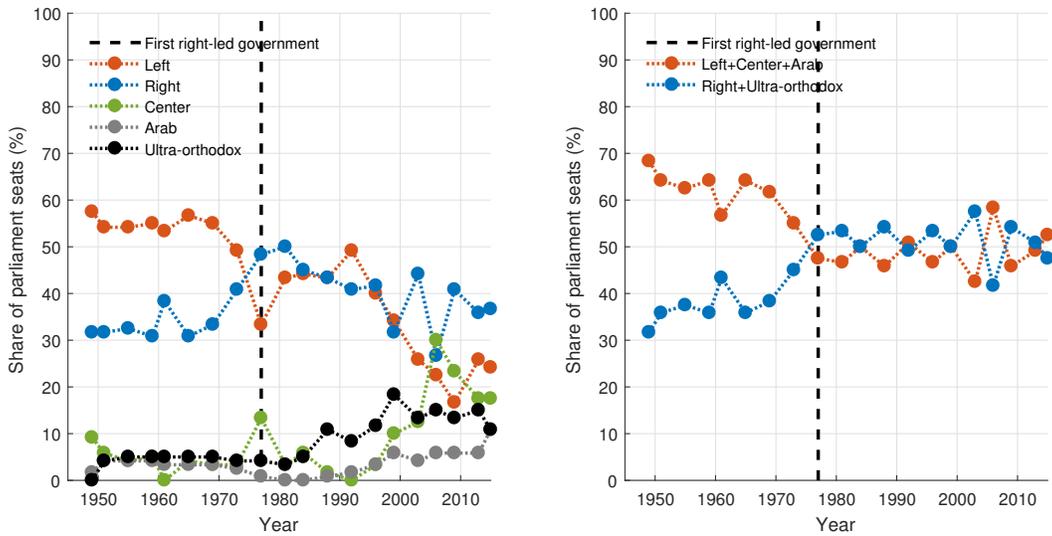


Figure 1: The evolution of parliament seat share of different political blocs in Israel (left). Bundling the blocs into Left+Center+Arab and Right+Ultra-orthodox blocs is on the right. We note that while the center parties in Israel are traditionally left-leaning, almost all the right-led coalitions included parties that were perceived as center.

We find that a multiple elite system, somewhat different from that described by [Maman \(1997\)](#) and [Piketty \(2018\)](#), existed in Israel since its inception and evolved over time. Politically, the dominance of the Zionist-socialist left was gradually replaced by the dominance of the Zionist right. The last elections after which the biggest

party in the Israeli parliament was the Israeli Labor party (Ha'avoda) were in 1999. At the same time, the economic/financial elite and the bourgeoisie were initially estranged from the Labor party leadership. Gradually, this has changed as well. In the 1949 election, the share of left votes in Tel Aviv, the economic center of Israel, was lower than the general share of left votes by 10 percentage points. In 2015 it was higher by 25 percentage points. In other words, while political dominance changed from left to right, the economic elite became less affiliated with the right and more with the left.

At the same time, the differences between the big left-wing and right-wing parties in Israel, which were initially large, became narrow through time. This is true from an economic perspective as well as from other perspectives, such as the views towards peace and the Arab-Israeli conflict. For example, the peace agreement between Israel and Egypt, the first between Israel and any other Arab country, was achieved during the first right-wing led government, in 1979. In addition, the major liberalization of the Israeli economy, started in the late 1970s and early 1980s, was continued under the left-wing led government of 1992–1996. These examples share similarities with processes in other countries, during similar periods (Piketty, 2018). For instance, the Thatcher era and the Blair era in the UK, or the Reagan era and the Clinton era in the US.

We also discuss the inter-relationship between inequality and political vote. We are able to show that the major economic reforms of the Likud-led government in 2003, and in particular, child benefit and tax cuts, did not cause families with several children to move from the right to the left in the 2006 elections. We find that the probability of moving from the right to the left or to other parties (mainly center parties) did not depend on household size. This probability was also significantly lower for lower class voters than for middle or high class voters.

This finding is related to the evolution of income inequality in Israel (Dahan, 2017), presented in Fig. 2. This evolution is partially explained by political changes (Kristal and Cohen, 2007; Dahan, 2017). After the political change of 1977, reforms aimed at liberalizing the economy, which was heavily regulated and centralized before, were done. The transition process into a market economy and the privatization of numerous government owned corporations lasted until the late 2000s. This is the standard explanation for the increasing income inequality during the 1980s and 1990s. During 2001–2002, following the dot-com crash and the Second Intifada,

the Israeli economy faced a severe recession. This has led to a series of reforms which included tax cuts, wage cuts in the public sector and reductions in transfers. These, in turn, led to a decrease in unemployment and a sharp increase in labor force participation. This is perceived as the main explanation for the decrease in pre-tax income inequality (Dahan, 2017).

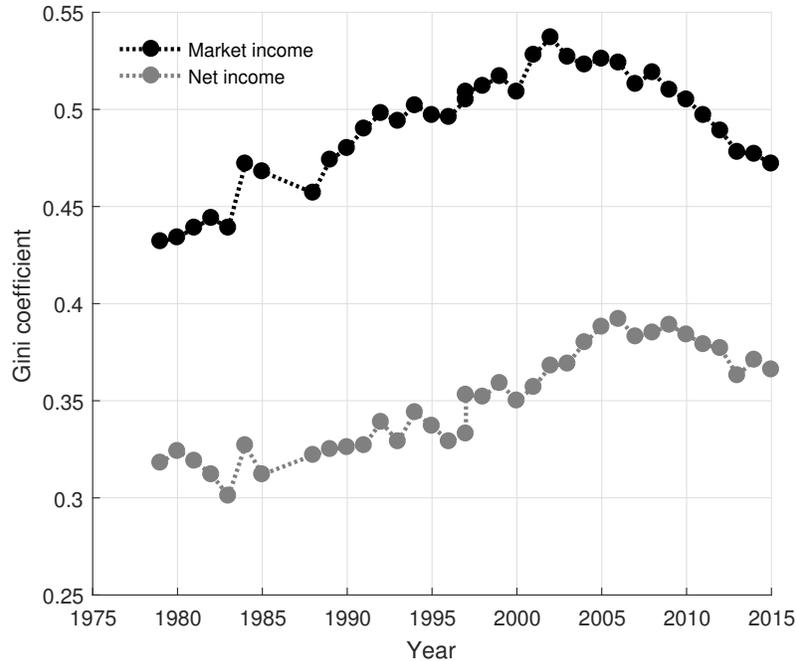


Figure 2: The evolution of market and net income inequality in Israel 1979–2015 (Gini coefficient, based on household surveys). Source: Dahan (2017).

This evidence indicates that political outcomes may indeed affect inequality, even over short periods. This is particularly true for the increase in income inequality during the late 1970s and 1980s and the reduction of pre-tax income inequality since the early 2000s. Yet, the opposite direction seems unlikely. Inequality did not seem to play a major role in determining election results from the 1980s onward. We demonstrate this for the 2006 elections, as described above.

We note that the existing inequality data are based on household surveys and social security data only. As a result, capital income is underestimated in Israel (Dahan, 2017). Together with relatively large informal economy, these make the existing inequality estimates in Israel somewhat less reliable compared to other developed countries.

The aim of this paper is to present the evolution of political cleavages in Israel. We do not aim to prove or refute the vast literature on elites in Israel,<sup>1</sup> or on ethnic gaps.<sup>2</sup> The main objective is therefore to provide evidence for a more informed discussion on these issues.

Several striking observations do stand out specifically. The fundamental one is the evolution of the social class political cleavage described above. We also find that the political polarization between practicing and non-practicing Jews, or religious and secular Jews, has been roughly stable during the past 50 years. Yet, the share of non-practicing Jews has been slowly decreasing during this time period.

More subtle observations are related to education and ethnic cleavages. In both cases there seems to be an increasing polarization in recent years after two decades of convergence. Yet, results on the ethnic cleavage should be treated with caution. Our data do not allow a clear-cut division between Ashkenazim, Mizrachim and other Jewish ethnic groups, but only a partial distinction between those groups.

We also look at Tel Aviv as a representative of Israel's economic and cultural center. We find that residents of Tel Aviv used to be more right-leaning than the general public, but are now more left-leaning. Even after controlling for income, social class, education, religion and ethnic origin, there exists a residual identity dimension, which did not exist until the mid-1980s. This re-affirms the observation on the evolution of the social class political cleavage. By comparing Tel Aviv to New York City, we find a further evidence for similar patterns to those found in other developed economies, despite Israel's uniqueness.

This paper focuses on the division between left and right. This is the dominant political rivalry in Israel. Yet, a large share of the population in Israel does not take a part in this rivalry. The ultra-orthodox community, 7%–10% of the population, traditionally votes for its own parties and is characterized by relatively high turnout rates. The Arab population, about 20% of Israel's population, primarily votes for Arab sectorial parties and is characterized by low turnout rates. We note that if we exclude voters for sectorial ultra-orthodox and Arab parties, the main results of our analysis remain the same. This is demonstrated in Appendix C.

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<sup>1</sup>See, for example, Lissak (1981); Shapiro (1984); Shamir (1991); Maman (1997); Ben-Rafael, Olshtain and Geijst (1998); Ram (2003).

<sup>2</sup>See, for example, Smoocha (1978); Arian (1998); Shamir and Arian (1999); Shenhav (2006); Cohen, Haberfeld and Kristal (2007).

This paper contributes to several threads of literature. First, we contribute to the vast literature on political cleavages in Israel by taking a fresh, quantitative and long-run approach. This enables the detection of processes such as described above. The pre-election surveys we use were also used regularly as the main data source for the “election books” compiled after each election in the past few decades and edited by Asher Arian and Michal Shamir, as collections of articles on different topics, usually discussing only specific elections (see [Israel National Election Studies \(2018\)](#)). Our contribution to this literature is therefore by considering for the first time the entire corpus of surveys, enabling the observation of long-run processes.

Second, we contribute to the recent literature on long-run political cleavages and inequality in different countries. The transition of high social classes from right to left and of the low social class from left to right is not exceptional to Israel. It re-affirms some of the findings of [Piketty \(2018\)](#) on France, the UK and the US and on Brazil ([Gethin and Morgan, 2018](#)). It also allows testing possible mechanisms for the inter-relationship between inequality and political vote.

## 2 Data

Our main data source is the *Israel National Election Studies* database, or INES ([Arian et al., 2018](#)):

“National election studies in Israel began in 1969. The two basic elements have been a pre-election survey based on a national sample and an edited volume regarding major aspects of the elections. All surveys were conducted prior to Knesset elections and Prime Ministerial elections (held in 1996, 1999, and 2001). At least one survey was carried out in each election year; in certain years, more than one survey was conducted, and in a few cases a post election survey was added. In some years (1973, 1988, 1999, 2006, 2009, 2013 and 2015), a panel design was used.

The aim of the Israel National Election Studies is to investigate voting patterns, public opinion, and political participation in Israel. Each election study addressed a wide range of substantive themes including expectations about the election outcome; perceptions and evaluations of

the major parties and candidates; information about politics; partisanship; assessments of the relative importance of major problems facing the country; attention to campaign coverage in the mass media (in recent studies); feelings of political efficacy; political values; left vs. right positions; trust in government; political participation; vote choice past and present; economic well-being; policy positions on the Arab-Israeli conflict, social welfare, state and religion, economic, social, and civil rights issues; evaluations of political figures and groups; measures of religious affiliation and religiosity; and detailed demographic information.”

For our purposes, the INES data allows estimating how the answer to the question “to which party are you going to vote in the coming election?” depends on various socio-demographic variables that characterize each respondent. Yet, there are several major drawbacks in INES, which are important to emphasize:

- Available only from 1969 onward
- Almost only pre-election surveys, sometimes conducted several months before the election had taken place
- Inconsistencies in the questions asked in different surveys, undermining the comparability of some of the results over the years
- Limited insight on socio-economic state of respondents – incomes are very coarsely tabulated, no wealth data
- Before 1996 the INES samples do not include non-Jewish respondents and do not cover the settlements beyond the 1967 Green Line (thus excluding 25%–30% of the population)

Another way to analyze changing inequality patterns and political cleavages from a longer run perspective and using more socio-economic indicators is to use municipal-level electoral data together with municipal-level socio-demographic and economic data. In Israel, the socio-demographic local-level data exist in the form of general censuses, conducted every 12 years, in addition to smaller scale surveys. This analysis, including the creation of a historical dataset combining census data and electoral data in the municipal level, is planned for future work.

We also used the official election results in Tel Aviv only. Data for the 1949 election was found in [Ha'aretz Publications \(1951\)](#). Data for the 1977 election was obtained from Israel Social Science Data Center ([ISDC, 2018](#)). Through the Tel Aviv municipality it was possible to obtain the results from 1984 onward. These do not enable an elaborate analysis by socio-demographic characteristics like the surveys, but offer some descriptive results. These data are more representative of the eventual election results than the surveys.

In all of the results, the definition of left included all the socialist and communist parties. This definition excludes Arab sectorial parties. This has a negligible effect prior to 1996 because the INES surveys only included Jewish respondents before. In addition, there may be some ambiguity regarding the political affiliation of center parties. In all cases this ambiguity has a little effect on the results except for the elections of 2006 and 2009. In both, the biggest party was Kadima, a center party that had its roots in the right, but merged with leading figures in the left. See [Appendix A](#) for the definition of political orientation by list, for each of the elections. [Appendix D](#) describes the representativeness of the election results of the surveys, comparing them to the real election results.

### 3 Results

Our main strategy is using the survey data and regressing political vote on a socio-demographic variable, while the other socio-demographic variables serve as the controls. We compute the following linear regression:

$$V_{it} = \alpha + \beta_t x_{it} + \gamma_{ct} c_{it} + \epsilon_{it}, \quad (3.1)$$

where:

- $V_{it} = 1$  if left-wing vote, 0 otherwise (when interested in left vote);  $V_{it} = 1$  if right-wing vote, 0 otherwise (when interested in right vote)
- $x_{it}$  – explanatory variable of interest (*e.g.* gender:  $x_{it} = 1$  for men and  $x_{it} = 0$  for women)
- $c_{it}$  – control variables

In the example of  $x_{it}$  being gender and in the absence of control variables, the coefficient  $\beta_t$  is equal to the difference between left and right vote among men and women in election year  $t$  reported on Fig. 3 (*i.e.*  $\beta_t = E[V_{it} = 1, x_{it} = 1] - E[V_{it} = 1, x_{it} = 0]$ ). Adding controls may change the  $\beta_t$  values substantially, depending on the correlation structure between the different variables. The variables we consider are the following:

- Age (1 if 50 and above, 0 otherwise)
- Gender (1 if a man, 0 for a woman)
- Religiosity (1 if secular, 0 if religious)
- Ethnic origin (1 if Ashkenazi, 0 otherwise)
- Social class (1 if top 10% by social class, 0 if bottom 90%)
- Education (1 if top 10% by education, 0 if bottom 90%)
- Income (1 if top income group, 0 otherwise)

All variables and controls are made binary in order to allow comparability over the years.

Figure 3 presents the results for the case of gender. It demonstrates that men tend to be more right-leaning than women. Yet, the differences are small and are statistically insignificant in most elections and after considering controls. There is a small and statically significant upward trend in time, meaning that men are gradually becoming more and more right-leaning than women, even after controlling for socio-demographic characteristics. We note that in all the charts below the shaded areas stand for 90% confidence intervals for the regression coefficients after controls.

These results do not confirm the findings according to which women have become more left-wing over time, found both in Europe and North America (Inglehart and Norris, 2000; Edlund and Pande, 2002; Piketty, 2018). Yet, men are gradually becoming more right-wing over time in Israel from the mid-1980s onward. In general, the effect of gender on political vote is smaller in Israel than found in other countries (Inglehart and Norris, 2000; Edlund and Pande, 2002; Piketty, 2018). A

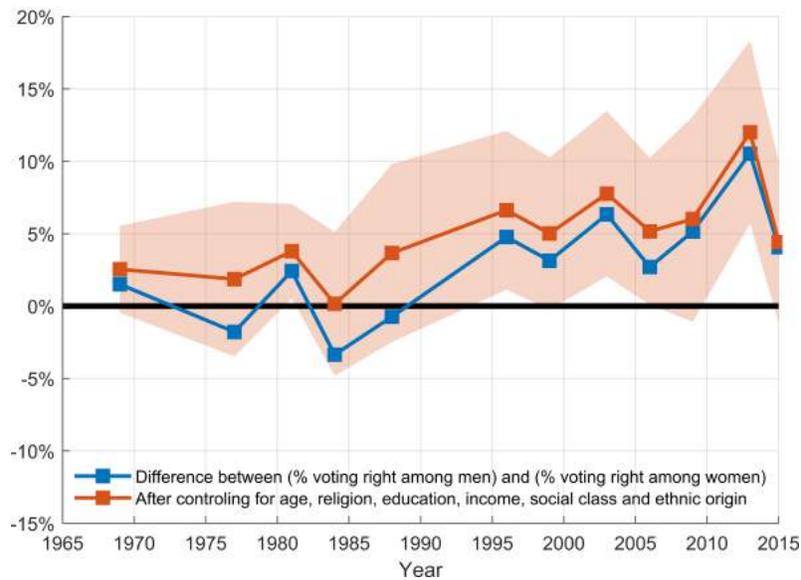
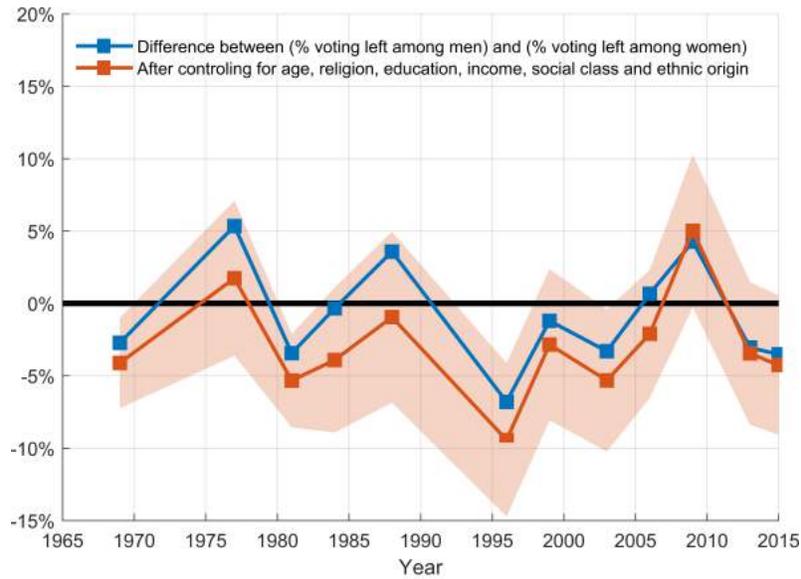


Figure 3: Political conflict in Israel, 1969–2015. Left and right vote by gender.

possible explanation is that since 2006, center parties in Israel receive particularly large support from women – initially Kadima in 2006 and especially in 2009 and Yesh Atid in 2013 and 2015. [Shamir and Gedalya-Lavy \(2015\)](#) discuss in detail the

“gender gap in voting” found in the 2009 and 2013 elections in Israel. They find that “in the 2009 Knesset elections, a gender gap was evident among Jews in voting for Kadima and among Arabs in voting for Balad: Jewish women voted more than Jewish men for Kadima, which was led by a woman, Tzipi Livni; and Arab women voted more than Arab men for Balad, which assigned a realistic slot to a woman, Haneen Zoabi – the first time an Arab party has done so.”

### 3.1 Political vote by social class

The main result we draw from INES is the evolution of vote by social class. Survey respondents were asked to define their social class. Three classes were considered – lower class<sup>3</sup>; middle class; higher-middle and high class<sup>4</sup>.

The share of respondents in each class changed over time and an adjustment is necessary for standardization. We assume that within each class left and right voting fractions are fixed. This neglects the within-class gradient. Hence this assumption leads to an underestimation of the steepness observed. In other words, this is a conservative assumption and the class gradient we observe is steeper in reality. This adjustment also reduces substantially the results uncertainty. The results are presented in Fig. 4 (results without the adjustment are in Appendix E).

Figure 4 shows the basic results of left vote by class, without considering controls. It depicts a transition – the bottom 50% used to be more left-leaning before the 1980s and this has changed gradually. At the same time the top 10% became more left-leaning. Middle class respondents were almost as likely to vote left as the entire cohort. Adding controls almost do not change the results, as presented in Fig. 5.

Both Fig. 4 and Fig. 5 show that the transition process reached a “steady-state”. The major changes occurred during the 1970s and early 1980s. Politically, the initial dominance of the left was gradually replaced by the dominance of the right. The economic elite took the opposite route. It was initially estranged from the Labor party leadership, but that changed gradually over time. In the 2015 parliamentary elections the most educated (see next section) and those of the high social class

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<sup>3</sup>The lower class definition also includes “working class”. In some of the earlier surveys lower class and working class were two separate options.

<sup>4</sup>In some of the surveys higher-middle and high class were two separate options. In others they were bundled into a single option and in some only high class was an option. We grouped all these into a single class.

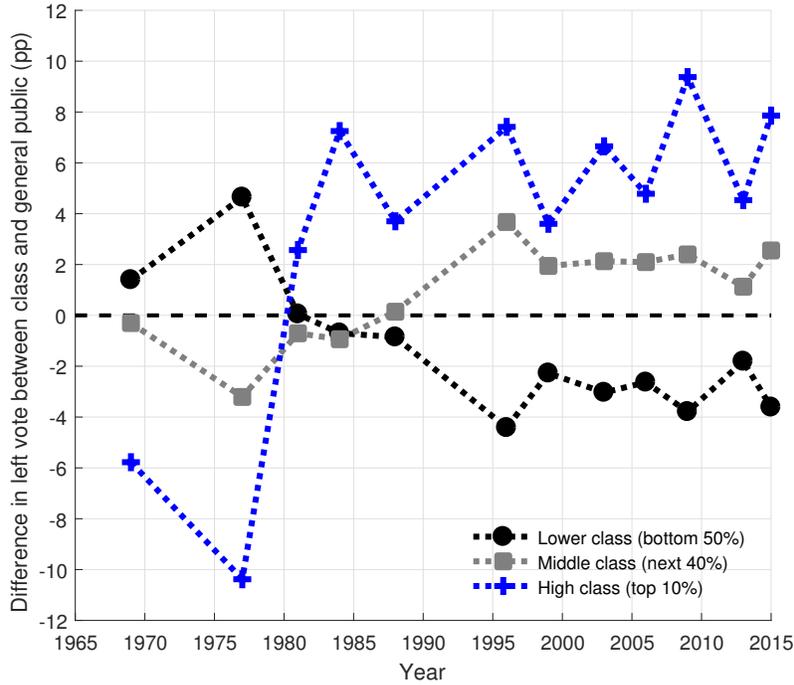


Figure 4: Political conflict in Israel, 1969–2015. Left vote by social class (no controls).

were significantly more likely to vote left and significantly less likely to vote right, than the rest of the population. Our data do not go back to the 1940s and 1950s, however, this transition becomes even more striking when comparing Tel Aviv, as representing the economic elite, to Israel in general. These results indicate that the transition we describe was smooth and continuous, and started right after the creation Israel (see Section 3.5).

### 3.2 Political vote by education

We also estimate the evolution of vote by level of education. We assume that for each year left and right voting fractions are fixed within respondents with a college degree<sup>5</sup> and for those who are without. This is used to adjust for the growing share of people with college degrees (see Appendix E).

<sup>5</sup>A college degree or 15+ years of schooling – in some of the years, respondents were only asked for their number of years of schooling.

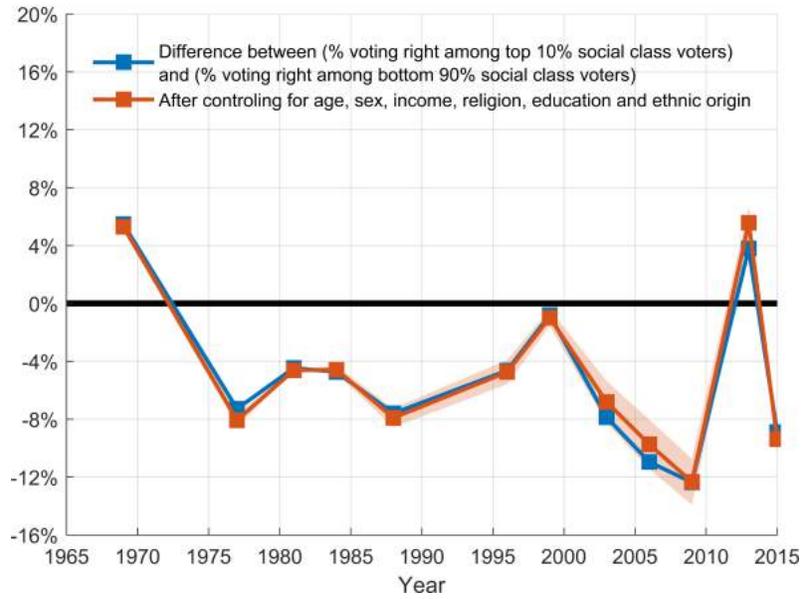
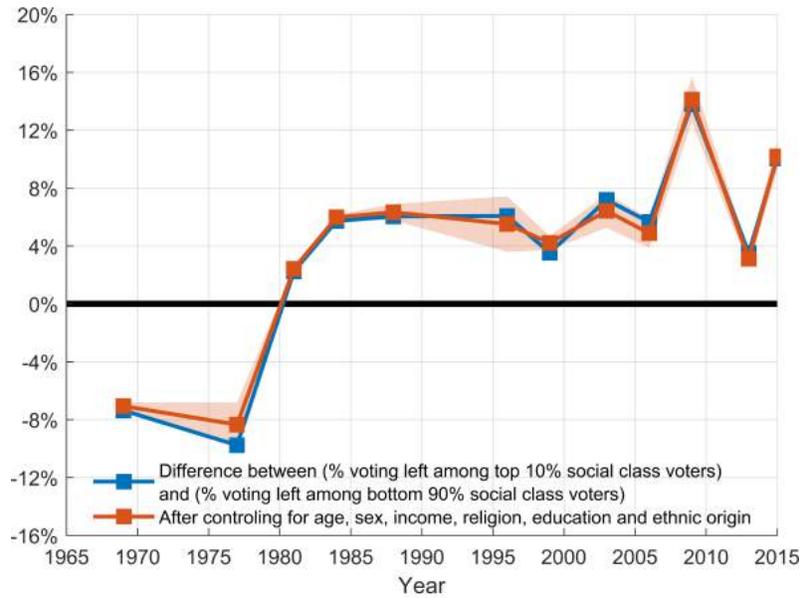


Figure 5: Political conflict in Israel, 1969–2015. Top) Left vote by social class; Bottom) Right vote by social class.

The results are presented in Fig. 6. During the 1980s, 1990s and early 2000s, edu-

cation seemed to have a significant association with left voting that did not appear in 1969. This diminished substantially during the 2000s, yet, in the last election, once again the most educated were significantly more likely to vote left and significantly less likely to vote right, also after controls. The relatively low importance of education to right and left vote in 2006, 2009 and 2013 is due to the strength of the center parties in those elections.

### 3.3 Political vote by ethnic origin and religiosity

The evolution of the education effect on voting resembles the evolution of voting by ethnic origin. Fig. 7 presents this result. Since the 1970s, non-Ashkenazi Jews are generally more likely to vote right, while Ashkenazi Jews are generally more likely to vote left. This cleavage is still central in the public discourse, due to long-lasting socio-economics gaps between Ashkenazim and Mizrachim. Despite those gaps, the differences in voting patterns between Ashkenazim and non-Ashkenazim exist and are statistically significant even after taking into account the gaps in education, income, social class and level of religiosity, that is slightly higher among non-Ashkenazim and has a strong effect on voting (see Fig. 9 and Appendix F).

In the case of both education and ethnic cleavages there is an increasing polarization in recent years after two decades of convergence. Yet, the results on the ethnic cleavage should be treated with caution. Our data do not allow making a clear distinction between Ashkenazim, Mizrachim and other Jewish ethnic groups. We define Ashkenazim as those who were born in Europe and North America, or that their father was born there. Mizrachim are defined similarly for Asia and Africa. The large immigration wave from the Soviet Union in the late 1980s and through the 1990s increased the share of Ashkenazim in the surveys.

Yet, in general, the share of either Ashkenazim or Mizrachim decreases in time. A large and growing share of the population is that of people born in Israel, whose father was also born in Israel. Such people, not defined as either Ashkenazim or Mizrachim according to our definition, would likely still consider themselves as belonging to one of these groups nevertheless. The current data do not allow a more accurate definition. In addition, including immigrants from the Soviet Union as Ashkenazim may potentially lead to an underestimation of the ethnic cleavages, as many immigrants voted to immigrant parties associated with the right, while the

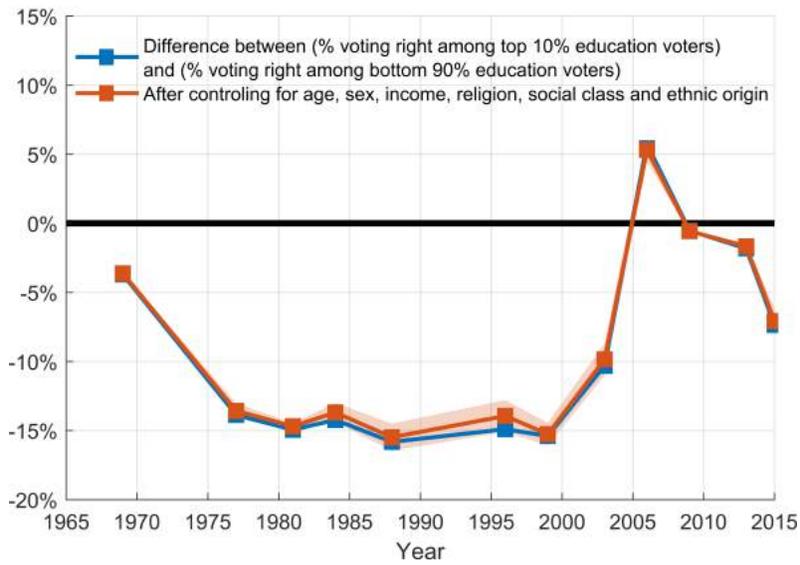
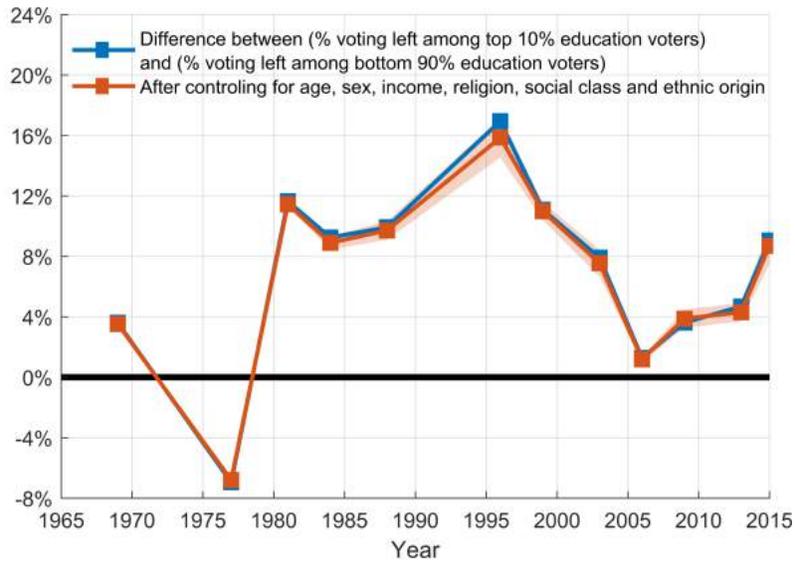


Figure 6: Political conflict in Israel, 1969–2015. Top) Left vote by education; Bottom) Right vote by education.

general Ashkenazi population is relatively more left-leaning.

Figure 8 presents the shares of non-practicing (or secular<sup>6</sup>) respondents and Ashke-

<sup>6</sup>The definition of level of religiosity was based on the question: “To what extent do you observe

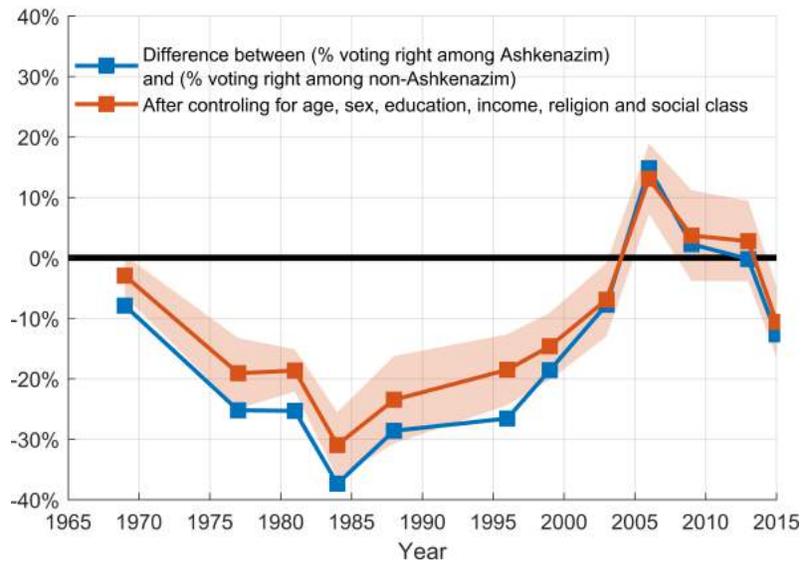
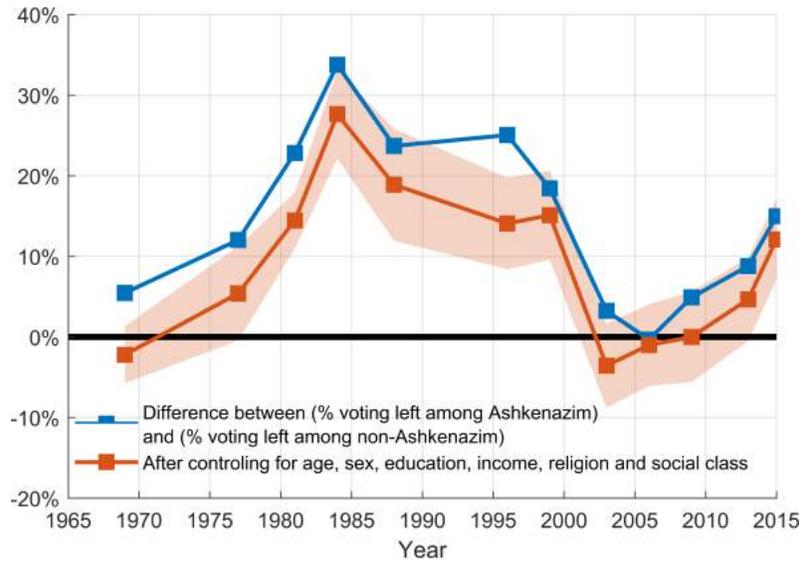


Figure 7: Political conflict in Israel, 1969–2015. Top) Left vote by ethnic origin; Bottom) Right vote by ethnic origin.

nazi respondents in the survey according to the described definition of ethnicity.

religious tradition?”. The survey respondents were given 4 options: “not at all”, “a little”, “a lot”, “I observe all of it”. We defined respondents that answered “not at all” or “a little” as secular.

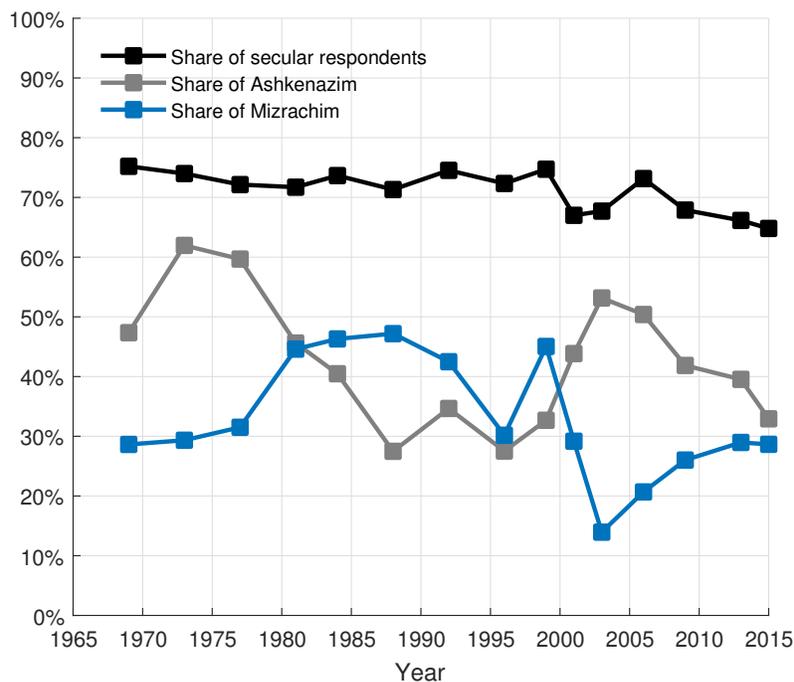


Figure 8: Shares of secular survey respondents and Ashkenazi respondents.

Religiosity has a large impact on voting that is almost unaffected by controls, as seen in Fig. 9. Secular voters are more likely to vote left and less likely to vote right than religious voters. This also did not change substantially over time. The relatively low impact of religiosity on voting right or left in 2006–2013 is due to the importance of center parties in those elections (see also in Fig. 6 and Fig. 7), as discussed above.

### 3.4 Political vote by employment

Recent literature on the rise of radical right parties in developed countries identify a relationship between unemployment and right-wing voting. This is particularly true for the UK and the rise of UKIP (Becker, Fetzer and Novy, 2017), for Germany and the rise of AfD (Franz, Fratzscher and Kritikos, 2018) and for Sweden and the rise of the Swedish Democrats (Dal Bó et al., 2018). In these countries there is an additional impact of immigration and exposure to globalization which affects voting. In Israel, these aspects do not play a large role in politics. We are able to use the INES surveys in order to identify whether there is a statistically significant difference

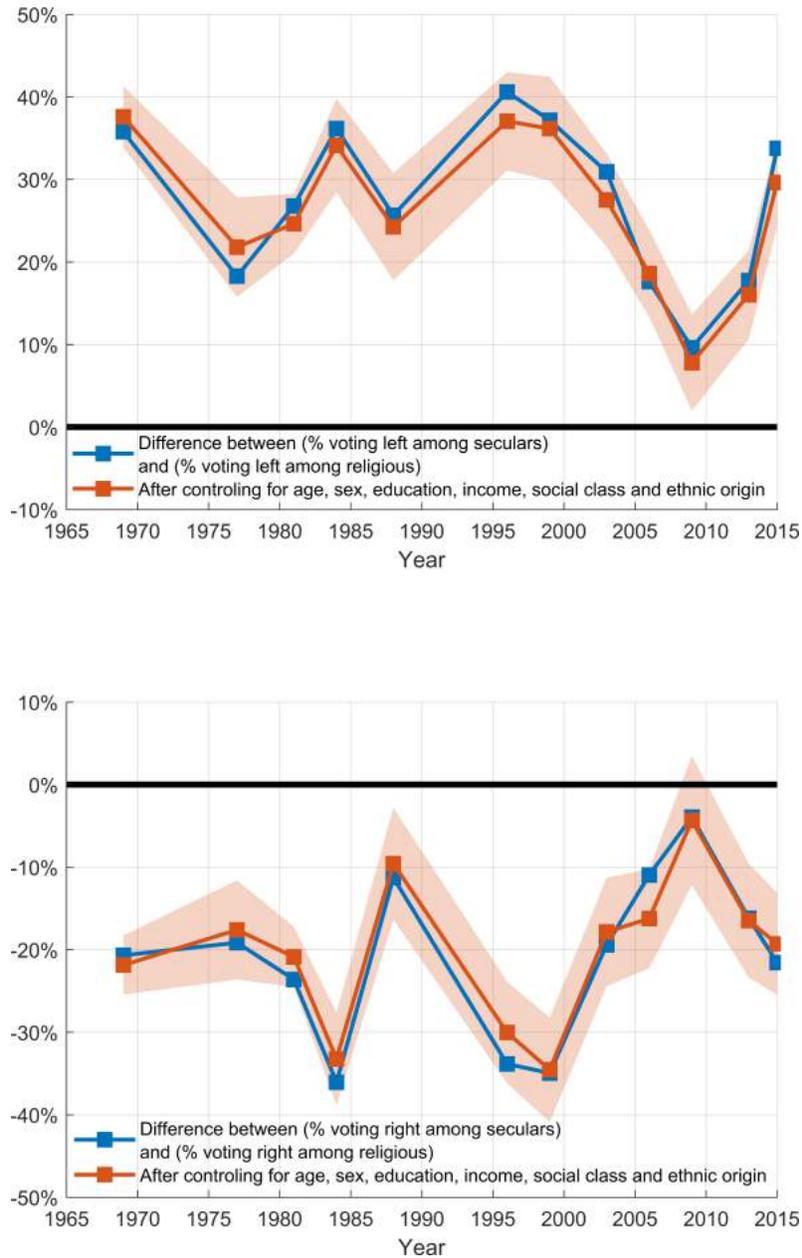


Figure 9: Political conflict in Israel, 1969–2015. Top) Left vote by level of religiosity; Bottom) Right vote by level of religiosity.

in voting patterns between employed and unemployed respondents. These results are presented in Fig. 10. We note that we consider unemployed respondents as any respondent that is not working. This definition is much more inclusive than the real

definition of unemployment. These data are available only from 2003 onward.

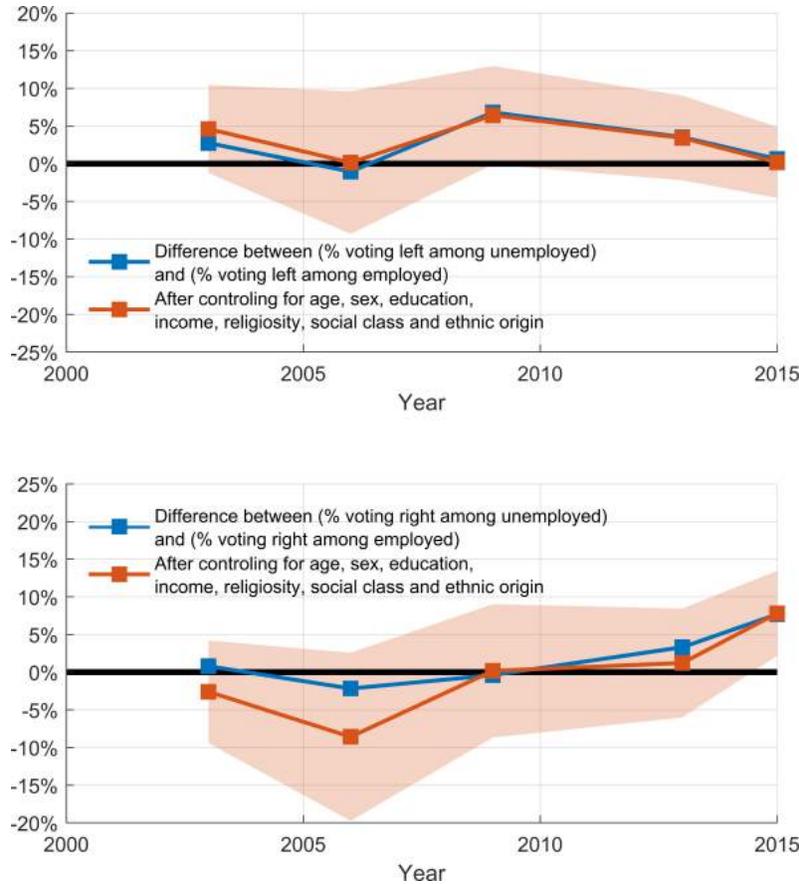


Figure 10: Political conflict in Israel, 1969–2015. Top) Left vote by level of employment; Bottom) Right vote by level of employment.

Figure 10 shows that unemployed are more likely to vote left. Yet, this result is not very significant. There is also a decreasing trend in this tendency in time. Similarly, there is an increasing trend in the difference in right voting between unemployed and employed. Our definition of unemployment is conservative – it includes young adults and retirees. Their vote is not strongly correlated with either right or left and the real effect is probably even larger and more significant than what we find, *i.e.* that there is a sharper increasing trend in the likelihood of unemployed to vote right. We should note, however, that the unemployment rate in Israel is low and almost monotonically decreasing. It has been decreasing from about 10% to 5.5% between 2003 and 2015. Therefore, despite the noticeable trend, the practical influence of

employment on Israeli politics is very little.

### 3.5 Political vote in Tel Aviv compared to the general public

Using the real electoral results in Tel Aviv it is possible to observe the evolution of left, center and right vote share in Tel Aviv and to compare it to that in Israel as a whole. The motivation for such a comparison is that Tel Aviv is perceived as representing the rich and well educated in Israel. It has been the major economic hub of Israel even before 1948.

The comparison results are consistent with the findings from the INES surveys. Assuming Tel Aviv indeed represents the rich and well educated, the data show a transition among this elite from right to left. Fig. 11 presents the results for Tel Aviv and Israel with a striking trend. It also presents, for comparison, the differences in the share of votes to Democrat, Republican and other candidates in the US presidential elections between New York City to the whole country (based on publicly available data on the US presidential election results by county in New York State (Leip, 2018)). It shows a similar trend to Tel Aviv and Israel, though substantially larger in magnitude.

Of course, Fig. 11 is only a very basic comparison with no micro data. It ignores the changes in the socio-demographic composition of Tel Aviv and New York City and also needs to be completed with the missing data for Tel Aviv between 1951 to 1973. Yet, it strengthens a previous observation: Israel, despite its inherent differences from developed countries, such the US, shows somewhat similar long-run political patterns to those detected in the UK, the US and France in Piketty (2018).

We also use INES survey data to test this pattern, exploiting the locality of residence of survey respondents (available from 1981 onward only). Using INES also allows controlling for various variables. This is important mainly because the residents of Tel Aviv are generally richer, better educated and more secular than Israel on average, and these correlate with political vote. Fig. 12 shows that even after controlling for income, social class, education, religion and ethnic origin, residents of Tel Aviv are generally more left-leaning and less right-leaning. We consider this as a residual identity dimension of Tel Aviv. These results do not pick up the trend observed in Fig. 11. This might be due to the small sample size in the survey and the representativeness of the survey results (see Appendix D).

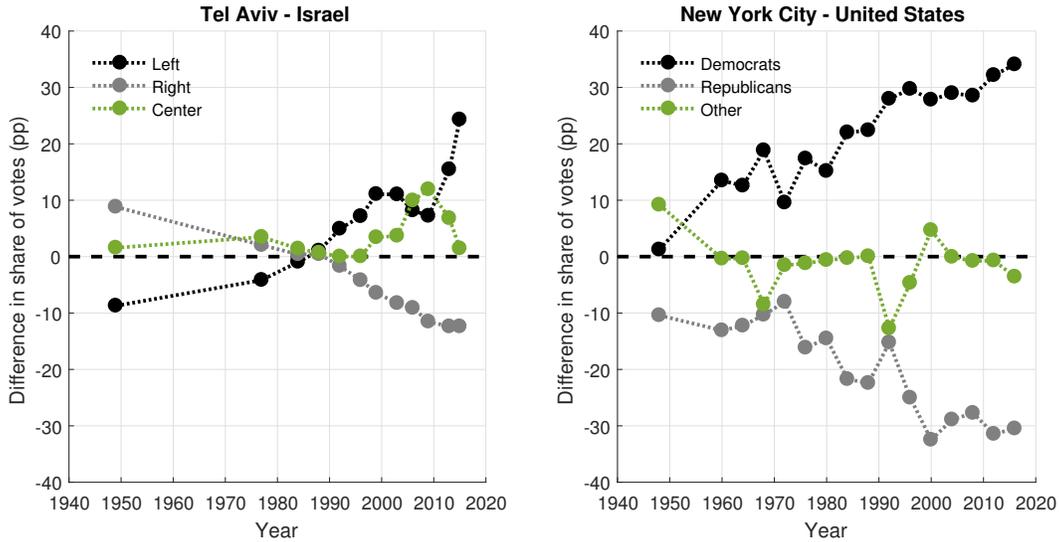


Figure 11: The difference in left, center and right share of votes between Tel Aviv and Israel (including Tel Aviv) and the difference in Democrat, Republican and other candidates share of votes in the presidential elections between New York City and the United States (including New York City).

### 3.6 The effect of economic reforms on political vote

Our results so far have been mainly descriptive. It is difficult to test the mechanisms we discuss due to the complexity of political processes and the dynamics of public opinion. Yet, we are able to explore possible mechanisms related to welfare and social reforms on left and right vote by exploiting exogenous policy changes.

We exploit the economic reforms in child benefits and taxation of the right-wing government that took place in 2003, to test whether it had an effect on votes of adults who were negatively affected by the reforms. Specifically, we wish to understand whether people who were more likely to be negatively affected by the reforms were also more likely to move away from the right in the following election.

The 2003 economic reforms were announced during 2002 and early 2003 by the Likud-led government to help the Israeli economy recover from the 2001–2002 recession. The Likud won the 2003 election by a large margin and the prime minister was Ariel Sharon, who was already the prime minister since 2001. Most of the reforms were effective from 2003 onward. They were perceived as dramatic and sparked social protests during the summer of 2003. The impact of the reforms on the discourse

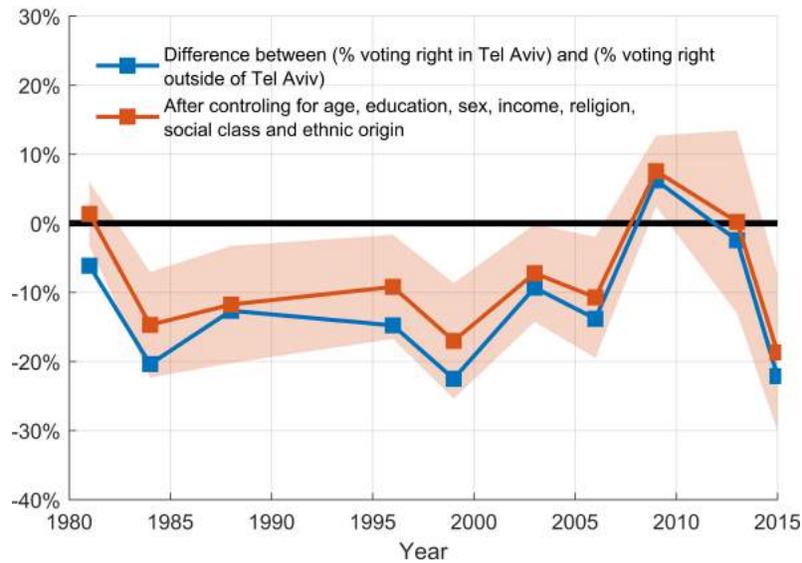
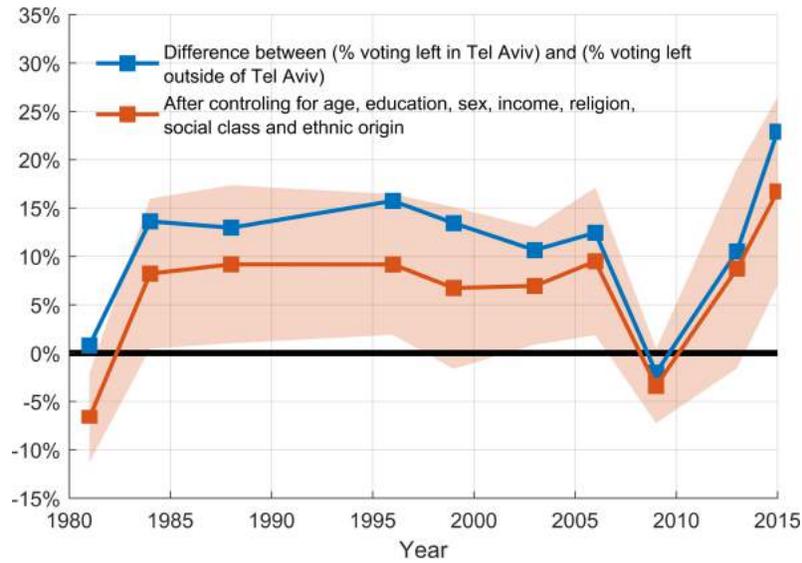


Figure 12: The difference in left and right vote in Tel Aviv versus Israel.

within the Israeli society may also led to the election of Amir Peretz, the head of the general trade union center and vocal opponent to the reforms, to be the head of the Israeli Labor party in 2005. The years 2003–2006 also saw an increase in net income inequality, perceived as the result of the reduction in welfare benefits and

tax cuts (see Fig. 2 and Dahan (2017)).

One of the major reforms, for which it is possible to identify people directly affected by it, was child benefit cuts. These cuts consisted of three main changes:

- A nominal reduction of all child benefits
- The cancellation of the increasing benefits by child number (prior to the reform the more children a family had, the higher the benefit per children was)
- The cancellation of the birth stipend from the second birth onward (this is a one-time benefit for a mother giving birth, given after each birth prior to the reform)

These changes had no direct effect on adults with no children, or on adults whose children were above the age of 18. It also affected more dramatically families with more children, due to the non-linear child benefit scheme. We exploit this exogenous reform to test whether it caused voters to change their vote from right to left, or from right to non-right (*i.e.* left, center, ultra-orthodox or Arab parties) if negatively affected by the reform.

Since the reforms also included major labor income and capital gains tax cuts, they benefited mostly taxpayers in the middle and high income classes. In the short run, lower classes were seemingly hurt the most by the reforms. We use this to test whether lower classes were more likely to move away from the right in general and specifically towards the left. As mentioned above, in the 2006 election the Labor party was led by Amir Peretz, widely perceived at the time as a “working class hero”. We are able to use the INES surveys for this purpose, as in the 2006 survey respondents were asked to answer not only who are they going to vote for in the 2006 election, but also who they voted for in the 2003 election.

The results are presented in Fig. 13. It shows no evidence that people hurt by the economic reforms more than others were more likely to move away from the right than the rest. In fact, lower class voters were significantly more likely to move from the left to the right between 2003 and 2006 and significantly less likely to move from the right to the left. In addition, despite the fact that the reforms had a dramatic effect on families with many children, such families did not seem to “revenge” the right. The probability of changing a vote from right to non-right did not increase with household size.

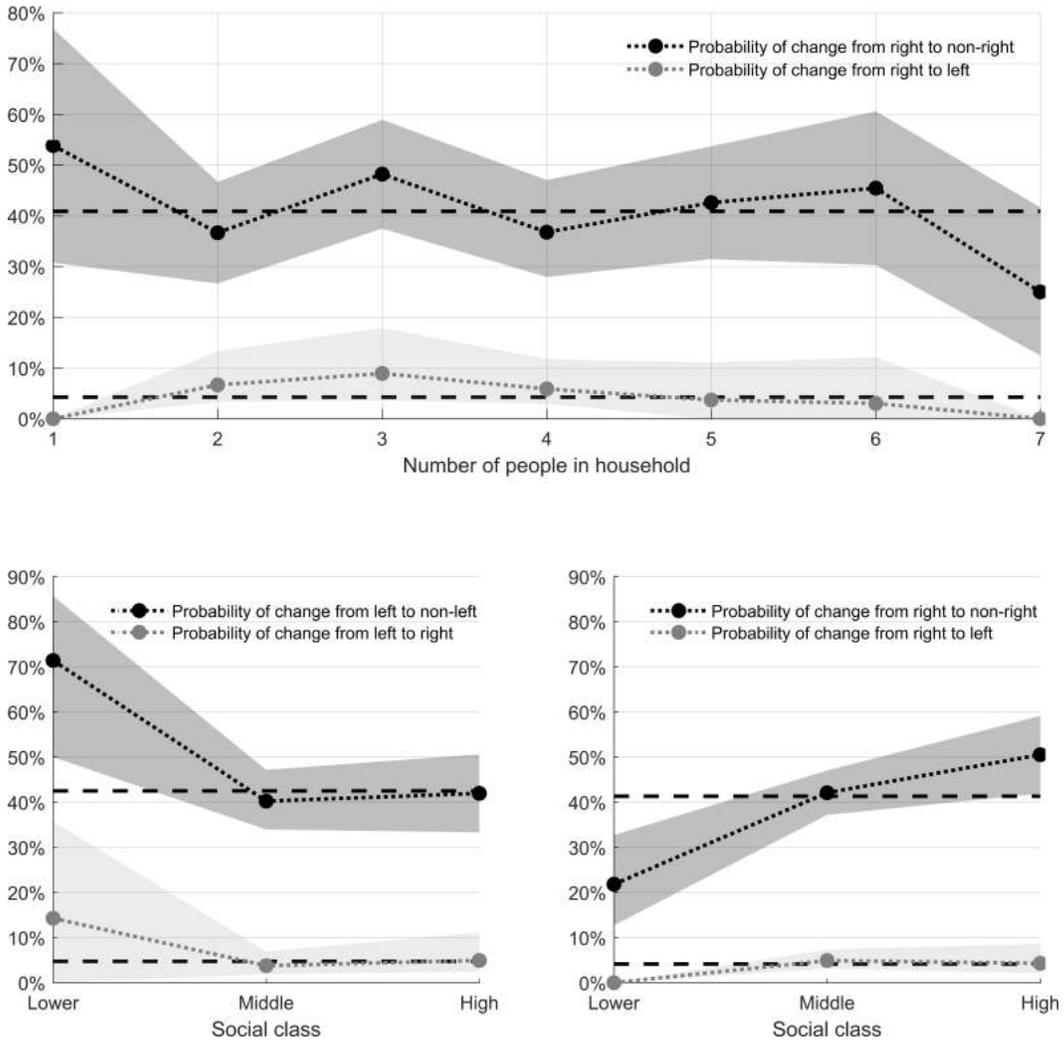


Figure 13: The small effect of the 2003 social reforms on left and right vote between 2003 and 2006. Top) The probability of right voters in 2003 to vote non-right (black) or left (grey) in 2006 as a function of the number of people in their household. These results include only respondents aged below 60 in 2006 to exclude people not directly affected by the child benefit cuts; Bottom-left) The probability of left voters on 2003 to vote non-left (black) or right (grey) in 2006 as a function of social class; Bottom-right) The probability of right voters on 2003 to vote non-right (black) or left (grey) in 2006 as a function of social class. In all panels the dashed black lines are the vote changing probabilities for the entire sample and the shaded areas stand for 90% confidence intervals. In order to overcome small sample sizes of very large households, households of size 7 and above were grouped together.

We also use a probit regression in order to test whether changing vote from right to non-right or from right to left between 2003 and 2006 depended on the number of people in the household or on belonging to the lower social class. We control for all other variables as before (religiosity, gender, ethnic origin, income and education). We consider a sub-sample consisting only of right wing voters in 2003 who were below 60 in 2006. We consider the following linear regression

$$Y_i = \alpha + \beta x_i + \gamma_c c_i + \epsilon_i, \quad (3.2)$$

where:

- $Y_i = 1$  if non-right (or left) vote in 2006, 0 otherwise
- $x_i$  – explanatory variable of interest (either household size or a dummy for being lower class)
- $c_i$  – control variables

The results are presented in Tab. 1. They show that the dependence of the probability of a right-voter in 2003 to switch to non-right or left in 2006 cannot be explained by either household size or belonging to the lower class, after controlling for other socio-demographic variables. The only statistically significant result is that being of lower class reduced the probability of changing vote from right to non-right, as also seen in Fig. 13.

Table 1: The dependence of probability of changing vote from right to non-right or left between 2003 to 2006 on household size and belonging to lower class

	Household size effect		Lower class effect	
	Right to non-right	Right to left	Right to non-right	Right to left
Household size	-0.044 (0.067)	-0.020 (0.032)		
Lower class dummy			-0.178* (0.097)	-0.044 (0.046)
Observations	294	294	294	294

There are two main reasons to suspect the weak electoral impact of the social reforms of 2003:

- The implementation of the reforms took place almost immediately after the formation of the government following the 2003 election. By 2006 their negative impact may have diminished substantially. In addition, and perhaps more importantly, the reforms proved to be highly successful for the recovery of the Israeli economy. By 2006, the unemployment rate was down to pre-recession levels and GDP growth was above 5% annually in both 2004 and 2005.
- In the summer of 2005, Israel withdrew from Gaza strip. This had a major impact in national and regional levels and was very controversial within the Israeli public. This may have reduced the importance of socio-economic topics in the 2006 elections.

An additional possible reason for the weak electoral impact of the social reforms is the lack of interest of people in socio-economic issues when they vote. This might also be related to a disbelief or distrust in the parliamentary election to have a major effect on such matters. These findings strengthen the results observed above on social class and political views. They serve as an additional illustration of the lack of democratic response to inequality.

## 4 Conclusion

In this paper, we used pre-electoral surveys in Israel covering 1969–2015 to document the long-run evolution in the structure of political cleavages. We find that before the late 1980s, the vote for left-wing parties was associated with lower education and lower social class voters. It has gradually become associated with higher education and social class voters.

We also find no evidence on direct electoral impact of the major economic reforms of 2002–2003. The reforms seemingly benefited the richer and negatively affected poorer families in the short run. This is important for the discussion on the inter-relationship of inequality and political outcomes. While the reforms led to a short-run increase in income inequality (in the long-run they are thought to have lead to

the reduction of after-tax inequality after 2006 (Dahan, 2017)), it does not seem to have mattered for the election results.

The role played by political finance is a standard explanation for the weak inter-relationship of inequality and political outcomes in the US (Hacker and Pierson, 2010; Gilens, 2012; Bonica et al., 2013; Piketty, 2018). In Israel, the stricter political financing regulations and the small effect regional preferences have on the identity of elected representatives, make this explanation unlikely. The rise of identity-based voting is, possibly, the main explanation for our findings.

Our results also have implications on the interpretation of similar processes in other countries. Israel, due to its uniqueness discussed above, did not experience globalization and the wave of “populism” in a similar way experienced in other developed countries. In particular, immigration is not a major topic in the Israeli politics, while being central in the political discourse in North America and in Europe. In the UK and in France, for example, the globalization/migration cleavage is central to the multiple elite system (“high-education elites now vote for the “left”, while high-income/high-wealth elites still vote for the “right”” (Piketty, 2018)). Thus, the similarity in the evolution of political cleavages related to education and class in different countries reflect mechanisms that need further exploration. They reflect deeper processes that may not depend on the specific topic in question, but rather on the actual existence of a controversial topic. This, again, points at the importance of identity-based politics.

We should note that the dimension of income is only partial in our analysis, due to the limited income data in the INES surveys. This may be important, since social class, serving as the most important indicator in our results, is subjective. While it is correlated with education, ethnic origin and income, and the results are significant even after controlling for these variables, the subjectivity makes it harder to discuss specific mechanisms. In addition, high social class may not have correlated strongly with income in the past the same as it does today (Savage, 2015). This also makes the long-run approach more challenging. These issues will need to be addressed in the future. For that purpose, we plan analyzing the changing inequality patterns and political cleavages from an even longer run perspective by using local-level electoral data together with local-level socio-demographic and economic data from censuses.

We also note that here we addressed the Israeli politics from the late 1960s onward,

with the exception of the analysis of Tel Aviv, in which the data goes back to the first parliamentary elections. Yet, it is worth pointing out that political cleavages within the Zionist movement go back to the late 19th century both in Europe and in Palestine. During the British Mandate for Palestine, the Assembly of Representatives was a parliamentary institution for the Jewish population in Palestine, with very little authority and power. Yet, it was still elected by democratic elections. There were four elections – in 1920, 1925, 1931 and 1944 (the last boycotted by the right-wing parties). In all the elections the left-wing parties won by large margins.

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## A Specification of political orientation of parties

The table below details the definitions used in this paper for the various political blocs. We consider five blocs – Left, right, center, ultra-orthodox and Arab parties. These definitions are ambiguous, mainly for the center parties. Traditionally, the center parties in Israel were more left-leaning, particularly the historically bigger ones (Kadima, Yesh Atid, Dash). Yet, it is necessary to make a distinction between center parties and left or right parties, mainly because most of those parties were willing to join a coalition led by either left or right large parties. This is also true for the ultra-orthodox parties, which are easy to define.

Some ambiguity also exists in the distinction between Arab parties and left parties, specifically regarding the Israeli communist parties in its different incarnations. The Israeli communist party was historically co-led by Jews and Arabs. That changed during the 1980s, when the Israeli communist party dissolved into Hadash. Hadash is the only party in Israel that do not define itself in religious or national terms. Yet, it is today a part of the joint Arab list. For this reason, we did not consider Hadash as left from 1992 onward.

In addition, the 2001 election was only a prime ministerial election. We defined voting for Ehud Barak as voting left and voting for Ariel Sharon as voting right.

	Left (actual)	Left (survey)	Right (actual)	Right (survey)	Center (actual)	Center (survey)	Arab (actual)	Amb (survey)	Ultra-orthodox (actual)	Ultra-orthodox (survey)
1969	Alignment (Labor); National List; Rakah; Ma'ar; Hashom HaZe	Alignment (Labor); National List; Rakah; Ma'ar; Hashom HaZe	Gahal; Mafdal; Free Center	Gahal; Mafdal; Free Center	Independent Liberals	Independent Liberals	Cooperation and Brotherhood; Development	Cooperation and Brotherhood; Development	Agudat Israel; Poalei Agudat Israel	Agudat Israel; Poalei Agudat Israel
1973	Alignment (Labor); Rakah; Ma'ar; Haolam HaZe	Alignment (Labor); Rakah; Ma'ar; Haolam HaZe	Likud; Mafdal	Likud; Mafdal; Free Center; Reshima Eracht	Independent Liberals	Independent Liberals	Progress and Development; Arab List for Bedouin and Villagers	Progress and Development; Arab List for Bedouin and Villagers	Religious Torah Front	Agudat Israel; Poalei Agudat Israel
1977	Alignment (Labor); Hashom HaZe; Rakah; Women's party; Ma'ar	Alignment (Labor); Hashom HaZe; Rakah; Women's party; Ma'ar	Likud; Mafdal; Shomron	Likud; Mafdal; Shomron	Independent Liberals; Development	Independent Liberals; Shas	United Arab List	-	Agudat Israel; Poalei Agudat Israel	Religious Torah Front
1981	Alignment (Labor); Rakah; Shas; Ratz	Alignment (Labor); Rakah; Shas; Ratz	Likud; Mafdal; Hatheha	Likud; Mafdal; Hatheha	Telem; Shinui	Telem; Shinui	-	-	Agudat Israel	Agudat Israel; Poalei Agudat Israel
1984	Alignment (Labor); Rakah; Shas; Progressive list for peace	Alignment (Labor); Rakah; Shas; Progressive list for peace	Likud; Mafdal; Hatheha	Likud; Mafdal; Hatheha; Tami; Kach; Hatheba; Faldo Sharon	Shinui; Yahad; Omert	Shinui; Yahad; Omert	-	-	Agudat Israel; Shas	Agudat Israel; Shas
1988	Labor; Mapam; Ratz; Progressive list for peace; Hadash	Labor; Mapam; Ratz; Progressive list for peace	Likud; Mafdal; Hatheha	Likud; Mafdal; Tzomet; Mokedet; Hatheba; Kach	Shinui	Shinui; Meimad	Ma'ar	-	Agudat Israel; Shas; Degel Hator	Agudat Israel; Shas; Pagi
1992	Labor; Meretz	Labor; Meretz	Likud; Mafdal; Tzomet; Mokedet	Likud; Mafdal; Tzomet; Mokedet; Hatheba; Modai (new liberal party)	-	Shinui; Meimad; Jewish immigrant party	Hadash	Progressive list for peace	Yehudit Hator; Shas	Yehudit Hator; Shas
1996	Labor; Meretz	Labor; Meretz	Likud-Gesher; Tzomet; Mafdal	Likud-Gesher; Tzomet; Mafdal; Mokedet; Israel Bealla	Third way party	Third way party	Hadash-Balad; Ma'ar-Ram	Hadash-Balad; Ma'ar-Ram	Yehudit Hator; Shas	Yehudit Hator; Shas
1999	Israeli Ahat (Labor); Meretz; One nation; Women's party	Israeli Ahat (Labor); Meretz; One nation; Women's party	Likud; Israel Beitenu; National Union; Israel Bealla	Likud; Israel Beitenu; National Union; Israel Bealla; Tzomet	Center party; Shinui	Center party; Shinui; Green party; Green leaf; Pina	Hadash; Balad; Ram	Hadash; Balad; Ram; Ma'ar	Yehudit Hator; Shas	Yehudit Hator; Shas
2003	Labor; One nation; Meretz	Labor; Brofman; One nation; Meretz; Women's party	Likud; Mafdal; National Union	Likud; Mafdal; National Union; Beitzeq; Herut	Shinui; Israel Bealla	Shinui; Israel Achvret; Green party; Green leaf; Israel Bealla	Hadash; Balad; Ram	Hadash; Balad; Ram; Ma'ar; Ahmad Tibi	Yehudit Hator; Shas	Yehudit Hator; Shas; Ahavat Israel
2006	Labor; Meretz	Labor; Meretz; Lehem	Likud; Israel Beitenu; National Union	Likud; Israel Beitenu; Mafdal	Kadima; Pensioners	Kadima; Pensioners	Hadash; Balad; Ram-Taal	Hadash; Balad; Ram-Taal	Yehudit Hator; Shas	Yehudit Hator; Shas
2009	Labor; Meretz	Labor; Meretz	Likud; Jewish home; National Union	Likud; Jewish home; National Union	Kadima	Kadima; Green party; Pensioners	Hadash; Balad; Ram-Taal	Hadash; Balad; Ram-Taal	Yehudit Hator; Shas	Yehudit Hator; Shas
2013	Labor; Meretz	Labor; Meretz; Daam; Eretz-Hadasha; Kah Lehashpa	Likud; Jewish home; Israel Beitenu	Likud; Jewish home; Israel Beitenu	Yesh Atid; Kadima; Hatnuah	Yesh Atid; Kadima; Hatnuah	Hadash; Balad; Ram-Taal	Hadash; Balad; Ram-Taal	Yehudit Hator; Shas	Yehudit Hator; Shas
2015	Tzomet Bnei (Labor); Meretz	Tzomet Bnei (Labor); Meretz	Likud; Jewish home; Israel Beitenu	Likud; Jewish home; Israel Beitenu	Kullenu; Yesh Atid	Kullenu; Yesh Atid; Green party; Green leaf	Joint list	Joint list	Yehudit Hator; Shas; Bichujan	Yehudit Hator; Shas; Bichujan

Figure 14: Specification of political blocs by parties in actual results and in the INES surveys.

## B Historical breakdown of left and right blocs by party

Figure 15 presents a historical breakdown of the left and right political blocs into parties. It is important to note that some of the parties changed names and were created out of mergers of smaller parties. It is particularly relevant for the largest parties – the Labor party (that is the modern incarnation of Mapai and includes parts of the historical parties Rafi, Mapam, Ahdut Ha'avoda and others) and the Likud (the modern incarnation of Herut, and formed as the merger of Herut with the Liberal party, itself a merger of the General Zionists and the progressive party).

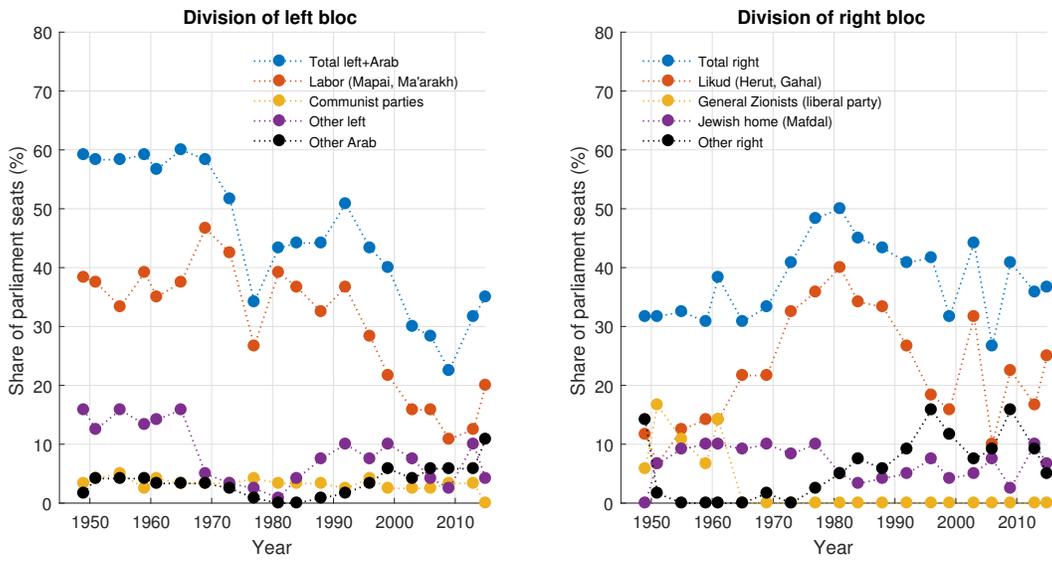


Figure 15: The evolution of parliament seat share of left and right blocs and its breakdown by party.

## C The effect of excluding sectorial parties

Arab and ultra-orthodox parties enjoy loyal support from Arab and ultra-orthodox voters. As a result, such parties, and henceforth, these sectors, representing more than 20% of the population of Israel, are not a part of the left-right division we discuss in this paper. Yet, the results of our analyses are robust even if we completely exclude Arab and ultra-orthodox parties. This is demonstrated in Fig. 16 for the social class cleavage (compare with Fig. 5) and in Fig. 17 for the religiosity cleavage (compare with Fig. 9).

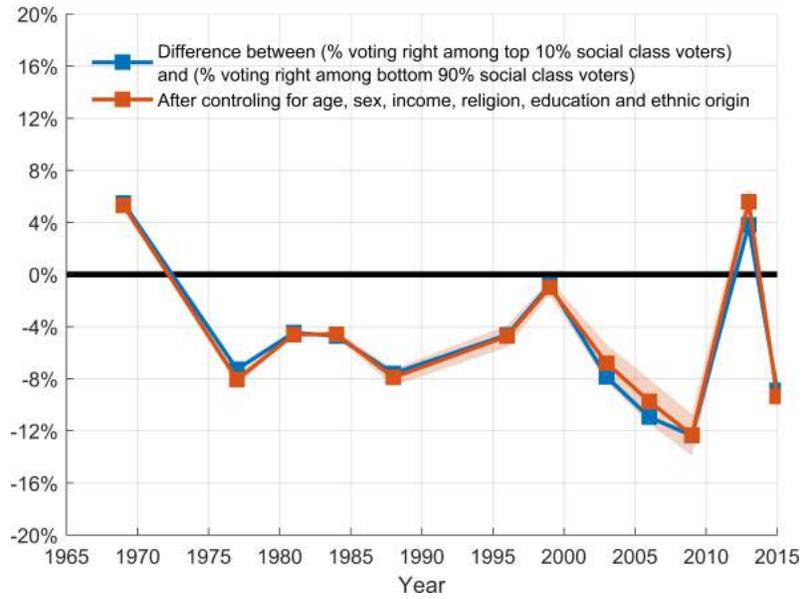
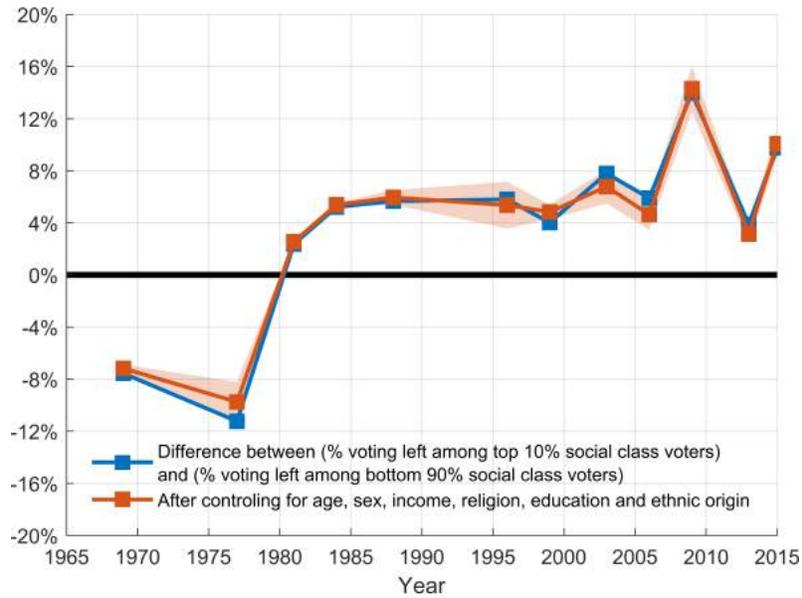


Figure 16: Political conflict in Israel, 1969–2015. Left and right vote by social class with and without controls. This analysis excludes votes for Arab and ultra-orthodox parties.

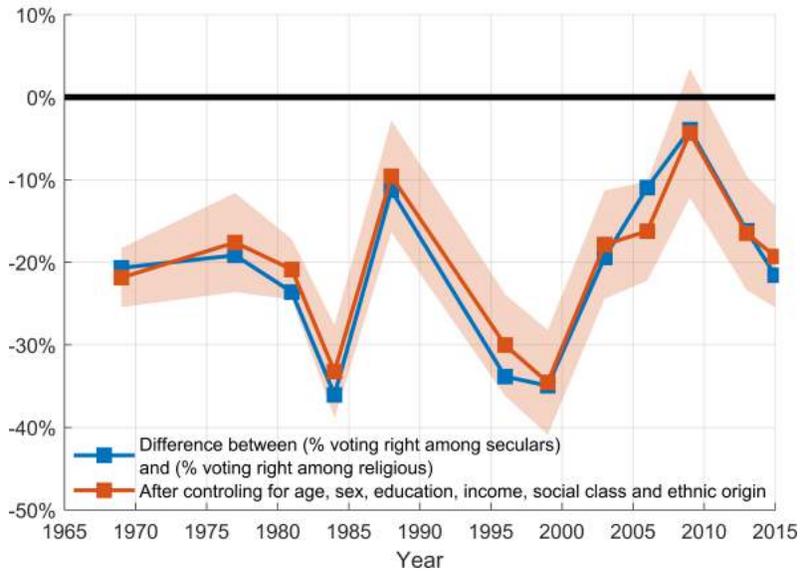
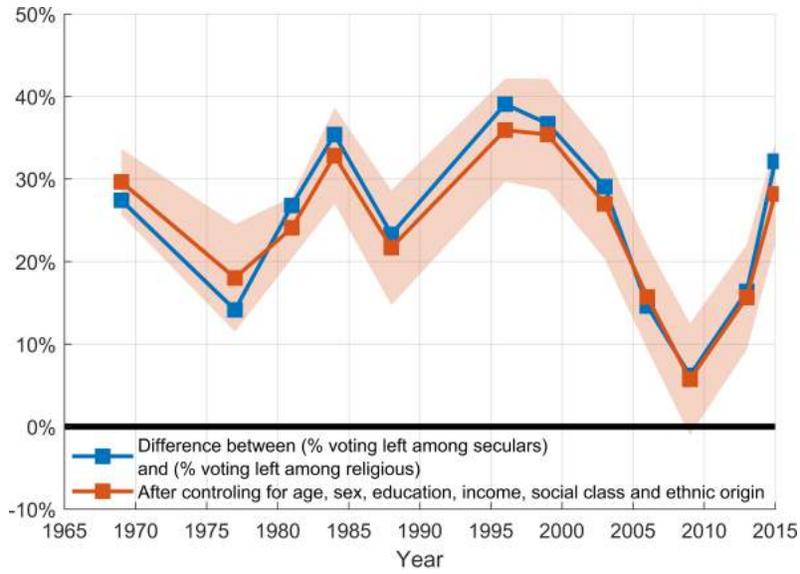


Figure 17: Political conflict in Israel, 1969–2015. Top) Left vote by level of religiosity; Bottom) Right vote by level of religiosity. This analysis excludes votes for Arab and ultra-orthodox parties.

## D Electoral results and survey results

The representativeness of the survey results can be tested by comparing the election results and those predicted by the surveys. The cases in which the differences are particularly large, cast some doubt on how representative are the samples in the surveys. Yet, they do not invalidate the main findings, thanks to the controls used. Tab. 2 presents the election results by political bloc (left, right, center, Arab, ultra-orthodox) and the survey predictions.

Table 2: Election/survey results comparison

Year	Left (%)		Right (%)		Center (%)		Arab (%)		Ultra-orthodox (%)	
	Results	Prediction	Results	Prediction	Results	Prediction	Results	Prediction	Results	Prediction
1969	55.00	67.66	33.33	24.80	3.33	2.98	3.33	0.04	5.00	4.53
1973	49.17	53.63	40.83	38.27	3.33	4.00	2.50	0.00	4.17	4.10
1977	33.33	35.21	48.33	41.31	13.33	19.61	0.83	0.00	4.17	3.86
1981	43.33	44.47	50.00	47.40	3.33	4.76	0.00	0.08	3.33	3.29
1984	44.17	47.65	45.00	47.76	5.83	2.91	0.00	0.00	5.00	1.68
1988	43.33	35.79	43.33	57.37	1.67	2.28	0.83	0.00	10.83	4.56
1992	49.17	48.43	40.83	46.87	0.00	0.52	1.67	0.10	8.33	4.07
1996	40.00	52.54	41.67	34.15	3.33	1.95	3.33	9.06	11.67	2.30
1999	34.17	40.36	31.67	34.18	10.00	14.14	5.83	7.96	18.33	3.37
2003	25.83	29.39	44.17	42.03	12.50	14.54	4.17	5.62	13.33	8.43
2006	22.50	20.76	26.67	30.84	30.00	31.89	5.83	7.30	15.00	9.21
2009	16.67	17.15	40.83	41.13	23.33	27.33	5.83	5.52	13.33	8.87
2013	25.83	18.88	35.83	37.57	17.50	27.40	5.83	5.58	15.00	10.57
2015	24.17	26.57	36.67	37.48	17.50	18.12	10.83	9.96	10.83	7.87

In some years the difference is particularly high, most notably in 1969, 1988, 1996 and 1999. In addition, there is a consistent under-estimation of ultra-orthodox votes. The reason is not necessarily an unrepresentative sample of the population, but rather differences in turnout between different sectors in the society. Turnout rates among ultra-orthodox voters are exceptionally high, where for Arabs they are exceptionally low (Berrebi and Klor, 2008). An additional reason is that the surveys were conducted before the elections (in some cases the surveys were conducted several months before the elections). There was still time for people to change their minds, as well as for political parties to make efforts to gain more voters. In addition, we compared the regression results to adjusted weighted regression, in which respondents were given different weights, so that the predicted vote was matched to the real vote. For example in 1969, each left voter was given a weight of 0.813, because the real share of votes to the left was 81.3% of the predicted vote. This barely changed the regression results.

We also calculated the  $L_2$  (or Euclidean) distance between the vectors of predicted ( $P$ ) and actual ( $A$ ) results ( $d = \sqrt{\sum_i (P_i - A_i)^2}$ , where  $i$  is the bloc index). Fig. 18 presents these distances. It reaffirms the conclusions of Tab. 2 about the 1969, 1988, 1996 and 1999 elections. In these cases the survey results were particularly far from the real results.

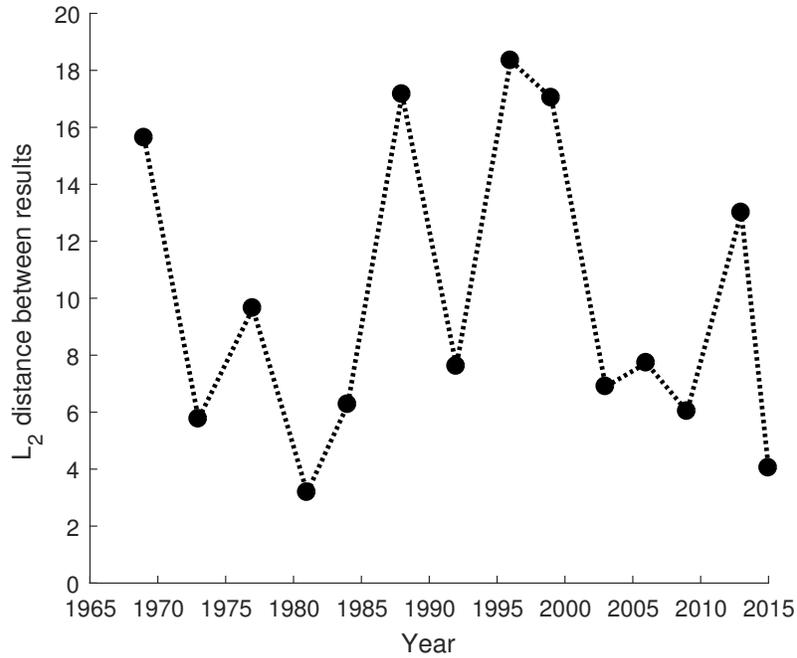


Figure 18: The  $L_2$  distance between survey predicted results vector by bloc to the actual results (see Tab. 2).

## E Left and right vote by social class and education

The main results on left and right vote by social class presented in Section 3.1 assume that within each class left and right voting fractions are fixed. This amounts to neglecting the within class gradient and therefore to underestimate the steepness observed. This was also assumed in Section 3.2 for left and right vote by education. The reason for these adjustments is the changing of share of respondents in each class and education group over time.

Figure 19 shows that the share of respondents at the top groups of both social class and education increased substantially over time, making the adjustments made necessary. We also present below the results for the left and right vote by social class and education without adjustments. This increases statistical uncertainty, yet does not change the results substantially (compare with Fig. 5 and Fig. 6).

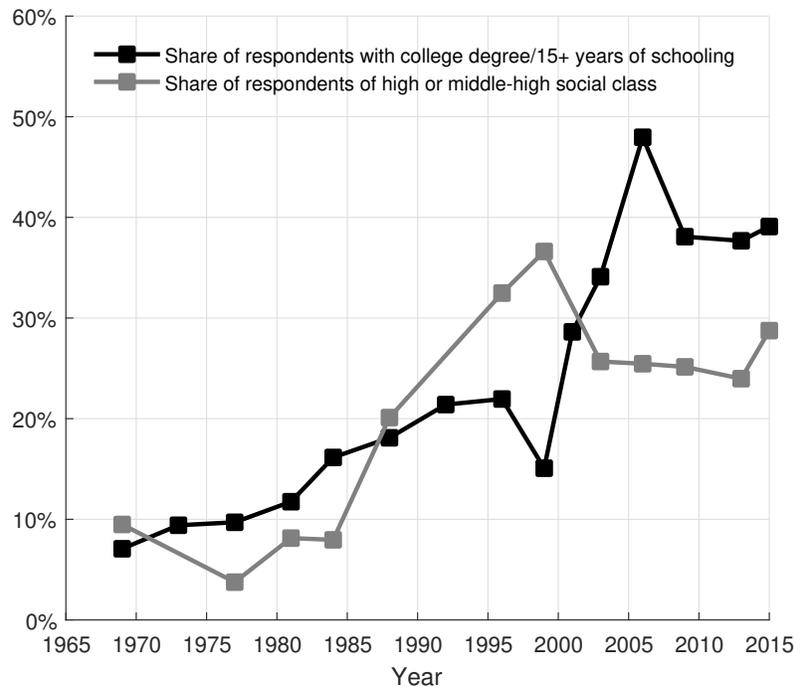


Figure 19: Shares of survey respondents with college degree or 15+ years of schooling (depending on the survey) and of respondents defining themselves as middle-high or high social class.

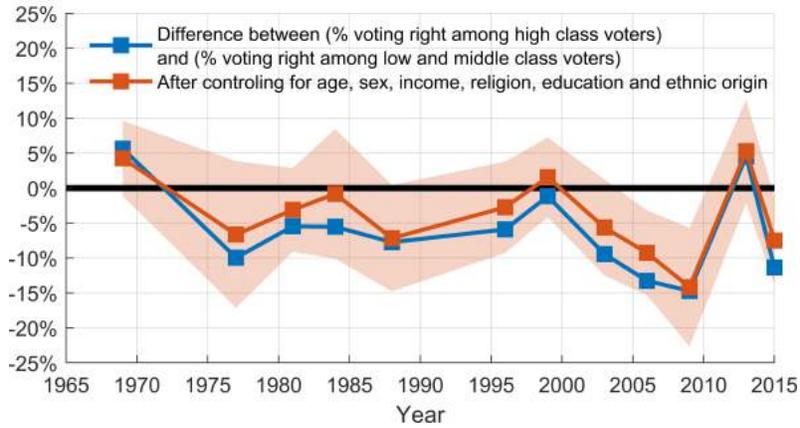
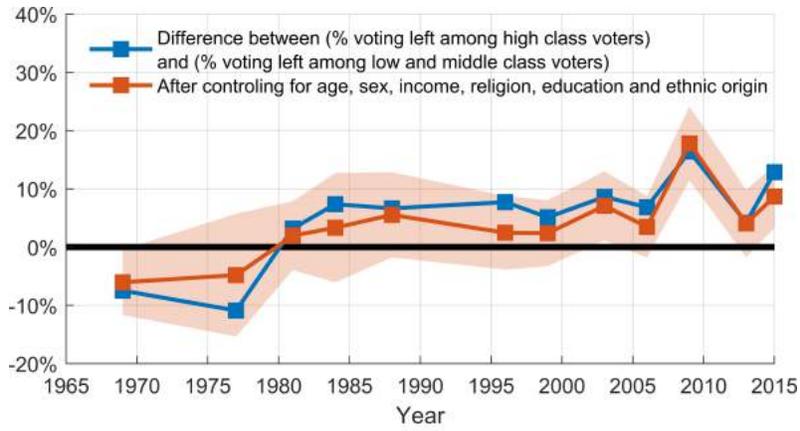


Figure 20: Political conflict in Israel, 1969–2015. Left (top) and right (bottom) vote by social class without fixing voting fraction for each class.

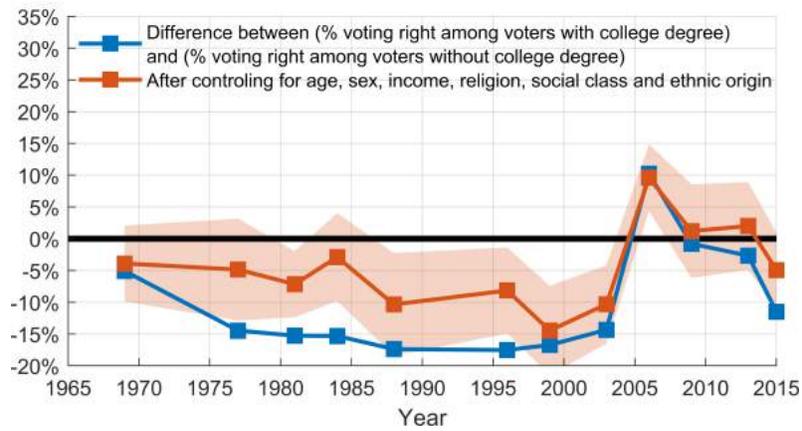
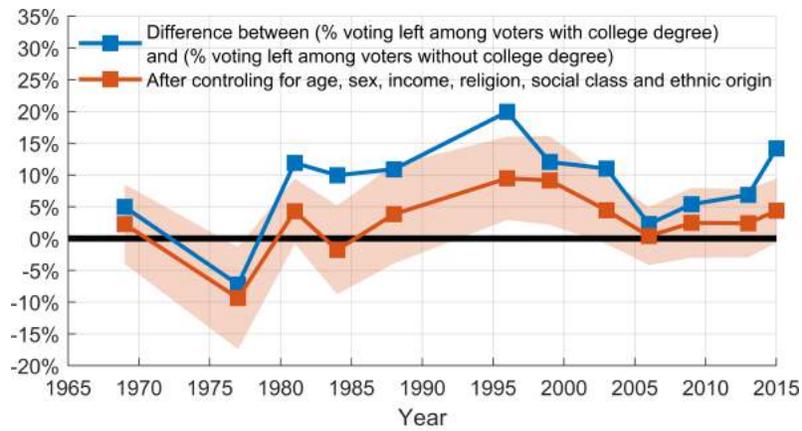


Figure 21: Political conflict in Israel, 1969–2015. Left (top) and right (bottom) vote by education without fixing voting fraction for each level of education.

## F Share of seculars among Ashkenazim, non-Ashkenazim and Mizrachim

The following figure shows the evolution of secular voters among Jewish ethnic groups. The definition of level of religiosity was based on the question: “To what extent do you observe religious tradition?”. Survey respondents were given 4 options: “not at all”, “a little”, “a lot”, “I observe all of it”. We defined respondents that answered “not at all” or “a little” as secular.

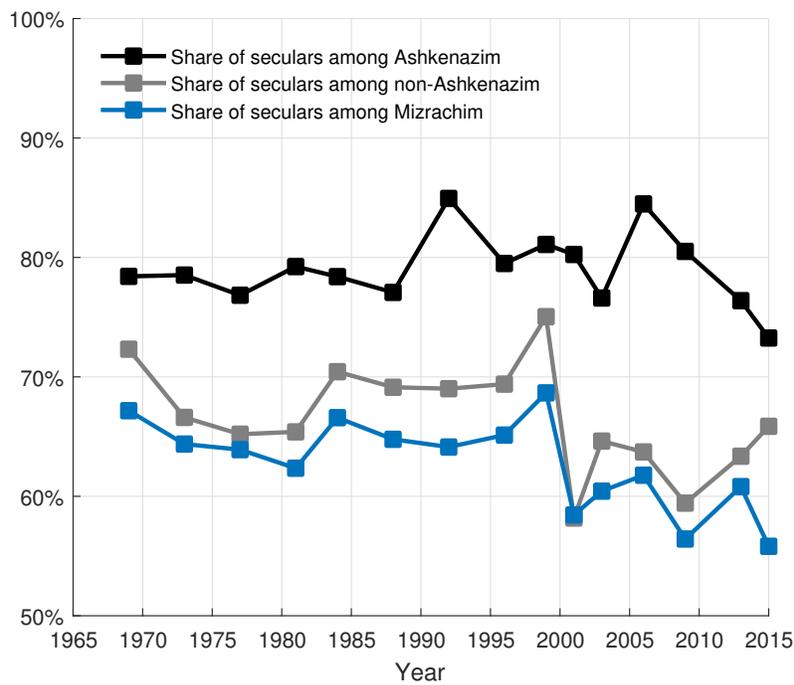


Figure 22: The share of seculars among Ashkenazim, non-Ashkenazim and Mizrachim in each sample.