# Housing Ideology:
# Israeli Settlement of the West Bank

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# Introduction

**Considerable political controversy and policy debate surround Israeli settlement of the West Bank**

**Settlements established in the wake of Israeli control of the West Bank in 1967 Six-Day War.**

**All parties view the magnitude and determinants of settlement population flows with particular concern, given their implications for control of territory and conflict resolution**

**Although the impetus for Israeli settlement of the West Bank is often ascribed to security, ideology and religion, economic factors may play a salient role**

- In media surveys preceding the 2019 general elections in Israel, West Bank settlers commented, " just because I live on the other side of the Green Line doesn't mean that I'm here for ideological purposes, rather I'm here for economic and quality-of-life differentials—just 10 minutes from the Tel Aviv suburb of Kfar Saba"

- Another settler mentioned, "the population in my settlement is not extremist in their political views, the vast majority is secular"

- In a recent Wall St. Journal article (Nov 12 2019) a settler commented, "we came here because it's easier to buy here….it's so easy to live here"

# Literature on Household Moves

**We assess settlement moves using standard models of residential location choice, whereby moves are associated with economic factors including house prices, workplace access, and quality-of-life differentials**

> See Gabriel and Rosenthal [1989]; Greenwood and Hunt [1989]; Gabriel, Mattey and Wascher [1995]; Razin, Sadka, and Swagel, 2002; Sasser [2010]; Bougheas and Nelson [2010]; Zabel [2012]; Bougheas and Nelson [2013]; Razin, Sadka, and Suwankiri [2010] and Razin and Sadka [2017]

> Other papers have assessed those same economic factors in reference to household mobility in Israel (see Gabriel, Justman and Levy [1987]; Portnov [1998]; Ben-Shahar, Gabriel, and Golan [2019b]

**Economic factors may be mediated and of diminished salience among households lacking national ideological or religious imperatives for West Bank settlement**

**Analysis yields insights not only into the relative efficacy of economic incentives in determination of West Bank location choice but also how economic factors may be mediated among households of fundamentally different ideological worldview or religious belief**

**Such insights could be important to future West Bank policy initiatives**

# Belief Heterogeneity and Household Decision-Making

**Recent literature suggests that differences in worldview or beliefs may mediate household response to economic stimuli.**

**Differences in ideological, political, or religious worldview may affect household decisions and in response to market or policy signals**

- In financial markets, trading and returns may vary when investors hold different models of the world (see Kandel and Pearson [1995]; Meeuwis et al [2018]; Carlin, Longstaff, and Mantoba [2014])

- Substantial literature in political science suggests that belief divergence may affect response to political events (see Barels [2002] and Gaines et al [2007])

- Religious belief affects investment and financial market outcomes (see Stulz and Williamson [2002]; Kumar, Page, and Spalt [2011]; and Shu, Sulaeman, and Yeung [2012])

# Belief Heterogeneity among Settlements and Settlers

While Israeli settler population rose post-1967 to almost 400,000 in 2015, 45 percent of those settlers reside in non-ideological and non-orthodox settlements

Assessment of local support for national-religious and orthodox parties in general elections over the 2000-2015 period indicates that 48 of the 126 Israeli settlements may be classified as "non-ideological" and 7 settlements may be classified as "religious-orthodox"

A large majority of settlements are located close to the 1949 Green Line demarcation of the West Bank and within commuting proximity of Israel's largest job markets

How do economic, ideological, and religious factors affect population moves to a conflict zone?

Does divergence in ideological worldview and religious belief affect response to economic incentives associated with such moves?

We assess those questions in the context of Israeli household moves to settlements in the West Bank

Specifically, we assess whether housing incentives are mediated and of diminished salience among households lacking fundamental religious-nationalist imperatives for West Bank settlement

# Preview of Analysis and Results

Identify households holding divergent worldviews and beliefs using political party support as inferred from local statistical area national election results

Results show that economic opportunity, notably lower housing costs, prompt West Bank moves among all household types

West Bank moves are elevated among households with national-religious ideology and ultra-orthodox religious beliefs and in moves to settlements of similar ideological and political stance

Belief divergence affects response to common economic factors: lower quality-adjusted housing costs are more important to households holding national-religious views.   Those same factors are mediated and less salient among households lacking fundamental ideological imperatives for settlement.

Results are corroborated in survival analysis of a large, micro-panel of WB movers from origin localities west of the Green Line

Source: Israel Central Bureau of Statistics. Panel A shows Israeli West Bank settlements stratified by type: each hollow triangle represents a non-ideological settlement, each hollow circle represents an ultra-orthodox settlement, and each black triangle an ideological settlement. Panel B shows West Bank settlements stratified by year of establishment: settlements that were established prior to 1977 are represented by a triangle; settlements that were established between 1978-1985 are represented by a square and settlements that were established between 1978-1985 are represented by a circle. For ease of orientation, four major Israeli cities are added to the maps. These include Jerusalem (Mid-East) Tel Aviv (Mid-West) Haifa (North) and Be`er Sheva (South).

# Modern History of the West Bank of the Jordan River

November 1947: UN decides on Partition of British Mandatory Palestine into independent Jewish and Palestinian states [UN Resolution 181 (II)]

May 1948: Israel declares independence. Armed conflict ensues between the emergent Jewish state and Arab armed forces rejecting the Partition

July 1949: Official cessation of the first Arab-Israeli war: the U.N.-brokered Armistice line between Israel and Jordan is denoted the Green Line. Areas east of the Green Line, including the West Bank and East Jerusalem, are incorporated into the Kingdom of Jordan

June 1967: Six-Day War erupts between Israel and Egypt, Jordan, and Syria and ends with cease-fire agreement, whereby the West Bank (east of the Green Line) comes under Israeli control

July 1967: Alon Plan – Israeli Government plan calls for Israeli agricultural settlement of the Jordan Valley (eastern border with Jordan) exclusive of heavily populated Palestinian areas

1968: Religious-ideological activists establish Jewish settlement in Hebron at site of Jewish religious significance

1968: Settlers return to areas of the Etzion Bloc captured by the Jordanians in 1948

1974: Founding of Gush Emunim – Israeli religious-ideological organization for settling of the West Bank inclusive of areas of Jewish religious significance

1970s-1990s:  Founding of major settlement blocs including Ariel and Mo'odi'in

1967-2015: 126 Jewish settlements are officially established by Israeli governments throughout the West Bank

**What began as security-related and religious-ideological settlement post-1967 evolved over time into movement of middle-class Israeli households to affordable areas east of the Green Line and proximate to Tel Aviv and Jerusalem metropolitan areas**

(For a detailed chronology of events related to the establishment and development of Jewish West Bank settlements, see, e.g., Handel, 2009)

# Population Beyond the Green Line
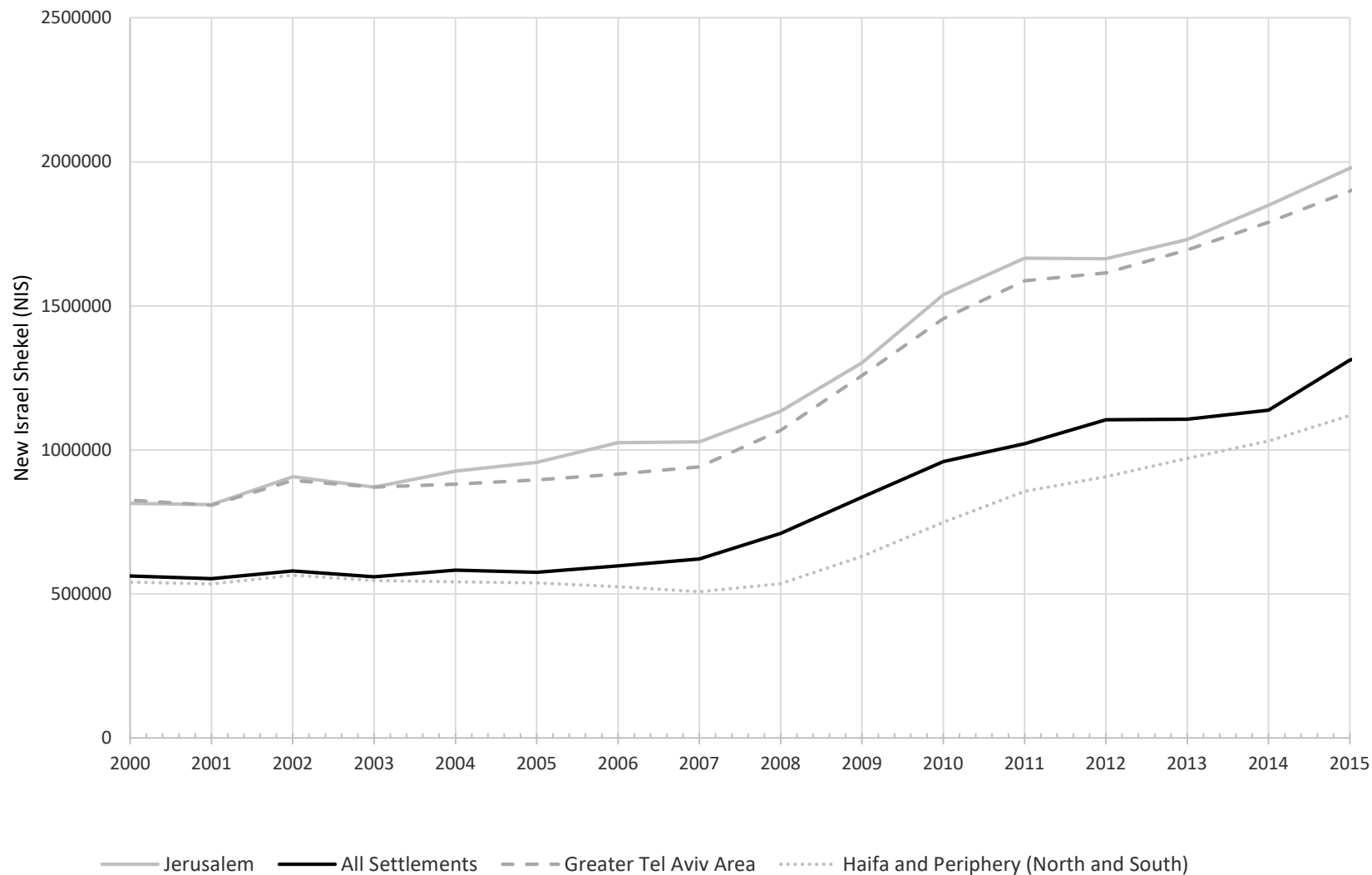# 1995 - 2015
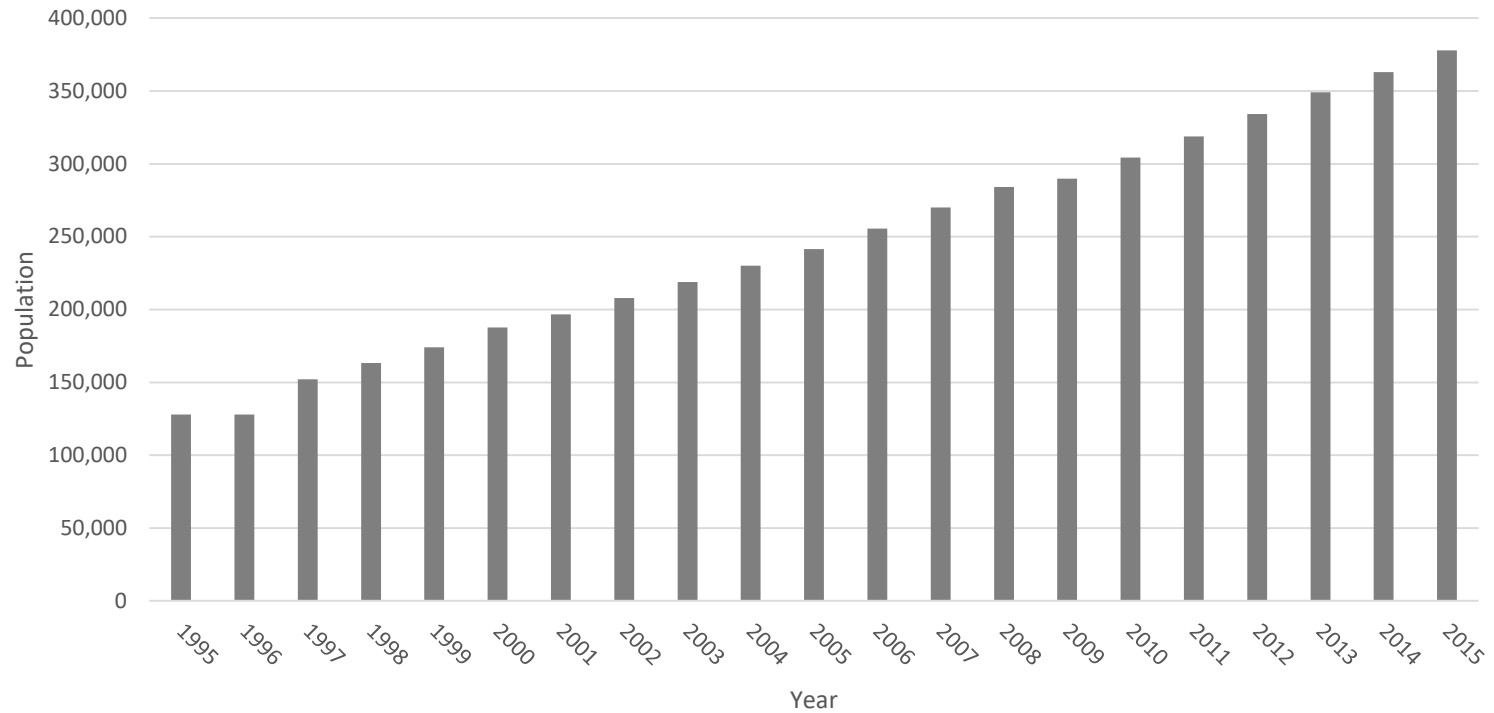


Source: Israel Central Bureau of Statistics

**We code the 126 West Bank settlements as "national-religious" (i.e., ideological) or "ultra-orthodox religious" (i.e., "Haredi")**

A settlement is classified as "national-religious" ("ultra-orthodox") if electoral support for the "national-religious" ("ultra-orthodox") parties in that settlement exceeds 4 times the national average support for those parties in the most recent general election campaign post time *t*. Otherwise the settlement is coded as "non-ideological."

- The classification is largely robust to changing the threshold from 4 times to 2, 3, or 5 times the national average

- Remaining settlements are classified as "non-ideological, non-religious"

- Our classification exhibits 89% match with that conducted by "Peace Now" (who follow all settlements of the West Bank).

# Israel Quality-Adjusted Average House Price by Region
## 1005 - 2015

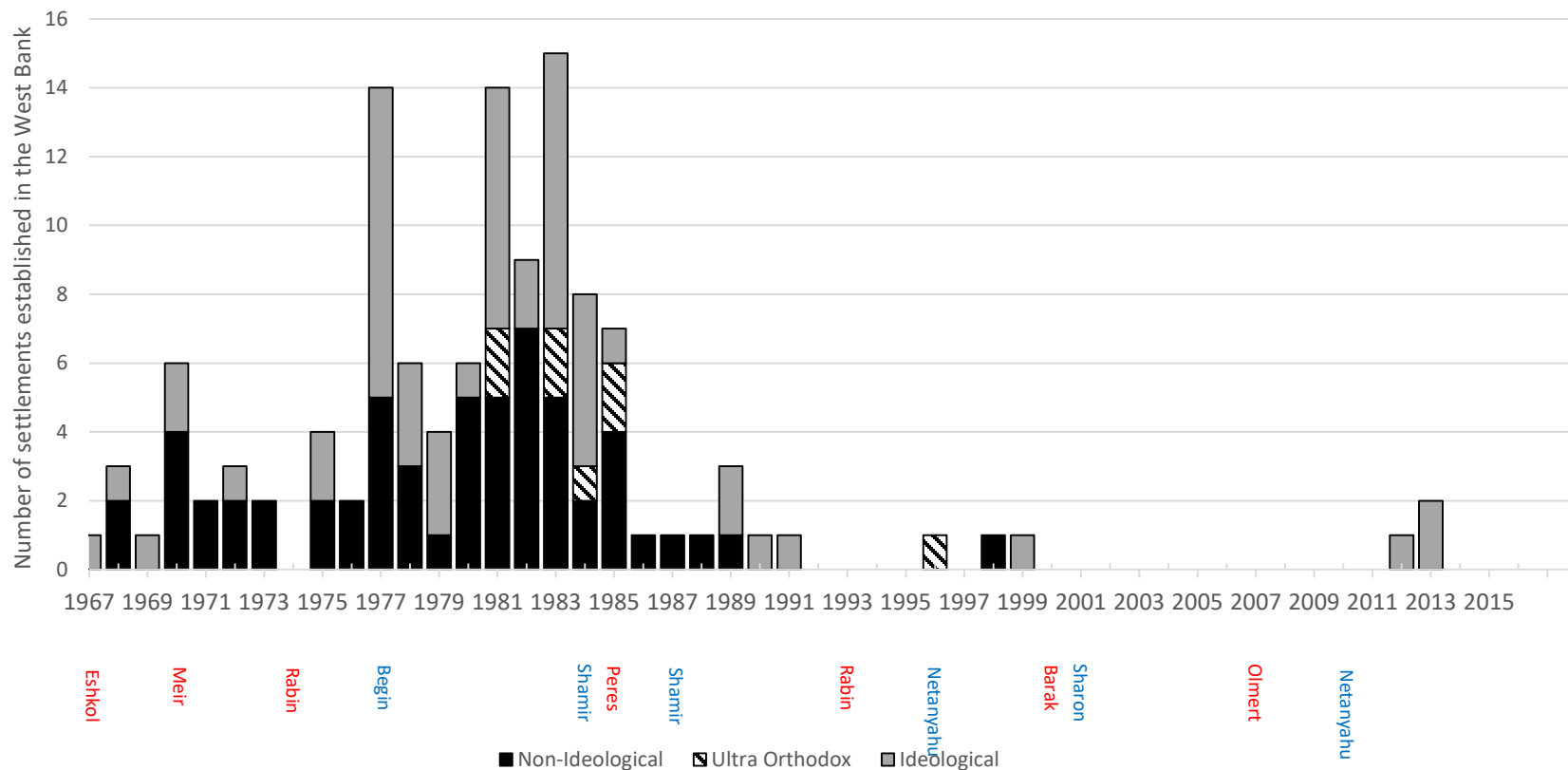Source:  Authors computation based on data from Israel Tax Authority

# Quality-Adjusted Average Housing Prices in the West Bank by Settlement Type, 1995-2015
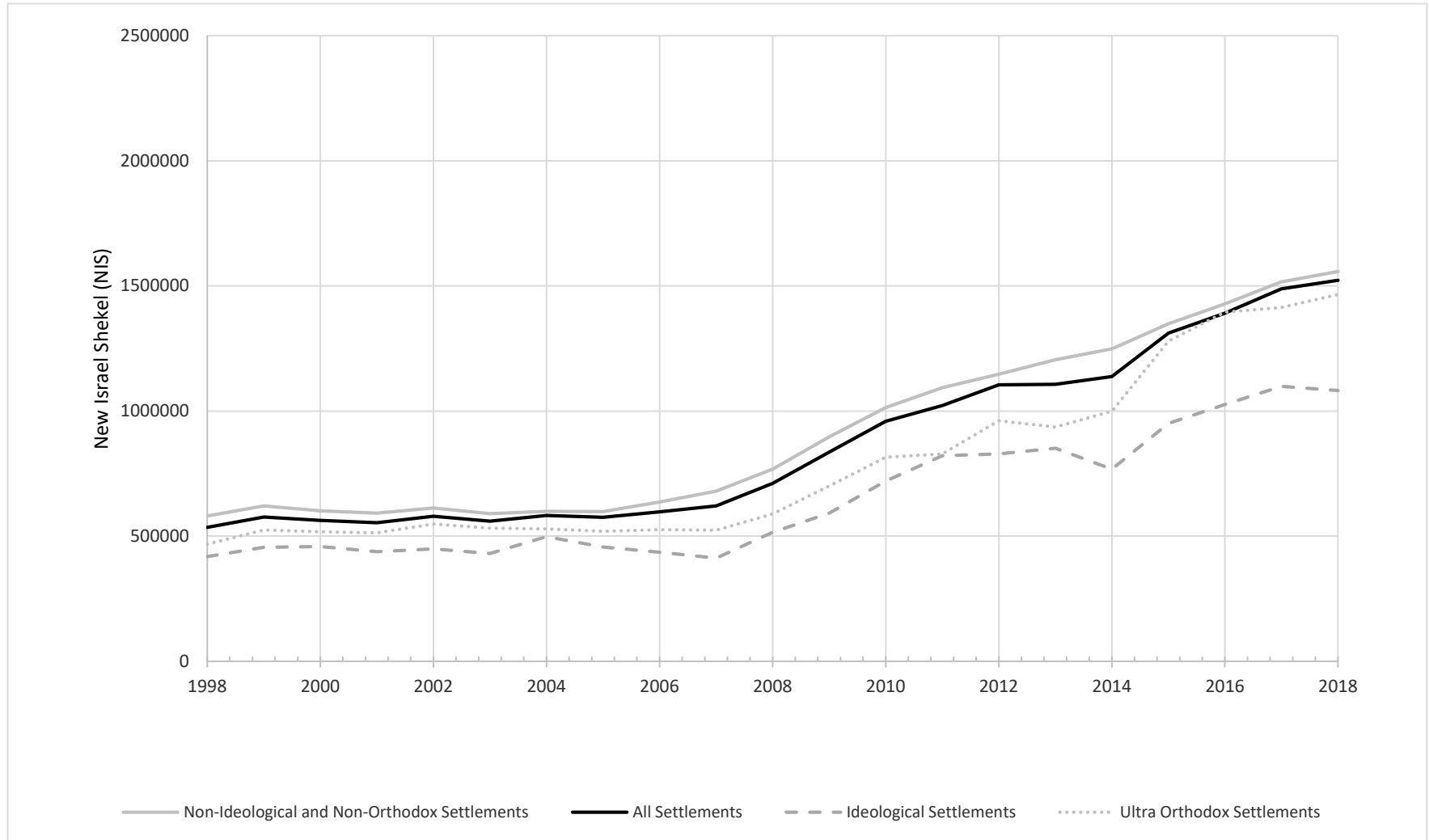


Source: Authors Computation Based on Data from the Israel Tax Authority

Source: Israel Central Bureau of Statistics. Below the graph are the names of the Prime Minister in the relevant year. Prime Ministers who enter office in July or later are recorded in the following year to their election. It should be noted that left wing/socialist parties governed Israel from its establishment in 1948 until 1977. In 1977, the right-wing party Likud won the election for the first time. Right- (left-) wing prime minister in office is marked in blue (red).

Primary datasets include:

- Annual panel of 20% of all Israeli households 2000-2014 (about 380,000 households), inclusive of socio-economic, demographic, and residential locational characteristics. This unique panel was comprised by the Israel Central Bureau of Statistics based on 1995 and 2008 population censes.

- The universe of all housing transactions in Israel (Israel Tax Authority). Data comprise more than 1M observations 2000-2014 and include information on transaction prices and housing characteristics.

- Annual data on characteristics of all localities in Israel (more than 1,200 localities) 2000-2014 including 126 West Bank settlements (Israel Central Bureau of Statistics).

- National election voting outcomes for the Knesset (Israel Parliament) by polling station. Each polling station is assigned to a statistical area (roughly equivalent to census track) so as to characterize voting patterns in the small residential area of each household.

**Table 1: Selected Variables in the Household (Raw) Panel Data – Description and Summary Statistics**

| Variable | Description | Mean | SD | Min | Max |
|---|---|---|---|---|---|
| HH_size | Number of persons in the household | 3.97 | 1.80 | 2.00 | 17.00 |
| Age | Household-head age | 47.76 | 14.32 | 18.00 | 113.00 |
| Gender | Dummy variable for household-head gender (1 – female; 0 – male) | 0.40 | 0.49 | 0.00 | 1.00 |
| Immig_Yr | Household-head year of immigration | 1,973 | 19 | 1,919 | 2,008 |
| Yeshiva | Dummy variable for household-head who studied in a Yeshiva (place of Jewish religious learning) (1 – yes; 0 – no) | 0.05 | 0.21 | 0.00 | 1.00 |
| Inc_Emp | Household-head annual income as an employee (NIS) | 99,172 | 110,576 | 0 | 1,163,540 |
| Inc_Self | Household-head annual income as self-employed (NIS) | 39,095 | 110,418 | 0 | 22,000,000 |
| Inc_Emp2 | Household-head's partner income as an employee (NIS) | 95,540 | 120,573 | 0 | 1,163,540 |
| Inc_Self2 | Household-head partner income as self-employed (NIS) | 39,044 | 117,959 | 0 | 21,200,000 |
| Sqm | Household housing unit area (in sqm) | 112 | 200 | 0 | 2640 |
| Rooms | Household housing unit number of rooms | 3.79 | 8.70 | 1 | 9 |
| APT_Area_New | Household new housing unit area in sqm (if migrated) | 135 | 1,099 | 0 | 18,500 |
| APT_Rooms_New | Household new housing unit number of rooms (if migrated) | 4.068403 | 7.680346 | 1 | 9 |
| APT_Price_New | Household new housing unit estimated price (if migrated) | 1,038,260 | 749,126 | 1 | 17,700,000 |

**Table 2: List of Selected Variables in the Housing Transaction Database (Israel Tax Authority), Description and Summary Statistics**

| Variable | Description | Avg. | Std. | Min | Max |
|---|---|---|---|---|---|
| Trans_P | Transaction closing price (in dollars) | 216,469 | 130,185 | 17,106 | 1,800,000 |
| Trans_Room | Total number of rooms | 3.57 | 0.86 | 2 | 5 |
| Trans_Age | The age of the structure (in years) at the time of the transaction | 20.83 | 18.15 | 0 | 100 |
| Trans_Story | The story on which the asset is located in the structure | 2.83 | 3.01 | 0 | 40 |
| Trans_DumNew | Dummy variable that equals 1 if Age is no more than 1 year; 0 otherwise | 0.20 | 0.40 | 0 | 1 |

**Table 3: List of Variables Included in the Polytomous Logistic Model Estimation, Definitions, and Summary Statistics**

| Variable | | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| $N_{ijt}$ | Number of households who moved from locality $i$ to locality $j$ at time $t$ | 0.59 | 2.32 | 0.00 | 98.00 |
| $N_{it}$ | Total number of households who moved within locality $i$ at time $t$ | 3,784 | 5,187 | 24 | 30,944 |
| $\ln(Prob_{ijt}/Prob_{iit})$ | The log of $N_{ijt}/N_{it}$ | -8.98 | 2.27 | -12.61 | -1.10 |
| PriceRatio | The log of the ratio between average nominal quality adjusted prices in $j$ and $i$ | 0.00 | 0.04 | -0.19 | 0.20 |
| HPI | Current change in the national Housing Price Index | 0.04 | 0.08 | -0.06 | 0.21 |
| Dum_Settlement | Dummy variable equals 1 if destination location $j$ is a Jewish settlement; otherwise 0 | 0.12 | 0.32 | 0.00 | 1.00 |
| Dum_Jerusalem | Dummy variable equals 1 if origin location $i$ is in Jerusalem zone; otherwise 0 | 0.048 | 0.213 | 0 | 1.00 |
| Dum_North | Dummy variable equals 1 if origin location $i$ is in North zone; otherwise 0 | 0.163 | 0.369 | 0 | 1.00 |
| Dum_Haifa | Dummy variable equals 1 if origin location $i$ is in Haifa zone; otherwise 0 | 0.151 | 0.358 | 0 | 1.00 |
| Dum_Center | Dummy variable equals 1 if origin location $i$ is in Center zone; otherwise 0 | 0.320 | 0.466 | 0 | 1.00 |
| Dum_TelAviv | Dummy variable equals 1 if origin location $i$ is in Tel Aviv zone; otherwise 0 | 0.156 | 0.363 | 0 | 1.00 |
| Dum_South | Dummy variable equals 1 if origin location $i$ is in South zone; otherwise 0 | 0.162 | 0.369 | 0 | 1.00 |
| Vote_National | Share of voters for national-religious parties in the city of origin | 0.07 | 0.05 | 0.00 | 0.74 |

| Variable | | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| Vote_Ultra-Orthodox | Share of voters for ultra-orthodox religious parties in the city of origin | 0.16 | 0.15 | 0.00 | 0.92 |
| Diff_UserCost | The difference between 3-year price yield (percent) in j and i | -0.01 | 2.47 | -22.71 | 24.37 |
| SESRatio | The log of the ratio between socio-economic index score in j and i | 0.00 | 0.46 | -2.20 | 1.61 |
| PopulationRatio | The log of ratio between population size in j and i | -0.41 | 2.00 | -8.16 | 7.34 |
| Age30to44Ratio | The log of the ratio between the share of households whose head is 30-44 years-old in j and i | 0.00 | 0.20 | -1.19 | 1.19 |
| TaxBenefitRatio | The log of the ratio between the maximal tax benefit in j and i | -0.03 | 4.86 | -10.95 | 10.95 |
| Distance | The log of the distance between j and i | 3.73 | 0.99 | -0.73 | 6.03 |
| DistanceTARatio | The log of the ratio between the distance to Tel Aviv in j and i | 0.01 | 1.39 | -4.96 | 4.96 |
| Dum_Settlement X PriceRatio | Interaction between Dum_Settlement and PriceRatio | 0.00 | 0.01 | -0.19 | 0.13 |
| Dum_Settlement X Vote_National | Interaction between Dum_Settlement and Vote_National | 0.01 | 0.03 | 0.00 | 0.74 |
| Dum_Settlement X Vote_Ultra-Orthodox | Interaction between Dum_Settlement and Vote_Ultra-Orthodox | 0.02 | 0.08 | 0.00 | 0.92 |
| HH_Age | Household head age in city of origin | 53.53 | 4.92 | 34.25 | 66.79 |
| HH_Income | Annual household income in city of origin (100k NIS) | 2.51 | 0.77 | 0.85 | 5.71 |
| HH_Children | Number of children in the city of origin | 2.70 | 0.90 | 0.00 | 6.09 |

To assess the difference in price among similar housing units in border localities on either side of the Green Line:

1. We observe different locality couplets—one to the east and the other to the west—of the Green Line, whose distance from one another is no more than 3-4 miles.

2. For each couplet, we estimate the difference between quality-adjusted average house prices.

Results show that the average price in the Israeli localities west of the Green Line is 35% greater than average price of the matched localities in the West Bank (significant at the 1%-level).

$$\ln(Prob_{ijt}/Prob_{iit}) = \theta + \alpha_1 \ln C_{ijt} + \vec{\alpha}_2 [\ln(Z_{jt}/Z_{it})] + \alpha_3 PriceRatio_{jit} + \vec{\alpha}_4 \ln T_{it} +$$

$$\alpha_5 Dum\_Settlement_{jt} + \alpha_6 Vote\_National_{it} + \alpha_7 Vote\_Ultra - Orthodox_{it} +$$

$$\vec{\alpha}_8 PriceRatio_{jit} \times Dum\_Settlement_{jt} + \vec{\alpha}_9 PriceRatio_{jit} \times Vote\_X_{it} +$$

$$\vec{\alpha}_{10} Dum\_Settlement_{jt} \times Vote\_X_{it} + \vec{\alpha}_{11} PriceRatio_{jit} \times Dum\_Settlment_{jt} \times Vote\_X_{it} +$$

$$\varepsilon_{1ijt}, \tag{4}$$

where

$i$ and $j$ are localities and $t$ are time periods;

$Z_i - Z_j$ are differences in economic and amenity attributes between origin ($i$) and destination ($j$);

$C_{ij}$ is the cost of moving from $i$ to $j$ (proxied by distance between $i$ and $j$);

$T_i$ is a vector of household traits associated with the propensity to migrate;

*Vote_National* and *Vote_Orthodox* represent the percentage of origin statistical area votes in most recent national elections for religious-national and ultra-orthodox parties, respectively (by statistical area);

*Dum_Settlement* is a dummy variable representing West Bank settlements.

We estimate the model for the full sample of movers from Israeli localities—located west of the Green Line—to all destinations both within and beyond the Green Line over the period 2000-2014.

**Table 5**: Outcomes from Estimation of Equation (4) Polytomous Logistic Model of Household Moves from Localities Within the Green Line

| | (1) Without Interaction Terms (No Zone FE) | (2) Without Interaction Terms | (3) With Simple Interaction Terms | (4) With Double Interaction Terms |
|---|---|---|---|---|
| Constant | -6.93*** | -5.54*** | -5.46*** | -5.45*** |
| | (0.13) | (0.14) | (0.14) | (0.14) |
| PriceRatio | -1.91*** | -0.09 | 3.54*** | 3.54*** |
| | (0.27) | (0.28) | (0.44) | (0.46) |
| Dum_Settlement | -0.54*** | -0.45*** | -0.75*** | -0.75*** |
| | (0.02) | (0.02) | (0.04) | (0.05) |
| Vote_National | 1.97*** | 0.53** | 0.27 | 0.18 |
| | (0.20) | (0.21) | (0.34) | (0.22) |
| Vote_Ultra-Orthodox | 1.59*** | 0.70*** | 0.51*** | 0.48*** |
| | (0.08) | (0.08) | (0.13) | (0.09) |
| Diff_UserCost | -0.02*** | -0.02*** | -0.02*** | -0.02*** |
| | 0.00 | 0.00 | 0.00 | 0.00 |
| DistanceRatio | -0.87*** | -1.02*** | -1.01*** | -1.01*** |
| | (0.01) | (0.01) | (0.01) | (0.01) |
| HPI | -1.00*** | -1.55*** | -1.60*** | -1.60*** |
| | (0.12) | (0.12) | (0.12) | (0.12) |
| SESRatio | -0.00 | -0.03 | -0.01 | -0.01 |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| PopulationRatio | 0.42*** | 0.49*** | 0.49*** | 0.49*** |
| | (0.00) | (0.00) | (0.00) | (0.00) |
| Age30to44Ratio | 0.13*** | 0.00 | -0.03 | -0.03 |
| | (0.04) | (0.04) | (0.04) | (0.04) |
| TaxBenefitRatio | 0.00 | 0.00 | 0.00 | 0.00 |
| | (0.00) | (0.00) | (0.00) | (0.00) |
| DistTARatio | -0.24*** | -0.04*** | -0.06*** | -0.06*** |
| | (0.01) | (0.01) | (0.01) | (0.01) |
| HH_Age | 0.04*** | 0.05*** | 0.05*** | 0.05*** |
| | (0.00) | (0.00) | (0.00) | (0.00) |
| HH_Income | -0.19*** | -0.15*** | -0.13*** | -0.13*** |
| | (0.02) | (0.02) | (0.02) | (0.02) |
| HH_Children | -0.01 | -0.11*** | -0.11*** | -0.11*** |
| | (0.01) | (0.01) | (0.01) | (0.01) |

| | (1) Without Interaction Terms (No Zone FE) | (2) Without Interaction Terms | (3) With Simple Interaction Terms | (4) With Double Interaction Terms |
|---|---|---|---|---|
| Diff_UserCost X Dum_Settlement | | | 0.01 (0.11) | 0.01* 0.01 |
| PriceRatio X Dum_Settlement | | | 1.42*** (0.54) | 1.24 (1.05) |
| PriceRatio X Vote_National | | | 11.11** (4.47) | 16.16*** (4.78) |
| PriceRatio X Vote_Ultra-Orthodox | | | -28.74*** (1.52) | -30.88*** (1.63) |
| Dum_Settlement X Vote_National | | | 2.41*** (0.47) | 1.90*** (0.53) |
| Dum_Settlement X Vote_Ultra-Orthodox | | | 0.77*** (0.14) | 0.97*** (0.15) |
| PriceRatio X Dum_Settlement X Vote_National | | | | -34.52*** (12.57) |
| PriceRatio X Dum_Settlement X Vote_Ultra-Orthodox | | | | 13.91*** (3.98) |
| | | | | |
| Geographical zone fixed-effect | No | Yes | Yes | Yes |
| Observations | 97,791 | 97,791 | 97,791 | 97,791 |
| R-squared | 0.234 | 0.255 | 0.259 | 0.259 |

To understand the effect of the economic incentive (*PriceRatio* between locations *i* and *j*) on moves to West Bank settlements from localities of varying levels of support for national-religious and ultra-orthodox parties (*Vote_National*, and *Vote_Orthodox*):

1. We calibrate the sample so as to fit the actual population moves to the West Bank.

2. We simulate the model for varying levels of factors of the estimated equation

$$\ln\left(Prob_{ijt}/Prob_{iit}\right) = \theta + \alpha_1 \ln C_{ijt} + \vec{\alpha}_2[\ln(Z_{jt}/Z_{it})] + \alpha_3 PriceRatio_{jit} + \vec{\alpha}_4 \ln T_{it} +$$

$$\alpha_5 Dum\_Settlement_{jt} + \alpha_6 Vote\_National_{it} + \alpha_7 Vote\_Ultra - Orthodox_{it} +$$

$$\vec{\alpha}_8 PriceRatio_{jit} \times Dum\_Settlement_{jt} + \vec{\alpha}_9 PriceRatio_{jit} \times Vote\_X_{it} +$$

$$\vec{\alpha}_{10} Dum\_Settlement_{jt} \times Vote\_X_{it} + \vec{\alpha}_{11} PriceRatio_{jit} \times Dum\_Settlment_{jt} \times Vote\_X_{it} +$$

$$\varepsilon_{1ijt},$$

$$(4)$$

**Figure 5**: **Population Moves to Settlements of the West Bank by Settlement Type, 2000-2014**
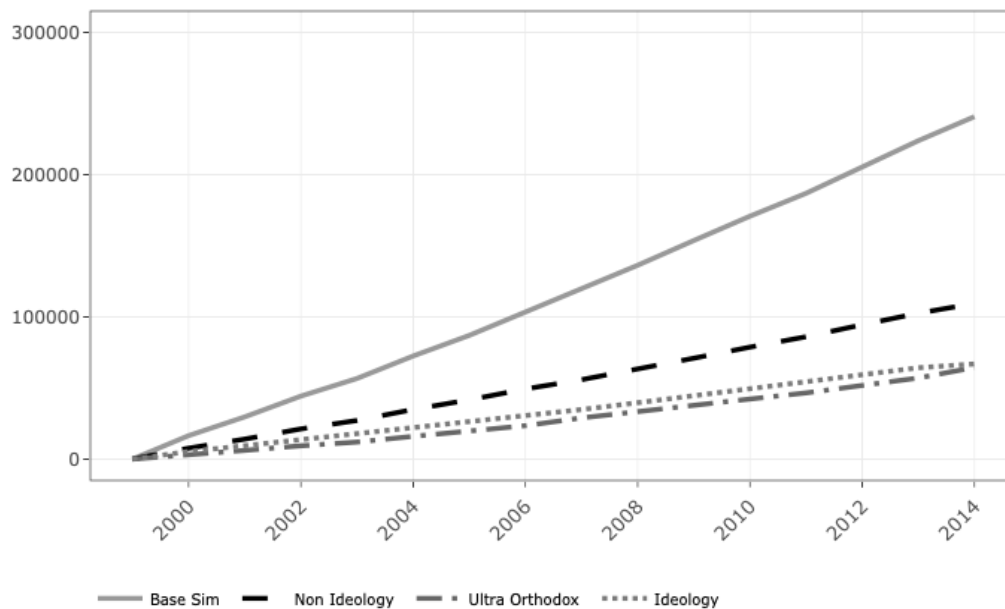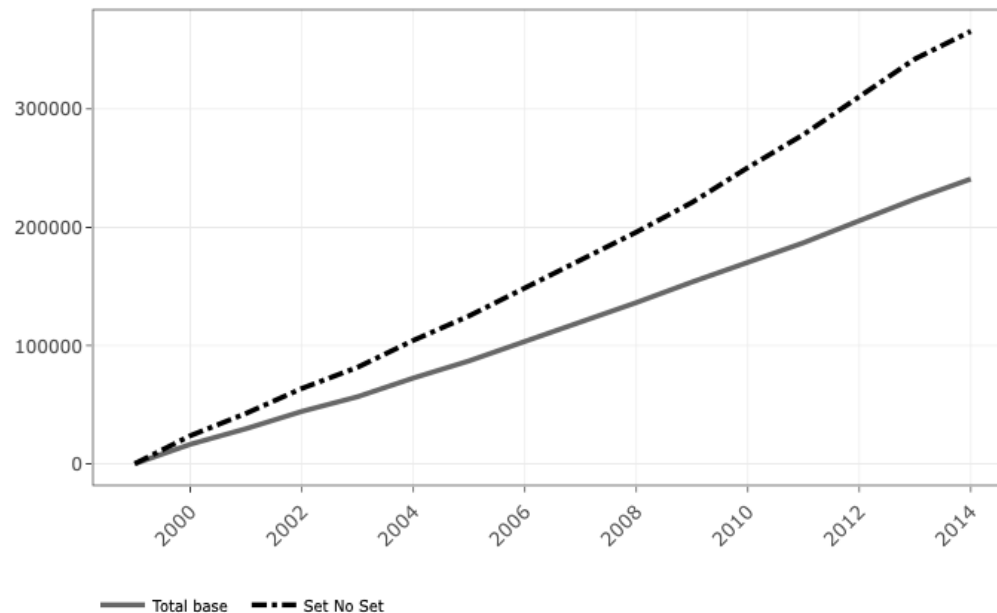


Overall population moves to the West Bank over the period 2000-2014 is equal to about 241,000 of which 109,500 went to non-ideological settlements, 67,000 went to national-religious ideological settlements, and 64,500 went to ultra-orthodox settlements. Settlement typology based on national election voting patterns.

**Population moves to West Bank assuming destination West Bank localities were hypothetically located west of Green Line; e.g., Dum_Settlement = 0, 2000-2014**



Total base ——  Set No Set –·–·

Hypothetical transfer of West Bank settlements to locations west of the Green Line is associated with 52% increase in total population moves to those localities (from 248,800 to 365,720),

# MODEL SIMULATION

**Moves to West Bank settlements in cases where settlement quality-adjusted house prices were less than west of Green Line origin locality quality-adjusted house prices (*PriceRatio<0*), 2000-2014**
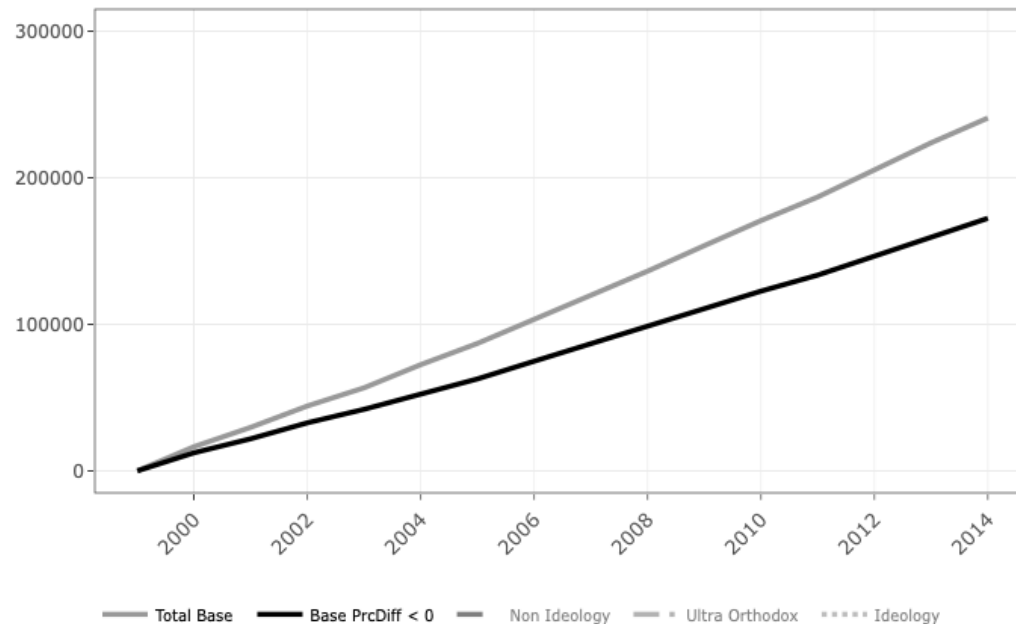


About 72% of total moves to settlements of the West Bank (174,600 of 240,800 moves) exhibit *PriceRatio<0.*

# MODEL SIMULATION
Projected population Moves to Settlements of the West Bank for which *PriceRatio<0*, 2000-2014:
Simulated 10 percent increase/decrease in relative West Bank to origin location house prices
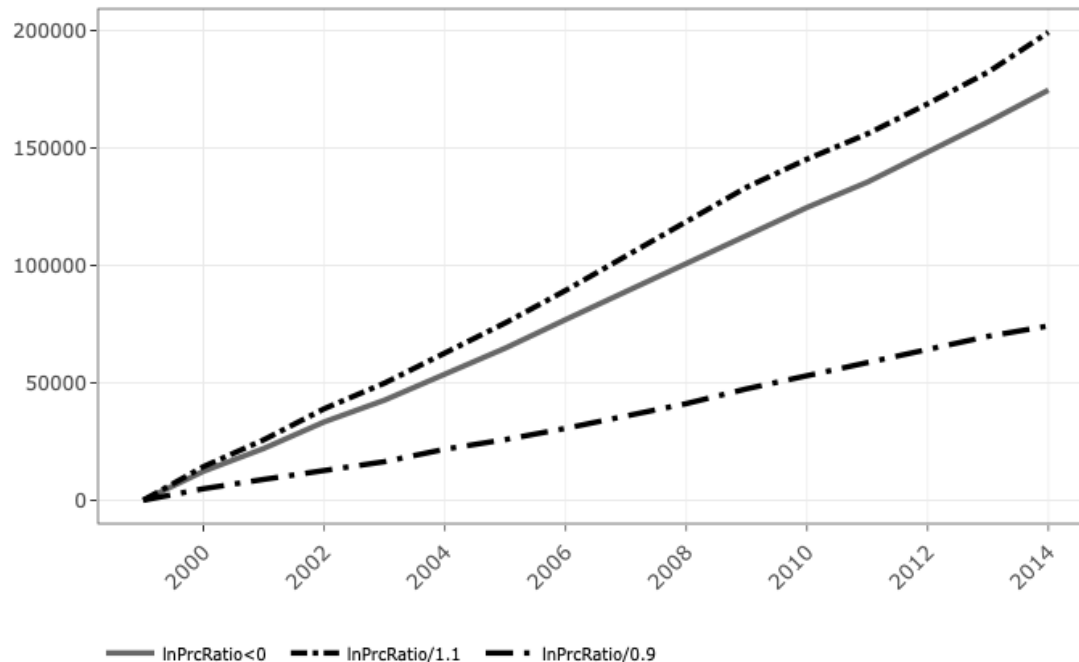
For settlements conforming to *PriceRatio*<0: A simulated 10% increase (decrease) in origin compared to destination location is associated with about 14% (57%) increase (decrease) in total population moves to West Bank settlements (from 174,000 to 199,200 and 74,200, respectively).
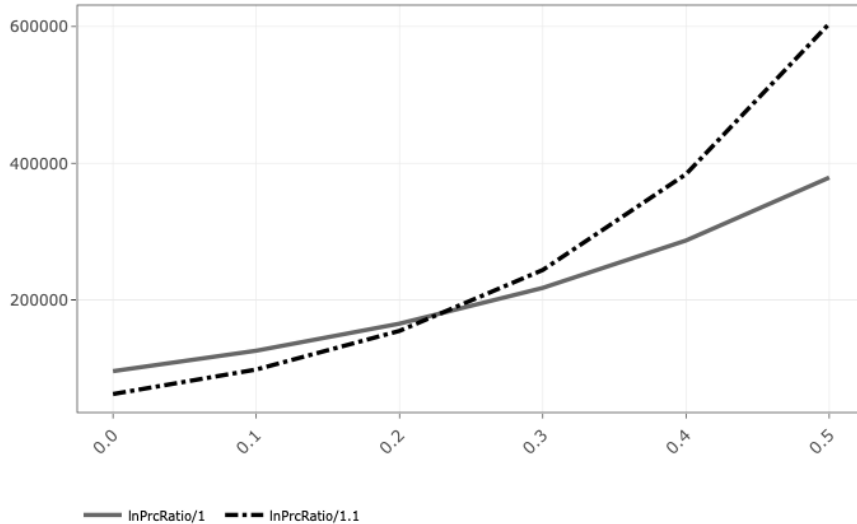
*Vote_National* = [0,0.5]          *Vote_Orthodox* = [0,0.5]
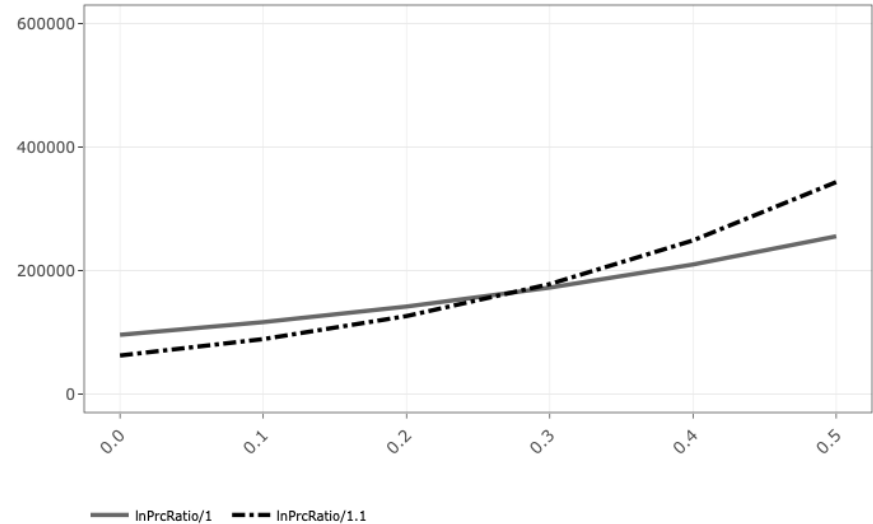
National-religious party voters are highly sensitive to housing costs: A 10% increase in origin compared to destination settlements when *Vote_National*=0.3 (*Vote_National*=0.5) is associated with increased accumulated population moves to West Bank settlements from 218K (379K) to 244K (604K) – 12 (59%) increase.

Voters to ultra-orthodox parties are considerably less sensitive to the economic incentive: A 10% increase in *PriceRatio* when *Vote_Orthodox*=0.3 (*Vote_Orthodox*=0.5) is associated with increased accumulated population moves to West Bank settlements from 173K (255K) to 178K (343K) – 3% (34%) increase.

(5)
$$h(t) = h_0(t)\exp(\gamma_1 Afford_{it} + \gamma_2 Vote\_National_{it} + \gamma_3 Vote\_Orthodox_{it} +$$

$$\gamma_4 Afford_{it} \times Vote\_National_{it} + \gamma_5 Afford_{it} \times Vote\_Orthodox_{it} + \vec{\gamma}_6 Y_{it} + \varepsilon_{2it}),$$

$h(t)$ is the hazard rate of migrating to a West Bank settlement (dummy variable that equals 1 for moving into a settlement; zero for moving to a locality west of the Green Line);

*Afford* is a measure of housing affordability in origin location [(*a*) households' housing unit price at origin location; (*b*) household's "consumption-adjusted" housing price (Ben-Shahar, Gabriel, and Golan, *JHE* 2019);

*Y* is a vector of controls (household head gender, age, and education; household income, number of children, and SES and peripheral indices at origin).

Table 6: Results Obtained from the Estimation of Equation (5) with the Variable *Price* as the Affordability Measure (*Afford*)

| Colum | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Dummy equals 1 for: | Move to any settlement | Move to an ideological settlement | Move to an ultra-orthodox settlement | Move to a non-ideological settlement |
| *Price* | .92*** (.08) | .56*** (.16) | .83*** (.22) | .91*** (.10) |
| *Vote_National* | 2.80*** (.17) | 4.49*** (.27) | 2.99*** (.60) | 1.38*** (.34) |
| *Vote_Orthodox* | .85*** (.13) | .50 (.31) | 1.52*** (.29) | -.11 (.22) |
| *Price X Votes_National* | .75*** (.28) | .58 (.46) | 1.51** (.76) | 1.20*** (.41) |
| *Price X Vote_Orthodox* | -.22* (.12) | .37 (.28) | -.39 (.28) | -.02 (.18) |
| *DistToSettlement* | -.01*** (.002) | -.004 (.003) | .008 (.005) | -.026*** (.003) |
| *Price X DistToSettlement* | -.060*** (.004) | -.040*** (.007) | -.07*** (.009) | -.06*** (.005) |
| *Age_M (of householder head – male)* | -.04*** (.005) | -.05*** (.011) | -.06*** (.012) | -.02*** (.006) |
| *Age_F (of householder head – female)* | -.012*** (.005) | -.02* (.012) | -.01 (.013) | -.02*** (.007) |
| *Years in Israel of householder head (male)* | -.006*** (.002) | -.009** (.004) | -.001 (.004) | -.007*** (.002) |
| *Years in Israel of householder head (female)* | .009*** (.002) | .008 (.005) | .004 (.005) | .010*** (.003) |
| *Dummy for bachelor degree graduates* | -.0127 (.05417) | .93*** (.12579) | -.81*** (.13469) | .126 (.077) |
| *Dummy for bachelor higher graduates* | -.118* (.066) | .816*** (.147) | -.79*** (.20) | -.048 (.09) |

**Table 6**: Results Obtained from the Estimation of Equation (5) with the Variable *Price* as the Affordability Measure (*Afford*)

| Colum | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Dummy equals 1 for: | Move to any settlement | Move to an ideological settlement | Move to an ultra-orthodox settlement | Move to a non-ideological settlement |
| *Price* | .92*** (.08) | .56*** (.16) | .83*** (.22) | .91*** (.10) |
| *Vote_National* | 2.80*** (.17) | 4.49*** (.27) | 2.99*** (.60) | 1.38*** (.34) |
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| *Price X DistToSettlement* | -.060*** (.004) | -.040*** (.007) | -.07*** (.009) | -.06*** (.005) |
| *Age_M (of householder head – male)* | -.04*** (.005) | -.05*** (.011) | -.06*** (.012) | -.02*** (.006) |
| *Age_F (of householder head – female)* | -.012*** (.005) | -.02* (.012) | -.01 (.013) | -.02*** (.007) |
| *Years in Israel of householder head (male)* | -.006*** (.002) | -.009** (.004) | -.001 (.004) | -.007*** (.002) |
| *Years in Israel of householder head (female)* | .009*** (.002) | .008 (.005) | .004 (.005) | .010*** (.003) |
| *Dummy for bachelor degree graduates* | -.0127 (.05417) | .93*** (.12579) | -.81*** (.13469) | .126 (.077) |
| *Dummy for bachelor higher graduates* | -.118* (.066) | .816*** (.147) | -.79*** (.20) | -.048 (.09) |

# Cox Model Results

Table 6: Results Obtained from the Estimation of Equation (5) with the Variable *Price* as the Affordability Measure (*Afford*)

| Colum | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Dummy equals 1 for: | Move to any settlement | Move to an ideological settlement | Move to an ultra-orthodox settlement | Move to a non-ideological settlement |
| *Price* | .92*** (.08) | .56*** (.16) | .83*** (.22) | .91*** (.10) |
| *Vote_National* | 2.80*** (.17) | 4.49*** (.27) | 2.99*** (.60) | 1.38*** (.34) |
| *Vote_Orthodox* | .85*** (.13) | .50 (.31) | 1.52*** (.29) | -.11 (.22) |
| *Price X Votes_National* | .75*** (.28) | .58 (.46) | 1.51** (.76) | 1.20*** (.41) |
| *Price X Vote_Orthodox* | -.22* (.12) | .37 (.28) | -.39 (.28) | -.02 (.18) |
| *DistToSettlement* | -.01*** (.002) | -.004 (.003) | .008 (.005) | -.026*** (.003) |
| *Price X DistToSettlement* | -.060*** (.004) | -.040*** (.007) | -.07*** (.009) | -.06*** (.005) |
| *Age_M (of householder head – male)* | -.04*** (.005) | -.05*** (.011) | -.06*** (.012) | -.02*** (.006) |
| *Age_F (of householder head – female)* | -.012*** (.005) | -.02* (.012) | -.01 (.013) | -.02*** (.007) |
| *Years in Israel of householder head (male)* | -.006*** (.002) | -.009** (.004) | -.001 (.004) | -.007*** (.002) |
| *Years in Israel of householder head (female)* | .009*** (.002) | .008 (.005) | .004 (.005) | .010*** (.003) |
| *Dummy for bachelor degree graduates* | -.0127 (.05417) | .93*** (.12579) | -.81*** (.13469) | .126 (.077) |
| *Dummy for bachelor higher graduates* | -.118* (.066) | .816*** (.147) | -.79*** (.20) | -.0 8 (.09) |

**Table 6: Results Obtained from the Estimation of Equation (5) with the Variable *Price* as the Affordability Measure (*Afford*)**

| Colum | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Dummy equals 1 for: | Move to any settlement | Move to an ideological settlement | Move to an ultra-orthodox settlement | Move to a non-ideological settlement |
| *Price* | .92*** | .56*** | .83*** | .91*** |
| | (.08) | (.16) | (.22) | (.10) |
| *Vote_National* | 2.80*** | 4.49*** | 2.99*** | 1.38*** |
| | (.17) | (.27) | (.60) | (.34) |
| *Vote_Orthodox* | .85*** | .50 | 1.52*** | -.11 |
| | (.13) | (.31) | (.29) | (.22) |
| *Price X Votes_National* | .75*** | .58 | 1.51** | 1.20*** |
| | (.28) | (.46) | (.76) | (.41) |
| *Price X Vote_Orthodox* | -.22* | .37 | -.39 | -.02 |
| | (.12) | (.28) | (.28) | (.18) |
| *DistToSettlement* | -.01*** | -.004 | .008 | -.026*** |
| | (.002) | (.003) | (.005) | (.003) |
| *Price X DistToSettlement* | -.060*** | -.040*** | -.07*** | -.06*** |
| | (.004) | (.007) | (.009) | (.005) |
| *Age_M (of householder head – male)* | -.04*** | -.05*** | -.06*** | -.02*** |
| | (.005) | (.011) | (.012) | (.006) |
| *Age_F (of householder head – female)* | -.012*** | -.02* | -.01 | -.02*** |
| | (.005) | (.012) | (.013) | (.007) |
| *Years in Israel of householder head (male)* | -.006*** | -.009** | -.001 | -.007*** |
| | (.002) | (.004) | (.004) | (.002) |
| *Years in Israel of householder head (female)* | .009*** | .008 | .004 | .010*** |
| | (.002) | (.005) | (.005) | (.003) |
| *Dummy for bachelor degree graduates* | -.0127 | .93*** | -.81*** | .126 |
| | (.05417) | (.12579) | (.13469) | (.077) |
| *Dummy for bachelor higher graduates* | -.118* | .816*** | -.79*** | -.048 |
| | (.066) | (.147) | (.20) | (.09) |

# Conclusions and Implications for Policy

**Religious belief and national-ideological worldview affect response to economic incentives among Israeli West Bank settlers**

Substantially improved housing opportunities, prompt West Bank moves among all household types

Economic incentives in migration to the West Bank are considerably more important among ideologically motivated movers and less so among ultra-orthodox population

Ongoing growth among all major settlement types remains importantly dependent on favorable pecuniary economic returns on migration

Those moves could be damped or reversed in the wake of inadvertent or intended government policies to incentivize moves to Israeli localities west of the Green Line