

Do Fair Housing Policies Help or Hinder?:

Evidence from Seattle

Meradee Tangvatcharapong *

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Abstract

In an effort to combat discrimination and reduce racial disparities in housing, several U.S. cities have imposed strict regulations on landlords. This paper asks whether these policies help minority citizens as intended, or inadvertently exacerbate racial disparities in housing. It does so in the context of Seattle, which imposed a ban on background checks, a cap on fees, and a “First in Line” policy that mandates landlords give an apartment to the first eligible applicant. To identify effects, I compare outcomes of black and white Seattle residents before and after the policies. In a parallel approach, I also compare black residents of the city and the surrounding areas before and after the policies. Results from both analyses indicate the policies had no effect on either the likelihood of renting or on total spending on housing.

*Meradee Tangvatcharapong is a PhD Candidate at Texas A&M University. Email: meradee.tang@tamu.edu

1 Introduction

Stable and quality housing is an important foundation for one's quality of life. Homelessness and eviction lead individuals to commit more crimes (Cronley, Jeong, Davis, and Madden, 2015; Alm and Bäckman, 2020) and living in disadvantaged neighborhoods has both short and long term effects on children outcomes (Chetty, Hendren, and Katz, 2016; Chyn, 2018; Kling, Ludwig, and Katz, 2005; Ludwig, Duncan, and Hirschfield, 2001). Unfortunately, currently in the US, not everyone has the same access to stable and quality housing.

According to a report published by the Urban Institute (Turner, 2013), housing circumstances for white and minority citizens in America still differ substantially. Minorities are still on average provided with fewer options for both renting and for-sale properties. For example, black renters are on average told of 11.4 percent fewer and shown 4.2 percent fewer available units by agents than white renters of similar profile. This narrower pool of options does not only increase the searching costs for minorities but could also result in lower-quality housing and higher housing spending. This, as mentioned above, could, in turn, have a negative impact in the long run.

Additionally, another group of the population that has difficulty accessing stable housing is formerly incarcerated people. Prison Policy Initiative (Couloute, 2018) reports that formerly incarcerated people are almost 10 times more likely to be homeless than the general population. The lack of affordable housing, strict criminal history screening by landlords, and housing application requirements such as exorbitant security deposit, are examples of barriers that make it hard for individuals with a record to find stable housing. This inaccessibility of stable housing for formerly incarcerated individuals is also especially concerning as reentry housing programs are not available in every jurisdiction. Studies have shown that those who reenter society without housing assistance are at higher risk of homelessness and subsequently committing new crimes and ending up in prison again (Lutze, Rosky, and Hamilton, 2014; Kirk, Barnes, Hyatt, and Kearley, 2018). Furthermore, housing insecurity among former prisoners also contributes to racial disparities in housing since black adults are disproportionately more likely to have criminal

records than white adults.¹

In an effort to reduce racial disparities in housing, as well as help ex-prisoners gain access to stable housing, policymakers have started adopting several fair housing measures. For example, in the past few years, several cities have adopted some form of ‘Ban the Box’ law which restricts landlords from inquiring rental applicants about their criminal history. Specifically, Detroit, Chicago, and Minneapolis now prohibit landlords from asking about criminal history in the initial stage of the application. And Seattle and Oakland have banned landlords from conducting background checks altogether. Additionally, Seattle has also imposed a cap on move-in fees and passed a law that prohibits unfair screening of tenants by mandating that landlords rent out to the first qualified applicants.

However, although these fair housing policies are well intended, it is not clear that they would actually be effective. In fact, these policies might actually worsen the condition for minority renters. For example, a study by the University of Washington (Crowder, 2018) reported that 40% of landlords have sold or plan to sell property in response to the Seattle ordinances governing the housing market. A tightening housing market would disproportionately hurt minority tenants, who on average have relatively few economic resources. In addition, while removing the question about criminal history from the (initial) process might look like it will help applicants with records and black applicants, the lack of information could also inadvertently force landlords to rely on statistical discrimination based on other characteristics including race. Indeed, evidence shows that that is exactly what happened when the ‘Ban the Box’ policy was implemented on job applications. Agan and Starr (2018) studied the effect of the ‘Ban the Box’ policy that restricts employers from asking about criminal history on job applications and found that the policy increased the black-white gaps in callbacks. Doleac and Hansen (2020) found that doing so negatively impacted the likelihood of being employed for young low-skilled black men. This paper thus aims to be the first to study the causal impact of these fair housing policies. Specifically, I ask whether the policies actually improve or worsen racial disparities in housing.

¹Pew Research Center (Gramlich, 2018) reported recently that although blacks represented only 12% of the U.S. adult population, they represent 33% of the sentenced prison population.

To do so, I focus my analysis on Seattle as the restrictions that Seattle posts on landlords is the strictest in the country. Specifically, Seattle's fair housing policies came in the form of 3 ordinances. The First-in-Time Ordinance, which requires landlords to lease to the first qualified applicants, was passed in 2016 and went into effect in 2017. The Move-In Fees Ordinance, which limits security deposits and non-refundable fees to one month's rent, was also passed in 2016 and went into effect in 2017. And lastly, the Fair Chance Housing Ordinance, which completely prohibits landlords from conducting background checks, was passed in 2017 and went into effect in 2018. As these Seattle fair housing policies are quite extreme, estimating their impacts would give us the idea of the upper-bound effects of fair housing policies.

To identify the effects of Seattle's fair housing laws, I use individual-level housing data from the 2005-2019 American Community Surveys (ACS) with a difference-in-differences approach. Specifically, I do this in two ways. First, I compare housing outcomes of black citizens in and outside of Seattle before and after the fair housing policies went into effect. Second, I compare the housing outcomes of black and white citizens in Seattle before and after the laws. The benefit of using the difference-in-differences approach is that it allows me to disentangle the effect of the laws from other time-varying and group-specific factors. Importantly, the identification assumption behind the first approach is that the housing outcomes of black citizens in and outside of Seattle would have changed in the same way in the absence of the laws. Likewise, the identification assumption behind the second approach is that, in the absence of the fair housing laws, the housing outcomes of black and white citizens in Seattle would have changed in the same way, i.e. no change in the racial gaps.

Results from both approaches indicate that there have been minimal effects of these fair housing laws so far. The results from neither approach show robust significant effects on the likelihood of renting. Importantly, lower bound estimates from the first approach allow me to rule out negative effects larger than 2.4 percentage points on black citizens' likelihood of renting. However, it could also be the case that the laws did not change housing decisions on the extensive margin but do so on the intensive margin. For example, because of financial constraints, it is unlikely that buying a

house would be a solution for renters who are not able to rent easily. They are more likely to end up in lower-quality housing or having to pay more on rent. To examine the effects of the laws on the intensive margin, I look at two outcomes— housing spending and commute time. Results here also indicate no significant effects on either outcome.

In addressing the effects of fair housing policies, this paper contributes to the literature in several ways. First, this paper is the first to study the causal effects of fair housing policy on housing outcomes. Second, this paper contributes to the broader literature on statistical discrimination (e.g., Autor and Scarborough (2008); Wozniak (2015)), which has mostly focused on the labor market context. Third, the results here also speak to the literature on the impact of the ‘Ban the Box’ policies (Shoag and Veuger, 2016; Agan and Starr, 2018; Doleac and Hansen, 2020). The results of this paper also have important implications for policymakers. Although the fair housing policies are well-intended, results here suggest that the effects have been minimal so far on both the extensive and intensive margins.

2 Fair Housing Policies in Seattle

In April 2016, the US Department of Housing and Urban Development (HUD) issued guidance stating that, in order to comply with the Fair Housing Laws, landlords shall not employ a criminal background screening process that has a disparate impact on individuals of a particular race, national origin, or other protected class. For example, landlords shall not use a blanket statement regarding the criminal history or automatically deny an application from individuals who have a criminal record. This is because by doing so, it will make it harder for African-Americans to find housing more than people of other races as African-Americans are disproportionately more likely to have a record (Gramlich, 2020).

In August 2016, to combat unfair and discriminatory screening practices by landlords, Seattle passed the First-in-Time ordinance, which requires landlords to lease to the first qualified applicants in order. In December of the same year, Seattle also passed the Move-In Fees

ordinance, which limits security deposits and non-refundable fees to one month's rent. Both of these ordinances went into effect in January 2017.

At the same time, the Washington State Attorney General in January 2017 took action to punish landlords, who they have found in an investigation to be violating the Fair Housing Laws. Examples of the violations include rejecting an application because of a criminal record without inquiring for further information and giving a blanket statement that an application of individuals with criminal records will be denied. The punishments include fines of \$5,000 or more and non-discrimination training.

Finally, in August of 2017, the city of Seattle took it one step further and passed the Fair Chance Housing Ordinance. This ordinance prohibits landlords in Seattle from conducting criminal background checks, asking about arrest or conviction records, or taking any adverse action based on criminal history. This ordinance is regarded by many as the most progressive in the country and went into effect in February 2018.

As landlords in Seattle started seeing real changes in terms of the laws that they have to follow in 2017, I define the post-period to start in 2017.

3 Empirical Method

To see whether Seattle's fair housing policies benefit or hurt black citizens, I first look directly at the impact of these laws on housing outcomes of black citizens living in Seattle in comparison to black citizens who live in Washington state but outside of Seattle. I do so using a difference-in-differences approach to compare housing outcomes of black citizens in and outside of Seattle before and after these laws started going into effect in 2017. The advantage of this approach is that it allows me to distinguish the effect of the laws from other common time-varying factors, as well as group-specific factors. Formally, I estimate the impact of this ban on the probability of renting by black populations, in comparison to white populations, using the following model:

$$Housing\ Outcome_{it} = \alpha_t + \theta SEA_i + \beta_x X_i + \beta (SEA \times post)_{it} + u_{it} \quad (1)$$

Where the outcome, $Housing\ outcome_{it}$ is the housing outcome of individual i from survey year t . α_t is a matrix of survey year fixed effects. SEA_i is a binary variable indicating whether individual i lives in Seattle. X_{it} is a matrix containing individual i 's characteristics including marital status, education, income, the number of children and females in their household. $SEA \times post_{it}$ indicates whether individual i lives in Seattle and is in the post-period, which starts in 2017. Importantly, the coefficient of interest here is β , which measures the impact of the laws on housing outcomes.

Alternatively, I also examine whether these fair housing laws have improved or worsened housing outcomes for black citizens in comparison to their white counterparts. To do so, I use a difference-in-differences approach to compare housing outcomes of black and white citizens in Seattle before and after 2017. Again, the advantage of this approach is that it allows me to distinguish the effect of this ban from other common time-varying factors, as well as group-specific factors. Formally, I estimate the impact of these laws on housing outcomes of black citizens, in comparison to white citizens, using the following model:

$$Housing\ Outcome_{it} = \alpha_t + \theta black_i + \beta_x X_i + \beta (black \times post)_{it} + u_{it} \quad (2)$$

Where the outcome, $Housing\ Outcome_{it}$ is housing outcome of individual i from survey year t . α_t is a matrix of survey year fixed effects. $black_i$ is a binary variable indicating whether individual i is black. X_{it} is a matrix containing individual i 's characteristics including marital status, education, income, the number of children and females in their household. $black \times post_{it}$ indicates whether individual i is black and is in the post-period, which starts in 2017. Importantly, β is the coefficient of interest here. It measures the impact of the laws on housing outcome of black citizens in comparison to white citizens.

In all specifications, survey weights are used and the standard errors are clustered at the household level. I cluster the standard errors at the household level because individuals from the

same household are likely affected by the ban in the same way as they are likely treated the same way by potential landlords.

For both difference-in-differences approaches, the underlying assumption is that the housing outcomes of the two groups that I compare would have changed in a similar fashion in the absence of the ban on background checks. I provide support for this assumption by first looking at the raw data and showing that the housing outcomes of the two groups track each other well prior to the introduction of the ban in 2017. In addition, I also formally estimate whether there is a divergence in housing outcomes of the two groups prior to 2017 using a dynamic difference-in-differences approach.

Another potential concern with the second approach, which compares housing outcomes of black and white citizens, is that effects observed could be driven not by race itself, but by other characteristics that are associated with both race and criminal activities. For example, the ban might make it more difficult for black individuals to rent, not because landlords are discriminating against them for being black, but because they are more likely to have lower income and education and the landlords are using these two characteristics to statistically discriminate after 2017. To test this, I also include the interaction terms of characteristics and the indicator of being in the post-period ($characteristic \times post_{it}$) in one specification. The coefficients for these interaction terms would indicate whether the landlords have resorted to statistically discriminate on characteristics other than race after the fair housing laws were introduced. The coefficients of β in this specification would estimate the effects of the laws on the black-white racial gap sans the effects of other statistical discrimination induced in the post-period.

4 Data

To analyze the impact of the Seattle fair housing policies, I use individual-level characteristics and housing data from the American Community Surveys (ACS) from 2005 to 2019. The housing information recorded in the ACS includes the type of housing each survey responder resides in,

whether they are renting or owning the property, and how much they are spending on housing per month. Since these fair housing laws applied directly to landlords who are renting out their properties and possibly affected landlords' willingness to rent out their properties, the main outcome I focus on in this paper is thus whether individuals are renting. However, it could also be the case that the laws did not change housing decisions on the extensive margin but do so on the intensive margin. For example, because of financial constraints, it is unlikely that buying a home would be a solution for renters who are not able to rent easily. They are more likely to end up in lower-quality housing or having to pay more on rent. To examine the effects of the laws on the intensive margin, I look at two outcomes— housing spending and commute time. Housing spending includes rent and utilities for renters and mortgage payments, utilities, real estate taxes, and insurances for homeowners. And commute time is used here as a proxy for housing quality.

In this paper, I focus my analysis on black and white populations in Washington state, in particular those who live in Seattle where these fair housing policies were implemented. This focus on the black population is due to the reality that they are the most likely to face unfair screenings and thus be affected by this ban.² In addition to black populations, I only include white populations in the main analysis so that the interpretation of the results is more straightforward.

Table 1 reports the summary statistics. In Seattle black citizens are more likely to rent (62%) than white citizens (44%), and less likely to own a home (black citizens' 33% to white citizens' 51%). Black citizens in Seattle are also more likely to rent (62%) than black citizens who live outside of Seattle (54%). On average, black citizens in Seattle spend approximately \$1,400 per month on housing while white citizens spend almost 30 percent more at around \$1,800 per month. On average, there is not difference in terms of commute time for black and white citizens in Seattle. The commute time for both is just short of 30 minutes.

²Shannon et al. (2017) estimated that approximately 8% of American adults in 2010 have a felony conviction, whereas the number is 23% for black Americans and 33% for black American males.

5 Results

5.1 Results from Approach 1: Comparing Housing Outcomes of Black Citizens in and outside of Seattle

Since these Seattle's fair housing laws applied directly to the renting market, I begin the analysis by estimating the effects of these laws on the likelihood of renting. First, I look at the raw data of the likelihood of renting over time. Figure 1 shows the likelihood of renting for black citizens who live in and outside of Seattle over the years. Based on Figure 1, although the likelihoods of renting among black citizens in and outside of Seattle do not track each other perfectly in the earlier years, they track each other well from 2012 on. Additionally, Figure 1 also shows that there are minimal effects of the fair housing laws post 2017.

To assess the parallel trends assumption more rigorously, I estimate a dynamic difference-in-differences model, controlling for year fixed effects, group fixed effects, and observable characteristics. This is to check if the probabilities of renting among black citizens in Seattle and outside of Seattle diverge in any year before 2017 when the fair housing policies went into effect. Figure 2 plots the estimates from this dynamic difference-in-difference exercise and shows little evidence of divergence in trends before 2017.

Next, I formally estimate the treatment effects of Seattle's fair housing policies on black citizens' likelihood of renting and report the result in Table 2. Column 1 shows the average treatment effects of these laws on the likelihood of renting using the simplest difference-in-differences specification, without any controls. The estimate reported in Column 1 indicates insignificant effects of the laws on the black citizens' probability of renting, overall and for both genders. Column 2 reports the estimates from the preferred specification, shown in equation 1, which also controls for observable characteristics. The estimate from this specification also indicates insignificant effects of the laws on the likelihood of renting among black citizens. Importantly, the lower bound estimate from Column 2 also allows me to rule out negative effects larger than 2.4 percentage points. Column 3 reports the estimate from the

specification in which I also allow characteristics to affect outcomes differently in the post period. This estimate also indicates insignificant effects on renting. Columns 4-6 show the estimated effects on black males and Columns 7-9 show the estimates on black females, in the same specification order as Columns 1-3.³ Although, the estimates reported in Columns 8-9 indicate significant and positive effects on renting for black females in Seattle, the underlying data shown in Figure A1 is not very compelling.

Although we do not observe significant effects on the extensive margin in terms of renting, it is possible that the laws have an impact on the intensive margin. To examine the effects on the intensive margin, I look at two outcomes– housing spending and commute time. Figure 3 plots housing spending of black citizens in Seattle and outside of Seattle over time and Table 3 reports the formal estimates of the treatment effects on housing spending.⁴ Although results from Table 3 indicate a marginally significant increase of \$95 per month, the underlying raw data depicted in Figure 3 is not very compelling. Relatedly, Figure 4 plots the raw data for commute time, and Table 4 reports the estimated effects on commute time.⁵ Evidence from both Figure 4 and Table 4 also indicates no effects of the laws on commute time.

All in all, the results here suggest that Seattle’s fair housing laws have had minimal effects on renters both on the extensive and intensive margins.

5.2 Results from Approach 2: Comparing Housing Outcomes of Black and White Citizens in Seattle

Next, I look at the results from the second difference-in-differences approach where I compare housing outcomes of black and white citizens in Seattle over time. The results here should indicate whether these Seattle’s fair housing laws have an impact on racial disparities in housing. Again,

³The underlying plots of the raw data by gender are shown in Figure A1. The dynamic difference-in-differences results for each gender are shown in Figure A2.

⁴The underlying plots of the raw data by gender are shown in Figure A3. The dynamic difference-in-differences results for each gender are shown in Figure A4.

⁵The underlying plots of the raw data by gender are shown in Figure A5. The dynamic difference-in-differences results for each gender are shown in Figure A6.

I start by looking at the effects of these laws on the likelihood of renting. Figure 5 plots the likelihood of renting for black and white citizens in Seattle over time. Based on Figure 5, we can see that the likelihood of renting for black and white citizens track each other fairly well prior to 2017. It is also clear from the Figure that, prior to 2017, black citizens are more likely to rent than white citizens by approximately 15-20 percentage points. That gap in the probability of renting between black and white citizens slightly narrows in 2017 before widened again in 2018 and 2019.

As with the prior identification strategy, I also employ a dynamic difference-in-difference model to more rigorously test whether the black and white citizens diverge in any year prior to 2017. Figure 6 shows the estimates from this dynamic difference-in-differences exercise and reaffirms that there is no divergence in trends before 2017.

Next, I formally estimate the average treatment effects on racial disparities in the likelihood of renting and report the result in Table 6. Column 1 reports the treatment effect estimated from the simplest specification without any controls. Column 2 reports the effect estimated from the preferred specification, shown in Equation 2, which also include controls for observable characteristics. Column 3 reports the estimates from the specification that, in addition to characteristics controls, also allow characteristics to affect the likelihood of renting differently in the post period. Characteristics could affect housing outcomes differently in the post-period if the fair housing laws have caused landlords to resort to statistically discriminating based on characteristics other than race, or implement stricter rental requirements related to these characteristics. The estimate from this specification thus would inform us of whether black citizens are affected by the implementation of these laws differently than their white counterparts simply because they are black. The estimates from Columns 1-3 all indicate that the fair housing laws result in a statistically insignificant decrease in the likelihood of renting for black citizens.

Columns 4-6 report the estimates, in the same order of specifications, for males.⁶ Estimate from Column 5 indicates that the likelihood of renting decreases by 6.77 percentage points for black males in comparison to white males. However, Column 6 shows that the effect was cut

⁶The underlying plots of the raw data by gender are shown in Figure A7. The dynamic difference-in-differences results for each gender are shown in Figure A8.

by approximately 42 percent and loses its significance when allowing characteristics to affect the likelihood of renting differently in the post period. Columns 7-9 show the same results for females and report no significant effects on racial disparities in the likelihood of renting for females.

Finally, I also examine the effects on the intensive margin using the second difference-in-differences approach. Results for housing spending are shown in Figure 7 and Table 7 and results for commute time are shown in Figure 8 and Table 8.⁷ Similar to the first approach, results here provide little evidence of effects on housing spending. And while the estimates reported in Table 8 indicate that commute time significantly decreases by 2-3 minutes for black citizens, the underlying graphs shown in Figure 8 are not very compelling.

6 Conclusion

This paper studies the effects of Seattle's fair chance housing laws which were first implemented in 2017. Although one of the main purposes of these laws is to combat unfair screening practices, it is unclear that these laws would be effective. For example, in response to these laws, landlords could sell their rental properties and thus limit the supply, impose stricter rental requirements, and rely more on statistically discriminatory practices. All of these would disproportionately negatively affect black citizens.

Using individual-level characteristics and housing data from the 2005-2019 American Community Surveys (ACS) with two difference-in-differences approaches, I find that Seattle's fair housing laws have minimal impact on housing outcomes of black citizens, both on the extensive and intensive margins. Specifically, there is little evidence that the laws affect the probability of renting, housing spending, and housing quality as proxied by commute time. Importantly, lower bound estimates allow me to rule out negative effects larger than 2.4 percentage points on the likelihood of renting.

By examining the effects of Seattle's fair housing policies on black citizens, this paper

⁷The underlying plots of the raw data by gender are shown in Figures A9 and A11. The dynamic difference-in-differences results for each gender are shown in Figures A10 and A12.

contributes to the broader literature on statistical discrimination (e.g., Autor and Scarborough, 2008; Wozniak, 2015), which has mostly focused on the labor market context. The results here also speak to the literature on the impact of the ‘Ban the Box’ policies (Shoag and Veuger, 2016; Agan and Starr, 2018; Doleac and Hansen, 2020). Compared to the findings in Agan and Starr (2018) and Doleac and Hansen (2020), the results of this study seem to suggest that the unintended consequences of the ‘ban the box’ policy in the housing market seem to be somewhat more contained than those of the ‘ban the box’ policy in the labor market. Additionally, the results of this paper also have important implications for policymakers. As the results here suggest that imposing a cap on move-in fees, banning background checks, and requiring landlords to lease to the first qualified applicants have had minimal effects so far, it might be beneficial for policymakers to explore a new set of policies.

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7 Figures

Figure 1: Likelihood of renting among black citizens in and outside of Seattle

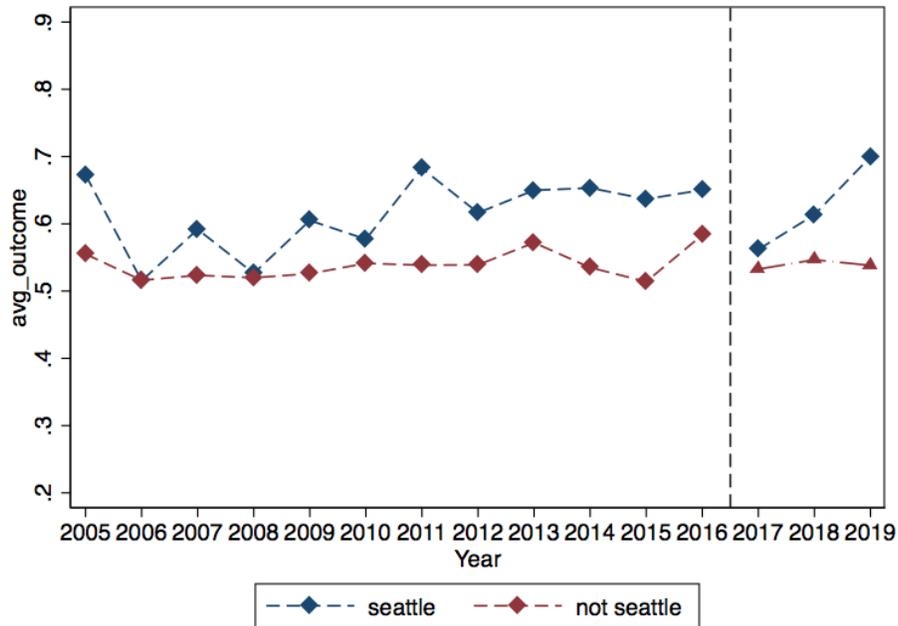


Figure 2: Dynamic difference-in-differences for the likelihood of renting
Comparing black citizens in Seattle to black citizens outside of Seattle

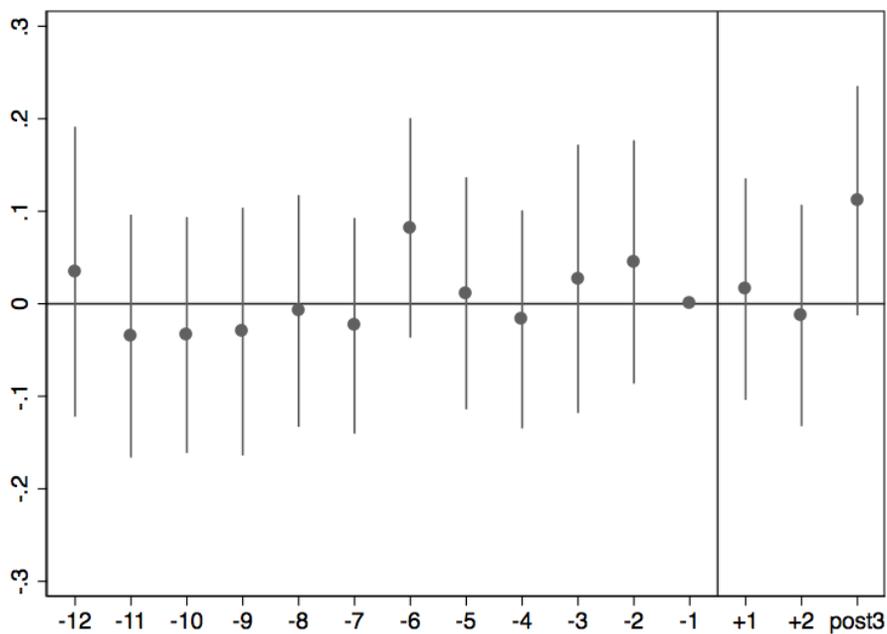


Figure 3: Housing spending by black citizens in and outside of Seattle

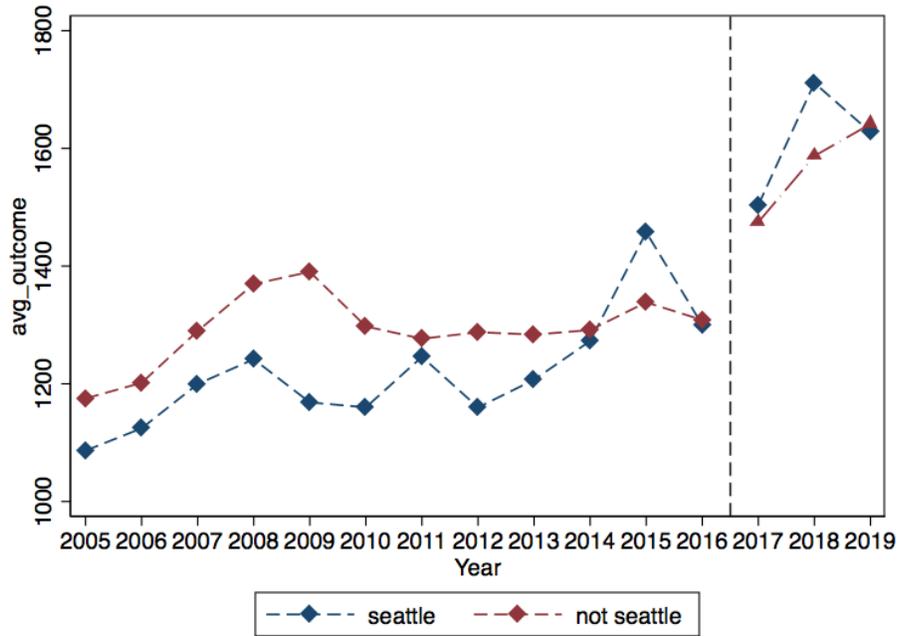


Figure 4: Commute time of black citizens in and outside of Seattle

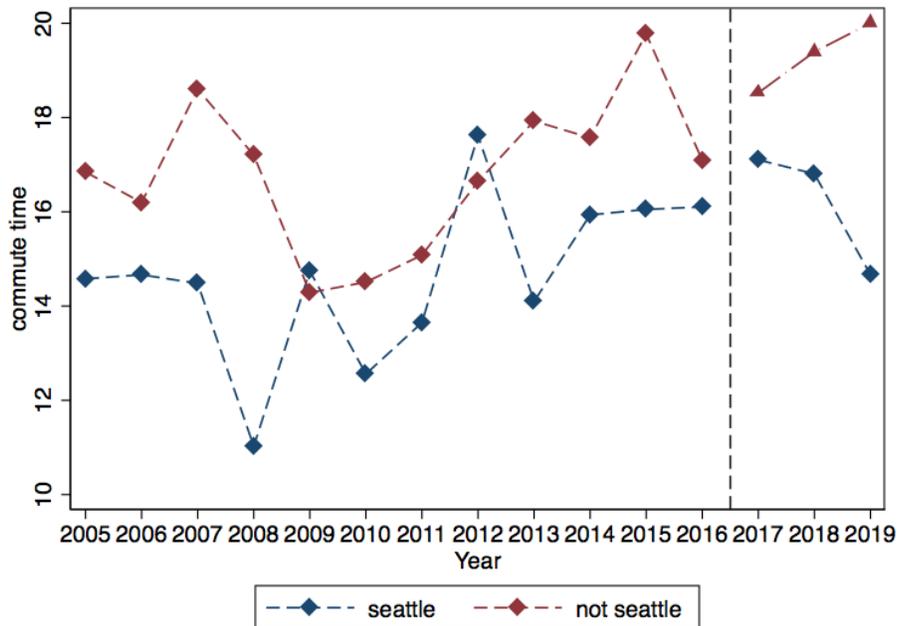


Figure 5: Likelihood of renting among black and white citizens in Seattle

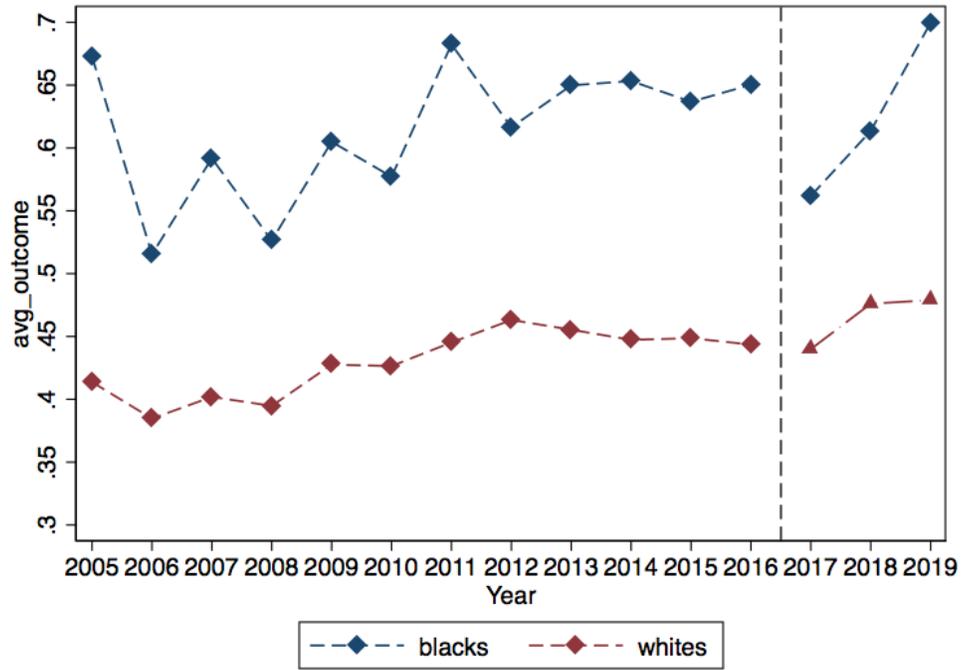


Figure 6: Dynamic difference-in-differences for the likelihood of renting
Comparing black to white citizens Seattle

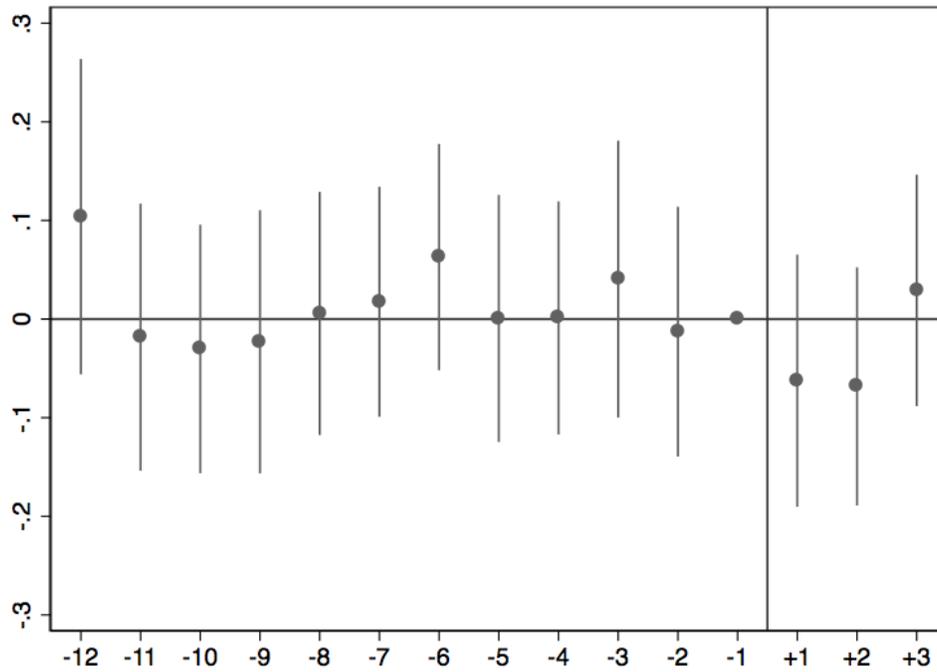


Figure 7: Housing spending by black and white citizens in Seattle

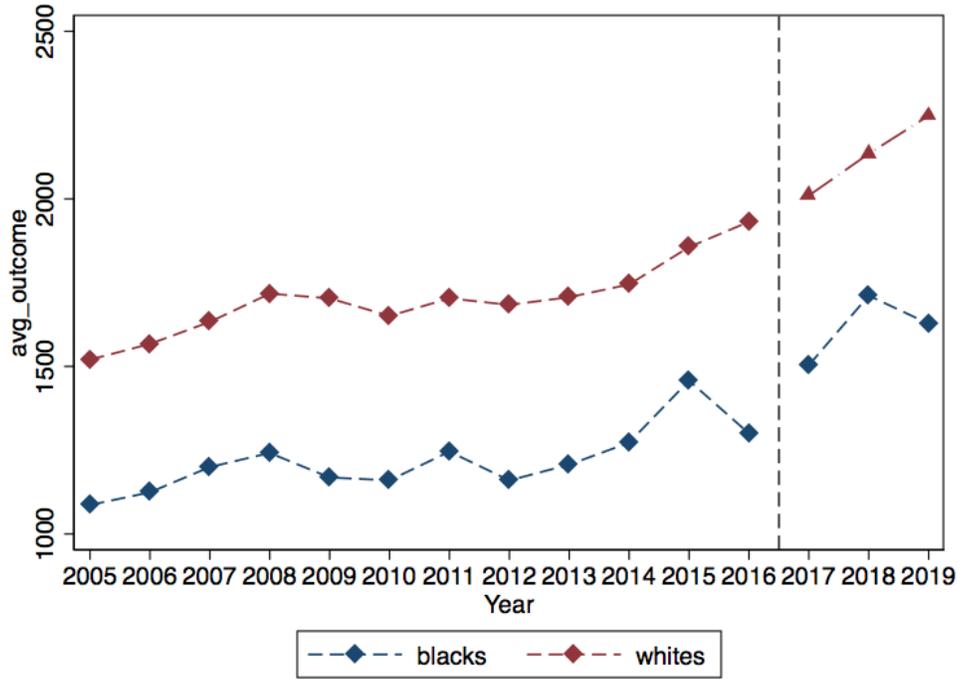
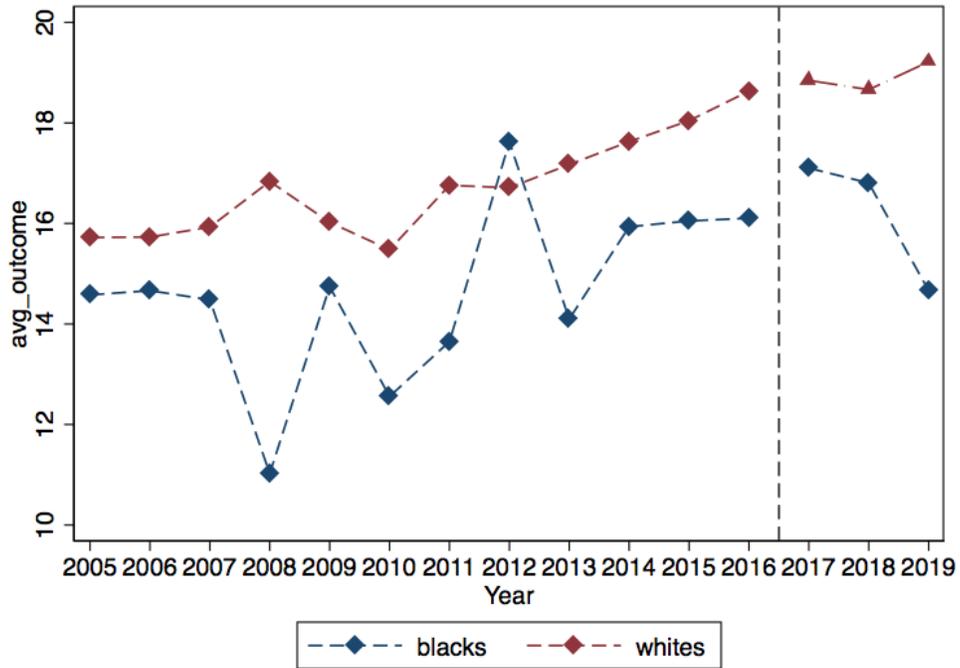


Figure 8: Commute time of black and white citizens in Seattle



8 Tables

Table 1: Summary Statistics

	Seattle-All		Seattle black citizens		Seattle white citizens		WA not Seattle black citizens		WA not Seattle white citizens	
	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd
renting	0.46	(0.50)	0.62	(0.49)	0.44	(0.50)	0.54	(0.50)	0.27	(0.45)
owning	0.49	(0.50)	0.31	(0.46)	0.51	(0.50)	0.40	(0.49)	0.69	(0.46)
housing spending	1809.31	(1165.62)	1409.71	(909.92)	1885.81	(1193.41)	1460.12	(819.39)	1404.30	(929.41)
commute time	26.49	(18.47)	27.13	(20.75)	26.32	(18.23)	29.06	(23.71)	26.52	(23.01)
college degree	0.55	(0.50)	0.24	(0.43)	0.61	(0.49)	0.19	(0.39)	0.27	(0.45)
married	0.41	(0.49)	0.28	(0.45)	0.42	(0.49)	0.38	(0.49)	0.55	(0.50)
below poverty line	0.12	(0.33)	0.24	(0.42)	0.10	(0.30)	0.18	(0.38)	0.10	(0.30)
Observations	70611		4491		54481		21446		639413	

Table 2: Effects on the likelihood of renting
 Difference-in-differences approach comparing black citizens in Seattle and outside of Seattle

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	all	all	all	male	male	male	female	female	female
SEA x Post	0.0106 (0.0323)	0.0348 (0.0300)	0.0343 (0.0301)	-0.0181 (0.0393)	0.0004 (0.0354)	0.0000 (0.0357)	0.0432 (0.0385)	0.0793** (0.0356)	0.0756** (0.0359)
Controls		Yes	Yes		Yes	Yes		Yes	Yes
Controls X Post			Yes			Yes			Yes
N	25937	22617	22617	14029	11800	11800	11908	10817	10817

Standard errors in parentheses

* p_i0.10, ** p_i0.05, *** p_i0.010

Table 3: Effects on housing spending (per month)
 Difference-in-differences approach comparing black citizens in Seattle and outside of Seattle

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	all	all	all	male	male	male	female	female	female
SEA x Post	133.8572** (64.4003)	94.6516* (55.3587)	92.0031* (54.7992)	176.3854** (88.4989)	124.3851* (70.5499)	110.3780 (69.0593)	84.5245 (68.7878)	52.7179 (61.8523)	64.0963 (61.4275)
Controls		Yes	Yes		Yes	Yes		Yes	Yes
Controls X Post			Yes			Yes			Yes
N	22567	22379	22379	11752	11678	11678	10815	10701	10701

Standard errors in parentheses

* p_i0.10, ** p_i0.05, *** p_i0.010

Table 4: Effects on commute time
 Difference-in-differences approach comparing black citizens in Seattle and outside of Seattle

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	all	all	all	male	male	male	female	female	female
SEA x Post	-1.7192 (1.3023)	-1.9086 (1.3057)	-2.0627 (1.3637)	-2.3849 (1.7455)	-2.4298 (1.7526)	-2.5261 (1.8391)	-0.8282 (1.8523)	-1.0966 (1.8550)	-1.2896 (1.9343)
Controls		Yes	Yes		Yes	Yes		Yes	Yes
Controls X Post			Yes			Yes			Yes
N	14409	13834	13834	8054	7689	7689	6355	6145	6145

Standard errors in parentheses

* p_i0.10, ** p_i0.05, *** p_i0.010

Table 5: Effects on the likelihood of renting
Difference-in-differences approach comparing black citizens to white citizens in Seattle

	(1) all	(2) all	(3) all	(4) male	(5) male	(6) male	(7) female	(8) female	(9) female
Black x Post	-0.0241 (0.0303)	-0.0444 (0.0288)	-0.0119 (0.0291)	-0.0332 (0.0366)	-0.0677** (0.0332)	-0.0389 (0.0331)	-0.0148 (0.0360)	-0.0195 (0.0343)	0.0148 (0.0351)
Controls		Yes	Yes		Yes	Yes		Yes	Yes
Controls X Post			Yes			Yes			Yes
N	58426	53968	53968	28865	26597	26597	29561	27371	27371

Standard errors in parentheses

* p_i0.10, ** p_i0.05, *** p_i0.010

Table 6: Effects on housing spending (per month)
Difference-in-differences approach comparing black citizens to white citizens Seattle

	(1) all	(2) all	(3) all	(4) male	(5) male	(6) male	(7) female	(8) female	(9) female
Black x Post	-8.2432 (62.6286)	87.0921 (53.7352)	60.4728 (54.9525)	3.3703 (86.2432)	100.0799 (68.5355)	79.1359 (70.5353)	-19.4176 (65.7420)	74.0726 (59.7871)	41.0610 (61.1198)
Controls		Yes	Yes		Yes	Yes		Yes	Yes
Controls X Post			Yes			Yes			Yes
N	53729	53458	53458	26477	26331	26331	27252	27127	27127

Standard errors in parentheses

* p_i0.10, ** p_i0.05, *** p_i0.010

Table 7: Effects on commute time
Difference-in-differences approach comparing black citizens to white citizens Seattle

	(1) all	(2) all	(3) all	(4) male	(5) male	(6) male	(7) female	(8) female	(9) female
Black x Post	-3.4865*** (1.1589)	-3.2358*** (1.1683)	-2.8683** (1.1872)	-4.0836*** (1.5608)	-3.5811** (1.5720)	-3.2005** (1.6055)	-2.8508* (1.6507)	-2.9820* (1.6581)	-2.5413 (1.6628)
Controls		Yes	Yes		Yes	Yes		Yes	Yes
Controls x Post			Yes			Yes			Yes
N	36215	35476	35476	18953	18606	18606	17262	16870	16870

Standard errors in parentheses

* p_i0.10, ** p_i0.05, *** p_i0.010

9 Appendix

Figure A1: Likelihood of renting among black citizens in and outside of Seattle

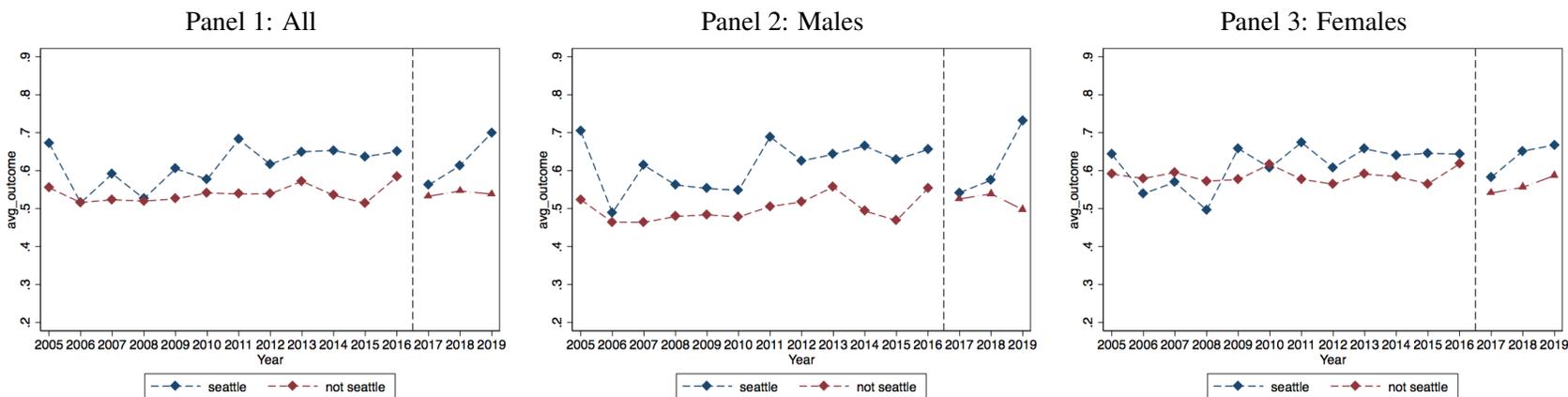


Figure A2: Dynamic difference-in-differences for the likelihood of renting
Comparing black citizens in Seattle to black citizens outside of Seattle

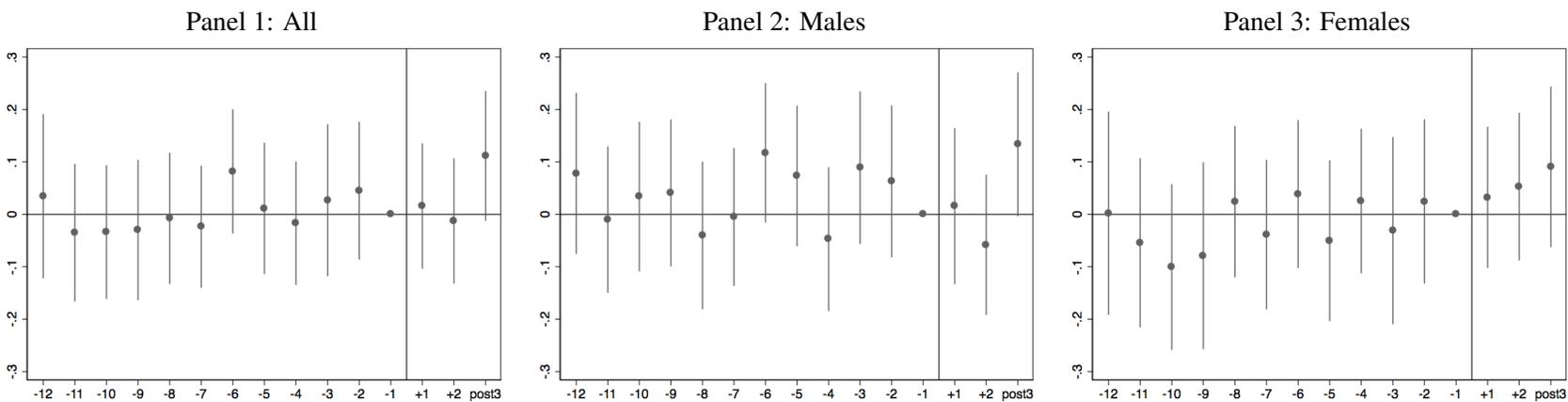


Figure A3: Housing spending by black citizens in and outside of Seattle

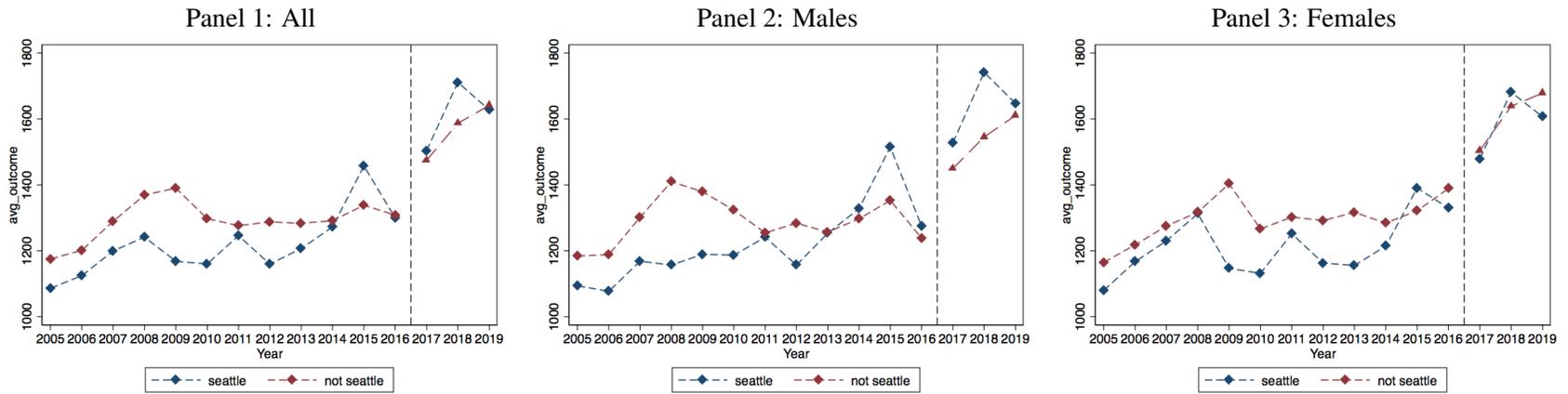


Figure A4: Dynamic difference-in-differences for housing spending
Comparing black citizens in Seattle to black citizens outside of Seattle

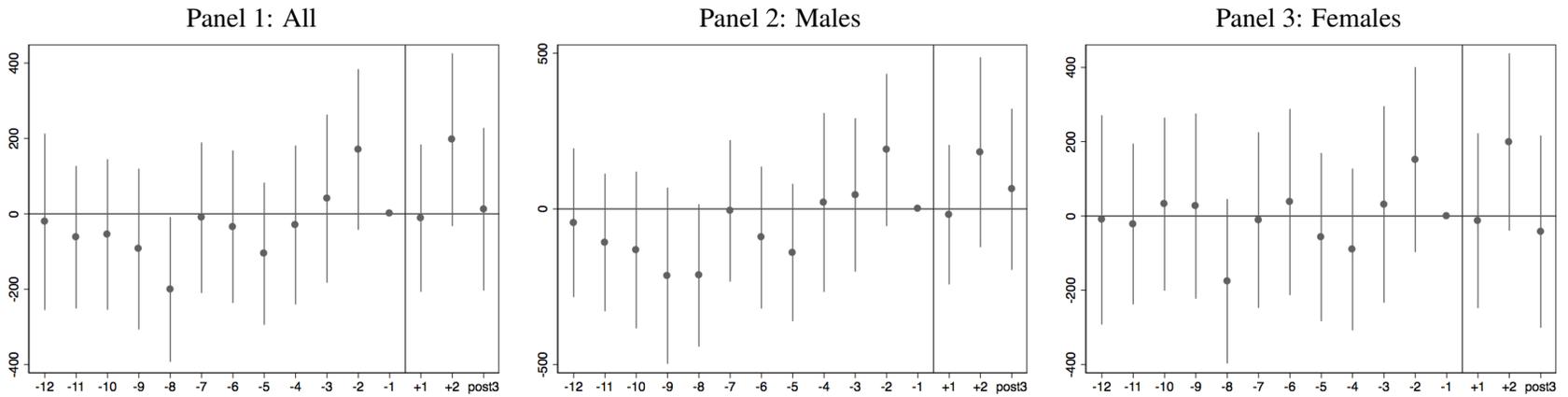


Figure A5: Commute time of black citizens in to black citizens outside of Seattle

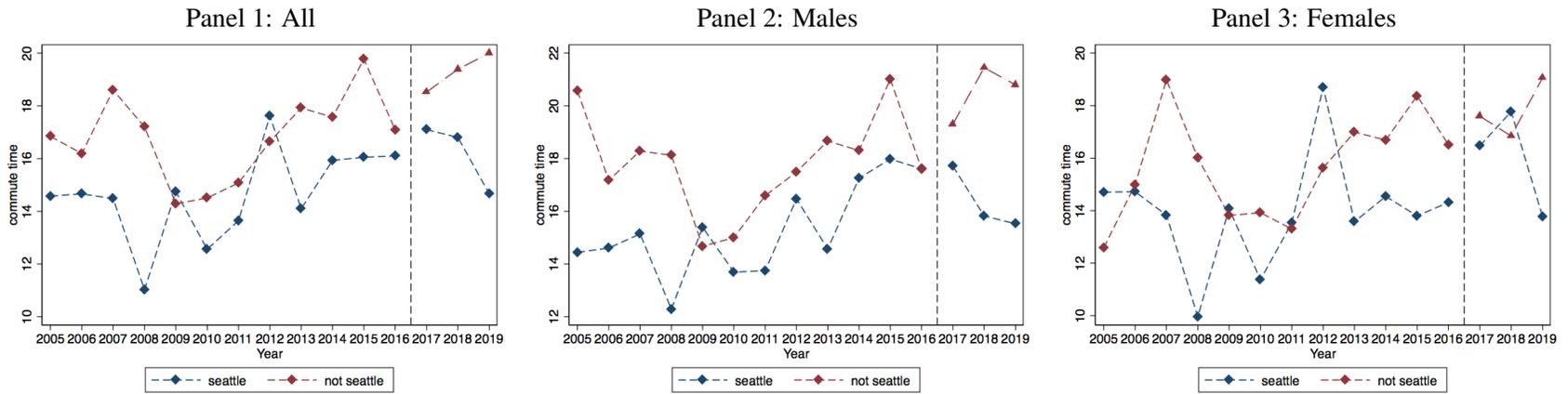


Figure A6: Dynamic difference-in-differences for commute time
Comparing black citizens in Seattle to black citizens outside of Seattle

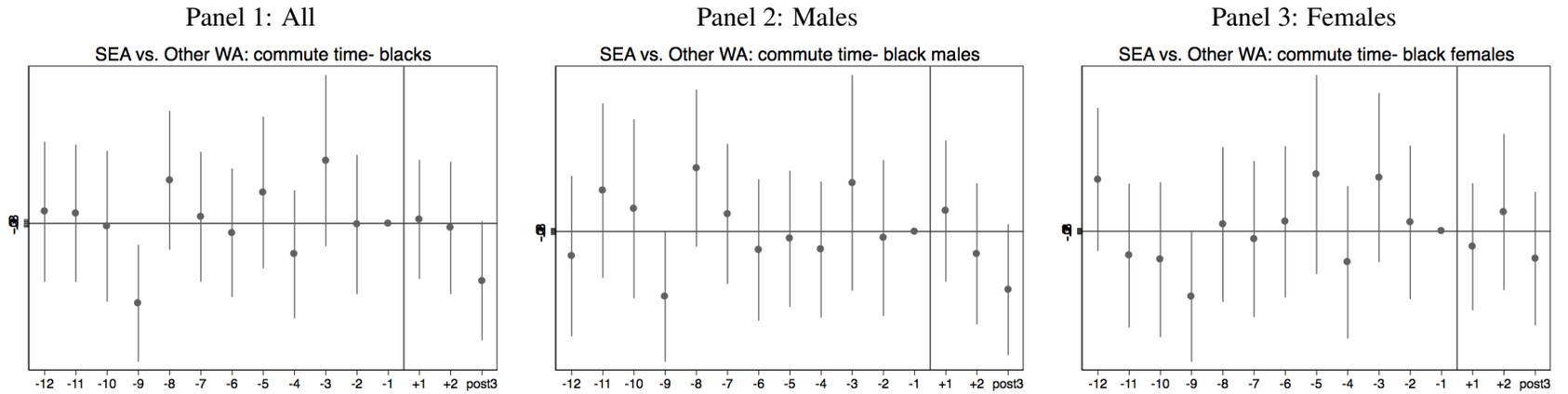


Figure A7: Likelihood of renting among black and white citizens in Seattle

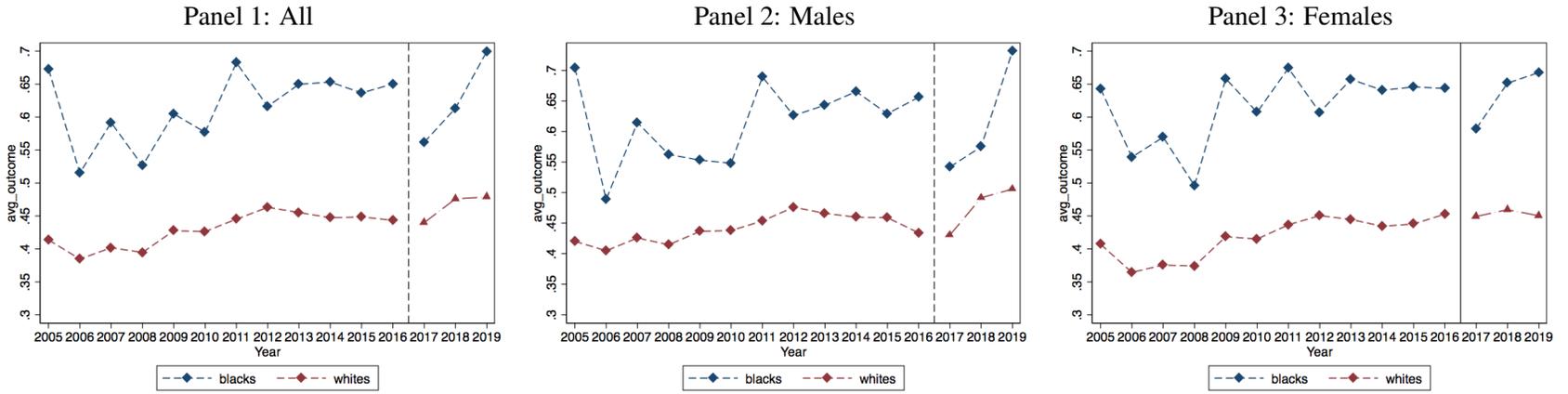


Figure A8: Dynamic difference-in-differences for the likelihood of renting
Comparing black to white citizens Seattle

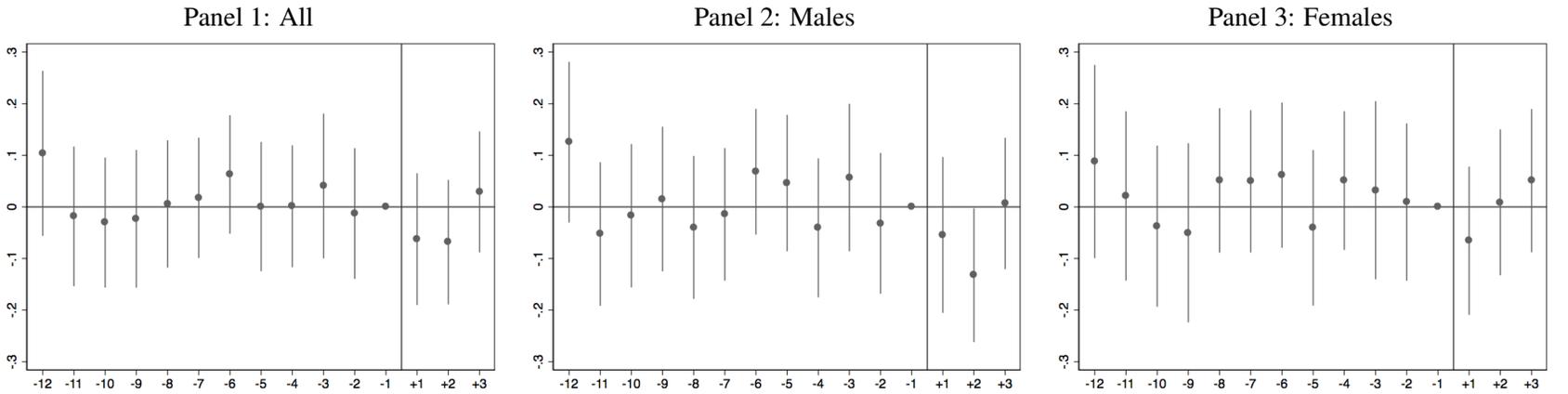


Figure A9: Housing spending by black and white citizens in Seattle

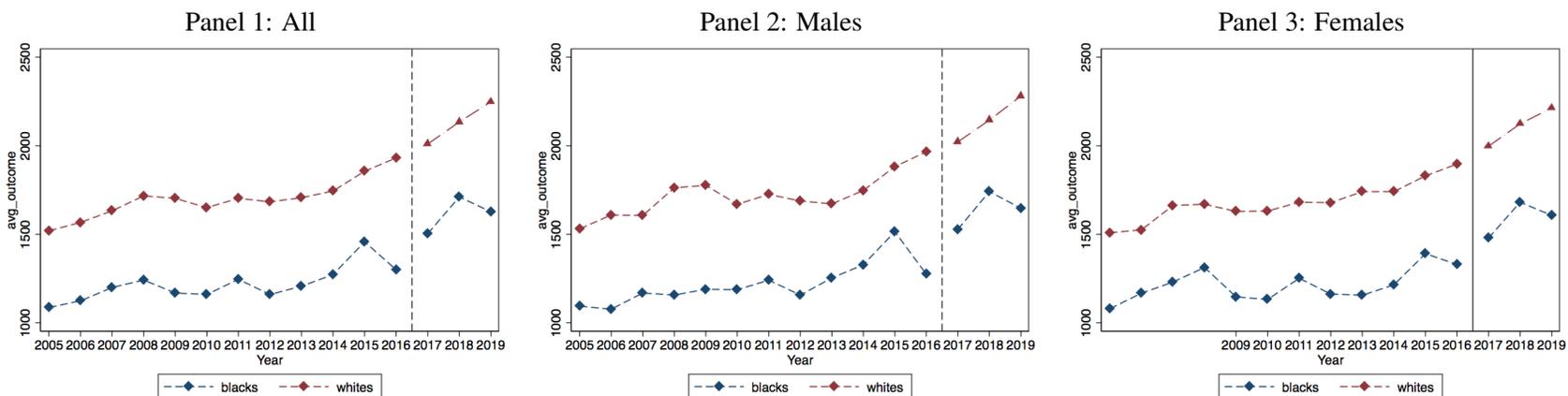


Figure A10: Dynamic difference-in-differences for the likelihood of housing spending
Comparing black citizens to white citizens in Seattle

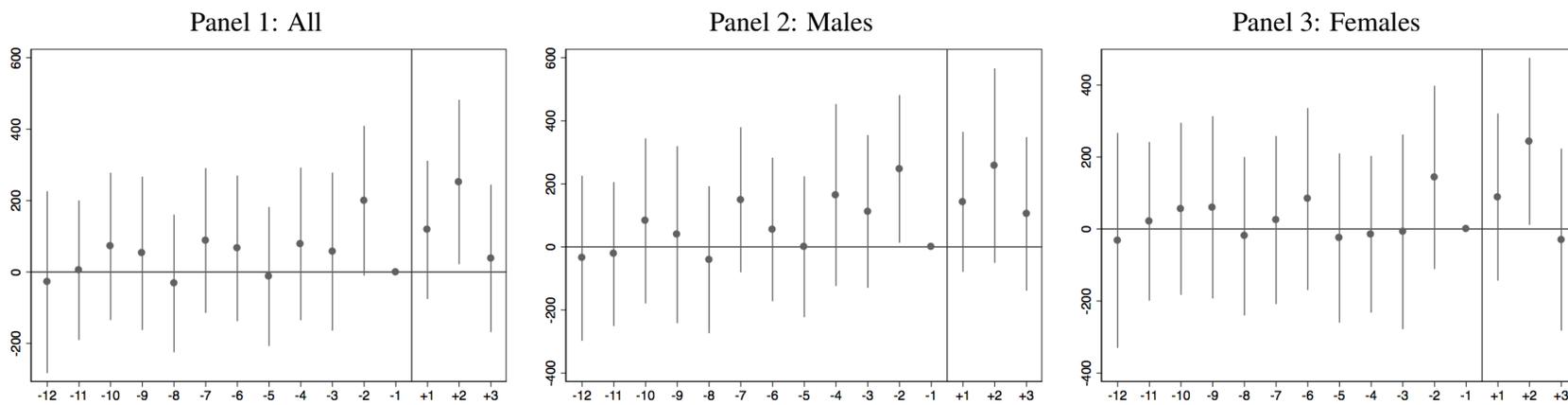


Figure A11: Commute time of black and white citizens in Seattle

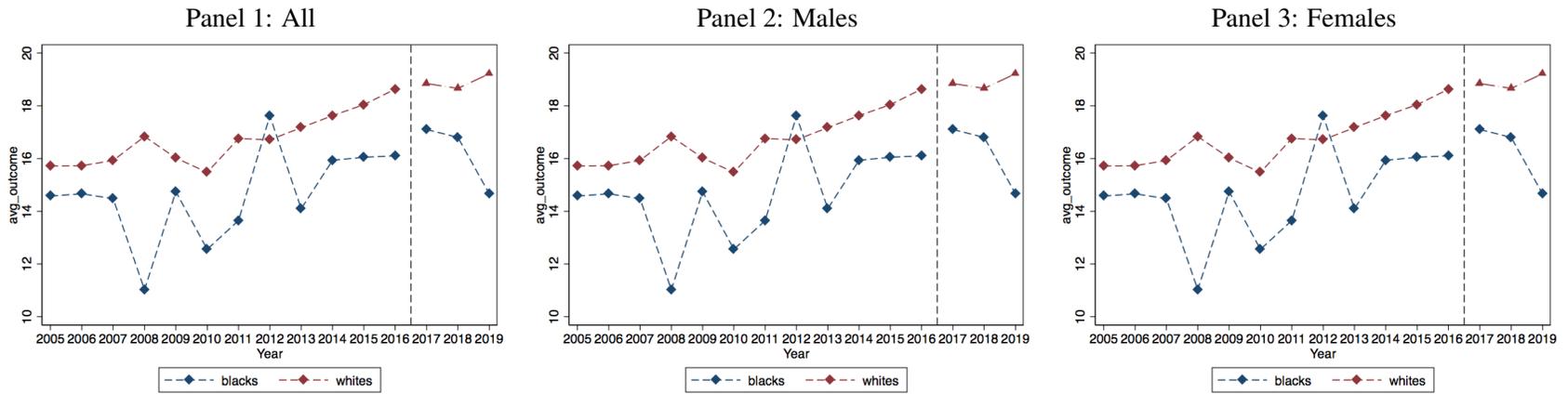


Figure A12: Dynamic difference-in-differences for commute time
Comparing black citizens to white citizens in Seattle

