



Research Report

Liquor License Premise Check Report

October 2024

LCB Research Program

The Research Program at the Washington State Liquor and Cannabis Board (LCB) is a non-partisan, transparent resource focused on public health and safety outcomes related to the products, policy, and regulation of alcohol, cannabis, tobacco, and vapor products.

Overview

Based on a request by LCB leadership and the Board, the Research Program conducted a preliminary analysis and report on the patterns and outcomes of in-person liquor¹ enforcement visits (referred to here as 'premise checks').

The request for analysis stemmed from public comments following premise checks at two liquor-licensed businesses that serve the LGBTQ+ community in the Capitol Hill district of Seattle in late January 2024. Earlier this year, the Research Program attempted to review premise checks associated with LGBTQ+ and minority-owned liquor-licensed businesses. However, LCB does not collect data indicating if a licensed business would fall into one of those categories. As such, LCB designed this report to maintain privacy and ensure:

- No information was obtained without consent from license holders;
- No assumptions were made about either the identity of a license holder or the customer population typically served; or
- Label a licensee who would rather not be identified as serving LGBTQ+ and other minority populations.

Therefore, the primary goal of this report was to better understand if liquor licenses holding primary privileges associated with nightlife (i.e., nightclub, tavern, lounge, and taproom) had a disproportionate number of premise checks and recorded non-compliance² if located in areas with a higher prevalence of LGBTQ+ businesses and ethnic-racial minority populations.

This report is a non-technical summary of findings. It does not comprehensively describe all results. This document does not represent an official position of LCB.

¹ We use the term 'liquor' to describe any alcoholic beverage (e.g., beer, wine, or spirits).

² The term 'recorded noncompliance' means a violation was observed during the premise check and an Administrative Violation Notice (AVN), Written Warning, or Verbal Warning was issued (i.e., recorded).

Key Collaborators

Several collaborators were instrumental in completing this project. Management Analyst Marc Siegfried led the data extraction process from the agency's Enforcement Notebook and was a key consultant on data collection methods. Captain Daniel Rehfield, Policy and External Affairs Director Justin Nordhorn, and former Liquor Manager Heidi Braley also consulted on several methodological decisions (e.g., defining premise checks, determining license types, and discussing whether enforcement regions were a reliable metric). Research Specialist Tyler Watson and Research Analyst Nick Glodosky and were involved in reviewing the analytic approach, editing report drafts, and providing consultation.

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Key Takeaways

This report examined if licenses associated with nightlife (e.g., taverns, nightclubs) and located in areas with greater either proportion LGBTQ+ friendly businesses or ethnic-racial minorities (1) had a disproportionate number of premise checks and (2) were at higher likelihood of enforcement officers reporting non-compliance during premise checks.³ To develop a more comprehensive understanding of risk factors associated with premise checks and non-compliance in Washington, this report examined over 15 variables across eight years associated with 115,000+ premise checks at more than 6,000 unique liquor (i.e., beer, wine, and spirits) license locations. Key takeaways include the following:

From 2016 to 2023, the number of premise checks with recorded non-compliance decreased. These findings highlight LCB's increased efforts to emphasize education before enforcement. On average, non-compliance was recorded in less than 5% of all premise checks.

The overall number of liquor licenses located in a county impacted trends.⁴ On average, licenses located in counties with more liquor businesses received fewer yearly premise checks. However, they were at higher risk of having non-compliance recorded during a premise check. Supplemental analyses found that counties with more liquor licenses had more complaint-related premise checks.

The unique circumstance of each premise check was related to outcomes. Licenses with more complaints received more premise checks. When a premise check was a result of a complaint investigation, the risk of recorded non-compliance increased. A license was at higher risk of documented non-compliance when the premise check had more officers, occurred on a weekday, and had a longer duration.⁵ Although Joint Enforcement Team (JET) participation was positively correlated with recorded non-compliance, this finding was no longer significant after accounting for other factors (e.g., duration, number of LCB officers).

County-level demographics influenced total number of checks and risk for recorded non-compliance. On average, licenses located in counties with lower median income received more premise checks and were at higher risk of recorded non-compliance when compared to licenses in counties with higher median income. Licenses located in counties with a higher proportion of Black individuals also received

³ The term 'recorded noncompliance' means a violation was observed during the premise check and an Administrative Violation Notice (AVN), Written Warning, or Verbal Warning was issued (i.e., recorded).

⁴ County-level liquor licenses refers to any on-premise or off-premise licenses. On-premise refers to licenses where customers consume alcohol on-site at the location (e.g., bars, restaurants). Off-premise refers to licenses that sell alcohol for customers to consume off-site (e.g., grocery stores).

⁵ Duration is associated with non-compliance likely because officers are on-site for a longer period of time when non-compliance is observed.

more annual premise checks. Supplemental analyses suggested that counties with a higher proportion of Black individuals were associated with fewer complaint-related premise checks.

Licenses located in Capitol Hill (used as a proxy location for higher prevalence LGBTQ+ businesses) were not significantly associated with increased checks or recorded non-compliance. In a supplemental analysis, there was no evidence suggesting licenses located in Capitol Hill received more complaints relative to licenses outside of Capitol Hill.

Supplemental analyses were largely consistent with main findings. Analyses including all liquor licenses (rather than only those associated with nightlife) had similar findings, suggesting these results may be relatively stable across liquor license types.

Data governance is important. There were several key variables (such as the region an officer is assigned to, employee vacancies, result of violation, type of complaint, etc.) that were unable to be included in analyses. Importantly, LCB has recently increased focus on improving data collection and governance across the agency. It is essential to improve data collection integrity to ensure more accurate, responsive, and reliable analyses in the future.

Conclusion. The original intent of this report was to examine minority-owned businesses. However, this data is not readily available to LCB. Obtaining consent prior to collecting license holders' demographics is important. Therefore, this report examined locations where licenses were located. The findings presented here are preliminary but robust in that that county-level demographics (median income, race, and number of liquor licenses), premise check information (duration, complaint-associated visits, number of officers, and JET participation), and year were simultaneously accounted for when examining outcomes. Variables used were the best available data.

This preliminary report demonstrates there are several dynamic factors that influence the total number of annual premise checks and recorded non-compliance when a premise check occurs. However, due to study limitations, the present findings should be interpreted with caution. Please see the full description of study limitations in the conclusions section of this report.

Introduction

On the weekend of January 26, 2024, LCB Enforcement officers joined members of the City of Seattle's Joint Enforcement Team (JET) as part of a monthly review of code enforcement in ten Seattle locations. Of those ten locations visited, two were known LGBTQ+ venues located in the historical LGBTQ+ Capitol Hill neighborhood. For the full statement about this event, please see [LCB Statement on Media Reports and Concerns from LGBTQ+ Community](#).

Following this event and public comment, LCB leadership including Board Chair David Postman, Board Member Jim Vollendroff, Agency Director Will Lukela, and Policy and External Affairs Director Justin Nordhorn asked the Research Program to independently examine if there were disproportionate enforcement actions for liquor licenses, particularly those associated with nightlife and who are members or part of communities with greater LGBTQ+ and ethnic-racial minority populations.

The Research Program agreed to conduct a preliminary independent analysis of data collected by LCB Enforcement staff for liquor premise checks associated with nightlife across time. Prior to and throughout conducting this analysis, the Research Program:

- Examined what information was already collected by LCB and whether data stored was in a reliable and accessible format;
- Determined what information was available outside of LCB;
- Consulted with subject matter experts on enforcement practices and data entry protocols;
- Attended internal and external partner meetings regarding the late January premise checks to better understand the present concerns;
- Reviewed literature on enforcement practices within LGBTQ+ and ethnic-racial minority communities;
- Met with leadership to confirm results would be an independent report by the Research Program; and
- Created appropriate timelines based on the urgency of the request and comprehensive nature of analysis.

Originally, this analysis attempted to examine minority-owned establishments. However, after being unable to readily obtain this information and recognizing the importance of gaining consent prior to developing such list, the Research Program pivoted to answer questions with the best data currently available. The focus was liquor licenses associated with nightlife (e.g., taverns, nightclubs). The two main research questions were:

- 1) What factors predict a license will receive more premise checks?
- 2) When a premise check occurs, what factors predict recorded non-compliance?

There were a range of factors included in each analysis, such as license location as a proxy for increased prevalence of LGBTQ+ businesses, ethnic-racial minority populations by county, JET participation, and associated complaints. Additional factors and details are described below.

Methods

Time Period. Analyses examined premise checks conducted from 2016 to 2023. The year 2016 was selected as the first year for analysis because records for licenses were not readily accessible prior to this year. Enforcement entry protocols in the Enforcement Notebook (EN)⁶ also varied prior to 2016. The year 2023 was the last year examined because it was the final full year of data prior to this report.

Primary Privilege for Licenses. Between 2016 and 2023, there were over 50 different primary privileges recorded for all licenses that served liquor (i.e., any alcoholic beverage like beer, wine, and spirits). These primary privileges were either on-premise (licenses where alcohol is consumed on site, such as restaurants and bars) and/or off-premise (licenses where alcohol is sold for use off-site, such as grocery stores).

Primary privileges differ extensively from one another and may also change across time (e.g., during the pandemic, some licenses changed privileges to remain open). The complexity of primary privileges makes it difficult to compare across all privileges at once or examine specific privileges one at a time. The primary purpose of this report was to examine premise checks for liquor licenses associated with nightlife. For simplicity, we considered nightlife to be any license that is in a higher risk category, such as age entry restrictions, limited food options, later hours of operation, and spirits privileges. The following primary privileges were included in the analysis:

- “Beer/wine rest - beer w/taproom”
- “Spirits/beer/wine rest lounge +”
- “Spirits/beer/wine rest lounge –”
- “Beer/wine rest - wine w/taproom”
- “Beer/wine rest-beer/wine w/taproom”
- “Tavern – beer”
- “Tavern – beer/wine”
- “Tavern – wine”
- “Nightclub”

To see a list of all primary privileges and their paired group, see **Supplement 1**.

Premise Checks. Liquor licenses were then paired with any premise check conducted at their licensed location between 2016 and 2023. A premise check was

⁶ The EN is the database where officers report each premise check conducted and the source of premise check data used in the present analyses.

operationally defined as any in-person enforcement visit for a liquor license coded as the following actions in the Enforcement Notebook (EN):

- “Liquor Premise Check”
- “Liquor Compliance Check-Sale”
- “Liquor Compliance Check-No Sale”
- “Curbside/Pick Up Compliance Check-Sale”
- “Curbside/Pick Up Compliance Check- No Sale”
- “Complaint Investigation”
- “Undercover Investigation”
- “Annual Inspection”
- “Closing Check”
- “LSI Check”

To be included in the analyses, the above premise checks needed to have at least one officer on-site. To see actions not considered premise checks that were excluded from analyses, see **Supplement 2**.

Please note: Although this report refers to these in-person and on-site visits as ‘*premise checks*’, the Research Program recognizes this term may be used in various ways within LCB and across communities.

For each premise check, the following information was gathered and analyzed:

- *Arrival Time*: Year, month, day, and hour recorded in the original report.
- *Duration*: Length of visit in minutes. Premise checks recorded above 120 minutes were considered an error in reporting and considered ‘missing data’ in analyses.
- *Trade Name*: Name of license.
- *Address*: Street address, city, county, and zip code.
- *Number of LCB Officers*: Value was created using a “COUNTIF” formula from the associated officer’s field in the original report as the count value.
- *License ID*: License number and UBI were both collected; however, license number was the primary identifying number used based on recommendations.
- *JET Participation*: ‘Yes’ or ‘No’ value. This was determined if the officer annotated in their notes that a visit was conducted in partnership with the JET team.
- *Complaint Investigation*: ‘Yes’ or ‘No’ value. This was determined if there was a complaint associated with the premise check. Note there are several types of complaint investigations that were unable to be accounted for this analysis given how data is currently collected in the EN.
- *Recorded Non-Compliance*: ‘Yes’ or ‘No’ value. A ‘yes’ was assigned to entries that had a case number associated to them, confirming that non-compliance was observed, recorded, and a case was generated. The term recorded non-compliance may be an issued Administrative Violation Notice (AVN), Written Warning, or Verbal Warning. This report uses the term ‘*recorded*’ to create a distinction between non-compliance that may have been observed but entered as education and not an associated case number. Note a data request has been

made to better understand (in the future) what type of non-compliance was reported as well as the end result for AVNs. Unfortunately, data that is currently available to the Research Program does not allow for estimating the end result of a recorded non-compliance.

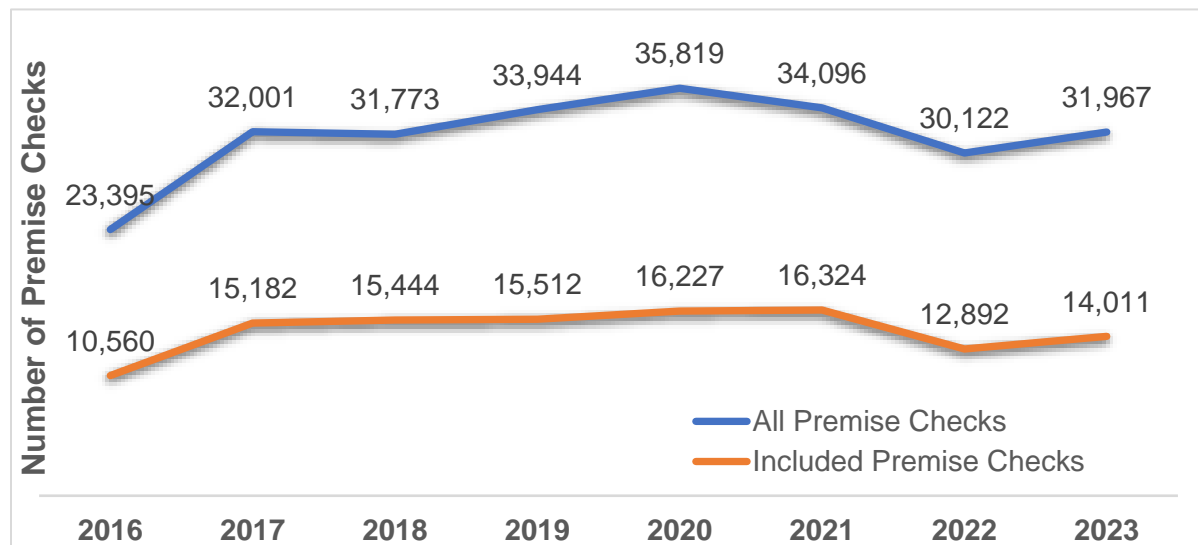
The EN reports produce multiple rows of data for a single premise check depending on how many data points are being requested, such as if there were multiple action items selected, or if there were multiple officers present. Prior to analyses, all duplicate data were removed based on identical arrival time (month, day, year, time), address, and license number.

Primary privileges (e.g., tavern, nightclubs) are also subject to change across time. Therefore, premise checks were paired with the primary privilege associated with the license number during the same month and year of analysis.

Between 2016 and 2023, there were 116,152 premise checks among 7,031 unique trade names⁷ associated with nightlife. This represented about half of all premise checks (253,117 among 30,698 unique trade names) conducted between 2016 and 2023.

Figures 1 through 10 compare the characteristics of the 116,152 premise checks included in primary analysis with the total number of premise checks captured across time.

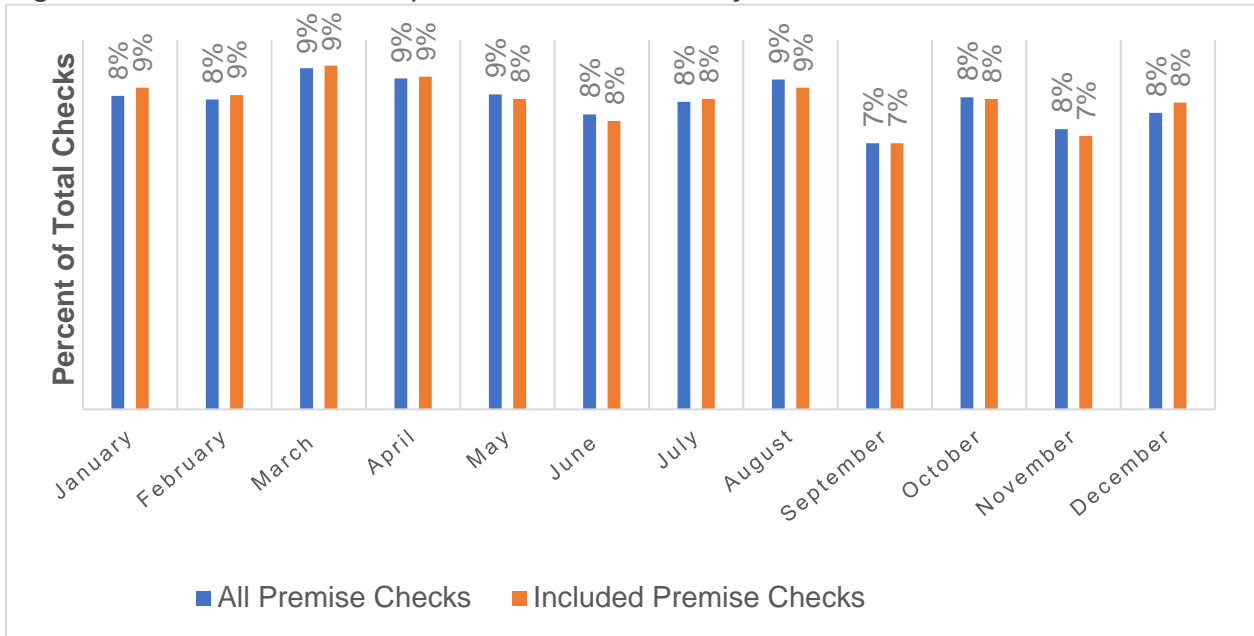
Figure 1. Number of Liquor Premise Checks by Year



Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

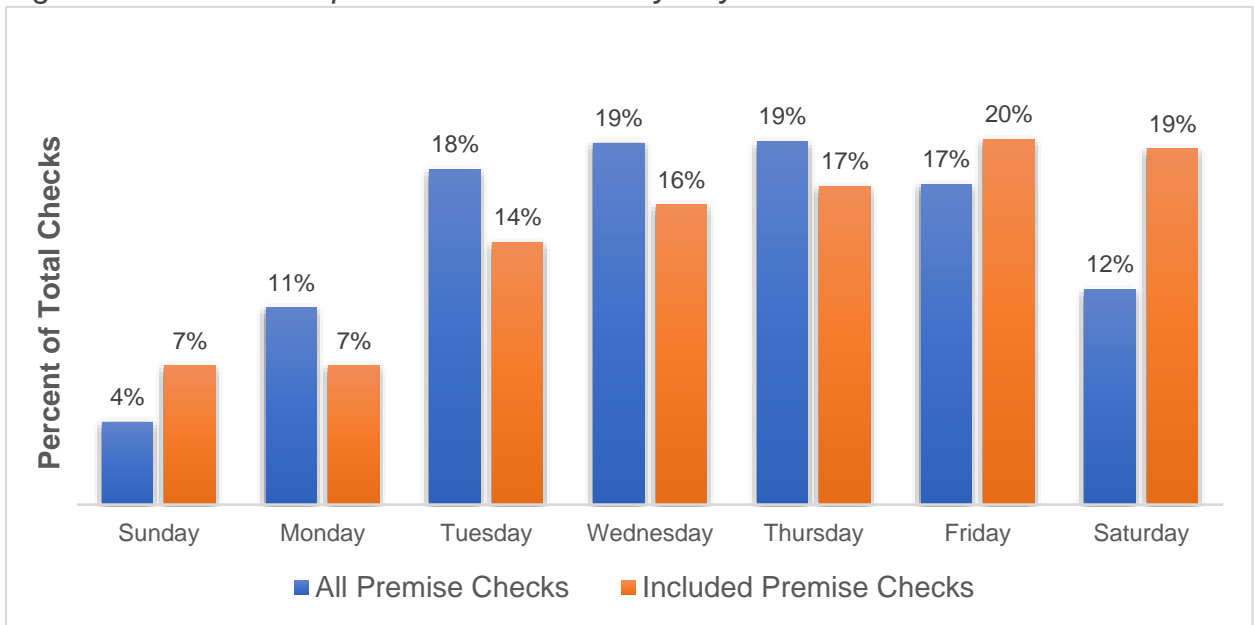
⁷ Identifying unique licenses can differ depending on the metric used. For example, license number stays at the same location across time. The number identified in the text above describes the number of unique trade names within the database. Of 7,031 unique trade names, there were 5,473 unique license numbers.

Figure 2. Percent of Total Liquor Premise Checks by Month



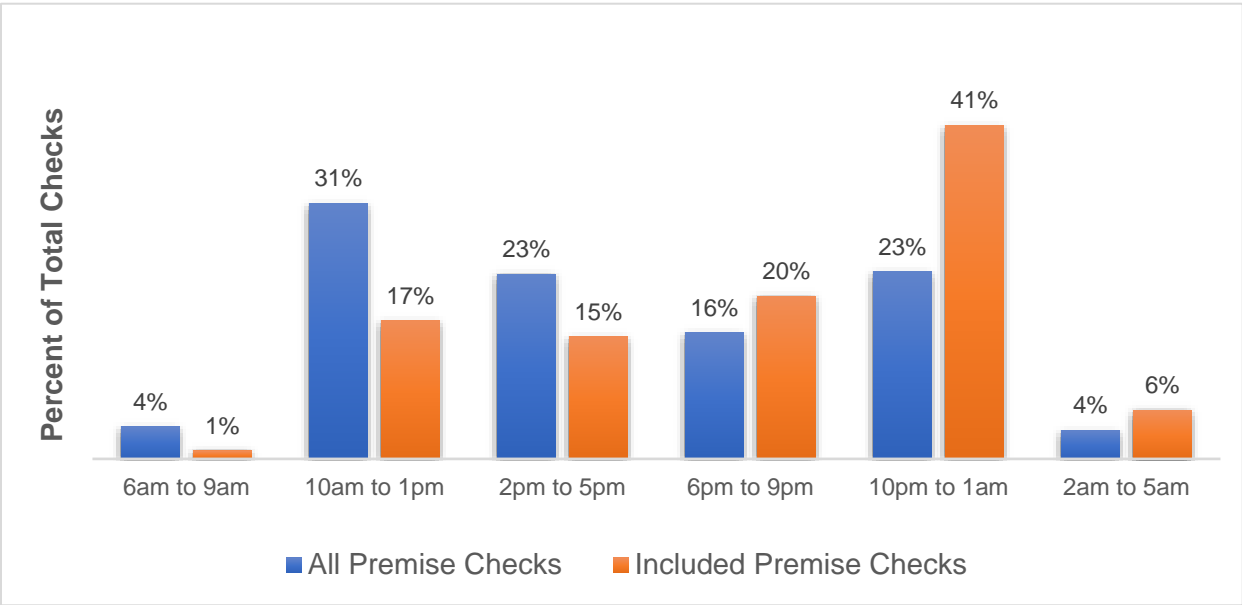
Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 3. Percent of Liquor Premise Checks by Day of Week



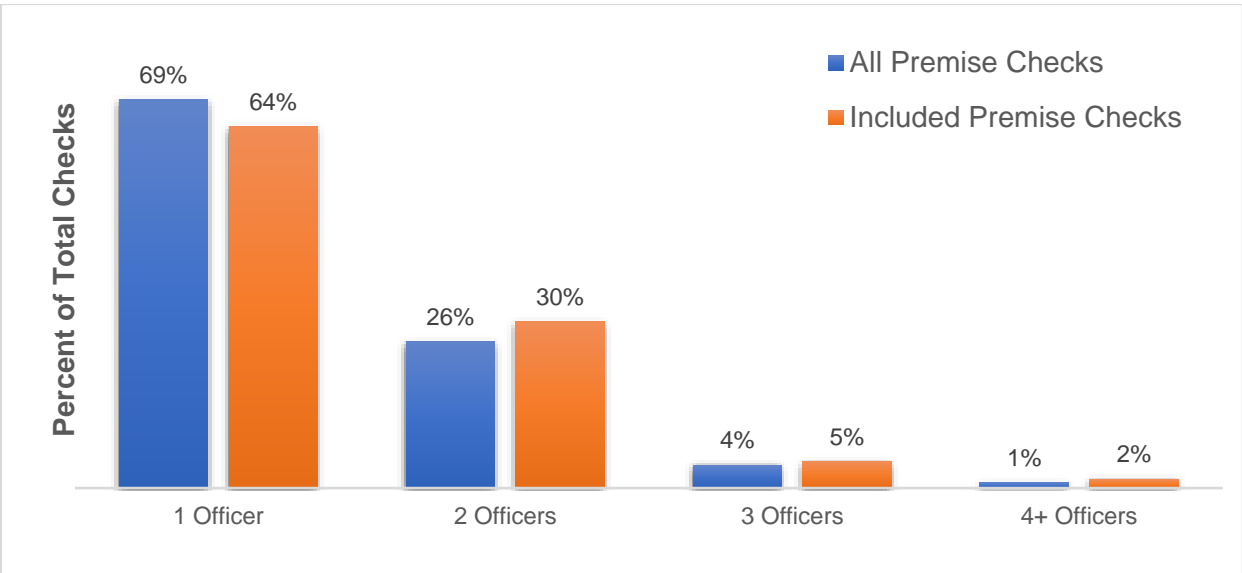
Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 4. Percent of Liquor Premise Checks by Hour



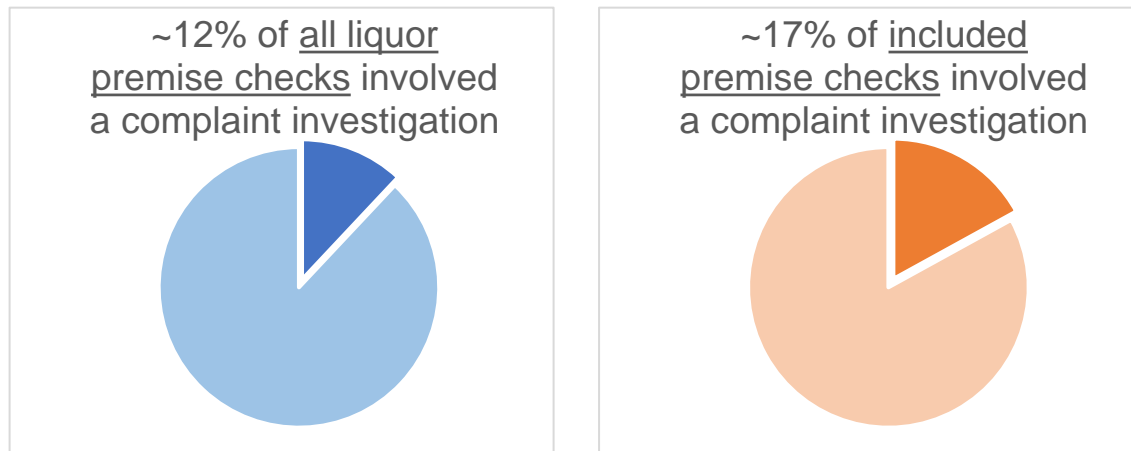
Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 5. Percent of Liquor Premise Checks by Number of Officers Present



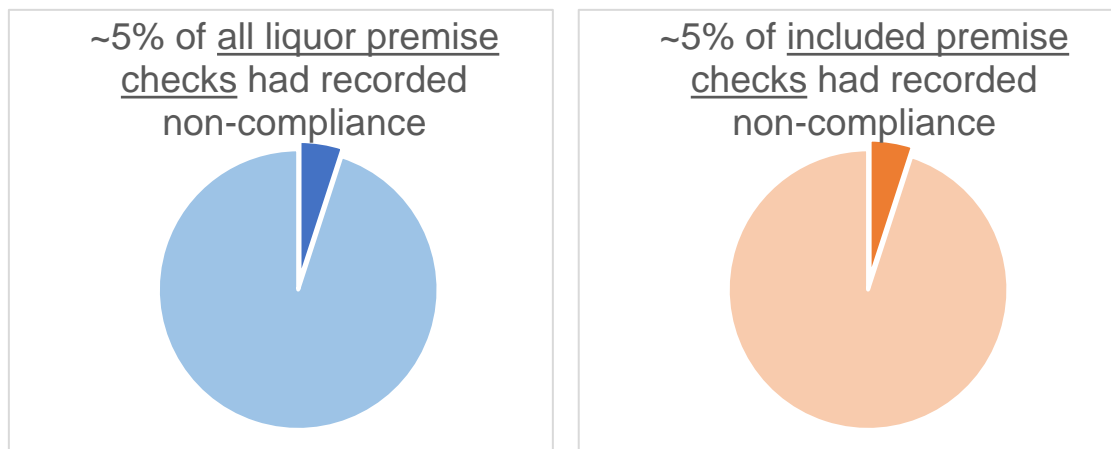
Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 6. Liquor Premise Checks with Associated Complaint Investigation



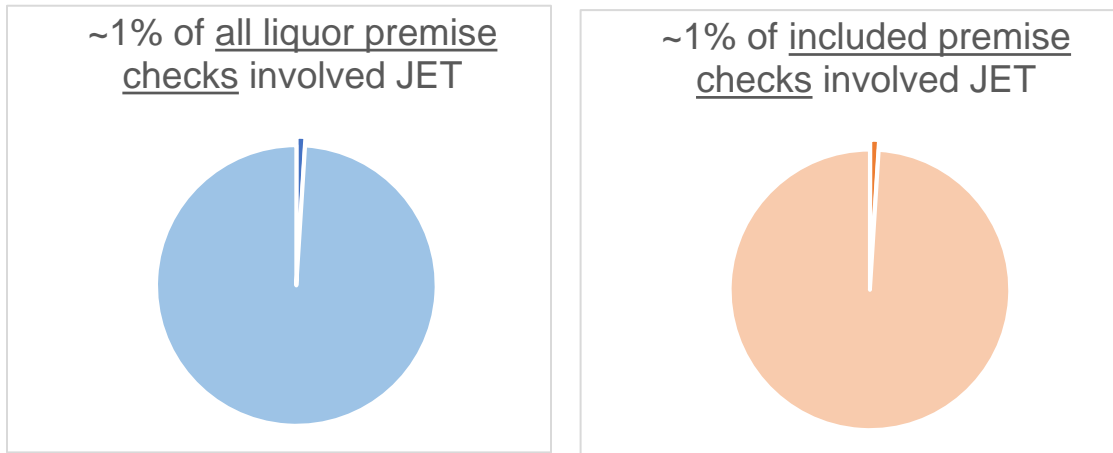
Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 7. Liquor Premise Checks with Recorded Non-Compliance



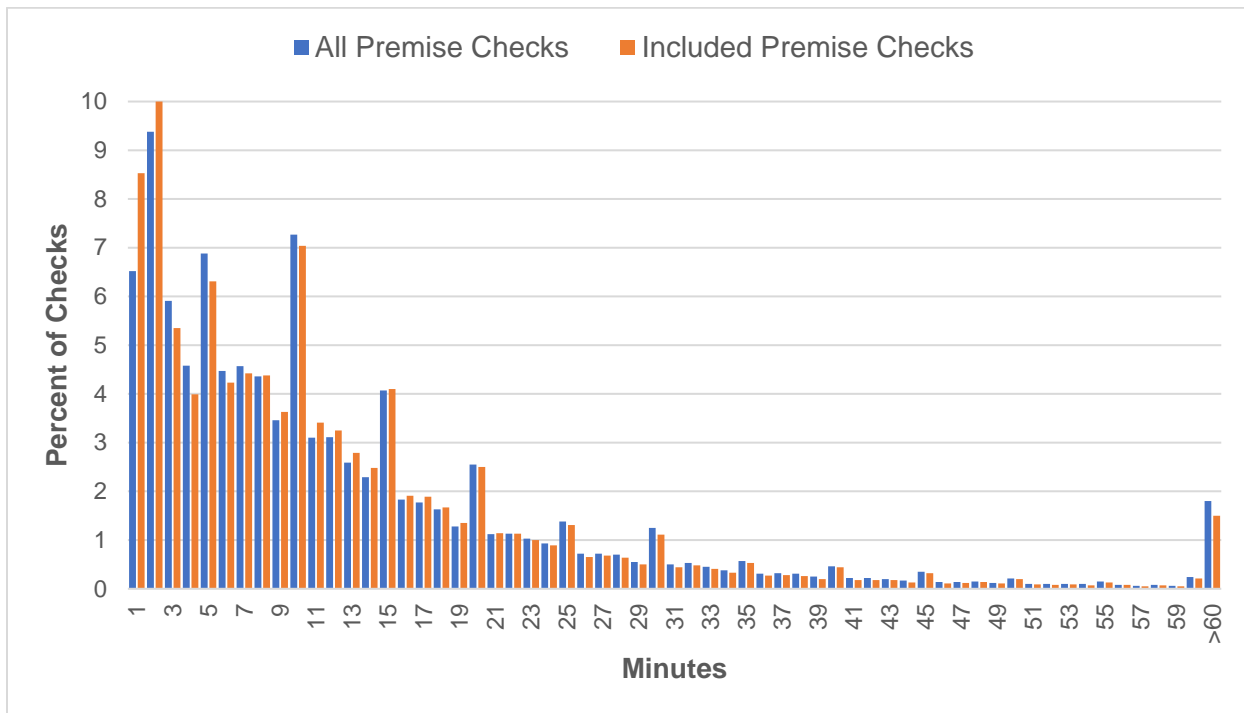
Note: This is aggregated across eight years. In 2023, the number of premise checks with recorded non-compliance for the included sample was 3.04%. Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 8. Liquor Premise Checks Involving JET Participation



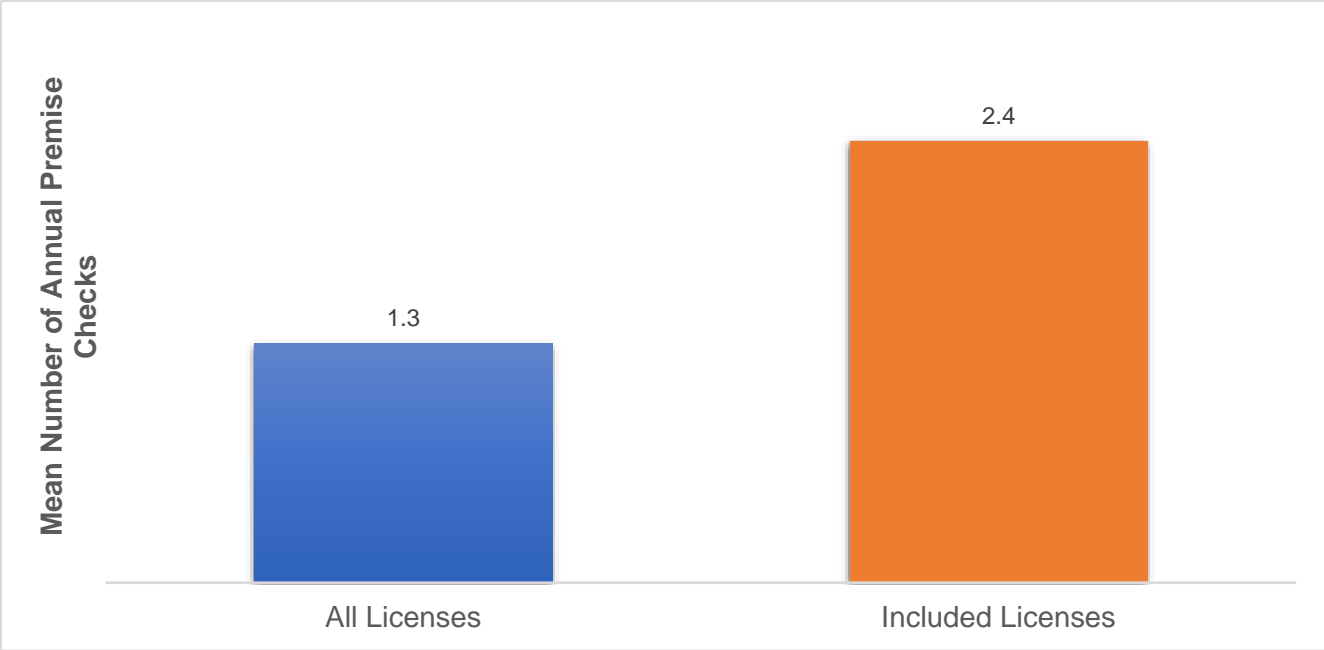
Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

Figure 9. Duration of All Liquor Premise Checks



Note: The average duration was ~13 minutes long for all premise checks and the included premise checks. In the analyses, any visit lasting longer than 120 minutes were considered missing data.

Figure 10. Mean Number of Annual Premise Checks per License Each Year



Note: Premise checks included were on-premise liquor licenses with a primary privilege associated with nightlife.

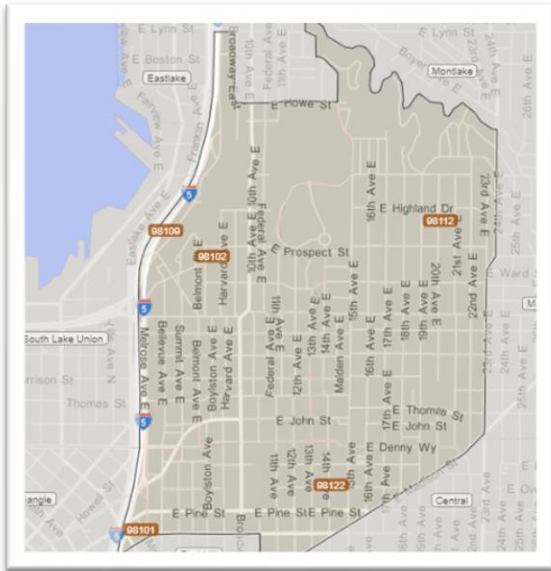
Capitol Hill as Proxy for Higher Proportion LGBTQ+ Businesses. The Research Program attempted to find a list of licenses who advertised as being either a LGBTQ+ owned or allied business. However, this information was not available. In addition, there were discussions about the importance of having licenses consent to collecting potentially sensitive information prior to doing so. Therefore, after discussing options with LCB leadership, the Research Program pivoted from this approach and instead chose to identify licenses located in Capitol Hill as a proxy for a higher proportion LGBTQ+ businesses. The Research Program recognizes this is an imprecise estimate and welcome ideas to better identify licenses that may be in this category for a future analysis. Capitol Hill is widely considered to be [Seattle’s historical and largest LGBTQ+ neighborhood](#). Capitol Hill is also where the January premise checks of concern took place that prompted this report.

Given this approach to examine neighborhoods associated with greater proportion LGBTQ+ businesses, the Research Program also analyzed University District to compare findings. University District is also known for nightlife in Seattle and was similar

in size with respect to the number of premise checks and licenses relative to Capitol Hill.⁸

To find the list of liquor license numbers in these locations, we first determined the neighborhood boundaries for [Capitol Hill](#) and [University District](#) and subsequently overlaid these boundaries on ArcGIS layers used by LCB to geographically represent licenses throughout the state.

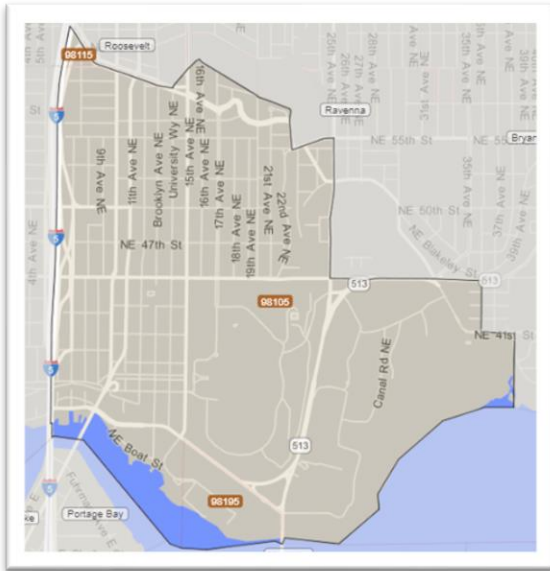
Figure 11. Capitol Hill Boundary



Note: This image was retrieved from statisticalatlas.com

⁸We originally considered Belltown and Pioneer Square in addition to University District. However, these neighborhoods contained too few licenses (fewer than 50) to create reliable estimates examining disproportionate checks. As such, these neighborhoods were not individually examined in this report.

Figure 12. University District Boundary



Note: This image was retrieved from statisticalatlas.com

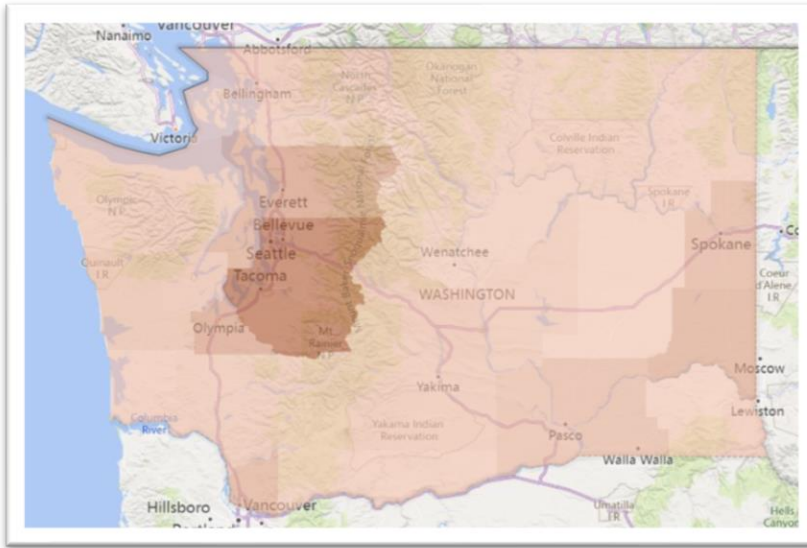
County Demographics. To better understand if demographics played a role in overall premise checks and recorded non-compliance, county characteristics were used in analyses. These data were pulled from the [Office of Financial Management \(OFM\)](#). The following demographics were included in the analyses:

- Percent of county population who were Black
- Percent of county population who were Hispanic
- Percent of county population who were White
- Percent of county population who were Asian
- Median county income

The Research Program recognizes that census tract-level data would more accurately describe characteristics that are relevant to a license rather than county-level data. However, this approach would require more extensive resources that are not currently available.

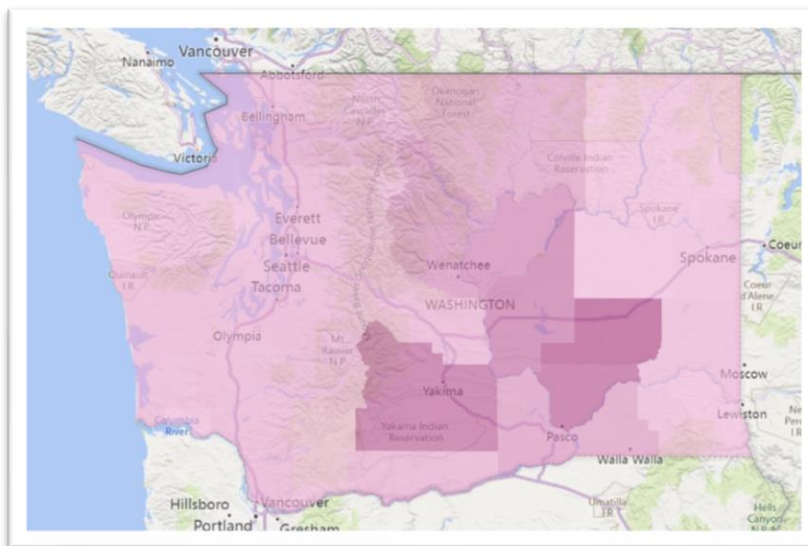
Note that county-level data do not overlay onto enforcement regions. Please see [page 20](#) for more information about this.

Figure 13. Percent Black by County



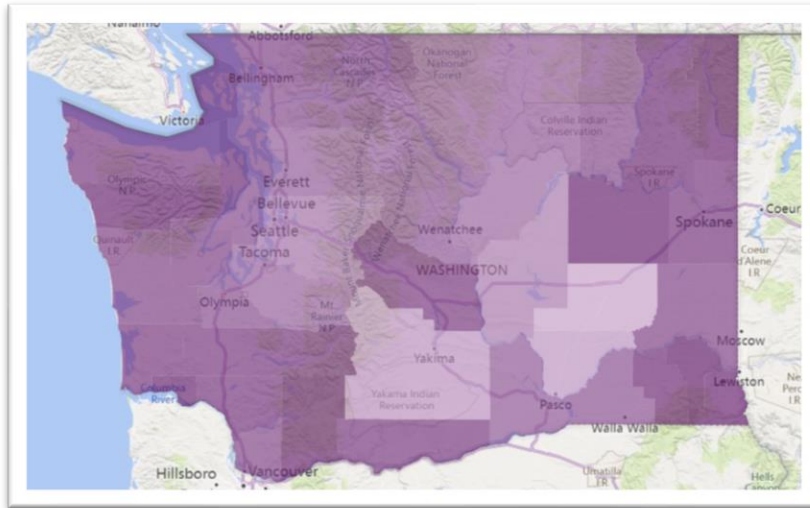
Note: Darker counties indicate more higher proportion Black individuals.

Figure 14. Percent Hispanic by County



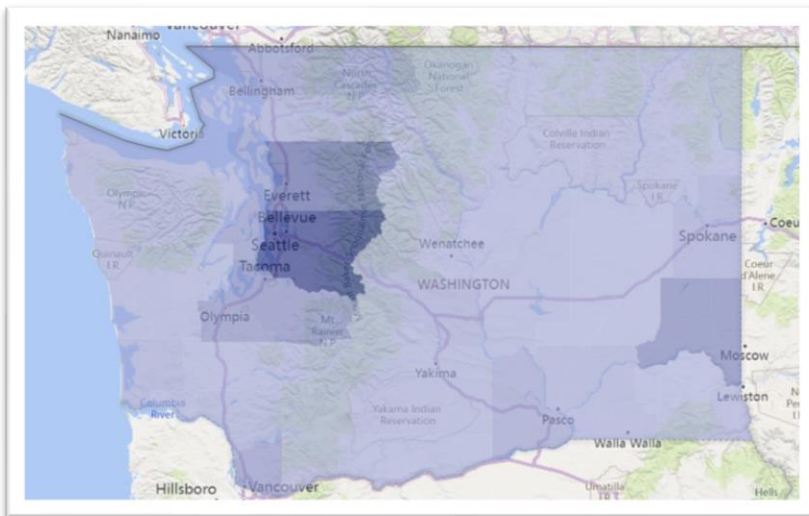
Note: Darker counties indicate more higher proportion Hispanic individuals.

Figure 15. Percent White by County



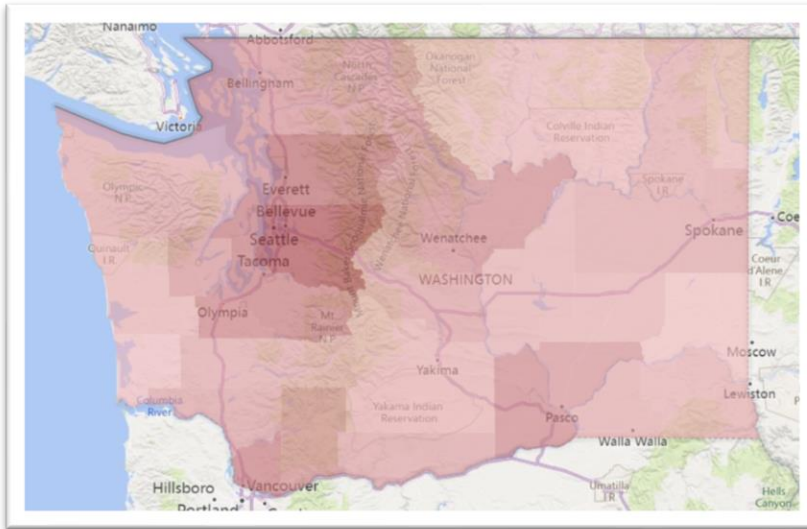
Note: Darker counties indicate more higher proportion White individuals.

Figure 16. Percent Asian by County



Note: Darker counties indicate more higher proportion Asian individuals.

Figure 17. Median Income by County



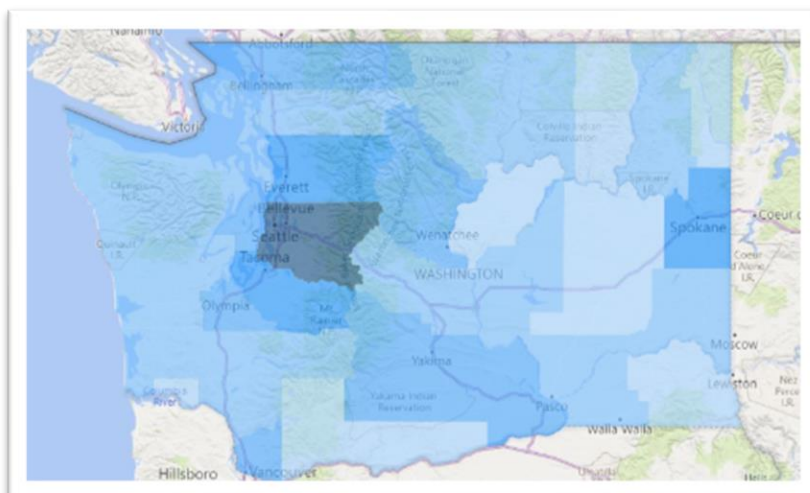
Note: Darker counties indicate more higher median income.

Total Number of Liquor Licenses. The total number of liquor licenses in each county was also included because the number of alcohol outlets in any given location is understood to have independent risk factors that may be associated with more or less Enforcement presence. Here, the total number of liquor licenses included both on-premise and off-premise liquor licenses.

Although these findings use the total number of liquor licenses, we also examined findings when only including (1) the number of on-premise liquor licenses by county, (2) the number of off-premise liquor licenses by county, and (3) alcohol outlet density (calculated by dividing population by the total number of outlets). Findings were generally unchanged. Areas with the highest number of licenses associated with nightlife and areas with the highest number of total liquor licenses are highly correlated (e.g., overlap significantly) with one another. **Supplement 3** illustrates total unique license numbers associated with nightlife across Washington.

The final analysis used total number of liquor licenses (both on-premise and off-premise). Research suggests that areas are generally at higher-risk for public safety and health outcomes when more alcohol is available, with both on-premise or off-premise alcohol locations.

Figure 18. Total Number of Liquor Licenses by County



Note: Darker counties indicate greater total number of liquor licenses.

Supplemental Information on Regions. The Research Program attempted to include what LCB Enforcement Region (i.e., East, Southwest, Northwest, and Central) was associated with each premise check, as it was recorded in the EN. However, after finding variations in how this variable appeared in the dataset and consulting with internal subject matter experts, it was determined the data collected on this variable was not reliable or valid. This was primarily because there have been several significant changes made to the Enforcement Regions' boundaries, the officers assigned to the regions, and other LCB changes over time. Because of this, Enforcement Regions were not included in the final model. Nevertheless, regional differences across the state remain an important variable to consider because unique characteristics in each region, such as urban density and number of vacant officer positions in each region, may play a role in outcomes. It will be important to collect more rigorous data on enforcement regions for future analyses.

Although not included the full model, supplemental analyses were conducted using region (as currently defined by internal subject matter experts⁹) as a predictor to the total number of premise checks and recorded non-compliance. See **Supplement 4** for more information on how regions were identified and results of analyses. This variable was not included in the full model since regions were created using counties and the main analyses already control for several county-level characteristics (e.g., ethnic-racial makeup, median income, and total number of alcohol licenses).¹⁰

⁹ The regions that were identified by internal subject matter experts and used in supplemental analyses overlap with what is recorded in the EN but are not identical.

¹⁰ There were concerns of multicollinearity given high correlation values between the other included county-level variables.

In addition to the full analyses, **Supplemental Figures 4.1 to 4.3** illustrate county-level differences in total premise checks, recorded non-compliance, and complaint investigations.

Supplemental Information on Complaints. Complaints play an important role in premise checks and risk for non-compliance. Therefore, this variable was included as a predictor in the two main analyses. In other words, analyses controlled for the variance associated with complaints on both premise checks and non-compliance so other factors (e.g., premise check characteristics) could be examined above and beyond what is accounted for by the complaint variable.

Complaints could also be considered an outcome variable. That is, license characteristics and/or locations of licenses could predict more (or fewer) complaints received. **Supplemental Table 5** shows estimates when number of complaints received about a license was considered an outcome. Complaints as an outcome were not included as a third main analysis because there are several nuances related to complaints (e.g., type of complaint received, anonymous vs. identified report, etc.) that were unable to be captured in the data provided to the Research Program. This supplemental analysis helps provide further context as to how other variables (particularly licenses located in counties with greater LGBTQ+ and minority individuals) relate to complaint-associated investigations. Further investigation examining this variable may be warranted if and when data collection on this topic becomes more standardized.

Analytic Approach

Research Questions. There were two main research questions for this report:

- 1) What factors predict a license will receive more premise checks?
- 2) When a premise check occurs, what factors predict recorded non-compliance?

To answer question #1, the following covariates¹¹ were used to predict overall number of premise checks:

- Year (2016 to 2023; using time as a covariate accounts for changes across each year, such as COVID-19)
- Percent Black, percent Hispanic, percent White, and percent Asian by county by year
- Median income by county by year
- Total number of liquor licenses by county by year¹²
- Total number of complaints for each license by year
- Whether license was located in selected neighborhoods (Capitol Hill and University District)

For the first analysis, the number of annual premise checks and complaints for each license were aggregated from the original dataset. For any license that was active in a given year (based on the monthly report of all licenses) but did not have a corresponding premise check, they were coded as receiving zero premise checks for that year.

To answer question #2, the following covariates were used to predict increased likelihood for recorded non-compliance (yes, no) when a premise check occurred:

- Number of officers present
- Duration in minutes
- JET participation (yes, no)
- Day of the week (weekend [Thursday, Friday, Saturday], weekday [Sunday, Monday, Tuesday, Wednesday])¹³
- Time of day¹⁴
- Whether premise check was associated with a complaint investigation (yes, no)

¹¹ Covariate refers to a variable included in an analytic model that explains some variability in the outcome.

¹² Please see page 19 for more information as to why total liquor licenses (rather than those only associated with nightlife) was included in the final analysis.

¹³ Weekend versus weekday was defined based on days when on-premise liquor retailers typically have increased business.

¹⁴ Time of day was coded several ways and findings did not differ. In the final model, time was modeled starting at 6 a.m. and closing at 5 a.m., which typically reflects end of night shifts.

- Year (2016 to 2023; using time as a covariate accounts for changes across each year, such as COVID-19)
- Percent Black, percent Hispanic, percent White, and percent Asian by county by year
- Median income by county by year
- Total number of liquor licenses by county by year¹²
- Whether license was located in selected neighborhoods (Capitol Hill and University District)

Statistical Analyses. To examine the two main research questions, we used a statistical approach called multilevel modeling. In this analysis, each license is considered its own group, which better accounts for the concept that each license has unique circumstances that influence the patterns of premise checks and recorded non-compliance across time. For example, when examining factors that increased risk for non-compliance, the analysis examined differences between the same license during premise checks where non-compliance was recorded and when non-compliance was not recorded (i.e., the license was in compliance or non-compliance).

We were also interested in whether the location of a license (i.e., in Capitol Hill or University District) predicted disproportionate outcomes. Thus, this analysis also was able to simultaneously compare if certain geographical areas experienced more frequent checks and increased recorded non-compliance compared to other areas, even after accounting for overall trends within and across licenses.

For a more technical description (e.g., SAS commands, centering data, maximum likelihood estimations for missingness, level 1 vs. level 2 covariates) of the statistical analyses conducted, see **Supplement 6**.

Note: The findings reported in this summary represent results when all variables are considered simultaneously.

Results

How To Read Results. This section reports results of analyses using the following sequence.

Part 1: Main Findings. This is the non-technical outline of the main findings. Note the main findings take into account all of the variables in the model simultaneously.

Part 2: Visual Aids to Illustrate Main Findings. This section breaks down the main findings in Part 1 with visual depictions to help the reader interpret findings. ***Note the figures are not meant to be interpreted independently given they do not provide the full context of how variables are associated with other variables.***

Part 3: Results Table of Main Findings. This section provides a table showing the specific technical estimates for the main findings, which account for all variables simultaneously.

Research Question 1: What factors predict a license will receive more premise checks?

Main Findings. Between 2016 and 2023, liquor licenses with primary privilege types associated with nightlife received more premise checks when:

- It was later in the study time period (e.g., 2023) relative to earlier in the study time period (*Figure 1*). Interpret this finding with caution¹⁵.
- The license received a greater number of complaints that year relative to when that same license received fewer complaints (*Figure 19*).
- The license was located in a county with fewer overall liquor licenses compared to licenses located in a county with greater overall liquor licenses (*Figure 20*).
- The license was located in a county with lower median income compared to licenses located in a county with higher median income (*Figure 21*).
- The license was located in a county with greater proportion Black individuals compared to licenses located in a county with lower proportion Black individuals (*Figure 22*).
- The license was located in a county with lower proportion of Asian individuals compared to licenses located in a county with higher proportion of Asian individuals (*Figure 22*). Interpret this finding with caution¹⁶.

There was no evidence to suggest licenses located in Capitol Hill received a greater number of premise checks (*Figure 23*). There was also no evidence of increased premise checks for the University District.

Follow-Up Analyses. First, because an increased number of complaints was associated with a greater number of premise checks, a supplemental analysis was conducted examining whether licenses located in Capitol Hill were associated with greater number of complaints. Results found no significant difference in the number of complaints received by licenses located in Capitol Hill relative to licenses located outside of Capitol Hill. This analysis did find, however, that licenses located in counties with greater percent of Black individuals received fewer complaints relative to counties with lower percent of Black individuals. **Supplement 5** contains the specific estimates related to number of complaints as the outcome.

¹⁵ This finding was only significant controlling for other covariates, suggesting other variables significantly influence this outcome. Please interpret with caution. During the COVID 19 pandemic there were changes made to how and when premises checks were conducted. Also, during this time there were several emergency restrictions placed on licensees including indoor service, hours of operation, and a stay-at-home directive for part of that period of time.

¹⁶ County 'percent Asian' is highly correlated with overall liquor licenses and regions. Please interpret with caution.

Next, to determine the extent to which findings would remain stable when including all licenses, regardless of primary privilege, a second follow-up analysis was conducted. The findings remained unchanged. That is, all main findings associated with Research Question 1 remained significant and in the same direction. Capitol Hill was still not significantly associated with more premise checks. **Supplement 7** contains specific estimates related to this analysis.

Research Question 1: What factors predicts a license receiving more premise checks?

Visual Aids to Illustrate Main Findings. *These figures are not meant to be interpreted independently because they do not provide the full context of how variables are associated with other variables.*

Figure 19. A license received more premise checks when they received more complaints.

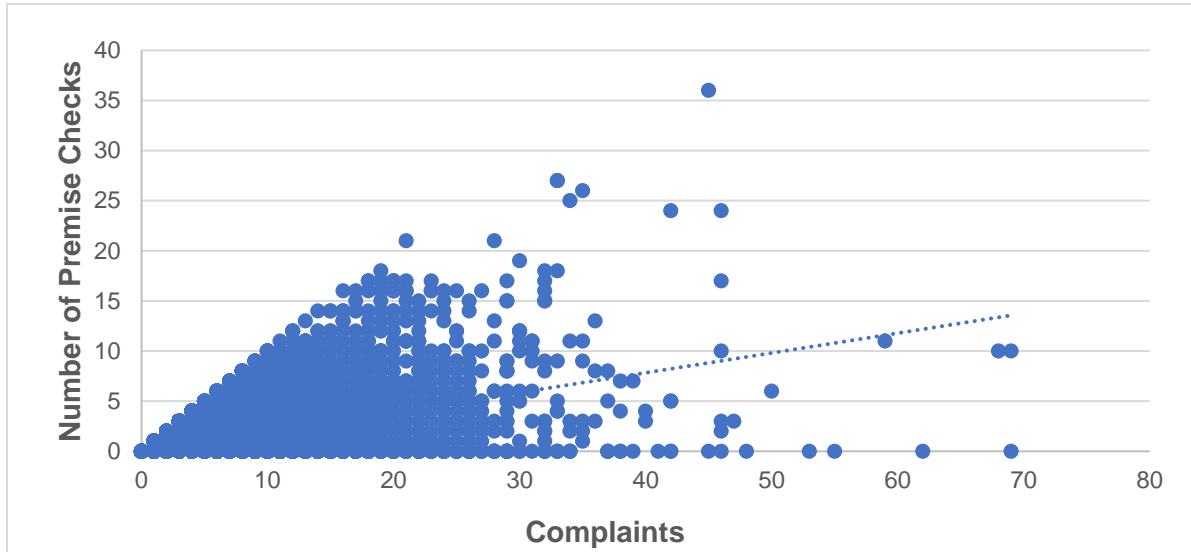
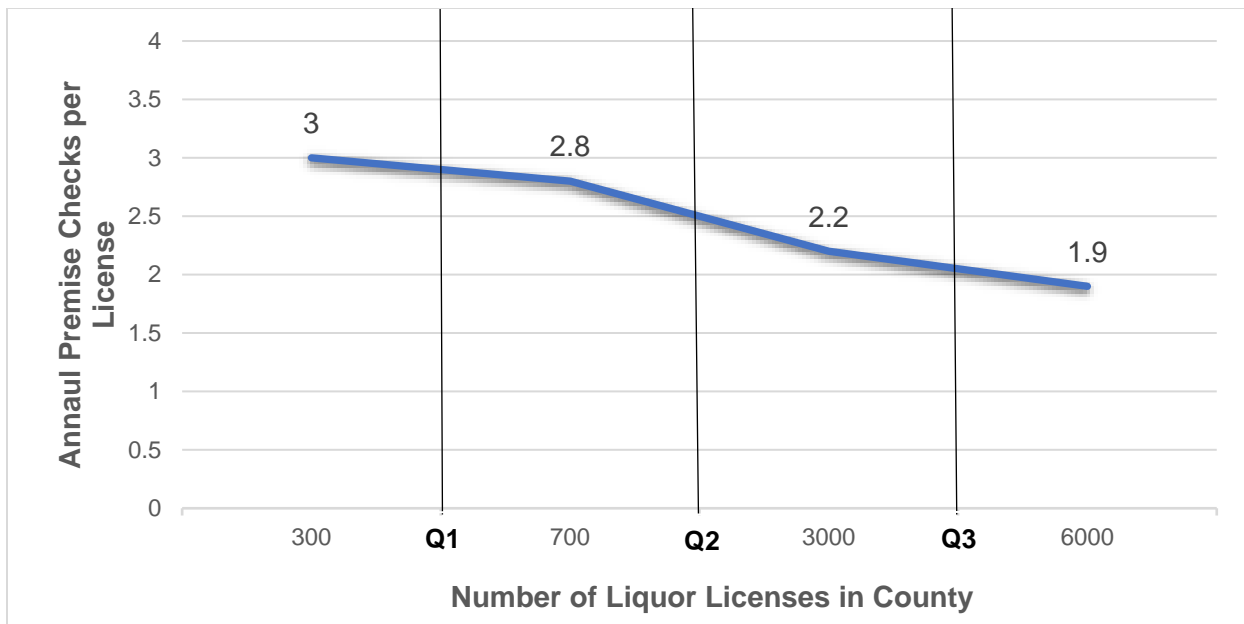
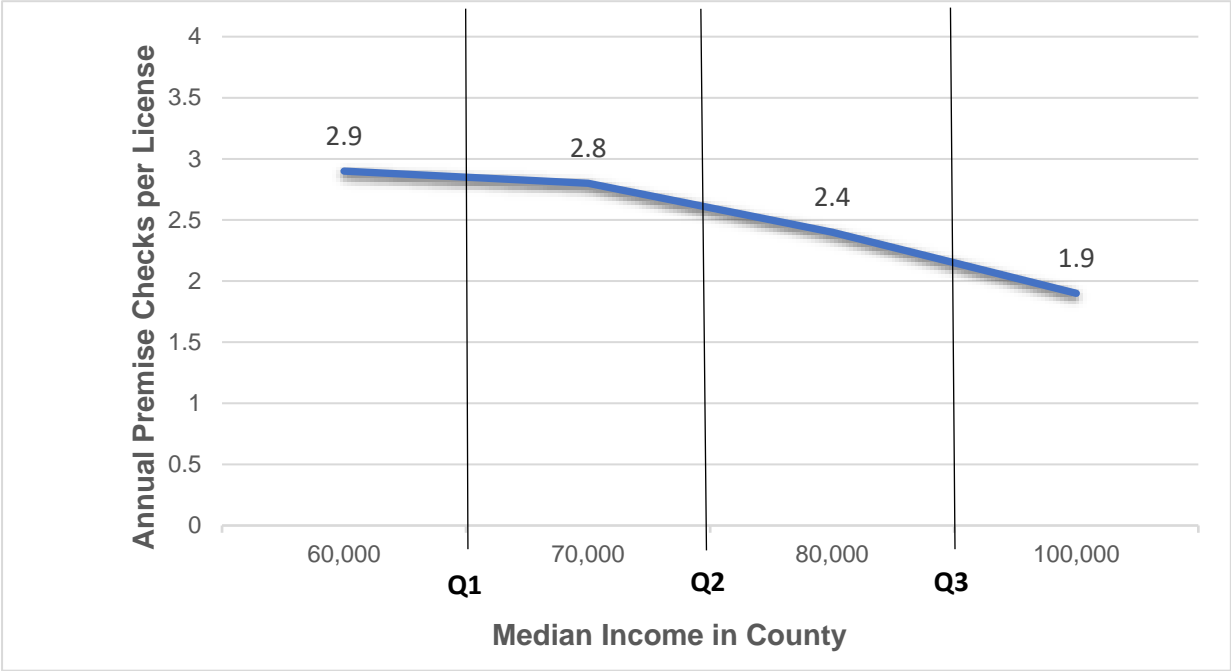


Figure 20. A license received more premise checks when they were located in a county with fewer overall liquor licenses.



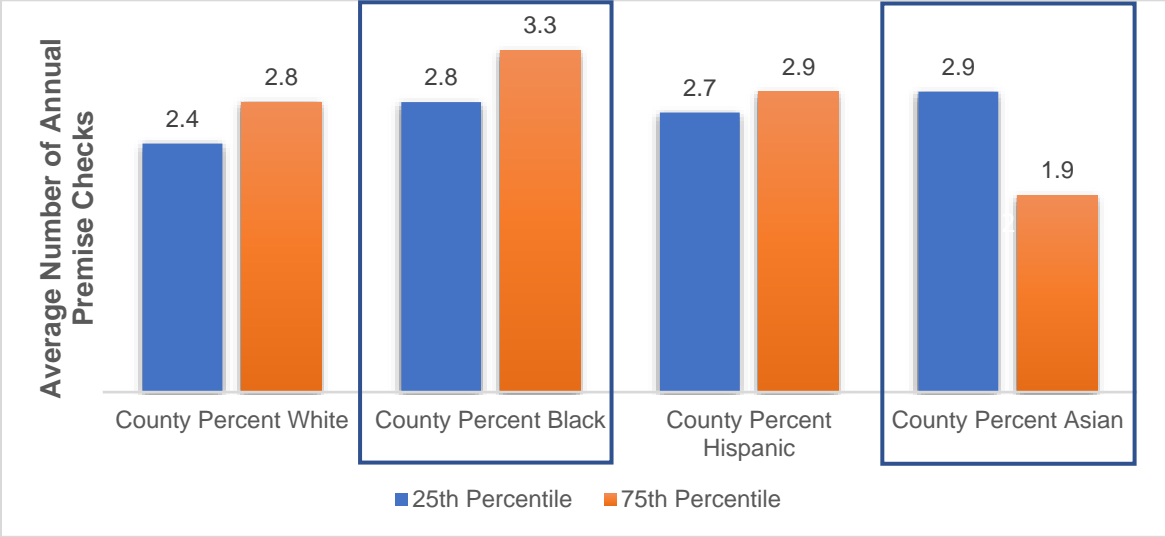
Note: Q1, Q2, Q3, refers to the lower (25%), median (50%), and upper (75%) quartiles for counties in Washington.

Figure 21. A license received more premise checks if they were located in a county with lower median income.



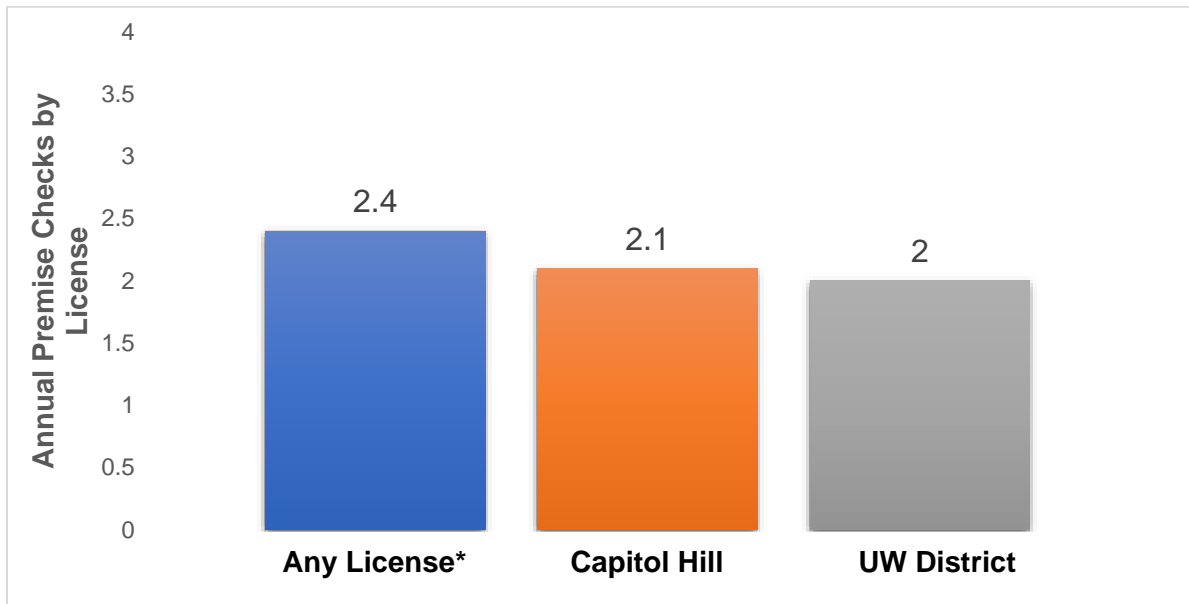
Note: Q1, Q2, Q3, refers to the lower (25%), median (50%), and upper (75%) quartiles for counties in Washington.

Figure 22: A license received more premise checks when located in a county with a higher proportion Black individuals and fewer premise checks when located in a county with a higher proportion of Asian individuals.



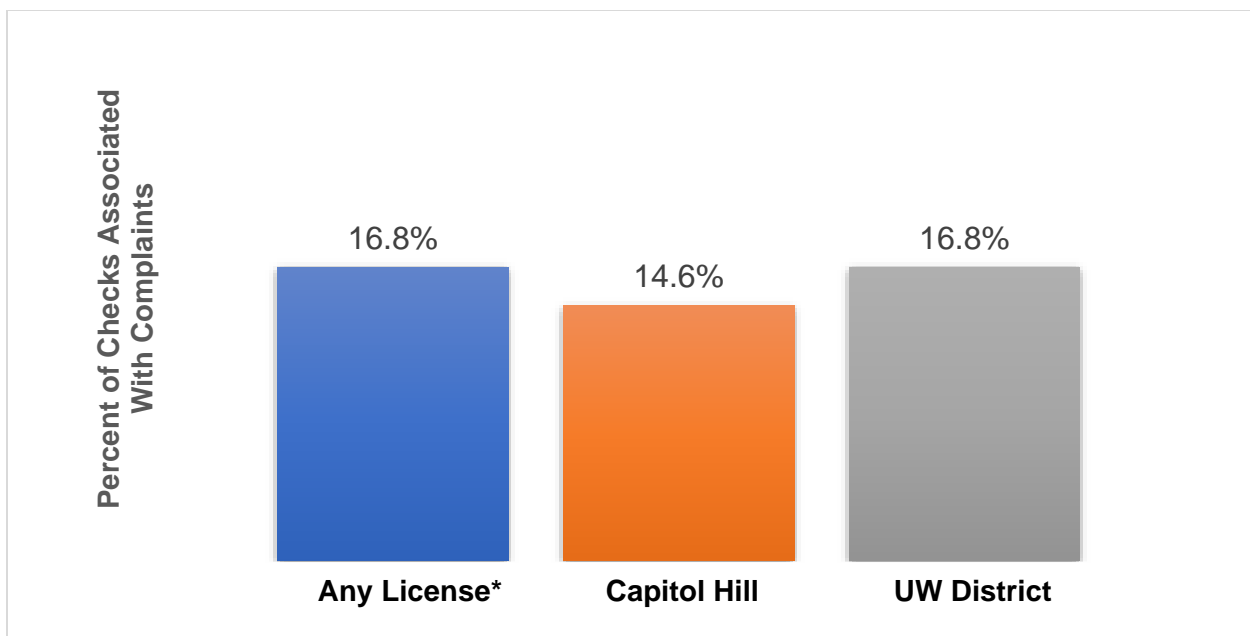
Note: For simplicity, this figure shows mean premise checks by the lower quartile (Q1, 25th percentile) and upper quartile (Q3, 75th percentile) for percent of each race in Washington.

Figure 23: A license located in Capitol Hill (or University District) was not significantly associated with number of premise checks.



Note: *Any license that is on-premise and was classified as being associated with nightlife.

Figure 24: Supplemental analysis found that licenses located in Capitol Hill were not associated with premise checks involving complaint investigations.



Note: *Any license that is on-premise and was classified as having a primary privilege associated with nightlife.

Research Question 1: What factors predict a license receiving more premise checks?

Table 1. Results Table of Main Findings for Research Question 1.

Covariate	Estimate	SE	t-value	p-value	95% CI	
Intercept	2.97	0.08	36.11	<.0001	2.81	3.13
Premise Check Characteristics						
Year	0.02	0.01	2.89	0.001	0.01	0.04
Complaint	1.25	0.01	132.20	<.0001	1.23	1.27
Neighborhood						
Capitol Hill	0.31	0.23	1.38	0.17	-0.13	0.76
University District	0.22	0.17	1.27	0.21	-0.12	0.55
County Demographics						
Percent Black	0.26	0.05	5.68	<.0001	0.17	0.34
Percent White	0.01	0.02	-0.05	0.96	-0.04	0.04
Percent Hispanic	-0.02	0.02	-0.83	0.41	-0.06	0.02
Percent Asian	-0.04	0.02	-2.15	0.03	-0.08	0.00
Median Income	-0.24	0.03	-7.38	<.0001	-0.30	-0.18
Total Number of Outlets	-0.49	0.03	-14.17	<.0001	-0.55	-0.42

Research Question 2: When a premise check occurs, what factors predict recorded non-compliance?

Main Findings. When a premise check was conducted between 2016 and 2023, on-premise liquor licenses with primary privilege types associated with nightlife were more likely to have recorded non-compliance when:

- The visit occurred earlier in the study time period (e.g., 2016) compared to later in the study time period (*Figure 25*).
- The visit occurred on a weekday compared to when that same license had a visit that occurred on the weekend (*Figure 26*).
- The visit lasted for a longer duration compared to when that same license had shorter visits (*Figure 27*).
- There were more officers present compared to when that same license had fewer officers present (*Figure 28*).
- The visit was associated with a complaint compared to when that same license had a visit not associated with a complaint (*Figure 29*).
- The license was located in a county with lower median income compared to licenses located in counties with higher median income (*Figure 30*).
- The license was located in a county with more liquor licenses compared to licenses located in counties with fewer liquor licenses (*Figure 31*).
- The license was located in a county with greater proportion of Asian individuals compared to licenses located in counties with lower proportion of Asian individuals (*Figure 32*). Interpret finding with caution.¹⁷

There was no evidence that licenses located in Capitol Hill were at significantly higher risk of recorded non-compliance compared to licenses outside of Capitol Hill (*Figure 33*). There was no evidence that University District was at increased risk of recorded non-compliance.

The participation of JET in premise checks was not associated with higher likelihood of recorded non-compliance after including all covariates in the model (*Figure 34*). However, when JET was the only variable included in the model, it was significantly associated with increased recorded non-compliance. This suggests that while JET participation on its own is associated with greater likelihood of recorded non-compliance, it is highly related to other variables that are more likely to predict recorded non-compliance.

¹⁷ County 'percent Asian' is highly correlated with overall liquor licenses and regions. Please interpret with caution.

Follow-Up Analysis. To determine the extent to which findings would hold if including all licenses, regardless of primary privilege, a follow-up analysis was conducted. Findings remained unchanged with one exception; the finding that counties with a higher proportion of Asian individuals resulted in more recorded non-compliance was no longer significant. Capitol Hill remained not significantly associated with increased likelihood for recorded non-compliance. **Supplement 8** contains the specific estimates related to this analysis.

Research Question 2: When a premise check occurs, what factors predict increased likelihood of recorded non-compliance?

Visual Aids to Illustrate Main Findings. Please note these figures are not meant to be interpreted independently because they do not provide the full context of how variables are associated with other variables.

Figure 25. The likelihood of recorded non-compliance during a premise check decreased across time.

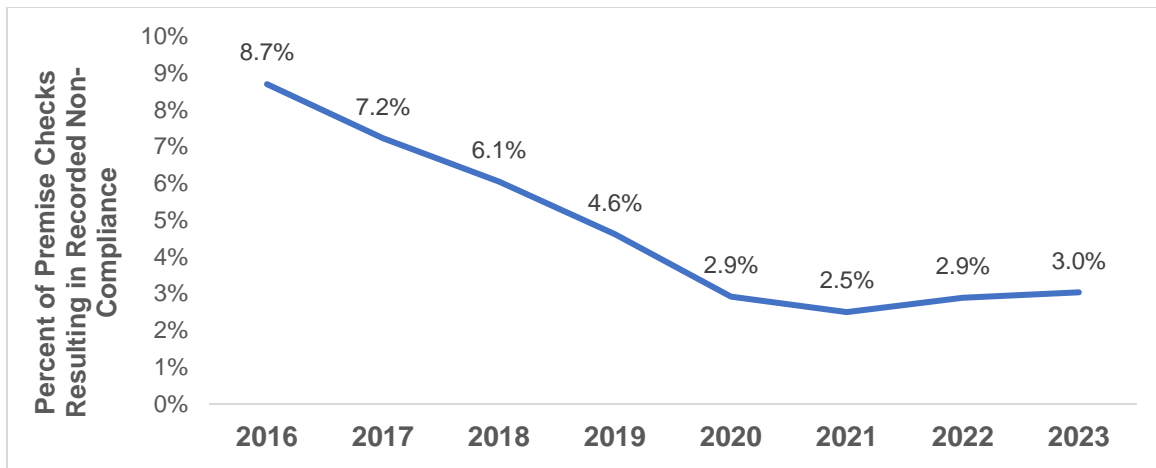
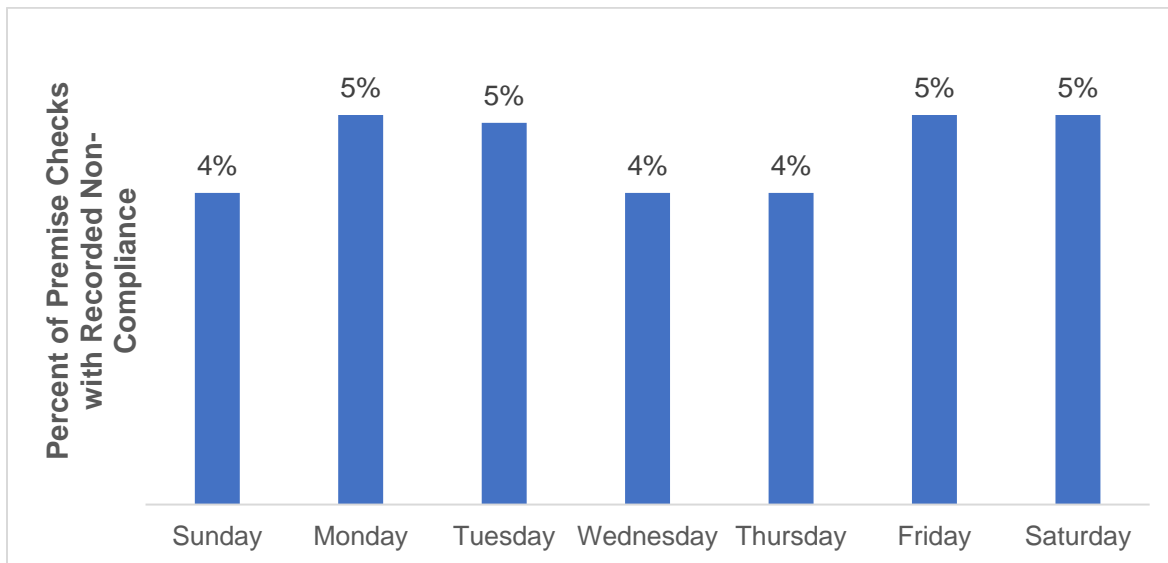


Figure 26. When a premise check occurred on the weekday there was a higher risk for recorded non-compliance.



*Please note this finding only became significant in the full model, suggesting that other variables in the model may be significantly associated with the day a premise check is conducted. Findings remained unchanged when examining weekend (yes, no) compared to 'day of week' separately.

Figure 27. Premise checks that lasted a longer duration were at higher risk of recorded non-compliance.

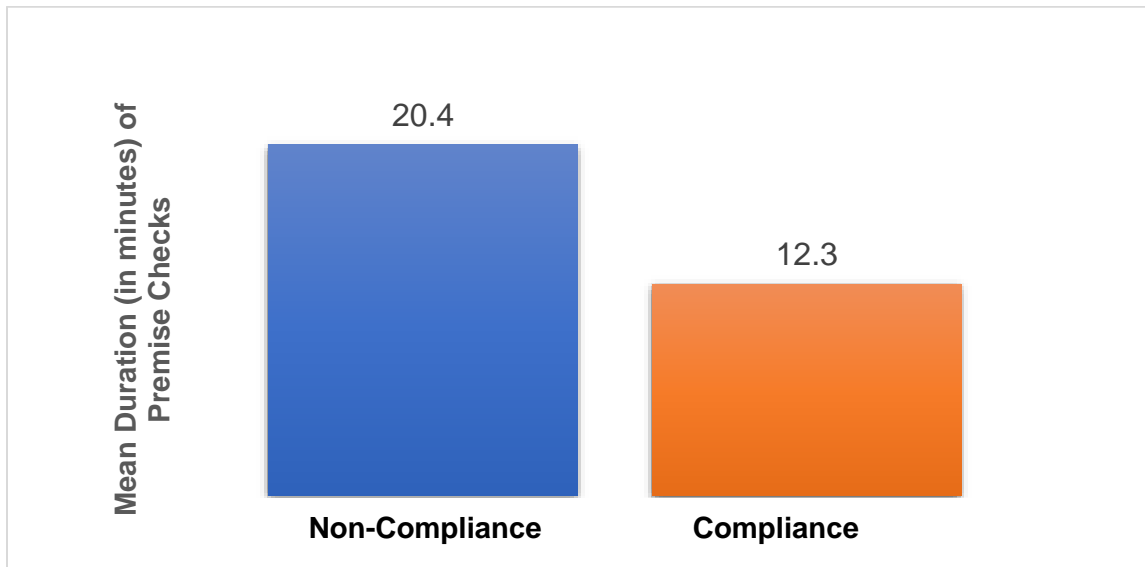


Figure 28. When more officers were present, the risk of recorded non-compliance increased.

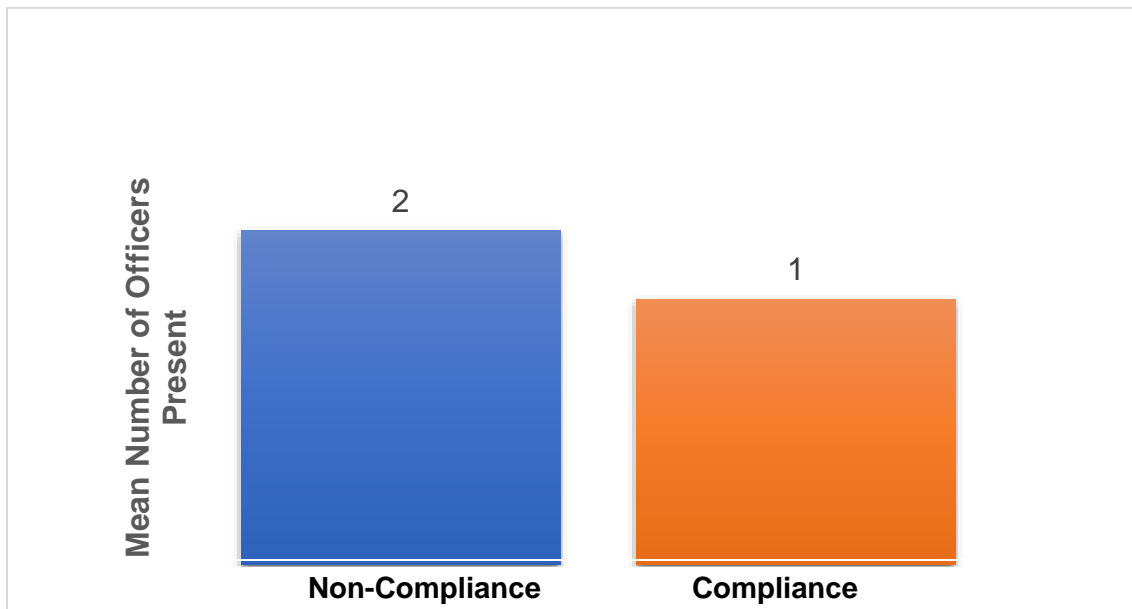


Figure 29. Premise checks involving a complaint were at higher risk of recorded non-compliance.

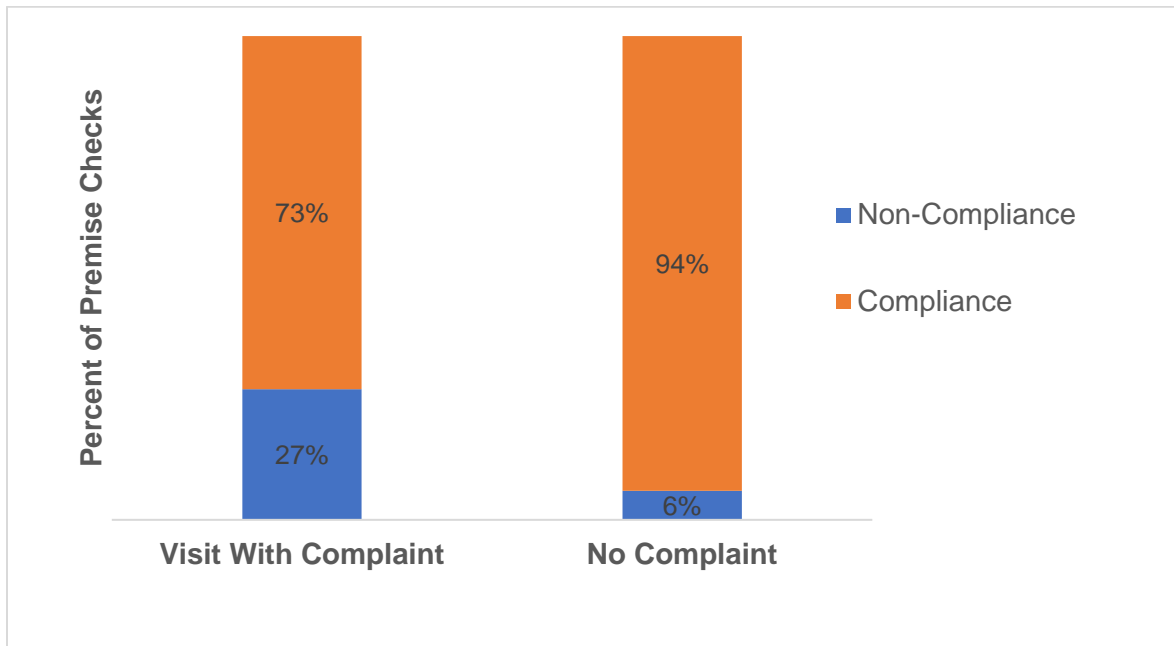


Figure 30: Licenses located in counties with lower median income were at increased risk for recorded non-compliance.

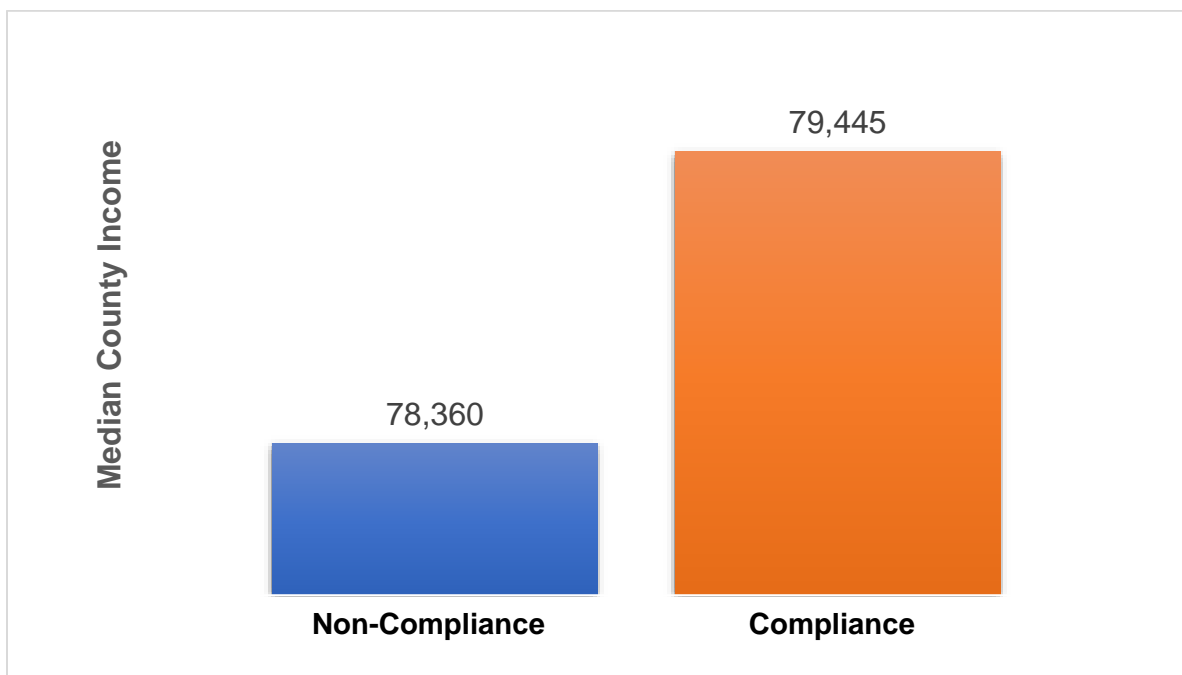


Figure 31: Licenses located in counties with a higher number of total liquor licenses were at increased risk for recorded non-compliance.

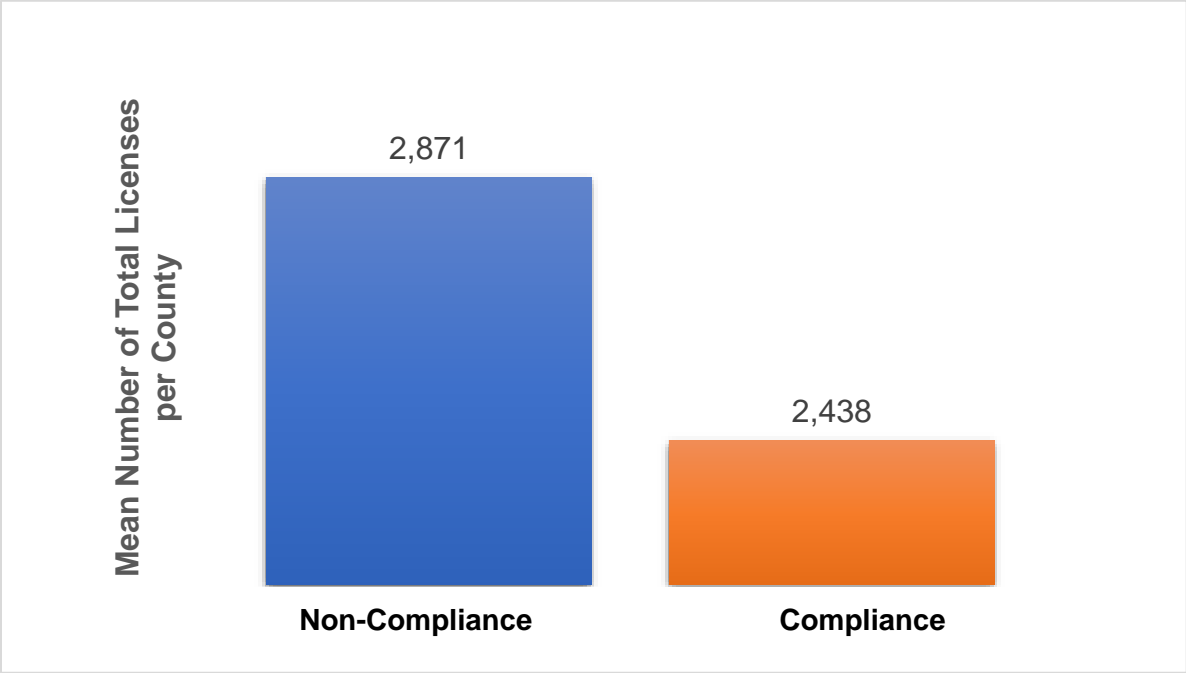
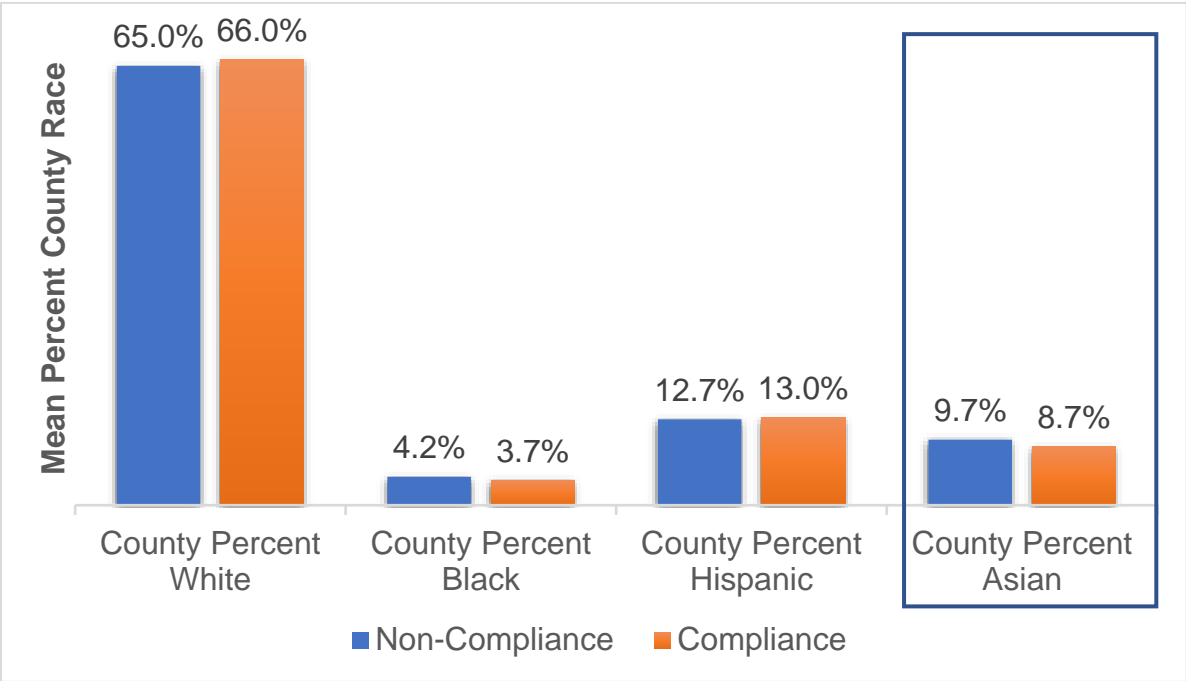
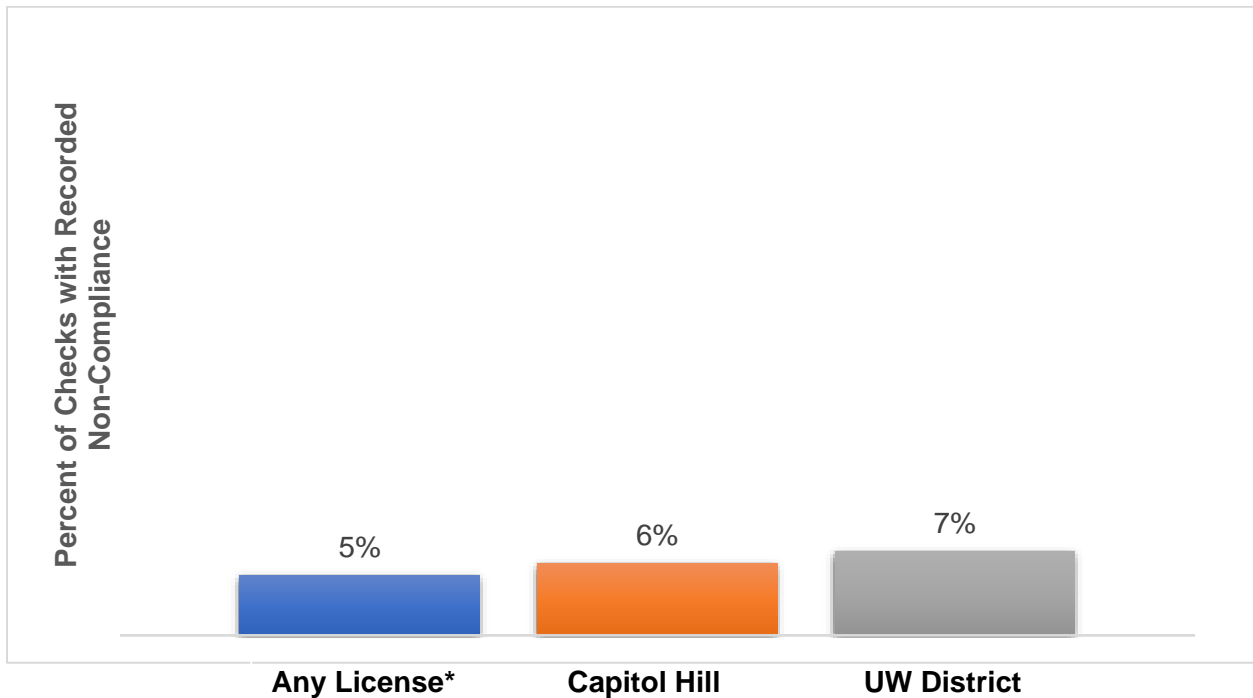


Figure 32. Licenses located in counties with a greater proportion Asian individuals were at higher risk for recorded non-compliance.



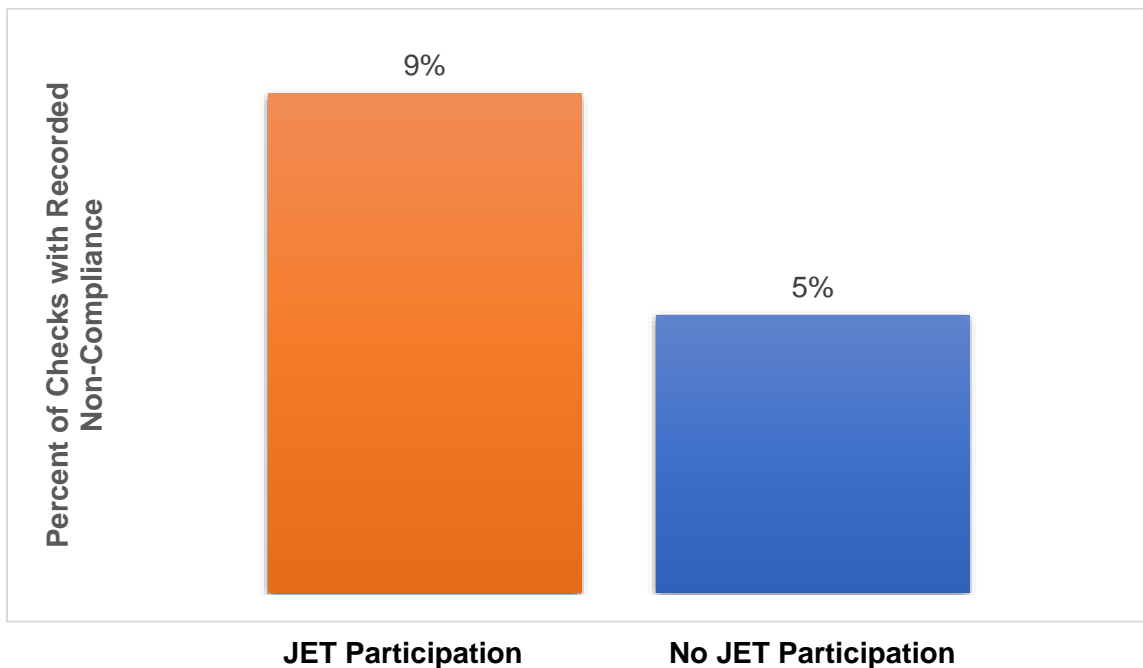
Note: This one finding was not significant when including all licenses, regardless of license type.

Figure 33. License location in Capitol Hill was not significantly associated with increased risk for recorded non-compliance.



Note: *Any license that is on-premise and was classified as having a primary privilege associated with nightlife.

Figure 34. Although JET was associated with greater recorded non-compliance in the preliminary model with no other variables included, this finding was no longer significant after including other covariates.



Research Question 2: When a premise check occurs, what factors predict recorded non-compliance?

Table 2. Results Table of Main Findings for Research Question 2.

Covariate	Estimate	SE	t-value	p-value	95% CI	
Intercept	0.01	0.00	3.12	0.001	0.00	0.02
Premise Check Characteristics						
Year	-0.01	0.00	-15.70	<.0001	-0.01	-0.01
Hour	0.01	0.00	-0.54	0.59	0.00	0.00
Weekend	0.01	0.00	-3.51	0.001	-0.01	0.00
JET Participation	0.01	0.01	0.41	0.68	-0.01	0.02
Complaint	0.02	0.00	11.79	<.0001	0.02	0.02
Number of Officers	0.02	0.00	25.25	<.0001	0.02	0.03
Duration	0.01	0.00	35.87	<.0001	0.00	0.00
Neighborhood						
Capitol Hill	0.01	0.01	-0.29	0.77	-0.01	0.01
University District	0.01	0.01	1.52	0.13	0.00	0.02
County Demographics						
Percent Black	0.01	0.00	-0.04	0.97	0.00	0.00
Percent White	0.01	0.00	0.93	0.35	0.00	0.00
Percent Hispanic	0.01	0.00	0.57	0.57	0.00	0.00
Percent Asian	0.01	0.00	2.04	0.05	0.00	0.00
Median Income	-0.01	0.00	-3.29	0.001	-0.01	0.00
Total Number of Outlets	0.01	0.00	4.88	<.0001	0.00	0.01

Conclusions

Summary. As mentioned previously, this report was unable to examine the initial question related to whether LGBTQ+ and other minority-owned licenses experienced differences in premise checks and violations. Therefore, this analysis used the best data currently available. This was a preliminary report examining factors that were associated with receiving more premise checks and recorded non-compliance when a premise check occurred. Answers to the main research questions are below:

- 1) What factors predict a license receiving more premise checks?** Licenses located in counties with lower median income, fewer overall liquor licenses, a greater county proportion of Black individuals, and lower proportion of Asian individuals generally received more premise checks. More complaints also predicted a greater number of premise checks.
- 2) When a premise check occurs, what factors predict recorded non-compliance?** Licenses located in counties with lower median income, a greater proportion of Asian individuals, and more overall licenses more likely to have recorded non-compliance when a premise check occurred. When licenses received premise checks that had more officers, lasted for a longer period of time, and were associated with complaints, recorded non-compliance was more likely compared to times when the same license received a premise check with fewer officers, a shorter duration, and was not associated with a complaint.
- 3) Were locations in Capitol Hill associated with increased premise checks or recorded non-compliance?** There was no evidence that licenses located in Capitol Hill, a historically LGBTQ+ neighborhood with increased LGBTQ+ businesses, were at increased risk for more premise checks or recorded non-compliance. Even when a subsequent analysis included all licenses, regardless of primary privilege, no significant findings emerged. Further, we used University District as a comparator because this neighborhood is close to Capitol Hill, similar in size, and also known for nightlife. Similarly, there was no evidence that University District licenses received more premise checks or were at greater risk for recorded non-compliance when premise checks occurred.

The finding that licenses located in counties with a higher proportion of Asian individuals received fewer premise checks but resulted in more recorded non-compliance when premise checks occur is interesting. However, it should be noted that areas where there is a greater proportion of Asian populations in Washington tend to be located in more urban areas (see Figure 16). These urban areas were also associated with this trend of fewer checks but greater risk of recorded non-compliance (see Supplement 3).

Therefore, it is likely the model was unable to separate unique variances associated with urban vs. Asian population at the county level. Therefore, these findings should be interpreted with caution.

Limitations. There are several important limitations to consider:

- These analyses did not examine demographics of license holders because LCB does not collect that data. Instead, the analyses examined locations of licenses. Findings may differ if license holder demographics were examined directly.
- Findings on a county level need to be interpreted with caution as demographics can vary within each county. Census tract-level data would more accurately describe characteristics that are more relevant to a license than are county-level data. However, this approach would require more extensive resources.
- These analyses used Capitol Hill as a proxy for greater proportion of LGBTQ+ businesses. A subsequent analysis examining other regions known to be LGBTQ+ friendly or specific businesses that are owned by LGBTQ+ businesses may provide clearer results.
- Enforcement teams in different Enforcement Regions may play a role in outcomes. However, this analysis was not able to capture these trends due to how they are recorded in the EN and how they have changed across time. Determining how to track regions consistently across time is important for future analyses.
- There are additional factors that may contribute to licenses receiving more premise checks and greater likelihood of recorded non-compliance. Some additional factors include previous interactions with LCB, neighborhood crime rates, number of officers employed in region, number of vacant officer positions, etc. These potentially relevant data were not included because they were not available and would have required more extensive time and resources prior to including such metrics.
- County designations do not align with current Enforcement Regions. Ensuring Enforcement Regions are accurately tracked in the EN across time would allow for greater understanding of trends across regions.
- The second analysis was only able to examine whether a premise check was associated with a recorded non-compliance, not the type of non-compliance or end result of non-compliance (i.e., Administrative Violation Notice (AVN), Written Warning, or Verbal Warning). A data request has been made to link premise checks to the type of recorded non-compliance that occurred for a potential follow-up analysis, if requested by leadership.
- Recorded non-compliance is not the only outcome of premise checks. Education is provided by LCB officers on a regular basis but is not associated with a case number. Enforcement and Education division staff and officers do not report warnings and education in the EN in standardized ways. As a result, only recorded non-compliance with associated case numbers were included in this analysis. Creating consistent report patterns would help provide more informative data.
- These analyses were only able to examine whether a premise check was associated with a complaint, not the type of complaint that initiated a premise check. It is difficult to link a premise check to the identified complaint unless examined on a case-by-case basis. Streamlining this procedure to allow for tracking a complaint to premise check to end result would provide more informed decision-making in the future.

- The EN can produce various results depending on the queries used to pull data. If recreating this dataset, it would be critical to ensure consistent queries are used. For more consistent results, developing standardized parameters for specific data pulls will be important.

Recommended Future Directions by the LCB Research Program

- Determine whether documenting optional demographic variables of license holders is of interest to internal and external partners for future analyses examining equitable enforcement practices. If yes, develop best practices to implement data collection in a voluntary, secure, and standardized way.
- Streamline how data is entered and collected across the agency so future analyses can provide quicker and more reliable results and recommendations. As one example, determining how to best link complaint data to premise check(s) to type of non-compliance received (e.g., Written Warning, Verbal Warning, AVN) to end result of non-compliance would create a more comprehensive and useful dataset.

Possible Future Directions If/When Additional Resources are Available.

- Examine premise checks on a qualitative level to better understand dynamics related to officer/licensee interactions.
- Analyze potential differences in types of recorded non-compliance and end result of violations that occur by license type. This would help LCB further understand certain findings (e.g., what types of violations occur on weekend vs. weekday).
- Further understand differences in complaints received and end results of associated complaints.
- Re-run analyses examining demographics at the census tract level rather than county level.
- Examine data for cannabis licenses and determine the extent findings remain consistent.

Please note that the above possible future directions would require extensive time and allocated resources to the Research Program as well as process changes for the Enforcement and Education division. The Research Program recommends that data standardization is prioritized prior to further analyses on this topic.

Supplemental Information

Supplement 1. Primary Privilege License Groupings

<u>Higher Risk, On-Premise (Associated with Nightlife)</u>	<u>Lower Risk, On-Premise</u>	<u>Off-Premise</u>	<u>Entertainment</u>	<u>Non Public</u>	<u>Producers/Manufacturers</u>	<u>Lodging</u>	<u>Tribal</u>	<u>Not Included in Groupings</u>	<u>Reason</u>
BEER/WINE REST - BEER W/TAPROOM SPIRITS/BR/WN REST LOUNGE +	BEER/WINE REST - BEER	BEER/WINE SPEC RESTRICT FORT WINE	SPORTS ENTERTAINMENT FACILITY	PRIVATE CLUB - BEER/WINE	DOMESTIC WINERY < 250,000 ADDL LOC	HOTEL	TRIBAL MOA	SERVE EMPLOYEES & GUESTS	Permit, Not Primary Privilege
SPIRITS/BR/WN REST LOUNGE +	BEER/WINE REST - BEER RACETRACK	BEER/WINE SPECIALTY SHOP	SPIRITS/BEER/WINE THEATER	PRIVATE CLUB - SPIRITS/BEER/WINE	DOMESTIC WINERY < 250,000 LITERS	MOTEL		BED & BREAKFAST	Permit, Not Primary Privilege
SPIRITS/BR/WN REST LOUNGE -	BEER/WINE REST - BEER/WINE	BEER/WINE SPECIALTY SHOP GROWLERS	BEER/WINE THEATER	SPIRITS/BR/WN REST NONPUBLIC +	DOMESTIC WINERY > 249,999 ADDL LOC			FARMER'S MARKET BEER SALES	Permit, Not Primary Privilege
BEER/WINE REST - WINE W/TAPROOM	BEER/WINE REST - WINE	COMBO SPECIALTY OFF PREM S/B/W	NON-PROFIT ARTS ORGANIZATION	SPIRITS/BR/WN REST NONPUBLIC -	DOMESTIC WINERY > 249,999 LITERS			FARMER'S MARKET WINE SALES	Permit, Not Primary Privilege
BEER/WINE REST-BEER/WINE W/TAPROOM TAVERN - BEER		COMBO SPECIALTY OFF PREM S/B/W CLS			MICROBREWERY			FARMERS MARKET FOR BEER	Permit, Not Primary Privilege
TAVERN - BEER/WINE		BEER/WINE GIFT DELIVERY			B/W ON PREMISES ENDORSEMENT			FARMERS MARKET FOR BEER/WINE	Permit, Not Primary Privilege
TAVERN - BEER/WINE		GROCERY RESTRICT F-WINE/STRO			DOMESTIC BREWERY			FARMERS MARKET FOR SPIRITS	Permit, Not Primary Privilege
TAVERN - WINE		NG BEER GROCERY STORE - BEER/WINE			CRAFT DISTILLERY			FARMERS MARKET FOR WINE	Permit, Not Primary

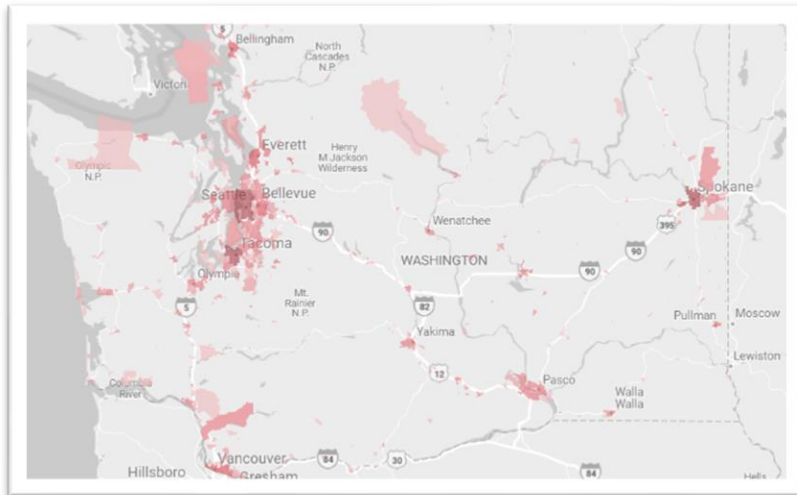
NIGHTCLUB		GROCERY STORE-RESTRICT FORT WINE		DISTILL / RECTIFY		FARMERS MARKET SPIRITS SALES	Privilege Permit, Not Primary Privilege
		BEER/CIDER		FRUIT AND/OR WINE DISTILLERY		SPIRITS/BR/W N REST SERVICE BAR	Unique Primary Privilege
		GROCERY GROWLERS COMBO		MANUFACTURER - LIQUOR		SPIRITS/BR/W N REST SERVICE BAR SEAS	Seasonal and May Skew Data
		GROCERY OFF PREM S/B/W				SENIOR CENTER	Unique Primary Privilege
		COMBO GROCERY OFF PREM S/B/W CLS SLS				VIP AIRPORT LOUNGE	Unique Primary Privilege
		SPIRITS RETAILER				SNACK BAR	Unique Primary Privilege
		SPIRITS RETAILER				SNACK BAR - CONCESSION	Unique Primary Privilege
		CLS SPIRITS RETAILER				SPIRITS/BR/W N REST LOUNGE + SEAS	Seasonal and May Skew Data
		WINE RETAILER RESELLER-SPECIALTY				SPIRITS/BR/W N REST LOUNGE - SEAS	Seasonal and May Skew Data

Supplement 2. Actions Not Considered Premise Checks

- Fuel Stop
- Law Enforcement Contact
- Training
- Postings
- iS400 Complaint Investigations
- Phone Calls
- Emails
- Suspension
- Special Occasion License Check
- RVP Member Support and Education
- New Licensee Inspections
- Liquor Applicant Site Verification
- Licensee Support and Education
- Grocery Store B/W Tasting Check-Non-Event
- Grocery Store B/W Tasting Check
- Final Inspection
- Expired Licenses
- Consultation Visit
- Banquet Permit
- AIA Impact Area Site Verification
- COVID-19
- Surveillance

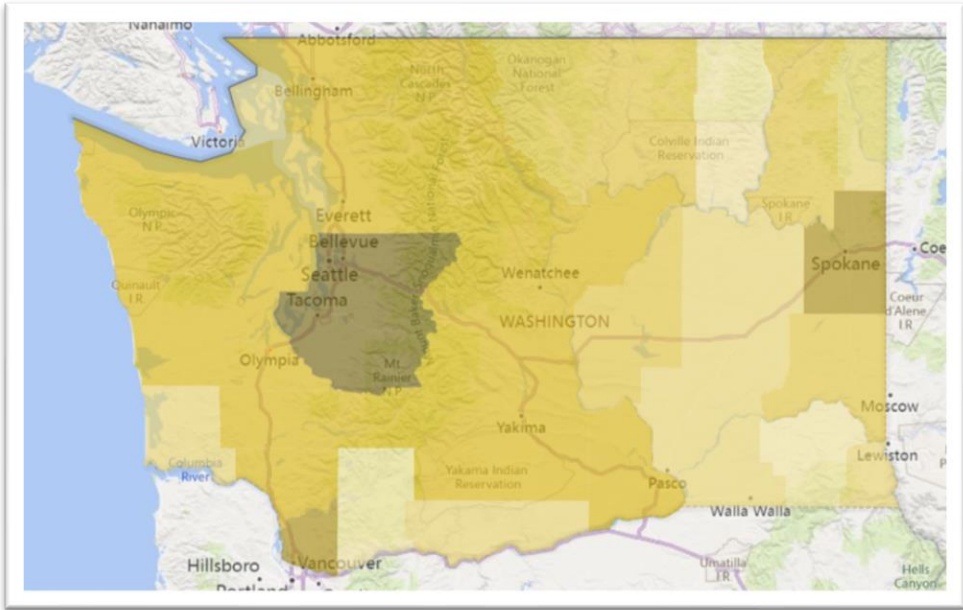
Supplement 3. Number of Licenses Associated with Nightlife

Supplemental Figure 3.1. Total Number of Unique Licenses Associated with Nightlife by City



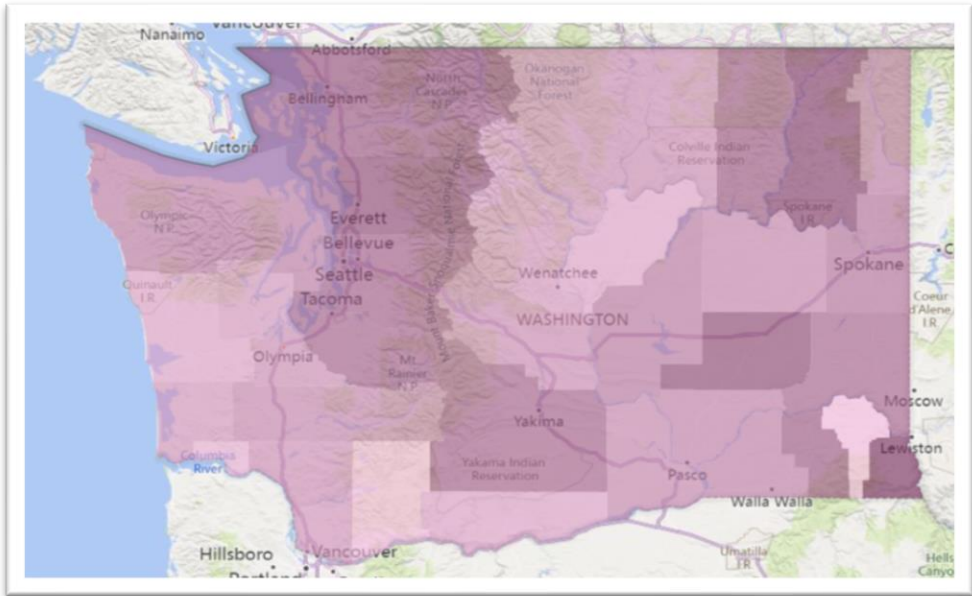
Supplement 4. County/Regional Level Differences

Supplemental Figure 4.1: Total Premise Checks by County



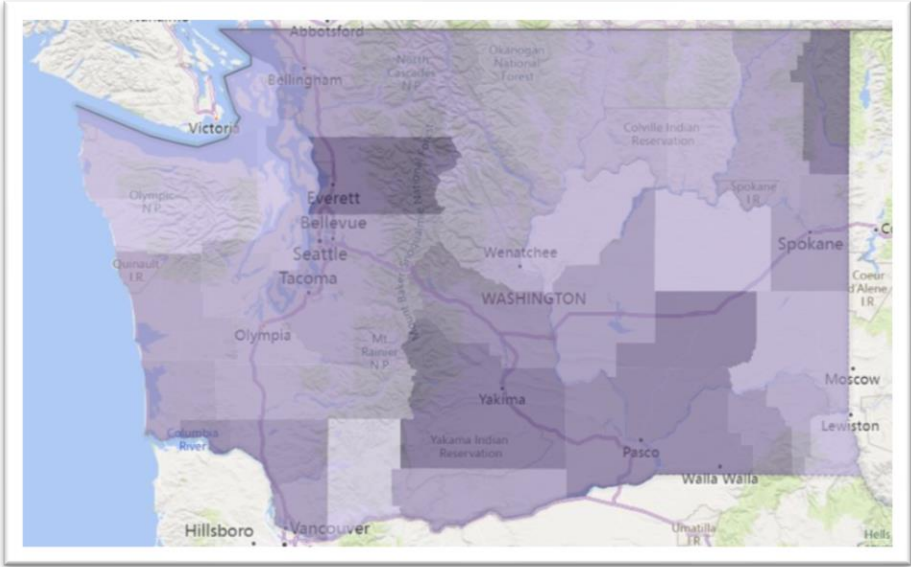
Note: Darker counties indicate more total premise checks.

Supplemental Figure 4.2: Percent of Premise Checks with Recorded Non-Compliance by County



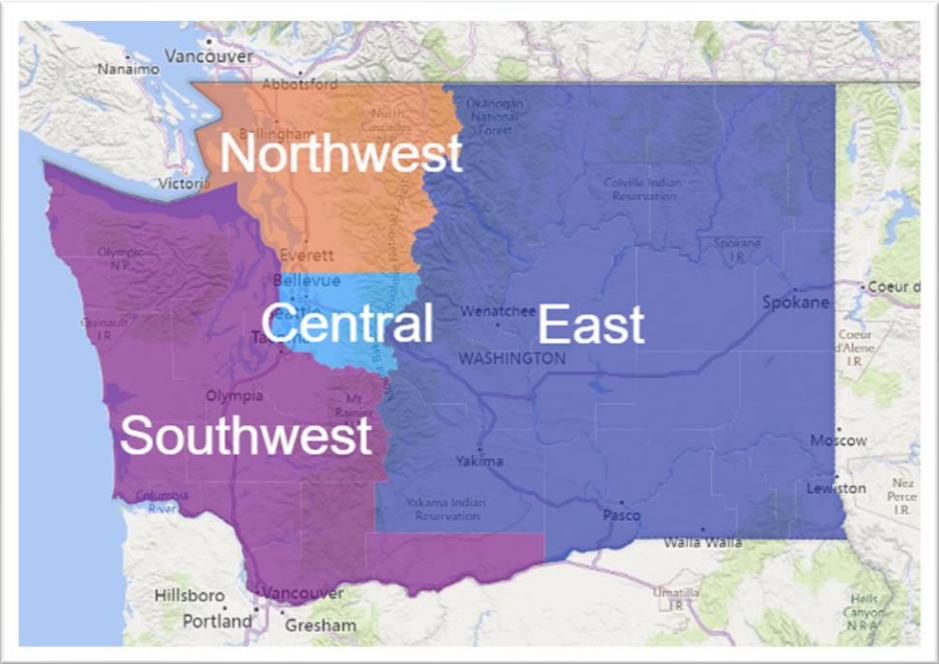
Note: Darker counties indicate greater percent of premise checks resulting in a recorded non-compliance.

Supplemental Figure 4.3: Percent of Premise Checks with Complaint Investigations by County



Note: Darker counties indicate greater percent premise checks associated with complaint investigations.

Supplemental Figure 4.4. Identified Regions for Supplemental Analysis



Note: These are not the Enforcement Regions that are currently identified by LCB.

Supplemental Table 4.1. Results of Analyses with Overall Number of Premise Checks by Region.

The below table shows that in individual models without other covariates the Southwest region generally had greater annual premise checks per license. Northwest and Central generally had lower annual premise checks per license. This finding is consistent when considering demographic trends seen in main analyses.

Covariate	Estimate	SE	t-value	p-value	95% CI	
Southwest	1.21	0.09	14.09	<.0001	1.04	1.38
East	0.07	0.09	0.80	0.43	-0.11	0.26
Northwest	-0.60	0.11	-5.48	<.0001	-0.82	-0.39
Central	-0.72	0.08	-9.15	<.0001	-0.87	-0.56

Supplemental Table 4.2 : Results of Analyses with Increased Likelihood for Resulting in a Recorded Non-Compliance by Region

The below table shows that in individual models without other covariates Southwest and East regions generally had less risk of recorded non-compliance and Northwest and Central regions generally had more recorded non-compliance risk. This finding is consistent when considering demographic trends seen in the main analyses.

Covariate	Estimate	SE	t-value	p-value	95% CI	
Southwest	-0.01	0.00	-8.27	<.0001	-0.02	-0.01
East	-0.01	0.00	-4.45	<.0001	-0.01	0.00
Northwest	0.02	0.00	7.37	<.0001	0.01	0.02
Central	0.01	0.00	3.03	0.001	0.00	0.01

Supplement 5. Results of Analysis with Number of Complaints as Outcome

Covariate	Estimate	SE	t-value	p-value	95% CI	
Intercept	-0.46	0.03	-16.70	<.0001	-0.51	-0.41
Year	-0.01	0.00	-3.04	0.001	-0.02	0.00
Annual Checks	0.21	0.00	141.75	<.0001	0.21	0.22
Neighborhood						
Capitol Hill	-0.08	0.05	-1.50	0.13	-0.19	0.02
University District	-0.02	0.05	-0.50	0.62	-0.11	0.07
County Demographics						
Percent Black	-0.04	0.01	-3.85	0.00	-0.06	-0.02
Percent White	0.00	0.01	0.81	0.42	-0.01	0.01
Percent Hispanic	0.01	0.00	2.06	0.04	0.00	0.02
Percent Asian	0.00	0.00	-0.99	0.32	-0.01	0.00
Median Income	0.09	0.01	7.81	<.0001	0.07	0.12
Total Number of Outlets	0.15	0.01	11.81	<.0001	0.13	0.18

Supplement 6. Technical Description of Analytic Approach

Intraclass correlations (ICC) were first computed from unconditional models to examine the degree of variation both within and between licenses. All models were then estimated using SAS 9.4 PROC MIXED and PROC GLIMMIX. These models used missing-at-random assumptions for handling missing data. Maximum likelihood estimation (ML) was used to estimate fixed regression coefficients and random variance parameters. All models were computed with the denominator degree of freedom set to between-within. Covariance structures were set to autoregressive to account for autocorrelated residuals that are inherent in longitudinal datasets. Intercepts were allowed to randomly vary between licenses.

Linear mixed-effect models were used to estimate whether the total number of premise checks differed by year (0=2016, 1=2017, 2=2018, 3=2019, 4=2020, 5=2021, 6=2022, 7=2023), total number of complaints received for given year, Capitol Hill Neighborhood [0=no, 1=yes], University District [0=no, 1=yes], percent Black, percent White, percent Hispanic, percent Asian, median income, and total number of overall licenses. Race, income, and overall licenses were grand mean centered.

Logistic mixed-effect models were then used to estimate whether the risk of resulting in a recorded non-compliance [0=no, 1=yes] differed by year (0=2016, 1=2017, 2=2018, 3=2019, 4=2020, 5=2021, 6=2022, 7=2023), duration in minutes, weekend [0=Sunday, 0=Monday, 0=Tuesday, 0=Wednesday, 1=Thursday, 1=Friday, 1=Saturday), number of officers present, JET participation [0=no, 1=yes], complaint [0=no, 1=yes], Capitol Hill Neighborhood [0=no, 1=yes], University District [0=no, 1=yes], percent Black, percent White, percent Hispanic, percent Asian, median income, and total number of overall licenses. Race, income, and overall licenses were grand mean centered.

Prior to analyses, distributions of study variables were examined. Results were unchanged regardless of variable transformations. Estimates, probability values, and confidence intervals were largely unchanged. Results were first run with each covariate entered separately in the model, and subsequently with covariates included using a stepwise procedure. In general, findings were unchanged.

Supplement 7. Results of Analysis with Number of Premise Checks as Outcome Regardless of Primary Privilege

Covariate	Estimate	SE	t-value	p-value	95% CI	
Intercept	2.91	0.08	35.78	<.0001	2.75	3.07
Premise Check Characteristics						
Year	0.02	0.01	2.98	0.001	0.01	0.04
Complaint	1.26	0.01	133.16	<.0001	1.24	1.27
Neighborhood						
Capitol Hill	0.33	0.23	1.47	0.14	-0.11	0.77
University District	0.21	0.17	1.23	0.22	-0.12	0.54
County Demographics						
Percent Black	0.26	0.04	5.78	<.0001	0.17	0.34
Percent White	0.00	0.02	-0.06	0.95	-0.04	0.04
Percent Hispanic	-0.02	0.02	-0.85	0.39	-0.06	0.02
Percent Asian	-0.04	0.02	-2.21	0.03	-0.08	0.00
Median Income	-0.23	0.03	-7.29	<.0001	-0.30	-0.17
Total Number of Outlets	-0.48	0.03	-13.99	<.0001	-0.54	-0.41

Supplement 8. Results of Analysis with Recorded Non-Compliance as Outcome, Regardless of Primary Privilege

Covariate	Estimate	SE	t-value	p-value	95% CI	
Intercept	-0.01	0.00	-1.75	0.08	-0.01	0.00
Year	-0.01	0.00	-16.02	<.0001	-0.01	0.00
Hour	0.00	0.00	-1.19	0.23	0.00	0.00
Weekend	0.00	0.00	-4.85	<.0001	-0.01	0.00
JET Participation	0.00	0.01	0.20	0.84	-0.01	0.01
Complaint	0.02	0.00	13.33	<.0001	0.02	0.02
Number of Officers	0.03	0.00	40.60	<.0001	0.03	0.03
Duration	0.00	0.00	64.95	<.0001	0.00	0.00
Neighborhood						
Capitol Hill	-0.01	0.01	-0.89	0.37	-0.02	0.01
University District	0.01	0.00	1.08	0.28	0.00	0.01
Percent Black	0.00	0.00	0.96	0.34	0.00	0.00
Percent White	0.00	0.00	0.41	0.68	0.00	0.00
Percent Hispanic	0.00	0.00	0.97	0.33	0.00	0.00
Percent Asian	0.00	0.00	0.05	0.96	0.00	0.00
Median Income	0.00	0.00	-3.47	0.001	-0.01	0.00
Total Number of Outlets	0.01	0.00	7.55	<.0001	0.01	0.01