

Black boxes and gray spaces: how illegal dwellings find regulatory loopholes

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ABSTRACT: In Honolulu, the building permit process has been likened to a black box, synonymous with regulatory barriers and unbearable delays. In response, homeowners cultivate gray spaces: ambiguous accessory spaces such as “Hobby,” “TV” or “Rumpus Rooms” that are issued permits and then frequently converted illegally into an independent dwelling unit. In essence, these Illegal Accessory Dwellings function as non-permitted second units on land zoned for single-family use.

This paper proposes to quantify the number of Illegal Accessory Dwellings in Honolulu, based on the number of residential buildings permits issued for spaces that could be easily converted into a separate rental unit. Using building permit data provides a systematic method to analyze all legally sanctioned building activity, pinpointing only those residential layouts that are highly suspicious of being converted into a separate rental unit. In so doing, this paper makes a key distinction: a structure can be built to code, but its occupancy – how it is used – can still be illegal.

From 2005-2012, this paper found that Illegal Accessory Dwellings comprised a low of 30% up to 46% of all new one and two-family dwellings units created. The highest rate of production was in 2008, during the Great Recession. Thus, this paper suggests that Illegal Accessory Dwellings contribute a substantial number of units to the overall housing supply.

This paper also raises questions such as – How are these units being counted in the official US Census? Are they counted as separate households or as part of the primary residence? Given the significant number of this type of housing, how Illegal Accessory Dwellings are characterized could potentially shift the landscape of where urban growth is occurring.

Research methods include correlational research, GIS mapping and case studies, to explain how homeowners circumvent the rules.

Key Words: Illegal Accessory Dwelling, Regulatory Capture

INTRODUCTION

An Illegal Accessory Dwelling (hereafter: IADs) is a legally constructed room accessory to a primary residence. However, these spaces are frequently illegally occupied as a separate independent dwelling unit (including a bedroom, full kitchen facilities and bathroom), becoming an illegal second dwelling unit on land zoned for single-family use.

A critical distinction made in this study is use vs structure. All Illegal Accessory Dwellings identified in this paper were issued a building permit. Their structure, layout and floor plan are all legal and met local zoning codes. However, it is only when these spaces are occupied by a tenant and used as an independent living unit that these spaces become Illegal Accessory Dwellings.

These types of living arrangements create needed rentals (Reade 2000). This issue is particularly relevant for Honolulu, a city with one of the highest costs of living and the most unaffordable real estate (relative to income) in the nation (Performance Urban Planning 2012). Thus this paper begins with the premise that Illegal Accessory Dwellings actually serve a significant public benefit by adding units to the housing supply, thereby having the net effect of

improving housing affordability. IADs highlight an interesting contradiction in housing policy – while they are officially unwanted, they are desperately needed.

To that end, the goal of this paper is 1) to quantify all legally sanctioned building permit activity to create Illegal Accessory Dwellings, and 2) perform a rudimentary spatial analysis to see what, if any, patterns emerge. With this information, policymakers will have a better understanding of where this type of urban growth is occurring and perhaps which portions of the second unit policy should be modified.

To date, illegal dwellings have not been comprehensively quantified in any major metropolitan area. While studies of illegal units in other cities have used visual surveys (Cchaya 2008) or focused on the hypothetical occupancy of the structure (ie. realtor descriptions that describe potential rental income from a basement studio), the methodology used in this paper systematically investigates *all* legally sanctioned building activity, pinpointing only those residential layouts that are highly suspicious for being converted into a separate rental unit.

IADs are difficult to quantify because their immense variety makes it difficult to create a filter to catch them all – and even if they were identified, how the space is used is likely to change over time. While previous studies have relied primarily on surveys of user behavior or visual surveys from a home’s exterior, this paper focusses on the floor plan configuration.

While it is common knowledge that these conversions occur, data has been lacking to quantify this type of housing. Using GIS and basic spatial analysis tools, this paper proposes to show where these IADs are being built and their relationship to other demographic information provided by the US Census.

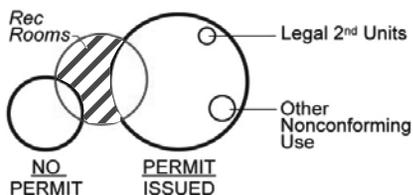


Figure 1: Venn Diagram: Most Rec Rooms are issued permits, but then used/occupied in way that is not permitted.



Figure 2: Legal 2nd Unit: Ohana Dwelling (down) + Main House (up)



Figure 3: Suspicious: Single-family dwelling with an affidavit; one can assume it has a Rec Room.

From the exterior, it is difficult to tell whether a structure contains a Rec Room or not. While accessory residential spaces are often lawfully built with a permit, it is only when a tenant moves in, that the IAD becomes an illegal unit. An IAD’s physical location, dimensions, and configuration is not the issue; it is how the space is occupied that makes it illegal.

Under the land use code, IADs are not intended to be used as a bedroom or an independent living unit. This exuberant gray area is where regulation of planning policy gets messy. Because land use departments cannot effectively monitor or control landlord behavior, the City has great difficulty enforcing occupancy or use provisions, especially on residential zoned land.

AFFORDABLE RENTAL HOUSING

Organizations such as the AARP, HUD, EPA, the Joint Center for Housing Studies of Harvard University and the SmartCode (AARP 2000) (US 2008) (EPA 2009) (Lawler 2001) (Hurley 2009), specifically name “Accessory Dwelling Units” as a form of supportive housing for seniors and a source of affordable rental housing. Essentially, they are advocating for Rec Rooms that can be legally occupied and rented for income.

Furthermore, secondary units support housing affordability by increasing the number of units available for renters, giving homeowners passive income, thereby supporting neighborhood stability, aging-in-place, (Hare 1991) and long-term community goals such as reducing sprawl and concentrating new development near existing civic infrastructure. But while Honolulu has allowed legal Accessory Dwelling Units since 1982, (City 1984) there seems to be a disconnect between policy intention and urban implementation that encourages otherwise law-abiding homeowners to operate illegal rentals.

CASE STUDY

The demand for homes that are configured to include a secondary unit can also be seen in predesigned home kits. Homeowners who can't afford the services of an architect to customize their home to include a separate rental unit can select from a variety of predesigned home kits that include plans and materials from Honsador Lumber. The Oahu model floor plan is notable for its entry, at the bottom of the stairway. Adding a door at the 1st floor Living Room easily converts this home into two separate dwelling units. The 1st floor already has a wet bar and its own separate entry off the Family Room.

The fact that homes like these are available for purchase off-the-shelf from suppliers who can supply all materials pre-cut and ready to assemble on site, shows how sophisticated and ubiquitous the Rec Room loophole has become.

As a single-family dwelling, the Oahu model unit would not be required to provide a 1-hour fire-rated separation between units (ie. the floor-ceiling assembly). Consequently, if the initial homeowners added a door at the stairway and sold the home, the physical configuration could easily become a de facto separate, second unit.

METHODOLOGY

The key insight that makes this research possible is that when a building permit is issued for residential property, City Plan Examiners will flag projects that contain layouts they deem suspicious for containing an illegal rental unit. In this writer's experience, living areas that are partitioned separate from the main house and provided with its own exterior entry, bathroom, bedroom and wet bar, would be considered suspicious and thus trigger a requirement for an affidavit and/or restrictive covenant document to be filed as a condition of permit approval.

While the affidavit/covenant document states that the owner of the property promises that the use will not be converted into a separate dwelling unit, in reality, this does little to deter illegal rental activity. However, these data fields provide an excellent way to pinpoint only those permits that contain layouts that are suspicious.

This search criteria is especially useful because many of these permit descriptions do not say "Recreation Room" and of course do not say "Illegal Accessory Dwelling". Using this as the search criteria avoids the necessity of needing to review the actual approved building permit drawings to determine which ones were suspicious; by flagging the permit as needing an affidavit or restrictive covenant, the City Plans Examiners have already made that determination. Even when the building permit description states new "Hobby Room," "Gym," "Sun Room," or simply "Alterations," if the permit required an affidavit or restrictive covenant, one can assume that the layout was suspicious because it could be easily converted into a separate rental unit. Therefore, this research relies on City Residential Plans Examiners to review all permit drawings.

Exceptions to this rule are: Ohana Dwellings, Farm Dwellings, Relocation permits, and Demolition permits. These categories also require either an affidavit or a restrictive covenant, but are not Illegal Accessory Dwellings and were therefore removed from this study's dataset. The permits that remained were assumed to be for Illegal Accessory Dwellings. Spot checking permit descriptions suggests this understanding is consistent with the results.

FINDINGS

This paper identified a total of 5,680 Illegal Accessory Dwelling permits were issued in Honolulu between 2005 and 2012. In comparison, 9,726 single-family or two-family dwellings units and 102 Ohana Dwelling units were created in the same period. Thus, during the 8 year period of this study the contribution of each category to the total number of residential dwellings (multifamily dwellings were not counted):

| Total | % | Type |
|-------|------|--------------------------------------|
| 5,680 | 37 % | Illegal Accessory Dwellings |
| 9,726 | 63 % | Single and Two-Family Dwelling Units |
| 102 | 1 % | Ohana Dwellings |

| Year Permit Issued | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SFD + TFD[1] | 2,111 | 1,848 | 1,357 | 808 | 876 | 911 | 780 | 1,035 |
| Illegal Accessory Dwellings[2] | 911 | 927 | 896 | 695 | 562 | 593 | 594 | 502 |
| Ohana Unit[1] | 11 | 13 | 18 | 11 | 10 | 14 | 12 | 13 |
| Total Residential | 3,033 | 2,788 | 2,271 | 1,514 | 1,448 | 1,518 | 1,386 | 1,550 |

| Illegal Accessory Dwellings/Total Res | 30% | 33% | 39% | 46% | 39% | 39% | 43% | 32% |
|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|

Figure 4: Annual New Residential Housing Inventory (Honolulu County)

Figure 4 shows that the highest proportion of Illegal Accessory Dwellings was permitted in 2008, the year of the Great Recession in the US. This suggests that in worsening economic conditions, homeowners create above average numbers of Illegal Accessory Dwellings. However, this correlation could be due to other factors. The second highest number of Illegal Accessory Dwellings occurred in 2011 and one wonders if this correlates to a relapse of bad

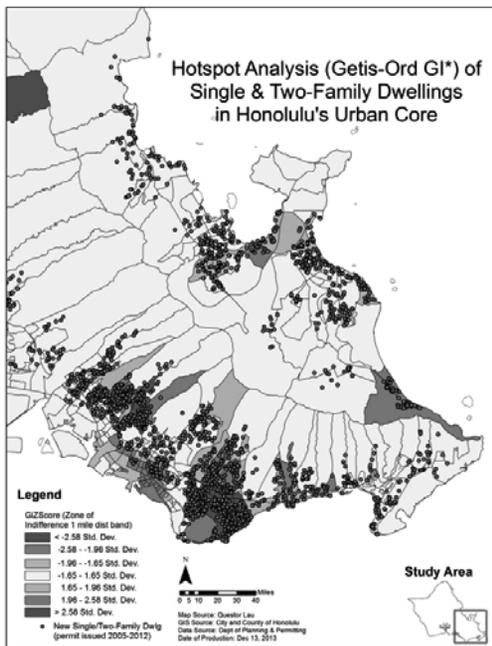


Figure 5: Statistical Hotspot Analysis of Single and Two-Family Dwelling distribution

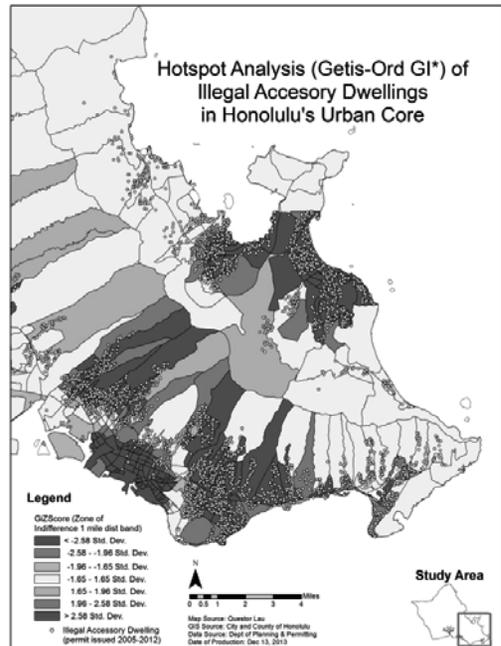
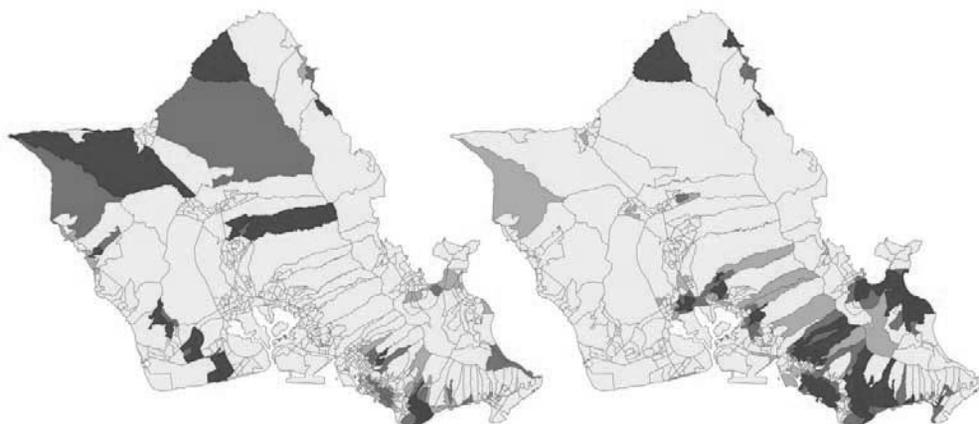


Figure 6: Statistical Hotspot Analysis of Illegal Accessory Dwelling distribution

economic conditions in Honolulu.

The Department of Planning and Permitting has already designated an Ohana Zone, wherein properties have supposedly already been prescreened for adequate road, water and wastewater infrastructure. However, when Illegal Accessory Dwellings were overlaid over the



Ohana Zone, 69% or 3,804 Illegal Accessory Dwelling permits issued between 2005 to 2012 were not within the Ohana Zone. A little less than a third or 1,700 of the total 5,504 Illegal Accessory Dwellings were located within the Ohana Zone. If it is reasonable to assume that at some point in its lifetime, these Illegal Accessory Dwellings will be occupied as an independent dwelling unit, then this pattern of growth suggests that the City is losing control over where urban growth is occurring.

Figure 7: Islandwide Statistical Hotspot Analysis. Left: Single and Two-Family Dwellings; Right: *Illegal Accessory Dwelling*

Figure 7 shows that the distribution of Illegal Accessory Dwellings vs new Single and Two-Family dwellings is different. New legal dwellings are statistically more prevalent in West Oahu, whereas Illegal Accessory Dwellings occur primarily within the urban core. This is a striking difference although not unexpected since real estate prices and vacant land availability are more favorable at the urban fringe, which is more conducive to new development. However, this pattern suggests legal dwellings are contributing to urban sprawl. In comparison, Illegal Accessory Dwellings locations are consistent with Smart Growth principles, that is, they are primarily urban in-fill, occurring in areas with existing civic infrastructure.

One of the major regulatory barriers to Ohana Dwellings – could be eliminated. Using ArcGIS to intersect the bus stop ¼ mile buffer with Illegal Accessory Dwelling centroid locations, revealed that 4,827 out of 5,504 Illegal Accessory Dwellings or 88% of Illegal Accessory Dwellings were within a 5 minute walk of bus stops. This is compelling evidence to support reducing off-street parking requirements for Ohana Units from 2 stalls to 1 or none. This is supported by research from Berkeley shows that tenants of Accessory Dwellings are less likely to own cars than the people who reside in the main house (Chapple 2012).

DISCUSSION

One strong criticism of this research is that it makes the assumption of guilt – that these building permits may contain layouts that are suspicious for being a separate rental, but that does not guarantee that they will be used that way. This is exactly the point of this methodology. While other studies have focused primarily on the behavior of users, this study examines the physical layout of the structure. How a space is used, frequently changes over time, while the structure itself is less likely to change. Therefore, if we examine the floor plan layout of a home, we can gain some significant insight into how that space will likely be used at some point of its existence. Maybe it is not used as a separate rental unit now, but because it is configured in a way that is easily partitioned from the main house, there is a high likelihood that at some point, someone will be enjoying the space as a separate dwelling unit, independent from the main house.

This research leads to more questions, such as why did homeowners choose an Illegal Accessory Dwelling permit instead of an Ohana Unit (a legal second unit)? The dataset examined for this paper can be drilled down further to gain insights into the underlying property characteristics. For example, did owners who built Illegal Accessory Dwellings have lot sizes that were too small and thus precluded an Ohana Unit? What is the average construction valuation of Illegal Accessory Dwellings as compared to new Ohana Dwellings and single and two-family dwellings? Further correlations between Census Block Group data (ie. owner-occupancy rate, mean household income, number of cars per household, and so on) and areas with the highest number of Illegal Accessory Dwellings might suggest future illegal growth trends if regulations were liberalized. Further statistical analysis of the results could greatly enhance the impact of these findings.

BLACK BOXES → GRAY SPACES

Reports from planning organizations repeatedly show that 1) with or without government approval, secondary units are being created within residential neighborhoods (Wegmann 2011); and 2) these units rent at or below fair market value (Reade 2000) (P. H. Hare 1985).

The widespread pattern of IADs suggests that the traditional command and control approach to regulation is not working. This is especially true for residential properties where public sanctions are least welcomed. However, even if this approach were taken to its logical extreme – and City Inspectors were granted police search and seizure capabilities, like narcotics enforcement – the list of violators and illegal tenants would result in a mass eviction on the scale of a natural disaster, except this would have been completely man-made. Therefore, current regulations exist in a state of limbo – not allowing but needing IADs. Even the current complaint-driven enforcement system is more like posturing than sound policy. What would happen if all IADs uncovered during this research were tendered to the City as a mass complaint? Such mischief only underscores the substantial number of IADs, highlighting its status as a regulatory gray area.

What then is the alternative to regulation? One approach comes from social normativity research. According to legal scholar W.A. Bogart, when it comes to behaviors that are difficult to regulate (he was studying overeating, gambling and smoking, but the same logic can be applied to Illegal Accessory Dwellings) nudging people towards desired behavior: a permit-but-discourage approach, is more effective than legal sanctions alone (Bogart 2011, Introduction). This logic refocuses regulatory efforts on the worst offenders rather than minor ones. Applying this to Illegal Accessory Dwellings means that only those homes that have been converted into multifamily (three or more) units without a permit should be identified and prosecuted since they pose the highest hazard.

For example, the risk of fire is significantly higher for a single-family home that has been converted into a multifamily dwelling (more than three units) without a permit. According to the National Fire Data Center, “Cooking was, by far, the leading cause of all residential building fires and injuries.” (National 2013) If each unit has its own hot-plate or impromptu cooking area, an accident in one unit can spread quickly to all. This is exacerbated when minimum fire-safety elements required by the Building Code, such as: fire alarms (smoke detectors), egress windows, and minimum clearances around cooking areas, are not provided. Multifamily dwellings have additional safety requirements such as fire-rated corridors and fire-sprinklers that are typically not provided in illegal conversions.

This article suggests that the legal field’s interest in social norms, as a potentially more effective mechanism to shape behavior than law, should also be applied to the Building and Zoning Codes, especially in areas where officials find it difficult to enforce. This paper raises and interesting question: If homeowners use a legal loophole to make one Illegal Accessory Dwelling, then why aren’t they making two or more? The answer seems to be because one accessory is the social norm (Lau 2012) but also, because the City will not issue a permit for more than one accessory use per dwelling (Crispin 2004). If a City Inspector discovers multiple IADs in a single-family residence, the City will require alterations to revert the home back to single-family use. The potential massive loss of rental income and added rehab costs seem to be enough to deter such activity (Lau 2012). Such conversions are rare because it runs

against prevailing social norms and because such configurations cannot obtain a building permit. Therefore, Illegal Accessory Dwellings in Honolulu demonstrate that regulations can have greater effectiveness when they reinforce social norms.

CONCLUSIONS + FURTHER RESEARCH

Considering that *all* of the Illegal Accessory Dwellings identified on the attached maps are not recognized as legal dwelling units, this research helps situate the nuances of the zoning code in the public discourse by providing maps and pictures. Armed with quantifiable information, lawmakers will be better informed to address public concerns and fears about change.

As GIS becomes an increasingly accessible and user friendly tool, it is being used to help understand the factors that drive urban phenomenon such as Illegal Accessory Dwellings. Such data also challenges assumptions of larger development trends in Honolulu and nationally. In Honolulu, the majority of new single and two-family dwellings are being built at the urban fringe. However, the pattern of Illegal Accessory Dwelling development shows that these units are typically built within the urban core that according to the City's Primary Urban Center development plan, is already built-out. This paper challenges that assumption.

As a study of a major metropolitan city¹, this paper suggests that Illegal Accessory Dwellings are a major contributor of housing, contributing substantially to a shadow supply of housing. On a larger scale, this study draws into question the accuracy of the US Census. Are Illegal Accessory Dwellings being counted in the Census? This paper paves the way for a systematic method of counting Illegal Accessory Dwellings that can be compared against official housing production numbers.

It should be noted that while none of the Rec Rooms included using these search criteria have been verified as containing an illegal rental, it stands to reason that the physical configuration of the spaces are so conducive to its use as a separate rental unit, that at some point of the life of the structure, there is a high likelihood that it will illegally occupied. It should also be noted that some Rec Rooms do not have direct access to an exterior exit and are well integrated into the floor plan of their unit. It is this writer's experience that although such instances are rare, there are indeed homeowners that design the layout of their Rec Room in an integrated way, so that circulation ingress and egress paths overlap. As these integrated Rec Rooms are much harder to segregate and rent separately from the main house, they are not suspicious and thus not counted in this study.

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¹ Honolulu is currently just under 1 million residents and consequently has been excluded from studies comparing major cities in the US and the world. In a few years, this will change as Honolulu will soon surpass the 1 million population benchmark number in a few years.

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