

# Bridging The Financial Gap

Charles P Wathen

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# Annual Mortgage Expense – Honolulu Versus Mainland

Annual Mortgage Expense for 8 cities with comparable median income to Honolulu  
2006

Year	Median Sales Price Single-family	30-year mortgage interest rate	Annual Mortgage Expense [1] Single-family	80% Median Family Income	Median Family Income	120% Median Family Income	House Payment Divided By 80% Median	Affordability	
								House Payment Divided By Median Income	House Payment Divided By 120% Median
Seattle	\$361,200	6.25 %	\$24,019	\$59,440.0	\$74,300	\$89,160	40.4%	32.3%	26.9%
Philadelphia	230,200	6.25	\$15,308	\$57,680.0	\$72,100	\$86,520	26.5%	21.2%	17.7%
Chicago	273,500	6.25	\$18,187	\$57,920.0	\$72,400	\$86,880	31.4%	25.1%	20.9%
Baltimore	235,300	6.25	\$15,647	\$58,240.0	\$72,800	\$87,360	26.9%	21.5%	17.9%
Kansas city	155,800	6.25	\$10,360	\$54,080.0	\$67,600	\$81,120	19.2%	15.3%	12.8%
Atlanta	153,000	6.25	\$10,174	\$53,200.0	\$66,500	\$79,800	19.1%	15.3%	12.7%
Denver	249,500	6.25	\$16,591	\$57,040.0	\$71,300	\$85,560	29.1%	23.3%	19.4%
Dallas Fort Worth	149,500	6.25	\$9,941	\$52,400.0	\$65,500	\$78,600	19.0%	15.2%	12.6%
Average	226,000	6.25	\$15,028	\$56,250.0	70,313	\$84,375	26.7%	21.4%	17.8%
Honolulu	630,000	6.25	\$41,893	\$57,040.0	\$71,300	\$85,560	73.4%	58.8%	49.0%
Income need to afford	620,000	6.25	\$41,228		\$146,165 205% AMI			28.2%	

[1] Assuming 10% down payment.

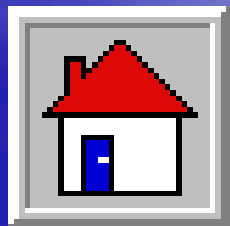
# Financial Gap Analysis – 2 Bedroom

# Methodology



# Affordable Rent

- 2 Bedroom – 50% Area Medium Income
  - \$802 per month
  - \$0.97 rent per square foot



# Net Operating Income

Net Operating Income =  
Rent – Operating Expenses – Vacancy – Cap-X

- Assumption
  - 2 Bedroom operating expenses, vacancy, cap x  
= \$500 per month
- $\text{NOI} = \$802 - \$500 = \$302$



# Debt Service Coverage Ratio

Debt Service Coverage Ratio =  
Net Operating Income / Total Debt Service

- Assumption
  - Debt service coverage ratio = 1.10
- Debt Service Coverage =  $\$302 / 1.10 = \$275$

# Debt Service Constant

Debt Service Constant =

Percentage ratio between the debt service  
and the loan principal

- Assumption
  - Debt service constant = 6.75%
- Mortgage amount =  $(\$275/6.75\%)*12 = \$48,889$



# Market Value

Capitalization Rate = Net Operating Income /  
Market Value

- Assumption
  - Capitalization Rate = 6.25%
- Market Value =  $(\$302 / 6.25\%) * 12 = \$57,984$

# Cost to Build

- Assumption
  - 2 bedroom cost to build is \$303 per square foot
  - 2 bedroom square feet = 825
- Cost to build 2 Bedroom = \$249,975



# Cost Difference

- Cost = \$249,975
- Mortgage = \$48,889
- Cost Difference = \$201,086



# Subsidy – 9%

- Total Cost Difference = \$201,086
- Assumption
  - Low Income Housing Tax Credits = \$150,000
- Balance after tax credits = \$51,086
- Rural Housing Trust Fund to fund balance



# Subsidy – 4%

- Total Cost Difference = \$201,086
- Assumption
  - Low Income Housing Tax Credits = \$87,500
- Balance after tax credits = \$113,586
- Rural Housing Trust Fund to fund balance





# Gap Analysis 2 Bedroom Overview

## 2 Bedroom 50% AMI Financial Analysis

### Assumptions

Square Feet	\$ 825
Expenses	\$ 500
DSCR	1.1
DSC	6.75%
Cap Rate	6.25%
Cost / SF	\$ 303
9% LIHTC	\$ 150,000
4% LIHTC	\$ 87,500

### Analysis

Rent	\$ 802	
Expenses	\$ 500	
NOI	\$ 302	Rent - Expenses
DSC	\$ 275	NOI / DSCR
Mortgage	\$ 48,889	Actual DSC / DSC % *12 months
Market Value	\$ 57,984	NOI / Cap Rate *12 Months
Build Cost	\$ 249,975	Square Feet * Cost / SF
Cost	\$ 201,086	Build Cost - Mortgage

### 9% LIHTC

Cost	\$ 201,086
LIHTC	\$ 150,000
RHTF Bal	\$ 51,086

### 4% LIHTC

Cost	\$ 201,086
LIHTC	\$ 87,500
RHTF Bal	\$ 113,586



# Alternative Scenarios – 9% LIHTC

<b>30% AMI</b>	<b>Studio</b>	<b>1 Bedroom</b>	<b>2 Bedroom</b>	<b>3 Bedroom</b>	<b>4 Bedroom</b>
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>-\$20,202.02</u>	<u>-\$16,000.00</u>	<u>-\$3,070.71</u>	<u>\$9,050.51</u>	<u>\$19,393.94</u>
	\$222,702.02	\$240,580.00	\$253,045.71	\$246,424.49	\$235,906.06
<b>LIHTC</b>	\$114,545.00	\$134,727.00	\$150,000.00	\$153,285.00	\$153,180.00
<b>RHTF NEEDED</b>	<b>\$108,157.02</b>	<b>\$105,853.00</b>	<b>\$103,045.71</b>	<b>\$93,139.49</b>	<b>\$82,726.06</b>
<b>50% AMI</b>					
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$19,878.79</u>	<u>\$27,151.52</u>	<u>\$48,808.08</u>	<u>\$68,848.48</u>	<u>\$86,141.41</u>
	\$182,621.21	\$197,428.48	\$201,166.92	\$186,626.52	\$169,158.59
<b>LIHTC</b>	\$114,545.00	\$134,727.00	\$150,000.00	\$153,285.00	\$153,180.00
<b>RHTF NEEDED</b>	<b>\$68,076.21</b>	<b>\$62,701.48</b>	<b>\$51,166.92</b>	<b>\$33,341.52</b>	<b>\$15,978.59</b>
<b>60% AMI</b>					
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$40,080.81</u>	<u>\$48,646.46</u>	<u>\$74,828.28</u>	<u>\$98,909.09</u>	<u>\$119,595.96</u>
	\$162,419.19	\$175,933.54	\$175,146.72	\$156,565.91	\$135,704.04
<b>LIHTC</b>	\$114,545.00	\$134,727.00	\$150,000.00	\$153,285.00	\$153,180.00
<b>RHTF NEEDED</b>	<b>\$47,874.19</b>	<b>\$41,206.54</b>	<b>\$25,146.72</b>	<b>\$3,280.91</b>	<b>-\$17,475.96</b>

# Alternative Scenarios – 4% LIHTC

<b>30% AMI</b>	<b>Studio</b>	<b>1 Bedroom</b>	<b>2 Bedroom</b>	<b>3 Bedroom</b>	<b>4 Bedroom</b>
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>-\$20,202.02</u>	<u>-\$16,000.00</u>	<u>-\$3,070.71</u>	<u>\$9,050.51</u>	<u>\$19,393.94</u>
	\$222,702.02	\$240,580.00	\$253,045.71	\$246,424.49	\$235,906.06
<b>LIHTC</b>	\$68,818.00	\$78,591.00	\$87,500.00	\$89,416.25	\$89,355.00
<b>RHTF NEEDED</b>	<b>\$153,884.02</b>	<b>\$161,989.00</b>	<b>\$165,545.71</b>	<b>\$157,008.24</b>	<b>\$146,551.06</b>
<b>50% AMI</b>					
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$19,878.79</u>	<u>\$27,151.52</u>	<u>\$48,808.08</u>	<u>\$68,848.48</u>	<u>\$86,141.41</u>
	\$182,621.21	\$197,428.48	\$201,166.92	\$186,626.52	\$169,158.59
<b>LIHTC</b>	\$68,818.00	\$78,591.00	\$87,500.00	\$89,416.25	\$89,355.00
<b>RHTF NEEDED</b>	<b>\$113,803.21</b>	<b>\$118,837.48</b>	<b>\$113,666.92</b>	<b>\$97,210.27</b>	<b>\$79,803.59</b>
<b>60% AMI</b>					
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$80,484.85</u>	<u>\$92,121.21</u>	<u>\$126,545.45</u>	<u>\$158,868.69</u>	<u>\$186,666.67</u>
	\$122,015.15	\$132,458.79	\$123,429.55	\$96,606.31	\$68,633.33
<b>LIHTC</b>	\$68,818.00	\$78,591.00	\$87,500.00	\$89,416.25	\$89,355.00
<b>RHTF NEEDED</b>	<b>\$53,197.15</b>	<b>\$53,867.79</b>	<b>\$35,929.55</b>	<b>\$7,190.06</b>	<b>-\$20,721.67</b>

# Alternative Scenarios – No LIHTC

	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
<b>Market value (80% AMI)</b>	\$95,616.00	\$109,440.00	\$150,336.00	\$188,736.00	\$221,760.00
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$80,484.85</u>	<u>\$92,121.21</u>	<u>\$126,545.45</u>	<u>\$158,868.69</u>	<u>\$186,666.67</u>
	\$122,015.15	\$132,458.79	\$123,429.55	\$96,606.31	\$68,633.33
<b>LIHTC</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>EQUITY</b>	<b>\$122,015.15</b>	<b>\$132,458.79</b>	<b>\$123,429.55</b>	<b>\$96,606.31</b>	<b>\$68,633.33</b>
<b>Market value (100% AMI)</b>	\$143,424.00	\$160,512.00	\$211,968.00	\$259,776.00	\$300,864.00
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$120,727.27</u>	<u>\$135,111.11</u>	<u>\$178,424.24</u>	<u>\$218,666.67</u>	<u>\$253,252.53</u>
	\$81,772.73	\$89,468.89	\$71,550.76	\$36,808.33	\$2,047.47
<b>LIHTC</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>EQUITY</b>	<b>\$81,772.73</b>	<b>\$89,468.89</b>	<b>\$71,550.76</b>	<b>\$36,808.33</b>	<b>\$2,047.47</b>

# Alternative Scenarios – No LIHTC

	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
<b>Market value (120% AMI)</b>	\$167,232.00	\$186,163.20	\$242,764.80	\$295,353.60	\$340,550.40
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$140,767.68</u>	<u>\$156,703.03</u>	<u>\$204,347.47</u>	<u>\$248,614.14</u>	<u>\$286,658.59</u>
	\$61,732.32	\$67,876.97	\$45,627.53	\$6,860.86	-\$31,358.59
<b>LIHTC</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>EQUITY</b>	<b>\$61,732.32</b>	<b>\$67,876.97</b>	<b>\$45,627.53</b>	<b>\$6,860.86</b>	<b>-\$31,358.59</b>
<b>Market value (140% AMI)</b>	\$191,424.00	\$211,968.00	\$273,600.00	\$331,008.00	\$380,352.00
<b>Cost</b>	\$202,500.00	\$224,580.00	\$249,975.00	\$255,475.00	\$255,300.00
<b>Loan</b>	<u>\$161,131.31</u>	<u>\$178,424.24</u>	<u>\$230,303.03</u>	<u>\$278,626.26</u>	<u>\$320,161.62</u>
	\$41,368.69	\$46,155.76	\$19,671.97	-\$23,151.26	-\$64,861.62
<b>LIHTC</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>EQUITY</b>	<b>\$41,368.69</b>	<b>\$46,155.76</b>	<b>\$19,671.97</b>	<b>-\$23,151.26</b>	<b>-\$64,861.62</b>



# Looming Potential Rent Increases

## Potential Rent Increase For A Home That Increases In Value and The PE Changes From 17 to 12

Year	Value	PE	Rent (Annual)	Rent (Month)	PE	Rent (Annual)	Rent (Month)	Rent Increase Amount	%
2006	\$500,000	17	\$29,412	\$2,451	12	\$41,667	\$3,472	\$1,736	50%
2000	\$250,000	17	\$14,706	\$1,225	12	\$20,833	\$1,736	\$2,247	183.33%
2006	\$400,000	17	\$23,529	\$1,961	12	\$33,333	\$2,778	\$1,389	50%
2000	\$200,000	17	\$11,765	\$980	12	\$16,667	\$1,389	\$1,797	183.33%
2006	\$250,000	17	\$14,706	\$1,225	12	\$20,833	\$1,736	\$868	50%
2000	\$125,000	17	\$7,353	\$613	12	\$10,417	\$868	\$1,123	183.33%

## Validation Of PE Ratio At Various Sales Prices Of A Home

Price	250000	400000	500000
% Loan	0.8%	0.8%	0.8%
Loan	200000	320000	400000
DS	0.065	0.65	0.065
Mgt Pay	1083.333	1733.333	2166.667
Tax	925	1500	1875
Misc	250	250	250
Total Payment	2258.333	3483.333	4291.667
Rent @ 17	\$1,225	\$1,961	\$2,451
Loss	(\$1,033)	(\$1,523)	(\$1,841)
Total	2258.333	3483.333	4291.667
Rent @ 12	\$1,736	\$2,778	\$3,472
Loss	(\$522)	(\$706)	(\$819)

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