



Water Delivery and Water Supply Rates Proposal Rates Advisory Committee 08/20/2009

Pricing Objectives

Classification	Rank	Objective
Essential	1	Conservation/Demand Management
	2	Financial Sufficiency
	3	Rate Stability
Very Important	4	Revenue Stability
	5	Equitable Contributions from New Customers
	5	Affordability to Disadvantaged Customers
Important	7	Cost of Service Based Allocations
	8	Minimization of Customer Impacts
	9	Simple to Understand and Update
Least Important	10	Legality
	10	Ease of Implementation
	12	Economic Development

Note: All objectives are important



Scenarios

- Existing Rates
- Original Conceptual Design
 - Presented at July 9 meeting
- **Staff Recommendation:** Revised Conceptual Design
 - Based on changes to Original Conceptual Design discussed at July 23 meeting



Rate Calculation Issues from July 23 RAC Meeting

Rate Structure Adjustment recommendations

- Blocks 1 and 2 based on RFC Recommendation (made July 9)
- Blocks 3 and 4 based on current structure
- Higher consumers in tiers 3 and 4 should not pay less than under current rates
- Combine Water Supply Fee with Water Delivery Rates into single rate structure
- Higher differentiation needed in rates between blocks
- Move closer to Conceptual Design rate structure
- Keep General Class the same; look at irrigation rates to address discretionary usage by General Class users



Revised Conceptual Design / Staff Recommendation Elements

Water Delivery Seasonal vs. Non-Seasonal

- Application of seasonal rates increased by two months

Water Delivery Residential Customer Class

- Proposed Block 3 cut-off matches existing rate Block 3 cut-off
- Elasticity reflected
- Portion of Irrigation revenue applied to lower rates in non-discretionary tiers of Residential volumetric charges



Revised Conceptual Design / Staff Recommendation Elements (Cont.)

Water Delivery General Customer Class

- General Block 1 rate tied to Existing Block 1 rate

Water Delivery Irrigation Customer Class

- Irrigation rates for Blocks 2, 3, and 4 are tied to Residential rates for Blocks 2, 3, and 4, respectively
- Seasonal rates established for six months (same as residential)
- Rates presented for Irrigation are not comparable to Existing Irrigation rates due to aggressive conservation-oriented restructuring of volumetric cut-offs
- Elasticity represented for Irrigation consumption in Blocks 2 and 3



Revised Conceptual Design / Staff Recommendation Elements (Cont.)

Water Delivery Wholesale Customer Class

- Original Conceptual Design rates are applied

Water Supply Rates

- Four Tiers for Residential
- Single Tier for General (over 90% of volume is in new General class tiers 1 & 2)
- Single Tier for Wholesale
- Irrigation rates Blocks 2, 3, & 4 are tied to those for Residential Blocks 2, 3 & 4

Water Delivery Conservation

- Represented in volumetric charges (Block 4) for Residential and Irrigation Customer Classes
- Represented in meter charge for General Class



Rates

Meter Charge

Residential Inside-City Meter Charge				
Meter Size	Percentage of Residential Meters	Existing Rates	Conceptual Design	Staff Recommendation
5/8"	91.5%	\$ 6.77	\$ 6.76	\$ 6.76
3/4"	6.3%	\$ 8.59	\$ 9.48	\$ 9.47
1"	1.7%	\$ 12.49	\$ 14.91	\$ 14.90
1.5"	0.4%	\$ 22.25	\$ 28.50	\$ 28.47
2"	0.1%	\$ 33.95	\$ 44.81	\$ 44.75

General Inside-City Meter Charge				
Meter Size	Percentage of General Meters	Existing Rates	Conceptual Design	Staff Recommendation
5/8"	42.4%	\$ 9.81	\$ 9.35	\$ 9.38
3/4"	4.4%	\$ 13.16	\$ 13.36	\$ 13.41
1"	15.0%	\$ 19.21	\$ 21.38	\$ 21.46
1.5"	15.1%	\$ 35.03	\$ 41.44	\$ 41.59
2"	14.7%	\$ 52.83	\$ 65.51	\$ 65.75
3"	3.6%	\$ 106.92	\$ 121.66	\$ 122.11
4"	2.7%	\$ 176.40	\$ 201.89	\$ 202.63
6"	1.5%	\$ 350.03	\$ 402.45	\$ 403.93
8"	0.4%	\$ 543.20	\$ 643.12	\$ 645.49
10"	0.1%	\$ 755.89	\$ 923.91	\$ 927.31
12"	0.0%	\$ 1,191.85	\$ 1,726.16	\$ 1,732.51

Note: Since there are no longer any >2" meters, no charges are for such meters are required.

Combined Volumetric Charges



Residential Inside-City Charges (Water Delivery & Water Supply Combined)						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	0 - 7,481		0 - 5,985		0 - 5,985	
2	7,482 - 12,717		5,986 - 12,718		5,986 - 12,717	
3	12,718 - 17,205		12,719 - 19,451		12,718 - 17,205	
4	> 17,205		> 19,451		> 17,205	
Block	Standard	Seasonal	Standard	Seasonal	Standard	Seasonal
1	\$ 0.2435	\$ 0.2435	\$ 0.2057	\$ 0.2057	\$ 0.1891	\$ 0.1891
2	\$ 0.2838	\$ 0.2952	\$ 0.2953	\$ 0.3069	\$ 0.2736	\$ 0.2850
3	\$ 0.3587	\$ 0.3746	\$ 0.4158	\$ 0.4304	\$ 0.3859	\$ 0.4002
4	\$ 0.4817	\$ 0.5775	\$ 0.7797	\$ 0.8817	\$ 0.6756	\$ 0.7691

General Inside-City Charges (Water Delivery & Water Supply Combined)						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	Base		Base		Base	
2	> 100% - 125%		> 100% - 125%		> 100% - 125%	
3	> 125% - 150%		> 125% - 175%		> 125% - 175%	
4	> 150% - 200%		> 175%		> 175%	
5	> 200%					
Block	Standard Rates		Standard Rates		Standard Rates	
1	\$	0.2615	\$	0.2109	\$	0.2615
2	\$	0.2786	\$	0.2808	\$	0.2827
3	\$	0.3162	\$	0.3939	\$	0.3350
4	\$	0.3667	\$	0.5766	\$	0.4195
5	\$	0.4689	\$	-	\$	-

Combined Volumetric Charges



Irrigation Inside-City Charges (Water Delivery & Water Supply Combined)						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	0 - 12,717		0 - 6,733		0	
2	12,718 - 17,205		6,734 - 13,466		0 - 6,732	
3	> 17,205		> 13,466		6,733 - 11,220	
4					> 11,220	
Block	Standard	Seasonal	Standard	Seasonal	Standard	Seasonal
1	\$ 0.3055	\$ 0.3055	\$ 0.2233	\$ 0.2329	\$ -	\$ -
2	\$ 0.3819	\$ 0.3819	\$ 0.3098	\$ 0.3217	\$ 0.2736	\$ 0.2850
3	\$ 0.4689	\$ 0.4689	\$ 0.3946	\$ 0.4512	\$ 0.3859	\$ 0.4002
4					\$ 0.6756	\$ 0.7691

Wholesale Inside-City Charges (Water Delivery & Water Supply Combined)						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	Base		Base		Base	
2	> 100% - 125%		> 100% - 125%		> 100% - 125%	
3	> 125% - 150%		> 125% - 175%		> 125% - 175%	
4	> 150% - 200%		> 175%		> 175%	
5	> 200%					
Block	Standard Rates		Standard Rates		Standard Rates	
1	\$	0.2317	\$	0.1887	\$	0.2282
2	\$	0.2512	\$	0.2837	\$	0.2661
3	\$	0.2882	\$	0.4094	\$	0.3163
4	\$	0.3333	\$	0.5791	\$	0.3840
5	\$	0.3894	\$	-	\$	-

Combined Volumetric Charge Blended Standard and Seasonal

	Blended Standard and Seasonal Rates					
	Existing Rates		Conceptual Design		Staff Recommendation	
<u>RESIDENTIAL</u>						
Block 1	\$	0.2435	\$	0.2057	\$	0.1891
Block 2	\$	0.2876	\$	0.2992	\$	0.2793
Block 3	\$	0.3640	\$	0.4207	\$	0.3931
Block 4	\$	0.5136	\$	0.8137	\$	0.7224
<u>GENERAL CLASS</u>						
Block 1	\$	0.2615	\$	0.2109	\$	0.2615
Block 2	\$	0.2786	\$	0.2808	\$	0.2827
Block 3	\$	0.3162	\$	0.3939	\$	0.3350
Block 4	\$	0.3667	\$	0.5766	\$	0.4195
Block 5	\$	0.4689	\$	-	\$	-
<u>IRRIGATION</u>						
Block 1	\$	0.3055	\$	0.2265	\$	-
Block 2	\$	0.3819	\$	0.3137	\$	0.2793
Block 3	\$	0.4689	\$	0.4135	\$	0.3931
Block 4					\$	0.7224
<u>WHOLESALE</u>						
Base	\$	0.2317	\$	0.1887	\$	0.2282
Block 2	\$	0.2512	\$	0.2837	\$	0.2661
Block 3	\$	0.2882	\$	0.4094	\$	0.3163
Block 4	\$	0.3333	\$	0.5791	\$	0.3840
Block 5	\$	0.3894	\$	-	\$	-

Water Delivery Rates

Residential Inside-City Charges						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	0 - 7,481		0 - 5,985		0 - 5,985	
2	7,482 - 12,717		5,986 - 12,718		5,986 - 12,717	
3	12,718 - 17,205		12,719 - 19,451		12,718 - 17,205	
4	> 17,205		> 19,451		> 17,205	
5						
Block	Standard	Seasonal	Standard	Seasonal	Standard	Seasonal
1	\$ 0.0906	\$ 0.0906	\$ 0.0923	\$ 0.0923	\$ 0.0897	\$ 0.0897
2	\$ 0.1309	\$ 0.1423	\$ 0.1325	\$ 0.1441	\$ 0.1298	\$ 0.1412
3	\$ 0.2058	\$ 0.2217	\$ 0.1866	\$ 0.2012	\$ 0.1831	\$ 0.1974
4	\$ 0.3288	\$ 0.4246	\$ 0.3499	\$ 0.4519	\$ 0.3206	\$ 0.4141

General Inside-City Charges						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	Base		Base		Base	
2	> 100% - 125%		> 100% - 125%		> 100% - 125%	
3	> 125% - 150%		> 125% - 175%		> 125% - 175%	
4	> 150% - 200%		> 175%		> 175%	
5	> 200%					
Block	Standard Rates		Standard Rates		Standard Rates	
1	\$	0.1086	\$	0.0975	\$	0.1086
2	\$	0.1257	\$	0.1298	\$	0.1298
3	\$	0.1633	\$	0.1821	\$	0.1821
4	\$	0.2138	\$	0.2666	\$	0.2666
5	\$	0.3160				

Water Delivery Rates

Irrigation Inside-City Charges						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	0 - 12,717		0 - 6,733		0	
2	12,718 - 17,205		6,734 - 13,466		0 - 6,732	
3	> 17,205		> 13,466		6,733 - 11,220	
4					> 11,220	
Block	Standard	Seasonal	Standard	Seasonal	Standard	Seasonal
1	\$ 0.1526	\$ 0.1526	\$ 0.1099	\$ 0.1195	\$ -	\$ -
2	\$ 0.2290	\$ 0.2290	\$ 0.1525	\$ 0.1644	\$ 0.1298	\$ 0.1412
3	\$ 0.3160	\$ 0.3160	\$ 0.1942	\$ 0.2508	\$ 0.1831	\$ 0.1974
4					\$ 0.3206	\$ 0.4141

Wholesale Inside-City Charges						
	Existing Rates		Conceptual Design		Staff Recommendation	
Block	Usage Range		Usage Range		Usage Range	
1	Base		Base		Base	
2	> 100% - 125%		> 100% - 125%		> 100% - 125%	
3	> 125% - 150%		> 125% - 175%		> 125% - 175%	
4	> 150% - 200%		> 175%		> 175%	
5	> 200%					
Block	Standard Rates		Standard Rates		Standard Rates	
1	\$	0.0788	\$	0.0753	\$	0.0753
2	\$	0.0983	\$	0.1132	\$	0.1132
3	\$	0.1353	\$	0.1634	\$	0.1634
4	\$	0.1804	\$	0.2311	\$	0.2311
5	\$	0.2365				

Water Supply Rates

	Calculated Water Supply Rates		
	Existing Rates	Conceptual Design	Staff Recommendation
<u>RESIDENTIAL</u>			
Block 1	\$ 0.1529	\$ 0.1134	\$ 0.0994
Block 2	\$ 0.1529	\$ 0.1628	\$ 0.1438
Block 3	\$ 0.1529	\$ 0.2292	\$ 0.2028
Block 4	\$ 0.1529	\$ 0.4298	\$ 0.3550
<u>GENERAL CLASS</u>			
Block 1	\$ 0.1529	\$ 0.1134	\$ 0.1529
Block 2	\$ 0.1529	\$ 0.1510	\$ 0.1529
Block 3	\$ 0.1529	\$ 0.2118	\$ 0.1529
Block 4	\$ 0.1529	\$ 0.3100	\$ 0.1529
Block 5	\$ -	\$ -	\$ -
<u>IRRIGATION</u>			
Block 1	\$ 0.1529	\$ 0.1134	\$ -
Block 2	\$ 0.1529	\$ 0.1573	\$ 0.1438
Block 3	\$ 0.1529	\$ 0.2004	\$ 0.2028
Block 4	\$ -	\$ -	\$ 0.3550
<u>WHOLESALE</u>			
Base	\$ 0.1529	\$ 0.1134	\$ 0.1529
Block 2	\$ 0.1529	\$ 0.1705	\$ 0.1529
Block 3	\$ 0.1529	\$ 0.2460	\$ 0.1529
Block 4	\$ 0.1529	\$ 0.3480	\$ 0.1529

Revenue Comparison

	Existing Rates	Conceptual Design	Staff Recommendation
<i>Water Delivery Charge</i>			
Residential	\$ 67,708,030	\$ 71,607,008	\$ 68,702,940
General	36,025,989	34,394,330	36,270,429
Irrigation	14,808,960	11,585,799	14,429,880
Wholesale	154,481	174,492	158,360
Subtotal	118,697,460	117,761,629	119,561,609
<i>Water Supply Charge</i>			
Residential	45,623,043	48,330,358	40,714,184
General	30,107,952	25,792,338	30,107,952
Irrigation	6,881,942	8,521,689	11,794,705
Wholesale	151,084	144,201	151,084
Subtotal	82,764,020	82,788,586	82,767,925
<i>Combined</i>			
Residential	113,331,073	119,937,366	109,417,124
General	66,133,941	60,186,668	66,378,380
Irrigation	21,690,902	20,107,488	26,224,585
Wholesale	305,564	318,693	309,444
Total	201,461,479	200,550,215	202,329,534



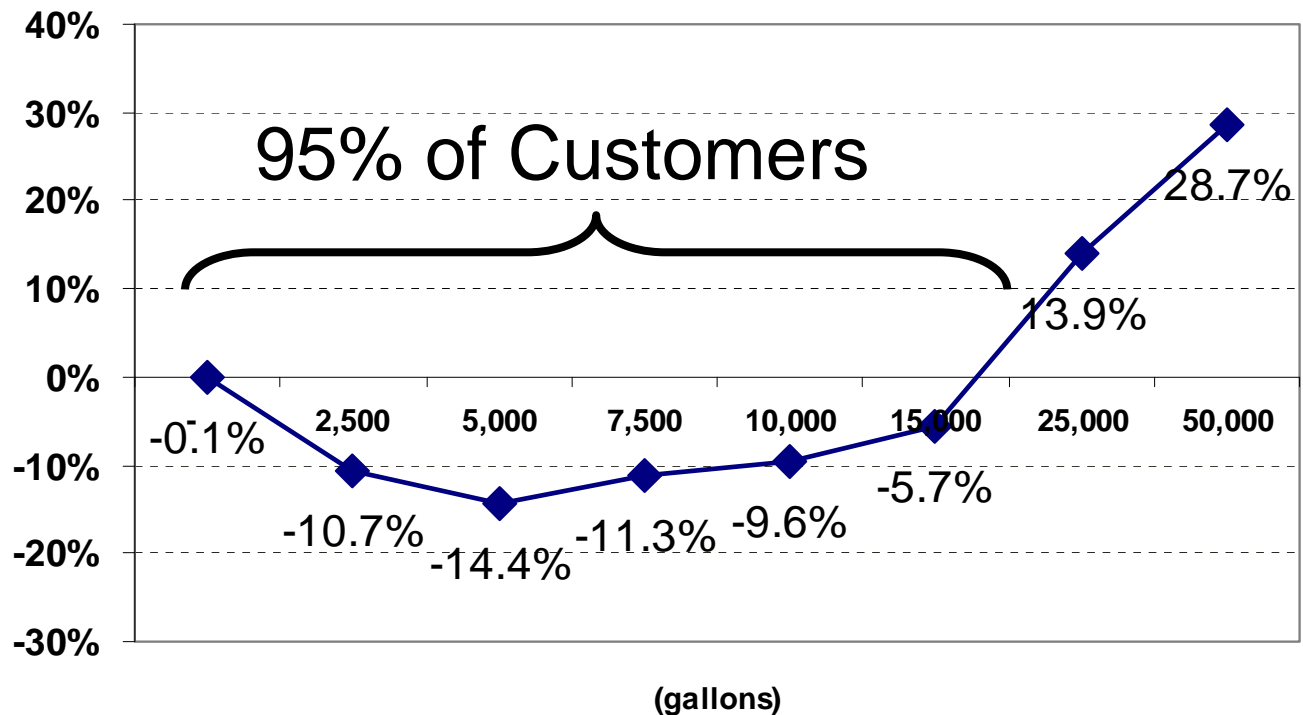
Residential Customer Impacts

(5/8" Meter)

Residential Impact

Staff Recommendation: Standard Charges

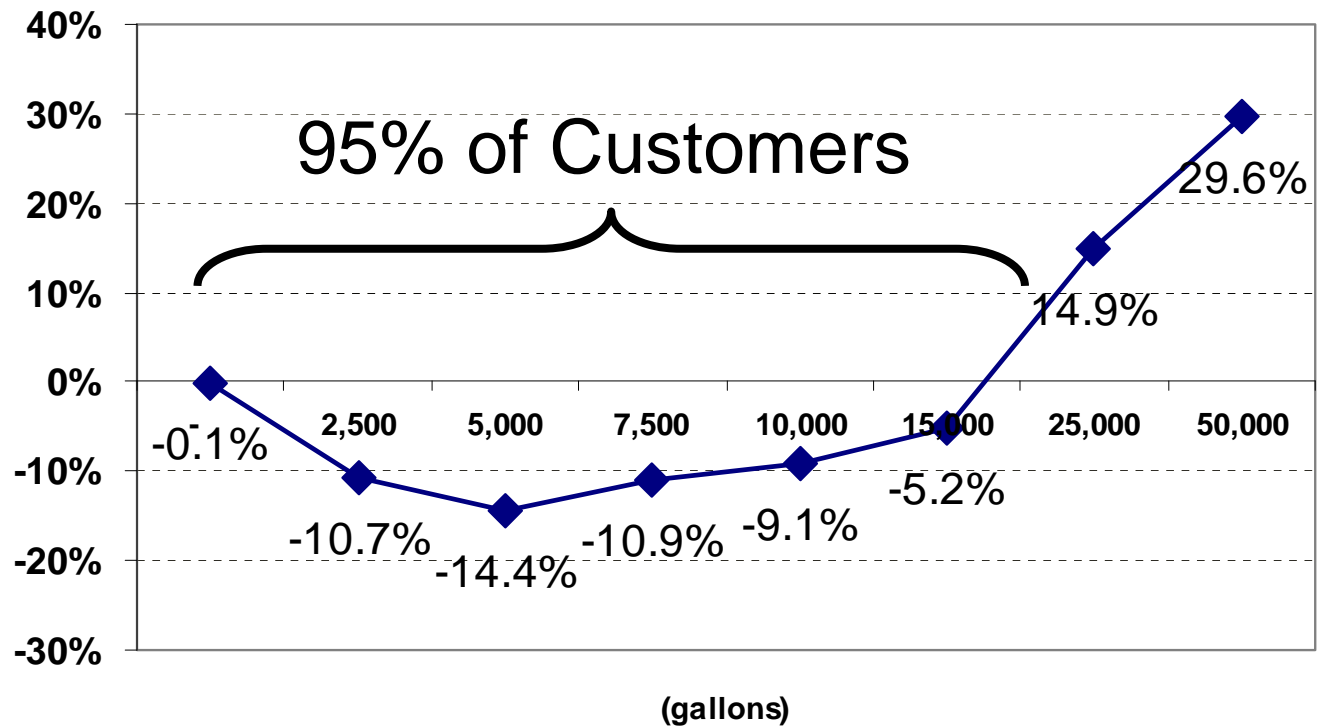
Standard Rates: Staff Recommendation to Existing Rates
(Water Delivery and Water Supply Charges)



Residential Impact

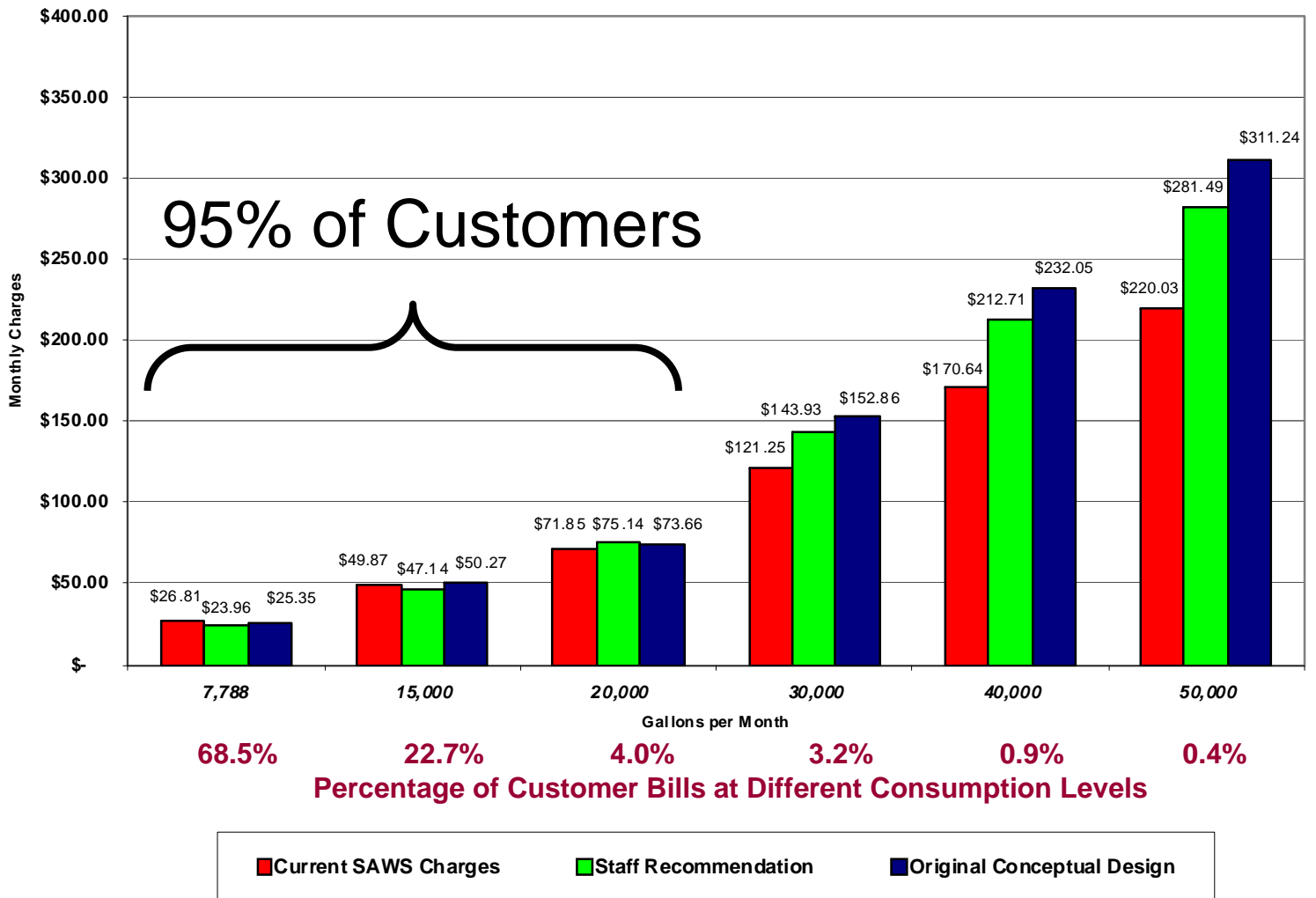
Staff Recommendation: Blended Charges – Annual Outlook

Blended Rates: Staff Recommendation to Existing Rates
(Water Delivery and Water Supply Charges)





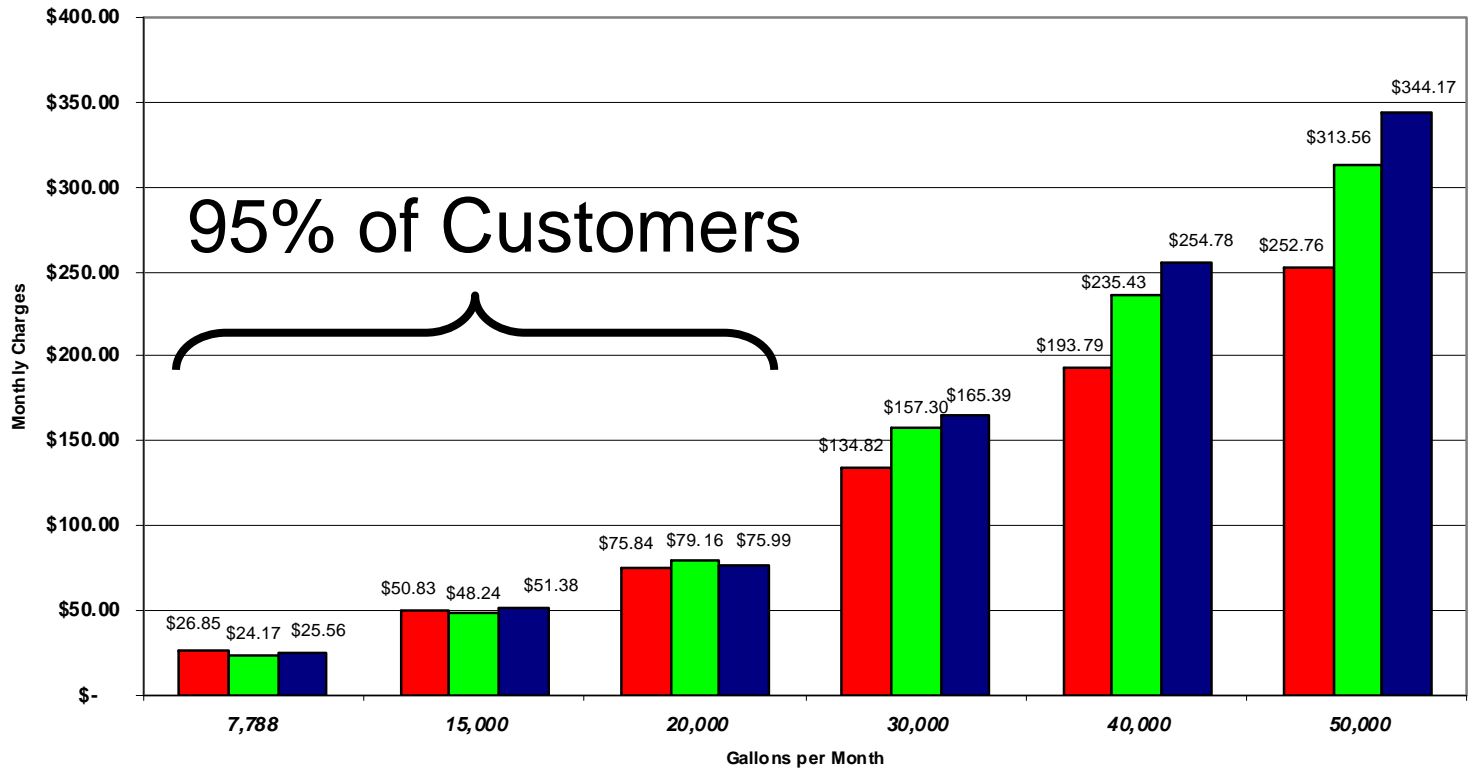
Monthly Charges Comparison of Alternatives Residential Non-Seasonal



Water Delivery & Water Supply Rates Combined
 Comprehensive Cost of Service and Rate Design Study



Monthly Charges Comparison of Alternatives Residential Seasonal



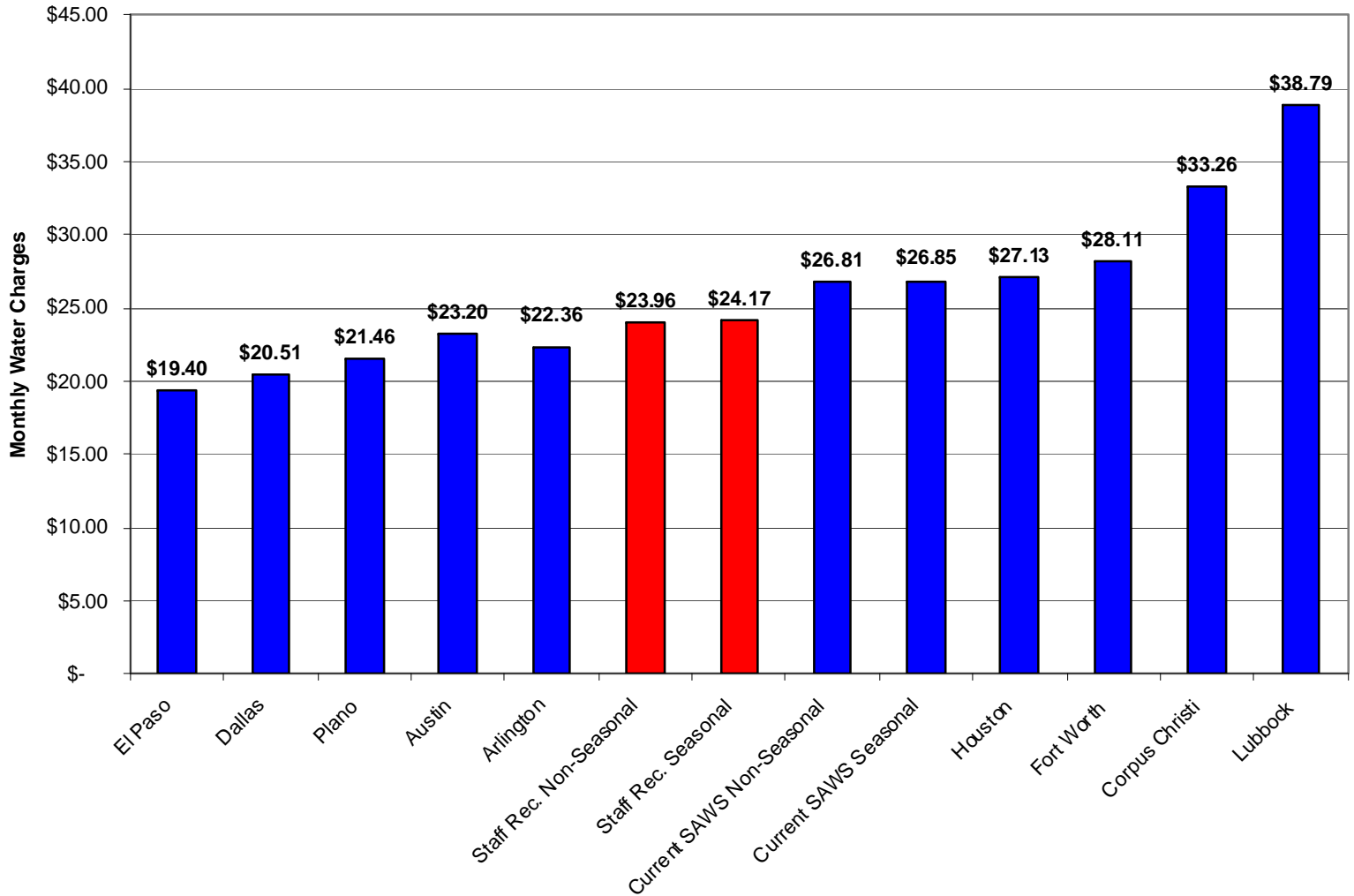
68.5% **22.7%** **4.0%** **3.2%** **0.9%** **0.4%**
Percentage of Customer Bills at Different Consumption Levels



Water Delivery & Water Supply Rates Combined
 Comprehensive Cost of Service and Rate Design Study



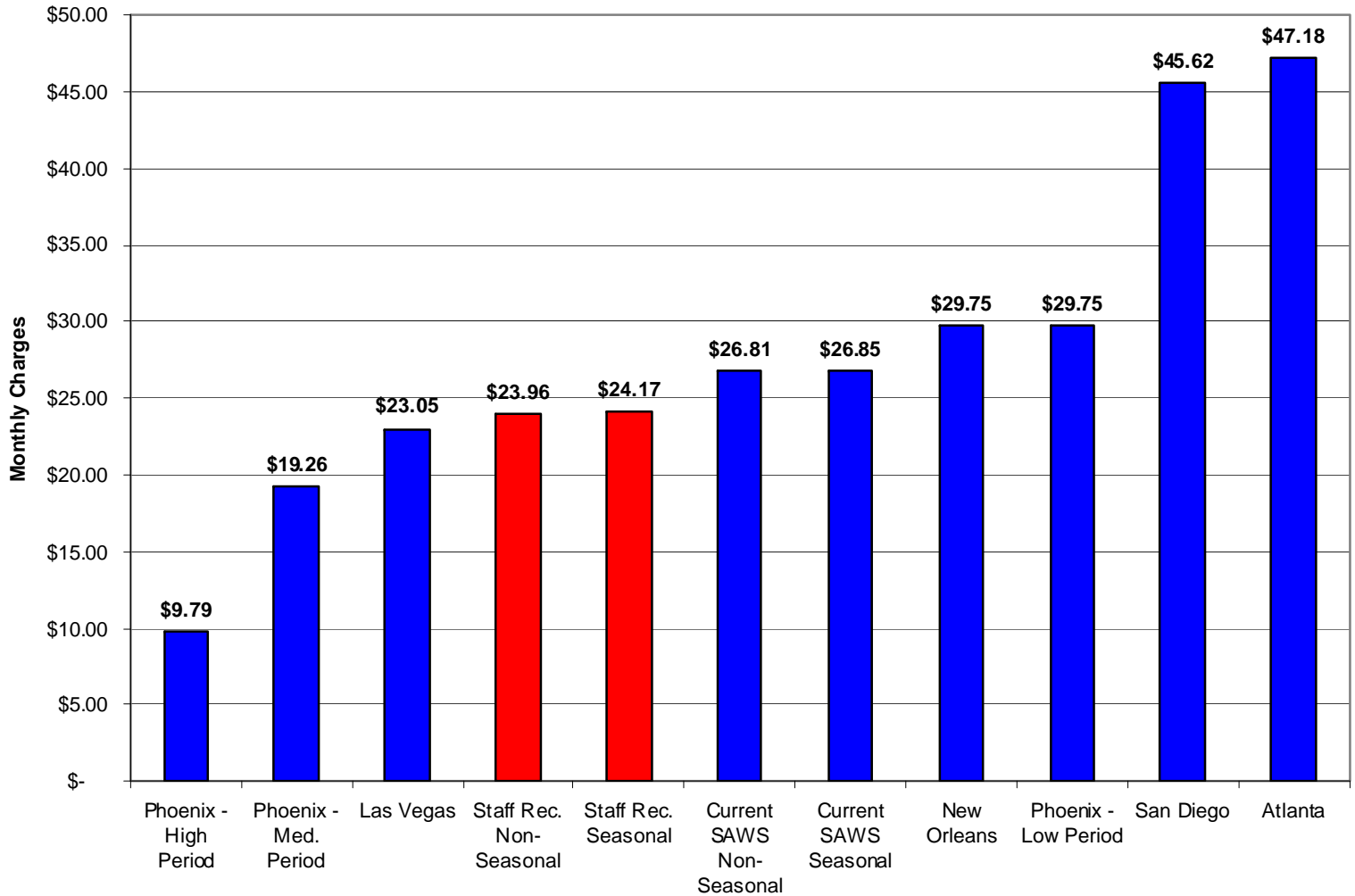
Texas Cities Comparison (7,788 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



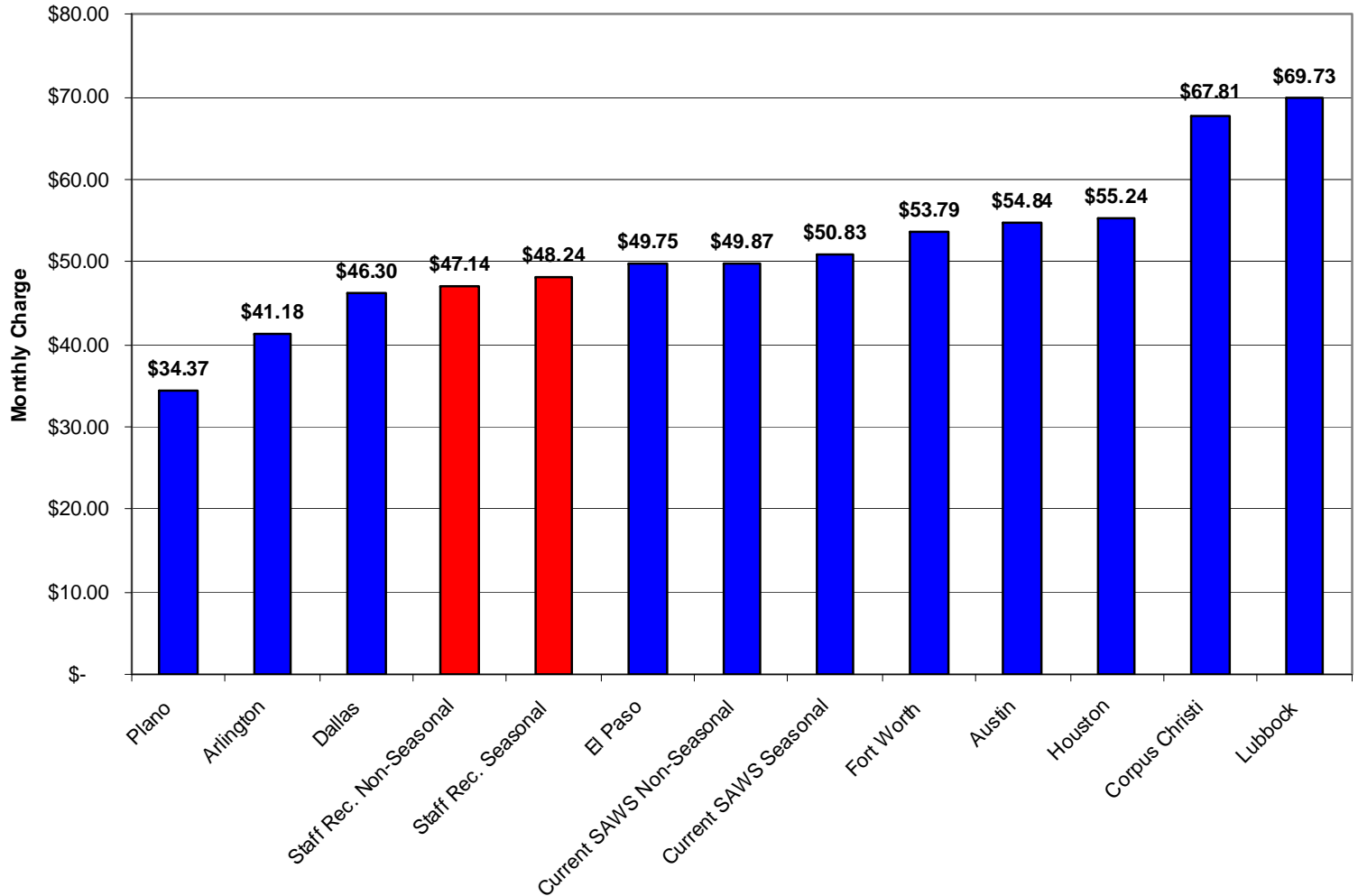
U.S. Cities Comparison (7,788 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



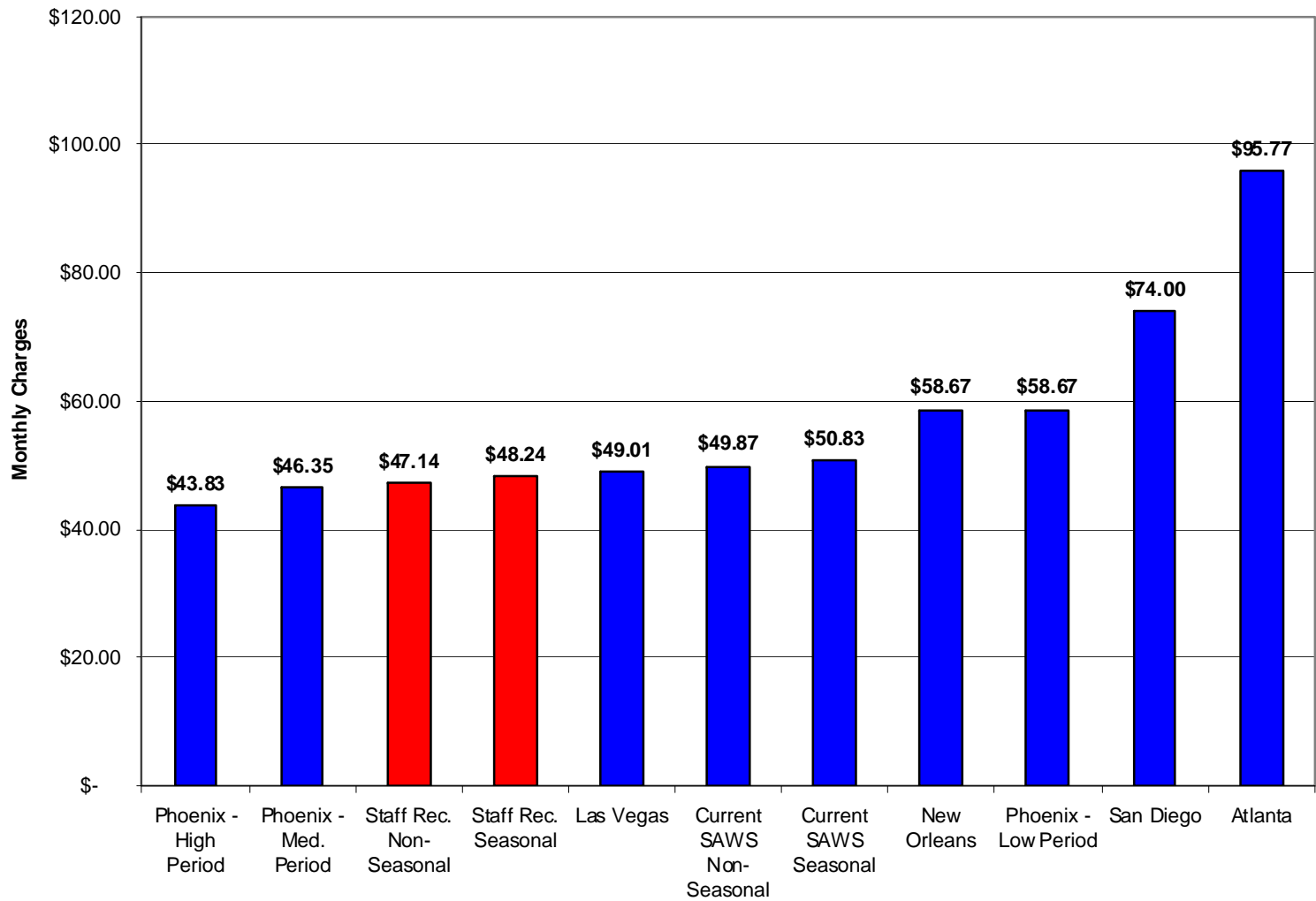
Texas Cities Comparison (15,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



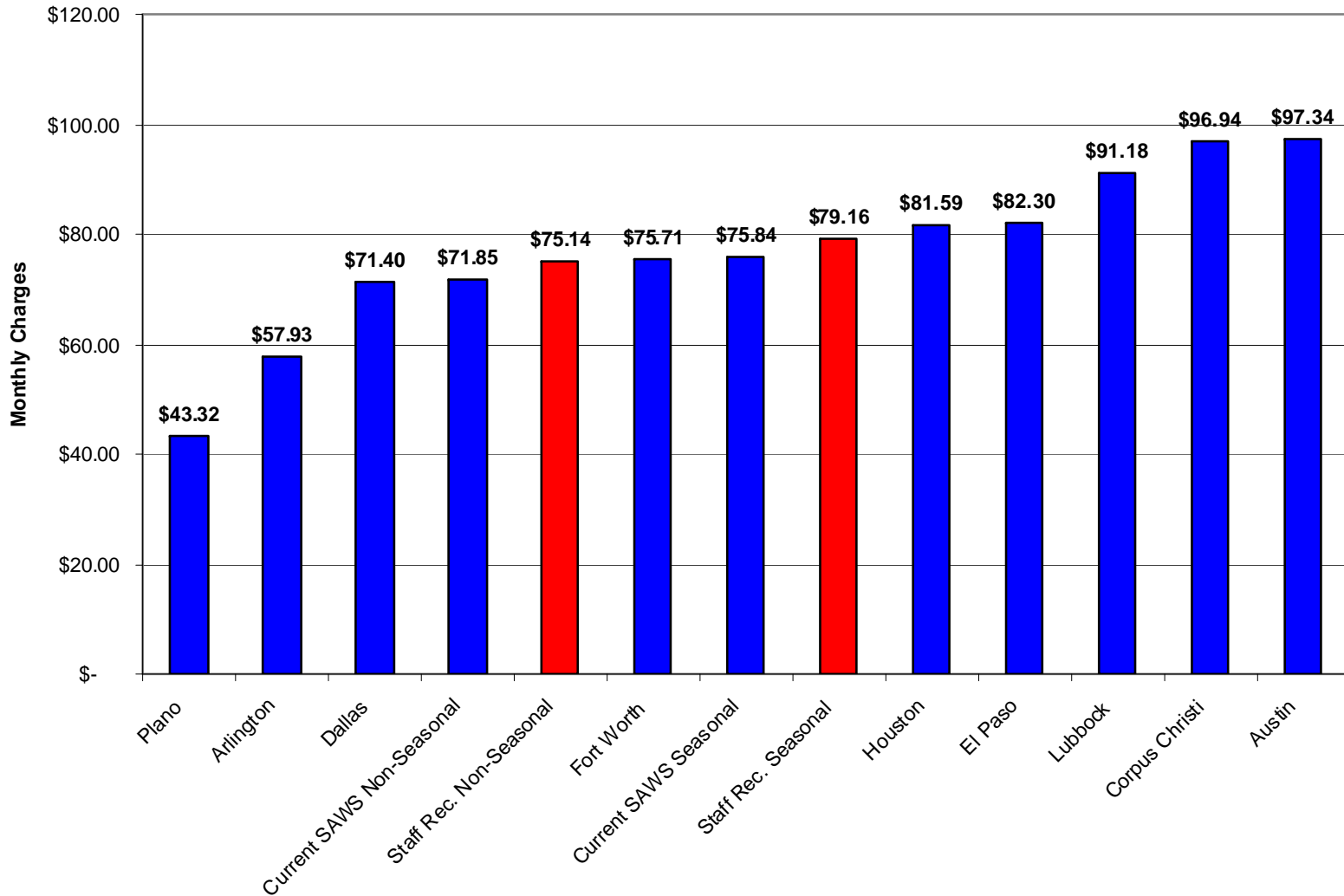
U.S. Cities Comparison (15,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



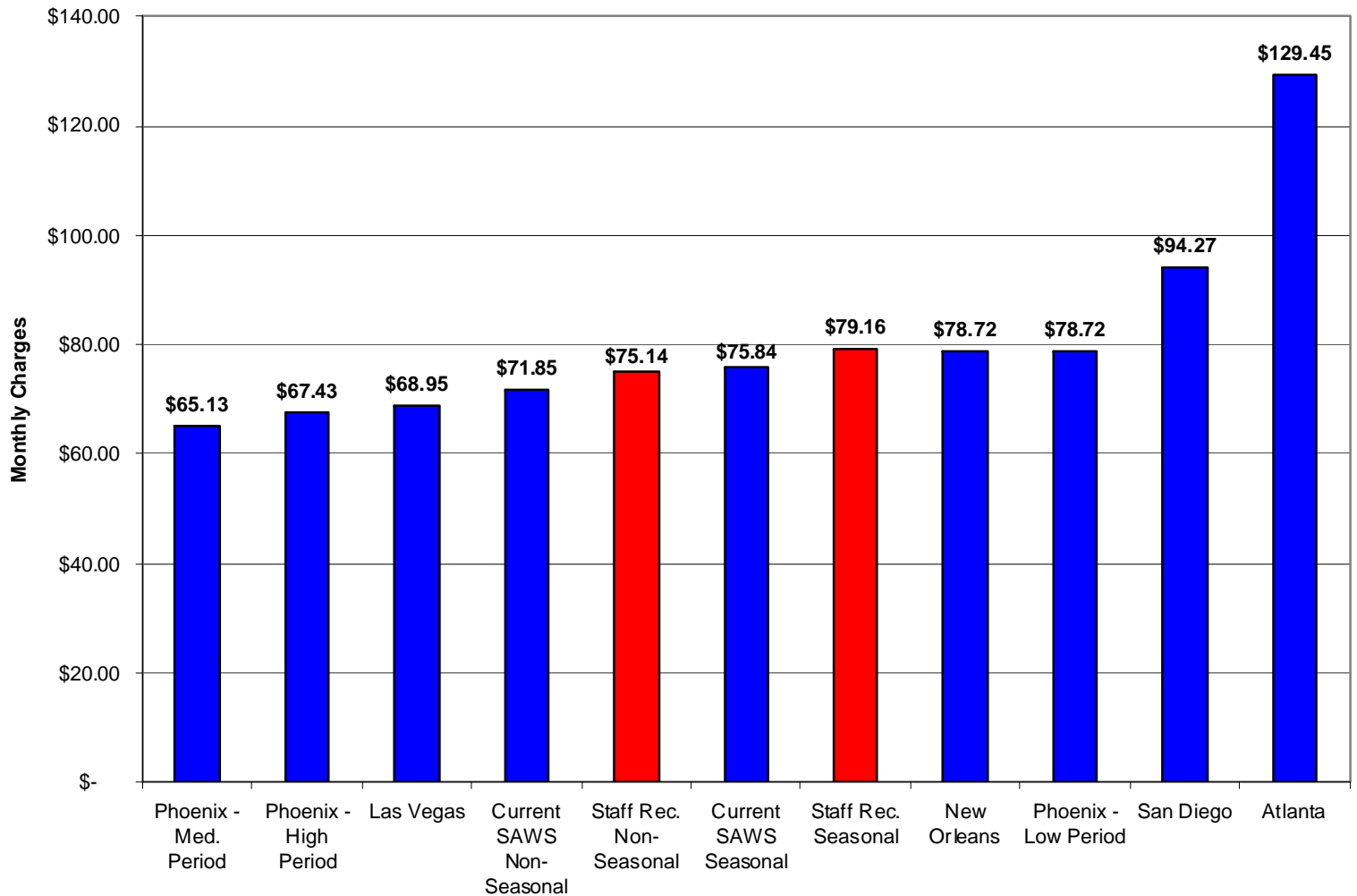
Texas Cities Comparison (20,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



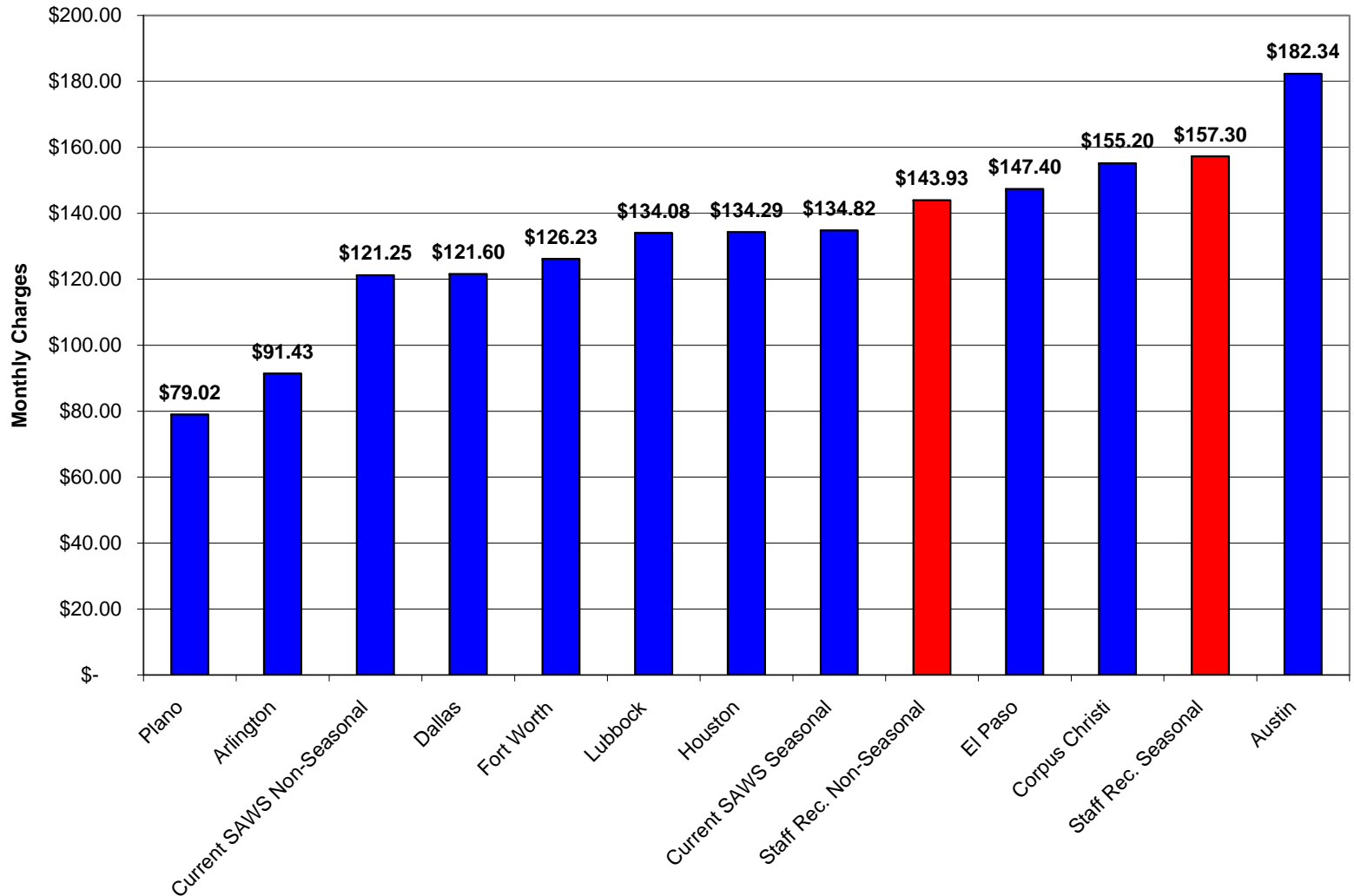
U.S. Cities Comparison (20,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



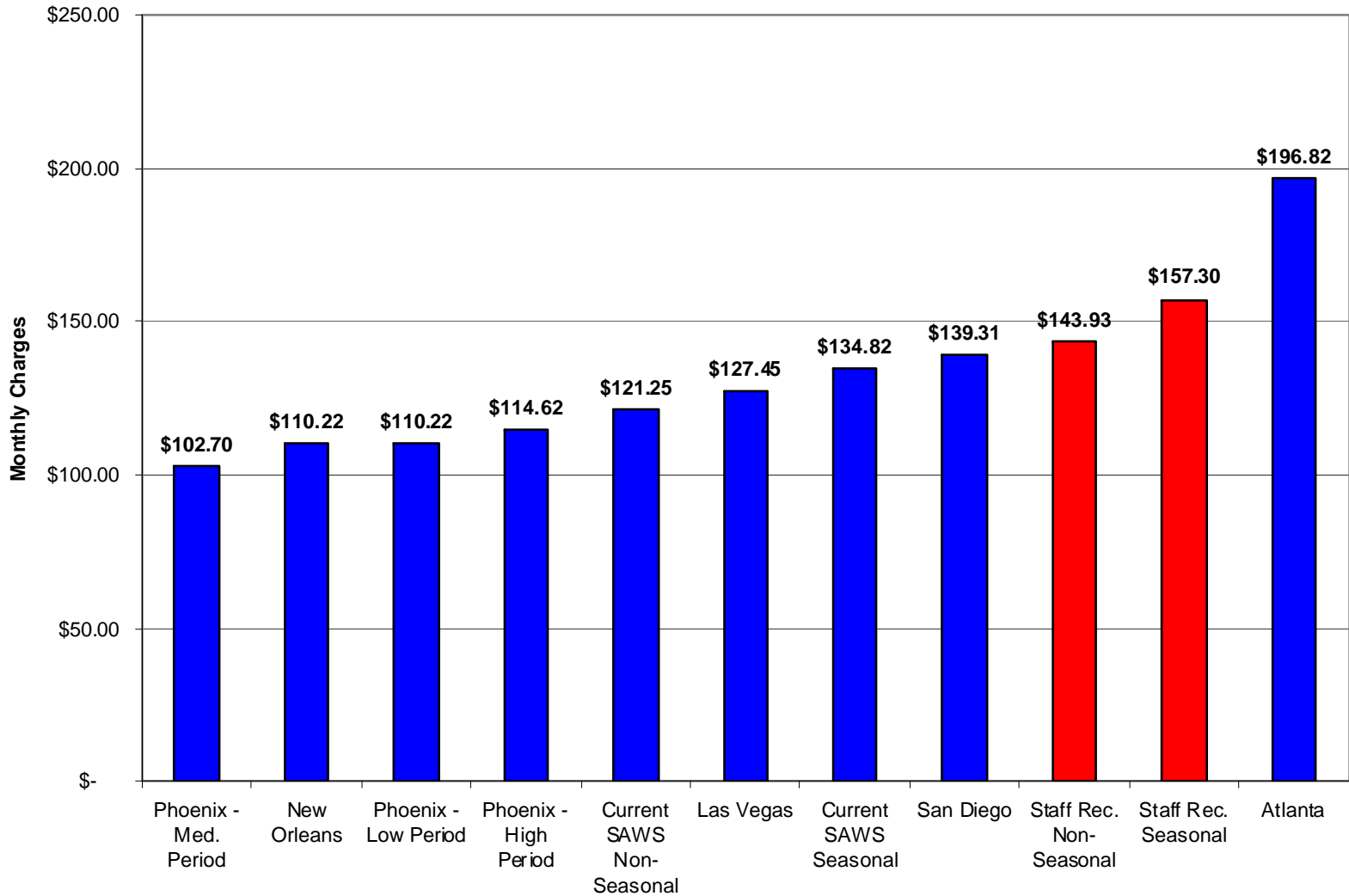
Texas Cities Comparison (30,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



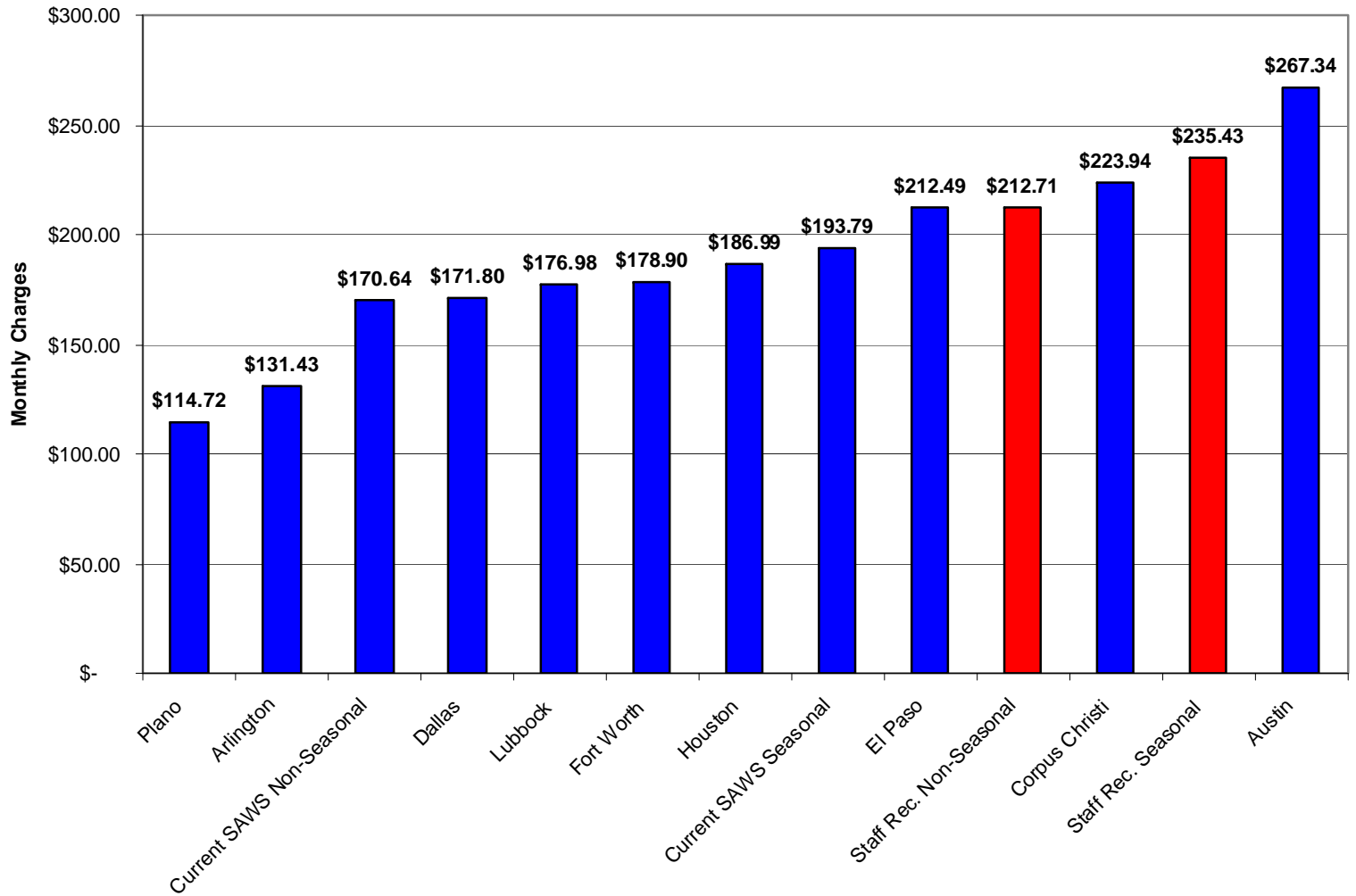
U.S. Cities Comparison (30,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



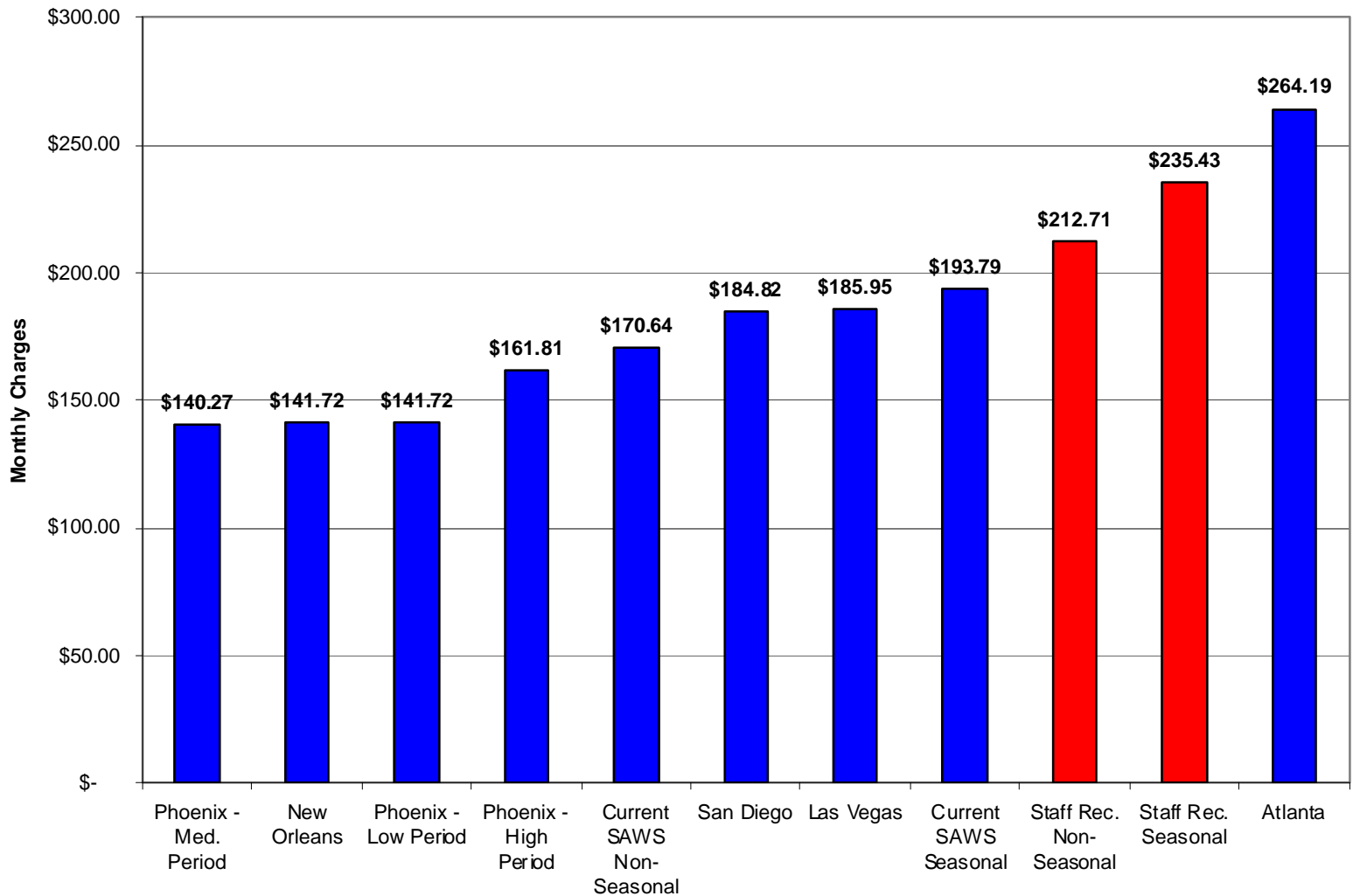
Texas Cities Comparison (40,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



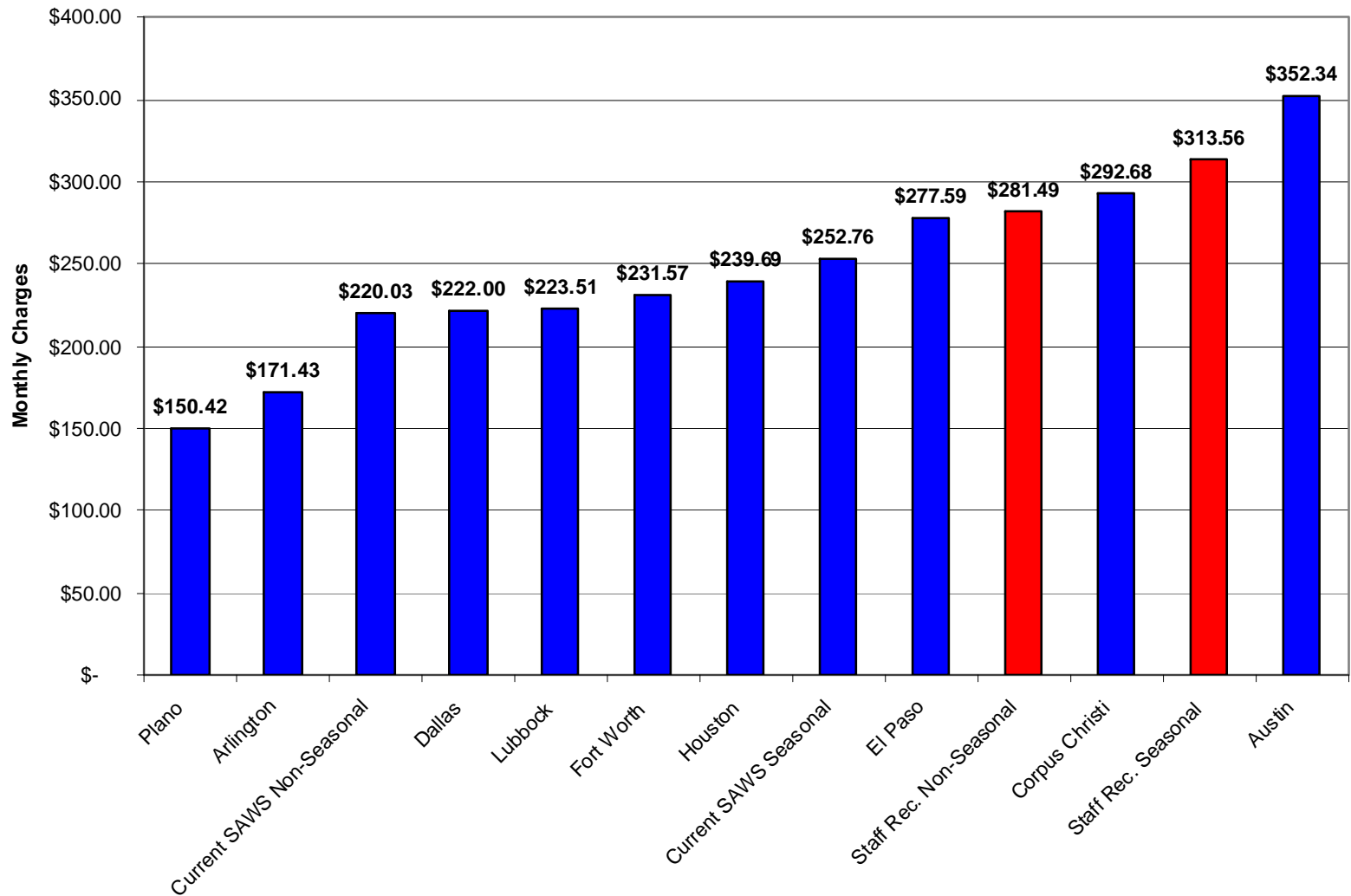
U.S. Cities Comparison (40,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



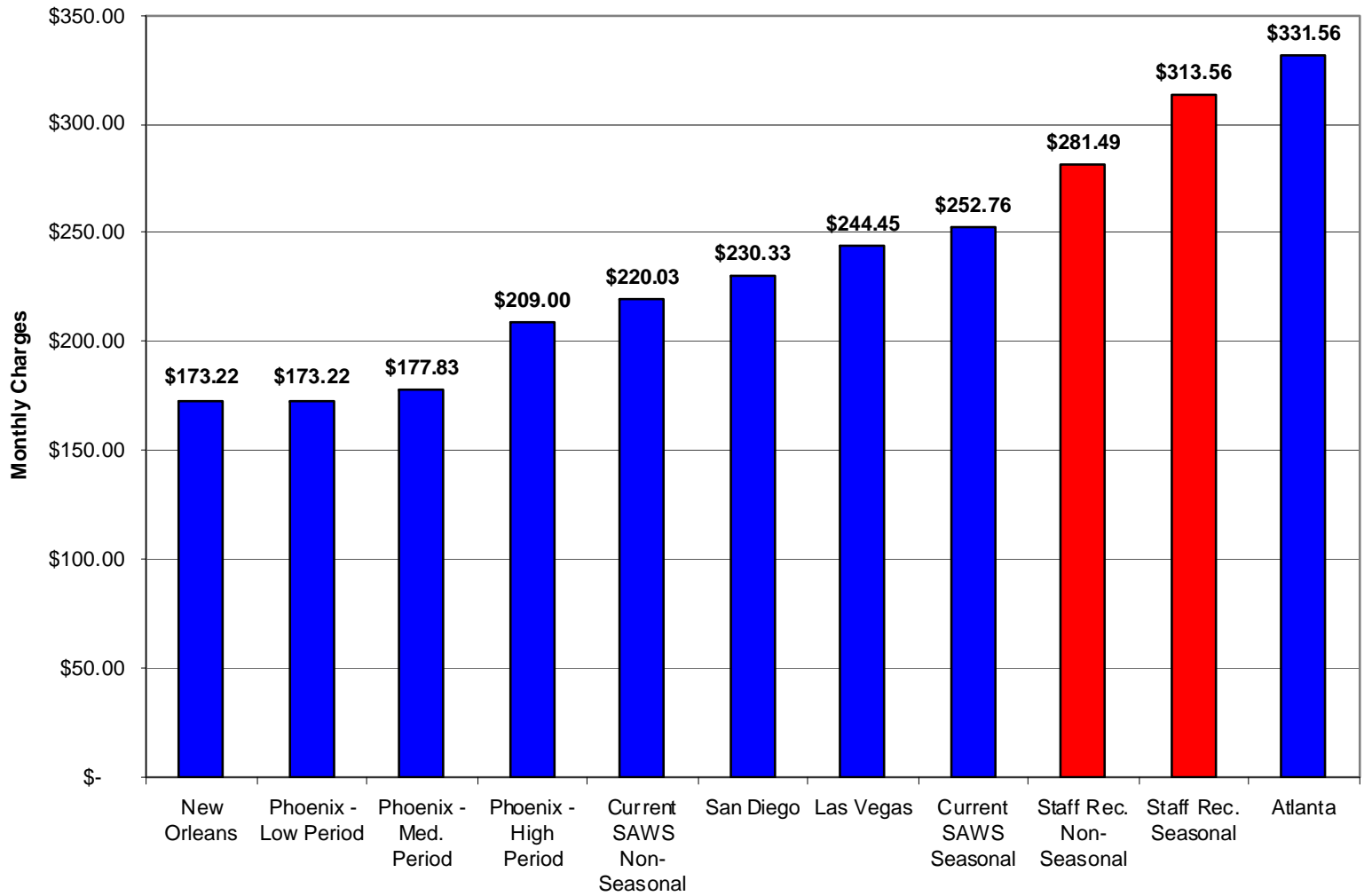
Texas Cities Comparison (50,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



U.S. Cities Comparison (50,000 gallons per month) Residential Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study

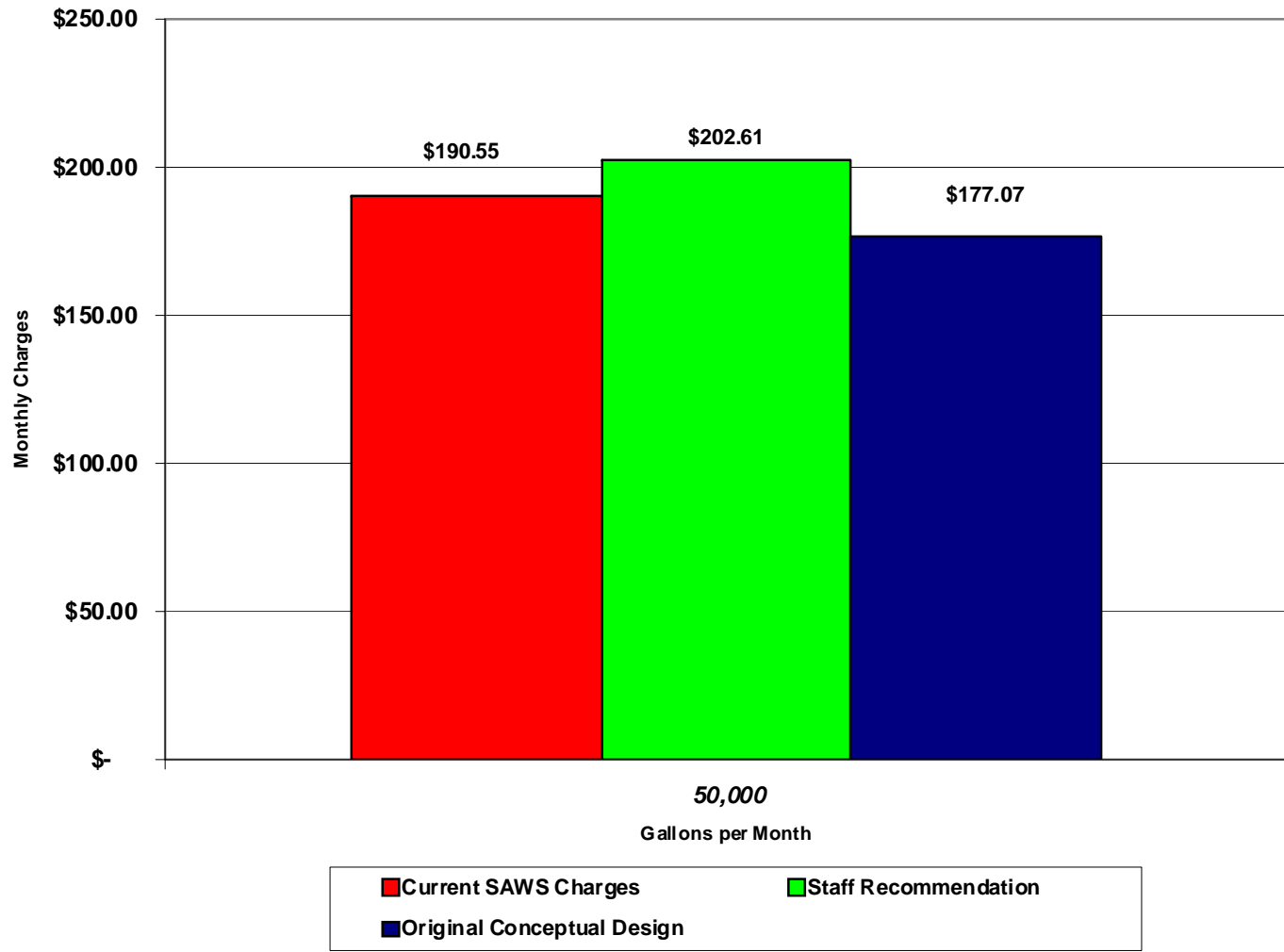


General Class, Commercial Customer Impacts

(2" Meter)



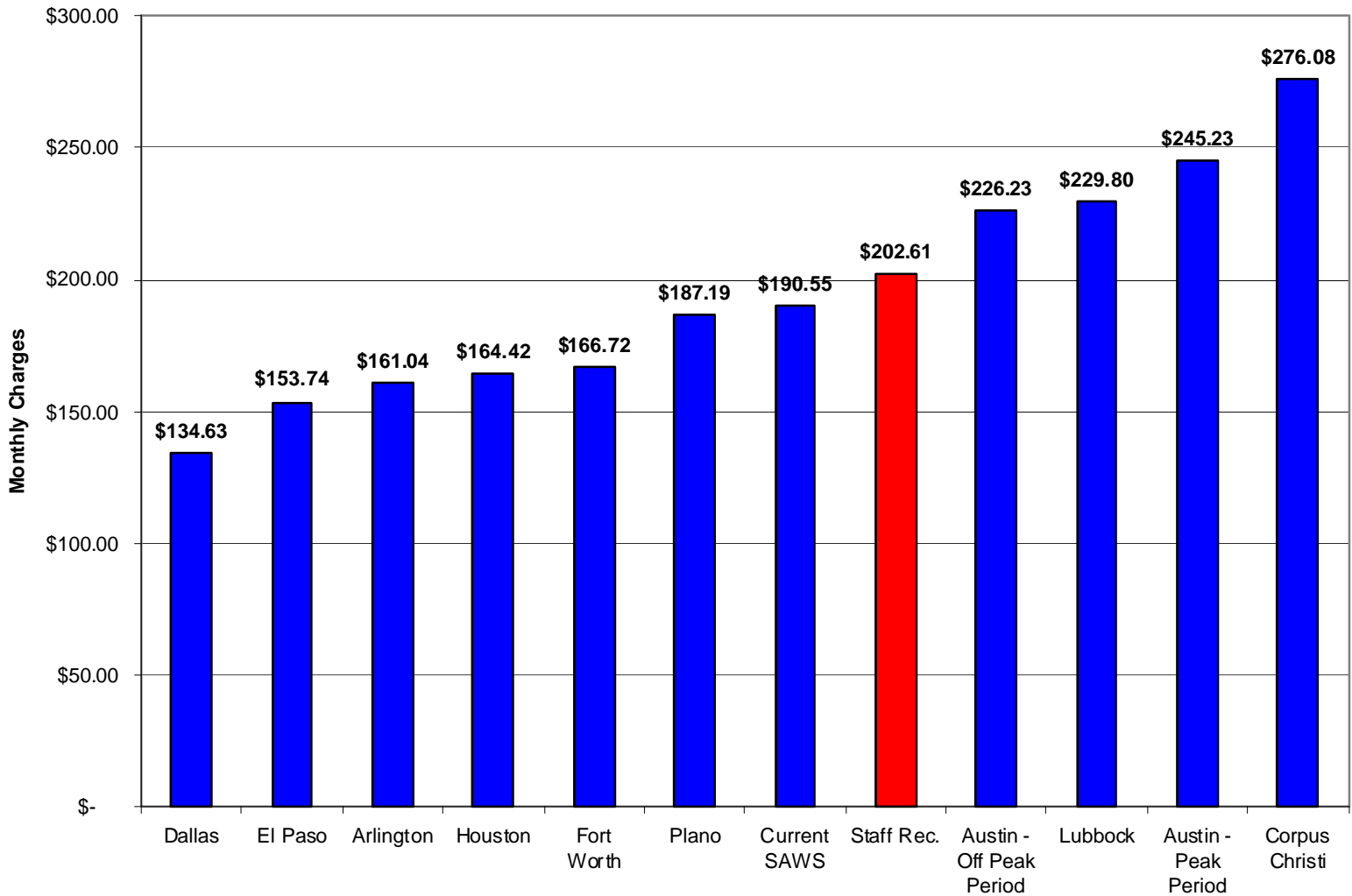
Monthly Charges Comparison of Alternatives General Class, Commercial (base = 50,000 gallons)



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



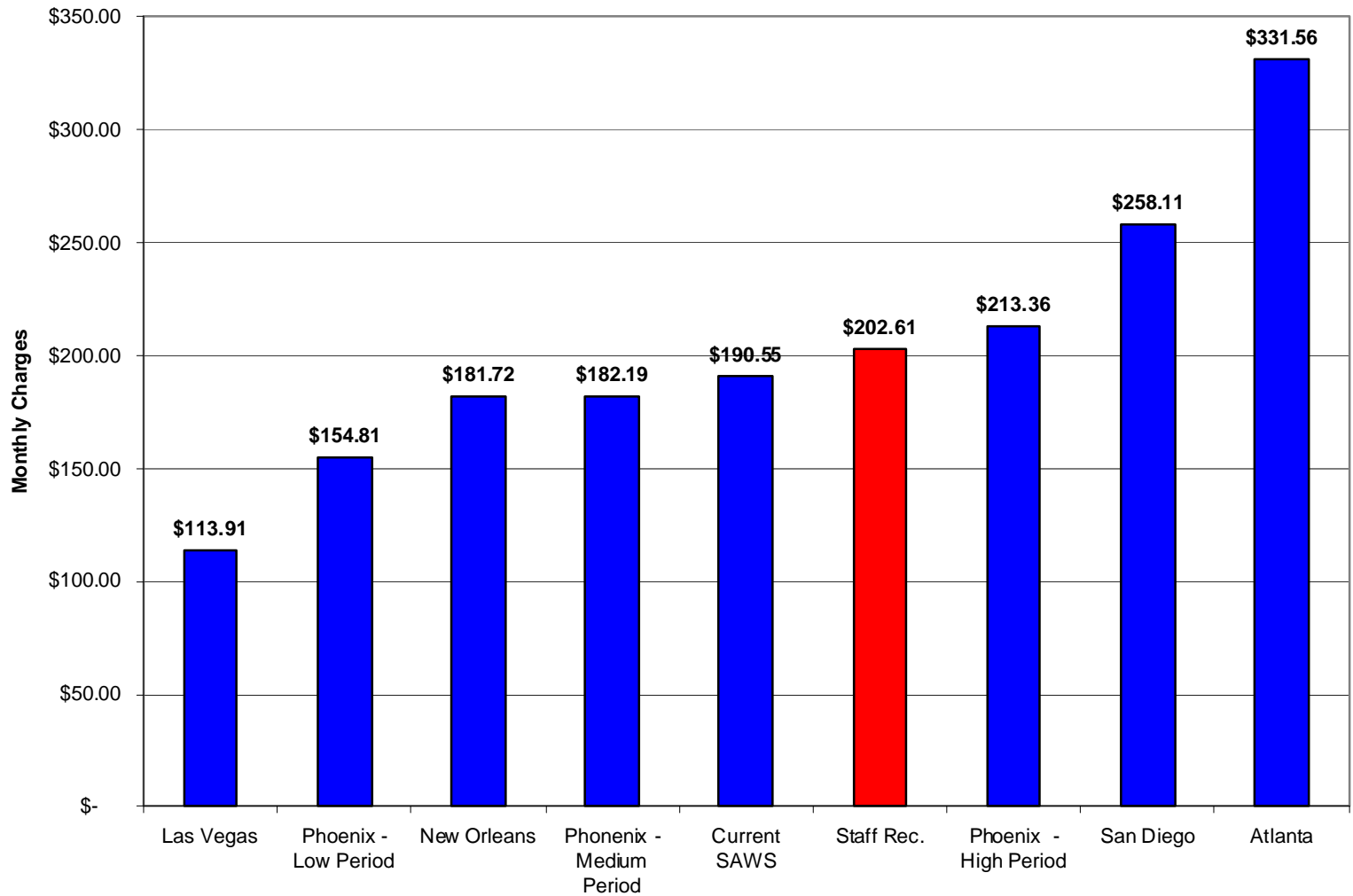
Texas Cities Comparison (50,000 gallons per month) General Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



U.S. Cities Comparison (50,000 gallons per month) General Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study

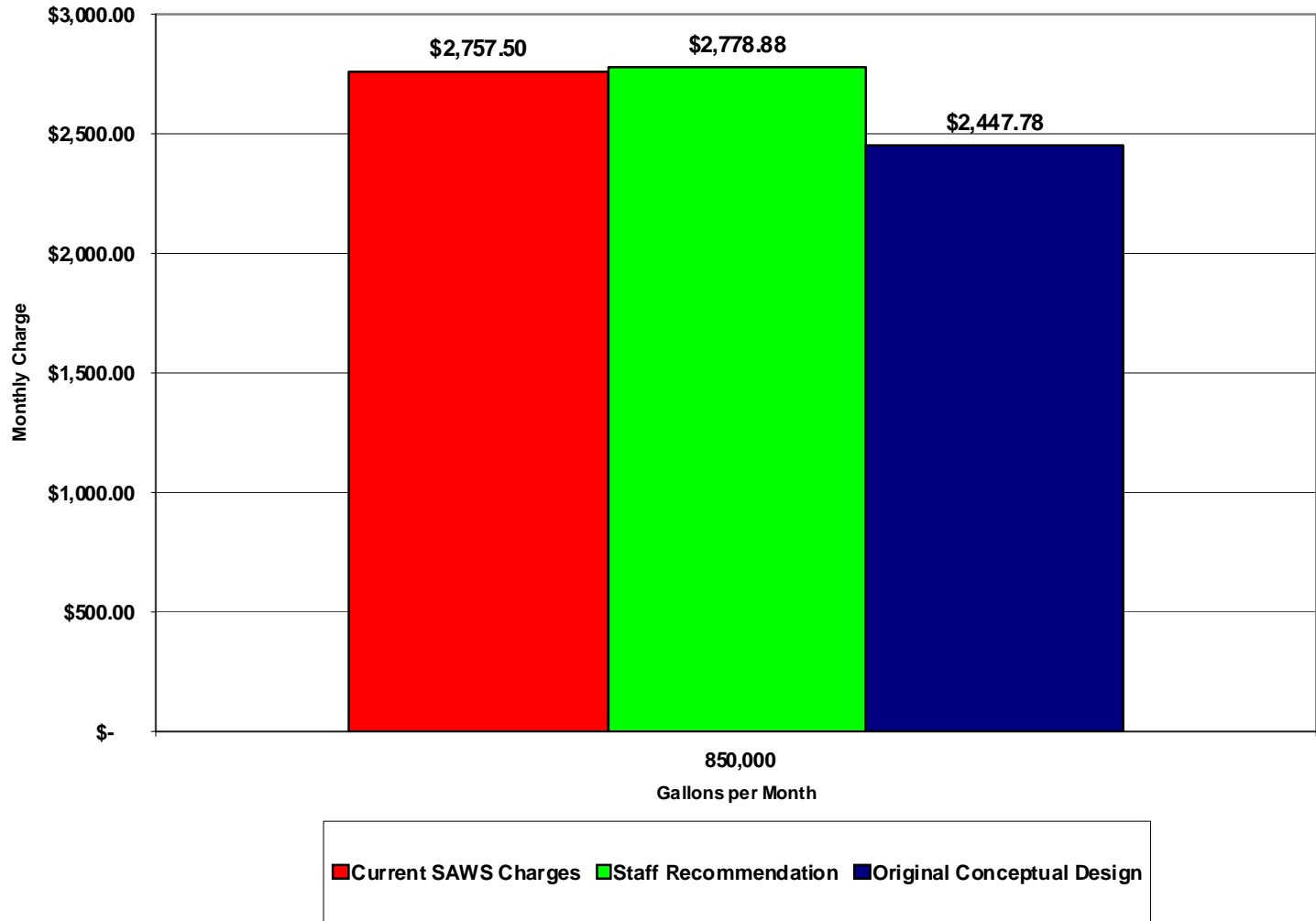


General Class, Industrial Customer Impacts

(6" Meter)

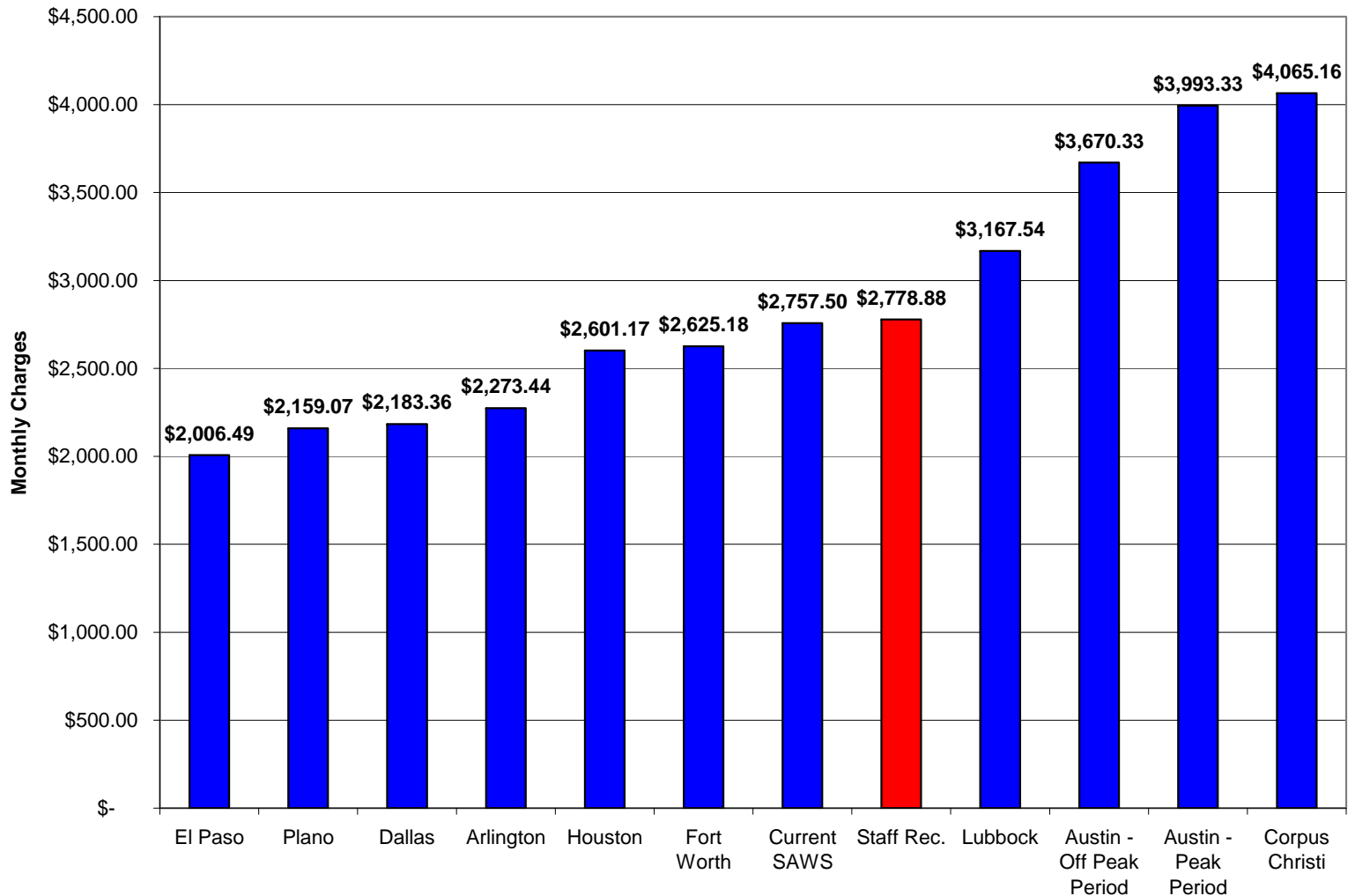


Monthly Charges Comparison of Alternatives General Class, Industrial (base = 665,809 gallons)



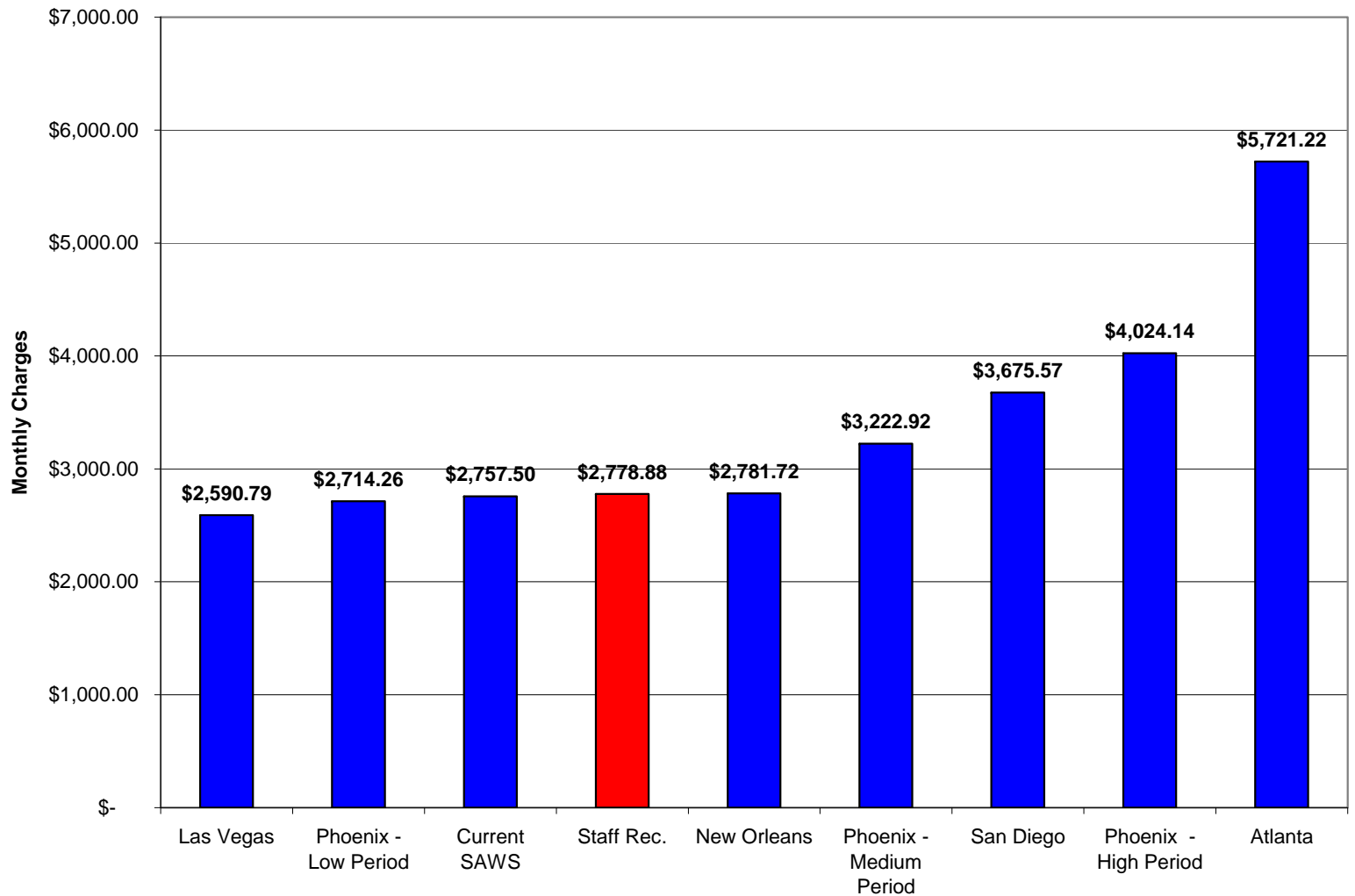
Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study

Texas Cities Comparison (850,000 gallons per month) General Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study

U.S. Cities Comparison (850,000 gallons per month) General Class



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study



Irrigation Customer Impacts

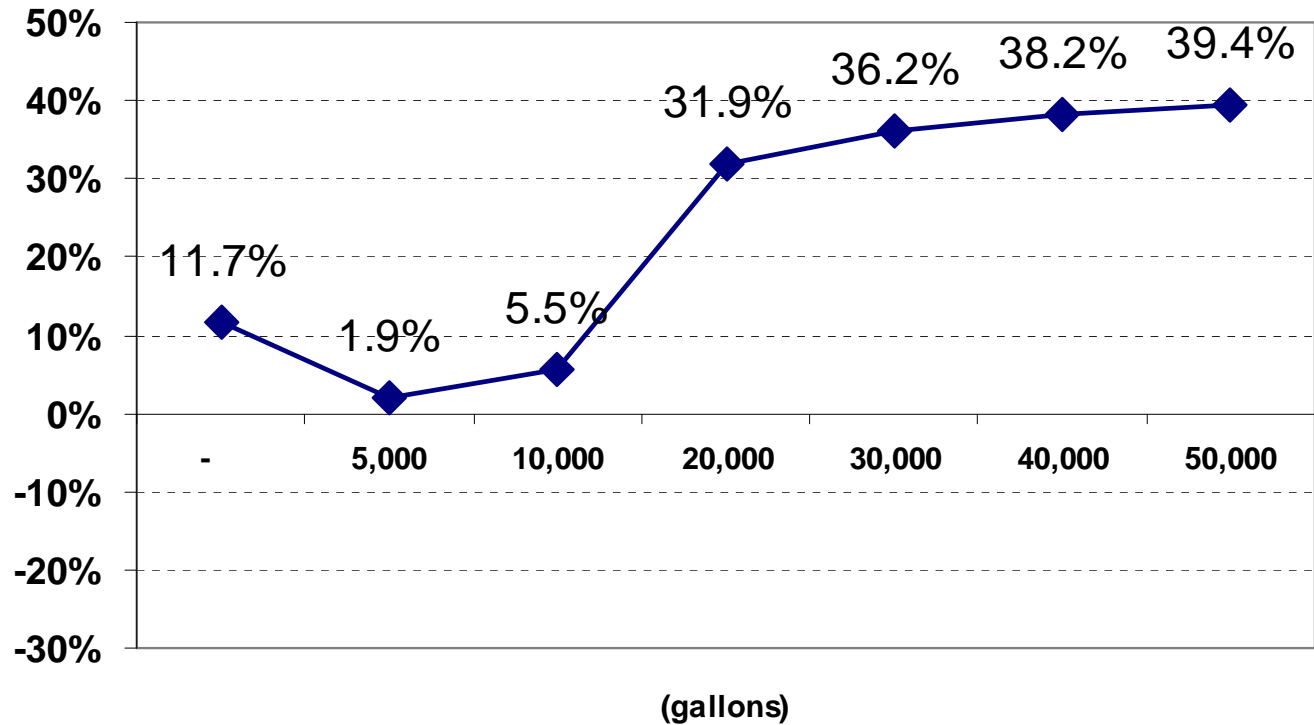
(1" Meter)



Irrigation Impact

Staff Recommendation: Standard Charges

Standard Rates: Staff Recommendation to Existing Rates
(Water Delivery and Water Supply Charges)

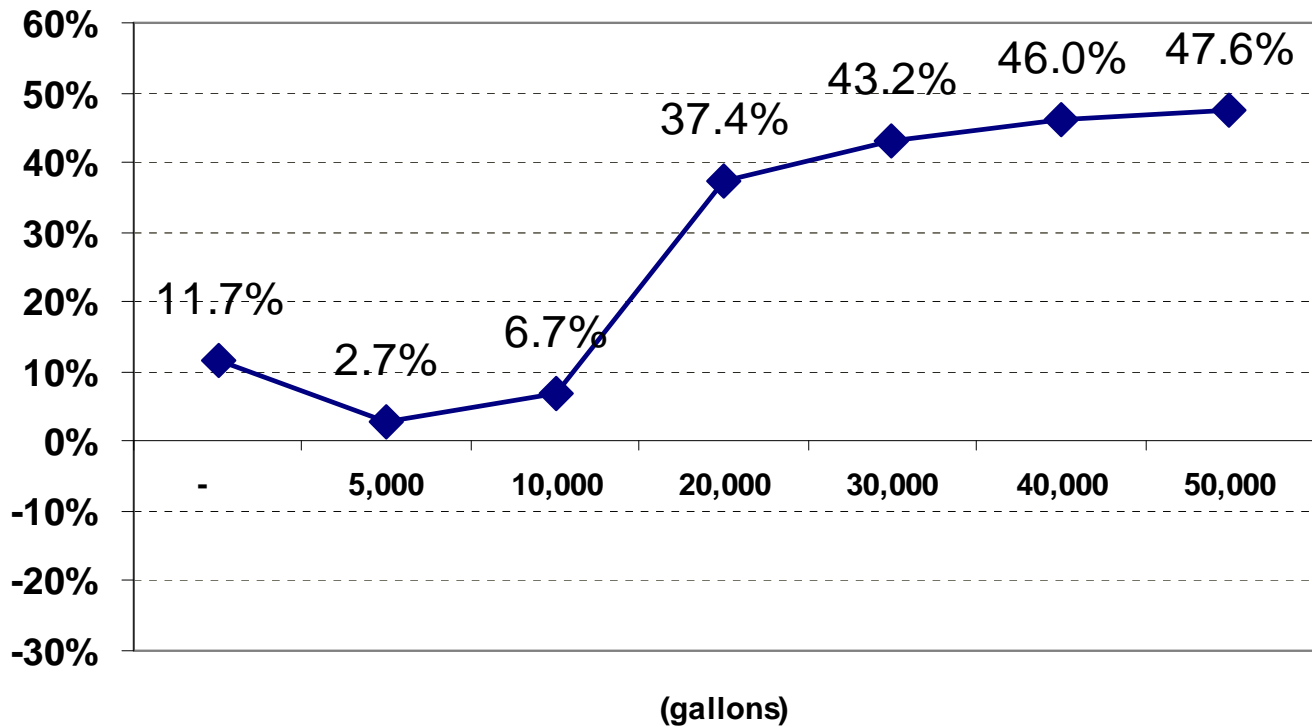




Irrigation Impact

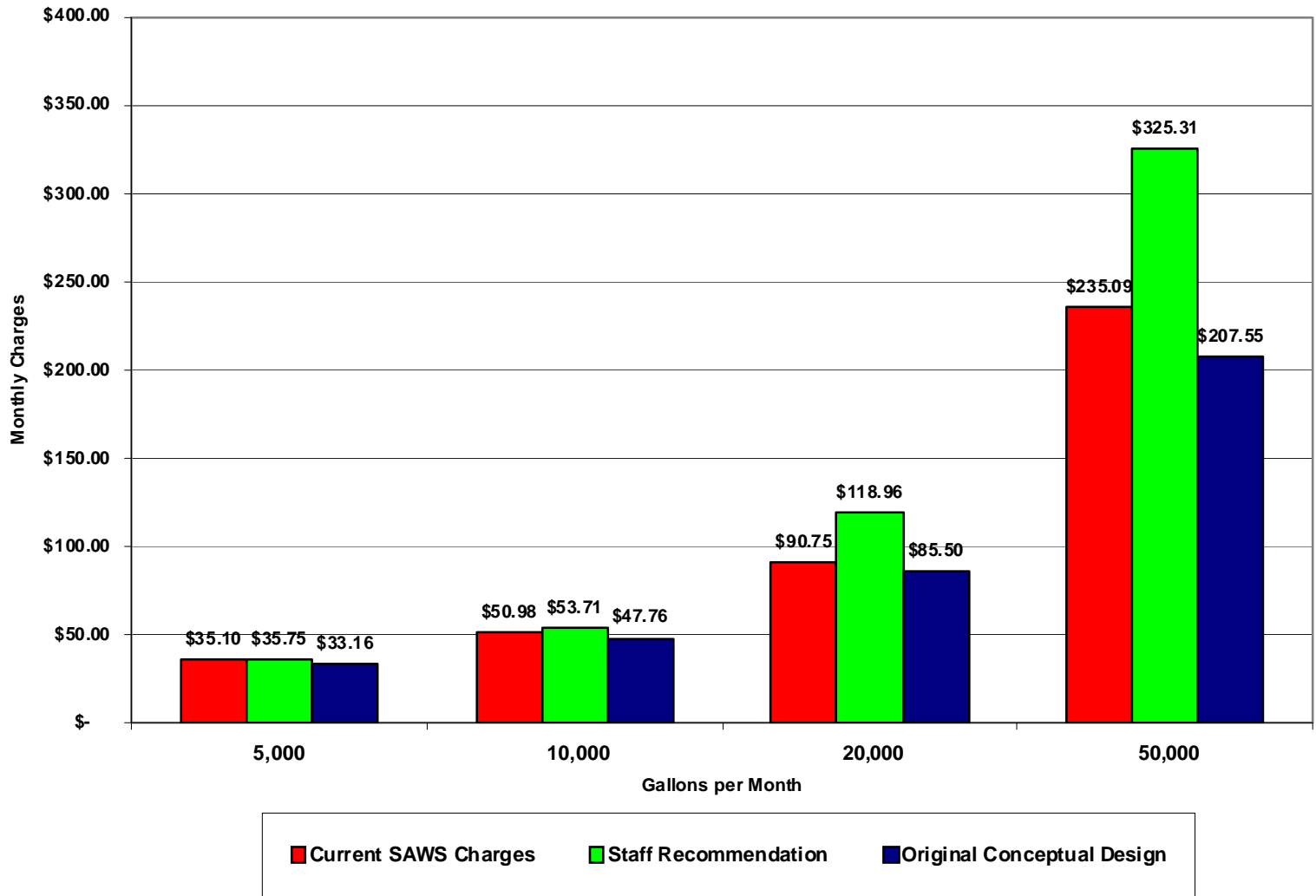
Staff Recommendation: Blended Charges – Annual Outlook

**Blended Rates: Staff Recommendation to Existing Rates
(Water Delivery and Water Supply Charges)**





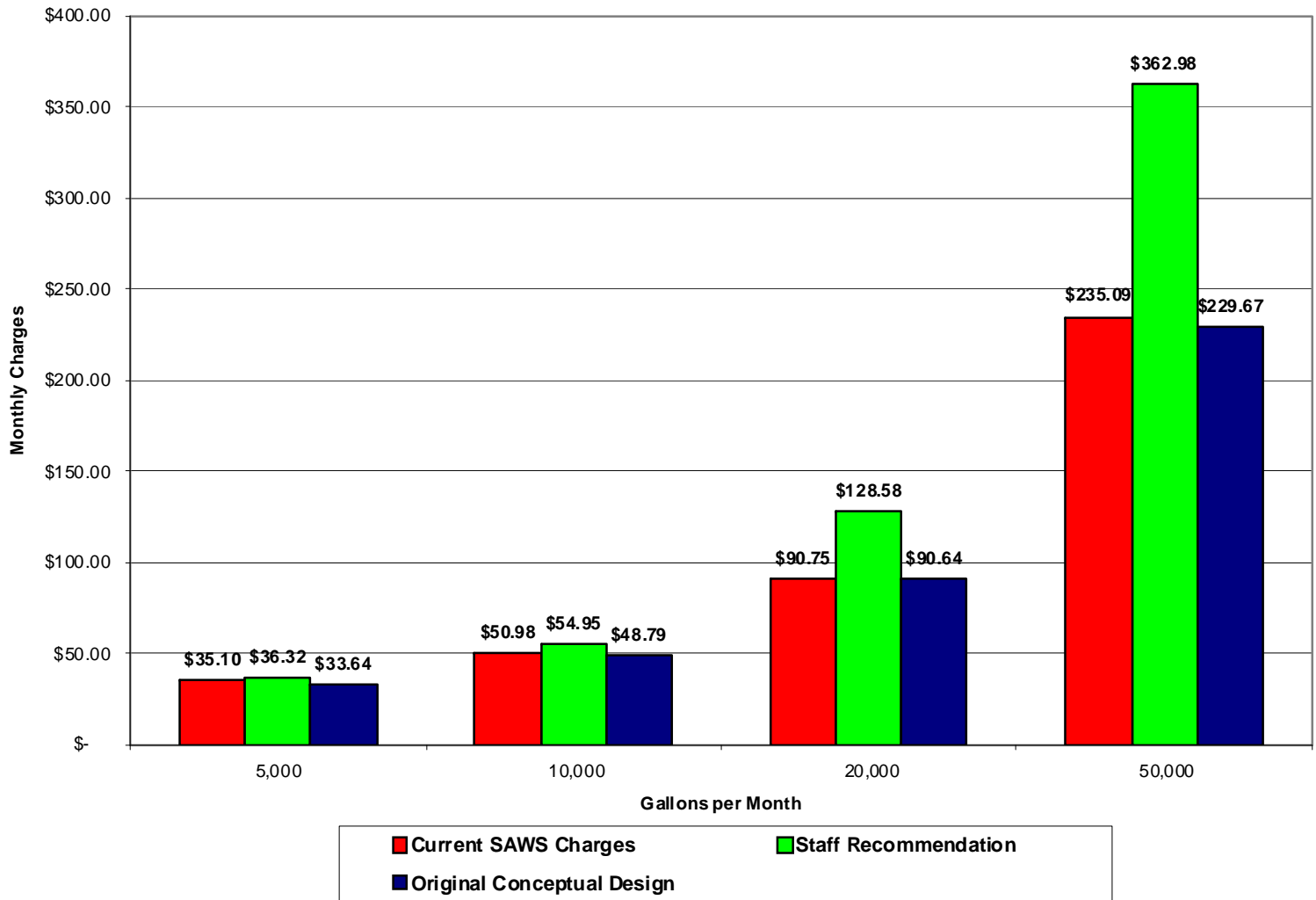
Monthly Charges Comparison of Alternatives Irrigation Non-Seasonal



Water Delivery & Water Supply Rates Combined
Comprehensive Cost of Service and Rate Design Study

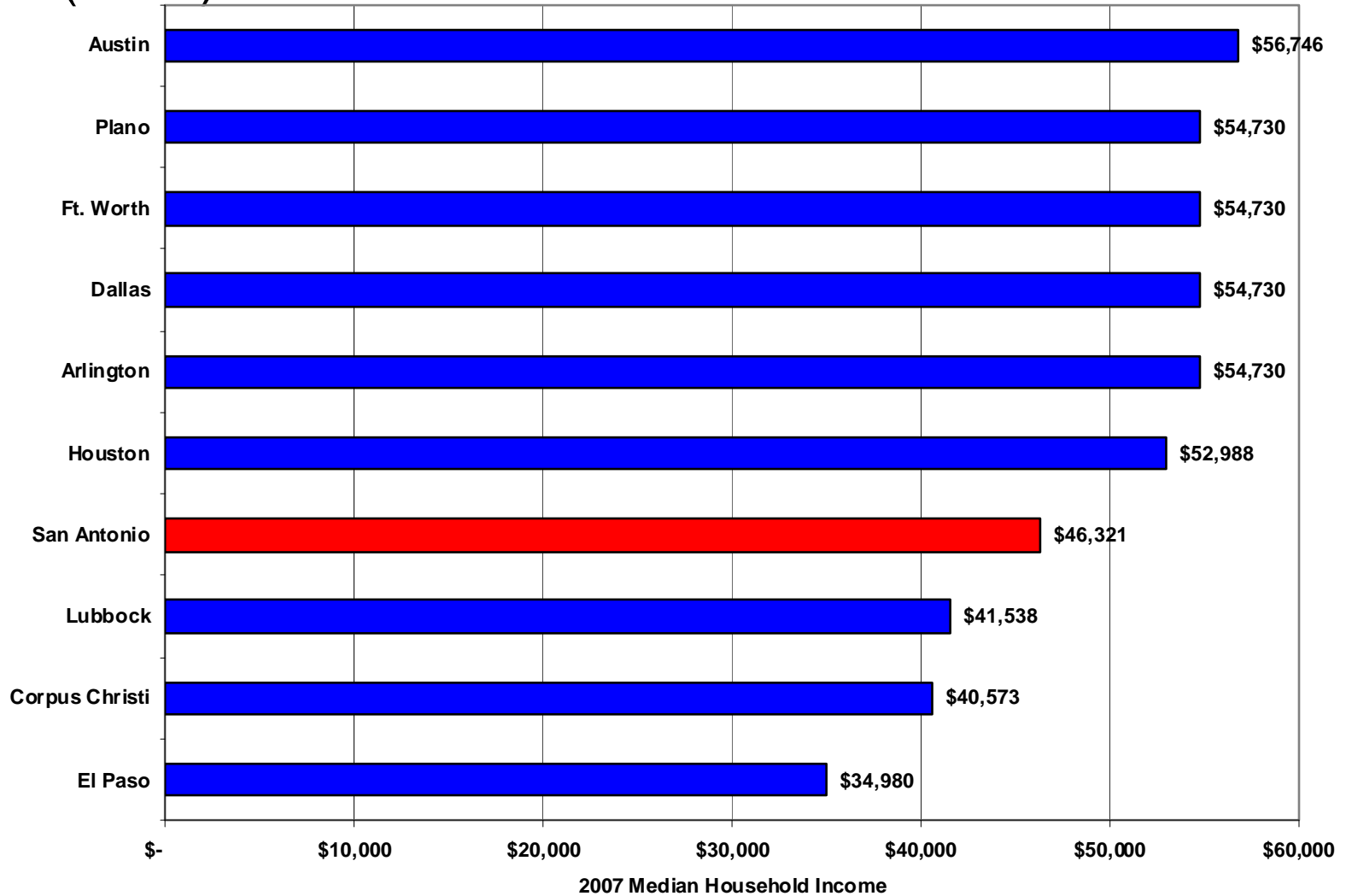


Monthly Charges Comparison of Alternatives Irrigation Seasonal



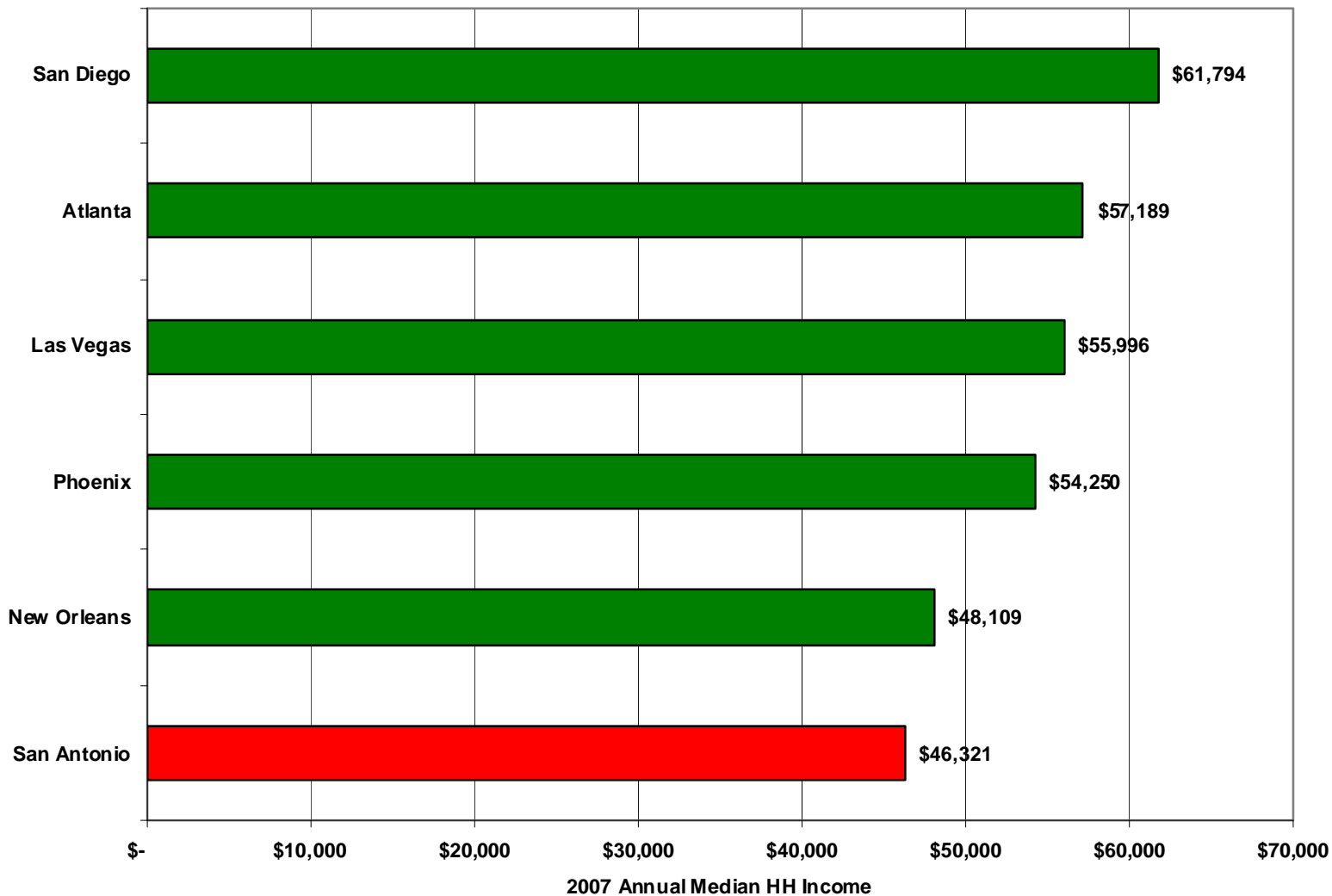
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Median Household Income: Major Texas Cities (2007)



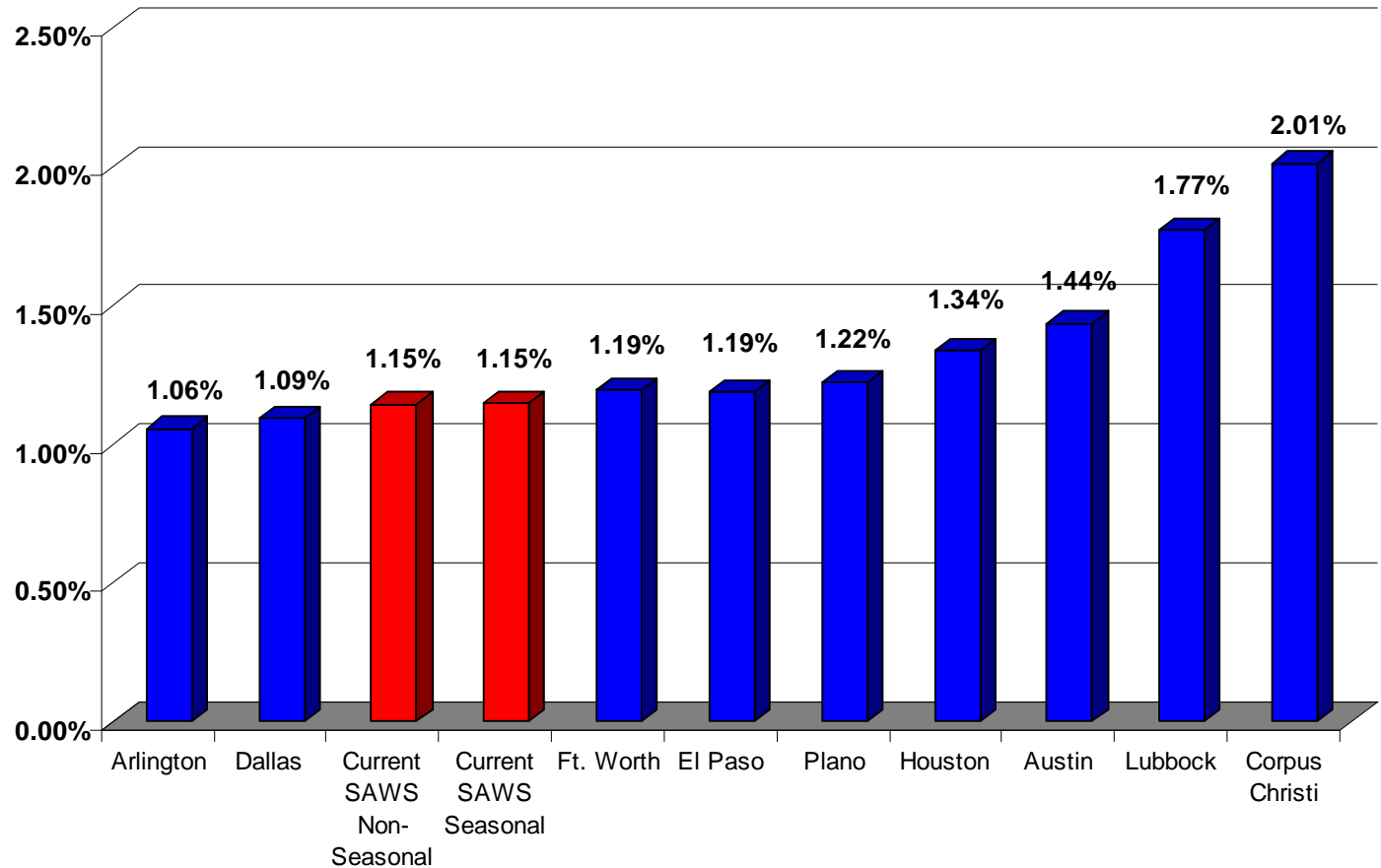
Source: U.S. Census Bureau

Median Household Income: Major U.S. Cities (2007)



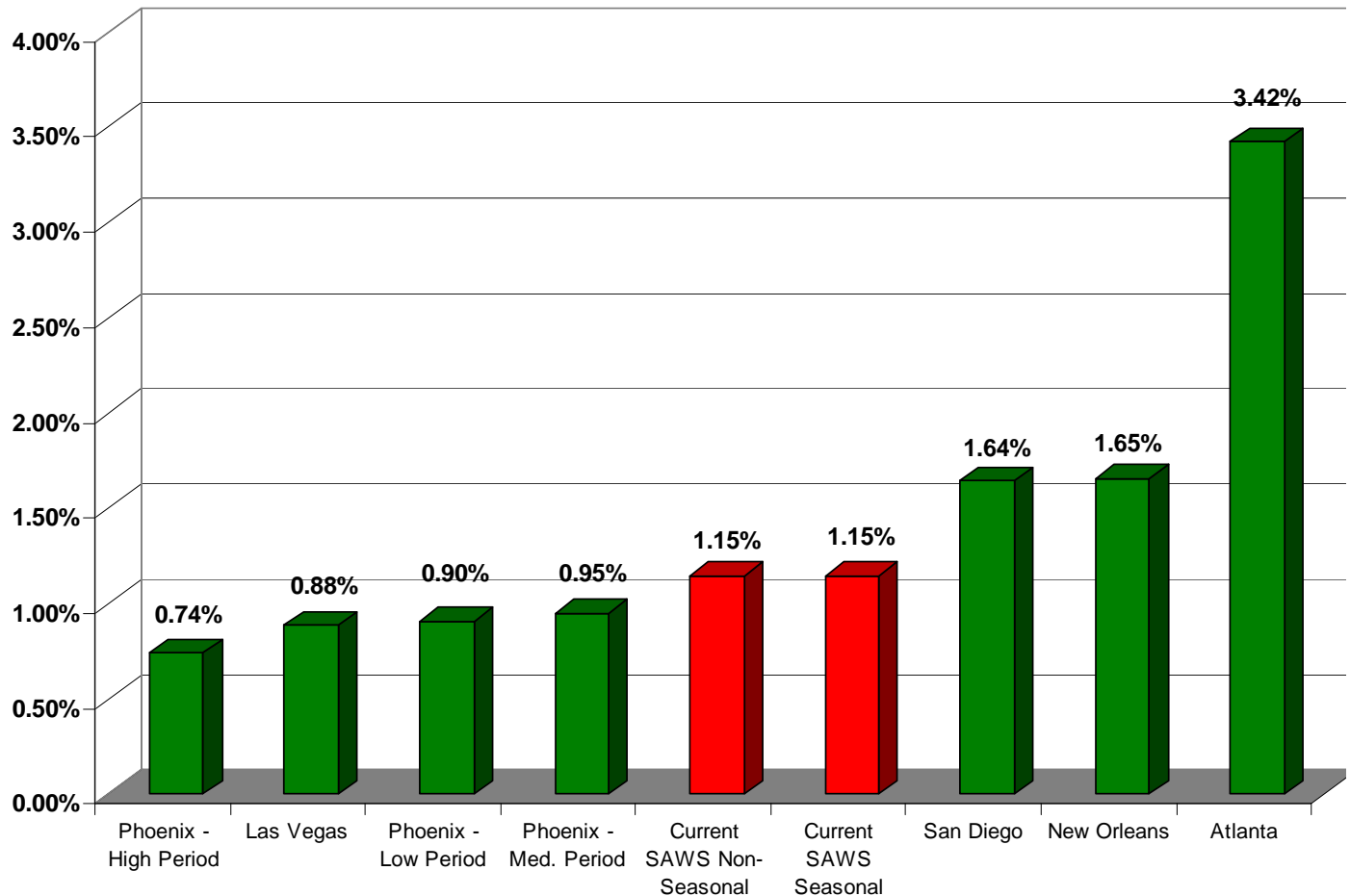
Source: U.S. Census Bureau

Percentage of Avg. Monthly Residential Water/Sewer Charges to Median Household Income: Texas Cities



- Assumes 7,788 gallons per month water; 6,178 gallons per month sewer
- 4% is affordability standard defined by American Water Works Assn.

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