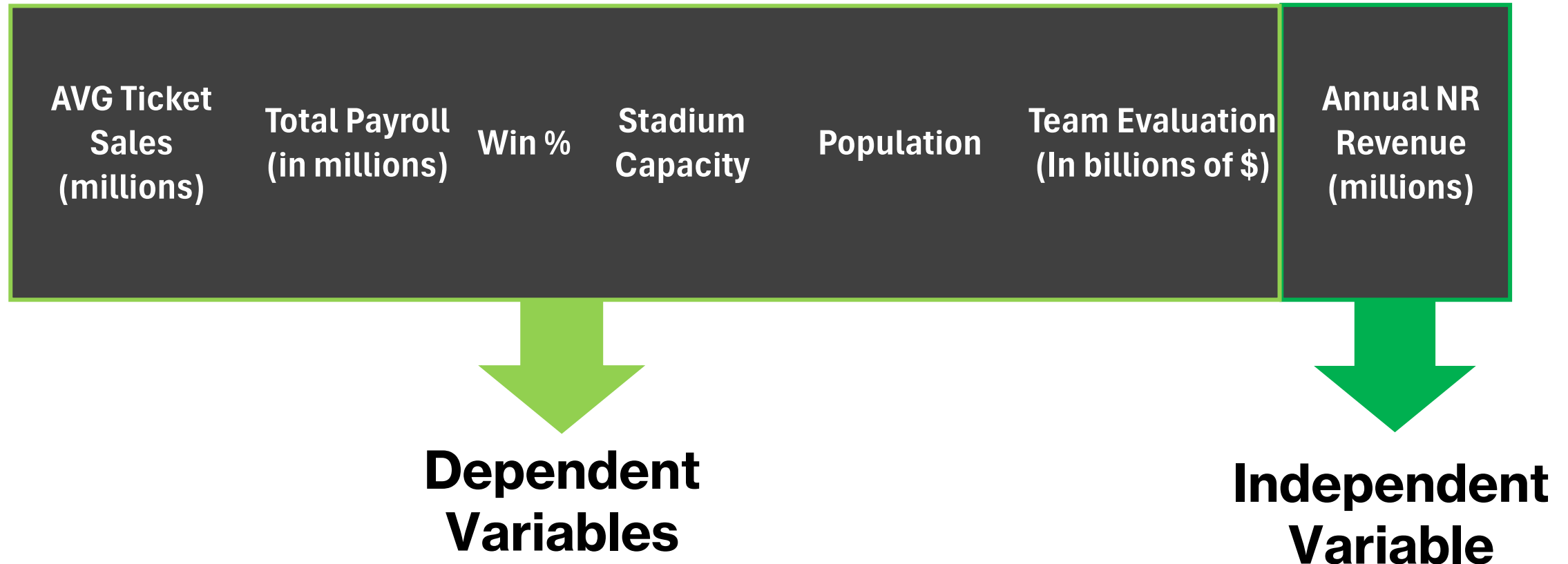# Cubs Naming Rights

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Our Research looked at...

Team	Venue	Annual NR Revenue (millions)
New York Mets	Citi Park	20.0
San Diego Padres	Petco Park	3
Chicago White Sox	Guaranteed Rate Field	1.54
Detroit Tigers	Comerica Park	2.2
Texas Rangers	Globe Life Field	11
Seattle Mariners	T-Mobile Park	3.5
Houston Astros	Minute Maid Park	5.93
Milwaukee Brewers	American Family Field	4
Philadelphia Phillies	Citizens Bank Park	3.8
Atlanta Braves	Truist Park	10

Our Variables were...

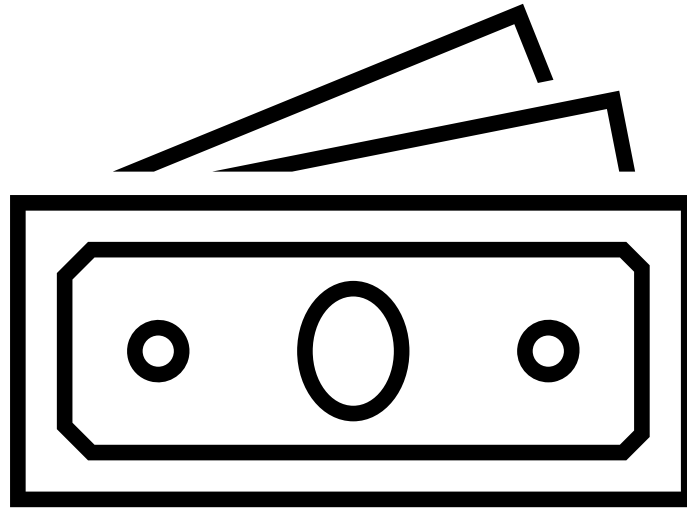| AVG Ticket Sales (millions)	Total Payroll (in millions)	Win %	Stadium Capacity	Population	Team Evaluation (In billions of $)	Annual NR Revenue (millions)

Dependent Variables

Independent Variable

How we analyzed the data

- Many Variables at start

- Removed weak factors

- Kept the strongest variable/s
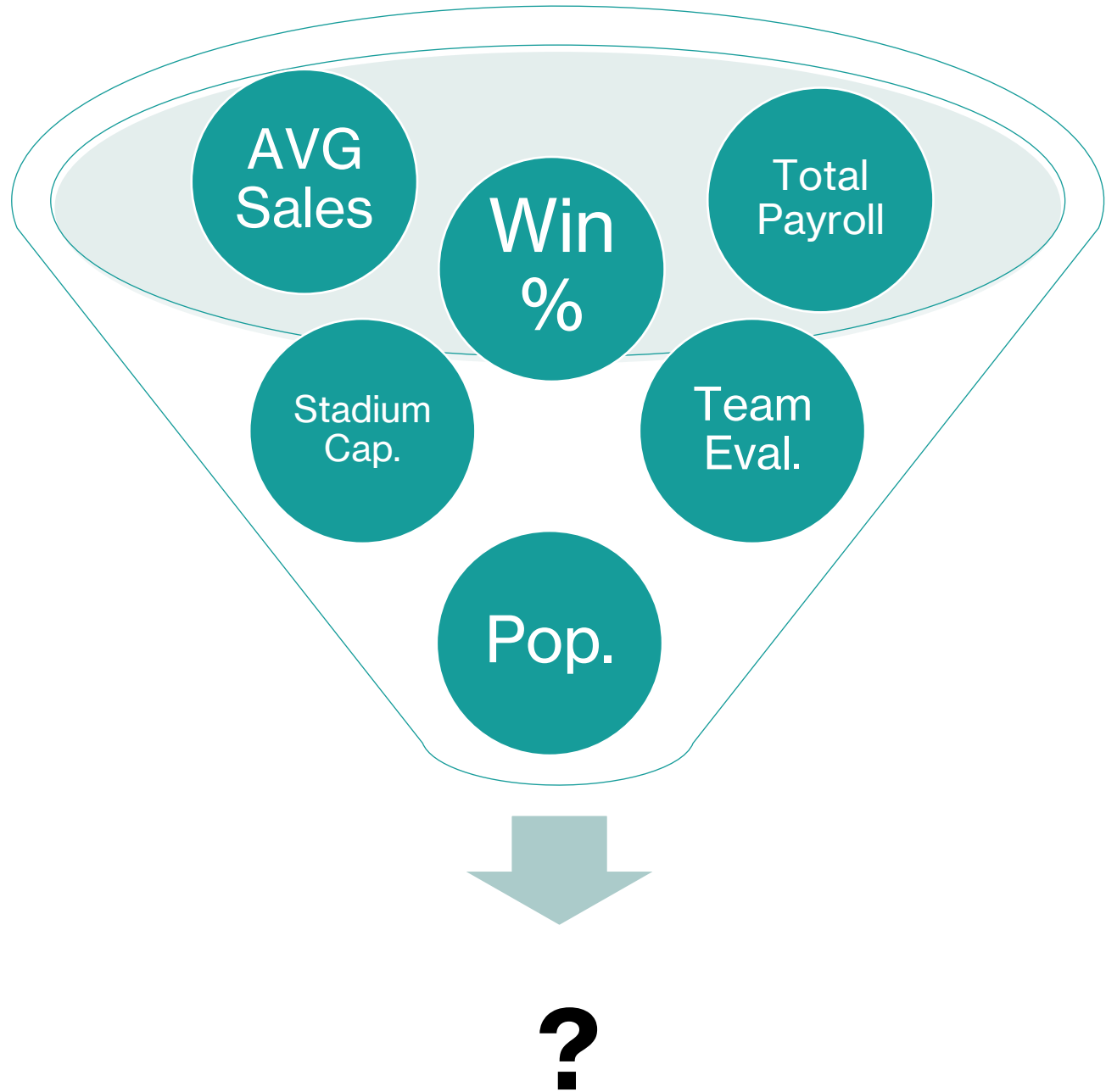
What actually mattered...
(strongest variable)

Total Payroll (2025 season)

Higher Payroll → Higher naming rights value

-4.3056 + 0.0527(211.95) =

$6.86 Million

Appendix 1: Final Regression & Equation   -4.3056 + 0.0527(211.95) = 6.86

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.718491
R Square	0.516229
Adjusted R Square	0.455757
Standard Error	4.208977
Observations	10

Cubs Payroll

ANOVA

	df	SS	MS	F	Significance F
Regression	1	151.2325	151.2325	8.536737	0.019239
Residual	8	141.7239	17.71549		
Total	9	292.9564			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-4.3056	3.92956	-1.0957	0.305098	-13.3672	4.755977	-13.36718457	4.755976581
Total Payroll (in millions)	0.0527	0.018037	2.92177	0.019239	0.011107	0.094293	0.01110657	0.094293429

Total:	6.864161
	6.864165

- **For every $1M increase in payroll, naming rights value goes up by approx. $52k per year**
- **R² = 0.52**
  - **May explain about half of the differences in naming rights deals**
  - **Other half may come from things we didn't measure**
- **Model isn't perfect but shows a clear trend**

Higher Payroll → Higher naming rights value

Appendix 2: Regression tests, correlation matrix

Regression Statistics

Regression Statistics	
Multiple R	0.818293
R Square	0.669603
Adjusted R Square	0.00881
Standard Error	5.680135
Observations	10

ANOVA

	df	SS	MS	F	Significance F
Regression	6	196.1646	32.6941	1.013333	0.540319
Residual	3	96.7918	32.26393		
Total	9	292.9564			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-12.0701	105.3059	-0.11462	0.915988	-347.2	323.0603	-347.2004115	323.0603
AVG Ticket Sales (millions)	-0.00262	0.074279	-0.03533	0.974035	-0.23901	0.233765	-0.23901366	0.233765
Total Payroll (in millions)	0.028106	0.054456	0.516125	0.641398	-0.1452	0.201409	-0.145196577	0.201409
Win %	30.56056	183.1618	0.16685	0.8781	-552.342	613.4632	-552.3421076	613.4632
Stadium Capacity	-0.00019	0.000908	-0.20695	0.849298	-0.00308	0.002701	-0.003076626	0.002701
Population	9.89E-07	1.21E-06	0.813939	0.475281	-2.9E-06	4.85E-06	-2.87734E-06	4.85E-06
Team Evaluation (In billions of $)	1.76E-09	7.22E-09	0.243428	0.82337	-2.1E-08	2.47E-08	-2.12091E-08	2.47E-08

Regression Statistics

Regression Statistics	
Multiple R	0.732133
R Square	0.536018
Adjusted R	0.403452
Standard E	4.406592
Observatio	10

ANOVA

	df	SS	MS	F	Significance F
Regression	2	157.03	78.51502	4.043403	0.068038
Residual	7	135.9264	19.41805		
Total	9	292.9564			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-6.82636	6.181255	-1.10436	0.305944	-21.4427	7.789988	-21.4427	7.789988
Total Payro	0.038406	0.032264	1.190358	0.272704	-0.03789	0.114698	-0.03789	0.114698
Team Evalu	2.28E-09	4.17E-09	0.546411	0.601757	-7.6E-09	1.21E-08	-7.6E-09	1.21E-08

Regression Statistics

Regression Statistics	
Multiple R	0.81539
R Square	0.66487
Adjusted R Square	0.39676
Standard Error	4.43123
Observations	10

ANOVA

	df	SS	MS	F	Significance F
Regression	4	194.777	48.6944	2.47988	0.17309
Residual	5	98.179	19.6358		
Total	9	292.956			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-24.5869	63.6097	-0.38653	0.71501	-188.101	138.927	-188.1008124	138.927
Total Payroll (in millions)	0.03065	0.04006	0.76516	0.47872	-0.07233	0.13363	-0.072326718	0.13363
Win %	40.6896	130.098	0.31276	0.76709	-293.739	375.118	-293.7385329	375.118
Population	1E-06	8E-07	1.26782	0.26069	-1E-06	3.1E-06	-1.04004E-06	3.1E-06
Team Evaluation (In billions of $)	1.3E-09	4.5E-09	0.28206	0.7892	-1E-08	1.3E-08	-1.04125E-08	1.3E-08

Correlation Matrix

	AVG Ticket Sales (millions)	Total Payroll	Win %	Stadium Capacity	Population	Team Evaluation (In billions of $)	Annual NR Revenue (millions)
AVG Ticket Sales (millions)	1						
Total Payroll	0.534285738	1					
Win %	0.11249998	-0.339542828	1				
Stadium Capacity	-0.128140978	-0.02753976	-0.223633595	1			
Population	0.046150434	0.553892475	-0.028817811	-0.058121948	1		
Team Evaluation (In billions of $)	0.694118332	0.81082236	-0.060294451	0.062182053	0.48745	1	
Annual NR Revenue (millions)	0.349191168	0.718490524	-0.066459483	-0.110995169	0.69744	0.664904928	1

Appendix 3: Sources

Team	Venue	Total Payroll (in millions)	Win %	Population	Team Evaluation (In billions of $)	Annual NR Revenue (millions)
New York Mets	Citi Park	342.38	0.484	7,936,530	3,200,000,000.00	20
San Diego Padres	Petco Park	216.84	0.468	1,400,000	1,950,000,000.00	3
Chicago White Sox	Guranteed Rate Field	78.82	0.498	2,600,000	2,000,000,000.00	1.54
Detroit Tigers	Comerica Park	157.57	0.503	629,800	1,550,000,000.00	2.2
Texas Rangers	Globe Life Field	226.03	0.476	401,200	2,450,000,000.00	11
Seattle Mariners	T-Mobile Park	164.51	0.478	764,800	2,200,000,000.00	3.5
Houston Astros	Minute Maid Park	232.88	0.503	2,300,000	2,800,000,000.00	5.93
Milwaukee Brewers	American Family Field	121.67	0.489	550,800	1,700,000,000.00	4
Philadelphia Phillies	Citizens Bank Park	290.29	0.475	1,500,000	3,100,000,000.00	3.8
Atlanta Braves	Truist Park	218.84	0.503	518,100	3,000,000,000.00	10

Source for Venue	statistica.com
Source for Total Payroll	www.spottrac.com/mlb/payroll
Source for Win %	https://www.baseball-reference.com/teams/
Source for Population	USA Today
Source for Team Evaluation	https://worldpopulationreview.com
Source for Annual NR Revenue	https://www.forbes.com/sites/justinteitelbaum/2025/03/26/baseballs-most-valuable-teams-2025/