Best Markets:

TLDR:

Our strongest markets tend to be the ones that strike a balance between solid conversion rates, high revenue per customer, and generally efficient housing conditions. The tech-heavy coastal markets - San Jose, Seattle, San Francisco - sit at the top largely because they pair strong pricing power with buyers who seem more ready to move. Interestingly, a couple of Midwestern markets like Grand Rapids and Buffalo also show up near the top, quietly outperforming relative to their size.

On the other end of the spectrum, a handful of large, high-visibility markets - Nashville, Houston, Dallas, Austin - fall short once you factor in conversion, revenue per customer, and broader market momentum. These are places where we may have more opportunity than we're currently capturing. Instead of assuming volume alone will carry performance, these look like markets where a more intentional sales or marketing strategy could actually move the needle.

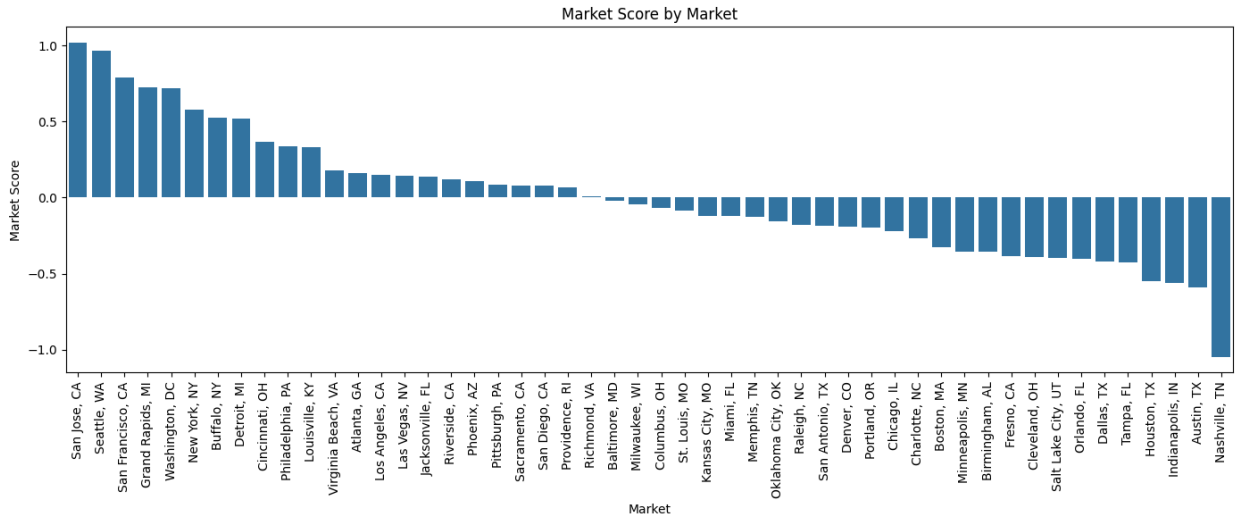
Details:

To identify Smiley Real Estate's strongest markets, I combined two categories of metrics:

1. **Company performance:**
    - Total sales
    - Conversion rate (customers with a sale / total customers in the market)
    - Revenue per customer
    - Call activity and responsiveness

2. **Local market conditions:**
    - Median days on market
    - Median closed-listing price
    - Price momentum (listings with price increases minus price decreases)
    - Inventory levels

I standardized each of these metrics and rolled them into an overall Market Score, giving equal weight to Smiley's performance and the underlying health of the local housing market. The intention here was to balance what we're doing well today with the fundamentals that actually support long-term success. This way, we're not just ranking markets based on current outcomes, but also identifying the places where the environment itself sets us up to win.



Top 5 Markets

1. San Jose, CA
San Jose comes out as the clear frontrunner. It pairs a strong conversion rate with the highest median home prices in the dataset, which naturally drives exceptional revenue per customer. Even though price momentum is slightly negative, the underlying pricing power in this market keeps it comfortably in the top spot.

2. Seattle, WA
Seattle combines steady conversion rates, strong revenue per customer, and consistently healthy transaction values. Its median closed price is among the highest nationwide, and even with some softening on the pricing side, the market still performs incredibly well from both a fundamentals and execution standpoint.

3. San Francisco, CA
San Francisco sits high on the list largely because of its pricing environment. Median closed prices are near the top of the country, giving us a strong revenue base to work from. Conversion rates lag slightly behind markets like Seattle and Grand Rapids, but the overall value of closed deals keeps San Francisco in the top three.

4. Grand Rapids, MI
Grand Rapids is one of the biggest positive surprises in the analysis. For a Midwestern market, it meaningfully overperforms its price tier. It posts one of the highest conversion rates in the dataset and handles customer engagement efficiently. Even with lower absolute home prices, its internal performance is strong.

5. Washington, DC

Washington, DC shows up as a well-rounded, consistently strong performer. It has above-average conversion, healthy revenue per customer, and generally stable housing fundamentals. Nothing flashy, but very reliable.

What Makes These Markets "Best"?

Across the top markets, a few themes show up pretty consistently:

- **High customer value:** Markets with higher median home prices naturally generate more revenue per customer, which gives Smiley a strong foundation to work from.
- **Efficient conversion:** Whether that's driven by agent behavior, customer readiness, or local conditions, the end result is the same: a higher share of leads turn into closed deals.
- **Market strength:** The strongest markets also have supportive fundamentals. Places like San Jose, Seattle, and Grand Rapids move quickly and have steady pricing, which seems to create an environment where buyers and sellers make decisions with fewer delays.

When internal execution lines up with healthy market conditions, those markets rise to the top - regardless of their size, geography, or price point.

A Market Trend Worth Sharing Externally

One of the more interesting patterns in the data is the split between the high-value coastal markets and a couple of Midwestern markets that quietly hold their own. The coastal cities - San Jose, Seattle, San Francisco - still deliver strong customer value and steady conversions, helped along by higher home prices even with some softening on the pricing side.

At the same time, markets like Grand Rapids and Buffalo consistently outperform relative to their price tier. They make up for lower absolute home values with higher efficiency and stronger conversion rates, which is impressive given their size.

It all points to a broader trend worth calling out: market performance isn't strictly tied to home values anymore. Mid-tier markets with engaged buyers and efficient agent execution can compete with, and sometimes outperform, much larger and more expensive metros. That's an encouraging signal for Smiley, because it shows we're able to succeed across a pretty diverse set of market types.

Best Agents:

TLDR:

Across all markets, the top agents distinguish themselves by combining:

- High conversion rates (70% of Agent Score)
- Meaningful and consistent volume (10% of Agent Score)
- Strong revenue outcomes (10% of Agent Score)
- Efficient sales timelines (10% of Agent Score)

These traits represent the core competencies of highly effective real estate agents, which is why the individuals selected emerge as the best performers in their respective markets.

Table:

Market	Agent ID	Conversion Rate	Book Size	Median Revenue	Median Days to Sale	Agent Score
Atlanta, GA	arjun_robinson_452	54.55%	44	$462,604.50	4.5	2.82
Austin, TX	jose_hernandez_319	36.67%	60	$530,448.00	5.5	1.09
Baltimore, MD	kenji_hernandez_461	39.58%	48	$461,890.00	5	1.18
Birmingham, AL	hassan_washington_575	36.84%	57	$506,605.00	5	1.06
Boston, MA	robert_jones_846	40.00%	45	$453,066.50	7	1.03
Buffalo, NY	imani_thompson_24	36.73%	49	$478,270.00	6	0.84
Charlotte, NC	michael_garcia_747	30.38%	79	$550,081.00	3.5	0.76
Chicago, IL	arjun_garcia_918	35.00%	60	$495,700.00	4	0.94
Cincinnati, OH	dorothy_gonzalez_346	42.42%	66	$440,902.00	4	1.66
Cleveland, OH	ali_hall_3	42.62%	61	$511,245.50	5	1.74
Columbus, OH	james_ramirez_50	32.93%	82	$472,541.00	5	0.77
Dallas, TX	christopher_rodriguez_734	40.43%	47	$491,718.00	4	1.41
Denver, CO	barbara_young_102	42.22%	45	$487,375.00	4	1.58
Detroit, MI	tyrone_thompson_561	44.90%	49	$451,295.00	6	1.67
Fresno, CA	latoya_green_214	37.14%	35	$547,007.00	6	0.94
Grand Rapids, MI	isabella_hill_209	41.03%	39	$577,088.00	5.5	1.50
Houston, TX	tanya_washington_963	40.00%	55	$451,323.00	3.5	1.37
Indianapolis, IN	haruka_hall_364	37.14%	35	$478,875.00	6	0.77
Jacksonville, FL	darnell_parker_965	51.06%	47	$471,334.50	4	2.52
Kansas City, MO	dorothy_martinez_83	40.00%	55	$516,222.00	3	1.56

Las Vegas, NV	amanda_evans_989	43.59%	39	$478,090.00	4	1.65
Los Angeles, CA	priya_young_89	38.33%	60	$481,851.00	7	1.05
Louisville, KY	zainab_allen_321	38.89%	36	$555,127.00	5.5	1.19
Memphis, TN	fatima_ramirez_498	36.96%	46	$505,818.00	5	0.98
Miami, FL	lakshmi_mohamed_440	46.15%	39	$486,114.00	6	1.80
Milwaukee, WI	dorothy_mohamed_578	46.15%	52	$523,837.00	3	2.22
Minneapolis, MN	jason_davis_983	40.68%	59	$523,532.00	6	1.47
Nashville, TN	mina_kim_869	32.79%	61	$515,337.50	5	0.68
New York, NY	christopher_garcia_933	40.91%	44	$513,946.50	4.5	1.45
Oklahoma City, OK	james_mitchell_784	42.86%	56	$447,164.50	5	1.57
Orlando, FL	layla_green_951	37.78%	45	$535,239.00	6	1.06
Philadelphia, PA	camila_nguyen_189	40.48%	42	$560,978.00	6	1.39
Phoenix, AZ	daniel_lopez_224	34.94%	83	$521,605.00	6	1.04
Pittsburgh, PA	carlos_lewis_873	35.56%	45	$468,169.00	4	0.80
Portland, OR	michael_hall_387	38.89%	72	$491,495.50	5	1.38
Providence, RI	aisha_nelson_615	41.86%	43	$499,436.00	6	1.40
Raleigh, NC	richard_jones_757	33.33%	72	$508,735.00	4.5	0.85
Richmond, VA	priya_mohamed_314	35.19%	54	$418,245.00	5	0.64
Riverside, CA	fatima_torres_23	36.11%	36	$534,991.00	5	0.87
Sacramento, CA	david_carter_683	37.14%	70	$460,509.50	4.5	1.13
Salt Lake City, UT	mei_nguyen_346	35.38%	65	$456,743.00	6	0.78
San Antonio, TX	jason_mitchell_515	40.74%	54	$574,107.00	4	1.70
San Diego, CA	daniel_walker_680	37.78%	45	$505,437.00	4	1.13
San Francisco, CA	layla_campbell_987	34.55%	55	$473,570.00	5	0.72
San Jose, CA	richard_martinez_610	39.47%	38	$547,565.00	5	1.29
Seattle, WA	asha_ramirez_876	44.12%	34	$557,380.00	4	1.86
St. Louis, MO	mary_hill_779	46.67%	45	$486,489.00	4	2.06
Tampa, FL	susan_gonzalez_144	36.36%	44	$503,197.00	7	0.75
Virginia Beach, VA	imani_kim_217	41.30%	46	$538,602.00	4	1.61
Washington, DC	john_clark_908	44.74%	38	$514,268.00	6	1.71

Details:

To determine the strongest agent in each market, I focused on metrics that reflect an agent's effectiveness, consistency, and impact on the customer journey. Although individual results vary

by market, the agents who rise to the top consistently demonstrate the same underlying strengths:

They convert customers at a high rate.

Conversion rate - the percentage of an agent's assigned customers who ultimately complete a sale - is the probably the clearest signal of agent effectiveness and that's why we weigh it the heaviest in the Agent Score. Top agents consistently handle a set of customers and move a large share of them all the way through the funnel. High conversion strongly suggests:

- Clear and timely communication
- Effective follow-up
- Strong rapport-building skills
- Ability to guide hesitant buyers
- Persistence in keeping deals moving

They perform well across a meaningful number of customers.

Volume is an important consideration, as an agent converting 80% of 10 customers tells a different story than an agent converting 40% of 100 customers.

The agents selected as "best" have to pass a required volume threshold - they work with *enough* customers in their market for their performance to be meaningful, repeatable, and reliable. Top agents excel across a sustained book of business, not one-time wins.

They generate strong revenue per customer.

Top agents should blend quantity with quality, with tendencies to:

- Match customers with the right listings
- Navigate negotiations effectively
- Maintain momentum in high-value transactions
- Maximize the likelihood of closing higher-priced homes

Revenue per customer helps ensure we're not just rewarding volume, but value creation.

They convert efficiently (shorter time-to-sale).

Across markets, the best agents should be able to move customers through the process more quickly. Shorter median days-to-sale often signals:

- Efficient process management
- Faster issue resolution
- Ability to motivate buyers
- Skill in identifying qualified prospects early

Growth Opportunities:

TLDR:

Improve Big Underperforming Markets
We have several large markets with strong customer volume but relatively weak conversion. Even a small lift in these markets would drive substantial revenue gains. Focusing on better engagement, follow-up, and localized strategies here unlocks major upside.

Shorten the Sales Cycle
Standardizing follow-up cadences and engagement touchpoints could reduce friction in the funnel, making customer timelines more predictable and lowering the chance of drop-off - even though speed alone isn't a predictor of conversion rate in this particular dataset.

Localize Marketing Messaging
Different markets behave differently: some are hot, others are cooling. Tailoring marketing messages to local conditions (urgency vs negotiation room) makes outreach more relevant and persuasive, improving lead quality and customer trust.

Details:

Lift Performance in Large Underperforming Markets

Across our dataset, several of our largest and most recognizable markets - such as Nashville, Houston, Dallas, Austin, and Chicago - consistently rank near the bottom in overall performance. These markets have substantial customer bases, yet they produce lower conversion rates, weaker revenue per customer, and softer market fundamentals relative to their size. This presents a major opportunity: even modest improvements in these markets would generate disproportionate gains due to the volume of customers flowing through them.

By focusing on targeted improvements in agent engagement, follow-up cadence, localized messaging, and adoption of best practices used by top markets like San Jose and Seattle, we can unlock meaningful upside. The core insight is simple: we already have the customers - we

just aren't capturing enough of the value. Concentrating resources on a handful of high-potential but underperforming markets could yield one of the highest ROI opportunities in our portfolio.

Reduce Time-to-Sale Through an Efficiency Playbook

Even though closing speed doesn't directly predict conversion in our data (correlation = .019), inconsistent movement through the funnel can create uncertainty, missed touchpoints, and preventable customer drop-off. Many mid-performing agents handle a healthy volume of customers, but their timelines vary widely, suggesting a lack of clear structure in how they manage follow-up and engagement.

A focused initiative to tighten up these workflows improves consistency across the team. This would include clearer follow-up standards, structured touchpoint cadences, playbooks based on organized, high-performing agents, and light automation to support timely communication. Improving funnel discipline is both simple and impactful: by helping more agents operate with a well-defined, reliable process, we strengthen the customer experience and lift overall conversion without requiring additional leads.

Tailor Marketing Messaging to Local Market Conditions

The data makes it clear that housing markets vary in terms of speed, pricing pressure, and overall momentum - and those differences shape how customers behave. Markets that are moving quickly tend to respond well to more urgency-driven messaging ("Homes are moving fast"), while slower or cooling markets lean into opportunity-based framing ("Room to negotiate," "Great value right now").

A localized marketing approach that reflects these conditions would go a long way in improving both customer experience and lead quality. If we bake in fundamentals like days on market, recent price movements, and local inventory patterns, we can deliver messaging that actually speaks to what buyers and sellers are experiencing in real time. That kind of relevance makes the outreach more compelling and positions Smiley as a trusted guide rather than a generic national voice.

What If I had More Time and Resources?:

More than anything, I'd want to see agent tenure. How long does it actually take an agent to ramp into a stable conversion rate? And if there *is* a clear ramp curve, should we be thinking differently about which agents get assigned to which markets based on where they are on that timeline? On a similar note, are some markets naturally supporting faster ramp times than others?

I'd also be really interested in digging into the playbooks these agents are using and how those approaches translate into call success. There may be patterns in conversational structure, timing, or tone that consistently show up in the highest performers. Or maybe there are early customer signals - specific objections, hesitations, or sentiment markers - that reliably indicate a low likelihood to convert. Being able to identify that early would save our reps time and let them focus on the deals that actually have legs underneath them.

On top of that, I'd love to pair this sales data with some broader macroeconomic indicators. In a prior project, I compared consumer economic policy uncertainty to travel data and found a strong relationship between the two. Understanding how these macro factors interact with our markets could give us a heads-up when certain regions are about to cool off and help us proactively adapt our sales and marketing strategy before the slowdown shows up in our numbers.

My Process:

I approached this in the same way I'd tackle any new dataset: start broad, get my bearings, and then narrow in on what actually moves the needle. I pulled everything into Python so I could explore the data quickly - mostly using pandas for cleaning and transformation, seaborn/matplotlib for a few sanity-check visuals, and scikit-learn for some light standardization when building composite scores.

The first challenge was understanding the relationships between the three datasets and figuring out what level of aggregation made the most sense for the questions being asked. I uploaded each of the tables to ChatGPT (normally I'd confirm no PII first) and asked it to familiarize itself with what was available. For the entirety of this process, I treated it as though it was both an entry level data analyst, offering quick code when necessary, but also as a partner of sorts that I could use to gauge temperature on the general direction of this project.

For the market analysis, the metrics were already fairly straightforward, so the biggest piece was normalizing everything and building a scoring system that weighed each component in a way that felt meaningful and intuitive.

The agent side took a bit more thought. I had to merge customer-level data with the overall agent master file, figure out which metrics were available in both, and then decide how to balance per-market performance with overall agent quality. I also initially assumed that faster closing agents would naturally convert better, but when I tested that theory, the correlation wasn't there. That forced me to rethink how I framed my findings and keep the strategy recommendation grounded in what the data actually showed.

From there, it was mostly about making sure the logic held together: filtering out agents with too small a book, standardizing the features going into the agent score, weighting the components based on what actually drives performance, and validating the outputs market by market.

On the writing piece, I leaned on ChatGPT for concise, executive level summaries - I have a tendency to get over-verbose and I like thought-dumping everything and asking it to give me a TLDR plus a more detailed view. I'd also ask it to cross reference my takeaways with the data itself to ensure an extra level of consideration.

Overall, the process was iterative. I'd form a hypothesis, test it, and then refine the approach. I tried to keep in mind the context of everything and whether it all made sense - I feel confident in the process but I'm fairly certain the data was randomly generated, creating certain trends that threw me for a loop, like the low correlation between time to sale and conversion rates, or the consistent, generally quick turn around between a customers first call and the sale.

Favorite take home assessment I've done to date!