

Account Density Analysis - Complete Deliverables



Executive Summary

You now have **TWO** powerful ways to visualize and analyze account density across your territories:

1. **Interactive Web Map** (Mapbox-powered, best for exploration)
2. **Static HTML Charts** (Perfect for presentations and reports)

Both show the same critical insight: **84.6% overall churn rate** with significant variation by territory.



Interactive Density Map Application

Location

```
/home/ubuntu/density_map/nextjs_space/
```

How to Launch

```
cd /home/ubuntu/density_map/nextjs_space  
yarn dev
```

Then open: **http://localhost:3000**

Features

✓ Three View Modes:

- Active Account Density (green gradient)
- Terminated Account Density (red gradient)
- Churn Rate (green-to-red gradient)

✓ Interactive Elements:

- Click any ZIP code for detailed popup
 - Filter by territory (West, Central, East, Tucson)
 - Real-time statistics sidebar
 - Graduated color scaling by density
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Static Visualizations (HTML Charts)

Files Created

1. **density_viz_top_30_active.html** - Top 30 ZIPs by active customers
2. **density_viz_top_30_terminated.html** - Top 30 ZIPs by terminated customers
3. **density_viz_area_comparison.html** - Territory comparison dashboard

4. **density_viz_scatter_comparison.html** - Active vs Terminated bubble chart

5. **density_viz_churn_distribution.html** - Churn rate box plots

How to Open

Simply open any `.html` file in your browser

Data Files

CSV Files

- **DENSITY_TOP_50_ACTIVE_ZIPS.csv** - Top 50 by active accounts
- **DENSITY_TOP_50_TERMINATED_ZIPS.csv** - Top 50 by terminated accounts
- **DENSITY_HIGHEST_CHURN_ZIPS.csv** - Top 50 by churn rate
- **account_density_by_zip.csv** - Complete dataset (156 ZIPs)
- **area_density_summary.csv** - Territory-level summary

JSON Files

- **DENSITY_SUMMARY_STATS.json** - Machine-readable metrics
- **density-map-data.json** - GeoJSON with boundaries (in map public folder)
- **area-statistics.json** - Territory statistics (in map public folder)

Documentation


DENSITY_MAP_ANALYSIS_README.md

Complete 240-line analysis with:

- Executive summary with key findings
- Interactive map usage instructions
- Color legend explanations
- Strategic insights and recommendations
- Technical specifications

Key Insights

Territory Performance

Territory	ZIPs	Active	Terminated	Churn Rate
West	45	529	3,599	86.9% 
Central	49	527	3,010	84.6%
East	36	570	2,527	80.9% ✓
Tucson	26	73	226	72.5% ✓✓

Critical Issues

1. West Territory: 86.9% churn (highest)
2. ZIP 85308 (Glendale): 87% churn
3. ZIP 85331: 87.6% churn

Top Opportunities

1. ZIP 85122 (Casa Grande): 89 active accounts
 2. ZIP 85254 (N. Scottsdale): 56 active accounts
 3. ZIP 85308 (Glendale): 40 active accounts
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Quick Start Guide

For Presentations

1. Open `density_viz_area_comparison.html`
2. Show territory comparison
3. Drill into `density_viz_top_30_active.html` for details

For Analysis

1. Open `DENSITY_TOP_50_ACTIVE_ZIPS.csv` in Excel
2. Create pivot tables
3. Cross-reference with `DENSITY_HIGHEST_CHURN_ZIPS.csv`

For Exploration

1. Launch interactive map: `cd density_map/nextjs_space && yarn dev`
 2. Toggle between Active/Terminated/Churn views
 3. Click ZIP codes for detailed popups
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Status:  **COMPLETE AND READY FOR USE**

Analysis Date: October 30, 2025

Version: 1.0

Total Deliverables: 19 files