Employee Location Analysis - Phoenix Territory Map

Completed Analysis & Deliverables

✅ What Was Completed

1. Employee Data Processing

- Geocoded all 43 employee home addresses
- Calculated distances to all proposed office locations
- Determined optimal 2026 office assignments based on proximity

2. New Interactive Map View

Added **“Employee Locations”** tab to the live map at:
https://phoenixnewlocations.abacusai.app

Features:
- **Color-coded markers** showing each employee’s home location
- Blue circles = Recommended for West Office
- Green circles = Recommended for Central Office
- Purple circles = Recommended for East Office
- **Star markers** showing 2026 and Future office locations
- **Interactive filters** to view employees by recommended office
- **Click any employee** to see detailed information:
- Name, title, city, current location
- Recommended office assignment
- Distance to all three offices
- Manager information
- **Office location markers** with color coding:
- ⭐ Red stars = 2026 offices (Next Year)
- ⭐ Orange stars = Future Planning offices

3. Analysis Documents Created

A. Employee_Location_Analysis_Report.txt

Comprehensive text report with:
- Executive summary
- Detailed office assignments (all 43 employees)
- Commute optimization analysis
- Manager distribution across offices
- Special considerations for Tucson employees

B. Employee_Office_Assignments_Analysis.xlsx

Excel workbook with 5 tabs:
- **Summary**: Key statistics and overview

- **All Employees**: Complete listing with all data
- **West Office**: 19 employees assigned
- **Central Office**: 3 employees assigned
- **East Office**: 21 employees assigned

C. employee_location_analysis.csv

Raw data file with all calculations

📊 Key Findings

Office Assignment Recommendations (2026)

Office	Employees	Avg Commute
West Office (Glendale)	19	9.2 miles
Central Office (Scottsdale)	3	4.0 miles
East Office (Chandler)	21	20.6 miles

Commute Optimization Impact

- **Current**: 20.4 miles average (single Phoenix office)
- **Optimized**: 14.4 miles average (3 offices)
- **Improvement**: 29.6% reduction in commute distance
- **Savings**: 520 miles per day (all employees, round trip)

Employees with Long Commutes (15+ miles)

10 employees identified, including:
- Mike Wall (Tucson): 78.6 mi to East Office
- Matthew Halteman (Tucson): 74.9 mi to East Office
- Jeremy Hodge (Arizona City): 38.7 mi to East Office
- Michael Vendetti (Buckeye): 30.8 mi to West Office

Special Considerations

- 6 employees currently assigned to Tucson but live closer to Phoenix offices
- Casa Grande employees (4 total) may need special consideration
- Some managers have teams split across multiple offices

🔄 Next Steps for Route Suitability Analysis

To complete the full workforce optimization, we need:

1. Current Route/Territory Assignments

- Which routes/zip codes is each technician currently servicing?
- What territory is each employee responsible for?

2. Route-to-Employee Matching

Once we have route assignments, we can:
- Calculate % of each employee's accounts near their home
- Identify inefficient route assignments
- Recommend route reassignments for better geographic alignment
- Optimize drive time and fuel costs

3. Territory Optimization Recommendations

- Match employees to territories closest to their home
- Balance workload while minimizing commute
- Identify opportunities for route swaps between employees

📁 Files Available

All files are located in `/home/ubuntu/`:

1. `Employee_Location_Analysis_Report.txt` - Full text report
2. `Employee_Office_Assignments_Analysis.xlsx` - Excel workbook
3. `employee_location_analysis.csv` - Raw data
4. `phoenix_territory_map/nextjs_space/public/employee-locations.json` - Map data

🗺️ Live Map Access

Visit: **https://phoenixnewlocations.abacusai.app**

Click the **"Employee Locations"** button to access the new view.

All four map views are now available:
1. Territory Assignment
2. Density Analysis
3. Market Size
4. **Employee Locations** ← NEW!

Ready for the next phase!
Provide current route/territory assignments to continue the analysis.