Location Based Predictive Analytics in School Facility Planning
Case Study . . . The Challenge

Aging, underutilized school buildings

Urban gentrification . . . shifting enrollment

Principal request planning system

Limited operating funds
15-20% Initial Construction

80-85% Energy Interest Maintenance Renewal Alterations
Total Cost Components

- Building Square Feet
- Renewal & Alterations
- Maintenance & Energy
- Bond Interest

Compare to regional benchmarks using linear regression

Visualize with GIS

Compare scenarios
Predictive Analytics
Regional SF Comparison
net = 336,400 SF above peers
6 for 9 . . . 30 Year Cost of Ownership

$317M
30 year cost savings in renewal, alterations, maintenance and bond interest

Energy
2
save energy to heat, cool and light two elementaries every year

22
annual teacher salary equivalents in M&O savings
Lessons Learned

1. Champion at the top
2. Peer based analysis overcomes most politics
3. Build on existing district planning
4. May not want PA/GIS until pressured
Thank You

Monte Hunter AIA
mhunter@team-psc.com
512.676.2100
Austin, TX

Michael Howard GISP
mhoward@team-psc.com
806.239.3310
Frisco, TX