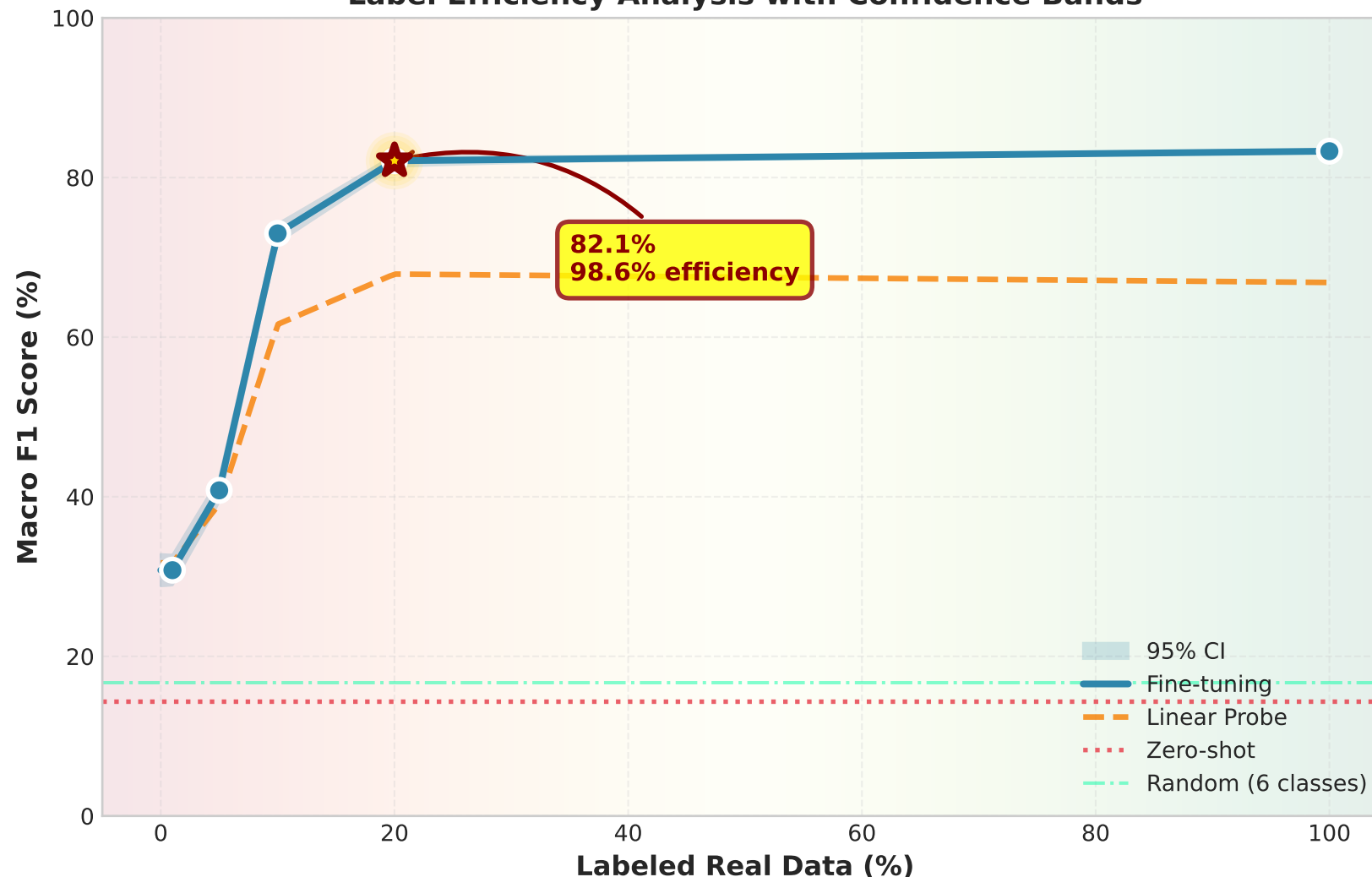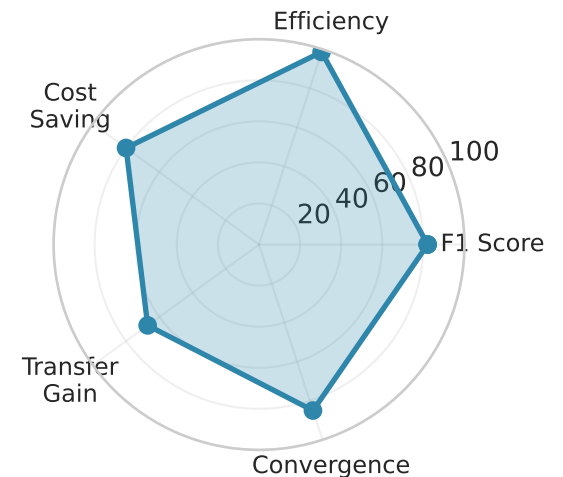**PASE-Net Sim2Real Label Efficiency: Advanced Analysis**
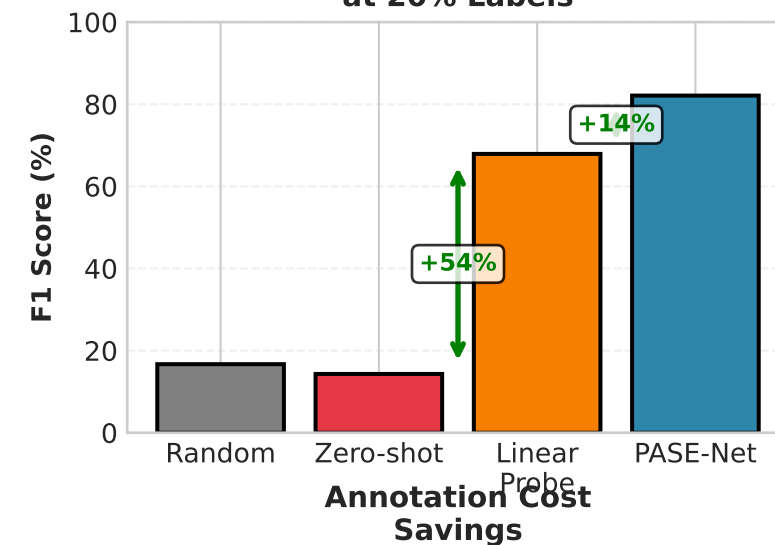
Label Efficiency Analysis with Confidence Bands

Macro F1 Score (%) vs Labeled Real Data (%)

82.1%
98.6% efficiency

- 95% CI
- Fine-tuning
- Linear Probe
- Zero-shot
- Random (6 classes)

Performance Metrics at 20% Labels

Efficiency, Cost Saving, F1 Score, Transfer Gain, Convergence

Strategy Comparison at 20% Labels

F1 Score (%): Random, Zero-shot, Linear Probe, PASE-Net

+54%
+14%

Efficiency Curve: Diminishing Returns Analysis

Relative Performance (%) vs Labeled Real Data (%)

- Optimal
- Efficient
- Sub-optimal

Annotation Cost Savings

Labeled 20%
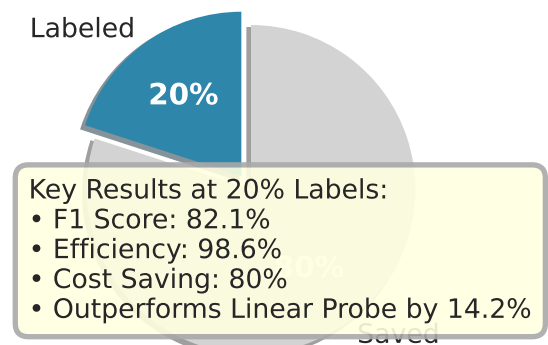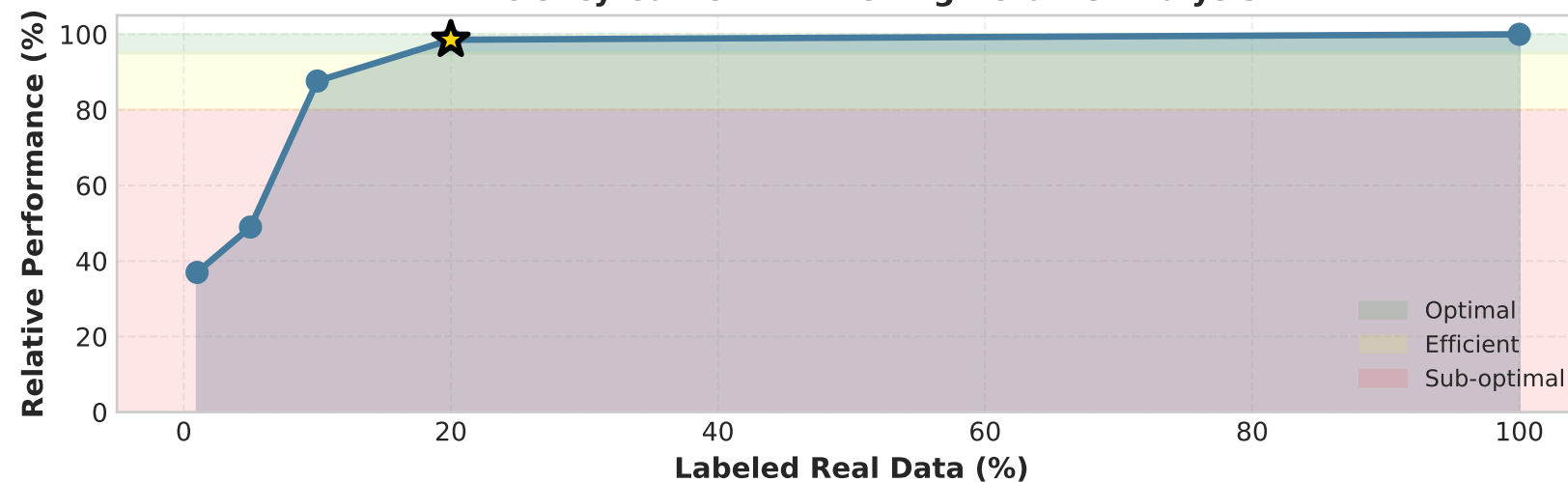
Key Results at 20% Labels:
- F1 Score: 82.1%
- Efficiency: 98.6%
- Cost Saving: 80%
- Outperforms Linear Probe by 14.2%