Optimized Validation avg\_reuse\_dist loop\_order loop\_size 100% 80% 60% 40% 20% 0% 200000 400000 600000 800000 1000000 0.5 1.5 15 20 0.0 1.0 2.0 10 avg\_num\_reu\_values num\_reused\_values vars\_count 100% 80% 60% 40% 20% 0% 0.5 1.0 2.5 3.0 3.5 4.0 50 0.0 1.5 60 2.0 1.5 2.0 0 1.0 fields\_count max\_expr\_depth unique\_ssa\_values\_count 100% 80% 60% 40% 20% 0% 20 100 120 15 20 80 10 40 50 10 40 60 20 30 60 bin\_ops\_count unique\_offsets un\_ops\_count 100% 80% 60% 40% 20% 0% 100 20 40 60 80 10 program\_length max\_liveness loop.if 100% 80% 60% 40% 20% 0% 150 200 10.0 0.0 100 12.5 15.0 0.2 0.4 0.6 8.0 1.0 50