Research Results

	Controlled experiment	Pilot study	Semi-industry	Industry
Internal quality	⊖	⊖	⊖	✓
External quality	⊖	✓	✓	✓
Test quality	✓	✓	✓	⊖
Productivity	✓	⊖	✗	✗ short term / ✓ long term

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Internal
Quality
Problems

Code mess

Key people

Onboarding woes

Growing complexity

Delays due to misunderstandings of code

External
Quality
Problems

Large backlog of bugs

Frequent reports of issues

No time for feature work

Regressions

Productivity and Engagement Problems

High cost to iterate and maintain

Low sense of ownership

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Research Results

	Controlled experiment	Pilot study	Semi-industry	Industry
Internal quality	−	−	−	✓
External quality	−	✓	✓	✓
Test quality	✓	✓	✓	−
Productivity	✓	−	✗	✗ short term / ✓ long term

Productivity and Engagement Problems

High cost to iterate and maintain

Low sense of ownership

Low concern for quality

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High cost to iterate and maintain

Low sense of ownership

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Problems TDD Can Help

Internal quality

Code mess
Key people
Onboarding woes
Growing complexity
Delays due to
misunderstandings of cod

External quality

Large backlog of bugs
Frequent reports of issues
No time for feature work

**Long-term
productivity &
ownership**

High cost to iterate and
maintain
Low sense of ownership
Low concern for quality

Strongest reason to avoid TDD: Intentional focus on short-term productivity.

Short-term Productivity

Rapid prototype

You must throw out the prototype

Speed to market

Don't continually sacrifice long-term results for short-term wins

Organizational Priorities

Internal quality

External quality

Long-term productivity and ownership

Rapid prototype

Speed to market