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# Power in Firm Networks:

## What it Means for Regional Innovation Systems

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# Our Research Objectives

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- *To explore the missing question of power in regional innovation systems and global production networks*
- *To examine TNC and SME agendas and how they intersect and conflict at the regional scale*

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Why do regional innovation systems organized around “lead” firms fail to produce sustainable regional economies?

# Some Provocative Evidence:

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- ...association with the TNC network “led to the creation of volatility, destruction of skills, loss of strategic assets, and additional needs for liquid capital, while very few of the potential benefits seemed to have been achieved”  
Kristensen and Zeitlin, 2005
- Suppliers believe that they transfer more knowledge to larger customers than they receive and too many firms are being forced to focus on short-term cost cutting, at the expense of knowledge-focused production.”  
Belzowski in Rutherford and Holmes, 2006
- “leader firms have sometimes become too dominant in the local institutional network”  
Boschma and Lambooy, 2002

# What Do We Know About How Regional Innovation Systems (Should) Work?

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- Co-located firms come together in cooperative networks to share knowledge and skills.
- Small firms are critical to innovation because they are nimble, take risks, and respond flexibly to changing markets.
- SMEs are disruptive innovators, producing new products that change the market.
- Lead firms tap the innovative potential of SMEs and connect them to global markets.

# What Is Wrong With This Story?

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- Evidence from US Regional Innovation Systems indicates that firms are adversaries rather than allies.
- Cooperation is the exception rather than the rule.
- Small innovative firms and large Transnational Corporations (TNCs) have different needs and different agendas.

# The Transnational Firm Agenda:

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- Sustainable competitive advantage (market dominance)
- Risk reduction
- New products but with large potential markets
- Innovation around a standard that they control
- Reduced competition for skilled regional labor pools

# The Small Innovative Firm Agenda:

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- Disruptive innovations and first mover advantage
- Calculated risks to make gains
- New products for intermediate markets/market niche
- Connections with global markets
- Access to a wide range of skilled labor



# Competition comes together in the region

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TNCs and small firms both leverage regional assets:

- High and medium-skilled labor
- Research and development capacities provided by universities and government

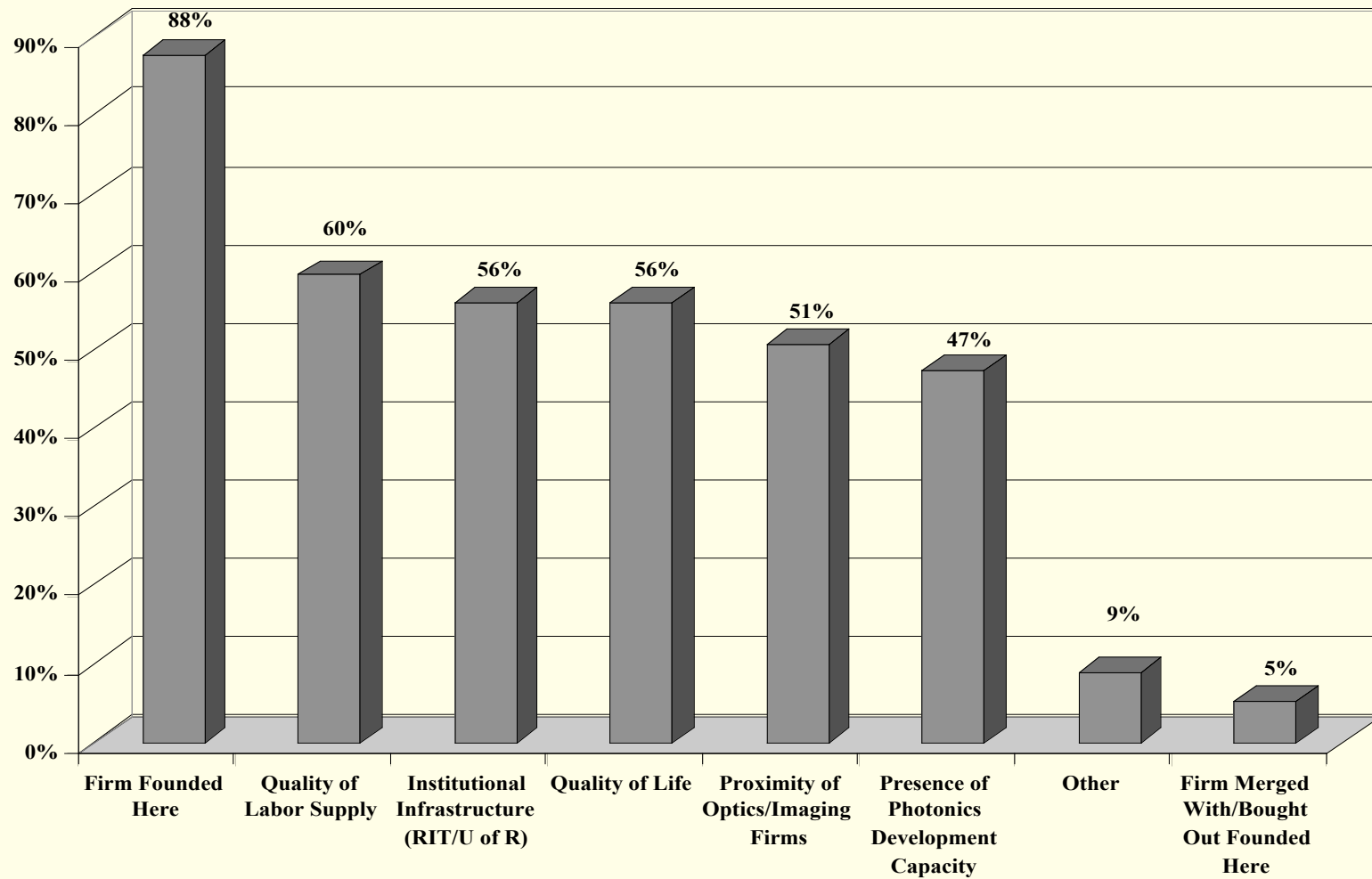
# The Rochester Case:

## Small firms are disadvantaged in competition

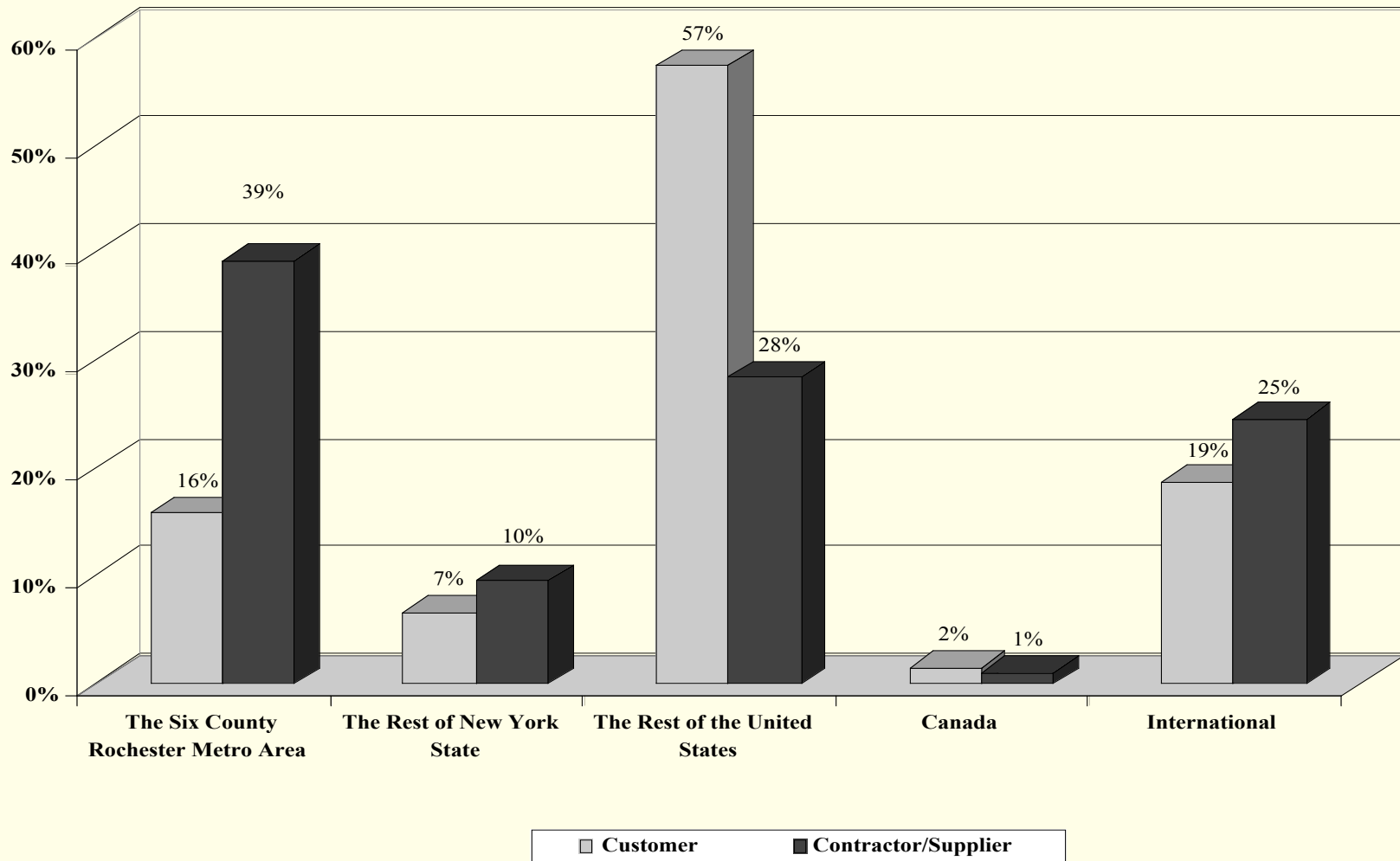
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- Government sponsored R&D centers predominantly serve TNCs
- Governance rules (e.g. non-compete and IP agreements) favor TNCs
- Small firms find it difficult to compete for labor with technical experience and managerial skills - a critical asset

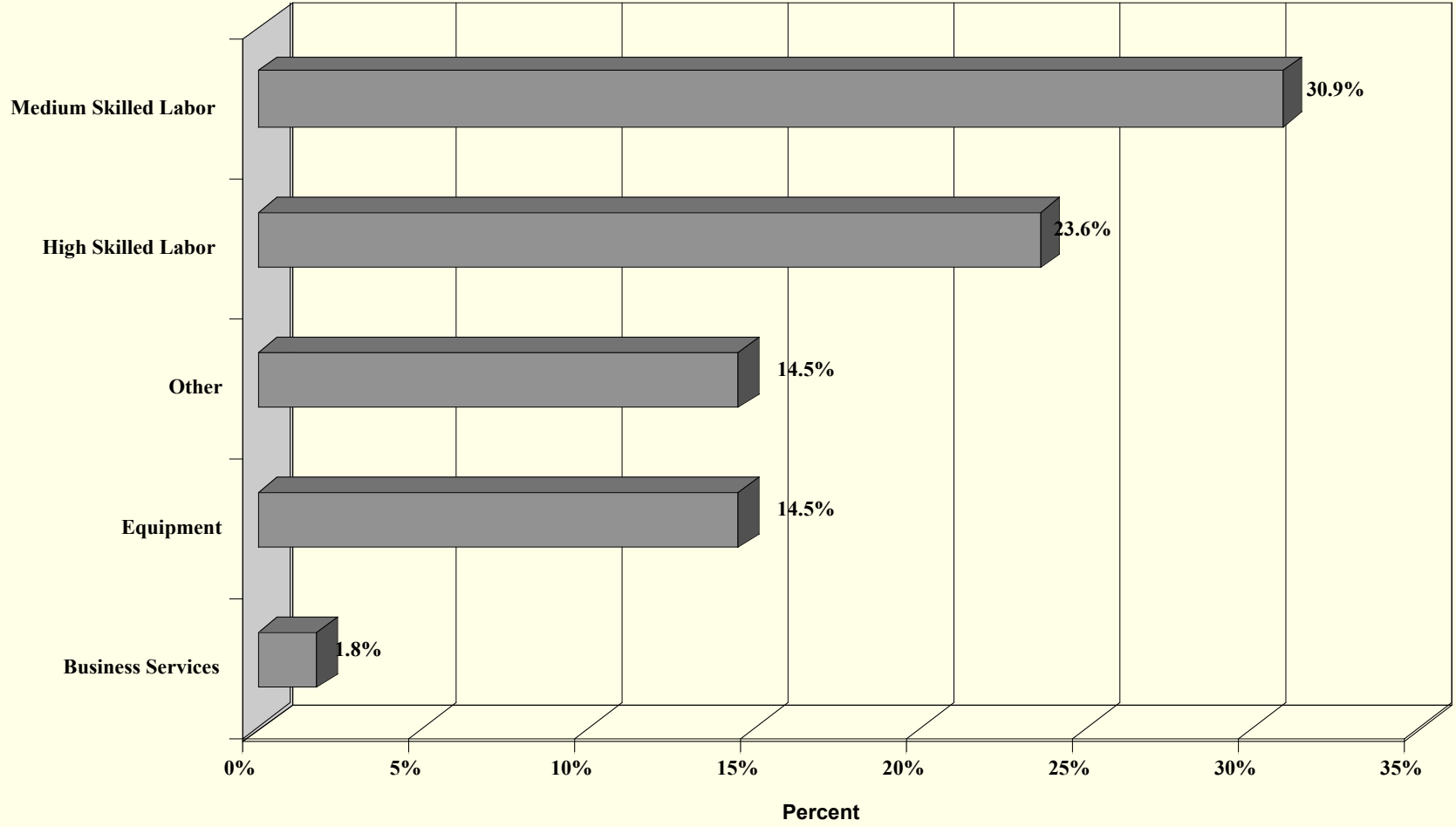
# Why do SMEs stay in Rochester?



# Rochester SME's Firm Network



# Critical Regional Resources for SMEs



# Policy Implications:

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What would change these dynamics and redress the balance?

- Better understanding of the needs of small firms
- Intervention to meet labor force needs of small innovative firms
- Place regional comparative advantage ahead of serving large TNC needs
- Enable small firms to influence innovation policy agendas

# Implications for our Theoretical Stance – A Focus on Power and Process

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- A need to recognize and analyze divergent interests and power among firms.
- The ability of the TNC to “escape the boundaries and limitations of the regional network and access multiple regional networks” gives it unusual bargaining power with regions and labor.

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