

Commercial Lending Distance and Historically Underserved Areas

Robert DeYoung
Federal Deposit Insurance Corporation

W. Scott Frame
Federal Reserve Bank of Atlanta

Dennis Glennon
Office of the Comptroller of the Currency

Peter Nigro
Bryant University

* The views expressed do not necessarily reflect those of the Federal Deposit Insurance Corporation, the Federal Reserve Board, the Federal Reserve Bank of Atlanta, the Office of the Comptroller of the Currency, the U.S. Treasury Department, or their staffs.

Introduction (1)

Small business credit access is a policy priority.

Economic rationale:

- Severe asymmetric information problems – historically used bank-borrower relationships used to mitigate.
- Large, centralized banks poor relationship lenders – area demographic information may be quality proxy.
- Problems may be especially acute for firms operating in historically underserved areas.

However, small business credit markets may be in the early stages of transformation.

- Greater reliance on hard information (credit scoring).

Introduction (2)

Prior research:

- Small business credit scoring introduced and now widely used.
- Small business credit scoring may reduce information gaps and/or underwriting costs.
- Small business credit scoring associated with increased lending, especially out-of-market.
- Increased small business borrower-lender distance.

We study recent commercial lending distance trends with a special focus on borrowers located in historically underserved areas.

Data

Large sample of SBA guaranteed loans: 1984-2001

- 27,000 loans; 5,000 banks.
- Not strictly representative sample.

Borrower Information: location, SIC, corporate structure, number of employees, and firm age.

Lender Information: location, SBA certification level.

Loan Information: size, maturity, guarantee %, low-doc.

Calculate “as the crow flies” borrower-lender distance; relate to borrower, lender, and loan characteristics and borrower census tract information.

Figure 1

Median Borrower-Lender Distance, by Tract Income

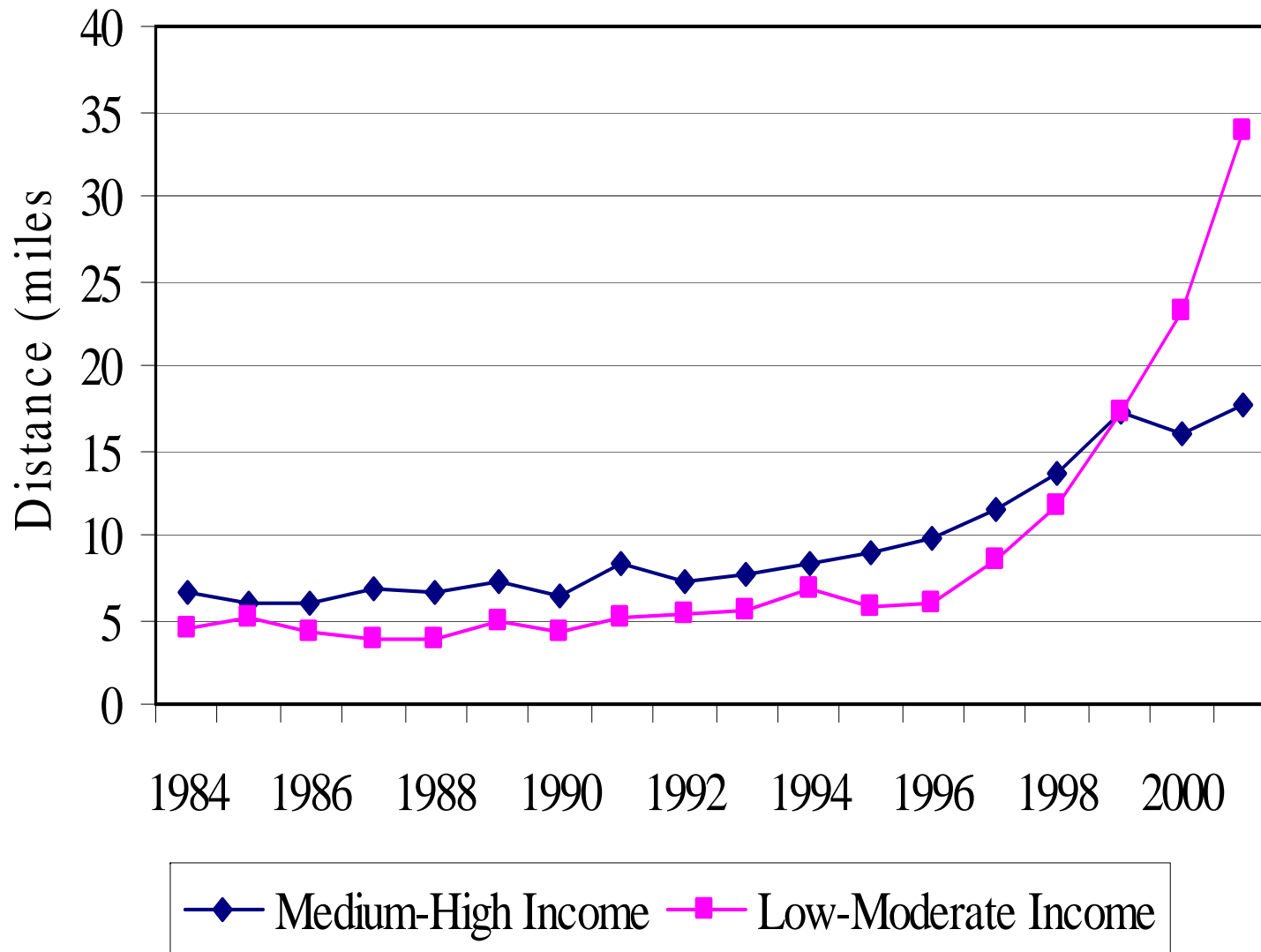
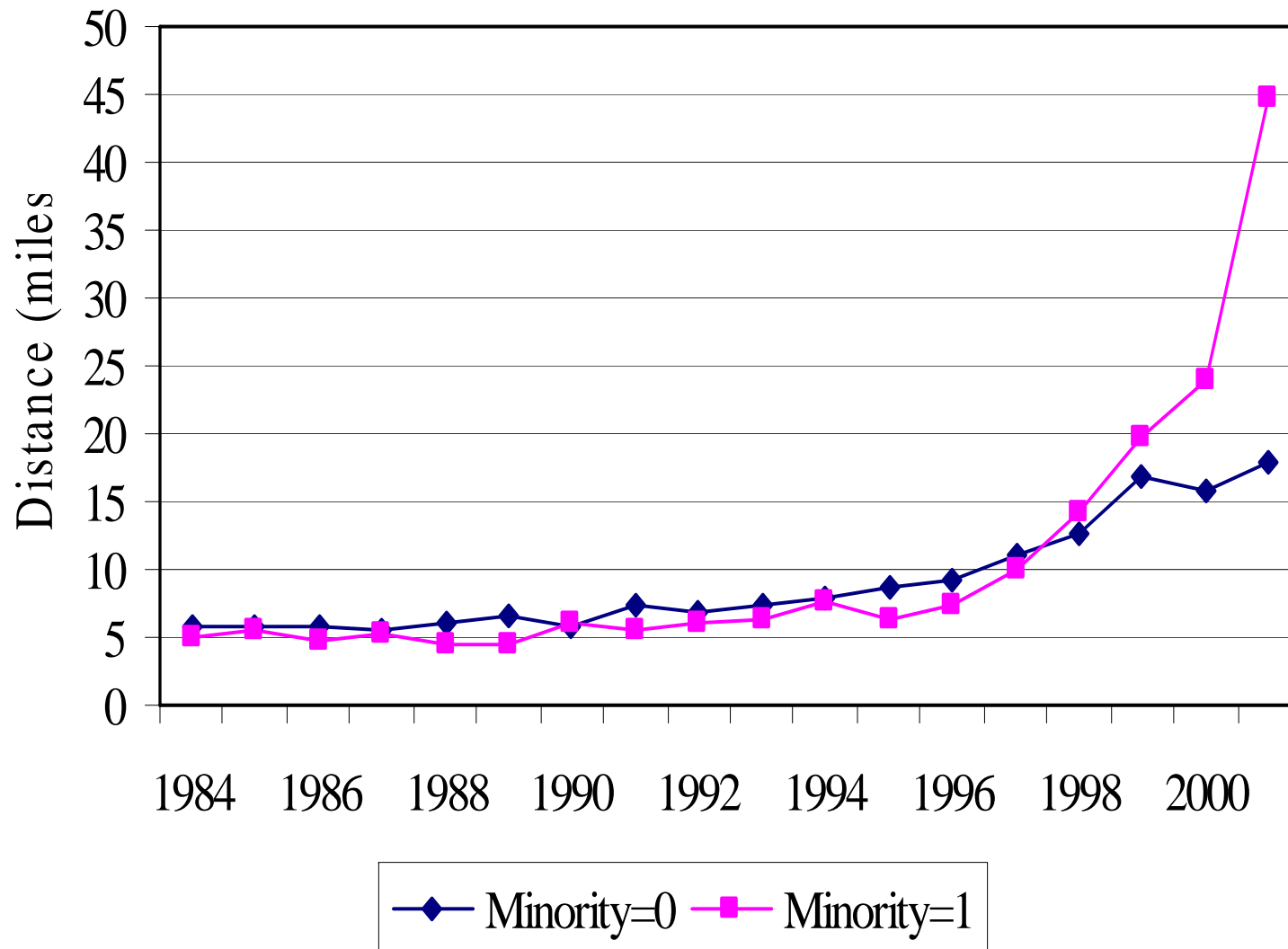


Figure 2

Median Borrower-Lender Distance, by Tract Race



Regression Analysis (1)

We relate borrower-lender distance (log miles) to:

- TIME:
 - Continuous variable (Year = 0, ..., T);
 - Discrete annual dummies; and
 - Discrete segments (Pre-/Post-1996).
- LMI: Indicates whether the borrower is located in a low-/moderate-income census tract.
- MINORITY: Indicates whether the borrower is located in a predominately minority census tract.
- Interactions of TIME, LMI, and MINORITY.
- Several control variables capturing borrower, lender, and loan characteristics at origination.

Regression Analysis (2)

Estimate three basic models using OLS; delineated by TIME specification.

- Several sub-specifications.

Use only the loans originated between 1992-2001.

- Figures 1 and 2 suggested little variation in distance over time between the mid-1980s and mid-1990s.
- Including data from earlier years provides little additional information for regressions.
- Structural underpinnings of the banking industry have been in flux for the past 25 years -- minimize impact of these changes.

Summary of Results (1)

$$\text{Ln}(\text{Distance}) = f(\text{Time}, \text{LMI}, \text{Minority}, \text{Controls})$$

	<u>Table 4</u>	<u>Table 5</u>	<u>Table 6</u>
Time (Continuous)	Positive*		
Time (Dummies)		Positive*	
Time (Post-1996)			Positive*
LMI	Negative*	Negative*	Negative*
LMI*Time	Positive*	Mixed	Positive
Minority	Negative	Positive	Positive
Minority*Time	Positive*	Positive	Positive*

* Statistically significant at the 5 percent level.

Summary of Results (2)

Coefficient estimates for LMI are negative -- consistent with a “soft information effect” not “access to lenders effect”.

➤ However, LMI*TIME is not generally important.

No general effect for MINORITY; except in some cases where LMI is excluded from regression.

➤ However, MINORITY*TIME is positive.

Our results are robust to excluding loans with the farthest distances (1% and 5% truncation).

Some evidence that credit-scoring may be playing a role in increased distances, especially for historically underserved areas. (Based on Loans < \$100,000.)

Conclusion

We study evolution of small business borrower-lender distance using a sample of SBA loans.

- Special focus on historically underserved areas.

Consistent with prior research, we find that distance has increased.

- This is especially true for LMI and MINORITY areas – may be linked to credit scoring.

Findings consistent with increased competition – especially for borrowers located in historically underserved areas.