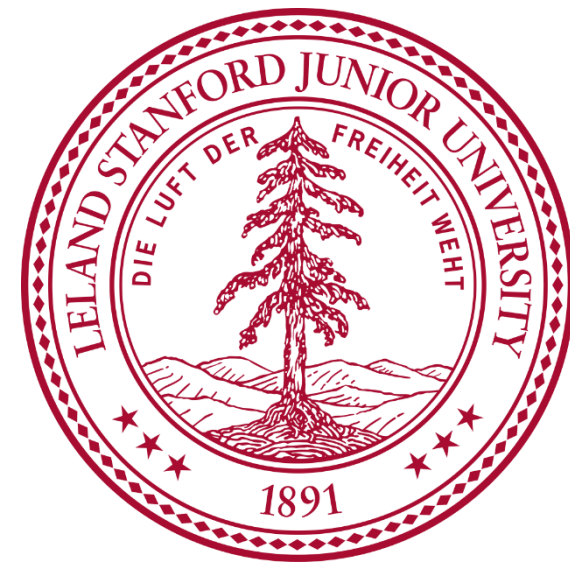


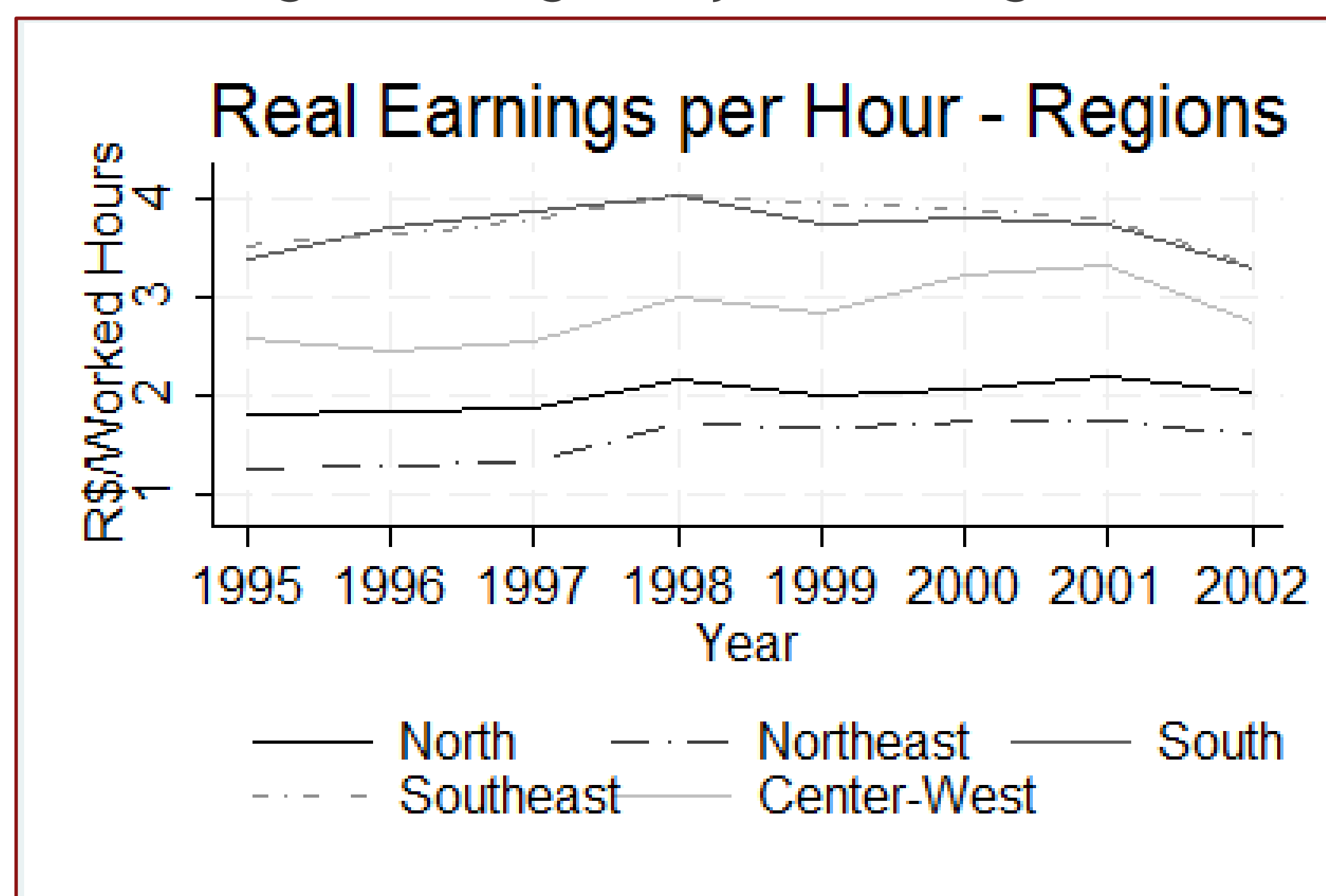
The Teachers Labor Market in Brazil



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Teacher earnings

High heterogeneity across regions



Source: RAIS 1995 to 2002, Relação Anual de Informações Sociais - Annual Report of Social Information (Ministry of Labor and Employment)

What is behind teachers wage decisions?

FUNDEF Reform

From the redistribution of funds within each state, the FUNDEF funding reform created four groups

Sample Size of Subgroups (FINBRA Data)

Year of 1998

	Winner	Loser	Total
Binding	2,286 50%	2,219 49%	4,505 99%
Not-binding	2 0%	37 1%	39 1%
Total	2,288 50%	2,256 50%	4,544

Redistribution of funds:

1. Winner: Money received from $Fundef_{i,t} \geq$ Money paid to $Fundef_{i,t}$ (Net Value $i,t \geq 0$)
2. Loser: Money received from $Fundef_{i,t} <$ Money paid to $Fundef_{i,t}$ (Net Value $i,t < 0$)

60% Requirement:

1. Binding: Expenditures with teachers $i,t-1 \leq$ Requirement of $60\%_{i,t}$
2. Not-binding: Expenditures with teachers $i,t-1 >$ Requirement of $60\%_{i,t}$

Empirical Strategy:

1. Net-Value Effect of FUNDEF transfer:

Difference-in-Differences approach

- Belonging to one of these groups compared to a group of “neutral” municipalities (those where net-FUNDEF per student is close to zero).

2. Absolute-Value Effect of FUNDEF transfer:

Simulated instrument approach

- Simulation of the amount of funds each municipality would have received if the population of 7-to-14-year olds was maintained constant to the value prior to the introduction of the reform, in 1996.

Net Value Effect

Summary of Results

	Winner	Loser
Binding	$W \uparrow$ $E, S \rightarrow S/E$	$W \downarrow$ $E \uparrow, S \uparrow \rightarrow S/E \uparrow$
Not-binding	N/A	$W \downarrow$ $E \downarrow, S \downarrow \rightarrow S/E$

W = Wages, E = Employment (Number of Teachers),
S = Number of Students

Independent of the value transferred, being a winner or a loser in the redistribution matters to hiring decisions

It is not only the ability to pay that determines wages.

The bargaining power of governments and teacher unions matter to hiring decisions.

Teacher unions

- Winners: $W \uparrow, E, S \rightarrow S/E$
 - Teacher unions gained bargaining power over municipal governments: **Wage increases**
 - Wages closer to the monopolist equilibrium.
- Losers: $W \downarrow, E \uparrow, S \uparrow \rightarrow S/E \uparrow$
 - Municipal governments gained bargaining power over teacher unions: **Hiring increases**
 - Wages closer to the monopsonist equilibrium.

Are teacher wages lower than they should be?

- Evidence of municipal governments acting as Monopsonists.
- What is a Monopsonist?
 - An employer that has market power and is able to maintain artificially low wages.
- What gives governments Market Power?
 - Two types of Market Concentration:
 1. Too many schools under the same system
 2. Lack of other job opportunities to teachers (college educated females)

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