

Job Isolation—Job Segregation, Residential Segregation—and Wages for Less Educated Men 1990-2000

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Job Networks

- Social Networks used as Job Networks--The quality of the information in these job information networks has been found to be a factor in the individual's employment outcomes as the information tends to reflect the employment characteristics of the people in the network.
 - Explored by Melendez and Falcon 2001
 - Showing low wage outcomes for Blacks: Oliver and Lichter 1996
 - And Latinos: Greene, Tigges, and Diaz 1999

All Job Networks are not Equal

- Networks can lead to lower wages: Datcher-Loury 2006, Elliott 1999, Green, Tigges, and Diaz 1999
- Networks can lead to higher wages: Rosenbaum, DeLuca, Miller and Roy, 1999, Marmaros and Sacerdote 2002
- Networks can have no effect with respect to wages: Holzer 1987, Marsden and Gorman 2001
- Networks can have either effect: Montgomery 1991

Residential Segregation

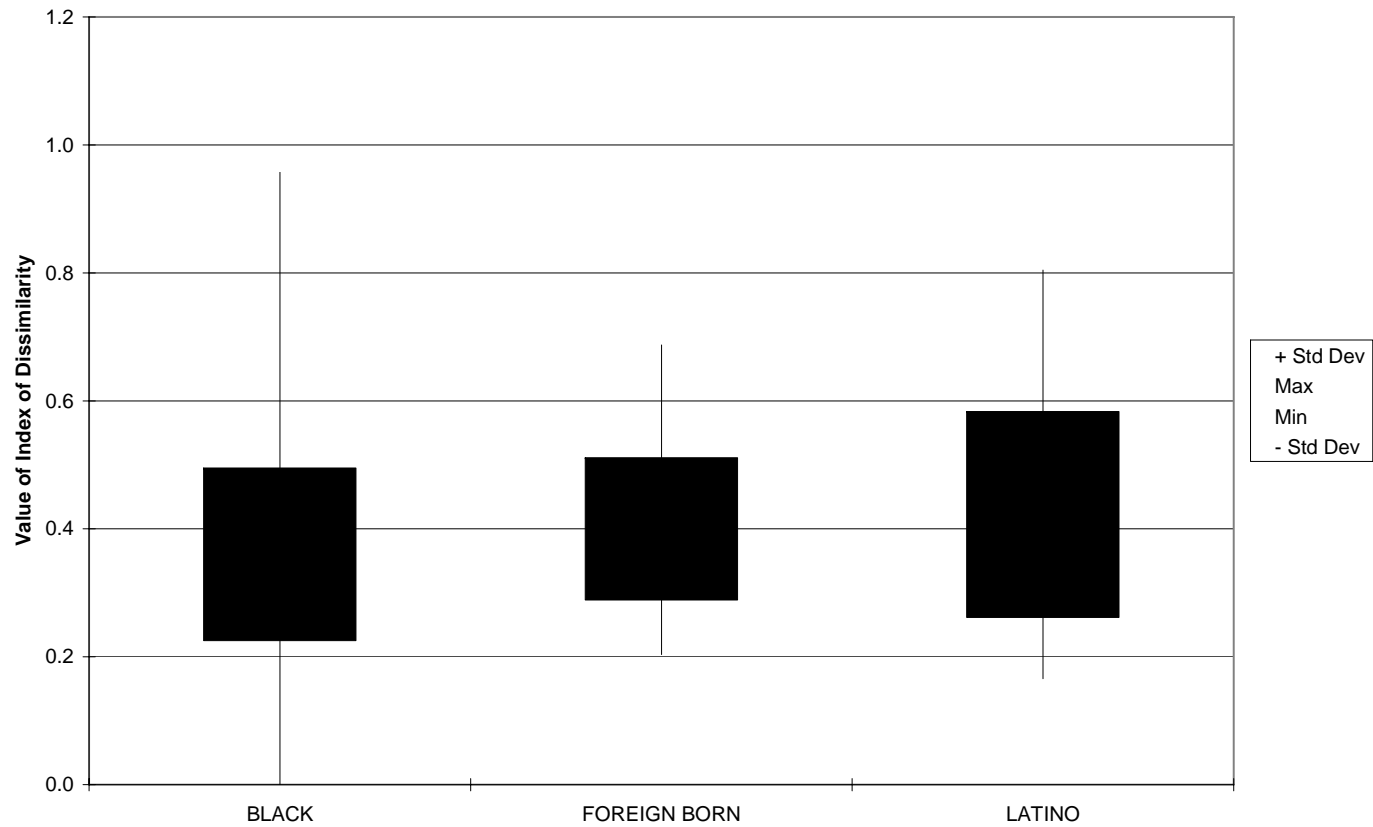
- Residential segregation limits access to economic resources: Dickerson 2002, Dickerson 2007, Cutler and Glaeser 1997
- Can mediate educational differences: Orfield 1993
- Can mediate employer demand for workers: Kirschenman and Neckerman 1992, Fernandez and Su 2004
- Can create a spatial mismatch between jobs and workers: Ihlanfeldt and Sjoquist 1998

Job Isolation

- In our paper we measure job isolation using the index of dissimilarity.
- The D index is used to measure isolation by race or ethnicity in cells of jobs on the “minimum wage contour.”
 - The “minimum wage contour” is a cluster of major occupation by major industry cells found by Spriggs and Klein 1993, and updated by Rodgers, Spriggs and Klein 2003 where the starting wage of young less educated workers tracks movements in the minimum wage as opposed to movements in the average wage.
- Occupational segregation among less educated workers, blacks compared to whites, or Latinos compared to whites is low (as compared to men compared to women)
- But, differences in industry tend to be a little higher.

Job Isolation in 1990

Distribution of D Index Top 100 MSAs



An Efficiency Wage story

- Networks could narrow perceived job choices for less educated workers
- If networks limit successful job matching, excluding some job opportunities, could lengthen job search for less educated workers with weaker networks or when workers must search for jobs outside their network, and thus increase their unemployment rates
- Both would lead to lower wages from an efficiency wage perspective
- Women and blacks employed in one minimum wage study appear to have had lower wage premiums than men and benefited most from wage compression through raising the minimum wage: Spriggs 1994

A Monopsony-like story

- Job networks can provide employers with a low cost search method for workers
- However, it can also create the perception that hiring outside the network has tremendous costs
- Since employers are not observing a perfectly elastic labor supply curve at the market clearing wage from their perspective, they may behave like monopsonists and hire fewer workers than would be hired in a perfectly competitive labor market.

Our Data

- Comes from 1% Public Use Microdata Sample (PUMS) of the decennial Census for 1990 and 2000.
- Unit of analysis is local labor market, defined as the MSA.
- Data are merged with City specific characteristics on housing, including residential segregation

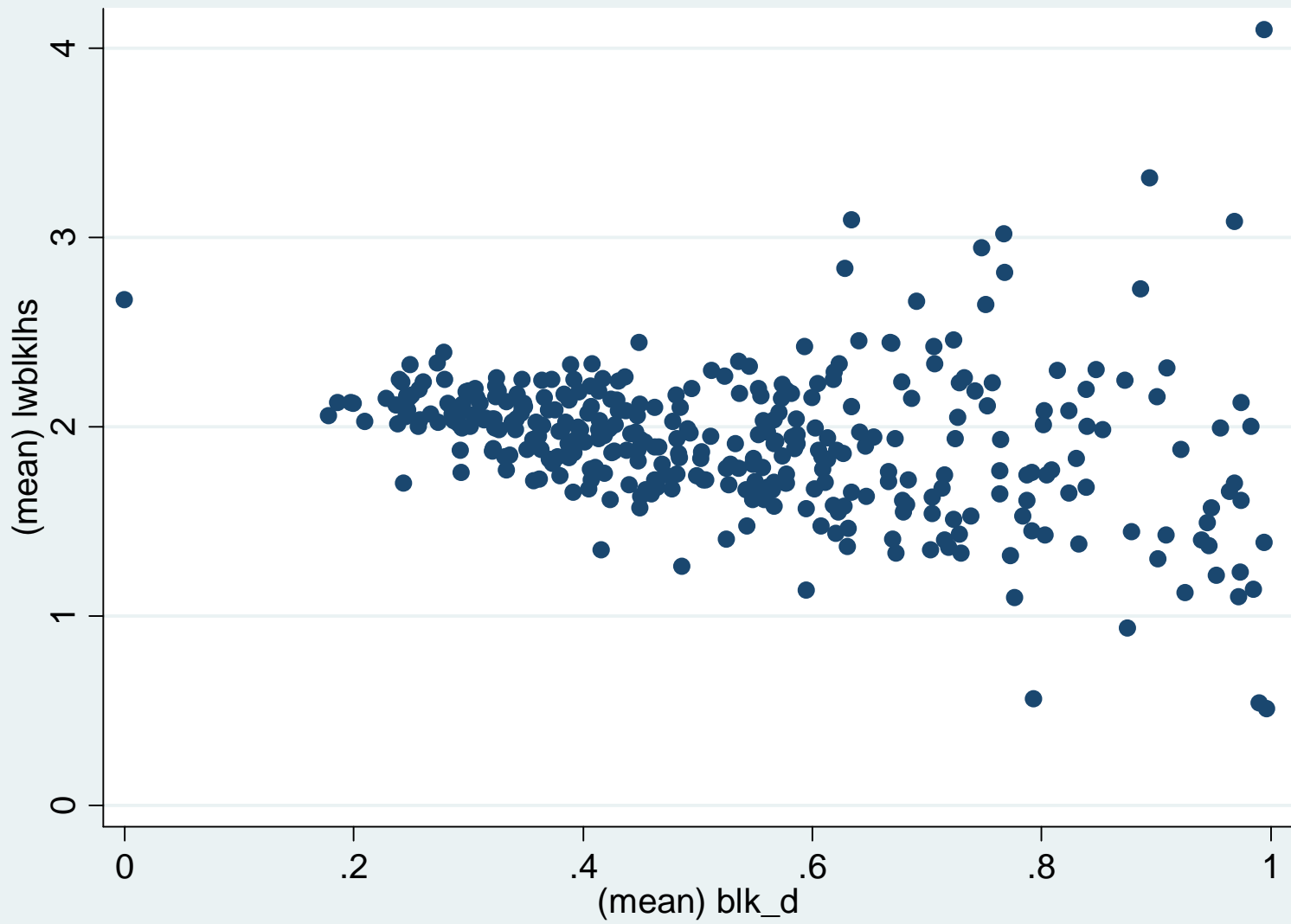
Data summary for 1990

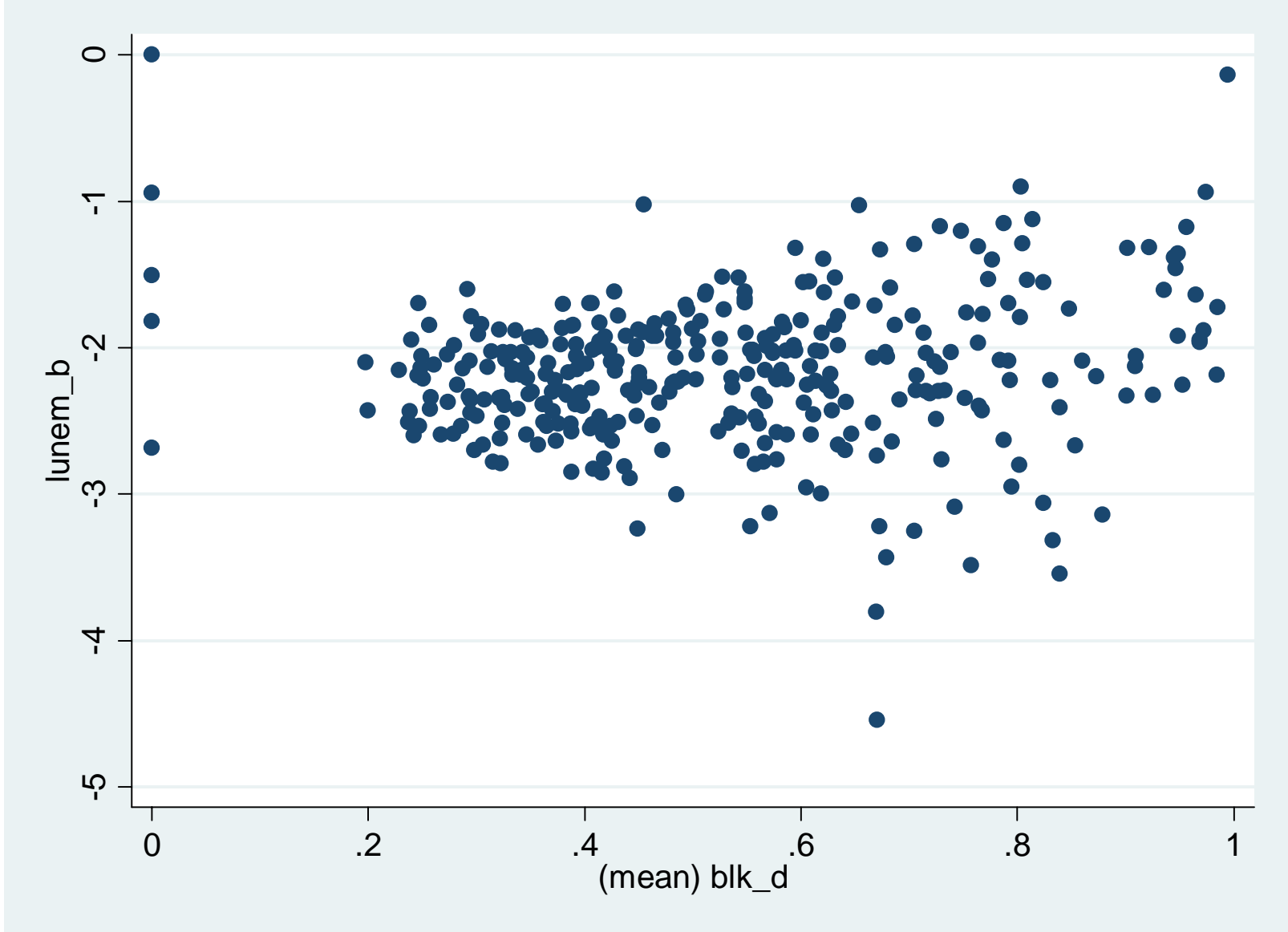
1990

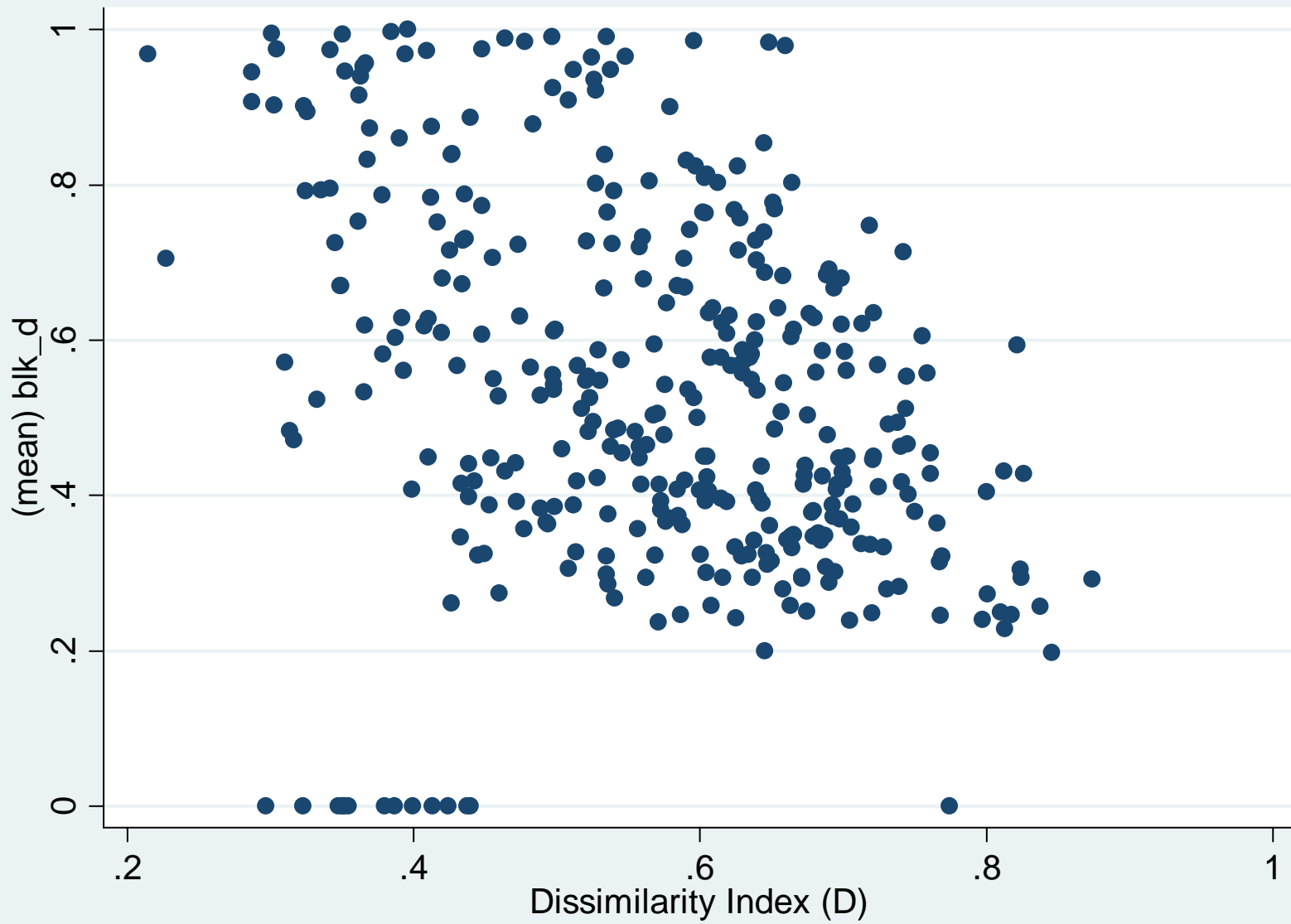
	Obs	Mean	Std. Dev.	Min	Max
Mean of Log Wages for Black High School Graduates	251	2.035	0.409	0.154	3.297
Mean of Log Wages for Black High School Drop Outs	250	1.858	0.414	0.511	4.096
Mean of Log Wages for Latino High School Graduates	230	1.816	0.448	-0.266	3.912
Mean of Log Wages for Latino High School Drop Outs	236	2.038	0.378	0.511	3.893
D Index for Black/Non-Black in Minimum Wage Contour Jobs	275	0.593	0.233	0.000	1.000
D Index for Latino/Non-Latino in Minimum Wage Contour Jobs	275	0.627	0.284	0.000	1.000
Residential Segregation of Blacks	273	0.558	0.137	0.227	0.874
Percent of MSA that is Black	272	0.105	0.098	0.000	0.456
Percent of MSA that is Latino	272	0.073	0.136	0.000	0.944
Log of Black Unemployment Rate	244	-2.116	0.555	-4.546	0.000
Log of Latino Unemployment Rate	194	-2.365	0.671	-4.883	-0.619
Share of Black Population that is High School Graduate	274	0.202	0.066	0.000	0.500
Share of Latino Population that is High School Graduate	273	0.168	0.129	0.000	1.000

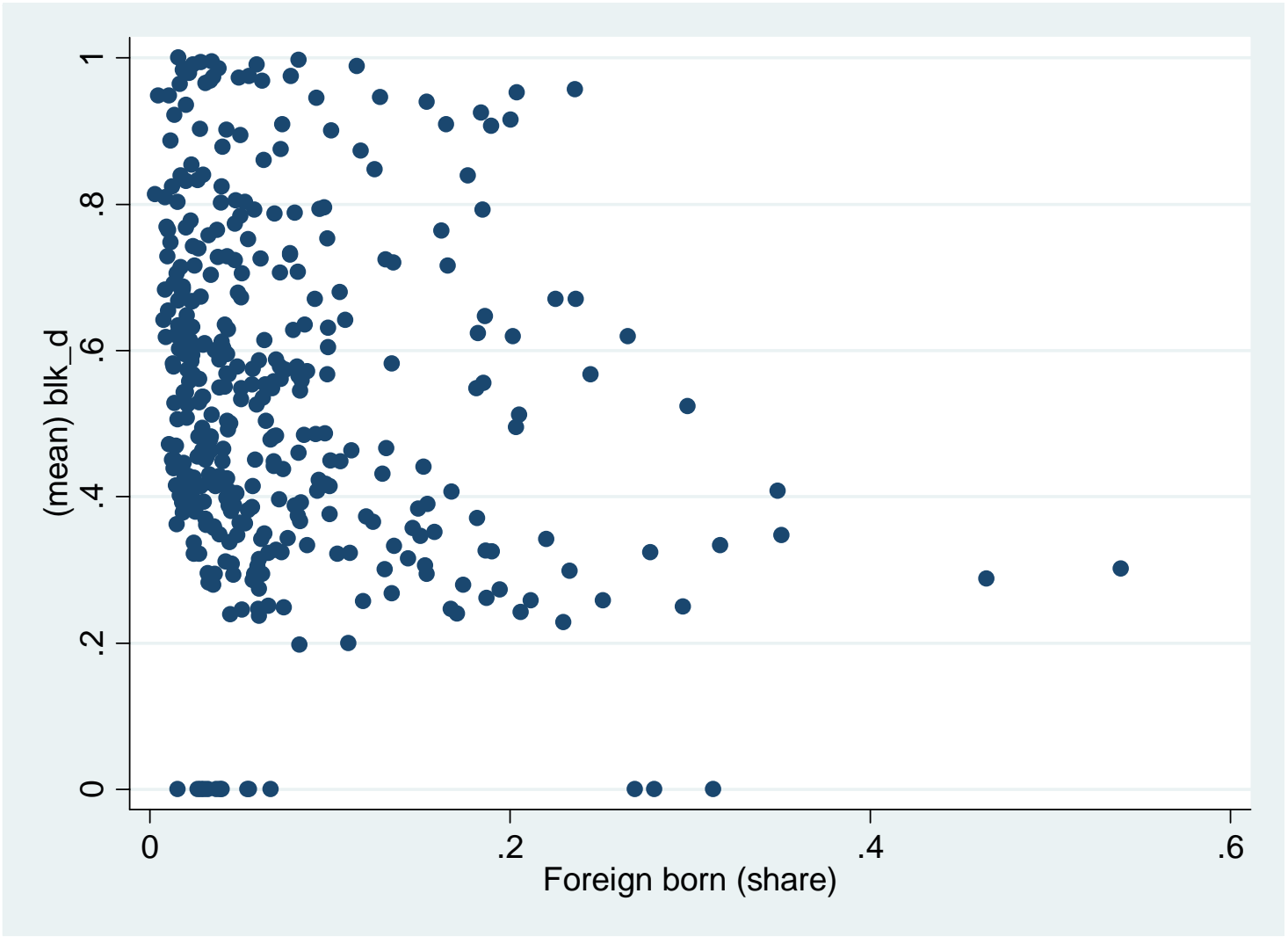
Data summary for 2000

	Obs	Mean	Std. Dev.	Min	Max
Mean of Log Wages for Black High School Graduates	99	2.292	0.159	1.143	2.646
Mean of Log Wages for Black High School Drop Outs	98	2.107	0.143	1.449	2.446
Mean of Log Wages for Latino High School Graduates	100	2.135	0.171	1.499	2.569
Mean of Log Wages for Latino High School Drop Outs	100	2.250	0.139	1.904	2.630
D Index for Black/Non-Black in Minimum Wage Contour Jobs	100	0.371	0.139	0.000	0.969
D Index for Latino/Non-Latino in Minimum Wage Contour Jobs	100	0.436	0.163	0.163	0.804
Residential Segregation of Blacks	273	0.518	0.134	0.198	0.846
Percent of MSA that is Black	97	0.143	0.112	0.002	0.618
Percent of MSA that is Latino	97	0.131	0.163	0.007	0.874
Log of Black Unemployment Rate	96	-2.271	0.316	-3.239	-1.618
Log of Latino Unemployment Rate	94	-2.561	0.453	-3.702	-1.610
Share of Black Population that is High School Graduate	100	0.211	0.035	0.083	0.324
Share of Latino Population that is High School Graduate	100	0.250	0.065	0.105	0.564









Our model

- Our model uses the efficiency wage model, with the “wage curve” of race specific unemployment rates and
- Allowing for industrial mix effects that would allow for substitution effects of less educated workers across industries within a local labor market
- And accounts for spatial mismatch, and other isolation mechanisms, that would flow from residential segregation
- And, an own group supply measure to capture both supply effects and potential network size effects.

Our Model

- Our estimation equation

$$y_{it} = \beta x_{it}$$

- Where i represents the MSA and t is for 1990 and 2000.
- Y is the mean of the log of wages for workers with high school diplomas or less education.
- X is a vector of variables, including measures of the log of the race/ethnic specific unemployment rate, the D index for the race/ethnic specific group among minimum wage contour jobs, the share of workers in the race/ethnic group who have less than a high school education, major industry groups (manufacturing, public sector, services and retail)

Our Results

Black High School Drop outs

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	-0.753	0.264
Log of Black unemployment rate	-0.169	0.058
Residential Segregation	0.006	0.7506
Share of Black Population with LTHS	1.48	0.454

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	-0.767	0.266
Log of Black unemployment rate	0.170	0.058
Residential Segregation	0.080	0.731
Share of Black Population with LTHS	1.480	0.455
Share of Population that is Foreign Born	0.527	0.790

Latino High School Drop Outs

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	-0.618	0.418
Log of Latino unemployment rate	-0.086	0.069
Residential Segregation	-0.618	0.824
Share of Latino Population with LTHS	0.211	0.287

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	-0.860	0.443
Log of Latino unemployment rate	-0.091	0.068
Residential Segregation	-1.296	0.927
Share of Latino Population with LTHS	0.233	0.285
Share of Population that is Foreign Born	3.440	2.226

Black High School Grads

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	0.512	0.324
Log of Black unemployment rate	-0.018	0.069
Residential Segregation	-0.139	0.952
Share of Black Population High School Grads	-0.914	0.967

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	0.478	0.320
Log of Black unemployment rate	-0.024	0.068
Residential Segregation	0.189	0.953
Share of Black Population High School Grads	-0.690	0.960
Share of Population that is Foreign Born	1.810	0.951

Latino High School Grads

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	-0.700	0.409
Log of Latino unemployment rate	-0.095	0.066
Residential Segregation	-0.347	0.661
Share of Latino Population with LTHS	-0.843	0.393

	Coeff.	Std. Err
D Index of Minimum Wage Contour Jobs	-0.914	0.432
Log of Latino unemployment rate	-0.100	0.066
Residential Segregation	-0.929	0.771
Share of Latino Population with LTHS	-0.816	0.391
Share of Population that is Foreign Born	3.130	2.170

Summary of key results

- **For Black and Latino High School Drop outs evidence is consistent with an efficiency wage story that:**
 - Job segregation narrows job options
 - And, higher unemployment rates
 - Lead to lower wages
 - The share of MSA population that is foreign born has positive but not significant impacts on wages.
- **For Latino High School Graduates:**
 - Controlling for the presence of foreign born, job segregation lowers wages
- **Job segregation appears to matter more to High School Drop Outs than High School Graduates**