#### DS8104: Network Science

#### Class 8: Homophily



#### Class Project Timeline

Choose paper & approval	2/21	(next week)
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Presentation – Intro Paper 3/2

Writeup – Reproduction Paper 4/4

Presentation – Reproduction Paper 4/6

Presentation – Final Project 4/27

Writeup – Final Paper 5/5

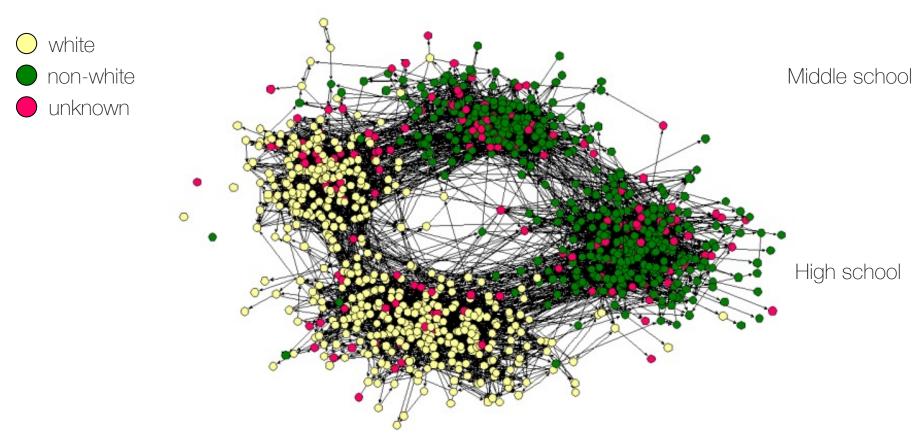
#### Network correlations

Homophily: The tendency of individuals to associate and bond with similar others

Assortativity: The tendency of network nodes with similar features to be connected

**Disassortativity**: The tendency of network nodes with different features to be connected

### Homophily example: Rural schools



Moody, J., 2001. Race, school integration, and friendship segregation in America. *American journal of Sociology* 

## Causes of homophily

Do similar nodes become connected?

OR do dissimilar nodes become unconnected?

OR do connected nodes become similar?

We generally can't tell!!!!!

Shalizi & Thomas, 2011. Homophily and contagion are generically confounded in observational social network studies. *Sociological methods & research* 

#### Examples and implications

Annu. Rev. Sociol. 2001. 27:415–44 Copyright © 2001 by Annual Reviews. All rights reserved

# BIRDS OF A FEATHER: Homophily in Social Networks

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### Privacy, homophily and network data

WWW 2009 MADRID!

Track: Security and Privacy / Session: Web Privacy

## To Join or Not to Join: The Illusion of Privacy in Social Networks with Mixed Public and Private User Profiles

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