Supporting Information

Goel et al. 10.1073/pnas.1000261107
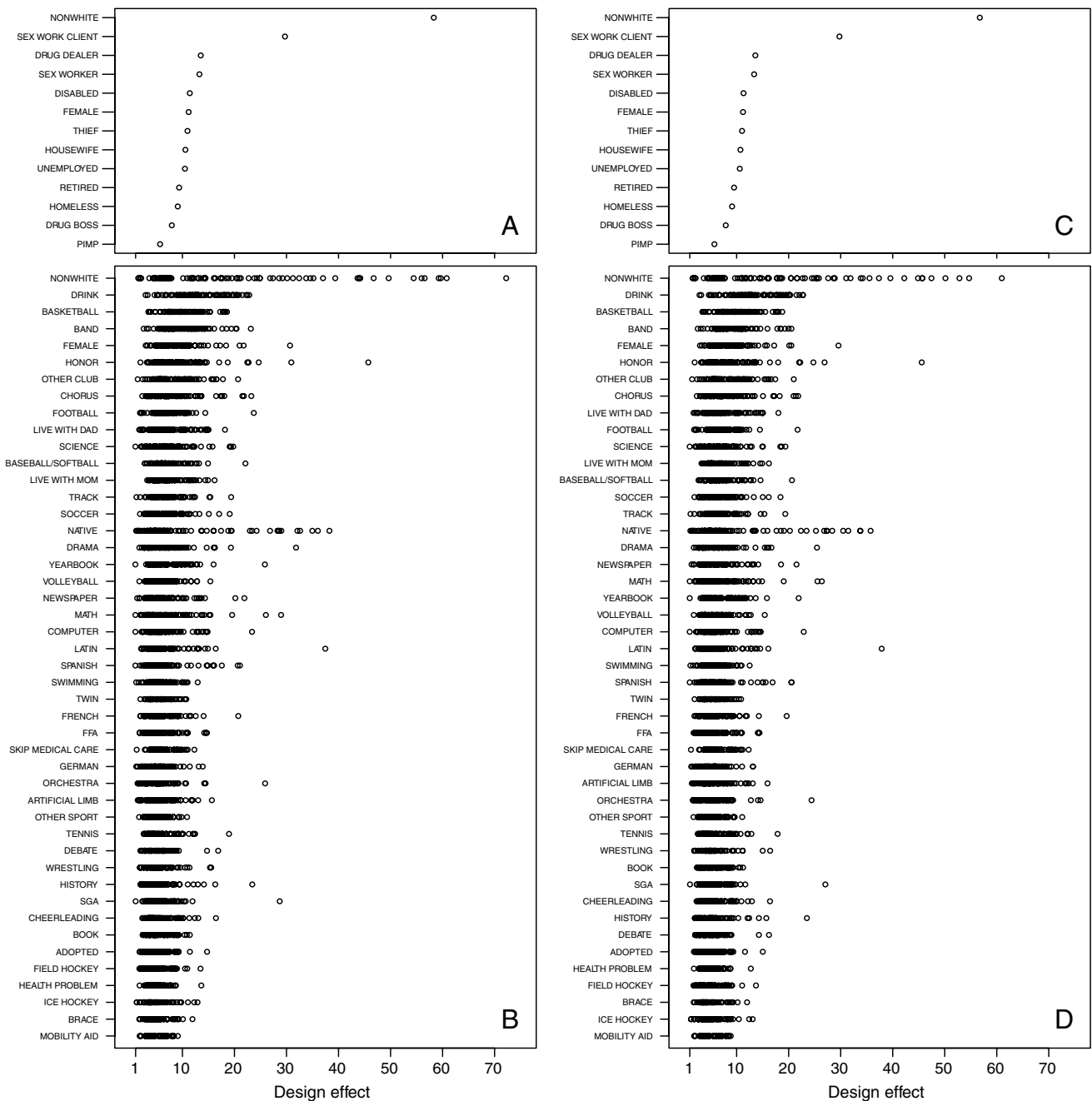

Fig. S1. Design effects for the current, respondent-driven sampling (RDS) II estimator (*A* and *B*) and the earlier, RDS I estimator (*C* and *D*) in Project 90 and Add Health. The median design effect for both estimators is 11.0 in Project 90 and 5.9 in Add Health. (RDS I and RDS II also produced nearly identical point estimates: Estimates were within one percentage point of one another in 95% of the Project 90 samples and in 97% of the Add Health samples.)
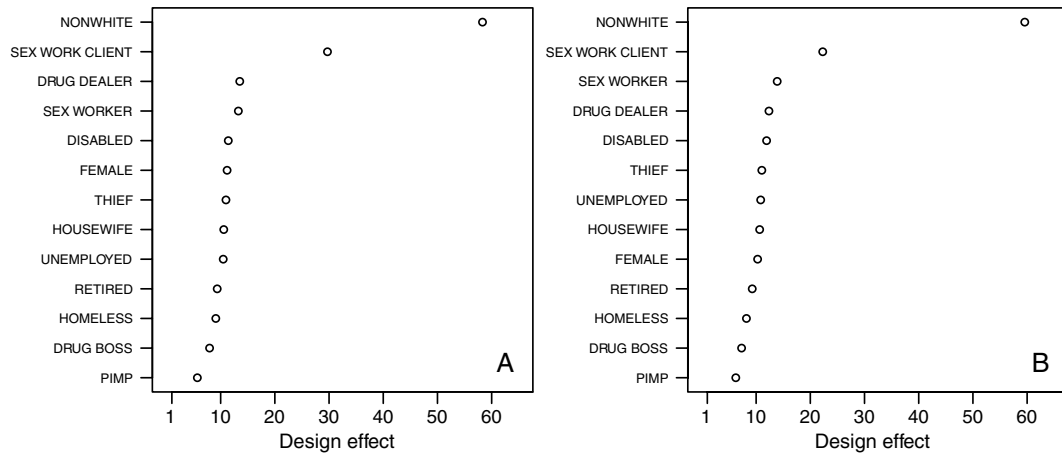
Fig. S2. Design effects for the original Project 90 network (*A*) and the subnetwork where leaves have been removed (*B*). Median design effects for the original network (11.0) and the subnetwork without leaves (10.8) are comparable.
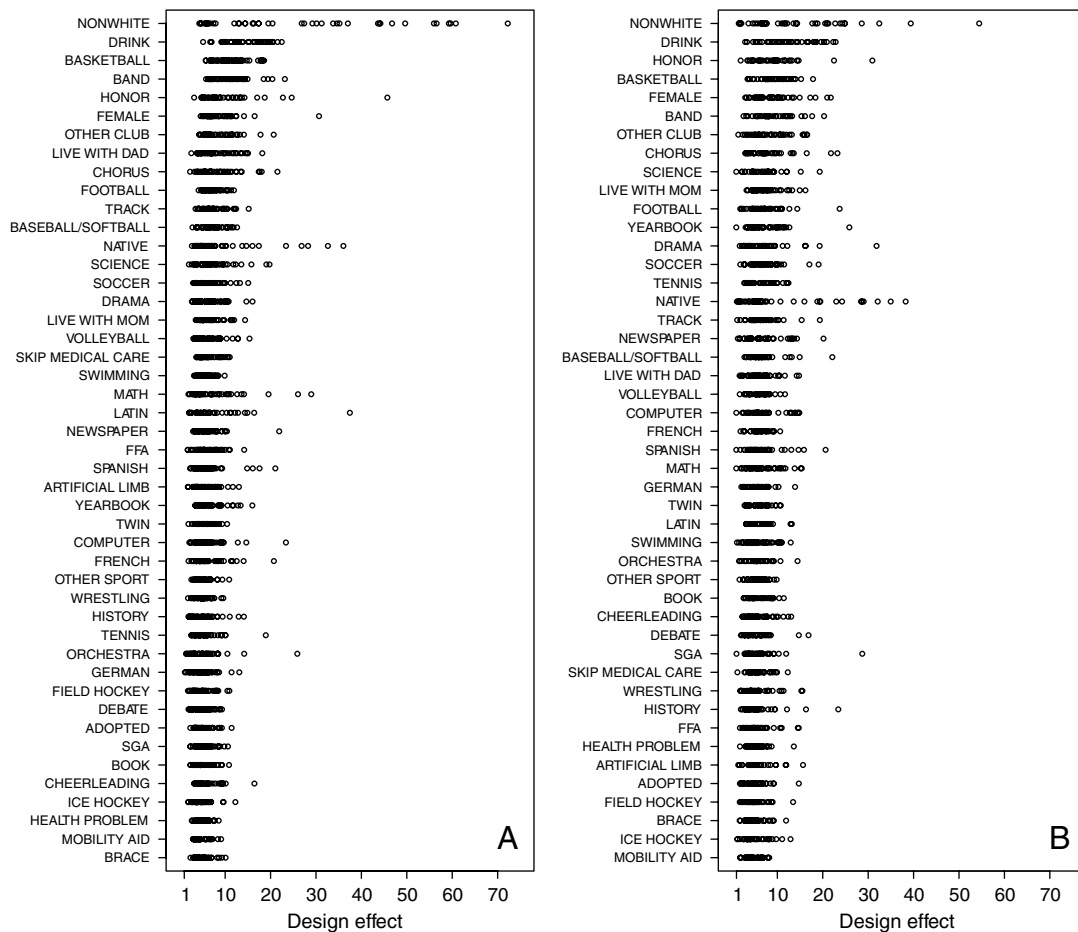

Fig. S3. Design effects in Add Health for schools that are joint middle and high schools (*A*) and those that are strictly high schools (*B*). The median design effect for joint schools (5.9) is approximately the same as in those that are exclusively high schools (6.0).

Fig. S4. Design effects in Add Health for one-sided-nomination (*A*) and reciprocal-nomination networks (*B*). Median design effects are substantially higher in the reciprocal-nomination networks (18.9) than in the one-sided-nomination networks (5.9).

Fig. S5. Design effects in Add Health compared to school size (*A*) and true trait proportion (*B*). Design effects are weakly correlated with both school size (0.07) and trait proportion (0.27).

Table S1. Studies that compare RDS estimates to those obtained via other methods

Study population	Location	Alternative methodology	Citation
IDU	Barnaul, Russia	Indigenous field worker sample	(1)
IDU	Volgograd, Russia	Indigenous field worker sample	(1)
IDU	Detroit, USA	Time-location sampling	(2)
IDU	Houston, USA	Time-location sampling	(2)
IDU	New Orleans, USA	Time-location sampling	(2)
IDU	Seattle, USA	Targeted and venue-based sampling	(3)
DU	New York City, USA	Targeted and venue-based sampling	(4)
MSM	Fortaleza, Brazil	Snowball and time-location sampling	(5)
MSM	Tallinn, Estonia	Internet convenience sampling	(6)
Latino gay men	Chicago, USA	Simulated time-location sampling	(7)
Latino gay men	San Francisco, USA	Simulated time-location sampling	(7)

IDU indicates injection drug users; MSM indicates men who have sex with men; and DU indicates drug users.

1 Platt L, et al. (2006) Methods to recruit hard-to-reach groups: Comparing two chain referral sampling methods of recruiting injection drug users across nine studies in Russia and Estonia. *J Urban Health* 83:39–53.

2 Robinson WT, et al. (2006) Recruiting injection drug users: A three-site comparison of results and experiences with respondent-driven and targeted sampling procedures. *J Urban Health* 83:29–38.

3 Burt RD, Hagan H, Sabin K, Thiede H (2010) Evaluating respondent-driven sampling in a major metropolitan area: Comparing injection drug users in the 2005 Seattle area National HIV Behavioral Surveillance System with injectors in the RAVEN and Kiwi studies. *Ann Epidemiol* 20:159–167.

4 Abdul-Quader AS, et al. (2006) Effectiveness of respondent-driven sampling for recruiting drug users in New York City: Findings from a pilot study. *J Urban Health* 83:459–476.

5 Kendall C, et al. (2008) An empirical comparison of respondent-driven sampling, time location sampling, and snowball sampling for behavioral surveillance in men who have sex with men, Fortaleza, Brazil. *AIDS Behav* 12:97–104.

6 Johnston LG, Trummal A, Lohmus L, Ravalepik A (2009) Efficacy of convenience sampling through the internet versus respondent driven sampling among males who have sex with males in Tallin and Harju County, Estonia: Challenges reaching a hidden population. *AIDS Care* 21:1195–1202.

7 Ramirez-Valles J, Heckathorn DD, Vázquez R, Diaz RM, Campbell RT (2005) From networks to populations: The development and application of respondent-driven sampling among IDUs and Latino gay men. *AIDS Behav* 9:387–402.