

Facebook Friends

James_Florance_501351702	0
Joy_Gooden_580143423	0
Kim_Beveridge_662936475	0
Alfredo_Sánchez_667415071	0
Sarah_Shreeves_700331809	0
Sally_Mauck_1243862786	0
Dan_Swaney_1321960327	0
Robert_Gordeaux_1580113991	0
Joseph_Kaplan_1623901873	0
Michael_Milner_100000008814265	0
Catherine_Kemble_Cronin_100000016520821	0
Doug_Nelson_100000408020444	7
Brian_K._Saunders_100000250906441	15
Winnie_Elliott_100003091927266	25
Joan_A._Smith_1070286998	30
Bob_Mathers_1833713834	38
Thomas_Allen_100004566517987	39
Lloyd_Nelson_100000029886158	40
Scott_W_Laney_100000075283955	41
Mary_McManus_100001413471206	41
Greg_Szalkowski_100000144053543	42
William_Glidden_Jr_1680663468	43
Lori_Toms_1624683201	54
Jeroen_Bekaert_1047034137	58
Brooks_Childers_100001314028384	59
Frank_C._Thames_1673270131	60
Fred_Moore_681873479	62
Bonnie_Austin_Allen_1544306618	65
Blades_Elliott_1136251245	68
Matthew_Kesten_1522048141	68
Dale_Andrews_100000507601860	77
Donna_Lynne_Nelson_Laney_100000031673611	80
Dongwon_Lee_100002325489000	85
Sebastian_Parreirinha_1601360234	86
Ron_Larsen_659975887	87
Scott_Schuetz_1052075705	89
Richard_Weissler_1282857837	93
Steve_Velotas_1330934978	94
Joe_Reisel_1789491649	94
Ashley_Song_100001577418333	96
Brian_E_McCallum_572141447	97
Tom_Habing_633427937	104
Joel_Carter_100000974828061	104
Mike_Weisenborn_1347469298	106
John_McManus_100000054164662	108

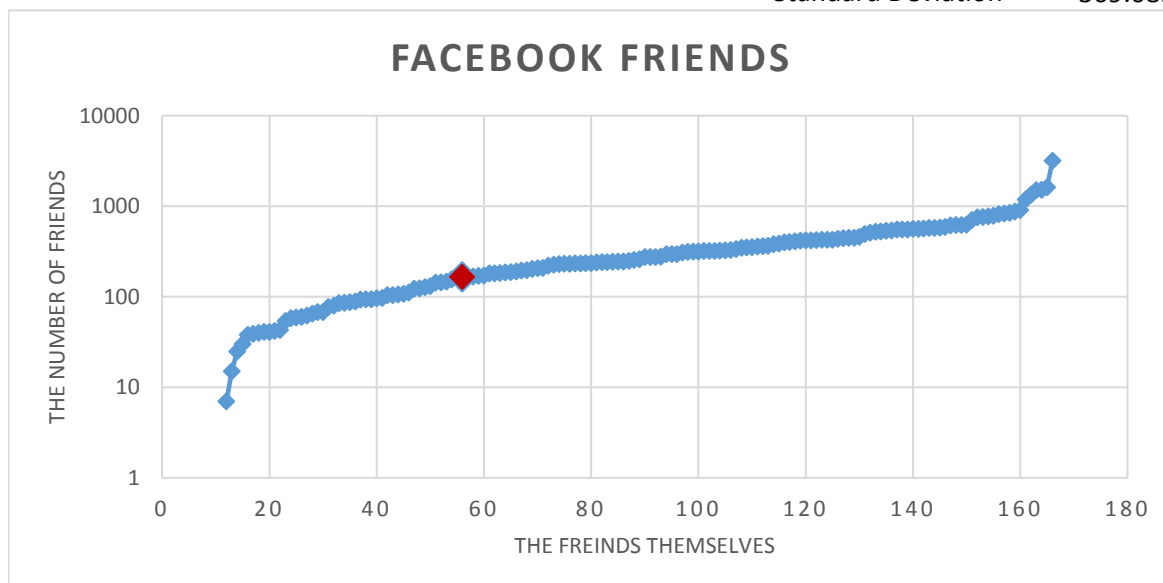
Trey_Arthur_100000685907969	111
Mike_Koch_100000819076703	123
Kurt_Severance_1164060519	124
Sandy_Esler_Ring_1377955545	128
Denise_Kuftic_Scearce_1245164680	131
Fran_Austin_1361602514	143
Cynthia_Suarez_Eudy_1611457057	144
Paul_Ayris_100001047211393	147
Sally_Jo_Cunningham_219400036	155
Cathy_Marshall_100000403754769	165
Michael Nelson	165
Julianne_Allen_1152991747	168
Lisa_Owsley_Rippy_1498184571	168
Laura_Garlow_Yarborough_1351315240	170
Brenda_F._Nelson_1649694346	172
Miriam_Blake_629373114	181
Daryl_Schoolar_1158087636	182
Bill_Lefurgy_1716902390	183
Byron_Marshall_700018169	186
Seth_Littman_100000370562951	187
Stefan_Gradmann_667599333	190
Leslie_Carr_286100028	195
Megan_Winget_1089292662	197
Gillian_Hurd_Peterson_1465634102	204
Michael_Yager_100000372804951	207
Dan_Berkery_620983997	208
Amanda_Hall_1414300750	220
George_Buchanan_626751005	227
Frank_Shipman_607086959	229
Michael_B._Witty_Jr_1508029527	231
Ashley_Michael_Flora_100000055482229	231
Michelle_Gallinger_644659453	233
Kristie_Sheldon-Davis_1179525213	233
Karen_Childers_100000154293671	235
Geneva_Henry_3007408	236
Karim_B._Boughida_776832537	240
Martin_Klein_1600046296	241
John_Kunze_519498974	242
Simeon_Warner_428351	244
Dave_Abel_757423848	245
Elizabeth_Hoag-Carhart_1018916054	245
Karen_Spencer_1674799889	250
Jerome_McDonough_1443622535	255
Gregory_Crane_533760327	259
Will_Osman_746359821	274
Martin_Halbert_772704652	275
Art_Everett_1119784799	276

David_Fulker_1065550118	278
Leonardo_Candela_642081606	295
Lillian_Riley_Cassel_540716259	297
MacKenzie_Smith_725264657	297
Janet_Schultz_Brunelle_100000513240490	308
Kerry_Gough_1427627702	312
Kara_Killough_685393946	315
Barbara_Burns_Moran_2733048	317
Jeffery_Shipman_530578112	321
Cynthia_Vaona_1094163001	321
Yuichiro_Russell_1273471221	322
Chris_Eudy_614944765	324
Larry_Boyd_100000170961411	327
Dave_White_100000738402677	328
Richard_Furuta_593936930	337
Michele_Clark_Weigle_646802723	348
J._Stephen_Downie_627353461	351
Steve_Bayer_100001277896146	353
Rachel_Frick_727524620	359
Marianne_Afifi_678208232	363
Kat_Hagedorn_526596003	366
Unmil_Karadkar_712152575	380
Rob_Sanderson_577727081	387
Gary_Marchionini_547615058	400
Hussein_Suleman_507489265	404
Jim_Karamanis_1002487220	409
Justin_F._Brunelle_100000566913334	415
Johan_Bollen_1448621116	420
Mat_Kelly_2004483	421
Leslie_Johnston_557892051	424
Carlton_Northern_519733049	425
Sawood_Alam_761351671	425
Terry_Harrison_539787122	427
Wayne_Setliff_1253060884	436
Marc_Richmond_1537839473	443
Jewel_Ward_2737920	448
Andy_Powell_688401359	449
Ray_Flora_100000062354804	458
Robert_H._McDonald_599323265	496
Eric_Everton_801709758	510
Norma_Farr_1486225556	524
Jen_Dudley_Winter_100000005477295	528
Moustafa_Aly_100001030803006	538
Benjamin_Lok_2037943	539
Allan_Hautz_1184037705	552
Aravind_Elango_501979798	555
Sharon_Spencer_Stilwell_563987168	555

Timothy_DiLauro_5412190	561
Margy_Avery_764552761	562
Michael_Austin_1348219015	568
Drew_Munro_1314586	575
Tyler_Walters_1466292932	576
Gaby_Caro_1089079610	580
Mariana_Rocha_Biojone_548326700	592
Ellen_Stein_Beaes_1245215699	615
Alex_Wade_621830892	619
Ahmed_AlSum_586360620	622
Greg_Spencer_1455947597	624
Edward_Alان_Fox_599625230	705
Frank_McCown_71006425	752
Hollie_Chessman_158200046	763
Vivens_Ndatinya_1270376645	770
Camden_Elliott_Matherne_2726573	784
Stephanie_Beene_600979724	819
Maria_Lugo_62305409	833
Scott_Kinkade_1442997544	844
Richard_Henry_Ashton_1504858110	873
Robin_Taylor_1761186121	909
Hany_SalahEldeen_533655322	1194
Gregg_Brooks_1245246929	1346
Archie_Warnock_662686691	1512
Mister-Photon_Haptic-Interface_Furr_612379469	1521
Calvin_Edward_Mackey_1032702371	1626
Ricardo_Baeza-Yates_626922806	3187

Based off of the information given, professor Nelson has more friends that have more friends than him. Thus the friendship paradox is true in the case of his Facebook page. There are some friends that don't have more friends than him which made me question if it would be true. After more consideration I came to the conclusion that it is true with the information given.

Total= 55449
Mean= 334.0301
Median= 243
Standard Deviation= 369.089



Twitter Followers

katjakra	0
CrowNaito	0
hdo003	0
seahorseadmirer	2
lisapizzapie	2
Insails	2
Naima3704	3
meterz1	3
__jeremi	4
Shaaban_Migo	4
PoorOldMoot	5
goodenjm	5
Elittley	5
JoeLemanski	6
mgome0072	6
Jstoddert	6
MildlyBored	7
majetisiri	7
AliShamim333	9
gjfowler	10
nichworby	10
momof3inov	13
NgYewli	13
zeonfernando	14
PapachriL	15
BrosephElder	17
Thaer_samar	18
plamen26968325	19
LizCohee	21
JohnChangGWU	23
vneblitt	25
MPanula	26
masroorfreaks	28
SalimChemlal	34
KarolHolu	34
thabing	37
wosp2015	37
LarryWilson1942	38
DLWeb_Seb	40
NeilMonday	40
narfman0	40
zxie	45
NetLab_dk	45
ArchivingIt	48
erikaris	50

KevinClemmons	51
9ulovesu	53
ziadmatni	57
n_audenaert	61
jcdl2015	66
jcdl2016	77
TPDL2016	82
annediaz01	87
westfood	88
zimeon	92
renevoorborg	97
DLib2014	98
knmnyn	101
JCDLConf	101
ijdl	105
johanna_lautner	107
oducs	108
TimelessFuture	111
DrDanetteAllen	115
doppelen	117
migcosta	121
keesone	129
maikhanhlan	131
downey_cara	133
unmil	139
WebART12	145
iPRESconf	147
noradreamer90	148
_matef	149
jotschirr	160
squealermusic	162
documentnow	163
petrknoth	168
Reloaded2Boot	170
ODUAuxServices	172
this_phillips	177
SIGIR17	185
rodwittenberg	208
vector_ctrl	209
impactzoneco	209
nanopub_org	210
ReedTechCorp	211
technelily	212
shajid333	212
Educopia	216
jessili	221
AutonomyIncub8r	226

ForgetITProject	228
J_IreneTieman	230
saraaubry	231
anatbd	234
K4arkive	270
Pravacana_Mats	273
ruyhliu	279
JonesWCaleb	287
dwhitenist	293
andy_anjoyh	295
e_mccain	295
isi2015conf	314
f_nanni	315
Strollerman	322
liblaura	323
Lucene_Solr_SF	325
taylor_amy	362
GetDownODU	371
beyondcitation	382
Paisadalo	382
unstablearchive	423
opba	446
bindonlane	448
oreficeplumbing	454
djw0952	460
HistWebArchives	474
webrecorder_io	481
phonedude_mln	491
NielsBr	505
kberberi	531
BrianDavison	544
txkuhn	553
xabuci	568
samalanmeister	576
EmeraldIKM	597
uskudarli	604
abugseye	624
archivportal	644
futuresma	684
EmeraldLibrary	689
perrycollins	691
MonarchsAimHigh	718
ODURugby_	741
jasonmarkwebber	775
robina_naazli	776
andrewjbtw	795
JoshCows	803

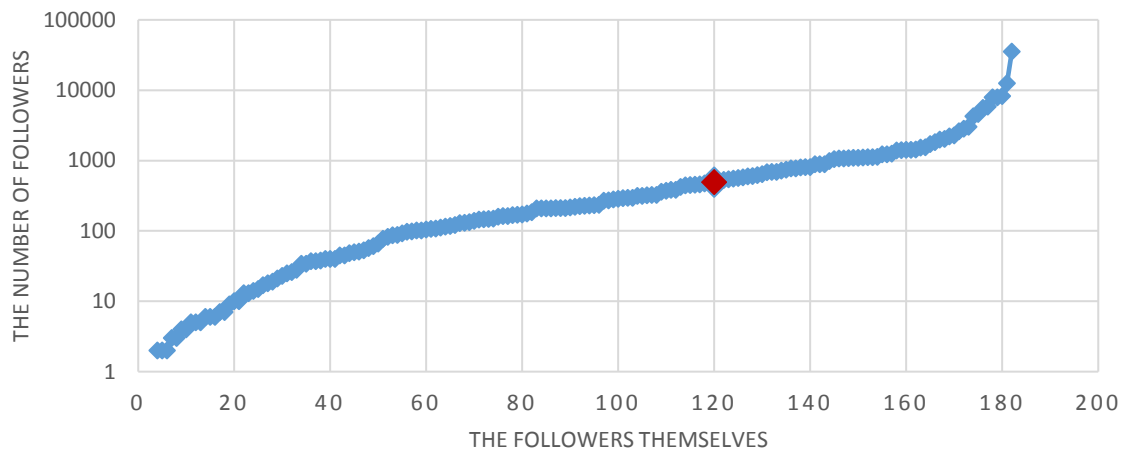
landlibrarian	806
elunca	886
weblawlib	887
DigiCultureKCL	889
jsicot	983
IgorBrigadir	1051
JayNuetron	1073
RSSNewsmaster	1074
5280BigData	1086
forschungsdaten	1091
Antenna_Lab	1097
desouzatech	1107
_akisato	1112
SteveMcLaugh	1113
cbmrccc	1134
ShathaJY	1226
prwheatley	1230
Arkivum	1259
saschel	1393
GraemeEarl	1403
save4use	1423
todrobbins	1424
BergisJules	1430
paulwalk	1535
jalbertbowdenii	1546
jefferson_bail	1722
topgolfvabeach	1828
CarlyKristie269	1976
dchud	2020
rundavidrun	2197
trinketapp	2268
peterkz_swe	2600
EJWalters	2827
j_w_baker	3020
cyberlaw	4255
silvertje	4584
tjowens	5612
brettbobley	5825
daniel_rehn	7907
mamund	7931
lintool	8216
HiveBestHumor	12484
zittrain	35411

With the information given of Dr. Nelson's twitter account, it looks like he has more followers that have less followers than him. Which would disprove the friendship paradox, if the majority have less followers.

So based off of his twitter page, the friendship paradox is not true.

Total=	171370
Mean=	941.5934
Median=	223.5
Standard Deviation=	3012.14

TWITTER FOLLOWERS



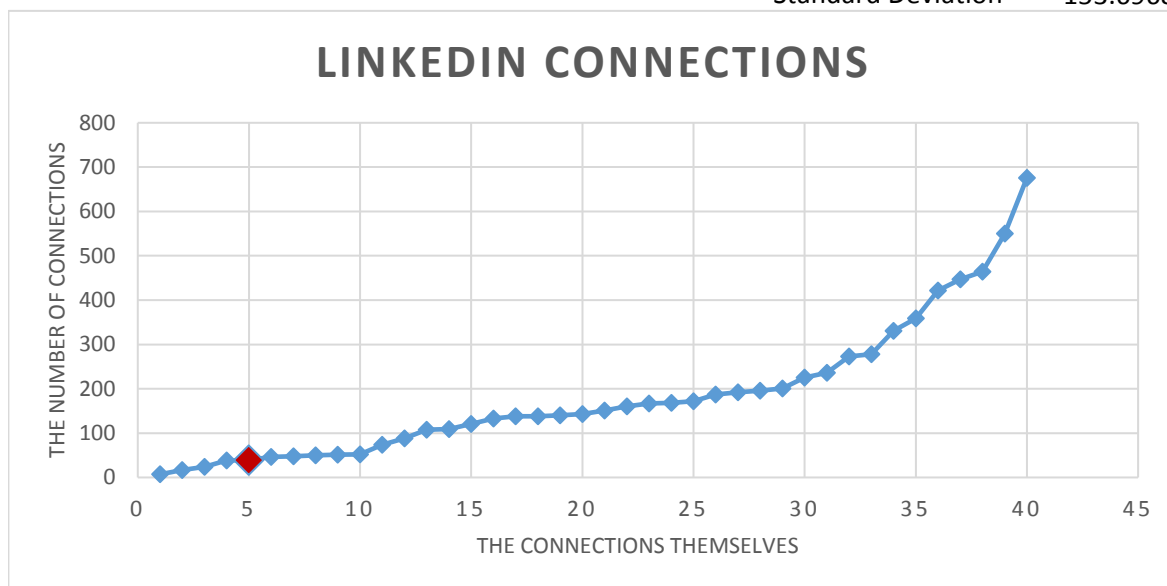
Linkedin Connections

Alexander Wilson	7
Ray Francisco	17
Andrew Fisk	24
Zane Waldemar	38
Jamie Gastrich	39
Kyle van de Kamp	46
Spencer Koch	48
Shelby Dodd	50
Chelsea Campbell	51
Berkeley Martin	52
Erin Wilder	74
Allison Ripley	88
Cody Dowdy	108
Emily Williams	109
Paul Wilson	121
Jonathan Robinson	133
John Boccagna Elder	138
Ciera Waga	138
Bo Nahstoll	140
Catalin Pop	143
Trevor Raymond	151
Michael Fisk	160
Deonte White	167
Kelvin Marin-Solis	168
Tyler Evans	172
Lauren Slavin	187
Heather Folstad	192
Helen Taylor Vest	196
Joseph Gastrich	201

Barry Plott	225
Travis Kerner	236
Madison Kash	273
Dina Scott	278
Amy Cooper	331
Jon Harman	359
Thomas McFadden	422
Kurt Woodham	447
Christopher Ndiritu	464
Edward Anton	550
Cherie Jenkins	676

The information given from my LinkedIn profile, I have more connections that have more connections than me compared to those who have less connections. Thus the friendship paradox is proven true.

Total= 7419
Mean= 185.475
Median= 147
Standard Deviation= 153.6968



*The red diamonds represent either me or Dr. Nelson on the graph

Screenshot of program being implemented for the Facebook friends

```
linux.cs.odu.edu - PuTTY
atria:~/CS432/A4> python xmlDataParse.py
{
  "Camden_Elliott_Matherne_2726573": {
    "mutual_friend_count": "8",
    "friend_count": "784",
    "uid": "2726573",
    "name": "Camden Elliott Matherne",
    "Label": "Camden Elliott Matherne"
  },
  "J._Stephen_Downie_627353461": {
    "mutual_friend_count": "20",
    "friend_count": "351",
    "uid": "627353461",
    "name": "J. Stephen Downie",
    "Label": "J. Stephen Downie"
  },
  "Fran_Austin_1361602514": {
    "mutual_friend_count": "8",
    "friend_count": "143",
    "uid": "1361602514",
    "name": "Fran Austin",
    "Label": "Fran Austin"
  },
  "Greg_Spencer_1455947597": {
    "mutual_friend_count": "8",
    "friend_count": "624",
    "uid": "1455947597",
    "name": "Greg Spencer",
    "Label": "Greg Spencer"
  },
  "Leslie_Carr_286100028": {
    "mutual_friend_count": "13",
    "friend_count": "195",
    "uid": "286100028",
    "name": "Leslie Carr",
    "Label": "Leslie Carr"
  },
  "Rachel_Frick_727524620": {
    "mutual_friend_count": "20",
    "friend_count": "359",
    "uid": "727524620",
    "name": "Rachel Frick",
    "Label": "Rachel Frick"
  },
  "Winnie_Elliott_100003091927266": {
    "mutual_friend_count": "4",
    "friend_count": "25",
    "uid": "100003091927266",
    "name": "Winnie Elliott",
    "Label": "Winnie Elliott"
  },
  "Geneva_Henry_3007408": {
    "mutual_friend_count": "36",
    "friend_count": "236",

```

```
        "uid": "3007408",
        "name": "Geneva Henry",
        "Label": "Geneva Henry"
    },
    "Fred_Moore_681873479": {
        "mutual_friend_count": "5",
        "friend_count": "62",
        "uid": "681873479",
        "name": "Fred Moore",
```

Screenshot of program being implemented for the Twitter followers

```
atria:~/CS432/A4> python myFollowGrabberThingy.py
Successfully Logged in
Getting twitter follower counts list
ldirks
We got a timeout...sleeping for 15 minutes
OTHSEAFOOD
GerhardGossen
IgorBrigadir
TimelessFuture
knmnyn
anatbd
Educopia
DLib2014
justinfbrunelle
chrisbellekom
x_twentythree
itroch
RjLyric
AnnaPerricci
jcdl2015
jcdl2016
NancyAjarmeh
f_nanni
jcdl2012
JoeLemanski
Jakdemir
weblawlib
lwynholds
johanna_lautner
forschungsdaten
cbmrccc
evdvelde
ChuChoResano
umurthy
oducs
jsicot
abugseye
vphill
fmccown
agrotke
RSSNewsmaster
jakkbl
tsuomela
unmil
acocciolo
```

```
sorgentelinda
RajnishMallick
meterz1
rundaavidrun
GerdaMueller2
ShathaJY
vector_ctrl
williamjturkel
doppelen
CrowNaito
5280BigData
edsu
NeilMonday
squealermusic
j_w_baker
nichworby
vincelebow
maikhanhlam
```

Screenshot of program being implemented for the LinkedIn Connections

```
linux.cs.odu.edu - PuTTY
}
atria:~/CS432/A4> python xmlDataParseLN.py
{
  "Spencer_Koch_963a6610b": {
    "shared_connection_count": "5",
    "connection_count": "48",
    "uid": "963a6610b",
    "name": "Spencer Koch",
    "Label": "Spencer Koch"
  },
  "Trevor_Raymond_76521b51": {
    "shared_connection_count": "3",
    "connection_count": "151",
    "uid": "76521b51",
    "name": "Trevor Raymond",
    "Label": "Trevor Raymond"
  },
  "Ray_Francisco_00137990": {
    "shared_connection_count": "1",
    "connection_count": "17",
    "uid": "00137990",
    "name": "Ray Francisco",
    "Label": "Ray Francisco"
  },
  "Kurt_Woodham_89744b1": {
    "shared_connection_count": "4",
    "connection_count": "447",
    "uid": "89744b1",
    "name": "Kurt Woodham",
    "Label": "Kurt Woodham"
  },
  "Lauren_Slavin_60895953": {
```

```
    "shared_connection_count": "6",  
    "connection_count": "187",  
    "uid": "60895953",  
    "name": "Lauren Slavin",  
    "Label": "Lauren Slavin"  
  },  
  "Chelsea_Campbell_98b10b52": {  
    "shared_connection_count": "2",  
    "connection_count": "51",  
    "uid": "98b10b52",  
    "name": "Chelsea Campbell",  
    "Label": "Chelsea Campbell"  
  },  
  "Travis_Kerner_a05012a6": {  
    "shared_connection_count": "6",  
    "connection_count": "236",  
    "uid": "a05012a6",  
    "name": "Travis Kerner",  
    "Label": "Travis Kerner"  
  },  
  "Thomas_McFadden_2188ab65": {  
    "shared_connection_count": "0",  
    "connection_count": "422",  
    "uid": "2188ab65",  
    "name": "Thomas McFadden",  
    "Label": "Thomas McFadden"  
  },  
  "John_Boccagna_Elder_9478b88a": {  
    "shared_connection_count": "6",  
    "connection_count": "138",
```