http://www.classsizematters.org/wp-content/uploads/2012/11/The-Impact-of-Class-Size-and-Number-of-Students-on-Outcomes-in-Higher-Education.pdf

CLASS SIZE EFFECT ON HIGH SCHOOL

Table 1

Summary Measures

Minimum Maximum Mean Std. Dev.

Class Size 2 45 23.39 6.862

Student load 10 150 63.46 18.751

Pre-business Course 0 1 .24 .426

Required Course 0 1 .46 .499

Early 0 1 .10 .297

Late 0 1 .28 .451

Fifty Minute Classes 0 1 .31 .463

Male 0 1 .60 .151

Same Gender as Instructor 0 1 .58 .162

Percent Sophomores 0 1 .23 .315

Percent Junior 0 1 .34 .325

Percent Senior 0 1 .37 .376

GPA 2.75 3.69 3.18 .142

Expected Grade 2.04 3.97 3.05 .292

Interest in this subject prior to the course 1.75 5.00 3.47 .545

Course Workload 2.27 4.92 3.39 .463

Course Level of Difficulty 2.45 5.00 3.66 .501

Level of Critical & Analytical Thinking 2.20 5.00 4.00 .447

Pace of Course 2.20 4.45 3.15 .207

Number of Evals. Completed by Student 1.00 4.67 2.66 .824

Clear and Understandable Presentation 2.00 5.00 4.09 .485

Effectiveness of Teaching Methods 2.04 5.00 4.05 .500

Instructor's Daily Preparation for Class 2.54 5.00 4.50 .361

Effectiveness in Stimulating Interest 2.03 5.00 3.94 .514

Enthusiasm for Teaching Course 2.87 5.00 4.48 .366

Availability Outside the Classroom 2.36 5.00 4.41 .370

Respect for Students in the Class 2.50 5.00 4.34 .425

Graded Material vs. Course Content 1.44 5.00 3.98 .499

Adequacy of Comments on Student Work 1.78 5.00 3.76 .483

Timeliness of Feedback on Student Work 1.26 5.00 4.26 .496

Usefulness of text, etc. to Learning 1.66 5.00 3.84 .512

Amount Learned as a Result of Course 2.45 5.00 4.12 .449

Instructor's Overall Teaching Ability 2.08 5.00 4.18 .479

Overall Quality of Course 2.30 5.00 4.00 .475

Number of Faculty 48

Number of Courses 88

Number of Sections 1,92820

Table 2

Regression Results

Impact of Enrollment on Course Outcomes

How much Instructor Course Expected

learned Rating Rating Grade

Intercept 3.797 4.243 3.453 .759

trend .014 \*\*\* .004 \*\*\* .008 \*\*\* -.001 \*\*\*

(0.001) (0.001) (0.001) (0.001)

Class Size -.009 \*\*\* -.009 \*\*\* -.009 \*\*\* -.004 \*\*\*

(0.001) (0.002) (0.002) (0.001)

Student load -.001 \*\* -.001 -.001 .001 \*\*

(0.001) (0.001) (0.001) (0.0003)

Required -.129 \*\*\* -.109 \*\*\* -.132 \*\*\* -.064 \*\*\*

(0.026) (0.030) (0.028) (0.016)

Pre-Business .063 .193 \*\*\* .152 .020

(0.050) (0.057) (0.054) (0.030)

Early -.095 \*\*\* -.107 \*\*\* -.110 \*\*\* -.067 \*\*\*

(0.026) (0.030) (0.029) (0.016)

Late -.002 .008 .018 .019 \*

(0.018) (0.021) (0.020) (0.011)

50 Min. Class .035 \* .052 \*\* .055 \*\*\* .003

(0.019) (0.021) (0.020) (0.011)

Online -.096 -.042 -.063 -.076

(0.081) (0.092) (0.087) (0.048)

Male -.126 \* -.149 \* -.168 \*\* -.005

(0.069) (0.078) (0.074) (0.041)

Same Gender .118 \* .201 \*\*\* .184 \*\*\* .068 \*

(0.066) (0.076) (0.072) (0.040)

Percent:

Sophomore -.011 .053 .078 .081 \*\*

(0.057) (0.065) (0.061) (0.034)

Junior .020 .140 \* .145 \* .113 \*\*\*

(0.072) (0.082) (0.078) (0.043)

Senior -.083 .185 \*\* .142 \* .183 \*\*\*

(0.073) (0.084) (0.079) (0.044)

GPA -.170 \*\*\* -.189 \*\* -.193 \*\*\* .584 \*\*\*

(0.066) (0.075) (0.071) (0.039)

Prior Interest .320 \*\*\* .229 \*\*\* .356 \*\*\* .091 \*\*\*

(0.023) (0.026) (0.025) (0.014)

Faculty Effects Yes Yes Yes Yes

R-squared 0.596 0.541 0.575 0.64521

Table 3

Regression Results

Impact of Enrollment on Course Outcomes with Course Fixed Effects

How much Instructor Course Expected

learned Rating Rating Grade

Intercept 3.317 3.807 2.998 .554

Trend .014 \*\*\* .005 \*\*\* .009 \*\*\* .000

(0.001) (0.001) (0.001) (0.001)

Class Size -.009 \*\*\* -.008 \*\*\* -.009 \*\*\* -.001

(0.002) (0.002) (0.002) (0.001)

Student load -.001 \*\* -.001 -.001 .001 \*

(0.001) (0.001) (0.001) (0.0003)

Early -.085 \*\*\* -.095 \*\*\* -.102 \*\*\* -.065 \*\*\*

(0.026) (0.030) (0.028) (0.014)

Late .005 .007 .017 .007

(0.018) (0.021) (0.020) (0.010)

50 Min. Class .021 .026 .029 .008

(0.020) (0.023) (0.021) (0.011)

Online -.116 -.065 -.077 -.070

(0.078) (0.090) (0.084) (0.043)

Male -.114 -.172 \*\* -.207 \*\*\* .042

(0.073) (0.084) (0.079) (0.040)

Same Gender .109 .210 \*\*\* .213 \*\*\* .043

(0.068) (0.079) (0.074) (0.038)

Percent:

Sophomore .082 .185 \*\*\* .209 \*\*\* .123 \*\*\*

(0.058) (0.067) (0.063) (0.032)

Junior .189 \*\* .335 \*\*\* .353 \*\*\* .147 \*\*\*

(0.075) (0.087) (0.081) (0.042)

Senior .109 .354 \*\*\* .328 \*\*\* .147 \*\*\*

(0.080) (0.093) (0.087) (0.045)

GPA -.123 \* -.205 \*\*\* -.179 \*\* .577 \*\*\*

(0.068) (0.078) (0.073) (0.038)

Prior Interest .371 \*\*\* .338 \*\*\* .433 \*\*\* .119 \*\*\*

(0.030) (0.034) (0.032) (0.016)

Faculty Effect Yes Yes Yes Yes

Course Effect Yes Yes Yes Yes

R-squared 0.656 0.598 0.634 0.736

No. of obs. 192822

Table 4

Regression Results

Impact of Class Size and Student load on Course Attributes

Dependent variables are in the rows

Class Size Student load R-squared

Workload -.001 -.002 \*\*\* 0.765

(0.001) (0.001)

Difficulty .002 -.002 \*\*\* 0.829

(0.001) (0.001)

Critical Thinking -.003 \*\*\* -.002 \*\*\* 0.794

(0.001) (0.001)

Pace .002 \*\* -.0003 0.578

(0.001) (0.003)

Clarity -.007 \*\*\* -.001 \*\* 0.617

(0.002) (0.001)

Effectiveness -.007 \*\*\* -.001 \* 0.61

(0.002) (0.001)

Preparation -.005 \*\*\* -.001 \*\* 0.648

(0.001) (0.001)

Stimulates Interest -.006 \*\*\* -.002 \*\*\* 0.648

(0.002) (0.001)

Enthusiasm -.003 \*\*\* -.002 \*\*\* 0.687

(0.001) (0.001)

Availability -.005 \*\*\* -.001 0.522

(0.001) (0.001)

Respect -.004 \*\*\* -.001 0.631

(0.001) (0.001)

Graded Material -.005 \*\*\* -.001 \*\* 0.611

(0.002) (0.001)

Quality of Feedback -.005 \*\*\* -.001 \*\* 0.625

(0.002) (0.001)

Timeliness of Feedback -.005 \*\*\* -.001 \*\* 0.662

(0.002) (0.001)

Usefulness of Text -.006 \*\*\* -.0001 0.609

(0.002) (0.001)23

Table 5

Regression Results

Impact of Course Attributes on Course Outcomes

How much Instructor Course Expected

learned Rating Rating Grade

Intercept -.147 -.626 -.403 1.203

Trend .003 \*\*\* -.008 \*\*\* -.006 \*\*\* -.005 \*\*\*

(0.001) (0.001) (0.001) (0.001)

Class Size -.004 \*\*\* -.001 \* -.003 \*\*\* .0001

(0.001) (0.001) (0.001) (0.001)

Student load .0001 .001 \* .001 \* .0001

(0.001) (0.001) (0.0005) (0.0005)

Workload .101 \*\*\* -.019 .002 .048 \*\*\*

(0.020) (0.018) (0.018) (0.017)

Difficulty .017 .019 .002 -.318 \*\*\*

(0.025) (0.023) (0.023) (0.021)

Critical Thinking .168 \*\*\* .070 \*\*\* .113 \*\*\* .050 \*\*\*

(0.022) (0.020) (0.020) (0.019)

Pace -.060 \* -.037 -.110 \*\*\* -.050 \*\*\*

(0.033) (0.030) (0.030) (0.019)

Clarity .068 \*\* .380 \*\*\* .177 \*\*\* -.036

(0.028) (0.025) (0.025) (0.024)

Effectiveness .169 \*\*\* .173 \*\*\* .183 \*\*\* .024

(0.028) (0.026) (0.026) (0.024)

Preparation .044 \* .146 \*\*\* .073 \*\*\* -.049 \*\*

(0.026) (0.023) (0.023) (0.022)

Stimulates Interest .276 \*\*\* .164 \*\*\* .263 \*\*\* .058 \*\*\*

(0.022) (0.020) (0.020) (0.019)

Enthusiasm .014 .132 \*\*\* .044 \* -.019

(0.025) (0.023) (0.023) (0.022)

Availability -.008 -.008 -.022 -.011

(0.017) (0.016) (0.016) (0.015)

Respect -.035 \* .101 \*\*\* .041 \*\* .018

(0.019) (0.017) (0.017) (0.016)

Graded Material .128 \*\*\* .063 \*\*\* .146 \*\*\* .133 \*\*\*

(0.018) (0.017) (0.017) (0.016)

Quality of Feedback -0.005 -0.016 -0.011 -0.028 \*

(0.019) (0.017) (0.017) (0.016)

Timeliness of Feedback 0.020 0.000 0.003 -0.013

(0.014) (0.013) (0.013) (0.012)

Usefulness of Text 0.140 \*\*\* -0.019 0.079 \*\*\* -0.016

(0.013) (0.012) (0.012) (0.011)

Faculty Effects Yes Yes Yes Yes

Course Effects Yes Yes Yes Yes

R-squared 0.908 0.933 0.931 0.836

http://www.classsizematters.org/wp-content/uploads/2012/10/dynarski-120426.pdf

CLASS SIZE EFFECT ON COLLEGE ENROLLMENT

Table 1. Means of Demographics and Outcome Variables by Class Size

Regular Class Small Class

Demographics

White 0.620 0.660 -0.003 (0.005)

Female 0.471 0.473 -0.000 (0.011)

Free Lunch 0.557 0.521 -0.015 (0.011)

College attendance

Ever attend 0.385 0.420 0.027 (0.011)

Ever attend full-time 0.278 0.300 0.013 (0.011)

Ever attend, but never full-time 0.108 0.120 0.014 (0.006)

Enrolled On-Time 0.274 0.308 0.024 (0.011)

Attempted 3.07 3.39 0.219 (0.133)

Attempted, conditional on

attending 7.98 8.08 0.132 (0.209)

Degree Receipt

Any degree 0.151 0.174 0.016 (0.009)

Associates 0.027 0.034 0.007 (0.004)

Bachelors or higher 0.124 0.141 0.009 (0.008)

Degree Type

STEM, business or economics

field 0.044 0.060 0.013 (0.006)

All other fields 0.085 0.094 0.003 (0.006)

First Attended

2-year 0.215 0.245 0.025 (0.009)

Public 4-year 0.127 0.132 0.005 (0.007)

Private 4-year 0.042 0.043 -0.003 (0.004)

Ever Attended

Public 4-year 0.197 0.205 0.003 (0.010)

Private 4-year 0.088 0.101 0.009 (0.007)

Out of state 0.138 0.152 0.013 (0.009)

Sample Size 8,316 2,953

Number of Semesters

Regression Adjusted

Difference

Notes: Column (3) controls for school-by-wave fixed effects and demographics. Standard

errors, in parentheses, are clustered by school.