Appendix Data, Methods, and Additional Background

IPEDS and student financial aid

We have constructed a consistent institution-year panel data set using the 2000 to 2009 micro data from the Integrated Postsecondary Education Data System (IPEDS) collected and maintained by the National Center for Education Statistics of the U.S. Department of Education. We use the IPEDS data on enrollments (fall, 12 month, and full-time equivalent), degrees and awards, tuition, revenues and expenditures, and other institutional characteristics. The IPEDS data are available from and documented at http://nces.ed.gov/ipeds/.

We match the IPEDS data to institution-level data on Pell grants, student loans volumes and cohort default rates from the National Student Loan Data System (NSLDS). For the financial data, see: http://federalstudentaid.ed.gov/datacenter/index.html.

Student loan volumes by institution come from the Direct Loan program (where the federal government gives loans directly to students) and the Federal Family Education Loan (FFEL) Program, and includes both subsidized (where the government pays interest while students are still enrolled in school) and unsubsidized loan programs. Under FFELP, private lenders provided capital for loans that were subsidized and guaranteed against default by the federal government. The FFEL program was terminated in 2009.

Institutions in IPEDS are assigned a unique "unitid" that is constant across years. Unitids are assigned to physical branches of an institution, and a single school will have one unitid for each branch. However, each school is also assigned an Office of Postsecondary Education ID (known as "opeid") that is constant across branches. The NSLDS data are linked to the opeid and are not broken out separately by branch. For example, IPEDS has enrollment and degree information separated by campus branch (i.e., by unitid), but information from NSLDS on student loan and Pell grant volumes is only available for the overall institution (i.e., the opeid).

Match rate between IPEDS and NSLDS

We are able to match about 94 percent of the unitids in IPEDS to an opeid from NSLDS. Around 67 percent of the schools are classified in IPEDS as for-profit institutions. The unmatched 6 percent of schools (722 of 11,889) contain 1.4 percent of total enrollment in 2009 and less in earlier years.

We were unable to match about 5.6 percent of the opeids in NSLDS to any IPEDS unitid. About 61 percent (405 of 661) of those institutions were classified by NSLDS as "proprietary" schools, or for-profits. Schools without unitids are about 1 percent of subsidized and

unsubsidized loan volumes in 2009 and about 2.4 percent of Pell Grants. Among proprietary schools, those that were not successfully matched to IPEDS represent less than 1 percent of loans and about 1 percent of Pell grants.

Appendix Table 1

Regression of Three-Year Cohort Default Rate on Type of Institution: 2005 to 2008

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Non-profit four year | -0.015 | -0.006 | 0.001 | 0.002 | 0.000 | -0.015 | -0.007 | -0.001 | 0.001 | -0.001 |
| | (0.003) | (0.003) | (0.004) | (0.011) | (0.003) | (0.003) | (0.003) | (0.004) | (0.010) | (0.004) |
| Community college | 0.063 | 0.049 | 0.046 | 0.030 | 0.046 | 0.063 | 0.047 | 0.045 | 0.030 | 0.044 |
| | (0.003) | (0.004) | (0.005) | (0.009) | (0.004) | (0.003) | (0.004) | (0.005) | (0.009) | (0.005) |
| For-profit | 0.110 | 0.105 | 0.105 | 0.087 | 0.105 | | | | | |
| | (0.003) | (0.004) | (0.005) | (0.009) | (0.004) | | | | | |
| For-profit \times 2008 | | | | | 0.005 | | | | | |
| | | | | | (0.007) | | | | | |
| Independents | | | | | | 0.102 | 0.096 | 0.098 | 0.080 | 0.098 |
| | | | | | | (0.003) | (0.005) | (0.005) | (0.010) | (0.005) |
| Independents \times 2008 | | | | | | | | | | -0.013 |
| | | | | | | | | | | (0.010) |
| Regional chain | | | | | | 0.123 | 0.113 | 0.111 | 0.091 | 0.110 |
| | | | | | | (0.006) | (0.007) | (0.007) | (0.011) | (0.007) |
| Regional chain × 2008 | | | | | | | | | | 0.011 |
| | | | | | | | | | | (0.015) |
| National chain | | | | | | 0.152 | 0.131 | 0.127 | 0.108 | 0.124 |
| | | | | | | (0.006) | (0.006) | (0.006) | (0.010) | (0.006) |
| National chain × 2008 | | | | | | | | | | 0.032 |
| | | | | | | | | | | (0.008) |
| On-line | | | | | | 0.079 | 0.076 | 0.089 | 0.075 | 0.081 |
| | | | | | | (0.016) | (0.014) | (0.017) | (0.019) | (0.017) |
| On-line \times 2008 | | | | | | | | | | 0.059 |
| | | | | | | | | | | (0.020) |
| R-squared | 0.295 | 0.428 | 0.642 | 0.553 | 0.642 | 0.305 | 0.433 | 0.644 | 0.555 | 0.645 |
| Sample Size | 14,655 | 14,655 | 14,655 | 9,281 | 14,655 | 14,655 | 14,655 | 14,655 | 9,281 | 14,655 |
| Demographic controls | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Financial aid controls | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Degree types, offerings | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Year fixed effects | Yes |
| City fixed effects | No | No | Yes | Yes | Yes | No | No | Yes | Yes | Yes |
| Limit to open admission | No | No | No | Yes | No | No | No | No | Yes | No |

Source: National Student Loan Data System and IPEDS.

Notes: The dependent variable is the three-year cohort default rate for an institution-year observation. The sample covers institution-year observations for the fiscal years 2005 to 2008. "Independents" are for-profit schools that operate in only one state and have no more than five branches. A "regional chain" is a for-profit institution that operates in more than one state, or has more than five campus branches within a single state, but operates in no more than two census divisions. A "national chain" is a for-profit institution that operates in at least three separate census divisions. A for-profit institution is "online" if it either has the word "online" in the school's name, or if no more than 33 percent of its students come from any single U.S. state. Demographic controls are fractions part-time, 25 years and over, female, African American, and Hispanic. Financial aid controls are the number of recipients of Pell grants and subsidized and unsubsidized federal loans, total yearly disbursement amounts for each, and total loans and Pell grants per enrollee. Degree types and offerings are indicators for distance education, remedial course offerings, whether the institution offers assistance with job placement, whether it offers part-time employment services for enrolled students, the highest award or degree offered by the institution, and whether it has open admissions. Standard errors are clustered by institution and are in parentheses. Omitted category is four-year public.

Appendix Table 2: For-Profit Institution Impact on Student Outcomes for First-Time Undergraduates at Non-Selective Institutions: BPS:04/09

| | Beginning Postsecondary Students, Non-selective Institutions | | | | | |
|-----------------------------------|--|---------------|-----------------|------------------|------------------|--|
| | Depen | dent Variable | Means | For-Pro | fit Institution | |
| | | | | I | mpact | |
| | (1) | (2) | (3) | (4) | (5) | |
| | Four-Year | Two-Year | For- profits | OLS | Matching | |
| Danier dans Wasiahlar | Public and | Public and | | | | |
| Dependent Variables | Non-profits | Non-profits | -:-1 A:1 2002 | 2004 | | |
| Applied for Aid | 0.905 | 6.749 | cial Aid, 2003- | 0.092 | 0.056 | |
| Applied for Aid | 0.903 | 0.749 | 0.980 | (0.010) | (0.011) | |
| Title IV loan and grant aid | 3,989 | 1,022 | 6,852 | 4,628 | 3,567 | |
| The IV loan and grant and | 3,707 | 1,022 | 0,032 | (179) | (156) | |
| Tuition | 6,737 | 1,269 | 8,434 | 5,979 | 5,243 | |
| Tunion | 0,757 | 1,20) | 0,131 | (160) | (176) | |
| Net tuition minus grants | 3,457 | 734 | 5,573 | 4,660 | 4,351 | |
| Č | , | | , | (148) | (143) | |
| Pell grant | 0.407 | 0.294 | 0.790 | 0.190 | 0.053 | |
| - | | | | (0.014) | (0.021) | |
| Pell grant amount | 1,092 | 633 | 2,149 | 570 | 195 | |
| | | | | (49) | (68) | |
| | | | ial Aid through | | | |
| Cumulative Pell grant | 3,545 | 2,399 | 4,084 | 100 | -657 | |
| | 0.400 | 2.702 | - | (145) | (212) | |
| Cumulative Title IV borrowing | 8,489 | 3,502 | 7,699 | 4,562 | 2,781 | |
| T'41- W/11-1 2000 | 0.152 | 2 206 | 7.460 | (417) | (354) | |
| Title IV loan balance, 2009 | 8,153 | 3,306 | 7,460 | 4,640 | 2,759 | |
| Repaid any amount on loan, | 0.500 | 0.640 | 0.520 | (449) | (371) | |
| conditional on a student loan | 0.588 | 0.640 | 0.529 | -0.098 | -0.033 | |
| | | | | (0.030) | (0.044) | |
| Defaulted on loan, | 0.073 | 0.056 | 0.188 | 0.058 | 0.078 | |
| conditional on a student loan | | | | (0.018) | (0.019) | |
| T C 1 1: 2002 2004 | 0.104 | | and Educational | | 0.054 | |
| Left school in 2003-2004 | 0.134 | 0.233 | 0.212 | -0.053 | -0.054 | |
| Attained certificate | 0.031 | 0.112 | 0.316 | (0.016) 0.038 | (0.018) 0.043 | |
| Attained certificate | 0.031 | 0.112 | 0.310 | (0.014) | (0.19) | |
| Attained AA | 0.071 | 0.177 | 0.112 | -0.043 | -0.021 | |
| Attained 1111 | 0.071 | 0.177 | 0.112 | (0.015) | (0.015) | |
| Attained BA | 0.532 | 0.110 | 0.040 | -0.049 | -0.044 | |
| 1 10001110 0 0 1 1 | 0.002 | 0.110 | 0.0.0 | (0.011) | (0.012) | |
| Still enrolled in 2009 | 0.336 | 0.389 | 0.216 | -0.118 | -0.098 | |
| | | | | (0.018) | (0.020) | |
| Idle (not employed, not enrolled) | 0.132 | 0.133 | 0.236 | 0.046 | 0.056 | |
| | | | | (0.017) | (0.017) | |
| Left survey | 0.113 | 0.109 | 0.064 | -0.024 | -0.020 | |
| | | | | (0.011) | (0.012) | |

| | Employment and Earnings (conditional on no longer enrolled) | | | | | | |
|-----------------------------------|---|-----------------|--------------|-----------------|---------|--|--|
| Any job in 2009 | 0.790 | 0.784 | 0.706 | -0.020 | -0.093 | | |
| | | | | (0.021) | (0.021) | | |
| Earnings from work in 2009 | 24,626 | 24,795 | 19,950 | -1237 | -4168 | | |
| | | | | (967) | (970) | | |
| Earnings from work in 2009, | 31,188 | 31,622 | 28,243 | -885 | 234 | | |
| conditional on employment | | | | (969) | (902) | | |
| Unemployed and seeking work | 0.164 | 0.148 | 0.232 | 0.041 | 0.062 | | |
| | | | | (0.019) | (0.021) | | |
| Unemployed more than 3 months | 0.277 | 0.259 | 0.404 | 0.078 | 0.085 | | |
| since leaving school | | | | (0.022) | (0.024) | | |
| Earnings do not meet the | 0.156 | 0.046 | 0.271 | 0.204 | 0.152 | | |
| Gainful Employment standard | | | | (0.019) | (0.017) | | |
| | | tisfaction with | Program, Sch | nool, Loans, Jo | ob . | | |
| Remedial coursework | 0.235 | 0.289 | 0.076 | -0.196 | -0.198 | | |
| | | | | (0.015) | (0.017) | | |
| Left school because dissatisfied, | 0.036 | 0.024 | 0.081 | 0.038 | 0.039 | | |
| 2003-2004 | | | | (0.009) | (0.009) | | |
| Left school because dissatisfied, | 0.073 | 0.051 | 0.117 | 0.046 | 0.048 | | |
| 2003-2006 | | | | (0.013) | (0.011) | | |
| Education was worth the cost | 0.771 | 0.821 | 0.648 | -0.204 | -0.179 | | |
| | | | | (0.019) | (0.018) | | |
| Loans were a worthwhile | 0.804 | 0.803 | 0.664 | -0.142 | -0.118 | | |
| Investment | | | | (0.023) | (0.024) | | |
| Satisfied with major | 0.846 | 0.871 | 0.789 | -0.101 | -0.070 | | |
| or course of study | | | | (0.017) | (0.015) | | |
| Satisfied with current job | 0.772 | 0.764 | 0.752 | -0.014 | -0.011 | | |
| (employed, not enrolled) | | | | (0.026) | (0.024) | | |
| | | | | | | | |
| Sample size | 1,920 | 5,930 | 1,950 | | | | |

Notes: The regression samples exclude students who started at selective four-year institutions. The ordinary least squares column reports coefficient estimates (robust standard errors) for a for-profit institution dummy variable in regressions for each dependent variable that include the same additional covariates as those listed in the notes to Table 3. Each number in the Matching column represents the average treatment on the treated estimate (standard error) for going to a for-profit institution using from nearest neighbor (propensity score) matching with replacement and excluding observations outside of common support. The same covariates used in the ordinary least squares regressions were used for the matching models. The ordinary least squares and Matching model estimates use the BPS sampling weights. Unweighted sample sizes are rounded to the nearest 10.

Appendix Table 3: For-Profit Institution Impact on Student Outcomes for First-Time Undergraduates in Certificate Programs: BPS:04/09

| Poperation Po | | Beginning | Postsecondary | ficate Progra | icate Program Enrollees | | |
|--|-----------------------------------|-------------|-----------------|------------------|-------------------------|----------|--|
| Carried Non-profits | | Depen | dent Variable | Means | | | |
| Dependent Variables Four-Year Public and Publi | | | (2) | (2) | | • | |
| Dependent Variables | | ` ' | ` ' | ` ' | | | |
| Pependent Variables | | | | For- profits | OLS | Matching | |
| Applied for Aid | 5 | | | | | | |
| Applied for Aid 0.883 0.836 0.991 0.069 (0.014) (0.020) Title IV loan and grant aid 3,693 1,362 6,285 3,353 3,005 (252) (238) Tuition 7,171 1,425 8,129 5243 4979 (276) Net tuition minus grants 4,227 757 5,212 4,023 3,911 (242) Pell grant 0.465 0.409 0.888 0.191 0.061 Pell grant amount 1,272 785 2,480 583 264 (78) (105) Financial Aid through 2009 Cumulative Pell grant 2,961 2,127 3,780 41 -734 (265) Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Repaid any amount on loan, conditional on a student loan 0,593 0,622 0,604 -0,019 0,134 Defaulted on loan, conditional on a student loan 0,073 0,113 0,234 0,084 0,098 | Dependent Variables | Non-profits | | | | | |
| Title IV loan and grant aid 3,693 | | | | | | | |
| Title IV loan and grant aid 3,693 1,362 6,285 3,353 3,005 Tuition 7,171 1,425 8,129 5243 4979 Net tuition minus grants 4,227 757 5,212 4,023 3,911 Pell grant 0,465 0,409 0,888 0,191 0,061 Pell grant amount 1,272 785 2,480 583 264 Tumulative Pell grant 2,961 2,127 3,780 41 -734 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Repaid any amount on loan, 0,593 0,622 0,604 -0,019 0,134 Repaid any amount on loan, 0,593 0,622 0,604 -0,019 0,134 Repaid any amount on loan, 0,593 0,622 0,604 -0,019 0,134 Repaid any amount on loan, 0,593 0,622 0,604 -0,019 | Applied for Aid | 0.883 | 0.836 | 0.991 | | | |
| Tuition 7,171 1,425 8,129 5243 4979 (276) Net tuition minus grants 4,227 757 5,212 4,023 3,911 (242) Pell grant 0,465 0,409 0,888 0,191 0,061 (0,023) (0,033) Pell grant amount 1,272 785 2,480 583 264 (78) (105) Financial Hidthrough 2009 Cumulative Pell grant 2,961 2,127 3,780 41 -734 (220) (265) Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Cumulative Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 (331) (404) Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 (349) (418) Repaid any amount on loan, 0,593 0,622 0,604 -0,019 0,134 (200) (0,033) (0,090) Defaulted on loan, 0,073 0,113 0,234 0,084 0,098 (200) (20 | | | | | ` , | | |
| Tuition 7,171 1,425 8,129 5243 4979 Net tuition minus grants 4,227 757 5,212 4,023 3,911 Pell grant 0.465 0.409 0.888 0.191 0.061 Pell grant amount 1,272 785 2,480 583 264 Financial Aid through 2009 Cumulative Pell grant 2,961 2,127 3,780 41 -734 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Cumulative Title IV borrowing 4,471 1,884 3,975 1326 847 Cumulative Title IV borrowing 0.593 0.622 0.604 -0.019 0.134 Cumulative Title IV borrowing 0.593 0.622 0.604 -0.019 0. | Title IV loan and grant aid | 3,693 | 1,362 | 6,285 | • | • | |
| Net tuition minus grants | | | | | | | |
| Net tuition minus grants | Tuition | 7,171 | 1,425 | 8,129 | | | |
| Pell grant | | | | | | | |
| Pell grant 0.465 0.409 0.888 0.191 0.061 Pell grant amount 1,272 785 2,480 583 264 Financial Aid through 2009 Cumulative Pell grant 2,961 2,127 3,780 41 -734 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Cumulative Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Title IV loan balance, 2009 0.593 0.622 0.604 -0.019 0.134 Title IV loan balance, 2009 0.073 0.113 0.234 | Net tuition minus grants | 4,227 | 757 | 5,212 | • | | |
| Pell grant amount | | | | | | | |
| Pell grant amount | Pell grant | 0.465 | 0.409 | 0.888 | | | |
| Cumulative Pell grant 2,961 2,127 3,780 41 -734 (220) (265) | | | | | ` ' | | |
| Financial Aid through 2009 Cumulative Pell grant 2,961 2,127 3,780 41 -734 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Repaid any amount on loan, 0.593 0.622 0.604 -0.019 0.134 conditional on a student loan (0.063) (0.090) Defaulted on loan, 0.073 0.113 0.234 0.084 0.098 conditional on a student loan Persistence and Educational Attainment (0.045) (0.037) Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 Attained certificate 0.227 0.424 0.537 0.086 0.046 Attained AA 0.296 0.076 0.017 | Pell grant amount | 1,272 | 785 | 2,480 | | | |
| Cumulative Pell grant 2,961 2,127 3,780 41 -734 Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Repaid any amount on loan, conditional on a student loan 0.593 0.622 0.604 -0.019 0.134 Conditional on a student loan 0.073 0.113 0.234 0.084 0.098 Conditional on a student loan 0.240 0.355 0.288 -0.020 -0.071 Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 Attained certificate 0.227 0.424 0.537 0.086 0.046 Attained AA 0.296 0.076 0.017 -0.085 -0.065 Still enrolled in 2009 0.319 0.261 0.206 -0.035 -0.079 Idle (not employed, not enrolled) 0.178 0.166 0.269 0.064 0.051 Left survey 0.040 0.067 0.040 -0.022 -0.026 | | | | | (78) | (105) | |
| Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Repaid any amount on loan, conditional on a student loan 0.593 0.622 0.604 -0.019 0.134 conditional on a student loan 0.073 0.113 0.234 0.084 0.098 conditional on a student loan 0.073 0.113 0.234 0.084 0.098 conditional on a student loan 0.073 0.113 0.234 0.084 0.098 conditional on a student loan Persistence and Educational Attainment 0.045 (0.037) Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 Left school in 2003-2004 0.227 0.424 0.537 0.086 0.046 Attained AA 0.296 0.076 0.017 -0.085 -0.065 Attained AA 0.296 0.076 0.017 -0.085 -0.065 Still enrolled in 2009 0.319 <td< td=""><td></td><td></td><td>Financ</td><td>ial Aid through</td><td>2009</td><td></td></td<> | | | Financ | ial Aid through | 2009 | | |
| Cumulative Title IV borrowing 5,019 2,033 4,599 1702 1119 Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 Repaid any amount on loan, conditional on a student loan 0.593 0.622 0.604 -0.019 0.134 conditional on a student loan 0.073 0.113 0.234 0.084 0.098 conditional on a student loan 0.073 0.113 0.234 0.084 0.098 conditional on a student loan Persistence and Educational Attainment 10.045 (0.037) Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 Attained certificate 0.227 0.424 0.537 0.086 0.046 Attained AA 0.296 0.076 0.017 -0.085 -0.065 Still enrolled in 2009 0.319 0.261 0.206 -0.035 -0.079 Idle (not employed, not enrolled) 0.178 0.166 0.269 0.064 0.051 Left survey 0.040 <t< td=""><td>Cumulative Pell grant</td><td>2,961</td><td>2,127</td><td>3,780</td><td>41</td><td>-734</td></t<> | Cumulative Pell grant | 2,961 | 2,127 | 3,780 | 41 | -734 | |
| Title IV loan balance, 2009 4,471 1,884 3,975 1326 847 (349) (418) Repaid any amount on loan, 0.593 0.622 0.604 -0.019 0.134 conditional on a student loan (0.063) (0.090) Defaulted on loan, 0.073 0.113 0.234 0.084 0.098 conditional on a student loan Persistence and Educational Attainment Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 (0.032) (0.032) Attained certificate 0.227 0.424 0.537 0.086 0.046 (0.034) Attained AA 0.296 0.076 0.017 -0.085 -0.065 (0.017) (0.019) Still enrolled in 2009 0.319 0.261 0.206 -0.035 -0.079 (0.032) Idle (not employed, not enrolled) 0.178 0.166 0.269 0.064 0.051 (0.039) Left survey 0.040 0.067 0.040 -0.022 -0.026 | | | | | (220) | (265) | |
| Title IV loan balance, 2009 | Cumulative Title IV borrowing | 5,019 | 2,033 | 4,599 | 1702 | 1119 | |
| Repaid any amount on loan, 0.593 0.622 0.604 -0.019 0.134 conditional on a student loan (0.063) (0.090) Defaulted on loan, 0.073 0.113 0.234 0.084 0.098 conditional on a student loan (0.045) (0.037) Persistence and Educational Attainment Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 (0.032) (0.032) Attained certificate 0.227 0.424 0.537 0.086 0.046 (0.036) (0.034) Attained AA 0.296 0.076 0.017 -0.085 -0.065 (0.017) (0.019) Still enrolled in 2009 0.319 0.261 0.206 -0.035 -0.079 (0.031) (0.029) Idle (not employed, not enrolled) 0.178 0.166 0.269 0.064 0.051 (0.030) (0.029) Left survey 0.040 0.067 0.040 -0.022 -0.026 | | | | | (331) | (404) | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Title IV loan balance, 2009 | 4,471 | 1,884 | 3,975 | 1326 | 847 | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | | (349) | (418) | |
| Defaulted on loan, 0.073 0.113 0.234 0.084 0.098 conditional on a student loan (0.045) (0.037) Persistence and Educational Attainment Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 (0.032) (0.032) Attained certificate 0.227 0.424 0.537 0.086 0.046 (0.036) (0.034) Attained AA 0.296 0.076 0.017 -0.085 -0.065 (0.017) (0.019) Still enrolled in 2009 0.319 0.261 0.206 -0.035 -0.079 (0.031) (0.029) Idle (not employed, not enrolled) 0.178 0.166 0.269 0.064 0.051 (0.039) Left survey 0.040 0.067 0.040 -0.022 -0.026 | Repaid any amount on loan, | 0.593 | 0.622 | 0.604 | -0.019 | 0.134 | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | conditional on a student loan | | | | (0.063) | (0.090) | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Defaulted on loan. | 0.073 | 0.113 | 0.234 | ` ' | ` ' | |
| Persistence and Educational Attainment Left school in 2003-2004 0.240 0.355 0.288 -0.020 -0.071 (0.032) (0.032) | • | 0.073 | 0.113 | 0.234 | | | |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | conditional on a student loan | | Dansistan an as | a d Education al | , , | (0.037) | |
| Attained certificate $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Left school in 2002 2004 | 0.240 | | | | 0.071 | |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | Left school in 2005-2004 | 0.240 | 0.555 | 0.288 | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Attained contificate | 0.227 | 0.424 | 0.527 | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Attained certificate | 0.227 | 0.424 | 0.557 | | | |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | Attained AA | 0.206 | 0.076 | 0.017 | , , | ` / | |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | Attained AA | 0.296 | 0.076 | 0.017 | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Still annulled in 2000 | 0.210 | 0.261 | 0.206 | | · · | |
| Idle (not employed, not enrolled) 0.178 0.166 0.269 0.064 0.051 Left survey 0.040 0.067 0.040 -0.022 -0.026 | Sun emoneu in 2009 | 0.319 | 0.201 | 0.200 | | | |
| (0.030) (0.029) Left survey 0.040 0.067 0.040 -0.022 -0.026 | Idla (not amployed not annalled) | 0.170 | 0 166 | 0.260 | ` / | | |
| Left survey 0.040 0.067 0.040 -0.022 -0.026 | rate (not employed, not enrolled) | 0.1/8 | 0.100 | 0.269 | | | |
| · | I oft ourse. | 0.040 | 0.067 | 0.040 | , , | | |
| (0.014) (0.015) | Left survey | 0.040 | 0.06/ | 0.040 | | | |
| | | | | | (0.014) | (0.015) | |

| | Employment and Earnings (conditional on no longer enrolled) | | | | | | |
|-----------------------------------|---|------------------|--------------|-----------------|---------|--|--|
| Any job in 2009 | 0.711 | 0.779 | 0.669 | -0.065 | -0.100 | | |
| | | | | (0.036) | (0.033) | | |
| Earnings from work in 2009 | 22,652 | 24,138 | 17,471 | -3,041 | -3,584 | | |
| | | | | (1490) | (1422) | | |
| Earnings from work in 2009, | 31,873 | 30,967 | 26,119 | -1,576 | -2,473 | | |
| conditional on employment | | | | (1414) | (1520) | | |
| Unemployed and seeking work | 0.250 | 0.144 | 0.256 | 0.055 | 0.121 | | |
| | | | | (0.033) | (0.032) | | |
| Unemployed more than 3 months | 0.415 | 0.271 | 0.439 | 0.079 | 0.086 | | |
| since leaving school | | | | (0.039) | (0.038) | | |
| Earnings do not meet the | 0.092 | 0.031 | 0.229 | 0.130 | 0.146 | | |
| Gainful Employment standard | | | | (0.025) | (0.023) | | |
| | | atisfaction with | Program, Sch | nool, Loans, Jo | ob | | |
| Remedial coursework | 0.206 | 0.244 | 0.049 | -0.198 | -0.199 | | |
| | | | | (0.026) | (0.027) | | |
| Left school because dissatisfied, | 0.060 | 0.033 | 0.100 | 0.065 | 0.064 | | |
| 2003-2004 | | | | (0.018) | (0.013) | | |
| Left school because dissatisfied, | 0.084 | 0.067 | 0.122 | 0.060 | 0.066 | | |
| 2003-2006 | | | | (0.023) | (0.015) | | |
| Education was worth the cost | 0.798 | 0.878 | 0.712 | -0.230 | -0.221 | | |
| | | | | (0.030) | (0.028) | | |
| Loans were a worthwhile | 0.823 | 0.806 | 0.680 | -0.109 | -0.192 | | |
| Investment | | | | (0.038) | (0.040) | | |
| Satisfied with major | 0.870 | 0.913 | 0.823 | -0.074 | -0.063 | | |
| or course of study | | | | (0.022) | (0.023) | | |
| Satisfied with current job | 0.691 | 0.816 | 0.777 | -0.013 | -0.083 | | |
| (employed, not enrolled) | | | | (0.042) | (0.035) | | |
| | | | | | | | |
| Sample size | 230 | 890 | 1,130 | | | | |

Notes: The regression sample only includes BPS students originally enrolled in a certificate program. The ordinary least squares column reports coefficient estimates (robust standard errors) for a for-profit institution dummy variable in regressions for each dependent variable that include the same additional covariates as those listed in the notes to Table 3. Each number in the Matching column represents the average treatment on the treated estimate (standard error) for going to a for-profit institution using from nearest neighbor (propensity score) matching with replacement and excluding observations outside of common support. The same covariates used in the ordinary least squares regressions were used for the matching models. The ordinary least squares and Matching model estimates use the BPS sampling weights. Unweighted sample sizes are rounded to the nearest 10.

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Appendix Table 4: For-Profit Institution Impact on Student Outcomes for First-Time Undergraduates in Associate's Programs: BPS:04/09

| - | Beginning Postsecondary Students, Associate's Program Enrolle | | | | | | | |
|-----------------------------------|---|-------------------------------|---------------------|------------|----------------------------|--|--|--|
| | | dent Variable | | For-Pro | ofit Institution Impact | | | |
| | (1) Four-Year Public and | (2) Two-Year Public and | (3) For- profits | (4) OLS | (5) Matching | | | |
| Dependent Variables | Non-profits | Non-profits | -1-1 A:1 2002 | 2004 | | | | |
| Amalia d fan Aid | 0.011 | | cial Aid, 2003- | | 0.077 | | | |
| Applied for Aid | 0.911 | 0.770 | 0.983 | 0.108 | 0.077 | | | |
| Title IV lean and amont aid | 4 272 | 1 021 | 7 206 | (0.015) | (0.015) | | | |
| Title IV loan and grant aid | 4,372 | 1,031 | 7,296 | 5,089 | 4,423 | | | |
| The Maria | C 002 | 1 201 | 0.500 | (247) | (254) | | | |
| Tuition | 6,883 | 1,301 | 8,500 | 6,301 | 5,693 | | | |
| NT 44 to | 2.020 | 745 | <i>5.700</i> | (254) | (281) | | | |
| Net tuition minus grants | 3,829 | 745 | 5,798 | 4,885 | 4,795 | | | |
| D 11 | 0.422 | 0.011 | 0.717 | (234) | (247) | | | |
| Pell grant | 0.433 | 0.311 | 0.717 | 0.188 | 0.072 | | | |
| - 44 | | | | (0.022) | (0.031) | | | |
| Pell grant amount | 1,101 | 664 | 1,862 | 494 | 110 | | | |
| | | | | (72) | (103) | | | |
| | | | ial Aid through | | | | | |
| Cumulative Pell grant | 3,440 | 2,615 | 4,537 | 125 | -318 | | | |
| | | | | (201) | (331) | | | |
| Cumulative Title IV borrowing | 8,145 | 3,683 | 10,657 | 5,891 | 5,214 | | | |
| | | | | (639) | (558) | | | |
| Title IV loan balance, 2009 | 7,854 | 3,467 | 10,888 | 6,309 | 5,615 | | | |
| | | | | (675) | (612) | | | |
| Repaid any amount on loan, | 0.547 | 0.644 | 0.432 | -0.142 | -0.080 | | | |
| conditional on a student loan | | | | (0.039) | (0.044) | | | |
| Defaulted on loan, | 0.074 | 0.052 | 0.152 | 0.073 | 0.053 | | | |
| conditional on a student loan | 0.074 | 0.032 | 0.132 | (0.022) | (0.022) | | | |
| conditional on a stadent roun | | Domaiatamaa | nd Educational | | (0.022) | | | |
| Left school in 2003-2004 | 0.138 | 0.217 | 0.121 | -0.083 | -0.095 | | | |
| Left school iii 2003-2004 | 0.136 | 0.217 | 0.121 | | | | | |
| Attained A A | | 0.224 | 0.294 | (0.020) | (0.024) | | | |
| Attained AA | | 0.224 | 0.284 | 0.041 | 0.019 | | | |
| A 44-1-1 A A | | 0.202 | 0.201 | (0.028) | (0.029) | | | |
| Attained AA or more | | 0.283 | 0.291 | -0.006 | -0.016 | | | |
| A 1.D.A | 0.220 | 0.106 | 0.024 | (0.028) | (0.030) | | | |
| Attained BA | 0.238 | 0.106 | 0.034 | -0.073 | -0.068 | | | |
| G.11 11 12 2000 | 0.000 | 0.106 | 0.024 | (0.014) | (0.017) | | | |
| Still enrolled in 2009 | 0.238 | 0.106 | 0.034 | -0.073 | -0.068 | | | |
| 711 / | 0.120 | 0.122 | 0.100 | (0.014) | (0.017) | | | |
| Idle (not employed, not enrolled) | 0.138 | 0.122 | 0.199 | 0.037 | 0.046 | | | |
| | | | | (0.025) | (0.025) | | | |
| Left survey | 0.351 | 0.400 | 0.234 | -0.145 | -0.110 | | | |
| | | | | (0.028) | (0.030) | | | |

| | Employment and Earnings (conditional on no longer enrolled) | | | | | | |
|-----------------------------------|---|------------------|--------------|-----------------|---------|--|--|
| Any job in 2009 | 0.789 | 0.797 | 0.749 | 0.002 | -0.043 | | |
| | | | | (0.032) | (0.031) | | |
| Earnings from work in 2009 | 25,867 | 25,232 | 21,413 | -1,880 | -552 | | |
| | | | | (1449) | (1423) | | |
| Earnings from work in 2009, | 32,786 | 31,673 | 28,593 | -2,794 | -542 | | |
| conditional on employment | | | | (1476) | (1657) | | |
| Unemployed and seeking work | 0.162 | 0.136 | 0.205 | 0.035 | 0.087 | | |
| | | | | (0.029) | (0.029) | | |
| Unemployed more than 3 months | 0.270 | 0.260 | 0.373 | 0.084 | 0.045 | | |
| since leaving school | | | | (0.035) | (0.036) | | |
| Earnings do not meet the | 0.187 | 0.050 | 0.340 | 0.256 | 0.176 | | |
| Gainful Employment standard | | | | (0.031) | (0.030) | | |
| | Sa | atisfaction with | Program, Sch | nool, Loans, Jo | ob | | |
| Remedial coursework | 0.248 | 0.307 | 0.106 | -0.178 | -0.191 | | |
| | | | | (0.022) | (0.026) | | |
| Left school because dissatisfied, | 0.039 | 0.022 | 0.058 | 0.023 | 0.016 | | |
| 2003-2004 | | | | (0.012) | (0.013) | | |
| Left school because dissatisfied, | 0.074 | 0.049 | 0.108 | 0.045 | 0.053 | | |
| 2003-2006 | | | | (0.019) | (0.017) | | |
| Education was worth the cost | 0.789 | 0.807 | 0.571 | -0.230 | -0.221 | | |
| | | | | (0.030) | (0.028) | | |
| Loans were a worthwhile | 0.810 | 0.792 | 0.641 | -0.155 | -0.079 | | |
| Investment | | | | (0.031) | (0.031) | | |
| Satisfied with major | 0.849 | 0.859 | 0.742 | -0.120 | -0.088 | | |
| or course of study | | | | (0.028) | (0.025) | | |
| Satisfied with current job | 0.794 | 0.751 | 0.704 | -0.033 | -0.030 | | |
| (employed, not enrolled) | | | | (0.040) | (0.037) | | |
| Comple size | 870 | 2 720 | 570 | | | | |
| Sample size | 8/0 | 3,720 | 570 | | | | |

Notes: The regression sample only includes BPS students originally enrolled in an associate's degree program. The ordinary least squares column reports coefficient estimates (robust standard errors) for a for-profit institution dummy variable in regressions for each dependent variable that include the same additional covariates as those listed in the notes to Table 3. Each number in the Matching column represents the average treatment on the treated estimate (standard error) for going to a for-profit institution using from nearest neighbor (propensity score) matching with replacement and excluding observations outside of common support. The same covariates used in the ordinary least squares regressions were used for the matching models. The ordinary least squares and Matching model estimates use the BPS sampling weights. Unweighted sample sizes are rounded to the nearest 10.

Appendix Table 5: For-Profit Institution Impact on Student Outcomes for First-Time Undergraduates in Bachelor's Programs: BPS:04/09

| | | | elor's Program Enrollees | | | | | |
|--|--------------------------------------|--|---------------------------|------------------------------|------------------------------|--|--|--|
| | Depen | dent Variable | Means | | fit Institution impact | | | |
| Dependent Variables | (1) Four-Year Public and Non-profits | (2) Two-Year Public and Non-profits | (3) For- profits | (4) OLS | (5) Matching | | | |
| Dependent variables | Non-profits | | cial Aid, 2003- | 2004 | | | | |
| Applied for Aid | 0.897 | 0.754 | 0.989 | 0.123 (0.019) | 0.111 (0.028) | | | |
| Title IV loan and grant aid | 3,837 | 1,227 | 8,518 | 5,199 (692) | 3,505 (641) | | | |
| Tuition | 9,680 | 1,494 | 10,060 | 5,084 (475) | 2,205 (795) | | | |
| Net tuition minus grants | 5,415 | 918 | 6,741 | 4,464 (520) | 3,498 (600) | | | |
| Pell grant | 0.268 | 0.274 | 0.564 | 0.112 (0.031) | -0.028 (0.056) | | | |
| Pell grant amount | 733 | 631 | 1535 | 319 (111) | -173 (176) | | | |
| | Financial Aid through 2009 | | | | | | | |
| Cumulative Pell grant | 2,903 | 2,398 | 4,257 | -358 (412) | -1,067 (608) | | | |
| Cumulative Title IV borrowing | 8,993 | 4,483 | 13,750 | 4,744 (1262) | 3,222 (1383) | | | |
| Title IV loan balance, 2009 | 8,273 | 4,284 | 13,924 | 5,240 (1392) | 3,439 (1503) | | | |
| Repaid any amount on loan, conditional on a student loan | 0.652 | 0.638 | 0.476 | -0.138 | -0.189 | | | |
| Defaulted on loan, | 0.029 | 0.058 | 0.092 | (0.062) 0.020 | (0.075) | | | |
| conditional on a student loan | | D | d. 17 days - 43 s 1 | (0.036) | (0.034) | | | |
| Left school in 2003-2004 | 0.043 | 0.151 | and Educational 0.108 | -0.020 | -0.028 | | | |
| Attained BA | 0.658 | 0.203 | 0.262 | (0.032) -0.115 | (0.036) -0.194 | | | |
| Still enrolled in 2009 | 0.257 | 0.409 | 0.222 | (0.045) -0.142 | (0.052) -0.022 | | | |
| Idle (not employed, not enrolled) | 0.099 | 0.112 | 0.199 | (0.041) 0.088 | (0.050) 0.072 | | | |
| Left survey | 0.109 | 0.146 | 0.116 | (0.039) -0.016 (0.034) | (0.045) -0.028 (0.038) | | | |
| Any job in 2009 | Employm 0.852 | nent and Earnir 0.821 | ngs (conditional 0.749 | | , , | | | |

| Earnings from work in 2009 | 29,434 | 25,130 | 28,159 | 500 | -1,065 |
|-----------------------------------|--------|------------------|--------------|-----------------|---------|
| - | | | | (2629) | (2723) |
| Earnings from work in 2009, | 34,528 | 30,617 | 37,578 | 3,471 | 1,014 |
| conditional on employment | | | | (2707) | (2685) |
| Unemployed and seeking work | 0.110 | 0.142 | 0.223 | 0.091 | 0.136 |
| | | | | (0.044) | (0.049) |
| Unemployed more than 3 months | 0.227 | 0.255 | 0.353 | 0.098 | 0.047 |
| since leaving school | | | | (0.052) | (0.051) |
| Earnings do not meet the | 0.131 | 0.060 | 0.298 | 0.157 | 0.183 |
| Gainful Employment standard | | | | (0.051) | (0.055) |
| | Sa | atisfaction with | Program, Sch | nool, Loans, Jo | ob |
| Remedial coursework | 0.167 | 0.295 | 0.122 | -0.098 | -0.128 |
| | | | | (0.033) | (0.043) |
| Left school because dissatisfied, | 0.007 | 0.020 | 0.046 | 0.025 | 0.033 |
| 2003-2004 | | | | (0.019) | (0.019) |
| Left school because dissatisfied, | 0.026 | 0.038 | 0.101 | 0.060 | 0.072 |
| 2003-2006 | | | | (0.029) | (0.025) |
| Education was worth the cost | 0.806 | 0.799 | 0.581 | -0.207 | -0.167 |
| | | | | (0.048) | (0.050) |
| Loans were a worthwhile | 0.843 | 0.819 | 0.685 | -0.133 | -0.058 |
| Investment | | | | (0.049) | (0.053) |
| Satisfied with major | 0.862 | 0.898 | 0.776 | -0.089 | -0.067 |
| or course of study | | | | (0.045) | (0.039) |
| Satisfied with current job | 0.776 | 0.772 | 0.787 | 0.057 | -0.011 |
| (employed, not enrolled) | | | | (0.053) | (0.069) |
| | | | | | |
| Sample size | 7,180 | 650 | 180 | | |

Notes: The regression sample only includes BPS students originally enrolled in a bachelor's degree program. The ordinary least squares column reports coefficient estimates (robust standard errors) for a for-profit institution dummy variable in regressions for each dependent variable that include the same additional covariates as those listed in the notes to Table 3. Each number in the Matching column represents the average treatment on the treated estimate (standard error) for going to a for-profit institution using from nearest neighbor (propensity score) matching with replacement and excluding observations outside of common support. The same covariates used in the ordinary least squares regressions were used for the matching models. The ordinary least squares and Matching model estimates use the BPS sampling weights. Unweighted sample sizes are rounded to the nearest 10.