### Appendix Table A1: American Community Survey Occupations and Classifications by Group

<table>
<thead>
<tr>
<th>Occ. #</th>
<th>Occupation title</th>
<th>Occ. #</th>
<th>Occupation title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technology Occupations</td>
<td></td>
<td>Business Occupations</td>
</tr>
<tr>
<td>11</td>
<td>Computer and information systems managers</td>
<td>1</td>
<td>Chief executives and legislators</td>
</tr>
<tr>
<td>30</td>
<td>Engineering managers</td>
<td>2</td>
<td>General and operations managers</td>
</tr>
<tr>
<td>100</td>
<td>Computer scientists and systems analysts</td>
<td>4</td>
<td>Advertising and promotions managers</td>
</tr>
<tr>
<td>101</td>
<td>Computer programmers</td>
<td>5</td>
<td>Marketing and sales managers</td>
</tr>
<tr>
<td>102</td>
<td>Computer software engineers</td>
<td>6</td>
<td>Public relations managers</td>
</tr>
<tr>
<td>104*</td>
<td>Computer support specialists</td>
<td>10</td>
<td>Administrative services managers</td>
</tr>
<tr>
<td>110</td>
<td>Network and computer systems admins.</td>
<td>12</td>
<td>Financial managers</td>
</tr>
<tr>
<td>111*</td>
<td>Network systems, data analysts</td>
<td>13</td>
<td>Human resources managers</td>
</tr>
<tr>
<td>120</td>
<td>Actuaries</td>
<td>14</td>
<td>Industrial production managers</td>
</tr>
<tr>
<td>122</td>
<td>Operations research analysts</td>
<td>15</td>
<td>Purchasing managers</td>
</tr>
<tr>
<td>132</td>
<td>Aerospace engineers</td>
<td>60</td>
<td>Cost estimators</td>
</tr>
<tr>
<td>134</td>
<td>Biomedical and agricultural engineers</td>
<td>71</td>
<td>Management analysts</td>
</tr>
<tr>
<td>135</td>
<td>Chemical engineers</td>
<td>73</td>
<td>Other business operations specialists</td>
</tr>
<tr>
<td>136</td>
<td>Civil Engineers</td>
<td>80</td>
<td>Accountants and auditors</td>
</tr>
<tr>
<td>140</td>
<td>Computer hardware engineers</td>
<td>82</td>
<td>Budget analysts</td>
</tr>
<tr>
<td>141</td>
<td>Electrical and electronics engineers</td>
<td>84</td>
<td>Financial analysts</td>
</tr>
<tr>
<td>142</td>
<td>Environmental engineers</td>
<td>85</td>
<td>Personal financial advisors</td>
</tr>
<tr>
<td>143</td>
<td>Industrial engineers, incl. health and safety</td>
<td>86</td>
<td>Insurance underwriters</td>
</tr>
<tr>
<td>144</td>
<td>Marine engineers and naval architects</td>
<td>90</td>
<td>Financial examiners</td>
</tr>
<tr>
<td>145</td>
<td>Materials engineers</td>
<td>91</td>
<td>Loan counselors and officers</td>
</tr>
<tr>
<td>146</td>
<td>Mechanical engineers</td>
<td>95</td>
<td>Financial specialists, all other</td>
</tr>
<tr>
<td>152</td>
<td>Petroleum, mining and geological engineers</td>
<td>106</td>
<td>Database administrators</td>
</tr>
<tr>
<td>153</td>
<td>Misc. engineers including nuclear engineers</td>
<td>180</td>
<td>Economists</td>
</tr>
<tr>
<td>155*</td>
<td>Engineering technicians, except drafters</td>
<td>181</td>
<td>Market and survey researchers</td>
</tr>
<tr>
<td>284</td>
<td>Technical writers</td>
<td>481</td>
<td>Insurance sales agents</td>
</tr>
<tr>
<td>493</td>
<td>Sales engineers</td>
<td>482</td>
<td>Securities, commodities, financial sales agents</td>
</tr>
<tr>
<td>903</td>
<td>Aircraft pilots and flight engineers</td>
<td>484</td>
<td>Sales representatives, services, all other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>485</td>
<td>Sales representatives, wholesale and mfg.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>520</td>
<td>Brokerage clerks</td>
</tr>
</tbody>
</table>
### Table A1 (continued)

<table>
<thead>
<tr>
<th>Occ.</th>
<th>Occupation title</th>
<th>Occ.</th>
<th>Occupation title</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td></td>
<td>#</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Medical and health services managers</td>
<td>22</td>
<td>Construction managers</td>
</tr>
<tr>
<td>36</td>
<td>Natural sciences managers</td>
<td>23</td>
<td>Education administrators</td>
</tr>
<tr>
<td>182</td>
<td>Psychologists</td>
<td>32</td>
<td>Funeral directors, undertakers, misc. managers</td>
</tr>
<tr>
<td>300</td>
<td>Chiropractors</td>
<td>43</td>
<td>Misc. managers including postmasters</td>
</tr>
<tr>
<td>301</td>
<td>Dentists</td>
<td>56</td>
<td>Compliance officers, with exceptions</td>
</tr>
<tr>
<td>304</td>
<td>Optometrists</td>
<td>130</td>
<td>Architects, except naval</td>
</tr>
<tr>
<td>305</td>
<td>Pharmacists</td>
<td>184</td>
<td>Urban and regional planners</td>
</tr>
<tr>
<td>306</td>
<td>Physicians and surgeons</td>
<td>210</td>
<td>Lawyers, and judges, magistrates, etc.</td>
</tr>
<tr>
<td>311</td>
<td>Physician assistants</td>
<td>220</td>
<td>Postsecondary teachers</td>
</tr>
<tr>
<td>312</td>
<td>Podiatrists</td>
<td>271</td>
<td>Producers and directors</td>
</tr>
<tr>
<td>313</td>
<td>Registered nurses</td>
<td>282</td>
<td>Public relations specialists</td>
</tr>
<tr>
<td>314</td>
<td>Audiologists</td>
<td>371</td>
<td>First-line supervisors of police and detectives</td>
</tr>
<tr>
<td>315</td>
<td>Occupational therapists</td>
<td>382</td>
<td>Detectives and criminal investigators</td>
</tr>
<tr>
<td>316</td>
<td>Physical therapists</td>
<td>471</td>
<td>First-line supervisors, non-retail sales</td>
</tr>
<tr>
<td>320</td>
<td>Radiation therapists</td>
<td>490</td>
<td>Models, demonstrators, product promoters</td>
</tr>
<tr>
<td>323</td>
<td>Speech-language pathologists</td>
<td>496</td>
<td>Sales and related workers, all other</td>
</tr>
<tr>
<td>325</td>
<td>Veterinarians</td>
<td>904</td>
<td>Air traffic controllers and operations specialists</td>
</tr>
<tr>
<td>326</td>
<td>Health diagnosing and treating practitioners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Misc. mathematical science occupations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>165</td>
<td>Medical scientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>170</td>
<td>Astronomers and physicists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>Atmospheric and space scientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>Chemists and materials scientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>Environmental scientists and geoscientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>176</td>
<td>Physical scientists, all other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Indicates a technology occupation included in the expanded group of 27 technology occupations used in on-line Appendix Table A2.
### Appendix Table A2: Role of Industry versus Occupation in the Impact of Technology on the Gender Earnings Gap

<table>
<thead>
<tr>
<th>Dependent variable: Log Wage and Business Annual Income</th>
<th>(1) Basic Regression</th>
<th>(2) Adding Fraction in Technology</th>
<th>(3) Adding Technology × Female</th>
<th>(4) Adding Occupation × Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>-0.129***</td>
<td>-0.125***</td>
<td>-0.129***</td>
<td>-0.122***</td>
</tr>
<tr>
<td></td>
<td>(0.00348)</td>
<td>(0.00349)</td>
<td>(0.00485)</td>
<td>(0.0824)</td>
</tr>
<tr>
<td>Log hours</td>
<td>0.506***</td>
<td>0.499***</td>
<td>0.499***</td>
<td>0.500***</td>
</tr>
<tr>
<td></td>
<td>(0.0118)</td>
<td>(0.0118)</td>
<td>(0.0118)</td>
<td>(0.0118)</td>
</tr>
<tr>
<td>Log weeks</td>
<td>1.112***</td>
<td>1.129***</td>
<td>1.129***</td>
<td>1.128***</td>
</tr>
<tr>
<td></td>
<td>(0.0493)</td>
<td>(0.0492)</td>
<td>(0.0492)</td>
<td>(0.0491)</td>
</tr>
<tr>
<td>Fraction of industry in technology</td>
<td>0.129***</td>
<td>0.125***</td>
<td>0.125***</td>
<td>0.125***</td>
</tr>
<tr>
<td></td>
<td>(0.00724)</td>
<td>(0.00801)</td>
<td>(0.00801)</td>
<td>(0.00808)</td>
</tr>
<tr>
<td>Fraction in technology × female</td>
<td>0.0170</td>
<td>0.0187</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0169)</td>
<td>(0.0178)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other variables included:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age as a quartic</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dummy variables:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Education</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Occupation (27)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Occupation (27) × female</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>1.241**</td>
<td>1.244**</td>
<td>1.245**</td>
<td>1.253**</td>
</tr>
<tr>
<td></td>
<td>(0.570)</td>
<td>(0.569)</td>
<td>(0.569)</td>
<td>(0.569)</td>
</tr>
<tr>
<td>Observations</td>
<td>156,201</td>
<td>156,201</td>
<td>156,201</td>
<td>156,201</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.294</td>
<td>0.296</td>
<td>0.296</td>
<td>0.297</td>
</tr>
</tbody>
</table>

Sources and Notes: American Community Survey 2009 to 2011, 27 technology occupations included (see on-line Appendix Table A1). Only full-time, full-year workers, 25 to 64 years old are included. Education is primarily in years but uses census groupings. Fraction in technology is the fraction of the individual’s industry employment in the 27 technology occupations (see online Appendix Table A3). Omitted occupation is computer scientists and systems analysts. Robust standard errors are in parentheses.

*** p < 0.01  
** p < 0.05  
* p < 0.1
## Appendix Table A3: Fraction of Industry Employment in Technology Occupations: 35 Highest Industries (of 267), 2009 to 2011

<table>
<thead>
<tr>
<th>Industry</th>
<th>ACS number</th>
<th>Fraction in Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer systems design and related services</td>
<td>7380</td>
<td>0.642</td>
</tr>
<tr>
<td>Software publishing</td>
<td>6490</td>
<td>0.458</td>
</tr>
<tr>
<td>Aerospace product and parts mfg.</td>
<td>3590</td>
<td>0.410</td>
</tr>
<tr>
<td>Computer and peripheral equipment mfg.</td>
<td>3360</td>
<td>0.406</td>
</tr>
<tr>
<td>Architectural, engineering, and related services</td>
<td>7290</td>
<td>0.372</td>
</tr>
<tr>
<td>Internet publishing and broadcasting</td>
<td>6672</td>
<td>0.372</td>
</tr>
<tr>
<td>Electronic component and product mfg., n.e.c.</td>
<td>3390</td>
<td>0.363</td>
</tr>
<tr>
<td>Communications, audio, and video equipment mfg.</td>
<td>3370</td>
<td>0.356</td>
</tr>
<tr>
<td>Data processing, hosting, and related services</td>
<td>6695</td>
<td>0.308</td>
</tr>
<tr>
<td>Navigational, measuring, electromedical, mfg.</td>
<td>3380</td>
<td>0.279</td>
</tr>
<tr>
<td>Other telecommunication services</td>
<td>6690</td>
<td>0.270</td>
</tr>
<tr>
<td>Aircraft and parts mfg.</td>
<td>3580</td>
<td>0.268</td>
</tr>
<tr>
<td>Electronic auctions</td>
<td>5591</td>
<td>0.252</td>
</tr>
<tr>
<td>Wired telecommunications carriers</td>
<td>6680</td>
<td>0.225</td>
</tr>
<tr>
<td>Air transportation</td>
<td>6070</td>
<td>0.212</td>
</tr>
<tr>
<td>Other information services</td>
<td>6780</td>
<td>0.204</td>
</tr>
<tr>
<td>Engines, turbines, and power transmission equipment mfg.</td>
<td>3180</td>
<td>0.181</td>
</tr>
<tr>
<td>Scientific research and development services</td>
<td>7460</td>
<td>0.180</td>
</tr>
<tr>
<td>Commercial and service industry machinery mfg.</td>
<td>3090</td>
<td>0.179</td>
</tr>
<tr>
<td>Electronic shopping and mail-order houses</td>
<td>5590</td>
<td>0.169</td>
</tr>
<tr>
<td>National security and international affairs</td>
<td>9590</td>
<td>0.165</td>
</tr>
<tr>
<td>Medical equipment and supplies mfg.</td>
<td>3960</td>
<td>0.154</td>
</tr>
<tr>
<td>Electric and gas and other combinations</td>
<td>590</td>
<td>0.151</td>
</tr>
<tr>
<td>Electrical machinery, equipment, and supplies mfg., n.e.c.</td>
<td>3490</td>
<td>0.149</td>
</tr>
<tr>
<td>Radio, TV, and computer stores</td>
<td>4790</td>
<td>0.145</td>
</tr>
<tr>
<td>Administration of economic programs and space research</td>
<td>9570</td>
<td>0.144</td>
</tr>
<tr>
<td>Electric power generation transmission and distribution</td>
<td>570</td>
<td>0.143</td>
</tr>
<tr>
<td>Construction mining and oil field machinery mfg.</td>
<td>3080</td>
<td>0.142</td>
</tr>
<tr>
<td>Petroleum refining</td>
<td>2070</td>
<td>0.140</td>
</tr>
<tr>
<td>Oil and gas extraction</td>
<td>370</td>
<td>0.129</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>7570</td>
<td>0.126</td>
</tr>
<tr>
<td>Other transportation equipment mfg.</td>
<td>3690</td>
<td>0.126</td>
</tr>
<tr>
<td>Management, scientific and technical consulting services</td>
<td>7390</td>
<td>0.123</td>
</tr>
<tr>
<td>Machinery manufacturing, n.e.c.</td>
<td>3190</td>
<td>0.121</td>
</tr>
<tr>
<td>Motor vehicles and motor vehicle equipment mfg.</td>
<td>3570</td>
<td>0.120</td>
</tr>
</tbody>
</table>
Sources and Notes: American Community Survey 2009 to 2011. “Fraction in technology” is the fraction of full-time, full-year, 25 to 64 year old employees who are in one of the 27 technology occupations in on-line Appendix Table A1. 59 percent of all workers in technology occupations are in these highest 35 industries.