**Examining training motivations among public health workers**

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### Appendix A: Role Reclassifications

*Derived from Yeager, et al. 2018. “*Public Health Workforce Self-Identified Training Needs by Jurisdiction and Job Type” *Journal of Public Health Management and Practice.*

|  |  |
| --- | --- |
| **Business Support**Clerical Personnel - Administrative AssistantClerical Personnel - SecretaryBusiness Support - Accountant/FiscalLicensure/Regulation/Enforcement WorkerOther Business Support ServicesBusiness Support services – AdministratorEmergency Preparedness/Management WorkerHuman Resources PersonnelGrants or Contracts SpecialistPublic Information SpecialistBusiness Support services - CoordinatorQuality Improvement WorkerPolicy AnalystProgram EvaluatorAttorney or Legal CounselPopulation Health SpecialistImplementation Specialist Economist**Community Health Workers**Health EducatorSocial Worker/Social Services ProfessionalNursing and Home Health AideCommunity Health WorkerBehavioral Health Professional**Environmental Workers**Environmental Health WorkerSanitarian or Inspector**Epidemiologists**Epidemiologist**Information Technology**Information Systems Manager/Information Technology SpecialistPublic Health Informatics Specialist | **Laboratory Staff**Laboratory Scientist/Medical TechnologistLaboratory TechnicianLaboratory Aide or AssistantLaboratory Quality Control Worker**Management**Public Health Manager or Program ManagerProgram DirectorDepartment/Bureau DirectorHealth OfficerDeputy DirectorPublic Health Agency Director**Nurse**Registered Nurse – Public Health or Community Health NurseRegistered Nurse - UnspecifiedOther Registered Nurse – Clinical Services**Other Clinical**Nutritionist or DietitianDisease Intervention SpecialistPeer CounselorOther Oral Health ProfessionalPublic Health/Preventive Medicine PhysicianMedical ExaminerPublic Health DentistEmergency Medical Technician/Advanced Emergency Medical Technician/ParamedicHealth NavigatorPharmacistEmergency Medical Services WorkerPhysician AssistantPublic Health Veterinarian**Unspecified**OtherEngineerOther Facilities or Operations WorkerStudent, Professional or ScientificCustodianAnimal Control Worker |

### Appendix B: Training Needs Items by Supervisory Tier and Domain

*From PH WINS Instrument supplied by ASTHO. Items are presented in the order in which they appear in the instrument. All respondents were asked to evaluate the following two questions for each training need item listed.*

1. How important is this item in your day-to-day work?

*Response Options*

Not Important

Somewhat Unimportant

Somewhat Important

Very Important

1. What is your current skill level for this item?

 *Response Options*

 Not applicable

 Unable to Perform

 Beginner

 Proficient

 Expert

*Supervisory Tiers*

* Tier 1: Non-Supervisors
* Tier 2: Supervisors and Managers
* Tier 3: Executives

|  |  |  |
| --- | --- | --- |
| Tier | Item Text | Training Need Domain |
| Tier 1 | Effectively target communications to different audiences | Effective communication |
| Tier 1 | Communicate in a way that persuades others to act | Effective communication |
| Tier 1 | Identify appropriate sources of data and information to assess the health of a community | Data for decision-making |
| Tier 1 | Collect valid data for use in decision making | Data for decision-making |
| Tier 1 | Identify evidence-based approaches to address public health issues | Data for decision-making |
| Tier 1 | Describe the value of a diverse public health workforce | Cultural competency |
| Tier 1 | Support inclusion of health equity and social justice principles into planning for program and service delivery | Cultural competency |
| Tier 1 | Deliver socially, culturally, and linguistically appropriate programs and customer service | Cultural competency |
| Tier 1 | Describe financial analysis methods applicable to program and service delivery | Budget & financial management |
| Tier 1 | Describe how public health funding mechanisms support agency programs and services | Budget & financial management |
| Tier 1 | Describe the value of an agency business plan | Budget & financial management |
| Tier 1 | Describe the influence of internal changes on organizational practices | Change management |
| Tier 1 | Assess the external drivers in your environment that may influence your work | Change management |
| Tier 1 | Describe how social determinants of health impact the health of individuals, families, and the overall community | Systems and strategic thinking |
| Tier 1 | Participate in quality improvement processes for agency programs and services | Systems and strategic thinking |
| Tier 1 | Describe the value of community strategic planning that results in a community health assessment or community health improvement plan | Developing a vision for a healthy community |
| Tier 1 | Describe your agency’s strategic priorities, mission, and vision | Systems and strategic thinking |
| Tier 1 | Describe the importance of engaging community members in the design and implementation of programs to improve health in a community | Developing a vision for a healthy community |
| Tier 1 | Engage community assets and resources to improve health in a community | Cross-sectoral partnerships |
| Tier 1 | Collaborate with public health personnel across the agency to improve the health of the community | Cross-sectoral partnerships |
| Tier 1 | Describe your role in improving the health of the community served by the agency | Developing a vision for a healthy community |
| Tier 2 | Communicate in a way that different audiences can understand | Effective communication |
| Tier 2 | Communicate in a way that persuades others to act | Effective communication |
| Tier 2 | Identify appropriate sources of data and information to assess the health of a community | Data for decision-making |
| Tier 2 | Use valid data to drive decision making | Data for decision-making |
| Tier 2 | Apply evidence-based approaches to address public health issues | Data for decision-making |
| Tier 2 | Support development of a diverse public health workforce | Cultural competency |
| Tier 2 | Incorporate health equity and social justice principles into planning for programs and services | Cultural competency |
| Tier 2 | Implement socially, culturally, and linguistically appropriate policies, programs, and services that reflect the diversity of individuals and populations in a community | Cultural competency |
| Tier 2 | Use financial analysis methods in managing programs and services | Budget & financial management |
| Tier 2 | Identify funding mechanisms and procedures to develop sustainable funding models for programs and services | Budget & financial management |
| Tier 2 | Implement a business plan for agency programs and services | Budget & financial management |
| Tier 2 | Modify programmatic practices in consideration of internal and external changes | Change management |
| Tier 2 | Assess the drivers in your environment that may influence public health programs and services | Change management |
| Tier 2 | Integrate current and projected trends into strategic planning for programs and services | Systems and strategic thinking |
| Tier 2 | Build cross-sector partnerships to address social determinants of health | Systems and strategic thinking |
| Tier 2 | Apply quality improvement processes to improve agency programs and services | Systems and strategic thinking |
| Tier 2 | Apply findings from a community health assessment or community health improvement plan to agency programs and services | Developing a vision for a healthy community |
| Tier 2 | Implement an organizational strategic plan | Systems and strategic thinking |
| Tier 2 | Engage community members in the design and implementation of programs to improve health in a community | Developing a vision for a healthy community |
| Tier 2 | Identify and engage assets and resources that can be used to improve health in a community | Cross-sectoral partnerships |
| Tier 2 | Engage in collaborations within the public health system, including traditional and non-traditional partners, to improve the health of a community. | Cross-sectoral partnerships |
| Tier 2 | Assess how agency policies, programs, and services advance population health | Developing a vision for a healthy community |
| Tier 3 | Communicate in a way that different audiences can understand | Effective communication |
| Tier 3 | Communicate in a way that persuades others to act | Effective communication |
| Tier 3 | Ensure the use of appropriate sources of data and information to assess the health of a community | Data for decision-making |
| Tier 3 | Use valid data to drive decision making | Data for decision-making |
| Tier 3 | Ensure the application of evidence-based approaches to address public health issues | Data for decision-making |
| Tier 3 | Develop a diverse public health workforce | Cultural competency |
| Tier 3 | Incorporate health equity and social justice principles into planning across the agency  | Cultural competency |
| Tier 3 | Ensure the implementation of socially, culturally, and linguistically appropriate policies, programs, and services that reflect the diversity of individuals and populations in a community | Cultural competency |
| Tier 3 | Use financial analysis methods in making decisions about programs and services across the agency | Budget & financial management |
| Tier 3 | Leverage funding mechanisms and procedures to develop sustainable funding models for the agency | Budget & financial management |
| Tier 3 | Design a business plan for the agency | Budget & financial management |
| Tier 3 | Manage organizational change in response to evolving internal and external circumstances | Change management |
| Tier 3 | Assess the drivers in your environment that may influence public health programs and services across the agency | Change management |
| Tier 3 | Integrate current and projected trends into organizational strategic planning | Systems and strategic thinking |
| Tier 3 | Influence policies external to the organization that address social determinants of health | Systems and strategic thinking |
| Tier 3 | Create a culture of quality improvement at the agency or division level | Systems and strategic thinking |
| Tier 3 | Ensure health department representation in a collaborative process resulting in a community health assessment or community health improvement plan | Developing a vision for a healthy community |
| Tier 3 | Ensure the successful implementation of an organizational strategic plan | Systems and strategic thinking |
| Tier 3 | Ensure community member engagement in the design and implementation of programs to improve health in a community | Developing a vision for a healthy community |
| Tier 3 | Negotiate with multiple partners for the use of assets and resources to improve health in a community | Cross-sectoral partnerships |
| Tier 3 | Build collaborations within the public health system among traditional and non- traditional partners to improve the health of a community | Cross-sectoral partnerships |
| Tier 3 | Advocate for needed population health services and programs | Developing a vision for a healthy community |

Appendix C: Latent Class Analysis Model Fit Statistics

| **Classes** | **LL** | **G2** | **AIC** | **BIC** | **Entropy** | **DF** |
| --- | --- | --- | --- | --- | --- | --- |
| 3 | -271 622.2 | 16 003.569 | 543 314.5 | 543 618.2 | 6.28 | 2 012 |
| 4a | -268 009.2 | 8 777.508 | 536 112.4 | 536 520.3 | 6.19 | 2 000 |
| 5 | -267 230.9 | 7 220.808 | 534 579.7 | 535 091.7 | 6.16 | 1 988 |

*Note:* a Model with n=4 classes was chosen for presentation and further analysis.

LL: log likelihood

G2: likelihood ratio

AIC: Akaike Information Criterion

BIC: Bayesian Information Criterion

DF: degrees of freedom

Appendix D: Training Domain Regression Results

|  |
| --- |
|  |
|  | **Training Domains**a |
|  | Any Training Needb | Budget/ Financial Mgt | Communication | Data for Decisions | Cultural Competency | Change Management | Vision for Communities | Cross-Sectoral Partnerships | Systems/ Strategic Thinking |
| **Motivational Class** *(ref: Personal Growth)* |  |  |  |  |  |  |  |
| Indiscriminate | 0.073 | 0.088 | 0.130 | 0.006 | 0.106 | 0.004 | 0.057 | 0.027 | 0.053 |
|  | (-0.165, 0.311) | (-0.067, 0.243) | (0.007, 0.253) | (-0.127, 0.139) | (-0.078, 0.291) | (-0.104, 0.112) | (-0.076, 0.190) | (-0.105, 0.158) | (-0.169, 0.275) |
|  | p = 0.560 | p = 0.290 | p = 0.060 | p = 0.931 | p = 0.281 | p = 0.945 | p = 0.419 | p = 0.697 | p = 0.647 |
|  |  |  |  |  |  |  |  |  |  |
| Org Accommodation | -0.096 | -0.011 | 0.104 | -0.190 | 0.024 | -0.087 | 0.031 | -0.002 | 0.030 |
|  | (-0.189, -0.003) | (-0.130, 0.109) | (-0.044, 0.252) | (-0.377, -0.003) | (-0.070, 0.117) | (-0.214, 0.040) | (-0.062, 0.124) | (-0.109, 0.106) | (-0.103, 0.164) |
|  | p = 0.066 | p = 0.864 | p = 0.195 | p = 0.070 | p = 0.625 | p = 0.206 | p = 0.523 | p = 0.974 | p = 0.665 |
|  |  |  |  |  |  |  |  |  |  |
| Org Pressure | 0.035 | 0.028 | 0.085 | 0.071 | 0.062 | -0.156 | 0.111 | 0.134 | 0.100 |
|  | (-0.307, 0.377) | (-0.277, 0.333) | (-0.046, 0.216) | (-0.219, 0.362) | (-0.082, 0.207) | (-0.320, 0.009) | (-0.176, 0.397) | (-0.133, 0.401) | (-0.236, 0.436) |
|  | p = 0.846 | p = 0.861 | p = 0.228 | p = 0.640 | p = 0.414 | p = 0.088 | p = 0.463 | p = 0.346 | p = 0.571 |
|  |  |  |  |  |  |  |  |  |  |
| **Gender** *(ref: Male)* |  |  |  |  |  |  |  |  |
| Female | 0.311 | 0.450 | 0.415 | 0.149 | 0.206 | 0.472 | 0.268 | 0.249 | 0.269 |
|  | (0.133, 0.490) | (0.243, 0.656) | (0.107, 0.724) | (0.015, 0.284) | (-0.001, 0.414) | (0.211, 0.733) | (0.118, 0.418) | (0.112, 0.386) | (0.129, 0.408) |
|  | p = 0.006\*\* | p = 0.002\*\* | p = 0.022\* | p = 0.051 | p = 0.075 | p = 0.005\*\* | p = 0.005\*\* | p = 0.004\*\* | p = 0.003\*\* |
|  |  |  |  |  |  |  |  |  |  |
| Non-Binary/Other | -0.142 | 0.030 | 0.351 | -0.040 | -0.246 | 0.099 | -0.236 | -0.206 | 0.130 |
|  | (-0.539, 0.255) | (-0.443, 0.503) | (-0.092, 0.794) | (-0.563, 0.482) | (-0.776, 0.284) | (-0.347, 0.544) | (-0.688, 0.216) | (-0.666, 0.253) | (-0.230, 0.490) |
|  | p = 0.497 | p = 0.903 | p = 0.147 | p = 0.883 | p = 0.381 | p = 0.673 | p = 0.326 | p = 0.397 | p = 0.493 |
|  |  |  |  |  |  |  |  |  |  |
| **Age Category** *(ref: Under 26y)* |  |  |  |  |  |  |  |  |
| 26-45y | -0.197 | 0.021 | **-0.629** | **-0.450** | -0.451 | -0.050 | -0.057 | -0.225 | -0.164 |
|  | (-0.379, -0.015) | (-0.241, 0.283) | (-0.835, -0.423) | (-0.610, -0.290) | (-0.711, -0.191) | (-0.274, 0.174) | (-0.241, 0.126) | (-0.382, -0.068) | (-0.334, 0.006) |
|  | p = 0.056 | p = 0.878 | p < 0.001\*\*\* | p < 0.001\*\*\* | p = 0.006\*\* | p = 0.669 | p = 0.552 | p = 0.016\* | p = 0.084 |
|  |  |  |  |  |  |  |  |  |  |
| 46 or above | -0.342 | -0.044 | **-0.971** | **-0.569** | **-0.675** | -0.241 | -0.163 | -0.352 | -0.260 |
|  | (-0.611, -0.073) | (-0.377, 0.290) | (-1.153, -0.788) | (-0.815, -0.323) | (-0.873, -0.476) | (-0.487, 0.005) | (-0.400, 0.075) | (-0.611, -0.093) | (-0.534, 0.015) |
|  | p = 0.029\* | p = 0.802 | p < 0.001\*\*\* | p = 0.001\*\*\* | p < 0.001\*\*\* | p = 0.080 | p = 0.205 | p = 0.021\* | p = 0.089 |
|  |  |  |  |  |  |  |  |  |  |
| **Race/Ethnicity** *(ref: Other)* |  |  |  |  |  |  |  |  |
| Black/African-Amer. | -0.308 | -0.253 | -0.746 | 0.030 | **-0.302** | -0.445 | -0.304 | -0.364 | -0.248 |
|  | (-0.495, -0.121) | (-0.497, -0.010) | (-1.307, -0.185) | (-0.439, 0.498) | (-0.429, -0.175) | (-0.869, -0.021) | (-0.522, -0.087) | (-0.538, -0.191) | (-0.441, -0.055) |
|  | p = 0.008\*\* | p = 0.065 | p = 0.024\* | p = 0.904 | p = 0.001\*\*\* | p = 0.063 | p = 0.018\* | p = 0.002\*\* | p = 0.028\* |
|  |  |  |  |  |  |  |  |  |  |
| Hispanic or Latino | -0.117 | -0.127 | -0.525 | -0.053 | -0.145 | -0.267 | -0.238 | -0.356 | -0.178 |
|  | (-0.282, 0.048) | (-0.421, 0.168) | (-0.958, -0.092) | (-0.355, 0.249) | (-0.372, 0.081) | (-0.559, 0.025) | (-0.514, 0.038) | (-0.665, -0.048) | (-0.445, 0.089) |
|  | p = 0.191 | p = 0.416 | p = 0.036\* | p = 0.737 | p = 0.234 | p = 0.099 | p = 0.118 | p = 0.043\* | p = 0.217 |
|  |  |  |  |  |  |  |  |  |  |
| White | -0.117 | -0.235 | -0.477 | -0.033 | 0.097 | -0.361 | -0.303 | -0.347 | -0.201 |
|  | (-0.527, 0.293) | (-0.602, 0.132) | (-1.019, 0.065) | (-0.222, 0.157) | (-0.033, 0.227) | (-0.747, 0.025) | (-0.672, 0.065) | (-0.729, 0.035) | (-0.637, 0.234) |
|  | p = 0.587 | p = 0.234 | p = 0.111 | p = 0.742 | p = 0.171 | p = 0.093 | p = 0.133 | p = 0.101 | p = 0.383 |
|  |  |  |  |  |  |  |  |  |  |
| **Role Type** *(ref: Bus. Support)* |  |  |  |  |  |  |  |  |
| Community Health | 0.390 | **0.543** | 0.076 | 0.264 | 0.123 | 0.227 | 0.046 | -0.120 | 0.106 |
|  | (0.143, 0.636) | (0.303, 0.784) | (-0.060, 0.212) | (0.125, 0.404) | (-0.073, 0.319) | (0.014, 0.440) | (-0.106, 0.198) | (-0.265, 0.025) | (-0.070, 0.283) |
|  | p = 0.010\*\* | p = 0.001\*\*\* | p = 0.296 | p = 0.003\*\* | p = 0.242 | p = 0.059 | p = 0.563 | p = 0.132 | p = 0.261 |
|  |  |  |  |  |  |  |  |  |  |
| Environmental | 0.368 | 0.418 | 0.205 | 0.153 | 0.427 | 0.309 | 0.172 | 0.362 | 0.236 |
|  | (0.131, 0.605) | (0.106, 0.729) | (-0.026, 0.436) | (0.006, 0.301) | (0.159, 0.695) | (0.014, 0.603) | (-0.084, 0.427) | (0.117, 0.607) | (0.017, 0.456) |
|  | p = 0.011\* | p = 0.023\* | p = 0.109 | p = 0.065 | p = 0.009\*\* | p = 0.063 | p = 0.213 | p = 0.014\* | p = 0.057 |
|  |  |  |  |  |  |  |  |  |  |
| Epidemiologist | 0.462 | 0.403 | 0.489 | -0.421 | 0.265 | 0.153 | 0.298 | 0.338 | 0.284 |
|  | (0.145, 0.779) | (0.134, 0.672) | (0.197, 0.781) | (-0.670, -0.173) | (0.057, 0.474) | (-0.102, 0.408) | (0.088, 0.509) | (0.066, 0.610) | (-0.044, 0.611) |
|  | p = 0.015\* | p = 0.013\* | p = 0.007\*\* | p = 0.007\*\* | p = 0.029\* | p = 0.262 | p = 0.017\* | p = 0.032\* | p = 0.116 |
|  |  |  |  |  |  |  |  |  |  |
| IT Personnel | 0.043 | 0.200 | 0.103 | -0.360 | 0.026 | -0.037 | 0.024 | -0.084 | -0.008 |
|  | (-0.166, 0.251) | (-0.008, 0.407) | (-0.177, 0.383) | (-0.588, -0.131) | (-0.255, 0.307) | (-0.248, 0.174) | (-0.182, 0.231) | (-0.308, 0.140) | (-0.210, 0.193) |
|  | p = 0.697 | p = 0.084 | p = 0.485 | p = 0.010\*\* | p = 0.862 | p = 0.738 | p = 0.822 | p = 0.477 | p = 0.937 |
|  |  |  |  |  |  |  |  |  |  |
| Lab Personnel | -0.117 | 0.281 | 0.222 | -0.111 | -0.059 | 0.242 | -0.224 | 0.082 | -0.014 |
|  | (-0.260, 0.025) | (-0.030, 0.592) | (-0.025, 0.469) | (-0.338, 0.116) | (-0.290, 0.172) | (-0.029, 0.514) | (-0.427, -0.021) | (-0.149, 0.313) | (-0.222, 0.194) |
|  | p = 0.134 | p = 0.103 | p = 0.103 | p = 0.356 | p = 0.625 | p = 0.106 | p = 0.052 | p = 0.502 | p = 0.897 |
|  |  |  |  |  |  |  |  |  |  |
| Management | **0.455** | **0.369** | 0.220 | 0.157 | 0.166 | -0.048 | -0.020 | -0.198 | 0.098 |
|  | (0.260, 0.649) | (0.219, 0.519) | (-0.033, 0.474) | (-0.030, 0.344) | (0.053, 0.279) | (-0.217, 0.121) | (-0.253, 0.212) | (-0.355, -0.040) | (-0.088, 0.284) |
|  | p = 0.001\*\*\* | p < 0.001\*\*\* | p = 0.115 | p = 0.127 | p = 0.014\* | p = 0.588 | p = 0.867 | p = 0.031\* | p = 0.322 |
|  |  |  |  |  |  |  |  |  |  |
| Nurse | **0.467** | **0.894** | 0.412 | 0.300 | 0.292 | **0.516** | **0.377** | 0.209 | 0.318 |
|  | (0.291, 0.643) | (0.695, 1.092) | (0.183, 0.641) | (0.111, 0.490) | (0.021, 0.563) | (0.320, 0.713) | (0.212, 0.543) | (-0.047, 0.465) | (0.158, 0.479) |
|  | p < 0.001\*\*\* | p < 0.001\*\*\* | p = 0.005\*\* | p = 0.010\*\* | p = 0.057 | p < 0.001\*\*\* | p = 0.001\*\*\* | p = 0.136 | p = 0.003\*\* |
|  |  |  |  |  |  |  |  |  |  |
| Other Clinical | 0.497 | **0.718** | 0.179 | **0.371** | 0.326 | **0.446** | 0.296 | 0.258 | 0.345 |
|  | (0.247, 0.746) | (0.495, 0.941) | (0.011, 0.347) | (0.243, 0.499) | (0.160, 0.493) | (0.247, 0.646) | (0.116, 0.475) | (0.005, 0.510) | (0.129, 0.561) |
|  | p = 0.003\*\* | p < 0.001\*\*\* | p = 0.060 | p < 0.001\*\*\* | p = 0.003\*\* | p = 0.001\*\*\* | p = 0.008\*\* | p = 0.069 | p = 0.009\*\* |
|  |  |  |  |  |  |  |  |  |  |
| Unspecified | 0.061 | 0.565 | 0.259 | 0.165 | -0.136 | 0.140 | 0.245 | 0.370 | 0.139 |
|  | (-0.071, 0.193) | (0.206, 0.924) | (0.027, 0.490) | (0.056, 0.274) | (-0.585, 0.313) | (0.031, 0.249) | (-0.097, 0.587) | (-0.028, 0.768) | (-0.067, 0.344) |
|  | p = 0.383 | p = 0.010\*\* | p = 0.049\* | p = 0.012\* | p = 0.564 | p = 0.028\* | p = 0.186 | p = 0.094 | p = 0.210 |
|  |  |  |  |  |  |  |  |  |  |
| **Public Health Degree** | 0.445 | 0.226 | 0.175 | -0.203 | 0.157 | 0.045 | -0.086 | -0.161 | 0.133 |
| *(ref: No)* | (0.016, 0.875) | (-0.051, 0.504) | (-0.010, 0.360) | (-0.464, 0.058) | (-0.059, 0.373) | (-0.121, 0.210) | (-0.299, 0.127) | (-0.346, 0.023) | (-0.117, 0.382) |
|  | p = 0.065 | p = 0.137 | p = 0.089 | p = 0.155 | p = 0.180 | p = 0.605 | p = 0.445 | p = 0.113 | p = 0.318 |
|  |  |  |  |  |  |  |  |  |  |
| **Educational Attainment** *(ref: No Degree)* |  |  |  |  |  |  |  |
| Associates | 0.052 | 0.028 | -0.266 | -0.092 | -0.178 | -0.081 | -0.127 | -0.070 | -0.055 |
|  | (-0.075, 0.179) | (-0.099, 0.155) | (-0.392, -0.141) | (-0.211, 0.028) | (-0.306, -0.049) | (-0.312, 0.151) | (-0.296, 0.043) | (-0.290, 0.151) | (-0.203, 0.093) |
|  | p = 0.436 | p = 0.671 | p = 0.002\*\* | p = 0.159 | p = 0.019\* | p = 0.508 | p = 0.169 | p = 0.547 | p = 0.479 |
|  |  |  |  |  |  |  |  |  |  |
| Bachelors | 0.263 | 0.028 | -0.179 | 0.031 | -0.105 | -0.089 | -0.061 | -0.067 | 0.038 |
|  | (0.119, 0.407) | (-0.107, 0.162) | (-0.317, -0.040) | (-0.083, 0.146) | (-0.293, 0.083) | (-0.275, 0.096) | (-0.228, 0.106) | (-0.236, 0.103) | (-0.086, 0.161) |
|  | p = 0.004\*\* | p = 0.693 | p = 0.027\* | p = 0.602 | p = 0.297 | p = 0.364 | p = 0.487 | p = 0.456 | p = 0.560 |
|  |  |  |  |  |  |  |  |  |  |
| Masters | -0.291 | -0.280 | -0.552 | -0.366 | -0.379 | -0.394 | **-0.507** | **-0.472** | -0.485 |
|  | (-0.924, 0.342) | (-0.601, 0.041) | (-0.850, -0.255) | (-0.589, -0.143) | (-0.687, -0.072) | (-0.664, -0.125) | (-0.716, -0.297) | (-0.660, -0.285) | (-0.854, -0.117) |
|  | p = 0.386 | p = 0.113 | p = 0.004\*\* | p = 0.008\*\* | p = 0.033\* | p = 0.015\* | p < 0.001\*\*\* | p < 0.001\*\*\* | p = 0.025\* |
|  |  |  |  |  |  |  |  |  |  |
| Doctoral | -0.226 | -0.295 | **-0.519** | **-0.691** | -0.352 | **-0.555** | **-0.595** | **-0.486** | -0.550 |
|  | (-0.525, 0.074) | (-0.549, -0.041) | (-0.724, -0.315) | (-0.891, -0.492) | (-0.578, -0.126) | (-0.788, -0.322) | (-0.755, -0.435) | (-0.681, -0.290) | (-0.809, -0.291) |
|  | p = 0.166 | p = 0.043\* | p < 0.001\*\*\* | p < 0.001\*\*\* | p = 0.011\* | p = 0.001\*\*\* | p < 0.001\*\*\* | p < 0.001\*\*\* | p = 0.002\*\* |
|  |  |  |  |  |  |  |  |  |  |
| **Setting: Local** | -0.039 | 0.010 | -0.002 | 0.114 | -0.104 | 0.114 | 0.062 | 0.071 | 0.063 |
| *(ref: SHA-CO)* | (-0.296, 0.218) | (-0.114, 0.135) | (-0.099, 0.094) | (0.018, 0.210) | (-0.332, 0.125) | (-0.027, 0.256) | (-0.024, 0.147) | (-0.015, 0.156) | (-0.096, 0.223) |
|  | p = 0.772 | p = 0.872 | p = 0.966 | p = 0.039\* | p = 0.393 | p = 0.141 | p = 0.182 | p = 0.132 | p = 0.453 |
|  |  |  |  |  |  |  |  |  |  |
| **Supervisory Status** *(ref: non-supervisors)* |  |  |  |  |  |  |  |
| Supervisors/Managers | 0.051 | 0.109 | -0.170 | 0.042 | **0.351** | 0.166 | **0.420** | **0.301** | **0.427** |
|  | (-0.267, 0.368) | (0.024, 0.194) | (-0.333, -0.008) | (-0.089, 0.174) | (0.254, 0.448) | (0.040, 0.292) | (0.327, 0.512) | (0.226, 0.377) | (0.254, 0.599) |
|  | p = 0.760 | p = 0.028\* | p = 0.063 | p = 0.540 | p < 0.001\*\*\* | p = 0.025\* | p < 0.001\*\*\* | p < 0.001\*\*\* | p < 0.001\*\*\* |
|  |  |  |  |  |  |  |  |  |  |
| Executives | 0.153 | -0.108 | -0.573 | -0.133 | 0.279 | -0.156 | 0.095 | 0.041 | 0.330 |
|  | (-0.112, 0.418) | (-0.381, 0.165) | (-0.889, -0.258) | (-0.324, 0.057) | (-0.003, 0.561) | (-0.390, 0.077) | (-0.181, 0.370) | (-0.197, 0.280) | (0.077, 0.584) |
|  | p = 0.281 | p = 0.455 | p = 0.004\*\* | p = 0.196 | p = 0.077 | p = 0.214 | p = 0.514 | p = 0.739 | p = 0.026\* |
|  |  |  |  |  |  |  |  |  |  |
| *Constant* | 0.515 | -0.343 | -0.565 | -0.556 | -0.424 | -0.214 | -0.161 | -0.147 | -0.090 |
|  | (0.280, 0.750) | (-0.688, 0.003) | (-0.852, -0.279) | (-0.865, -0.247) | (-0.649, -0.198) | (-0.574, 0.145) | (-0.411, 0.089) | (-0.407, 0.112) | (-0.258, 0.078) |
|  | p = 0.002\*\* | p = 0.076 | p = 0.003\*\* | p = 0.005\*\* | p = 0.004\*\* | p = 0.265 | p = 0.231 | p = 0.288 | p = 0.314 |
|  |  |  |  |  |  |  |  |  |  |
|  |
| AICc | 1.191 | 0.908 | 0.821 | 1.010 | 1.023 | 0.965 | 1.026 | 0.956 | 1.148 |
| n | 37,359 | 26,801 | 35,657 | 34,721 | 33,318 | 29,277 | 30,568 | 29,278 | 33,601 |
|  |
| *\*p<0.05; \*\* p<0.01; \*\*\**p<0.001*Note:* a,b Results are log-odds coefficients from logistic regressions; they are not odds ratios.a The dependent variable in each was a binary indicator for whether or not the respondent reported a training need in the given domain.b The dependent variable in this regression was a binary indicator for whether or not the respondent reported any training need in any of the eight training domains.c Akaike Information CriterionCoefficients have not been converted to odds ratios to emphasize direction and significance over magnitude of effect.Negative values indicate lower odds of reporting a training need in the given training domain, while positive coefficients indicate higher odds.Bold values indicate coefficients with p < 0.001. |