Variable Impacts of New Credentials for the Older Worker

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Executive Summary

This analysis is the first to use the Participant Individual Record Layout (PIRL) data files published by the Employment and Training Administration, US Department of Labor, to examine the impact of new credentials on reemployment for older workers. While the population of workers who access Workforce Innovation and Opportunity Act (WIOA) training is not representative of the overall older worker population, the analysis presented here still offers insight into the variable economic value of different new credentials for older (50+ years) workers. This insight is possible due to the detailed data available in the PIRL files.

Key Findings

- New credentials are valuable to older workers when seeking employment after displacement, with nondegree credentials having the most value for older workers. New credentials are consistently beneficial across demographics such as sex and veteran status, as well as occupational training choices.

- Nondegree credentials are the most popular credential format for older workers and offer the highest “overall” value. Certifications and industry-recognized certificates have similar completion rates relative to all credentials and have higher reemployment rates and higher post-training earnings.

- Despite having similar completion rates for WIOA-funded training programs as younger (ages 49 and under) workers, older workers had slightly lower reemployment rates and post-training earnings compared to younger workers. Both groups (older and younger workers) earned less following training completed through WIOA program participation, which most commonly occurs after displacement from previous employment, regardless of reemployment occupation.

- Differences in reemployment rates and earnings between older workers and younger workers (“gaps”) varied by occupation. In general, office and administrative occupations seem to have larger gaps between older and younger workers (i.e., younger workers had higher reemployment rates and greater earnings), while those in IT and health care had smaller ones. These gaps were also larger in occupations that involve manual labor, such as construction trades.

- Reemployment rates were consistent across the top 20 training occupations for older workers, ranging from 65.8 percent to 86.9 percent. Completion rates for older workers in training programs were also fairly high, ranging from 74.0 percent to 85.6 percent. These findings represent substantial benefits for older workers who participate in the most popular WIOA-funded training programs and perhaps in training programs outside the public workforce system.

- Our analyses point to substantial variation in the percentage of older WIOA program participants who receive training, though in general the majority of older workers do not receive training grants. In all but five states, PIRL data suggest that less than 5 percent of older WIOA program participants receive a training grant.

Recommendations

- More research is needed on the value of earning new credentials for older workers. The analysis presented here shows that displaced older workers benefit from new credentials and suggests that
nondegree credentials are especially valuable to older disadvantaged and displaced workers. Additional research should be conducted to ensure older workers are connecting with the credentials that are most likely to be rewarding, including examining factors such as career promotion, job satisfaction, or longer career lifespans.

- We also need to better understand how new credentials can support career changes. Older workers who want to make an occupational change, for a variety of reasons, may want to better understand the value of new credentials to prepare them for a new occupation. This research should include an understanding of the impact of short- and long-term credentials on reemployment, earnings, and job satisfaction.

- Stakeholders, such as training providers, certification bodies, and state and federal government agencies, must address cultural and interoperability challenges that interfere with their ability to share and link their data to better understand the impact of new credentials. Richer, more informative research will be available when stakeholders come together to share data on credentials and their value for older workers. To gain these results, stakeholders must share the data they each collect on credentials and the individuals who earn them. Stakeholders must support and engage with federal data collection efforts. The federal government data collection efforts are central to improving the credentialing system to provide a quality workforce. Federal data collection efforts will only be improved with involvement and support from the credentialing and workforce community.

- We also need to further explore how WIOA programs can better serve older workers. Large differences exist between states in the probability that older workers participate in a WIOA-funded training program. This extreme variability suggests policy-driven differences and practices on the part of local workforce development boards, which are charged with overseeing policies and setting funding priorities for the WIOA-funded training.

**SIDEBAR: Credential Terminology Chaos: Often Used Inappropriately and Interchangeably**

- **Certification**—A time-limited, revocable, renewable credential awarded by an authoritative body for demonstrating the knowledge, skills, and abilities to perform specific tasks or an occupation
- **Certificate**—A recognition of an educational activity; certificates can recognize participation in training, completion of training, mastery of learning outcomes measured by an exam, or other activities. Certificates can be issued by various organizations, including universities, community colleges, training providers, and professional associations.
  - **Industry-recognized certificate**—A certificate developed in consultation with industry professionals
  - **Certificate issued by a community college**—A certificate issued by a community college
- **Degree**—A document issued by a higher-education institution recognizing the completion of a multiyear course of study
- **License**—A credential issued by a state or federal regulatory organization to legally practice an occupation
NOTE: Although industry-recognized certificate or certification is used in this analysis, this is no single credential type: rather, they are linked due to how the data are collected by the US Department of Labor. The definitions above were developed by Workcred.

Introduction and Background

Several factors may deter older workers from pursuing training. Some might question the return on investment for new skills and credentials as one approaches traditional retirement ages. Others likely feel extreme anxiety about reentering the classroom after decades away from educational institutions. Paying tuition can be a challenge at any age, and the financial implications of taking time out of the labor market to pursue training are perhaps more severe for adults with mortgages and other fixed expenses. On the employer’s side, stereotypes and prejudices likely exist concerning older workers’ abilities to absorb new knowledge and learn new skills, thus discouraging managers from supporting investments in human capital. Similarly, older workers may fear that even if they obtain a new credential in support of a career change, ageism may hamper their ability to find new jobs in which they would use their upgraded skillsets.

The financial constraints on training and retraining can be particularly acute for workers who do not have a source of income or who are living with only the support of unemployment insurance payments. Displaced, unemployed, or persistently underemployed workers may find that their ability to make reasoned decisions about what to train for and how much time and money to invest in training is skewed by the shock of losing a job they may have held for several years or even decades. Such workers may fear that if they spend too much time out of the labor market for training they may face even greater age discrimination. Unemployed workers with substantial assets may also be tempted to consider retiring from the labor force altogether.

WIOA Training Grants Support Upskilling/Reskilling

In July 2014, the Workforce Innovation and Opportunity Act (WIOA) was enacted as the primary federal workforce development legislation to bring about increased coordination among federal workforce and other related programs. Under Title I, WIOA authorizes job training and related services to unemployed or underemployed individuals. WIOA is intended to provide universal access to its career services, regardless of age or employment status, while offering priority to low-income and basic-skills-deficient individuals.

Title I also authorizes central points of service through a system of One-Stop centers. These centers provide a single location for individuals seeking employment and training services in order to simplify access to these services to individuals seeking to develop their career pathways. Services at these One-Stop centers are determined by local workforce development boards, which are authorized to establish the mix of service provision, eligible training providers, and types of training programs available. Local control of One-Stop centers is meant to allow workforce development boards the flexibility to adapt...
centers to meet their regional workforce needs; however, this approach could result in significant differences in the services offered across centers.

WIOA training grants are not the only ways for displaced, unemployed, or persistently underemployed workers to finance the attainment of credentials. For example, many are eligible for Pell grants and institutional financial aid, as well as the full range of loans normally available to finance higher education in the United States. Not all fields of study and training providers are eligible for support from WIOA funds; each state establishes a list of eligible training providers, which is intended to guide learners toward institutions that offer training in occupations that are in demand in local labor markets. If unemployed or underemployed individuals wish to study in a field that is not considered to be in demand, choose a training provider that does not satisfy a state’s criteria for eligible training providers, or do not qualify for a Pell grant, they would have to select alternate means of financing the training program.

States are free to establish their own criteria for distributing WIOA training grants, and most workforce development boards have an application procedure through which they determine which individual workers are most deserving of a training grant. Application requirements vary, but most require eligible individuals to articulate why they believe they would benefit from a grant to study at a given training provider. Some states have additional requirements. For example, West Virginia requires drug testing and state and local workforce boards vary in the proportion of training grant requests that are approved.

Scope of Analysis
This report is based on an analysis of the Participant Individual Record Layout (PIRL) files published by the Employment and Training Administration, US Department of Labor. PIRL files are intended to cover the entire universe of participants in the public workforce system in the United States, which in practice includes all individuals receiving state unemployment benefits. This analysis focuses on the age 50+ population (“older workers”) that is eligible for the WIOA Adult or WIOA Displaced Worker programs because of significant barriers to employment. These barriers include workers who were displaced, previously underemployed, or out of work for reasons that do not qualify for unemployment insurance. The main advantage of working with the PIRL data set is the availability of rich data on the entire population of individuals who obtained training through a WIOA program. The sample of older workers examined in this analysis is not representative of the older worker population in the United States.

Additional details on the analysis can be found in the appendix.

Sidebar: Examining the Sub-occupations That Comprise Some of the O*Net Major Occupation Codes
To avoid generalizing from very small occupations selected by relatively few individual trainees and to aid in the interpretation of our results, we consolidated the Occupational Information Network (O*Net) coding scheme into 95 major-level codes.
Some codes are dominated by a single sub-occupation; for example, out of 3,313 operations specialties manager credentials in the age 50+ training grant population, 1,937 are for IT managers.

However, there is considerable diversity within other codes. Within the category of computer occupations, there are more than 1,000 trainees in both user support and network administration, and 950 individuals who retrained to become IT project managers. Other occupation codes within the category of computer occupations include computer programmers, web developers, and computer user support specialists.

Results and Analysis

Older Workers Are Choosing Nondegree Credentials

Most WIOA-funded workers who obtain a credential at age 50+ earn a nondegree credential. Nearly 73 percent of WIOA training grant recipients use their funding to earn a certification or certificate and another 12.7 percent pursue an occupational license. Although our data do not permit us to disaggregate between industry certificates and certifications, we see evidence of a clear preference on the part of older workers for training options that are usually under one year in duration. Degrees are rarely pursued at either the associate or baccalaureate levels using WIOA support (figure 1).

**Figure 1**

**Older Worker Credential Choice**

- **73%** Industry-recognized certificate or certification
- **13%** State or federal license
- **4%** Certificate issued by a community college
- **1%** Apprenticeship
- **8%** Associates degree
- **1%** Baccalaureate degree
The number of older workers enrolled in WIOA-funded training was 69,311, with an aggregate probability of an older worker enrolling in WIOA-funded training of 2.4 percent. The aggregate probability of entering training was slightly higher for age 50+ women than for age 50+ men: 2.5 percent of women pursued some form of training, relative to 2.3 percent of men receiving support through the public workforce system. The demographics of older workers who entered WIOA-funded training were very similar to the demographics of older workers who did not receive support through WIOA, with average ages of 57.7 and 56.0 years, respectively. Those who entered training were slightly more likely to have completed high school (93.0 percent vs. 86.8 percent) and/or to have received a baccalaureate degree (25.6 percent vs. 20.2 percent).

### Figure 2

**Percentage of Older Workers in Occupation**

While age 50+ workers pursue credentials in varying fields even with WIOA support, they tend to cluster in certain occupational fields of study. Motor vehicle operators, computer occupations, health technologists and technicians, operations specialties managers, and home health aides and nursing assistants are the top five study categories.
Top 20 Occupation Training Choices for Older Workers

18.6% Other

15.9% Motor vehicle operators

11.4% Computer occupations

5.7% Health technologists and technicians

4.8% Operations specialties managers

4.3% Secretaries and administrative assistants

4.1% Home health aides and nursing assistants

3.8% Other office and administrative workers

3.8% Metal and plastics workers

3.5% Other healthcare support occupations

3.3% Other management occupations

3.2% Financial clerks

3.2% Other installation, maintenance, and repair workers

2.7% Business operations specialists

2.4% Other production occupations

2.1% Drafters, engineering technicians, and mapping technicians

1.6% Information and records clerks

1.5% Construction trades workers

1.4% Counselors, social workers, and other community and social services specialists

1.4% Top executives

1.3% Healthcare diagnosing and treating practitioners
When comparing WIOA program participants ages 50 to 61 to the age 62+ population, we see some differences in the selection of occupational fields of study. The age 62+ subpopulation pursuing WIOA-funded training differs substantially from the larger age 50+ group, with computer occupations representing the top field for age 62+ trainees and secretarial/office work–related credentials displacing health care occupations in the top five fields of study. Perhaps not surprisingly, training in manual labor–intensive occupations such as metalworking and the construction trades are less popular for workers ages 62 and older relative to those in the younger age brackets (figure 3).

Similarly, age 50+ trainees appear to favor certain occupations at higher rates than younger workers when selecting training programs. Over one-third of all trainees in programs that train occupational specialties managers and other health care support occupations are ages 50 and older. Other fields of training skew disproportionately young: for example, only 3.4 percent of trainees in programs that train health care diagnosing and treating practitioners (mainly registered nurses) are age 50+.

Perhaps not surprisingly, some training occupations chosen by older workers are dominated by men and others by women. Over 85 percent of age 50+ workers who enroll in programs that train metal and plastics workers, motor vehicle operators, and other installation, maintenance, and repair workers are men; over 85 percent of those who train as secretaries and administrative assistants, home health aides, and in the category of other health care support occupations are women.

Reemployment Outcomes for Older Workers
Training improves the probability of being employed in the first quarter after leaving the public workforce system, regardless of the occupation in which one worked prior to program entry. Individuals who were previously employed as installation, maintenance, or repair workers; in other health care support occupations; or as operations specialties managers are especially likely to see improved odds of reemployment associated with training. Veterans who received training were 15.4 percent more likely to be employed after leaving the workforce system relative to veterans who did not receive training.

For all credential types we examined, the probability of reentering the labor market after retraining is lower for those who train at age 50+ than it is for the age-49-and-under population of WIOA trainees. However, an analysis of credentials earned by older workers shows that some credentials are associated with stronger rates of job placement than others. Individuals who pursued a bachelor’s degree are most likely to be employed after one year, followed closely by those who pursued licensure and industry-recognized certificates or certification. The probability of reemployment also improves for some occupational fields of study as time passes from the last date of receiving support under WIOA. For example, for individuals who trained to be office and administrative workers, the probability of reemployment increases by almost 10 percent between the first and fourth quarters following WIOA program completion.

Within the top 20 occupational fields of study, there is no discernable relationship between the popularity of a field and the likelihood that one finds a job after training, regardless of whether one
looks one or four quarters beyond the date of program completion. However, choosing to retrain within or outside the same occupation in which one previously worked does seem to affect employability outcomes. For example, installation, maintenance, and repair workers who train for credentials in their field after displacement are 11.3 percent more likely to be employed one quarter after WIOA program completion than those who pursue such training after working in another field.

Older men and women also show slight differences in their placement rates: across the board, age 50+ men who trained are about 1.2 percentage points more likely to be employed one quarter after leaving the workforce system relative to age 50+ women who trained. Some of these differences may be due to differences between men and women in the training programs they choose. For example, women are more than 15 percent more likely to be reemployed than their male counterparts after training to become financial clerks and office and administrative workers, while men are about 17 percent more likely to be reemployed after training to become home health aides and nursing assistants.

Figure 4
Proportion Re-employed after 1st Quarter

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare diagnosing and treating practitioners</td>
<td>83.5%</td>
</tr>
<tr>
<td>Other production occupations</td>
<td>83.4%</td>
</tr>
<tr>
<td>Drafters, engineering technicians, and mapping technicians</td>
<td>79.7%</td>
</tr>
<tr>
<td>Metal and plastics workers</td>
<td>77.6%</td>
</tr>
<tr>
<td>Motor vehicle operators</td>
<td>76.0%</td>
</tr>
<tr>
<td>Information and records clerks</td>
<td>75.5%</td>
</tr>
<tr>
<td>Secretaries and administrative assistants</td>
<td>75.3%</td>
</tr>
<tr>
<td>Other installation, maintenance, and repair workers</td>
<td>73.4%</td>
</tr>
<tr>
<td>Counselors, social workers, and other community and social services specialists</td>
<td>72.5%</td>
</tr>
<tr>
<td>Health technologists and technicians</td>
<td>71.5%</td>
</tr>
<tr>
<td>Other healthcare support occupations</td>
<td>71.2%</td>
</tr>
<tr>
<td>Construction trades workers</td>
<td>70.9%</td>
</tr>
<tr>
<td>Business operations specialists</td>
<td>70.1%</td>
</tr>
<tr>
<td>Top executives</td>
<td>69.8%</td>
</tr>
<tr>
<td>Operations specialties managers</td>
<td>69.7%</td>
</tr>
<tr>
<td>Computer occupations</td>
<td>68.7%</td>
</tr>
<tr>
<td>Home health aides and nursing assistants</td>
<td>68.7%</td>
</tr>
<tr>
<td>Other office and administrative workers</td>
<td>68.6%</td>
</tr>
<tr>
<td>Financial clerks</td>
<td>67.0%</td>
</tr>
<tr>
<td>Other management occupations</td>
<td>56.0%</td>
</tr>
</tbody>
</table>
Figure 5

Re-employment and Earnings by Credential Type

- Apprenticeship: 83.8%, $6,948
- Baccalaureate degree: 77.3%, $7,635
- Industry-recognized certificate or certification: 75.1%, $7,526
- Associates degree: 74.1%, $5,758
- Certificate issued by a community college: 70.6%, $5,434
Unsurprisingly, earnings vary significantly depending on an individual’s occupational training choice and previous occupation. Post-training, individuals who pursued credentials related to management earned the most in raw dollars (i.e., not adjusted for inflation) after reentering the labor market: all four fields of training in which age 50+ workers earned more than $10,000 in the quarter after program completion were management related. However, workers who completed management-related credentials tended to earn more than others prior to displacement; average quarterly pre-displacement earnings were also above $10,000 in each of those occupational fields. Top executives, operations specialties managers, and other management occupations were characterized by the greatest drop in average earnings from pre-displacement to post-training, in large part because these individuals outearned other workers pre-displacement.
Indeed, age 50+ individuals who completed training in most occupational fields saw, on average, some loss in earnings relative to what they earned before displacement. Two of the three training occupations in which individuals tended to earn more than they did before displacement were in health care—those who trained to become health care diagnosing and treating practitioners (mainly registered nurses) and home health aides saw a net boost in earnings following training. The other was motor vehicle operators.

In all occupational fields of study, age 50+ trainees experienced smaller gains (or greater losses) in earnings relative to age-49-and-under trainees; the difference in earnings gains or losses between younger and older trainees was particularly pronounced for those who retrained in management and computer occupations, as well as those who trained to become financial clerks and installation, maintenance, and repair workers.

Generally, older workers who completed training in the same occupational field as they were previously employed experienced relatively greater earnings (“in-field premium”) than those who completed training in a different one. Of the 20 most popular occupational fields selected by older workers, only 3 did not show an in-field premium: motor vehicle operators, business operations specialists, and information and records clerks. The other 17 had a variety of in-field quarterly earnings premiums, ranging from $19 to $7,270, with an average of $1,890.

Differences also exist in returns to training depending on the type of credential one earns. In terms of raw earnings after training, baccalaureate degrees are associated with the greatest earnings for age 50+ workers. However, older workers who earn industry-recognized certificates and certifications and licenses tend to earn more after finding a job post-training than age-49-and-under workers who pursued credentials of the same type.

Across the board, men earn significantly more than women within the age 50+ trainee population. This finding holds for all credentials except bachelor’s degrees: women who earn bachelor’s degrees with the support of a WIOA training grant earn an average of about $720 more per quarter than their male counterparts. As a group, age 50+ veterans also benefit significantly from training: veterans who train earn $2,473 per quarter more than those who do not enter training after displacement.
### Figure 7

**Dollars Earned in First Quarter after Credential**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Quarterly Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations specialties managers</td>
<td>$11,794.80</td>
</tr>
<tr>
<td>Top executives</td>
<td>$11,617.59</td>
</tr>
<tr>
<td>Other management occupations</td>
<td>$10,670.04</td>
</tr>
<tr>
<td>Business operations specialists</td>
<td>$10,606.96</td>
</tr>
<tr>
<td>Healthcare diagnosing and treating practitioners</td>
<td>$9,910.90</td>
</tr>
<tr>
<td>Computer occupations</td>
<td>$9,547.38</td>
</tr>
<tr>
<td>Drafters, engineering technicians, and mapping technicians</td>
<td>$8,379.32</td>
</tr>
<tr>
<td>Other production occupations</td>
<td>$7,359.26</td>
</tr>
<tr>
<td>Metal and plastics workers</td>
<td>$7,320.24</td>
</tr>
<tr>
<td>Other installation, maintenance, and repair workers</td>
<td>$7,140.19</td>
</tr>
<tr>
<td>Motor vehicle operators</td>
<td>$6,724.82</td>
</tr>
<tr>
<td>Construction trades workers</td>
<td>$5,913.46</td>
</tr>
<tr>
<td>Financial clerks</td>
<td>$5,583.35</td>
</tr>
<tr>
<td>Secretaries and administrative assistants</td>
<td>$5,400.28</td>
</tr>
<tr>
<td>Health technologists and technicians</td>
<td>$5,357.34</td>
</tr>
<tr>
<td>Counselors, social workers, and other community and social services specialists</td>
<td>$5,146.59</td>
</tr>
<tr>
<td>Information and records clerks</td>
<td>$4,986.69</td>
</tr>
<tr>
<td>Other healthcare support occupations</td>
<td>$4,672.64</td>
</tr>
<tr>
<td>Other office and administrative workers</td>
<td>$4,636.01</td>
</tr>
<tr>
<td>Home health aides and nursing assistants</td>
<td>$4,245.90</td>
</tr>
</tbody>
</table>
Figure 8
Earnings Change Before and After Displacement

- Healthcare diagnosing and treating practitioners: +$4,184.38
- Home health aides and nursing assistants: +$395.86
- Motor vehicle operators: +$205.35
- Other production occupations: -$293.55
- Counselors, social workers, and other community and social service specialists: -$303.68
- Health technologists and technicians: -$870.17
- Information and records clerks: -$1,030.37
- Metal and plastics workers: -$1,232.31
- Other healthcare support occupations: -$1,414.27
- Drafters, engineering technicians, and mapping technicians: -$1,704.36
- Secretaries and administrative assistants: -$2,146.51
- Construction trades workers: -$2,194.49
- Financial clerks: -$2,715.92
- Other office and administrative workers: -$3,020.74
- Other installation, maintenance, and repair workers: -$3,303.38
- Business operations specialists: -$3,920.86
- Operations specialties managers: -$4,069.00
- Other management occupations: -$4,214.96
- Computer occupations: -$4,570.39
- Top executives: -$5,619.96

○ = Before displacement  □ = After displacement
Completion Rates for New Credentials

Our research suggests that age 50+ individuals who pursue training tend to be more likely than their younger counterparts to finish the credentials they start. In some fields of training, such as programs that prepare individuals to be top executives, the probability of completion is much higher for individuals who enroll at age 50+. However, there are some fields where age 50+ individuals are less likely to complete their credentials. Programs that train health technologists, information and records clerks, and health care diagnosing and treating practitioners are less likely to be completed by age 50+ workers.
Completion rates also vary for the age 50+ workforce by credential type. Industry-recognized certificates and certifications are completed by 85.7 percent of the age 50+ workers who pursue them, a 2.2 percent completion premium over the age-49-and-under workforce. The completion rate for licensure is also strong (85.0 percent); however, completion rates are relatively low and age 50+ workers underperform younger peers in terms of completion rates in apprenticeship programs (73.2 percent), college degrees (72.8 percent for associate and 80.9 percent for baccalaureate), and certificates issued by community colleges (72.7 percent). Within the age 50+ population, men are more likely to complete their credentials; however, women are more likely to complete baccalaureate degree programs.
Interstate Variability in Older Worker Use of WIOA-Funded Training

Analysis of the percentage of older workers granted WIOA-funded training as a percentage of the total number of older workers who applied revealed large variability between states. Our data suggest that the probability of a WIOA participant holding a training grant is greater than 10 percent in 2 states, while—at the other extreme—in 3 others fewer than one-half of one percent of age 50+ WIOA program participants are receiving training grants. In most states, the percentage of older workers participating in WIOA programs who applied for and received training grants was less than 5 percent and for nearly half the country—24 states—the percentage was less than 2 percent.
Discussion

This analysis is the first to use the PIRL data to examine the impact of credentials on reemployment for older workers. While the population of workers who access WIOA training is not representative of the overall older worker population, the analysis presented here offers insight into the variable economic value of different types of new credentials for older (50+ years) workers.

First, the data clearly suggest that new credentials are valuable to older workers when seeking employment after displacement, with nondegree credentials having the most value for older workers. The value of new credentials holds true across demographics such as sex and veteran status as well as occupational training choice. Interestingly, older veterans who completed WIOA-funded training programs benefited from new credentials more than a typical older worker.

In the aggregate, we find that most age 50+ workers who retrain find jobs after WIOA program completion, with rates of reemployment varying by occupation and ranging from 65.8 percent to 86.9 percent. Completion rates for older workers in training programs were also fairly high, ranging from 74.0 percent to 85.6 percent. This strongly suggests that older workers benefit from participating in WIOA-funded training programs. While the portion of the population receiving training grants under WIOA is
not representative of the entire age 50+ population, older workers’ success in these training programs suggests the broad potential for older workers to benefit from greater access to training.

Nondegree credentials were the most popular choice for older workers and offered the highest labor market returns across all occupations. Certifications and industry-recognized certificates were found to have similar completion rates compared with all credentials, and they had higher reemployment rates and higher post-training earnings. One reason for the popularity of this credential choice could be that certifications and industry-recognized certificates are generally known to have shorter completion times than degree and apprenticeship programs. Another conjecture is that these shorter-term credentials are more skill-oriented to demonstrate what an individual can do.

Interestingly, community college certificates did not result in the same labor market value, suggesting that credentials developed by or in conjunction with employers may be more useful or valuable to older workers than credentials delivered in an academic setting. Similarly, while bachelor’s degrees had higher earnings for older workers who earned them, they had lower reemployment rates than certifications and industry-recognized certificates for older workers and typically take many years to earn.

Despite having similar completion rates for WIOA-funded training programs as younger workers, older workers had slightly lower reemployment rates and post-training earnings relative to their younger counterparts. Both groups (older and younger workers) showed decreased earnings following displacement, regardless of occupation. These findings are consistent with previous studies.

Reemployment and earnings gaps between older workers and younger workers varied by occupation. In general, office and administrative occupations seem to have larger reemployment and earnings gaps between older and younger workers, while those in IT and health care had smaller ones. Not surprisingly, these gaps were also larger in occupations that involve manual labor, such as construction trades.

Similarly, although the differences in reemployment rates, completion rates, and credential choices found in this analysis cannot be generalized to all older workers earning new credentials, this analysis strongly suggests that there are differences in the economic value of various types of new credentials and that those differences may vary for older worker than for younger workers.

Recommendations
The recommendations that emerged from the study are derived from this analysis of the PIRL data as well as best practices for improving the credentialing system to support workforce quality. Although the results of this analysis should not be considered reflective of all older workers who pursue upskilling and/or reskilling opportunities, they do provide valuable information that can be used as the basis for additional research.

More research is needed on the value of earning new credentials for older workers. The analysis presented here shows that displaced older workers who pursue training through public workforce development centers benefit from new credentials; it also suggests nondegree credentials
are of particularly high value for them. However, additional research should be conducted to ensure that older workers are connecting with the credentials most likely to be rewarding. This research should include a larger sample of older workers, factors beyond earnings, employment rates, or labor market data as measures of credential value, and should compare the outcomes of older workers who pursue training with those who do not. For example, other factors that might be considered as indicators of credential quality are positive impacts on career promotion, job satisfaction, or longer career lifespans. Multivariate analysis could also be conducted to understand how different variables, such as occupation or sex, affect reemployment, earnings, and probability of participation.

More research is also needed on how new credentials can support a career shift. Older workers who want to make an occupational change, for a variety of reasons, may want to better understand the value of new credentials to prepare them for a new occupation. This research should include an understanding of the impact of short- and long-term credentials on reemployment, earnings, and job satisfaction.

Additional research studies could also look more closely at the characteristics of new credentials that are associated with the greatest labor market returns for older workers. While this analysis showed an in-field premium for WIOA-funded training, the limitations of the data set did not allow for further insight into the specific factors that might have provided that value.

The interstate differences of older workers’ probability of participation in WIOA-funded training found in this analysis also hint of other, perhaps greater, variability in the interstate demographics of WIOA-funded training. Additional analysis and research are warranted to understand the breadth of this variability as well as some of the factors driving these differences.

Combined, this new research could provide strong evidence for a new push to invest in reskilling and/or upskilling for older workers. This evidence could be used by employers to offer increased opportunities for older workers to gain new skills through training programs, by state and federal policy makers to develop policy to encourage and support training investments for older workers, and by older workers themselves to better understand the value of new credentials for their careers.

**Stakeholders must share data to better understand the impact of new credentials.** Richer, more informative research will be supported when stakeholders come together to share data on credentials and their value for older workers. For example, the National Student Clearinghouse is working to link outcomes data on academic and industry credentials—such as credentials issued by the American Welding Society and other industry associations—for the first time. The project, funded by Lumina Foundation, is also linking this education and training data to wage data and will provide much-needed insight into the education–workforce continuum.

If other stakeholders, such as credentialing bodies that offer both certifications and assessment-based certificates, for-profit training providers, and employers, would participate in this effort, or similar efforts a much more comprehensive look at new credentials being earned by older workers would be gained. Combining these data would provide older workers with a better understanding of the potential outcomes of new credentials, improving their decision making. Similarly, improved data infrastructure
would offer employers additional information on the value of new credentials to older workers, potentially helping to justify increased investment into training for their older employees. Thus, combining data from disparate sources empowers all stakeholders.

**Stakeholders must support and engage with federal data collection efforts.** The federal government data collection efforts are central to improving the credentialing system to provide a quality workforce. For example, the PIRL data used in this analysis are part of a federal data collection effort on the use and impact of WIOA-funded training programs. This data set, as well as several others, provide researchers, policy makers, and the broader education and workforce community with rich variables for analysis.

However, federal data collection efforts will be improved only with involvement and support from the credentialing and workforce community who must engage with federal agencies to ensure the continuation and relevance of surveys and other data. The workforce community could, for example, advocate for the return of the National Employer Survey from the Census Bureau, including the inclusion of questions relevant to older workers.

**More research is needed to understand how WIOA programs can better serve older workers.** One of the most unexpected results of this research was the significant interstate differences in the probability that older workers participated in a WIOA-funded training program. For the overwhelming majority of states—45—older workers accounted for fewer than 5 percent of individuals participating in WIOA-funded training. In the other 5 states, older workers ranged from 6 percent to 48 percent of participants. This extreme variability strongly suggests policy-driven differences and practices by local Workforce Investment Boards, which are charged with overseeing policies for the WIOA-funded training.

Probing further into the governance of WIOA-funded training and its state-by-state implementation further highlights how much variability exists in the implementation of WIOA. For example, WIOA program year 2017 summary data show similar interstate variability in training services costs per participant served, varying from $678 to $6,960. Without detailed information on the implementation details of each state, the existing data do not allow for transparency into the reasons for the variability or the policies or procedures driving these differences.

Given the vulnerability of displaced workers, as well as the importance of understanding the impact of the publicly funded workforce, there is a strong case for additional research into understanding interstate differences in WIOA-funded training programs. The findings of this additional research will likely have important implications for older workers, who are being impacted by the current policies and structures governing WIOA-funded training programs.
Appendix: Research Methodology

This report is based on an analysis of the Participant Individual Record Layout (PIRL) files published by the Employment and Training Administration, US Department of Labor, conducted by Workcred and the George Washington Institute of Public Policy. PIRL files are intended to cover the entire universe of participants in the public workforce system in the United States, which in practice includes all individuals receiving state unemployment benefits as well as eligibility based on significant barriers to employment. As our analyses examine all workers receiving WIOA training grants, some trainees (approximately 45 percent of our sample) were not laid off in a traditional sense but rather were previously underemployed, were out of work for reasons that do not qualify for unemployment insurance, or faced serious barriers to employment.

The main advantage of working with the PIRL data set is the availability of rich data on the entire population of individuals who obtained training through a WIOA program. However, there are numerous quirks in this data set that should be acknowledged in any analysis. As one might expect for a large-scale data set relying on data reported by agencies from all 50 states (plus US territories and the District of Columbia), situations exist that result in missing data from certain states; one can refer to appendix A on the PIRL data download website for a complete list of such situations. Individuals whose date of birth was not reported are excluded from this analysis.

The PIRL is notable for the number of cases of unemployed and other disadvantaged workers for which it contains data and the fact that it covers the entire population of displaced and disadvantaged workers obtaining assistance through the public workforce system. It also provides relatively detailed information about the types of credentials, including nondegree credentials, pursued by individuals who receive training grants. However, other data sources exist—most involving a survey of a subset of the adult population—that provide insight about those who face unemployment or barriers to full employment. For example, the Survey of Income and Program Participation allows one to track longitudinal outcomes in the labor market for those who experience a spell of unemployment; however, its sample size is simply too small for meaningful occupation-level analyses of the age 50+ population, and it does not contain detailed information about the field and type of credential attained prior to reentering the labor market.

Readers of this report will notice that we refer to differences in earnings, completion rates, and the probability of reemployment by the occupational field of study of one’s training program. Each training enrollment recorded in PIRL data files was coded by the Occupational Information Network (O*Net) code that most closely related to the program’s curriculum. Since eligible training providers are required to prepare students directly for employment in an in-demand occupation, we assume that few if any training grants were made for instructional programs without clear relevance to an occupation. Some, but not all, programs with an O*Net code were also assigned a Classification of Instructional Programs code in the PIRL data set; we limited our analysis to O*Net codes given our emphasis on post-training employment outcomes. To aid our readers in interpreting our results, we consolidated detailed O*Net codes into 95 major-level codes based on the two-digit prefix of each code. We then focused our
analyses on the top 20 of these occupations in terms of the age 50+ trainees: 81.43 percent of age 50+ trainees studied for credentials that correspond to the top 20 most commonly selected occupations.

As the PIRL data sets are relatively new (the first was published in the fourth quarter of 2016), scholars are still finding ways to make the best use of these data. The PIRL data files do not contain imputed values, but many records contain blank fields because data could not be obtained from individual participants or particular states or regional workforce boards did not provide complete data. Such blank records are especially common in the data fields for quarterly employment and income outcomes following program completion. We did not attempt to impute data and excluded cases with missing data from our analysis; while we acknowledge that missing data may be nonrandom, we have no reason to suspect that missing data are skewing our estimates in a systematic manner.

Table 1
Demographics

<table>
<thead>
<tr>
<th>Demographics for the Age 50+ Population</th>
<th>Mean for All Age 50+ in PIRL</th>
<th>Age 50+ Who Train</th>
<th>Age 50+ Who Do Not Train</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>57.7</td>
<td>56.0</td>
<td>57.7</td>
</tr>
<tr>
<td>Gender (% women)</td>
<td>46.1%</td>
<td>48.5%</td>
<td>46.1%</td>
</tr>
<tr>
<td>% with high school diploma or equivalent</td>
<td>86.9%</td>
<td>93.0%</td>
<td>86.8%</td>
</tr>
<tr>
<td>% with a bachelor’s degree</td>
<td>20.3%</td>
<td>25.6%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Average quarterly income two quarters before program entry</td>
<td>$8,340.81</td>
<td>$9,190.87</td>
<td>$8,324.80</td>
</tr>
<tr>
<td>Veteran status (%)</td>
<td>11.2%</td>
<td>11.1%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>15.5%</td>
<td>13.5%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>2.6%</td>
<td>4.8%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Black</td>
<td>21.3%</td>
<td>23.0%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
<td>Year 3</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
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<td>0.8%</td>
<td>1.1%</td>
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<tr>
<td>White (non-Hispanic)</td>
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<td>56.2%</td>
<td>57.9%</td>
</tr>
<tr>
<td>Multiple race (non-Hispanic)</td>
<td>1.3%</td>
<td>1.4%</td>
<td>1.3%</td>
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</table>