Workforce Innovation and Opportunity Act

Adult Program Evaluation

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Summary

Beginning at the end of 2019 and taking full effect in 2020, the Idaho Department of Labor changed its delivery of services and day-to-day operations, by closing several brick-and-mortar offices and replacing them with mobile offices supported by a regional office or set of offices. This change in service delivery could have affected which individuals were able to receive services due to personal limitations and circumstances while at the same time allowing for a model that could adapt to the disruptions of the COVID-19 pandemic.

Based on the geographic distribution of enrollments into the Workforce Innovation and Opportunity Act (WIOA) adult program, there did not appear to be a statistically significant shift in enrollees between those counties still supported by a brick-and-mortar office and those now serviced by the mobile offices or remotely, with region two (north central Idaho) as the only exception. However, the distribution of enrollments did shift across labor market areas with declining shares in regions three (southwestern Idaho) and six (eastern Idaho) and growing shares in the remaining regions. While the effect of the pandemic and other longer-run structural shifts cannot be disentangled from these observed changes, it seems implausible that the policy change fully or even largely accounts for these shifts in adult enrollments.

Introduction

The Idaho Department of Labor began a transition in its service delivery model near the end of 2019 that resulted in the closing of many brick-and-mortar offices in the state in favor of a "multiple hub-and-spoke" model. The old model had offices maintaining regular business hours throughout the week in major urban areas as well as more rural areas. The new model has one or more regional offices serving as the regional hub(s) and a network of "mobile offices" propagating to the more rural localities on a less frequent basis, typically sharing office space with local governments, school districts, libraries or chambers of commerce.

These mobile offices provide similar services like assisting job seekers and employers with labor needs and enrolling eligible individuals into the department's programs, including the Workforce Innovation and Opportunity Act (WIOA) Adult, Youth and Dislocated Worker program. If individuals cannot make it to their local mobile office when the department's staff are available, they could contact staff over the phone or online to get information, apply for benefits or enroll into eligible programs.

The motivation for this change was partly fiscal in nature, while also allowing expansion and outreach into more remote communities. However, the arrival of the COVID-19 pandemic tested the new delivery model in unexpected ways. On the one hand, the move to a model with less face-to-face interactions and more remote options may have provided greater flexibility to the changing dynamics of the pandemic, as brick-and-mortar offices had to close and reconfigure operations to avoid public health risks. On the other hand, it was possible the new model may not have been as accommodating as the older model to certain individuals, such as people with limited access to time, transportation or internet in more rural parts of the state.

This evaluation assesses whether the department's change in service delivery model limited the number of people enrolling in the WIOA adult program due to their area of residence. This program, administered by the U.S. Department of Labor's Employment and Training Administration, serves to help people facing employment difficulties with job search assistance as well as training opportunities. The program gives priority to low-income people receiving public assistance, and individuals who are basic skill deficient.

Section two (Data and methodology) outlines the data used for the analysis and the methodology chosen, mainly a chi-squared test for equality of proportions between a pre-change period and post-change period for some degree of geographic granularity. Section three provides the results of the tests performed. Section four (Discussion and conclusion) concludes with a summary of findings and includes possible explanations to account for these results.

Data and methodology

Before proceeding with the data, it is important to explain the time periods that compare the old and new service delivery models.

The roll-out of the new model began near the end of calendar year 2019 and took full effect in 2020, so January 1, 2020, was selected as the beginning of the post-change period.

Figure 1. Map of WIOA adult program enrollments, 2019H2
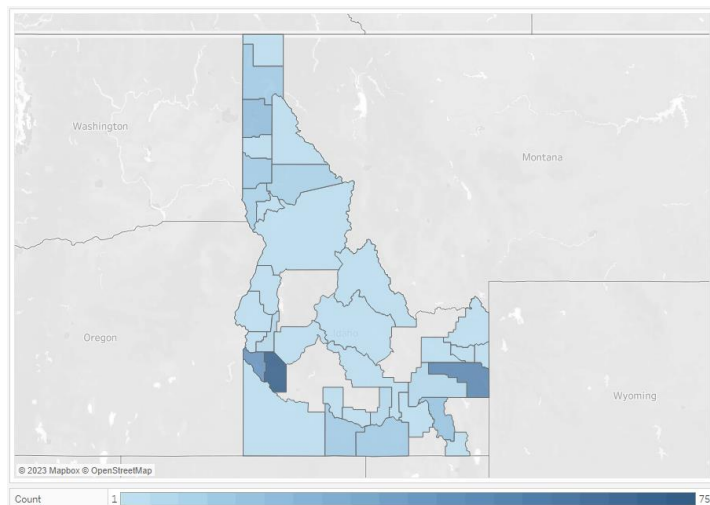
Due to small enrollments in many parts of the state, six months was chosen for each pre- and post-change period to ensure a sample size large enough to permit a chi-squared test based upon its asymptotic properties.

Two post-change periods were considered: the first half of 2020, which would have captured the brief period after the change in service delivery but before the disruptions of COVID-19, and the second half of 2020, to help account for potential seasonality effects in WIOA enrollment.

However, due to the length of the pandemic and potential structural shifts it induced in the wider economy, it will be difficult to disentangle the effects of the change in service delivery model from the effects of the pandemic. Therefore, any differences in the geographic distribution of enrollments cannot be attributed solely to the change in service delivery model.

The data used for the analysis was obtained from a registry of all Idaho Department of Labor services and program enrollments in the state between 2019 and 2023, with WIOA adult enrollments serving as a sample of this universe.

The dataset contains anonymized personal-level data on program enrollment, residence (county and zip code), where services were delivered (county and local Idaho Department of Labor office or mobile office), labor market area and program enrollment date.

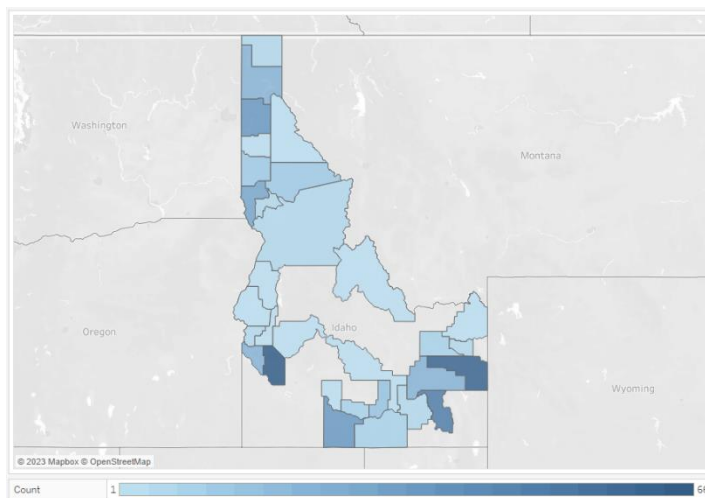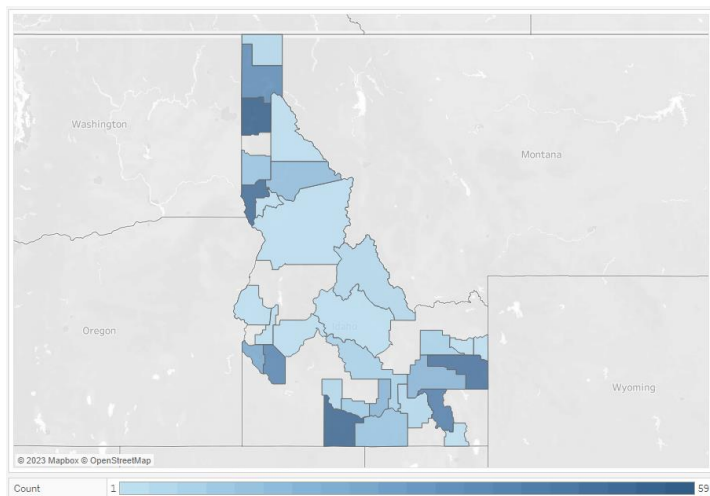**Figure 2. Map of WIOA adult program enrollments, 2020H1**

Table 1 provides a summary of the WIOA adult subsamples for 2019:H2, 2020:H1, and 2020:H2. Figures 1-3 graph program enrollments by county for the respective periods.

Table 1: Summary of WIOA adult enrollments

County of residence	WIOA adult enrollment period					
	2019:H2		2020:H1		2020:H2	
	Count	*Proportion*	*Count*	*Proportion*	*Count*	*Proportion*
Ada	75	0.2089	66	0.1352	40	0.0792
Adams	2	0.0056	4	0.0082	0	0.0000
Bannock	19	0.0529	47	0.0963	43	0.0819
Bear Lake	0	0.0000	0	0.0000	1	0.0019
Benewah	1	0.0028	1	0.0020	0	0.0000
Bingham	7	0.0195	22	0.0451	19	0.0632
Blaine	1	0.0028	1	0.0020	7	0.0133
Boise	4	0.0111	2	0.0041	1	0.0019
Bonner	13	0.0362	22	0.0451	36	0.0686
Bonneville	50	0.1393	62	0.1270	50	0.0952
Boundary	2	0.0056	6	0.0123	5	0.0095
Butte	0	0.0000	0	0.0000	1	0.0019
Camas	0	0.0000	0	0.0000	0	0.0000
Canyon	44	0.1226	22	0.0451	25	0.0476
Caribou	0	0.0000	5	0.0102	4	0.0076
Cassia	13	0.0362	8	0.0164	15	0.0286
Clark	0	0.0000	2	0.0041	1	0.0019
Clearwater	10	0.0279	11	0.0225	16	0.0305
Custer	1	0.0028	0	0.0000	2	0.0038
Elmore	0	0.0000	2	0.0041	1	0.0019
Franklin	1	0.0028	0	0.0000	1	0.0019
Fremont	2	0.0056	2	0.0041	0	0.0000
Gem	8	0.0223	1	0.0020	3	0.0057
Gooding	3	0.0084	1	0.0020	5	0.0095
Idaho	3	0.0084	6	0.0123	3	0.0057
Jefferson	4	0.0111	8	0.0164	7	0.0133
Jerome	1	0.0028	9	0.0184	12	0.0229
Kootenai	20	0.0557	36	0.0738	59	0.1124
Latah	13	0.0362	12	0.0246	14	0.0267
Lemhi	4	0.0111	3	0.0061	5	0.0095
Lewis	4	0.0111	5	0.0102	3	0.0057
Lincoln	0	0.0000	0	0.0000	2	0.0038
Madison	4	0.0111	5	0.0102	3	0.0057
Minidoka	7	0.0195	17	0.0348	19	0.0362
Nez Perce	11	0.0306	30	0.0615	52	0.0990
Oneida	0	0.0000	2	0.0041	0	0.0000
Owyhee	1	0.0028	0	0.0000	0	0.0000
Payette	2	0.0056	5	0.0102	0	0.0000
Power	4	0.0111	6	0.0123	4	0.0076
Shoshone	3	0.0084	4	0.0082	2	0.0038
Teton	2	0.0056	0	0.0000	3	0.0057
Twin Falls	13	0.0362	34	0.0697	55	0.1048
Valley	0	0.0000	3	0.0061	0	0.0000
Washington	2	0.0056	4	0.0082	1	0.0019
Total	**359**	**1.0000**	**488**	**1.0000**	**525**	**1.0000**

Across the three periods considered, there are commonalities in the distribution of WIOA adult enrollments. Enrollments are concentrated in the more populated urban areas such as Ada, Bannock, Bonneville, Canyon, Kootenai, Nez Perce and Twin Falls counties. These are the counties where the Idaho Department of Labor maintained its central brick-and-mortar offices during the transition. Residents in these areas experienced comparatively less of a change in their ability to interact with the department's staff.

Figure 3. Map of WIOA adult program enrollments, 2020H2

At the other end of the spectrum, the less populated and more remote counties have lower enrollments in the adult program in all three periods, likely due to experiencing a larger change in how residents interact with the department's staff given the closure of brick-and-mortar offices in many of these areas.

Three specifications of geographic granularity were chosen for the tests to be defined below:
- "Regional hub" counties (Ada, Bannock, Bonneville, Canyon, Cassia, Kootenai, Nez Perce, and Twin Falls) that maintained a brick-and-mortar office, compared to all remaining counties (the "spokes").
- Labor market areas as defined by the Idaho Department of Labor:
  - Region 1: Benewah, Bonner, Boundary, Kootenai, and Shoshone counties.
  - Region 2: Clearwater, Idaho, Latah, Lewis, and Nez Perce counties.
  - Region 3: Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley, and Washington counties.
  - Region 4: Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, and Twin Falls counties.
  - Region 5: Bannock, Bear Lake, Bingham, Caribou, Franklin, Oneida, and Power counties.
  - Region 6: Bonneville, Butte, Custer, Clark, Fremont, Jefferson, Lemhi, Madison, and Teton counties.
- Regional hubs compared to spokes within each labor market area.

A chi-squared test was performed to test differences in the geographic distribution of enrollments before and after the change in service delivery model. For each test, denote the pre-change period by $t = 0$ and the post-change period by $t = 1$. Denote the set of enrollees in period t by $\mathcal{N}_t \equiv \{1, \dots, N_t\}$. For each period, enrollee $n \in \mathcal{N}_t$ is classified in one of several mutually exclusive and exhaustive categories denoting their place of residence $k \in \mathcal{K} \equiv$

$\{1, \dots, K\}$. The expected share of enrollees from locality k in period t is denoted $p_{kt} \in [0,1]$ while the observed proportion is denoted by the hat symbol $\hat{p}_{kt}$. Denote the observed number of enrollees residing in locality k in period t by $y_{kt} \equiv \sum_{n=1}^{N_t} 1_{\{n \text{ resides in } k\}}$ and the observed proportion of enrollees in locality k across both periods by $\hat{p}_k \equiv (y_{k0} + y_{k1})/(N_0 + N_1)$.

The chi-squared test statistic for the homogeneity of distributions across both periods is:

$$T = \sum_{k=1}^{K} \frac{(y_{k0} - N_0 \hat{p}_k)^2}{N_0 \hat{p}_k} + \frac{(y_{k1} - N_1 \hat{p}_k)^2}{N_1 \hat{p}_k}$$

which is asymptotically distributed chi-squared with $K - 1$ degrees of freedom. Under the null hypothesis that $p_{k0} = p_{k1} = p_k$ for every $k \in \mathcal{K}$, the department would expect this test statistic to be close to zero; as the pre- and post-change proportions become more dissimilar, the test statistic will grow larger. Let the quantile function for the $K - 1$ degree of freedom chi-squared distribution be denoted by $Q_{K-1}(\cdot)$. For a given level of significance $\alpha \in (0,1)$ and corresponding critical value:

$$\chi^2_{\alpha, K-1} \equiv Q_{K-1}(1 - \alpha),$$

the null hypothesis is rejected if $T \geq \chi^2_{\alpha, K-1}$ and it is concluded that the proportions are dissimilar. If $T < \chi^2_{\alpha, K-1}$, the null hypothesis is not rejected, and it cannot be concluded that they are dissimilar.

Results

Regional "hubs" compared to "spokes"

The first tests consider the difference in program enrollments between counties that maintained a brick-and-mortar office (regional "hubs") versus those now only served by the mobile offices or remotely (regional "spokes"). Tables 2a and 2b provide contingency tables comparing the pre-change period (2019:H2) against both post-change periods, as well as the computed chi-squared test statistic, critical value at the $\alpha = 0.05$ significance level, and probability of the null hypothesis being true.

Table 2a: WIOA adult enrollments, 2019H2 vs. 2020H1, regional hubs vs. spokes

	Regional hubs	Regional spokes	Total
2019H2	218	97	315
2020H1	278	150	428
Total	496	247	743

Test statistic:	0.8520
Critical value:	3.8415
Probability (H0):	0.3560

Table 2b: WIOA adult enrollments, 2019H2 vs. 2020H2, regional hubs vs. spokes

	Regional hubs	Regional spokes	Total
2019H2	218	97	315
2020H2	297	155	452
Total	515	252	767

Test statistic	0.6069
Critical value	3.8415
Probability (H0)	0.4360

For both choices of post-change period, there does not appear to be a statistically significant difference between pre- and post-change enrollment distributions. Roughly two out of every three adult program enrollees were in one of the regional hub counties before and after the change in service delivery model. If the change in service delivery affected which individuals enrolled in the adult program, it did not appear at the level of those in counties still served by a brick-and-mortar office versus those without one.

Labor market areas

The next tests consider the difference in program enrollments between Idaho's six labor market areas. Tables 3a and 3b provide contingency tables comparing the pre-change period (2019:H2) against both post-change periods, as well as the computed chi-squared test statistic, critical value at the $\alpha = 0.05$ significance level, and probability of the null hypothesis being true.

Table 3a: WIOA adult enrollments, 2019H2 vs. 2020H1, labor market areas

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Total
2019H2	29	40	127	26	28	65	315
2020H1	47	62	97	60	77	85	428
Total	76	102	224	86	105	150	743

Test statistic: 20.5301
Critical value: 11.0705
Probability (H0):   0.0000

Table 3b: WIOA adult enrollments, 2019H2 vs. 2020H2, labor market areas

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Total
2019H2	29	40	127	26	28	65	315
2020H2	77	85	62	103	66	59	452
Total	106	125	189	129	94	124	767

Test statistic: 59.3104
Critical value: 11.0705
Probability (H0):   0.0000

For both choices of post-change period, there does not appear to be a statistically significant difference between pre- and post-change enrollment distributions. Regions one, two and six maintained relatively constant enrollment shares between 2019H2 and 2020H1, whereas regions four and five saw an increase in enrollment shares at the expense of region three. Looking at the 2019H2 – 2020H2 comparison, no regions appeared to maintain the same enrollment shares with regions one, two, four and five, seeing an increase in adult enrollment shares at the expense of regions three and six. Interestingly, the relative decline in region three's enrollment shares was accompanied by an absolute decline in enrollments, something not seen in any of the other labor market areas.

"Hubs" compared to "spokes" within each labor market area

The final tests consider the difference in program enrollments between regional hubs and spokes within each of Idaho's six labor market areas. Tables 4a through 4f provide contingency tables comparing the pre-change period (2019:H2) against both post-change periods, as well as the computed chi-squared test statistic, critical value at the $\alpha = 0.05$ significance level, and probability of the null hypothesis being true.

Table 4a: WIOA adult enrollments, regional hubs vs. spokes, region 1

	Regional hubs	Regional spokes	Total
2019H2	14	15	29
2020H1	24	23	47
Total	38	38	76

Test statistic:	0.0558
Critical value:	3.8415
Probability (H0):	0.8133

	Regional hubs	Regional spokes	Total
2019H2	14	15	29
2020H2	45	32	77
Total	59	47	106

Test statistic	0.8821
Critical value	3.8415
Probability (H0)	0.3476

Table 4b: WIOA adult enrollments, regional hubs vs. spokes, region 2

	Regional hubs	Regional spokes	Total
2019H2	11	29	40
2020H1	30	32	62
Total	41	61	102

Test statistic:	4.4126
Critical value:	3.8415
Probability (H0):	0.0357

	Regional hubs	Regional spokes	Total
2019H2	11	29	40
2020H2	51	34	85
Total	62	63	125

Test statistic	11.4927
Critical value	3.8415
Probability (H0)	0.0007

Table 4c: WIOA adult enrollments, regional hubs vs. spokes, region 3

	Regional hubs	Regional spokes	Total
2019H2	110	17	127
2020H1	78	19	97
Total	188	36	224

Test statistic:	1.5682
Critical value:	3.8415
Probability (H0):	0.2105

	Regional hubs	Regional spokes	Total
2019H2	110	17	127
2020H2	57	5	62
Total	167	22	189

Test statistic	1.1470
Critical value	3.8415
Probability (H0)	0.2842

Table 4d: WIOA adult enrollments, regional hubs vs. spokes, region 4

	Regional hubs	Regional spokes	Total
2019H2	16	10	26
2020H1	38	22	60
Total	54	32	86

Test statistic:	0.0250
Critical value:	3.8415
Probability (H0):	0.8743

	Regional hubs	Regional spokes	Total
2019H2	16	10	26
2020H2	66	37	103
Total	82	47	129

Test statistic	0.0578
Critical value	3.8415
Probability (H0)	0.8100

Table 4e: WIOA adult enrollments, regional hubs vs. spokes, region 5

	Regional hubs	Regional spokes	Total
2019H2	18	10	28
2020H1	45	32	77
Total	63	42	105

Test statistic:	0.2922
Critical value:	3.8415
Probability (H0):	0.5888

	Regional hubs	Regional spokes	Total
2019H2	18	10	28
2020H2	41	25	66
Total	59	35	94

Test statistic	0.0394
Critical value	3.8415
Probability (H0)	0.8426

Table 4f: WIOA adult enrollments, regional hubs vs. spokes, region 6

	Regional hubs	Regional spokes	Total
2019H2	49	16	65
2020H1	63	22	85
Total	112	38	150

Test statistic:	0.0313
Critical value:	3.8415
Probability (H0):	0.8597

	Regional hubs	Regional spokes	Total
2019H2	49	16	65
2020H2	37	22	59
Total	86	38	124

Test statistic	2.3369
Critical value	3.8415
Probability (H0)	0.1263

Regions one, three, four, five and six did not appear to have any statistically significant difference in the distribution of adult enrollments within their region, at least between those residing in a hub county still serviced by a brick-and-mortar office and those serviced by the mobile offices and/or remotely. Given these five regions contain an overwhelming majority of all adult enrollments in all periods considered, this accounts for the lack of statistically significant difference in enrollment shares between the "hub" and "spoke" counties statewide, as shown above.

Region two, however, did have a statistically significant difference in the share of adult enrollees from the hub county (Nez Perce) versus the other counties for both comparisons considered. In both cases, there appeared to be a marked shift in enrollments toward those in Nez Perce County, growing from a minority share in the pre-change period to a near or absolute majority share in the post-change periods. While this shift within region two was statistically significant, this region's population is small compared to the state overall and thus had no discernible effect on the adult enrollment for counties with a brick-and-mortar office, as shown above.

Overall, enrollment in the adult program within each region did not see a significant shift between residents residing in a county still served by a brick-and-mortar Idaho Department of Labor office and those in counties without such a physical presence, region two being the only exception.

Discussion and conclusion

As seen in the tests above, the closure of brick-and-mortar offices in some of the lesser populated and more rural areas of Idaho did not appear to shift enrollment in the WIOA adult program toward the regional hubs that kept their brick-and-mortar offices — with, north central Idaho as the one notable exception. However, the distribution of enrollments across regions did shift in a significant way with all regions — except for region three (southwestern Idaho) and region six (eastern Idaho) either maintaining their enrollment shares or gaining a larger share.

The explanation for these observed changes can boil down to three broad reasons: 1) the policy change, 2) the COVID-19 pandemic and 3) longer structural shifts in the Idaho labor market and economy. At present, it is impossible to disentangle these competing hypotheses from one another given the scarcity of data and credible identification strategy for each one. However, the department may briefly speculate about each and how much it may be contributing to these observed regional shifts.

Turning first to the change in service delivery model, one might expect this change to have its largest effect upon individuals residing in areas no longer served by a brick-and-mortar office (those residing in "spoke" counties). However, there is no discernible change in adult enrollment between those still served by a brick-and-mortar office and those now served by the mobile offices or remotely.

It is plausible the rollout of this new service delivery model was uneven across the six labor market areas in the state, but this would likely be a second-order effect and small in magnitude compared to the immediate effect upon those who lost a physical Idaho Department of Labor office in their area. In support of this view is the fact that the rollout of the new delivery model was contemporaneous across regions. As such, any effect of the policy change on the geographic distribution of enrollments was likely small, if at all.

The next two hypotheses — the effects of the pandemic and other long-run structural shifts — appear to be much more plausible, though hard to disentangle from one another. The uneven geographic and sectoral impact of COVID-19 in the first year of the pandemic meant that some individuals may have been adversely impacted by furloughs or layoffs while others were not, reducing the opportunity cost of enrollment for the former group.

Alongside these transitory shifts would have been longer-term shifts due to sectoral and regional growth/decline, such as workers in areas experiencing persistent job losses or stagnating wages having a lower opportunity cost to enroll in the program. Constructing detailed work histories of individuals may help to identify and control for these factors, but to parse out those due to COVID from the non-COVID structural shifts would require considerable data on enrollees and non-enrollees, for example, demographics, work and earnings history,

reasons for job separations and so on. As such, the explanatory power of these two hypotheses remains an open question.

Given the data limitations, it is difficult to say with any certainty what accounts for the observed regional shifts in WIOA adult enrollment, but accounts based upon the effects of the COVID-19 pandemic and more long-run structural shifts in the Idaho economy seem much more plausible than changes in how the Idaho Department of Labor delivers services.

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