

Developing the VET Perspective of Students

Outcomes of the Pathways2Possibilities Expo in Mississippi



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Countries around the world are searching for solutions to their workforce development challenges. Innovation has led to the creation of varying methods of illustrating the world of careers to young people. One such program, Pathways2Possibilities (P2P), has begun the process of trying to understand exactly what impact their program has had on their participants. By utilizing survey studies to gain as much feedback as possible, P2P can show what immediate effect their program is having for students, while also highlighting areas of potential moving forward. The article will explore what the data has to offer.

Description of the Problem

Mississippi has long faced economic challenges. Without a well-educated workforce, the state struggles to attract the type of employment that strengthens the state's economy. Worse yet, because of these economic struggles, major disinvestment in education occurs nearly every year. Low education rates combine with high amounts of poverty, which ultimately cause perniciously high unemployment levels year after year. Graduation rates at both the secondary and post-secondary level are among the lowest in the nation (cf. Department of Education¹). Many individuals who graduate from either level decide to move away from the state. Mississippi has one of the highest outmigration rates in the United States, and approximately 90 percent of those who leave are comprised of individuals under the age of 35 (cf. Internal Revenue Service²). These are not the ingredients that will grow any state, let alone one in poor economic shape. Further, with approximately 65 percent of all jobs in the United States requiring post-secondary education or training, Mississippi is steadily being left behind (cf. CARNEVALE/SMITH/STROHL 2016).

The challenges that Mississippi faces require game changing solutions. One viable program that seeks to bridge the gap between our future labor force, employers, and policy makers is Pathways2Possibilities. P2P believes that if they

are able to simply expose young people to career pathways that they will later explore these vocations. Indeed, one can say that the crux of P2P is, if you build the interest in career fields, the prospective students will come.

Concept – What is Pathways2Possibilities?

Pathways2Possibilities is a career expo for Mississippi eighth graders. The expo showcases different career pathways while providing hands-on experiences that afford students firsthand experience of different vocational paths (cf. SOCK/ROBERTS 2016). The expo is a two day event broken up into nineteen different career modules ranging from manufacturing to human services. The different occupational tracks are led by »Pathfinders« who are responsible for organizing the pathway members in addition to designing and implementing hands-on activities that are supposed to grab the attention of the youth. The students are able to see live demonstrations of various aspects at each module. For instance, students attending the engineering and polymer sciences pathway would get a chance to see the reaction of oil and gas to cleaning chemicals. Because of the contextualization of the event, only businesses with local ties partake in each pathway. This is done for two reasons – to tie the workforce needs of the community to the event, and, more importantly, to show a familiar face and business entity to the students participating.

P2P began in 2013 and has rapidly grown from an initial 6,000 students participating in the expo to approximately 15,000. Pathways2Possibilities is a multi-prong process that involves organizers collaborating with business entities, school districts, and intra-governmental agencies. For

¹ State Tables Report. <http://eddataexpress.ed.gov/state-tables-main.cfm/reportPage/newPubCustomResults>. August 1, 2016 (retrieved: 12.08.2016)

² SOI Tax Stats – Migration Data. <https://www.irs.gov/uac/soi-tax-stats-migration-data>. August 2, 2016 (retrieved: 12.08.2016)

instance, more than 150 employers and 800 professionals take part in P2P on the Mississippi Gulf Coast (ibid). There are several iterations of P2P throughout Mississippi. The various employers and professionals collaborate with the organizers of the career expo and contribute logistical support such as providing the tools by which students are able to see demonstrations of the actual work done within each career field. Costs associated with P2P are approximately \$ 600,000 per year and are almost exclusively raised from cash sponsorships given from the very employers and professionals who engage in the expo (ibid). Policy makers are also active with the expo, from the Mississippi Department of Education to local city support. Political leaders have also recently decided to provide a budget appropriation for P2P.

Each year, the organizers of Pathways2Possibilities meet with perspective volunteers to iron out the administrative elements of Pathways2Possibilities. Before the students become involved with the expo, however, they are instructed in the classroom on the varying career pathways within the *Information and Communication Technology (ICT)* curriculum established by the Mississippi Department of Education. After learning from the ICT course, students select their top six career pathways they are most interested in and subsequently visit the respective exhibits during the expo. Over the span of two hours, students have a chance to participate in, on average, six out of nineteen pathways. Beginning in 2015, the organizers of P2P began to capture survey data through a longitudinal study. The analysis is designed to measure the influence of Pathways2Possibilities on student participants.

What has the Data Shown?

Since its beginning, one of the most challenging aspects of Pathways2Possibilities has been capturing impressions of the program. While the intent of the expo is to help steer young students towards in-demand careers, the ultimate goal of all actors associated with the program is to enhance career choices. To remedy this, organizers of the expo enlisted the Center for Educational Research and Evaluation (CERE) at the University of Mississippi to conduct a longitudinal study on the program over the span of ten years. In collaboration with school administrators, CERE began collecting data directly from the Fall 2015 P2P Gulf Coast expo. Further, CERE distributed surveys to three schools that did not attend the event to provide a comparison group. In analyzing this data, one is able to gain perspective on exact impacts for the students in addition to gaining valuable information needed to calibrate what the expo has to offer. The table shows the breakdown of where the survey samples come from. All data from the pre- and post-event surveys, comparison group review, and focus group

Table
Development of Final Study Samples

	Pre-Event Survey	Post-Event Survey	Comparison Group Survey
Attempted surveys	2,181	1,446	270
Removed – missing all data	55	59	5
Removed – did not have data for even one scale	12	34	48
Final analysis sample	2,114	1,353	217

Source: BARNARD 2016

sessions with students who attended the expo were framed within these surveys.

One of the most important elements of Pathways2Possibilities is exposing students to career exploration, but even more important is the desire to have young students begin to entertain the idea of exploring what a career pathway may look like for them in the future. As Figure 1 (p. 20) shows, the P2P participants have begun to do just that.

There was a considerable increase in the percent of students indicating that they were very interested in thinking about a career pathway for themselves from pre-event to post-event. The most exciting element to this figure is that the revelation comes on the heels of an expo designed to expose students to a multitude of career fields. That the participants found something of interest speaks highly of P2P. There was a significant difference across the response categories for pre-event compared to post-event, in addition to a difference for post-event compared to the comparison group. This indicates that the experience positively influenced their interest in exploring career options.

After attending the expo, more students were able to figure out what their career pathways could be. There was a significant increase from 25 to 32 percent of the students who reported that they were very sure that they knew what they wanted to do for a career after attending the expo. The data also disappointingly shows that the percentage of students who are still mostly and very unsure of what they would like to do with their career did not change. While their collective number is small at eight percent, the aggregates remained the same pre and post expo. While this can potentially be attributed to simply being young, the ultimate goal of Pathways2Possibilities is to decrease these numbers to as close to zero as possible. Overall, in comparing the two groups, students who attended P2P posted significantly different responses than the comparison group in the mostly sure and neither sure or unsure categories further indicating that attending P2P is a net positive for career development.

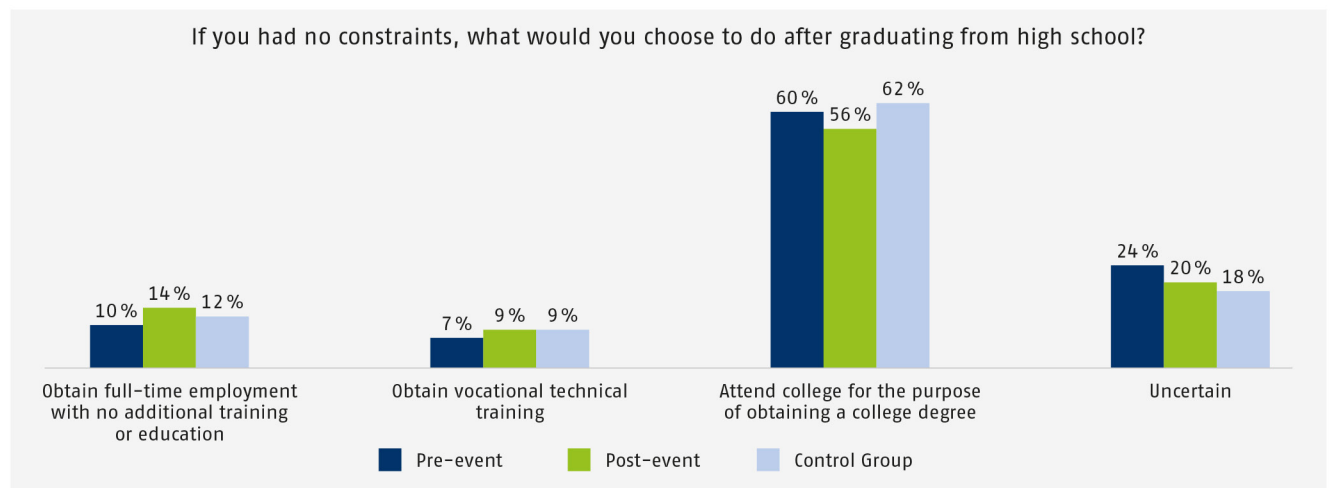
Figure 1

Students' interest in considering career pathways



Figure 2

Students' post-high school interests



Source (Fig. 1 and Fig. 2): BARNARD 2016

As Figure 2 indicates, the amount of students who were unsure of what they would do after high school vastly decreased after attending the event. Yet, one could say the percentage remained too high based on the percentage shown from the control group. The reasoning behind this occurrence could be multi-fold, but the culprit is likely simple. The students are presumably being overwhelmed by the information and career opportunities that they likely did not know existed before the event, thus leading to the uncertainty. If this is the reason, immediate follow-up guidance counseling for students to work through and consider the knowledge they gained from the event would be beneficial. Counseling would allow the students to better grasp the careers while allowing them to contextualize what they have learned during the expo with their classroom work. Ensuring that the gains created by the expo remain firmly engrained in participants is essential.

There was also a meaningful increase from pre-event to post-event in the number of students who reported they would obtain full-time employment with no additional training or education. From a workforce development perspective this may be troubling, as the intent of Pathways-2Possibilities is to highlight career fields, whether or not these opportunities require a baccalaureate degree. The figures show that the decrease from pre- to post-event in students wanting to pursue a college degree is substantial, so one can say that the expo is showing participants that there are more options available to them. Conversely, one must note that some of the career fields P2P highlights, such as welding, while requiring vocational education, can be accomplished via on-the-job training. This was likely reiterated to the students by the career module Pathfinders. Thus, while training to become a welder would traditionally be considered to be vocational training, the students likely think it counts as merely obtaining full-time employment.

Challenges of P2P

Pathways2Possibilities has accomplished much since its inception. From an administrative perspective, the data shows that students found the event to be valuable for both their personal and professional development. For some, the expo provided a window into worlds they never even knew existed. For others, it helped them see the connection between their choices and their future. The significant changes from the pre- and post-event clearly show that the students are taking career advice from the expo. For example, fewer students indicated that they were interested in playing professional sports, whereas, more students indicated interest in human services, finance, and education from pre- to post-event.

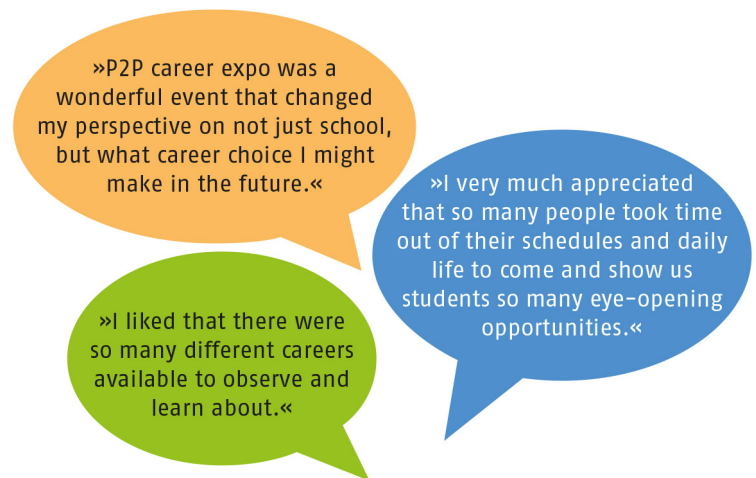
Utilizing the survey approach has provided real-time information that the organizers of Pathways2Possibilities will immediately act upon. This is because a total of 1,184 students provided comments (cf. examples in Figure 3, see BARNARD 2016).

Students also indicated that the two-hour timeframe to explore the career pathways was not enough. This indicates that there may be too many participants exploring the modules at once, but regardless the time in the expo needs to be expanded. Further, students have indicated that they prefer to have the freedom to explore the various pathways on their own without having to follow a specified routine. Generally, there were many good suggestions for future expo improvements which will likely result in some changes to Pathways2Possibilities overall.

Moving Forward

Overall, the results of the survey study clearly show that participation in the P2P Career expo was impactful. Yet, there are many lessons to be learned based on the responses from the participants. For example, students' responses indicate that they learned new things about careers. They changed the factors they are considering when selecting a career. While they decreased their uncertainty about what they would do once they graduated from high school and increased their certainty that they knew what they wanted to do for a career, there was a sizeable increase in their interest in engaging in further career exploration. It would appear that while the expo is effective at bringing students to discover new careers in addition to having them plan for their careers, the expo also increases the needs of students related to career guidance. One of the main takeaways from the survey is the necessity for a clear indication of how much income each career pathway earns per year. Guidance counseling would help students in sifting through the increased information and allow them to make sound decisions in planning their careers.

Figure 3
Students comment on P2P



The survey further indicated that there is much to be learned regarding how to engage students both before and after the expo. One question that the data pushed to the forefront is how best to ensure that the expo participants are actually taking their interests and moving forward with them so that Pathways2Possibilities is not merely a one-off event. One program that may have potential answers is Germany's *Berufsorientierungsprogramm* (BOP), which serves as a vocational orientation program. BOP also focuses on eighth graders, but has a crucial element of having participants engage in a *Potenzialanalyse* (analysis of potential), which gives students the ability to critically assess their competencies and skills. After this, a two-week workshop takes place, which provides the students with a chance to participate in three different occupational fields. While implementing something of this magnitude may prove challenging, the various aspects of BOP would vastly strengthen Pathways2Possibilities. Yet, the challenges extend beyond the actual expo, as enterprises may see the benefit of such a radical change, but may not have the capacity to host students in the way that the *Berufsorientierung* allows enterprises to host students in Germany. Much work would have to go into readying the workplace to accommodate such young and eager minds. That is the point of guidance, however, for it is in learning from each other that one can create the framework needed to allow innovative ideas to grow and flourish. ◀

Literatur

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